



Allevo & SAP

User Manual

For Allevo 3.5 and higher

Excel integrated planning in SAP ERP

Allevo is a standard software solution for planning cost centers, internal orders, WBS elements and profit centers with Excel under SAP ERP. In many areas, Allevo offers the possibility of integrating individual customer requirements with relatively little effort.

This manual aims to inform both everyday users and technicians about the architecture and functionality of Allevo. In this way, this manual is intended to facilitate the introduction into a project for implementation, and also serve as a guide for more advanced system applications.

Due to the wide range of company-specific planning requirements, however, this manual will never be able to replace a customer-specific Allevo documentation, let alone serve as a planning manual for a cost center manager.

Additional Allevo manuals

Please also refer to the manual "Allevo & Excel", which explains the mode of operation from the Excel-side (especially as a supplement to Sections 11 and 12 of this manual).

In addition, there are separate manuals for the following modules / topics:

- Allevo Business Client (ABC)
- Flexible Processing (FP)
- Profit-Center-Planning
- ProCED (Provide Cost Element Dynamics)
- CO/PA-Interface
- Shuttle for upload/download of data in satellite tables
- HRC Personnel Planning Controlling
- Architect & Actual (creating SAP master data and preparing actuals postings)

0 Indexes

0.1 Table of contents (overview)

0	Indexes	2
1	Introduction	20
2	General aspects of use	24
3	Program start and planning transactions.....	27
4	Allevo Studio	50
5	Allevo-specific object type (“Allevo object”).....	54
6	Program settings for Allevo.....	60
7	Planning status management.....	93
8	Allevo planning layouts	102
9	Data transfer from SAP to Excel	109
10	Display line items.....	113
11	Allevo planning function	115
12	Activity-dependent planning for cost centers	127
13	Allevo Master	133
14	Allevo satellite tables and side calculations.....	135
15	Using satellites and allocating data	150
16	Integration in report interface.....	193
17	Profit center integration.....	204
18	Allevo in offline mode	208
19	Allevo planning calendar	218
20	Additional Allevo modules	225
21	Allevo reporting.....	228
22	Access to files (e.g. Allevo Master)	235
23	Authorizations in Allevo	261
24	Allevo-specific access checks / authorization control	280
25	FI Dynamic (FID).....	293
26	Performance and summarization levels	299
27	Additional Information and Tools	306

0.2 Table of Figures

Figure 3.1: Allevo Cockpit	27
Figure 3.2: Start dialog for "Single object cost center planning"	29
Figure 3.3: Excel planning interface with Allevo Master	30
Figure 3.4: Standard selection with Multi-planning	32
Figure 3.5: Selection screen for the special case "MultiObject MOD"	34
Figure 3.6: Selection screen for MultiObject planning for projects	35
Figure 3.7: Selection screen for MultiPage planning for projects	35
Figure 3.8: Popup for object and layout selection in inplace-mode	37
Figure 3.9: Planning Agenda	39
Figure 3.10: Two-level planning agenda with text items	40
Figure 3.11: Tools for maintaining Agenda entries	41
Figure 3.12: Allevo with inplace panel (left)	43
Figure 3.13: Tree with a change of the object type	45
Figure 4.1: Allevo Process Studio	50
Figure 4.2: Allevo Process Studio	51
Figure 4.3: Allevo Studio with categories for groups	53
Figure 5.1: Master record for Allevo object	55
Figure 6.1: Overview of settings with the navigation Tree	60
Figure 6.2: Quickstart for Allevo constants	61
Figure 6.3: Allevo settings: list of all constants	62
Figure 6.4: Creating or editing an Allevo constant	63
Figure 6.5: Popup "License properties"	66
Figure 6.6: Definition of side calculations and assignment of the number of satellites	67
Figure 6.7: Enter global constants in the global input screen	68
Figure 6.8: Column definitions for reading and writing	68
Figure 6.9: Settings for column definitions	70
Figure 6.10: Transaction, value type and record type for each column group	77
Figure 6.11: global maintenance of column definitions	78
Figure 6.12: List of the selected column definitions	78
Figure 6.13: Overview of row definitions	79
Figure 6.14: features of row definitions	80
Figure 6.15: Definition of planning cost centers for a group	83
Figure 6.16: Assignment of planning cost elements to cost element groups	86
Figure 6.17: Administration of all constants and program options	90
Figure 6.18: Program dialog when importing constants	91
Figure 7.1: Status management, shown here including authorizations for reviewing and releasing	94
Figure 7.2: Status depending on planning year and planning version	96
Figure 7.3: Copy status	97
Figure 7.4: General status with the indication "**-Status"	98
Figure 7.5: Status dependent on the planning layout	98
Figure 7.6: Stats dependent on the planning layout	98
Figure 7.7: Status overview for different planning layouts	99
Figure 7.8: Personal status menu for the planner	100
Figure 8.1: Options for defining the planning layout	103
Figure 8.2: Defining planning layouts	103
Figure 8.3: Allevo Wizard for the creation of planning layouts	105
Figure 8.4: Controlling authorization for planning layouts	106
Figure 8.5: Using different planning layouts	107
Figure 10.1: Line item report (here for a profit center)	113
Figure 11.1: Input screen after a call from the planner	115
Figure 11.2: SAP menu fields in the planning view (here, Allevo for cost centers)	116
Figure 14.1: Satellite details / Satellite Cockpit	137
Figure 14.2: Append structure of the SAP table and Excel names of the satellite tables	139
Figure 14.3: Selection screen for satellite where-used-list	145
Figure 14.4: Setup of satellite tables for backup	147
Figure 14.5: Set up complete-backup for satellite tables	148
Figure 14.6: Restore satellite table	148

Figure 15.1: Basic functions for controlling data transfer (scheme, constants, preview).....	151
Figure 15.2: constants with mapping for data transfer in satellites	152
Figure 15.3: Entry for transfer of data from a depreciation simulation	155
Figure 15.4: Field assignments for depreciation data	157
Figure 15.5: Determination of cost center via additional info for creation.....	159
Figure 15.6: Delete / mix existing depreciation data	161
Figure 15.7: Start screen for BW data extraction.....	163
Figure 15.8: Field assignments for DataSource.....	164
Figure 15.9: Execution options for ALV data transfer.....	164
Figure 15.10: Start screen for ALV data transfer (here with a list of profit center master data)	166
Figure 15.11: Field assignments for ALV data transfer.....	168
Figure 15.12: Display of a materials calculation in Excel.....	170
Figure 15.13: Screen for transferring data from a materials calculation	171
Figure 15.14: Predefined material and plant via additional satellites	172
Figure 15.15: Field assignments for data transfer from materials calculations.....	173
Figure 15.16: Data from Easy Cost Planning (PR) in Excel.....	175
Figure 15.17: Start screen of the Allevo interface to Easy Cost Planning (PR).....	177
Figure 15.18: Field assignments for Easy Cost Planning (read)	178
Figure 15.19: Field assignments for reading data to a project.....	183
Figure 15.20: Load project master data into a satellite	184
Figure 15.21: Project structure as a list in Excel.....	184
Figure 15.22: Load line items in a satellite table.....	186
Figure 15.23: Satellites with additional texts for key fields	190
Figure 15.24: Update additional texts in the satellite table via TFR rules.....	192
Figure 16.1: Selection parameters of report /KERN/IPPCCA051R (part 1)	194
Figure 16.2: Dynamic selection in the selection parameters for Report /KERN/IPPCCA051R	195
Figure 16.3: Variant for the display of data from satellite 01	197
Figure 16.4: Installation report/report interface	199
Figure 16.5: Add ABAP Report with variant in the report/report interface	199
Figure 16.6: Call Allevo detailed planning from the SAP report/report interface	200
Figure 16.7: Main variant in drill down function.....	201
Figure 16.8: Subvariant in drill down function	202
Figure 16.9: Display of data via main variant in report interface.....	202
Figure 16.10: Display of drill down data via side variant in report interface	202
Figure 17.1: Example SOURCE (Setclass 0101) directing to TARGET (Setclass 0103).....	207
Figure 18.1: Offline process: Generating files with reference data.....	210
Figure 18.2: Example for a group	216
Figure 18.3: Group with more than 2 levels.....	216
Figure 19.1: Allevo planning calendar	218
Figure 19.2: List of recipients in the planning calendar.....	220
Figure 19.3: Mailing list for the planning calendar	221
Figure 19.4: Edit mailing list.....	221
Figure 19.5: Warning if e-mail addresses are missing.....	223
Figure 21.1: Selection in cost center reporting.....	229
Figure 21.2: Example of a Reporting view.....	230
Figure 21.3: Example of a Reporting view with details on the period	231
Figure 21.4: Reporting comments.....	232
Figure 21.5: Active planning layout for Reporting.....	233
Figure 21.6: Reporting attributes in the column definition	233
Figure 21.7: Column definitions for reporting comments	234
Figure 22.1: Constants for accessing the Allevo Master	237
Figure 22.2: Starting the Business Document Navigator (OAOR).....	241
Figure 22.3: Insert an Excel document.....	242
Figure 22.4: File description according to naming convention.....	242
Figure 22.5: Selection for BDS Uploader.....	243
Figure 22.6: List of files in the BDS uploader	244
Figure 22.7: File management: Assign file names.....	245
Figure 22.8: File management: define paths.....	247
Figure 22.9: Place holders and allocated character strings	248

Figure 22.10: File management: Activate constant	252
Figure 22.11: File management: File names for offline mode.....	258
Figure 22.12: File management: Paths for the offline mode	259
Figure 23.1: Role with authorization objects for planners.....	262
Figure 23.2: Example for the authorizations of a local administrator	270
Figure 24.1: Allevo authorization table: Example for cost center.....	281
Figure 24.2: Field definitions in SE11 for the authorization table	282
Figure 24.3: Opening the authorization concepts	283
Figure 24.4: Field assignment for the authorization table.....	284
Figure 24.5: Log of Allevo access checks	290
Figure 25.1: Aggregate data.....	296
Figure 26.1: Activation of summarization in the Allevo column definition.....	302
Figure 26.2: Selection screen for determination of summarized data.....	303
Figure 26.3: Selection options for the data basis.....	305
Figure 27.1: Entry of the TABREAD command to activate debugging	308
Figure 27.2: Selection of internal tables (here for TAB2SAP).....	308
Figure 27.3: Example of a transfer table.....	309
Figure 27.4: Display of Current Reporting Comments	309
Figure 27.5: Archived reporting comments.....	310
Figure 27.6: Export cost element structure.....	311
Figure 27.7: Setting up the planning agenda	312
Figure 27.8: Selection parameters for the planning agenda	313
Figure 27.9: Select contents of tables in a KERN naming environment	315
Figure 27.10: Edit tables in the /KERN/ naming environment.....	315
Figure 27.11: Allevo overall check.....	316
Figure 27.12: Cross-module download (export) of Allevo settings.....	317
Figure 27.13: Cross-module upload (import) of Allevo settings.....	318
Figure 27.14: Re-organization of constants.....	319
Figure 27.15: Adopt objects in 1:n allocation from SAP Reporting	320
Figure 27.16: Selection screen for the Allevo system information.....	321
Figure 27.17: Copy planning data for Allevo-specific tables	322

Es konnten keine Einträge für ein Abbildungsverzeichnis gefunden werden.

0.3 Table of Contents (detailed)

0	Indexes	2
0.1	Table of contents (overview)	2
0.2	Table of Figures	3
0.3	Table of Contents (detailed)	6
1	Introduction	20
1.1	Areas of application and objectives	20
1.1.1	Inplace-mode	20
1.1.2	Allevo Business Client (ABC)	21
1.2	Core statements on planning functionality	21
1.3	Notes on the technology used	22
1.4	Glossary	23
2	General aspects of use	24
2.1	SAP Conformity	24
2.2	Allevo licenses	24
2.3	Plan versions, plan cost elements	25
2.4	Determination of the (provisional) planned activity price for the planning year	25
2.5	Currency	25
2.6	Languages	25
3	Program start and planning transactions	27
3.1	Allevo Cockpit	27
3.2	Allevo planning transactions per object type	28
3.2.1	Basic functions	28
3.2.2	Allevo Single	31
3.2.3	Allevo MultiPage	31
3.2.4	Allevo MultiObject	33
3.2.5	Starting with Project / WBS element (special features)	35
3.2.6	Object selection with additional attributes	36
3.2.7	Dynamic version entry	37
3.2.8	Object selection via popup in Excel inplace view	37
3.3	Reporting mode	38
3.4	Planning Agenda	38

3.4.1	Functional overview	38
3.4.2	Tools for editing Agenda entries	41
3.4.3	Reference user for group Agendas	42
3.4.4	Agenda in the panel.....	42
3.5	Inplace panel with object selection via Agenda and Tree	42
3.5.1	Functional overview	42
3.5.2	Changing the object type (cross object type Tree)	45
3.5.3	Relevant constants for panel/Tree	46
3.6	Central entry into Allevo planning (Ta /ALLEVO/TAKEOFF).....	46
3.7	SAP Planning objects in Allevo (CO Object types)	47
3.8	Locks for planning objects / satellites.....	47
3.9	Messages during program execution	48
3.10	Constants for program execution.....	49
4	Allevo Studio	50
4.1	Functional overview	50
4.2	Calling and processing function	50
4.3	Create and assign long text descriptions.....	52
4.4	Complete steps.....	52
4.5	Setting up categories for groups	52
5	Allevo-specific object type (“Allevo object”).....	54
5.1	Functional overview	54
5.2	Master data for Allevo objects	55
5.2.1	Allevo Objekte über ALV Liste anzeigen / anpassen	56
5.3	Properties of object categories.....	57
5.4	Groups for the Allevo-specific object type (hierarchy)	57
5.5	Allevo object and the display of actuals	58
5.6	Save plan data to an Allevo object	59
6	Program settings for Allevo.....	60
6.1	Functional overview of Allevo settings	60
6.2	Constants	61
6.2.1	Functional overview of constants	61
6.2.2	Entry via “Quickstart”-screen.....	61

6.2.3	Constants from a technical standpoint	62
6.2.4	Special functions in the “All” tab	62
6.2.5	Constants according to topic	63
6.2.6	Create a new constant	63
6.2.7	Search for constants during program execution	64
6.2.8	Standard functions for the entry of constants	64
6.2.9	Allevo licenses (modules and objects)	65
6.2.10	Allevo licenses for topics (side calculation planning)	67
6.2.11	Global constants	68
6.3	Column definition (Column group)	68
6.3.1	Overview	68
6.3.2	Characteristics of a column definition	69
6.3.3	Relative payments and “inheritance”	76
6.3.4	Allevo-specific value categories	76
6.3.5	Restrict reference data via transactions, value types, etc.	77
6.3.6	Mass maintenance for base parameters of the column definition	77
6.4	Row definitions	79
6.4.1	Overview	79
6.4.2	Characteristics of a row definition	80
6.4.3	Restrict reference data via additional attributes	81
6.5	Object groups with aggregated data (1:n settings)	82
6.5.1	Planning / reporting via object groups	82
6.5.2	Setting up 1:n functions	83
6.5.3	Enter 1:n groups in the Allevo Master (Excel)	84
6.5.4	1:n groups resolution during planning	84
6.5.5	Special features in reporting	84
6.5.6	Transfer object groups with 1:n assignment from SAP reporting	85
6.5.7	Special features for 1:n settings for projects	85
6.6	Cost element groups (1:n settings)	86
6.6.1	Entering cost element groups	86
6.6.2	Special feature for MultiObject planning with profit center	87
6.6.3	MultiObject planning via MOD	88

6.6.4	Transfer cost element groups with 1:n assignment from SAP reports.....	88
6.7	Groups (for determining Allevo Master)	88
6.8	Restrictions for dynamic areas (cost elements and activity types)	89
6.9	Rules for activity type-dependent planning	89
6.10	Rules for automatic entries in PCA.....	89
6.11	Authorization concept	90
6.12	Tools for the administration and backup of settings.....	90
6.12.1	Export / Import constants and settings for text files	90
6.12.2	Copying settings / constants	92
6.12.3	Cross-module upload / download of settings.....	92
7	Planning status management	93
7.1	Functional overview	93
7.2	Calling status management	94
7.3	Status management processing screen.....	94
7.3.1	Functional overview	94
7.3.2	Object selection.....	95
7.3.3	Change status	96
7.3.4	Copy status	97
7.4	Status dependent on the Allevo planning layout	98
7.5	Update status to another layout	98
7.6	Status overview by layout dependent status	98
7.7	License warnings.....	99
7.8	Status menu for the planner	100
7.9	Display status in Allevo planning view	100
7.10	Constants for use with status management	101
8	Allevo planning layouts	102
8.1	Functional overview for planning layouts	102
8.2	Settings of the Allevo planning layout	102
8.3	Defining planning layouts	103
8.4	Read data for a layout with the Allevo Wizard	104
8.5	Access control for planning layouts	105
8.6	Access authorizations for satellites	106

8.7	Copying and adapting constants.....	107
8.8	Layout when entering the planning transaction	107
8.9	Layout overview.....	107
9	Data transfer from SAP to Excel	109
9.1	Read reference data	109
9.2	Dynamic reading.....	109
9.3	Currencies	110
9.4	Actuals values; fixed and variable	110
9.5	Reading cost center activity types from SAP	110
9.6	Cost centers with costs from assigned objects (OR, PR)	110
9.7	Projects with costs from assigned objects.....	111
9.8	Read quantities for primary costs	111
9.9	Display prices for activity allocation.....	111
9.10	Elimination of IC sales	111
9.11	Restrict reference data via additional attributes	111
10	Display line items.....	113
11	Allevo planning function	115
11.1	Overview.....	115
11.2	Edit plan data offline	118
11.3	Content of cost center, order and project planning	119
11.4	Planning horizon.....	120
11.5	Monthly / periodic distribution of planned values.....	120
11.6	Planning for cost element groups (1:n)	121
11.7	Planning for object groups (1:n).....	122
11.8	Quantity planning for primary costs.....	122
11.9	Create plan comments	122
11.10	Allevo tables with plan and actuals data	124
12	Activity-dependent planning for cost centers	127
12.1	Direct procedure: Allocation via Excel.....	127
12.2	Planning by rules: Allocation via sets of rules.....	128
12.2.1	Component 1: Which cost centers provide which activity types?	129
12.2.2	Component 2: Share of activity types	129

12.2.3	Component 3: Splitting into fixed and variable portions	130
12.3	Combining the direct allocation procedure and planning by rules	131
12.4	Planning by rules: Changes during the planning process	132
13	Allevo Master	133
13.1	General structure	133
13.2	Changes in the structure of an Allevo Master	133
13.3	Excel sheet and workbook protection	133
13.4	Excel functions and Excel macros	134
14	Allevo satellite tables and side calculations	135
14.1	Functional overview	135
14.2	Satellite settings (Satellite Cockpit)	136
14.3	Append fields for the satellite table in SAP	138
14.4	Copy templates for satellite appends	139
14.5	Satellites with "ground tables"	139
14.6	Satellite ranges in the Allevo Master (Excel)	140
14.6.1	Header for defining column display (Excel)	140
14.6.2	Satellite range for reading and writing data (Excel)	141
14.7	Notes for working with satellite data	141
14.8	Confidential data in satellite tables (Remote access)	143
14.9	Satellite maintenance/Shuttle: display and edit data	144
14.10	Satellite 00	144
14.11	Satellite where-used-list	145
14.12	Important constants for working with satellites	146
14.13	Satellite backup/restore	146
14.13.1	Settings for satellite backups	147
14.13.2	Create backup	147
14.13.3	Restore satellite data	148
15	Using satellites and allocating data	150
15.1	Functional overview	150
15.2	Reporting functions via Allevo satellites	151
15.3	Basic functions (scheme, constant, preview)	151
15.3.1	Schemes, constants, and mapping	151

15.3.2	Preview for source data	153
15.4	Transfer data from depreciation simulations in satellites	153
15.4.1	Functional overview	153
15.4.2	Field assignments (constants)	156
15.4.3	Additional information (e.g., for account identification)	158
15.4.4	Special feature for the Preview function	160
15.4.5	Delete or merge existing depreciation data	160
15.4.6	Program execution	162
15.5	Transfer data from BW DataSource to satellites (extractor)	162
15.5.1	Functional overview	162
15.5.2	Field assignments (mapping)	163
15.5.3	Program execution	164
15.6	Transfer data from SAP evaluations with ALV	164
15.6.1	Overview and requirements	164
15.6.2	Functions	165
15.6.3	Constants for field assignments (mapping)	167
15.6.4	Program execution	169
15.7	Transfer SAP materials calculations to satellites	169
15.7.1	Functional overview	170
15.7.2	Constants for field assignments (mapping)	173
15.7.3	Program execution	173
15.7.4	Technical background	174
15.8	Interface to SAP Easy Cost Planning in the project system	174
15.8.1	Functional overview	175
15.8.2	Requirements	176
15.8.3	Setting up the interface functions	176
15.8.4	Field assignments (mapping)	178
15.8.5	Program execution	180
15.9	Provide data from SAP master records	181
15.9.1	Functional overview	181
15.9.2	Read data to a project	182
15.10	Prepare line items for offline functions	185

15.10.1	Background.....	185
15.10.2	Export line items.....	185
15.10.3	Set up export function for variant M (mapping)	188
15.10.4	Set up export functions for variant L (layout constants)	188
15.10.5	Components of the line item list.....	188
15.11	Provide additional information/text for master data in satellites	189
15.11.1	Functional overview	189
15.11.2	Set up control table.....	189
15.11.3	Program execution.....	192
16	Integration in report interface.....	193
16.1	Functional overview	193
16.2	Purpose of use and functions	193
16.3	Set up variant for report/KERN/IPPCCA051R	194
16.3.1	Parameters in the selection screen.....	194
16.3.2	Report variant to display Allevo table contents	196
16.3.3	Report variant to switch to the Allevo reporting transaction (Allevo Master)	198
16.4	Allocation in the report group.....	198
16.5	Centrally define ALV layout for Allevo Report.....	200
16.6	Special function: Cross-object type reading for profit center	201
16.7	Special function: drill down in the satellite display.....	201
16.8	Authorizations	203
17	Profit center integration.....	204
17.1	Profit center data	204
17.2	Profit center integration during cost center planning.....	204
17.3	Reading reference data	204
17.3.1	Scope and limitations	204
17.3.2	Settings.....	205
17.4	Reading function (planning).....	206
17.4.1	Scope and limitations	206
17.4.2	Revenue planning via direct approach to the profit center	206
17.4.3	Revenue planning via automatic entry	206
17.4.4	Satellite/report interface in profit center reports	207

17.5	Relevant constants of PC integration	207
18	Allevo in offline mode	208
18.1	Functional overview	208
18.2	Execute Offline Transactions.....	209
18.2.1	Generate files with reference data	210
18.2.2	Import planning data to SAP	212
18.2.3	Execution Log.....	213
18.3	Basic settings for offline planning	213
18.3.1	Access to Allevo Master and up/download files	213
18.3.2	Authorizations in the offline process	213
18.3.3	Constants in the offline process.....	214
18.4	Rules for resolving the SAP group hierarchy of the planning object	214
18.4.1	“Pseudo” hierarchy Level “-1”	215
18.4.2	Hierarchy Level 0 (or blank)	215
18.4.3	Hierarchy level 1 (or higher)	215
18.4.4	Example 1: Group with two levels	215
18.4.5	Example 2: Groups with more than two hierarchy levels.....	216
19	Allevo planning calendar	218
19.1	Functional Overview	218
19.2	Processing screen for the planning calendar	218
19.2.1	Call and header specifications	218
19.2.2	View “Actions”.....	219
19.2.3	View “Layouts”.....	219
19.3	E-Mail contents/text	219
19.4	E-Mail Recipients	220
19.5	Edit Mailing List.....	220
19.6	Search recipients.....	222
19.7	Send E-Mail.....	223
19.8	Technical background.....	224
20	Additional Allevo modules	225
20.1	Functional overview	225
20.2	Profit center planning.....	225

20.3	Allevo ProCED	226
20.4	CO/PA Interface	226
20.5	Allevo FP: Flexible Processing.....	226
20.6	Allevo Shuttle: Edit satellite data/comments	227
20.7	Allevo Architect: Create/change master data.....	227
20.8	Allevo Actual: Actual Processes and Postings	227
20.9	Allevo HRC: Personnel Planning and Controlling	227
21	Allevo reporting.....	228
21.1	Functional overview	228
21.2	Example: Cost center reporting.....	229
21.3	Special feature of profit center	230
21.4	Reporting Views	230
21.5	Reporting with 1:n groups for objects (e.g. cost centers).....	231
21.6	Reporting comments.....	231
21.7	Read satellite data	232
21.8	Setting up Allevo Reporting	232
21.8.1	Activate layout for reporting.....	233
21.8.2	Column definitions: attributes for reporting	233
21.8.3	Setting up reporting comments.....	234
21.9	Constants for reporting functions	234
22	Access to files (e.g. Allevo Master)	235
22.1	Overview.....	235
22.2	Compatibility with previous Allevo versions (FILE)	235
22.3	Set up Excel Master files.....	236
22.4	Determination logic for the Allevo Master	236
22.4.1	Control via constants	236
22.4.2	Symbolic Name Generated by Allevo	238
22.4.3	Determination steps.....	239
22.5	Store Allevo Master in BDS (Business Document Service).....	239
22.5.1	Technical requirements for working with BDS.....	240
22.5.2	Authorizations for working with BDS.....	240
22.5.3	Uploading via transaction /ALLEVO/BDS_MNT or OAOR	241

22.5.4	Upload via Allevo BDS uploader	243
22.6	Allevo-specific file management.....	245
22.6.1	Edit symbolic names in the file assistant.....	245
22.6.2	Use of placeholders	247
22.6.3	Variables and allocated character strings	248
22.6.4	List of possible placeholders (variables)	249
22.6.5	Additional editing functions for the placeholder	251
22.6.6	Network authorizations.....	252
22.6.7	File management - example FILE_TEMPLATE	252
22.7	Other applications	252
22.7.1	F1 documentation for Allevo constants	253
22.7.2	User documentation	254
22.7.3	Default directory for file download	255
22.7.4	Create backup files	256
22.7.5	Activity-dependent planning	257
22.7.6	Application in the Shuttle	257
22.8	Settings for offline planning	257
22.8.1	Assign file names (File.Assistant)	258
22.8.2	Allocate File Paths (File.Assistant).....	259
22.8.3	Symbolic names (transaction FILE)	259
23	Authorizations in Allevo	261
23.1	Functional overview	261
23.2	Planner roles	262
23.3	Controller roles	263
23.4	Allevo transactions	263
23.5	Authorization object ZIPP_PROG for program execution	266
23.5.1	Available Single Authorizations	266
23.5.2	Superior authorization groups.....	268
23.5.3	Create and assign authorization groups.....	269
23.6	Authorization object ZIPP_LAY for layout access	270
23.7	Authorization objects for the Business Document Navigator.....	270
23.8	Authorization checks for planning and reporting	271

23.8.1	Overview	271
23.8.2	Differentiation planning / reporting / reading mode	272
23.8.3	Authorization checks in MultiObject mode	273
23.8.4	Check for the cost element.....	273
23.8.5	Cost centers.....	273
23.8.6	Orders.....	274
23.8.7	Profit center.....	275
23.8.8	WBS elements / projects	275
23.8.9	Business process.....	276
23.8.10	Allevo object	276
23.9	Authorization Checks for Status management and Satellites 	276
23.9.1	Authorization for the object display in Status management 	277
23.9.2	Object selection under function Satellites 	277
23.10	Create FI posting documents	278
23.11	Constants that affect authorization checks.....	278
24	Allevo-specific access checks / authorization control	280
24.1	Overview.....	280
24.2	Table with Allevo-specific rules for access checks	281
24.3	Constant AUTHORIZATION	283
24.4	Field assignment for Allevo-specific access checks	283
24.5	Process of executing the access check.....	287
24.5.1	Object type check / MultiObject mode	287
24.5.2	Checking other fields (general).....	288
24.5.3	Using patterns	289
24.5.4	Start from group	289
24.5.5	Checking groups and special case FIELD_ONLY_GROUP	289
24.6	Authorization trace	290
24.7	Integration into Allevo planning transactions.....	290
24.8	Special features for projects	292
25	FI Dynamic (FID).....	293
25.1	Background and systematics.....	293
25.2	Relevant functions.....	293

25.3 FID Settings	294
25.3.1 Activate Allevo-specific tables with planning data.....	294
25.3.2 Row and column definitions	294
25.3.3 Provide text descriptions for the partner object.....	295
25.3.4 Transfer text description to cost element	295
25.4 Summarization / aggregation of FID data.....	295
25.5 Treatment in the Allevo Master	297
25.6 Checklist for setup steps	297
26 Performance and summarization levels	299
26.1 Overview.....	299
26.2 Allevo-specific run-time analysis (constant TEST).....	299
26.3 Performance with large 1:n groups.....	300
26.4 Performance Dynamic Ranges	300
26.5 Parameters/constants that affect performance.....	300
26.6 Summarization levels / data aggregation.....	301
26.6.1 Activation of summarization	302
26.6.2 Aggregation run to determine summarized data	303
26.6.3 Use summarized data in planning transactions	304
26.6.4 Remove Data from Aggregation	305
27 Additional Information and Tools	306
27.1 F1 Documentation (HTML)	306
27.2 Customer-specific documentation	306
27.3 SAP standard functions / transactions	306
27.4 Allevo Debugging Mode	307
27.5 Archiving reporting comments.....	309
27.6 Resolving object / cost element groups and export to Excel	310
27.7 Cost element monitor for Allevo Master.....	311
27.8 Central maintenance of the planning Agenda (via Excel Upload)	312
27.9 Display or edit data in Allevo tables.....	314
27.10 Overall check of Allevo settings	316
27.11 Cross-module up/download of Allevo settings.....	317
27.11.1 Download (Export)	317

27.11.2 Upload (Import)	318
27.12 Reorganize constants	318
27.13 Transfer objects of 1:n allocation from SAP Reporting.....	319
27.14 Allevo system information	320
27.15 Copy planning data within Allevo-specific tables.....	321

1 Introduction

Allevo is comprised of two principal components:

- A collection of ABAP programs and corresponding transactions in the SAP ERP system
- An Excel planning file for visualization and data entry; the planning file contains program functions for data exchange and user-friendly operating functions.

The use of Allevo is based on the existing IT-infrastructure. The installation of new software or databases and the purchase of new hardware is not required. This design makes the implementation of Allevo projects elementary, since you can engage with the content of the planning requirements right from the start. The tools used by Allevo were designed in such a way that ongoing changes in the master data of the SAP system (for example, for cost elements, activity types, etc.) are either not intercepted by the customer at all, or are intercepted by the customer simply by adapting the Excel form. It is a central goal of this manual to show and explain how such changes should be made.

On the SAP-side, diverse parameters are available for adapting functions to meet customer specifications in the implementation project. Therefore, it is usually unnecessary to implement such adaptations in the ABAP part of the program; in the case that it is needed, however, this can be done using customer specifications via standard SAP functions (BAdI, User-Exit).

The customer retains a high level of flexibility in the configuration of the Excel planning file. For this reason, this user guide only addresses those components that are important either in the interaction between SAP and Excel or solely through the SAP-side of Allevo. Customer tailored specifications or functionalities of the Excel planning file are not addressed here.

1.1 Areas of application and objectives

Allevo-specific transactions control the desired planning functions: via the SAP-Desktop Integration, the Excel planning file is called directly from SAP. This approach is referred to in the manual as “inplace-mode”. The decentralized planner always has the option to save the Excel planning file locally and process it without SAP integration. The entered planning data can then be transferred to SAP via upload.

Alternatively, an Allevo planning file can be directly called from Excel. For connecting to the SAP system, an AddIn function is available, via which the necessary reference data can be read or planning data can be saved in SAP (this is the so-called “ABC = Allevo Business Client”).

The same Allevo planning file can be used for both applications (for the technical requirements, see notes in Section 1.3 below).

1.1.1 Inplace-mode

Inplace-mode allows the user to call Excel or defined Excel files directly in SAP. In this mode, the full Excel functionality is retained. In particular, it is possible to access an Excel master template and

transfer data calculated in Excel directly to SAP or to display SAP data in Excel. The administration and distribution of the Excel files is not necessary.

This process ensures that the results of the planning process are immediately available in SAP, without the need for a central area to manage files and data transfer. The planning progress in SAP is documented by the status and is monitored by central controlling.

1.1.2 Allevo Business Client (ABC)

As of version 3.0, Allevo offers this alternative user-environment for entering SAP plan data in a comfortable and familiar way with Excel. In this case, the planner starts a Windows Program (or directly opens an Excel planning file) and then logs into the SAP system from there. All other functions correspond to those that are available in inplace-mode.

The AddIn is installed on the planner's local PC and allows for the easy entry of SAP plan data via Excel without the need for the planner to revert to using SAP transactions.

All ABC-specific functions (and specifically the topic of installation) are described in a separate manual.

1.2 Core statements on planning functionality

Allevo covers all processes relevant for planning to the greatest extent possible, as long as they can also be planned directly in SAP by specifying quantities or values. Planning objects include the commonly used CO-objects: Cost center, (internal-)Order, WBS element, profit center, and business process.

Additionally, data relating to an Allevo-specific object type can also be entered, resulting in a completely free planning process (see the notes in Section 3.6).

The following planning areas are covered (see also Section 8.9)

- Planning of statistical key figures; activity type-dependent and -independent
- Planning of activity quantities (activity output), capacities and the resulting credits as well as the activity prices
- Planning of primary costs, activity type-dependent and -independent; where necessary with quantities
- Planning of debits from internal activity accounting with an indication of the sender; activity type-dependent and -independent
- Planning of debits from internal order accounting, differentiated by primary and secondary capitalized costs from the order (the latter is differentiated by sender); activity type-dependent and -independent

In addition, Allevo provides its own useful functions that support the planning process:

- Recording planning comments displaying of posted actuals and plan data
- Status management
- Satellites for displaying operational budgets (e.g. investment planning)

- Reading data from the corresponding profit center
- Reporting via Excel

1.3 Notes on the technology used

Allevo uses Excel as the user interface for the entry of plan data or for other data to be processed in SAP. Consequently, Allevo uses program components from both SAP and Excel:

- The central task of Allevo transactions in SAP is to provide reference data for display in Excel and to transfer user input for saving and posting in SAP. For the writing functions, Allevo transactions (or rather, the background ABAP-programs) use existing SAP function modules or BAPIs in cases where this is both possible and sensible. Thereby, all plausibility and authorization checks are run that would normally be run by SAP; no entries are made directly in SAP standard tables. All Allevo components of the standard delivery are stored in their own namespace, /KERN/. The Allevo transactions are stored in the namespace /ALLEVO/. The standard delivery also contains a number of Allevo specific tables (also found in the namespace /KERN/): here, settings and planning contents not provided by SAP, such as tables for planning comments and the so-called “satellites” (see Section 14) can be found. The installation of Allevo is done via the SAP Transport Group. All programs are unicode-capable. Within the framework of Allevo implementation projects, customer specific expansions are often desired. For this, the namespace /KERNC/ is used.
- The Allevo program functions on the Excel side are a part of the delivered Allevo Master (VBA functions). The main task of the program is the transfer of reference data from SAP and the forwarding of user entries. In order to tailor the Master to customer specifications, only the predefined cell, column or row definitions from the SAP side have to be entered appropriately in the Allevo Master. All of the usual Excel functions are available for further customization (in particular with formulas). In normal cases, no additional programming is required in Excel, but it is nevertheless possible (for example, for input aids or other improvements in ergonomics) depending on the application.

Supported versions:

- Allevo runs together with SAP-ERP version 6.0 and higher (component SAP_BASIS for version 7.0 and higher). For older ERP versions from R/3 Release 4.6c, Allevo version 2.9 is compatible.
- Allevo supports all current Excel versions 2007 and higher with the data format XLSM. For use with older versions or the XLS format, please contact our support team.

The performance level during the execution of Allevo highly depends on the structure of the customer-specific master and the combination of selected objects (e.g. the number of cost elements, number of objects, secondary planning...): for complex requirements, the performance when working with Allevo should be checked with productive-data (even during the introduction). Allevo offers a suite of functions and so-called “constants” designed to optimize performance, for example, by using different procedures to read reference data or using aggregation levels (see Chapter 16). The technical requirements are dependent on the mode in use.

- In **inplace-mode** (see note above), Allevo uses the functions of the SAP Desktop Office Integration (DOI) in order to run Excel as a part of the SAP dialog and transfer data. The DOI is contained in the base package of SAP NetWeaver or the SAP GUI for Windows. The Excel interface is also used in SAP reporting (GR55) or for each output via ALV when changing to the Excel display.

When integrating a new Excel version, an update to a suitable SAP GUI version must also be carried out in order for it to work with the DOI or Allevo. The minimum requirements are described in the SAP maintenance information on the DOI (see SAP notes 722513 and 147519). According to the properties of the DOI, Allevo also works in virtual environments (see SAP note 138869).

- When calling Allevo via the **Allevo Business Client (ABC)**, data is transferred via an FRC-connection. For this, the ABC uses the “SAP .NET Connector”. In this case, the version of the SAP GUI is no longer relevant: the list of available SAP systems can be transferred from there to the ABC registration data (see ABC manual).

In order to achieve different application possibilities and meet certain requirements in the planning process, the behavior of Allevo can be configured individually through a variety of parameters. Such settings take place in a so-called “Allevo-layout”, of which there can be several stored in the system (for use in different scenarios). In the Allevo-layout, you can specify for which year and version planning should take place, and which Allevo Master should be used in each case. Details on the settings for layouts are described in Chapter 8.

1.4 Glossary

SAP Dynpro	The program written in ABAP, which is installed in SAP through a transfer order.
Allevo Master	Excel File, in which the desired entry form is defined (created as an XLSM file.)
BAPI	The standard interface of SAP for reading and writing data in the SAP system. It is used by Allevo to save plan data.
Table	SAP Table, created on the customer’s system during the installation of Allevo.
VBA programming	Programming within the Excel file, which can also be used by the customer to improve the ergonomics of the planning layout.
Namespace	The file naming area in SAP, which ensures that the development components used by Allevo are unique and don’t conflict with components already used by the customer; Allevo uses the following namespaces: <ul style="list-style-type: none"> • /ALLEVO/ for transaction • /KERN/ for all Allevo program developments • /KERN/ for customer specific developments
BDS	“Business Document Service” is an SAP-specific document management system that can also be used for saving and managing an Allevo Master. The transaction OAOR is usually called to upload or adapt documents.
ALV	ABAP List Viewer
DOI	SAP Desktop Office Integration (Functions of the DIO provide the technological foundation for the Allevo in-place-mode.

2 General aspects of use

2.1 SAP Conformity

Planning with Allevo is completely conformed to SAP. This means that there are no lapses in consistency. That which is not allowed with SAP is also not possible with Allevo.

2.2 Allevo licenses

Licensing is carried out using a license key, which is entered with the constants (LIC_KEY, see details in Section 6.2.9). The key is dependent on the installation number of the SAP system on which Allevo was installed. The license key contains an activation for the purchased number of objects (cost centers, orders, ...) as well as any additional modules. The following rules apply to the determination of the number of relevant objects:

- All objects that are entered in the main planning year are taken into account; the planning version is not taken into account. Entries for all layouts are taken into account.
- Only objects relevant to planning are counted, not the actual number of objects in the system. An object is therefore only taken into account with regard to the license if it has acquired status 3 (i.e., plan data has been saved).

The license key is independent of the number of established layouts in Allevo. Therefore, it must be stored with the constants in the *-layout.

Note:

Further details regarding the contents of the license key can be found in Section 6.2.9, including an overview of the unlocked Allevo functions. There you can also find a detailed comparison between the already planned objects (e.g. cost centers) and the maximum number available with the license.

Typically, a license key is valid in a general sense, that is, it describes the number of objects that can be planned in total. In this case, the key needs to be entered for all relevant controlling areas.

It is also possible to have a separate license key for each controlling area – this can be useful if the number of planning objects is to be treated separately according to organizational units. Such a key can then only be used for the respective controlling area. Please note: The rule (whether separate or overlapping) is the same for all controlling areas, so an individual license key must be created for each controlling area if necessary.

Within status management, lists that check the current license situation can be generated. If the limit is close to being violated, a warning is issued (see also Section 7.7).

The license also contains IDs for unlocking individual Allevo modules (e.g., for Reporting, CO/PA-interface, HRC and functions in Allevo Actuals and Architect). These modules can only be called when a productive license is used, if the corresponding IDs are also enabled.

Through the use of additional tables (satellites), Allevo makes it possible to map specific side calculations of planning (e.g. investment, vehicle fleet, or personnel planning) or as an interface to CO/PA planning. The number of side calculations with the necessary satellite tables is usually defined in the implementation project and saved in the Allevo settings. This requires a separate license key at the latest when moving into productive operation. The number of satellites used per side calculation is saved as a global parameter (see notes in Section 6.2.10).

2.3 Plan versions, plan cost elements

In SAP, the plan version must be set up and unlocked, and the corresponding planning years must be open.

Note:	Especially for orders that have a planning horizon of multiple years, be sure to unlock all relevant planning years.
--------------	--

New cost elements or plan cost elements must be created and exactly match the cost elements listed in the Excel file.

2.4 Determination of the (provisional) planned activity price for the planning year

In order for Allevo to also plan activity allocations, it is necessary to already create the objects “cost center/activity type” in SAP (KL object). This is achieved through version and fiscal year appropriate planning of the activity output on the sending cost center (KP26), or by providing the activity price or the equivalence number.

The value is therefore determined only after it is posted in SAP. If the value (the credit or debit) is to be displayed in the Allevo Master, the plan data need to be refreshed by re-reading the plan data. For this, a refresh function is available (see Section 6.3.2).

Note:	Alternatively, activity prices can be saved in the Master, and the values are then automatically determined in Excel via formulas.
--------------	--

	Allevo also makes it possible to plan the activity prices for the activity type. In this case, however, it is important to pay attention to the time dependency of the debit posting that generates the KL object and the debit posting that the KL object needs as a reference!
--	--

2.5 Currency

Planning is always carried out in the controlling area currency. If the object (e.g., cost center) carries a different currency, the Allevo Master still reads the controlling area currency.

Alternatively, you can plan in the object currency (currency of the company code). In this case, there are certain restrictions with respect to re-reading the variable (activity type dependent) cost planning since SAP saves the differentiation of fixed and variable values only in the controlling area currency.

Note:	Alternatively, you can display the evaluated quantity planning by refreshing the plan data.
--------------	---

2.6 Languages

Allevo is delivered with two working languages: English and German.

If you log on in a third language, the SAP base settings decide in which language the Allevo dialog boxes or messages should appear. The control for this is available via the SAP profile parameter `zscs/second_language` or in “Language Transport” in transaction SMLT (see also SAP note 1156507).

Allevo can also be translated into other languages: this can be especially helpful for central planning functions, status management, and for program messages. Translation into other languages is usually done on a customer specific basis via the SAP standard transaction SE63. If desired, an Allevo specific translation transaction (/KERN/TRANSL_TEXTS) is also available.

For all translations into a third language, it should be noted that SAP uses an internal buffer for the respective language. It is therefore likely that if you log on in a new language, the results of the translation are not immediately visible, but rather only after the buffer has updated.

Background:	<p>Dynpro and menu texts are assigned and buffered the first time an SAP program is loaded (in so-called "language run-time representation"). If, in the meantime, language-dependent texts are changed, a manual intervention must be carried out in order to prompt SAP to re-read these texts.</p> <p>The run-time representation can be updated via Report RSLANG20. With the entry of /\$CUA or /\$DYN in the SAP command field, the CUA and Dynpro buffers should be reset (if necessary, this can be done for all relevant application servers).</p> <p>These actions should only be made in coordination with the customer help desk. For detailed instructions, see SAP Note 110910.</p>
--------------------	---

In key fields like cost element or activity type, the use of umlauts is rare, but may be necessary. In the case of Unicode systems, it is important to note that more than one character per umlaut must be reserved when exchanging data between SAP and Excel. This can lead to the loss of individual characters if the relevant text of the background database field is already completely full (the contents at the end may be cut off in this case).

Note:	<p>This behavior of SAP Desktop integration also applies to data in satellite tables. If, for example, you expect to have umlauts in text fields of a satellite, the respective fields should be fit with extra characters from the start.</p>
--------------	--

3 Program start and planning transactions

3.1 Allevo Cockpit

Allevo has a central start page for all transactions in the program package. The start page is opened after entering the transaction code /ALLEVO/COCKPIT.

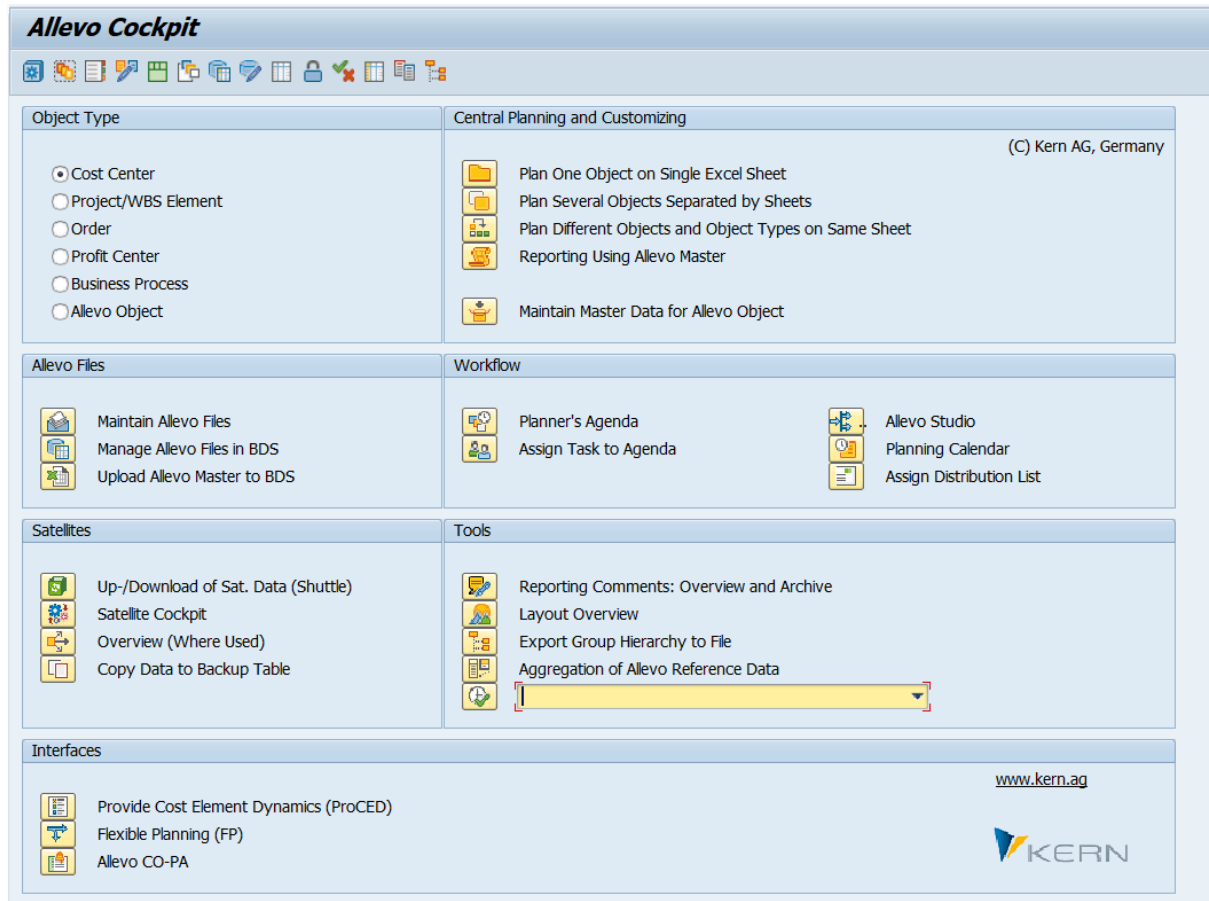


Figure 3.1: Allevo Cockpit

By clicking on the program icons, or double-clicking on the text, you can jump to the different functions and modules of the Allevo program package. Less integral Allevo transactions can be found under different menus in the Cockpit. The corresponding individual transactions are described in more detail elsewhere in this manual. The currently supported object types are shown in the upper left of the above figure.

- KS Cost centers
- PR Projects/WBS elements
- OR Orders
- PC Profit center
- BP Business Process
- KX Allevo Object

The selection of a relevant object type is the basis for starting individual transactions in the section "Central planning transactions and settings" (top right). The corresponding program functions are described in the following sections or in the further chapters of this manual.

Note:	The object type saved as the user default under the parameter /KERN/IPPOBART_CP is suggested, or alternatively, the object type for which at least one Allevo layout has been created. After that, Allevo remembers the last selection (favorite).
--------------	--

Add a transaction as a tool

Nearly all standard transactions of Allevo are available via menu options in the Cockpit. In the "Tools" section, you can also include customer-specific transactions or other SAP transactions that can be used in the Allevo environment.

Which entries should be displayed in the list of tools is set via the menu "Cockpit >> Maintain Tools Menu"): an entry there can be general or, alternatively, specified for individual users. The stored list is also evaluated by the Agenda: accordingly, a classification for calling the tool should be made (Cockpit, Agenda, or both).

Note:	<p>The Cockpit should be thought of as a helper for the controller, making access to the different Allevo functions easier. The Cockpit is also the ideal starting point for an overview of these functions (especially, for example, in a workshop setting).</p> <p>With all functions, the Cockpit explicitly checks the authorization for access to the respective transaction being called. Alternatively, the Cockpit can be started via transaction /ALLEVO/COCKPIT_ALL. In this case, transactions do not have to be individually authorized (this only applies to KERN namespaces).</p>
--------------	---

3.2 Allevo planning transactions per object type

3.2.1 Basic functions

For each object type, Allevo offers individual transactions for executing planning. For example, the program for planning a single cost center is called via transaction /ALLEVO/KS (equivalent to /KERN/IPPKS).

Note:	Allevo primarily serves CO overhead cost planning. For this reason, the controlling area in Allevo is a key organizational feature. The controlling area is queried before entering an Allevo transaction, or is taken from the user parameter "CAC" (or the controlling area for which Allevo is set up).
--------------	--

In the above example of a transaction for cost center planning, the following program dialog takes place:

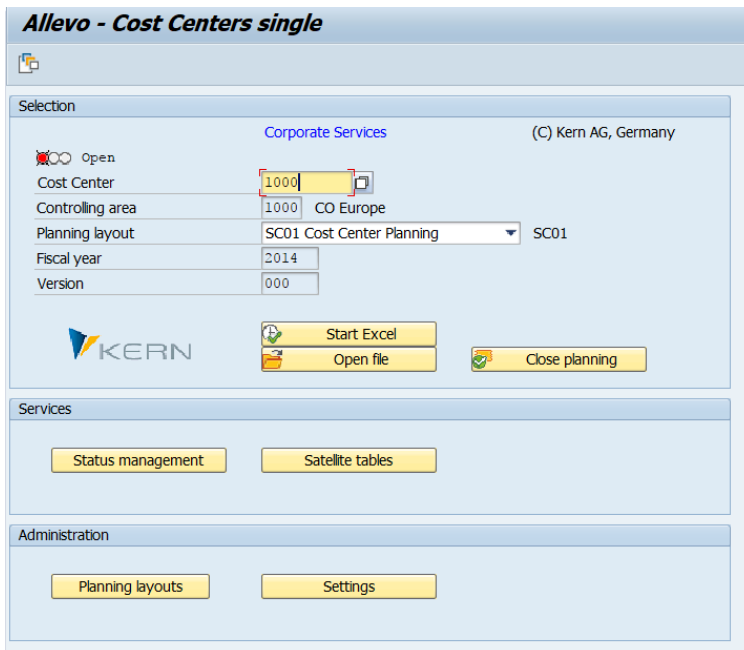


Figure 3.2: Start dialog for “Single object cost center planning”

In the upper area, the planner selects a plan layout from the drop-down list as well as the desired object (here, a cost center). Planning year and plan version are automatically transferred from the selected layout.

Depending on the layout, the input options can also be changed, for example, for object selection using multiple selections or via groups.

Note: Via the constant `USER_ELEMENTS`, the F4-help list for objects (here, cost centers) can be restricted to customer specifications (e.g. corresponding to the current authorization level).
It is not always the case that the planning object entered in the start screen refers to the actual planning object. Occasionally, it also simply representative. In this case, it can be useful to assign a different description, which may be more meaningful to the planner (see constant `TEXT_OBJTYPE`).

The lower area, “Administration”, only appears for the roles of “Status manager” and “Administrator” (see Chapter 20). All other users only see the upper area “Selection”. Explanations for the individual administration menus can be found in the following sections:

- |Status management| : Section 7
- |Satellite tables| : Section 14
- |Planning layout| : Section 7.8
- |Settings| : Section 6

Access to the individual menus can be restricted for Allevo administrators depending on the plan layout (see Chapter 20).

In order to be able to process several objects at the same time in a single planning layout, Allevo offers so-called "multi-transactions" (see Section 3.2.3). In this case, several pages are created simultaneously on the Excel side (e.g., one page for each cost center). In this case, an "M" must also be placed at the end of the above-listed individual transactions: for example, /KERN/IPPKSM for the planning of multiple cost centers.

"Multi-object" transactions are available for cross-object planning. In this case, the transaction name is appended with the abbreviation "MO", for example, /KERN/IPPKSMO, if a cost center is to be used as a start object, but the corresponding orders should also be planned simultaneously (see Section 3.2.4). Allevo takes all SAP authorizations into consideration. In particular, when the user enters Allevo planning, the system checks whether the user is authorized to plan the relevant SAP objects (for example, cost centers within the framework of cost center planning). Thus, an Allevo transaction can only be read and planned, which is also allowed for the user via the original SAP transactions. However, finer control of authorization checks is also possible (see Chapter 24 on authorizations in Allevo).

A list of all planning transactions can be found in Section 23.4.

3.2.2 Allevo Single

A list of the relevant transactions can be found in the previous section: the start of these "single" transactions usually occurs after selecting a single object (e.g., a cost center). Using the "Start planning" button, the selected object is transferred to Excel and the respective Allevo Master is called.

Alternatively, object selection can also be made on the Excel side (Panel / Tree function, see Section 3.5). In this case, the selection made in the Allevo start transaction only decides which objects are available for selection on the Excel page (e.g., all objects in a group).

Object selection via VBA functions in Excel, which was realized up to Allevo 3.4, is no longer supported.

3.2.3 Allevo MultiPage

In order to edit multiple objects simultaneously in a planning layout, Allevo provides so-called "multi-transactions". In this case, multiple separate worksheets are created simultaneously on the Excel side (this function is also called MultiPage-mode).

In the input dialog you can also enter a To/From range or an SAP object group (see Figure 3.4).

Allevo - Cost Centers multi page

Selection

Corporate Services (C) Kern AG, Germany

from to Group

Cost Center 1000

Controlling area 1000 CO Europe

Planning layout SC01 Cost Center Planning SC01

Fiscal year 2014

Version 000




Figure 3.4: Standard selection with Multi-planning

Allevo opens the Allevo Master within SAP and creates a worksheet for each object in the group. The basis is a template sheet created in the Allevo Master. If desired, the Allevo Master can also be fit with a summary sheet that summarizes the results of all objects on a worksheet. However, this totals sheet is not relevant for the reading and writing of data.

Note:	<p>The object group is always completely resolved by Allevo. Thus, cost centers which are integrated into further subgroups within the group are taken into account (e.g., maintenance via KAH2 for cost centers).</p> <p>Allevo also takes groups into account that are saved as “selection variants” (For example, transaction KM1V for cost centers or OKOV for orders). As usual, entry in the Allevo input field must start with a period(.). These selection variants can also be part of the fixed group definitions.</p> <p>In the standard case, all selected objects must have a valid Allevo status: only then is the function “Transfer plan data” available on the Excel side. The constant MULTI_WITHCLOSED allows you to record completed objects.</p> <p>Alternatively, the constant STATUS_READ_ALL can be used with different options in order to use certain objects for planning and to only read others.</p>
	For details see Section 3.2.6.

To call the application, an “M” must also be placed at the end of the individual transactions specified in the overview, e.g. /ALLEVO/KSM (formerly /KERN/IPPKSM) for cost centers.

In general, the functions described above for the single are also available here. Instead of a single cost center or a single order, a selection of several objects in the selection screen is now possible: either as a From/To entry, via multiple selection, or by specifying a group.

All relevant objects must also be enabled for planning in the case of MultiPage functions, and the user must have the necessary planning authorizations: Excel sheets are created only for those objects that meet these conditions. However, the entry for the status can also be created automatically (see constant STATUS_READ_ALL). Optionally, before calling Excel, Allevo can display a list of the objects involved, if necessary also those that were hidden (see constant NO_MULTI_LIST). When you start with a group, the Excel sheets are sorted by the relevant hierarchy (this can be adjusted via the constant SORT_OBJECTS).

Note:	The MultiPage functions require more working memory, due to the duplication of Excel worksheets. Operating with older Excel versions (until 2003) and numerous objects can cause the
--------------	--

program to abort processing due to an overload of the working memory. In this case the constants BUFFER_MULTI and READ_MULTI_AREAS can be helpful.

The data transfer between Excel and SAP is done in steps (sheet for sheet). Especially when reading extensive reference data, it can be useful to view the progress bar (see constant PROGRESS_POPUP or PROGRESS_TIME).

The MultiPage start screen for projects/WBS elements has some specific characteristics that differ from the portrayal above (more details can be found in Section 3.2.5).

3.2.4 Allevo MultiObject

Some planning scenarios may require you to plan with multiple objects in a single planning form, for example a combination of cost centers and their corresponding orders or WBS elements. This is made possible with Allevo MultiObject. With these functions, there are options for process design that go beyond the normal SAP standards. As a result, individual customer specifications are the focus.

The name of the transaction for starting MultiObject use also require an "MO" to be appended to the end, e.g. /ALLEVO/KSMO (formerly /KERN/IPPKSMO) for cost centers

On the Excel side, MutliObject transactions allow for several display variants, which are explained in detail in the Allevo-Excel manual. Generally, however, two variants can be readily distinguished:

- (1) A separate Excel sheet is used per object type, for example: data for a cost center on the first sheet, the data for the corresponding orders on the following sheets. In contrast to Multipage mode, individual sheets can also have a completely different structure (e.g., a different structure for cost centers than for orders).
- (2) Processing in the form of a list with all object types on the same Excel sheet: this variant is abbreviated as "MOM" (=MultiObject Masses). This is currently the most common form and can be used as an alternative to MutliPage use. This variant allows several objects of the same object type to be displayed in a list, with appropriate filters controlling the display (see also special form MOD below).

A detailed description for the use of MultiObject functions can be found in the Allevo & Excel user manual.

The selection screen for the MultiObject transaction corresponds to that of single transactions: only a so-called "start object" is specified. The combination of planning-relevant objects is done by means of additional logic on the Excel page (e.g., with the help of data in satellite tables). In this context, the additional module ProCED is often used (MOD functions are an exception to this rule, see below).

Note: If data for A profit center and other object types are to be used simultaneously in MO, then the entry must be made via A profit center, so that the company code is correctly assigned. An alternative to this combination is Profit-Center-Integration, which is offered by Allevo (see Chapter 17).

When using combined planning over several object types, the Allevo control parameters that are stored for the starting layout are used (e.g., constants, row-/column definitions, 1:n cost element groups). In special cases, it may nevertheless be useful or necessary to create a layout with the same ID for the object types addressed (e.g., if 1:n groups are to be used for the deviating object type). To

the layout of the same name, Allevo also transfers the status information (see also constant STATUS_READ_ALL for status entries without manual maintenance).

Note: For all objects planned in MultiObject-mode, the respective licenses must be available. For example: For combined planning of cost centers and orders, the licenses for cost center-Allevo and order-Allevo are required.

When working in MultiObject-mode, you can directly enter the ID of an object group on the Excel side (e.g., after selecting a cost center group in the Tree instead of individual cost centers). Allevo then reads the data for all contained objects in total, similar to 1:n planning. For this function, the constant MULTI_WITH_GROUPS must be set. This ensures that groups are not accidentally misinterpreted as object numbers (this could lead to data being falsely read or ignored).

The combination of different objects/object types in MultiObject mode results in individual requirements when it comes to authorization checks (see Section 23.8.3) and lock functions restricting simultaneous access to planning objects (see Section 3.8).

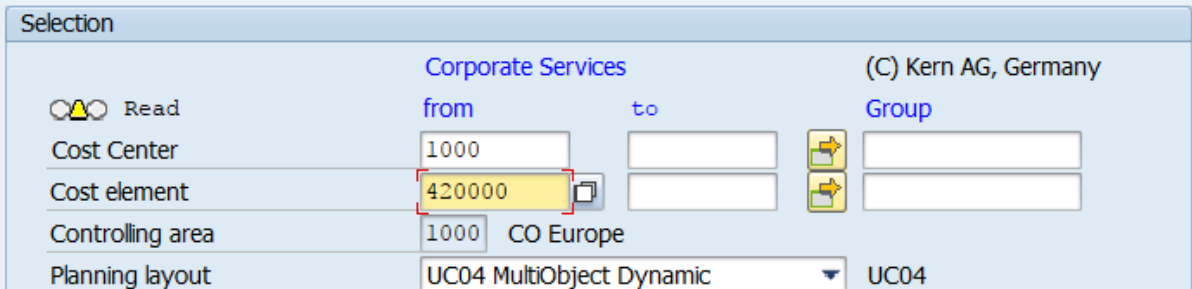
For information regarding special features when starting the processing of projects/WBS elements, see the next section.

Special case “MOD” (MultiObjectDynamic):

The MOD is a special feature of the list representation mentioned in (2) above. In this case, all relevant objects or cost elements are generated dynamically on the SAP page and then automatically entered into the rows of the Allevo Master (including totals rows at the group level).

Accordingly, the selection of planning-relevant objects and, if necessary, cost elements are also carried out directly by the user (when entering the MultiObject transaction).

This application is controlled by the constant DYN_KSTAR_SAT (depends on the layout) and requires an extended selection screen on the SAP side, in particular for the selection of the cost elements.




Selection	
 Read	Corporate Services (C) Kern AG, Germany
Cost Center	from 1000 to Group
Cost element	420000
Controlling area	1000 CO Europe
Planning layout	UC04 MultiObject Dynamic UC04

Figure 3.5: Selection screen for the special case “MultiObject MOD”

Other functions of the MOD, particularly the setup of an appropriate Allevo Master is described in detail in the Allevo & Excel manual. MOD is not available for object type PR.

Note: As described above, the constant DYN_KSTAR_SAT extends the MO start screen to include entry options for multiple selection and groups. The parameters entered by the user are transferred to all subsequent Allevo functions, thus providing the ideal prerequisite for the entry of data for additional Allevo modules and interfaces based on satellites.

The MOD version creates a “universal” entry point for data entry via Excel.

3.2.5 Starting with Project / WBS element (special features)

When working with the object type PR, it is common that the WBS element is the level at which the planning takes place. Additionally, the project and the hierarchy that has been created plays an important role when starting, in addition to the standard object selection via WBS elements or the specification of a group. Accordingly, the selection screen when starting Allevo is also structured differently. Here is an example for starting in MultiObject-mode:

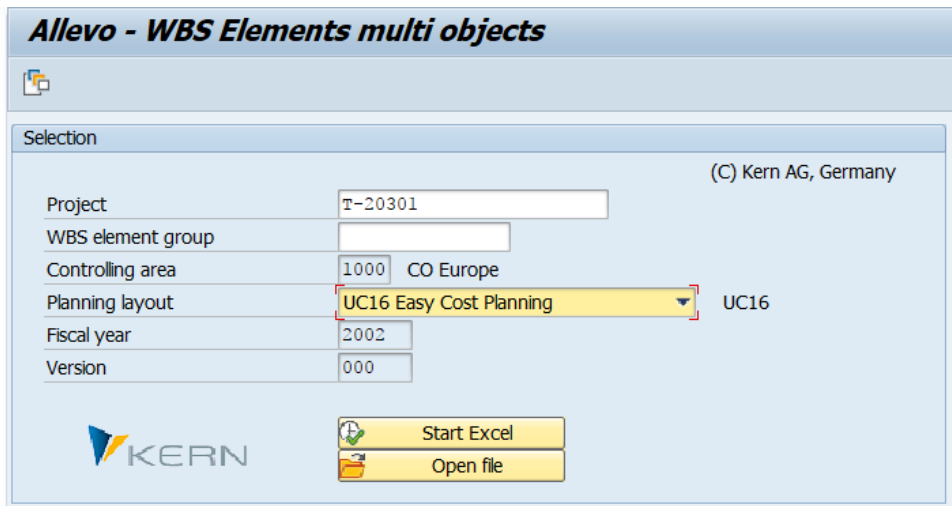


Figure 3.6: Selection screen for MultiObject planning for projects

In the standard case, the user selects the planning object. When starting with a project, Allevo automatically selects a representative object (WBS element) to be used for the entry of plan data or for reading satellite data. In some cases, it may be useful to start via a WBS element. Which entry fields end up in the dialog box can be controlled via the constant PROJ_HIDE_FIELD. The presentation is even more complex with the corresponding MultiPage transaction:

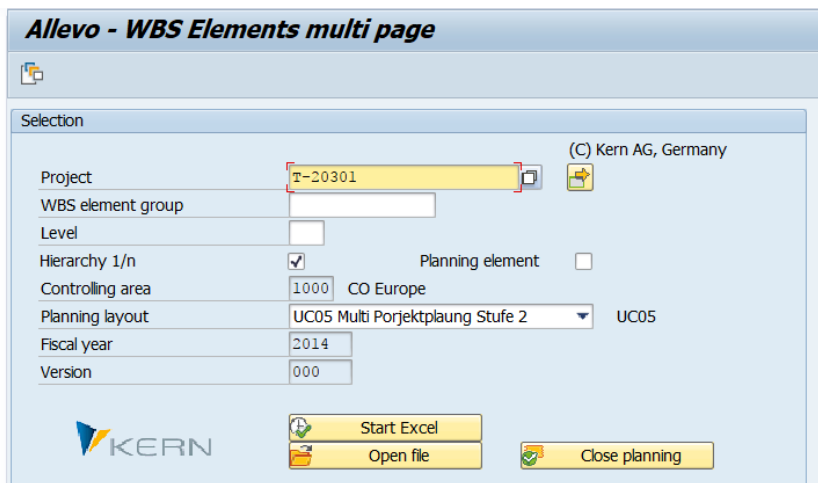


Figure 3.7: Selection screen for MultiPage planning for projects

The planning of an entire project, i.e. the WBS elements of a project, is highly dependent on the structure of the project. It is conceivable that, for example, each individual WBS element of the project is to be planned or only elements of a particular level. The list of relevant WBS elements can be restricted using two additional options:

- Specifying a level at which a project should be carried out: a corresponding number of sheets are then generated on the Excel side. Note: The "Level" parameter is only taken into account when project planning is started. If a WBS element group is entered, the "Level" parameter has no effect.
- Specifying a "planning element" determines that an Excel page should only be created for those WBS elements that have a planning indicator in the master record.

If the option "Hierarchy 1:n" is set in the selection screen, the values of all WBS elements that are subordinate to the selected WBS element are also added when reading data. The possible variants are described in detail in Section 6.5.7.

Constants allow you to set default values for all the control parameters or specify the contents in a fixed manner (see PSP_MULTI and PSP_MULTI_LEVEL). In the documentation, further details of these Allevo functions are also described.

3.2.6 Object selection with additional attributes

The Allevo starting transactions mentioned in the last sections differ from each other primarily through the selection of objects that can be simultaneously processed in the Allevo Master. In particular, if several objects are selected (e.g. via a group), the list of objects transferred to Excel can be influenced by additional attributes.

An important characteristic is the entry of an object into Allevo status management: by default, only those objects (e.g. cost center) that have a valid status can be transferred to Excel. This means they must at least have at least status 1 = open, but must not yet be closed (status 4 and higher). Objects without a status are not transferred to Excel.

Via the constant STATUS_READ_ALL, you can change this default setting:

- In "extreme cases", all objects are transferred regardless of status. This makes it possible to plan all objects within a group.
- Optionally, only specific objects can be transferred to Excel in order to read corresponding reference data – these objects themselves, however, should not be plannable.

For details, see the F1-help for the constant. For dealing with the reading of objects that have already been closed, the constant MULTI_WITHCLOSED can be useful.

A list of the objects ultimately decided on by Allevo is displayed before planning is started. If the list is not wanted, you can use the constant NO_MULTILIST.

By default, Allevo assumes that the transferred objects are intended to be used in planning (and not simply for displaying reference data). This is especially this case in MultiPage-mode: after plan data are transferred to SAP, a message appears if no plan data are found for the current object (basically assuming that something has been overlooked). See the constant SUPPRESS_EMPTYWARNING to change this behavior.

The planner can simultaneously complete planning for all selected objects; in this case as well, Allevo only considers plannable objects. For special use in MultiObject-mode, where the start object is purely representative, the constant CLOSE_OBJECT_MO can be useful.

3.2.7 Dynamic version entry

In the previous start screens shown for entry into Allevo planning, the planning year and version cannot be changed: they are simply taken from the settings for the column definition CX_WW and are fixed for the planner. This is the usual case when planning via Allevo.

In some special cases, however, it may be useful to unlock this parameter for entry or to provide the planner with a drop-down list of alternative entries:

- This function is controlled via two constants (FLEX_VERSION and FLEX_YEAR).
- Alternatively, a customer-specific logic via a BAdI implementation can be used.

In both cases, the planning year or version become entry fields (the entries are, however, not saved by selection variants, see Section 3.2).

Note: A combination of planning year and version must be unlocked in Customizing for planning (also applied to dynamic entry). Otherwise, Allevo automatically switches to reporting-mode.

Exception to this rule: For KX objects, the planning mode remains active if an Allevo status is entered. In this case, data are written to Allevo-specific tables independent of other SAP functions.

3.2.8 Object selection via popup in Excel inplace view

With the Allevo planning transactions named thus far (e.g., /ALLEVO/KS), the selection of a layout and an object is made via the start screen. In addition to this method, the user can also switch to another object or layout in the opened Allevo Master (called via an icon in the SAP symbol toolbar, see Figure 3.8 below).

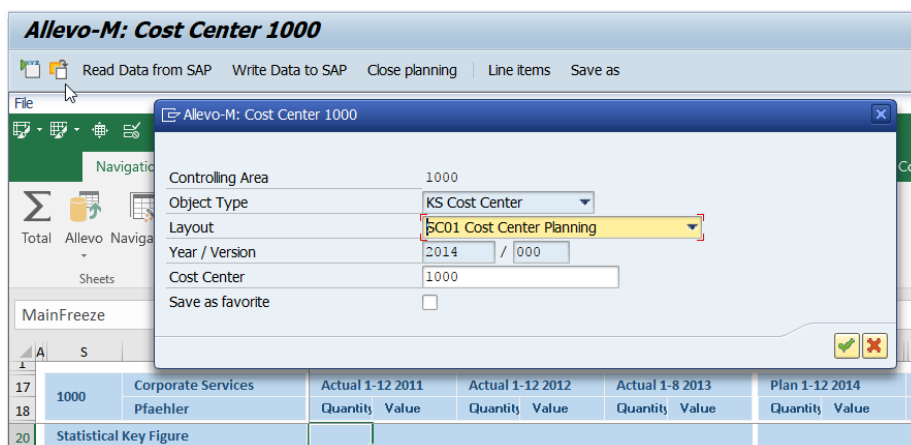


Figure 3.8: Popup for object and layout selection in inplace-mode

This method is not made for changing the controlling area or the object type: this is only possible when calling via the transaction /ALLEVO/TAKEOFF, which has no limits from the outset (see note further below).

The selection of layouts is the same as when entering the previously selected starting transaction: depending on the selected mode (e.g. single or MultiPage) or the set constants, further selection fields will appear. Additionally, each field can also be hidden (see constant FLEX_SCREEN_FIELDS).

When doing a layout change, Allevo always reloads the stored master. In single mode without a layout change, the master remains active: instead, the previous data is reset via an Excel macro.

The popup allows you to save the current selection as a favorite. These entries are listed in the Agenda under “Favorites” (Agenda-internally controlled with the sorting indicator ZFAV). If the flag “Save as favorite” is set and you confirm with Enter, an additional field in the popup appears for entering a description of this favorite. The favorite function is equivalent to saving a variant in the start screen.

3.3 Reporting mode

In Allevo reporting, the interface between SAP and Excel is also available for the reporting process. In this mode, data are only read, with the exception of special reporting comments which can be generated and saved in SAP (e.g., for routine error analysis with feedback or justification).

Calling Allevo reporting-mode is done via individual transactions, this allows for separate authorization controlling. The start screen of this transactions allows you to specify current selection parameters such as year/version for individual Excel columns (applies only for inplace-mode; the ABC only distinguishes the creation of plan data in reporting-mode).

Reporting-mode is discussed in detail in Chapter 21.

3.4 Planning Agenda

3.4.1 Functional overview

The variants of the different Allevo planning transactions can be displayed for each user in a comprehensive list, which we will refer to here as the “Planning Agenda”.

Note:	Originally, the Agenda was only designed for calling Allevo transactions. In current versions, however, any SAP transaction can be included in order to, for example, carry out the steps that are to be implemented in the overall planning process (e.g. create a plan copy via KP97).
--------------	--

Users can either create their own entries, or they are provided by central Controlling (e.g., via Excel upload). Possibilities include:

- Personal Agenda, i.e. individual entries for each planner
- Group Agenda, made through definitions set by reference users

The corresponding transaction is /ALLEVO/AGENDA

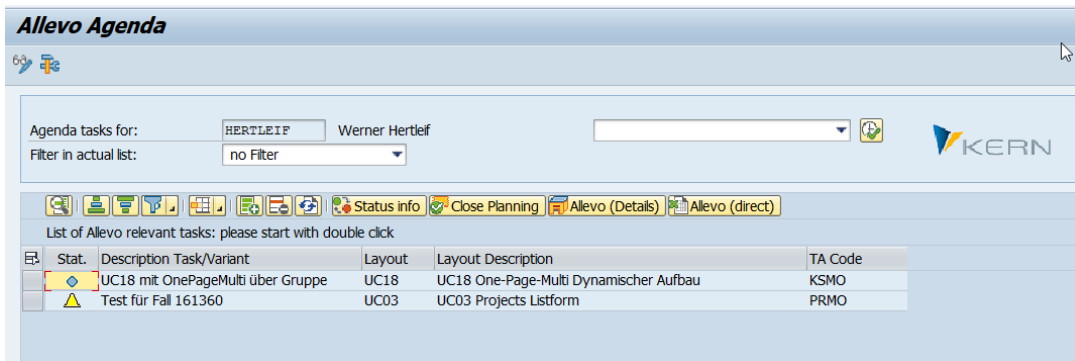


Figure 3.9: Planning Agenda

Every row in this list corresponds to a variant, that the current user has created for an Allevo transaction. Double-clicking on a line leads directly to the Excel planning interface: Object, layout and all other data are automatically transferred.

The Planning Agenda shows the following information:

Short Name	Summary of the object choices for the selected variant; for example, the cost center or cost center From/To (for multiple selection, “diverse” is shown in the column). If a group is selected, the group name is shown here.
Description Task (Variant)	Individual description (in change mode this is retroactively editable)
Status	Allevo status of the relevant object. This makes it easy to distinguish to what extent the planning tasks have been completed. With multiple objects (e.g., for a group) the lowest and then highest statuses are shown.
Layout	Allevo layout with corresponding description
TA code	Code for the corresponding planning transaction (e.g., KSM = cost center multi). Reporting transactions are included (e.g. KSREP = cost center reporting)

In the Planning Agenda, the following additional functions are also available in the form of program icons:

	Changes to Allevo specific status management (see Chapter 7)
	Closes the planning for all of the marked rows of saved objects (if necessary also for all objects in a group)
	Starts the individual Allevo transactions. The parameters can then be changed if desired.
	Directly start the Excel view (analog to double-clicking a row)
	Add a new task/variant. After clicking this icon, an entry screen appears. After saving, the description of the variant appears, which you can change if desired. Then a selection list for the desired individual transaction is shown. This list can be shortened to only include user-relevant transactions via the constant TASK_VARIANT_ACT in the *-layout.



Removes the selected rows. These rows are actually deleted when you leave the Planning Agenda.

Text items

The Agenda can contain text items providing further description of planning tasks. In the restricted extent (i.e. not dependent on year or version) a text item can also be linked to a status. A double click on the corresponding icon in the first column allows you to close the task.

Text items can also be useful if parts of the list should be consolidated into subject areas (see note below).

You have to use the Excel upload in order to enter these text items into the Agenda (the internal indicator for a text row is "AGI", see next section).

Sorting and two-level hierarchy

By default, sorting of entries is done according to controlling area and transaction code. Optionally, an alternative sorting procedure can be used via an additional sort indicator: this is especially helpful if there are text items. This additional sorting can only be incorporated via an Excel upload.

The sort indicator can also describe a two level hierarchy of the planning tasks. This allows you to consolidate planning tasks into topics or to only use headers. In the end, the planner will see a screen similar to the following:

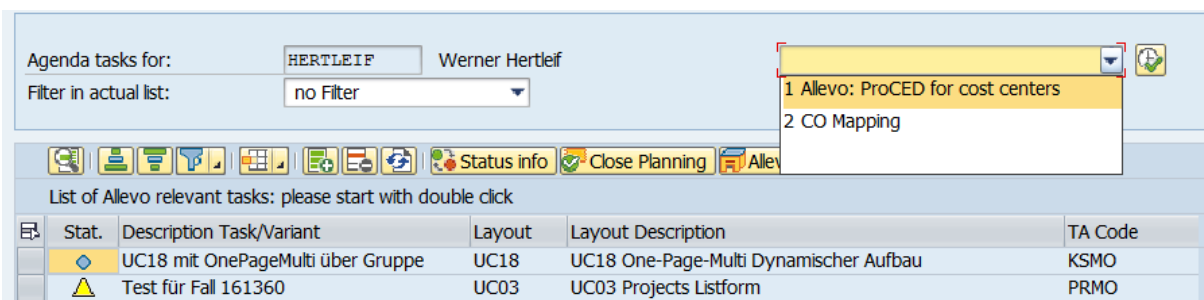


Figure 3.10: Two-level planning agenda with text items

In the case of a two-level configuration, the lower levels can be displayed or hidden by double-clicking in the first column. The example in the last figure also shows two text items (for example, "heading"). These items have the ID AGI under "TA Code".

Integrate SAP transactions

The Agenda offers to variants for integrating SAP transactions:

- A direct entry to the task list is recommended if a transaction is called regularly in the overall planning process. The maintenance of such Agenda items must be carried out via Excel upload (the internal indicator for a text line is "AGT", see next section).
- Alternatively, you can call up any transaction via a selection list at the top of the screen (see Figure 3.10). These entries are set up via transaction /ALLEVO/COCKPIT_IDL, or optionally called via the Cockpit. The list stored there is also evaluated in the Cockpit itself: accordingly, for each transaction, a classification is made for the type of call (Cockpit, Agenda or both). A transaction

call can apply generally or for individual users. The use of this list is helpful if transactions are, for example, not to be assigned with a planning step.

In both cases, Allevo checks the corresponding SAP authorizations.

3.4.2 Tools for editing Agenda entries

The planning Agenda consists of the variants of the Allevo individual transactions. They can be created by the planner themselves, if the corresponding constant TASK_VARIANT_ACT is set.

Alternatively, Controlling can provide this list centrally, for example, via an Excel upload. The necessary functions are available via the tool icon in the toolbar (authorization group ZIPP_SET is required).

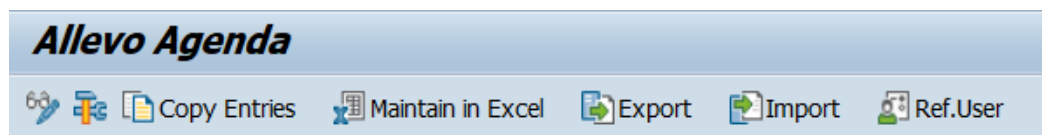
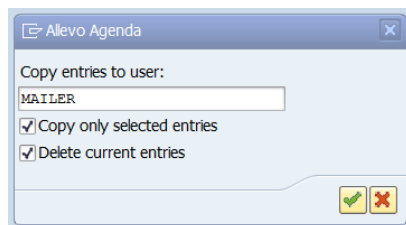


Figure 3.11: Tools for maintaining Agenda entries

The available functions:

- The function “Ref.User” is described in the next section
- “Copy Entries” allows you to transfer Agenda entries to another user (e.g., functioning as a substitute-user). This means that a copy of the user’s data is transferred to another user.



The currently displayed tasks or a selection of tasks are copied. As an option you can choose to delete previous entries of the target user.

The target user must have an assigned SAP username in the system. Alternatively, a copy for a reference user is possible (see next section). The corresponding name must be entered once as a reference user.

If multiple users are to be assigned simultaneously, it is recommended to do this via “Adapt Agenda” in the Cockpit. In this way, Excel files are shown (ZIPP_TASK) and can then be edited and managed. If the user field is empty, all Agendas for all users are listed. The Excel file stored here is a structured table. Any changes should be made within this table. By saving, the changes are saved in a satellite table; all changes made there are now available for the respective user in their individual Agenda.

- The “Excel upload” allows for the creation and change of Agenda tasks via Excel-inplace, with the exception of rows with multiple selection. To use this function, call the transaction /ALLEVO/START_MNT (see the detailed note in Section 27.8)
- The “Export” function saves the Agenda entries to a text file (also possible for multiple users simultaneously). With “Import”, the backup text file can be retrieved using the same user names as for the export (the data can also be copied to other SAP systems in this way).

3.4.3 Reference user for group Agendas

The assignment of planning tasks in the Agenda is usually done for each user individually. In some cases, however, it may be advantageous to be able to refer to central task lists that are saved to a reference user (e.g. if planning is done in teams or tasks are to be separated by their content). This reduces the effort in maintaining the entries. An indication of the reference users must also be stored for each user (see function "Ref.User" in Figure 3.11).

If a reference user is stored, its tasks are automatically transferred when starting the Agenda transaction. The name of the reference user is automatically displayed in the field “Planning tasks for” (see Figure 3.9). If multiple reference users are stored for the current user (possible with Allevo 3.5 and higher), an F4-selection is stored in this field.

If tasks are also saved for the individual user themselves (in addition to the reference user), the table of the reference user must also contain a reference to the username himself. Only then can then user jump between the two task lists. Mixing task lists of multiple reference users is not currently supported.

3.4.4 Agenda in the panel

In current Allevo versions, the Agenda is a part of the Allevo panel, which allows for object selection to be done directly when working with Excel. This applies to working with ABC as well as with the inplace panel:

- When switching to a different Agenda entry, Excel is not restarted, but rather the Master saved in the layout is simply reloaded.
- In a layout with Tree functions, object selection is resolved at the beginning (e.g., cost center group) and displayed as a hierarchy. The corresponding functions are described in the following section.

3.5 Inplace panel with object selection via Agenda and Tree

The central function of Allevo is the display and maintenance of (Planning) data via an Excel inplace display when working in an Allevo Master. After calling Excel, the user can change different selection characteristics without having to leave Excel (the popup for this function was introduced earlier in this manual). Alternatively, the inplace panel offers a comfortable selection via two lists in an Advanced List Viewer (ALV) display.

3.5.1 Functional overview

With traditional Allevo planning transactions (e.g. /ALLEVO/KS), layout and object selection is made via the start screen. This results in the following procedure:

- The user selects the planning object (e.g., a cost center) in the start screen
- Excel is started for processing in inplace-mode
- When finished, Excel is closed and then restarted for the next object.

Optionally, the user can also change selection characteristics directly from the inplace display without exiting Excel: for this, the pop-up for the object presented earlier comes into play.

Alternatively, the inplace panel offers convenient selection via two ALV lists. The user remains in the Excel interface (also applies for ABC, see corresponding manual).

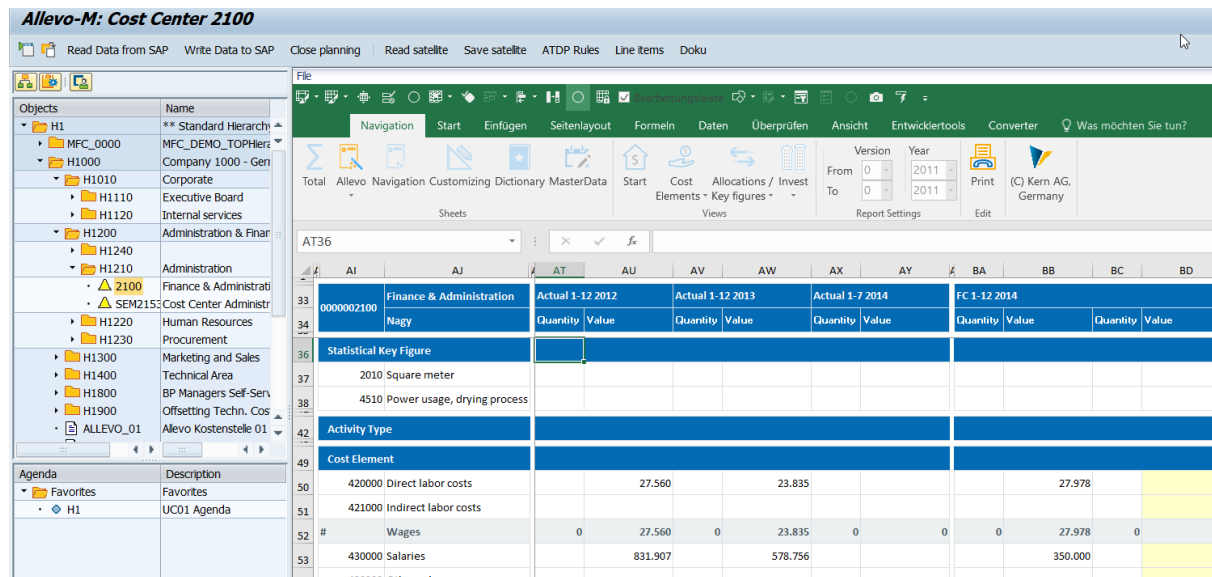


Figure 3.12: Allevo with inplace panel (left)

There are two areas in the panel to the left of the Excel editing window above:

- The upper panel, “Objects” shows a hierarchical object list (“Tree function”). Activation is done via constant OBJ_SEL_IN_PANEL. This panel area is only available for the corresponding layouts (a similar function was available in previous versions via a VBA Tree in the Excel Master).
- The lower panel shows a list of Agenda entries that have been saved by the user.

The icons in these two areas describe the status of the objects (yellow icon = available for planning, blue icon = closed, not meant for planning). The hierarchy level can be found on the file symbol.

The panel functions are available for the classic Allevo inplace transactions, and for newer, cross-object type entry, the transaction /ALLEVO/TAKEOFF (described below, see Section 3.6) is available. There are some differences in properties when calling:


- Then user can turn the panel off and on with the icon in the toolbar.
- If the panel is active, the icons und turn the areas for object Tree and Agenda off and on.
- When starting a classic transaction, the panel is not displayed by default, unless the call is made via a layout with an active Tree function.
- When using the transaction /ALLEVO/TAKEOFF, it is displayed as long as an Agenda is saved for the user. Otherwise, the popup for object selection is displayed.

With respect to object selection, the Agenda and object Tree can be seen as two levels: when selecting an Agenda entry with a Tree layout, Allevo opens the “Objects” area for further selection. Otherwise, Excel is directly started (or the Allevo Master is reloaded).

After selecting a planning object (e.g., a cost center), the corresponding reference data are automatically read from SAP. Depending on the status, Allevo automatically switches to “reporting-mode” (also applies to selection of a group in a Tree): in reporting-mode, the button “Transfer plan data” is not available.

Selection via Agenda

The basic functions of the Agenda have been described in the previous section. When starting a classic Allevo transaction, the Agenda entries are restricted to the transaction that was called (e.g. in /ALLEVO/KSMO it is only the entries that work with cost center in MO-mode). All Agenda entries are offered as a choice when entering via transaction /ALLEVO/TAKEOFF. The Agenda differentiates between “Tasks” that are centrally created via Excel, and “Favorites” that are created by the user themselves (see inplace popup for object selection mentioned earlier).

The Agenda supports access to reference users; when it is first called, the entries for the default reference user are displayed (change to the Agenda of a different reference user using the  icon).

Selection via object Tree (hierarchy)

If the constant OBJ_SEL_IN_PANEL is set in the layout, Allevo shows a hierarchical object selection in the upper area of the panel. When starting, the user only selects the relevant group to be displayed. There are two possible cases to distinguish:

1. The group is assigned to a planning object in the Allevo settings (e.g. a cost center, because of the so-called “1:n functions”, see Section 6.5). The subordinate elements of the group are not visible in the Tree, but are taken into account when reading reference data. Planning can begin once such a group is (button "Transfer plan data" is available).
2. The group is an actual part of the hierarchy with no 1:n setting and contains additional groups or subordinate objects.

When selecting a group, Allevo automatically switches to reporting mode, which makes the button “Transfer plan data” unavailable. The basis of the switch is the stored status, which is not set for a group (i.e., the same characteristic behavior as for objects without a valid Allevo status). The data of the subordinate objects are read in an aggregated manner (after checking for read authorizations). This function is therefore especially of interest for reporting purposes, since it can be executed for any hierarchical level. However, it can also be useful for reviewing the effects on higher levels during the planning process. When selecting a group in case (2), the following special functions must be observed:

- If the constant MULTI_WITH_GROUPS is also active in MultiObject-mode, Allevo does not switch to the reporting mode. This makes it possible to record data in satellites and then to save them for a whole group of objects (see documentation on the constant). On the Excel-side, however, it should also be ensured that the lines of the standard planning are locked for additional inputs.
- If reading is active via "Reference if Stat. >= 3" in a column definition, Allevo searches for the highest status within the group (see also notes in Section 6.3).

- Satellite data is only read if constant GRP_READ_SATxx is active (with "xx" as the number of the satellite). Background: a large number of objects can be assigned to a group and a correspondingly large amount of data in satellites can be relevant. It is therefore necessary to decide for each satellite whether data is necessary in the group as a whole.
- Optionally, a dynamic aggregation of the satellite data can be carried out via the constant GRP_READ_SATxx as soon as the group level is read. The constant determines which columns are to be used as characteristics for the aggregation and in which columns a totals calculation should be made. This aggregation is useful if a large number of satellite rows should be kept in the Allevo Master.
- Satellitendaten werden nur gelesen, wenn Festwert GRP_READ_SATxx aktiv ist (mit „xx“ als Nummer des Satelliten). Hintergrund: zur Gruppe können sehr viele **Objekt** zugeordnet sein und eine entsprechend große Datenmenge in Satelliten relevant sein. Es ist also je Satellit zu entscheiden, ob Daten bei Darstellung zur Gruppe überhaupt erforderlich sind.

3.5.2 Changing the object type (cross object type Tree)

The Allevo Tree can also contain objects with different object types. This makes it possible to start planning via a cost center and then to see the assigned orders or WBS elements in the Tree.

This assignment is activated via constants. The basis is all objects, which are entered with an active status in the layouts of the same name. For details, see documentation on constant OBJ_TREE_WITH_OR for the extension for orders. Individual assignments can also be implemented via a customer-created BAdI.

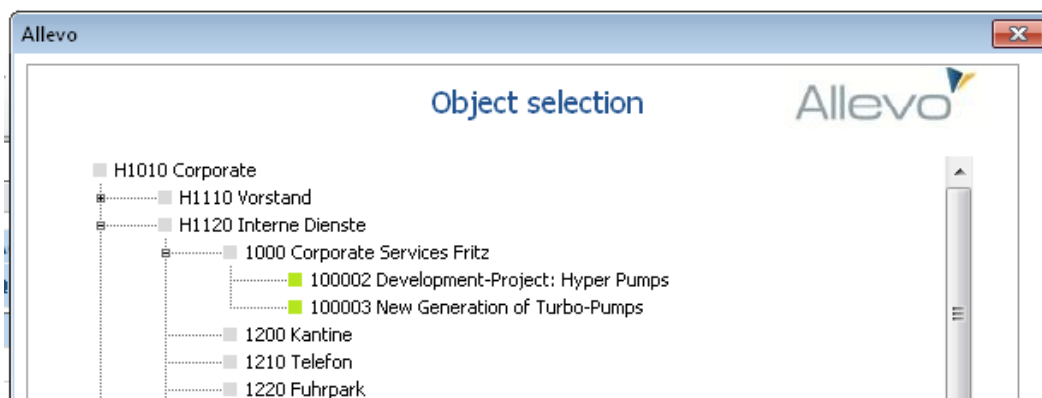


Figure 3.13: Tree with a change of the object type

The figure above shows an example with two orders assigned to cost center 1000. They are automatically marked with the relevant planning level.

When selecting a subordinate object (in our example above, an order), the settings and constants saved in the layout for the start object always apply (here, for example for the cost center). All relevant settings must be saved there.

Note:	There are exceptions to this rule, especially if a setting for the other object type cannot be correctly saved.
--------------	---

Example: In a profit center, the record type is relevant (1-character), for cost center or order, the value type is relevant (2-character).

Please coordinate these requirements with our support team if necessary.

3.5.3 Relevant constants for panel/Tree

The following constants are relevant when working with panel/Tree:

- The constant OBJ_SEL_IN_PANEL activates the display of the ALV object hierarchy. This function is primarily for working in single and MO-modes (when using the Tree, only single objects are usually selected). This enables an extended selection screen for selecting and entry group or multiple selection when entering via a classic Allevo transaction.
- A filter can be placed on the Tree so that, for example, only objects with a valid Allevo status are listed, or only those for which the user has the necessary SAP authorizations (see the options for the constant USER_ELEMENTS)
- The Tree structure can contain objects that do not correspond to the start object type. The assignment can be controlled via the constant OBJ_TREE_WITH_OR (see section above).
- Whether Allevo is currently working in reporting or planning mode can also be useful as information on the Excel-side (e.g., for a different display of data depending on the respective mode). The constant MAP_FIELDxx can transfer this information from SAP to Excel.
- In planning mode, Allevo asks whether the current data from Excel is to be saved whenever there is an object change in the Tree (currently still without check, whether anything actually changed in Excel). The contents of the query can be configured via BEENDEN_TEXT or can also be switched off completely. So, the behavior is similar to when you leave the planning with the classic call types, except that the saving to SAP is queried by default when changes are made in the Tree (instead of saving the Excel file).
- If a group in the Tree is used as an entry for further MultiObject functions (e.g., for MOD), it is possible that subordinate groups are entered as “object” in the Master. To read the cumulated reference data for such groups, the constant MULTI_WITH_GROUPS must also be set. The constant GRP_READ_SATxx is necessary for reading the relevant satellite data.

In earlier versions the constant OBJ_SEL_IN_EXCEL activated the data allocation for the VBA Tree. For compatibility reasons with earlier versions of the Allevo Master, this constant is still available for use. You are able to call such an Allevo Master (Master up to Allevo 3.4 with VBA Tree). The constant cannot be used together with OBJ_SEL_IN_PANEL.

3.6 Central entry into Allevo planning (Ta /ALLEVO/TAKEOFF)

The transaction /ALLEVO/TAKEOFF is independent of the object type and no longer differentiates from single, MultiPage and MultiObject-modes. It offers more flexibility. For object selection and all other characteristics, two tools are available:

1. The inplace panel with the object hierarchy and Agenda of the user

2. A universal popup for object selection (also described in the previous section)
The functions are very similar to ABC, only in this case they work with inplace-mode.

When calling via these transactions, a change is possible between layouts and object types for which the planner is authorized. Special features:

- For these transactions, Allevo must decide in which mode a Master should be called (single, MP or MO). The setting can be set for the master data in the respective layout (field ABC mode).
- For an object change, Allevo must decide if the Master should be reloaded (e.g., when changing to a different layout) or if the data should be deleted in the current layout. The latter uses the same reset function in Excel as is used for the VBA Tree.
- Allevo can deal with combinations of Tree and MultiPage/MOD (if such a combination is at all helpful). For example, a group in the Tree can be used as the basis for calling an MP Allevo.
- If no Agenda is saved for the user, a popup automatically appears to select the layout and object.

Note:	In the popup for object selection, all fields for object selection can be hidden individually (see constant FLEX_SCREEN_FIELDS).
	Use case: The entry into Allevo planning should only be made via defined object groups (for process reasons), but not through the selection of individual objects or multiple selection.

3.7 SAP Planning objects in Allevo (CO Object types)

Allevo supports the established SAP object types for CO planning as well as an Allevo specific object type (see next section). Different planning scenarios can be combined using these object types. Supported SAP object types include:

KS	Cost center (0101)
OR	Order (0103)
PR	Project / WBS elements (0110)
PC	Profit center (0106)
BP	Business process (0107)

The equivalent set class, for which Allevo requires for individual functions is shown in parentheses (for example, when saving data in satellite tables. Allevo automatically takes care of any necessary conversions.

Often, information from the master record of an object should be displayed in Allevo planning (e.g., descriptions, assigned organizational levels). For this reason, Allevo offers a number of parameters that can transfer freely defined SAP field contents to Excel (see constant MAP_FIELDxx).

Note:	For object type BP = Business Process, individual Allevo objects are not yet available (e.g., Price/Capacity planning). Therefore, please check the requirements in the implementation project.
--------------	---

3.8 Locks for planning objects / satellites

Each time Allevo is called, the selected start object is locked for other Allevo users. Allevo uses the standard SAP function for lock objects (see transaction SM12 or the function "show locked objects" in Allevo Cockpit). For MultiObject transactions, this logic cannot apply because the list of maintained

objects is often determined via functions on the Excel side or (depending on the start object) are e.g., taken from ProCED. In this case, only the start object can be directly locked via SM12. To work around this limitation, Allevo uses an additional Allevo-specific protocol table /KERN/IPP_MOLOCK when working in MO mode:

- This log contains an entry for each called combination of planning object and cost element and is created directly after reading reference data.
- If reference data for one of these combinations is also read by another user, Allevo will send an appropriate warning message: the entire planning will NOT be blocked. The user has to decide for himself whether he wants to continue working or not.
- In addition, the log in /KERN/IPP_MOLOCK is checked for the start objects of subsequent users. A warning may also appear there (only work with the same representative object remains locked). These functions only apply when calling planning: If the layout access control prevents planning (only "Read" active), or if the call is made via the reporting transaction, Allevo waives these locks. Multiple users can start with the same object selection.

Note:	<p>In special cases, the Allevo log / locking are not desired. In such cases, the constant MO_LOCK_OFF can be useful (if necessary, you can even remove the SM12 lock).</p> <p>Depending on the selection of the start object, it would even be possible to edit and maintain an object at the same time over different layouts as long as these layouts differ in their cost elements.</p>
--------------	---

See also the notes on Allevo authorization checks and constant AUTH_PLAN_START.

Call SAP planning transactions in parallel

If data are also created via other SAP planning transactions in parallel to Allevo, an Allevo query regarding locks is only made when plan data are saved, because these checks can only be made via the currently called SAP BAPI.

If you are using Allevo, we generally suggest not creating plan data in parallel via other transactions.

Satellite data

Satellite tables for which changes are currently being made in the "Shuttle" module are also considered as lock objects in SM12. If processing of such a satellite via the Allevo Master is simultaneously started, the user receives a warning again. The warning also appears in the reverse case: when Shuttle is started and the selected satellite table is already being processed by other users (via an Allevo planning transaction or via other Shuttle calls).

3.9 Messages during program execution

When executing planning functions, Allevo provides a detailed log or error messages regarding errors that occurred during the transfer of plan data, depending on the situation. By using certain constants, you can specify the level of detail relayed in these messages:

- MESSAGE_LEVEL controls the level of detail shown in the execution log
- NO_MULTI_LIST controls the display of the MultiPage object list
- SORT_OBJECTS changes the sorting of the Excel sheets
- MO_CLOSED deactivates MultiObject warning messages for closed objects

- MO_LOCK_OFF deactivates MultiObject and SM12 locks and their display.
- NO_MO_COOBJ_LIST controls the MultiObject analysis sheet for authorization checks.
- NO_KSTAR_LIST controls the analysis sheet for authorization checks for cost elements.
- STATUS_READ_ALL deal with objects without explicit status information.
- SUPPRESS_EMPTYWARNING suppress warnings on objects without plan data (e.g., when importing from offline files)
- WARNUNG_PLANEN defines the process when planning without reading reference data.
- WARNUNG_VORLAGE warning notes for status 3

3.10 Constants for program execution

In the last sections, we mentioned many different constants that are helpful for executing Allevo planning transactions. Here is an overview (for a list of messages, see the previous section):

- USER_ELEMENTS adjusts display of F4 object selection, filter for list in Tree
- TEXT_OBJTYPE change text with the description for the start object.
- STATUS_READ_ALL deal with objects without explicit status information
- MULTI_WITHCLOSED respect closed objects when transferring objects
- SORT_OBJECTS sorting sheets in MultiPage-mode
- PROGRESS_POPUP expanded progress display
- PROGRESS_TIME time settings for the standard progress display
- DYN_KSTAR_SAT dynamic cost element list in MO
- DYN_KSTAR_VALUES restrict to selection of cost elements when working with DYN_KSTAR_SAT
- PROJ_HIDE_FIELD show/hide selection fields for projects/WBS elements
- FLEX_VERSION flexible selection of versions
- TEXT_VERSION customize text on the Allevo start screen for “planning version”
- FLEX_YEAR flexible selection for planning year
- MULTI_WITH_GROUPS read and plan data for object groups
- OBJ_SEL_IN_EXCEL object selection on the Excel side via Tree (obsolete)
- OBJ_SEL_IN_PANEL object selection via Tree in inplace panel
- OBJ_TREE_WITH_xx cross object type Tree
- FLEX_SCREEN_FIELDS individually hide fields for object selection in popup
- BEENDEN_TEXT set up popup when leaving planning (also of object selection in Tree)

4 Allevo Studio

4.1 Functional overview

Depending on the customer requirements, Allevo can map complex parts of the planning process. Some examples of different steps include:

- Basic setup and subsequent adaptations (Customizing) Grundeinrichtung und nachträgliche Anpassungen (Customizing).
- Cyclical adaptations, such as monthly or yearly changes
- Execution of individual steps during planning

Which steps are necessary for each case can be described using the Allevo Process Studio, which has the following basic functions:

- Displaying the process steps in a hierarchical form
- Customer specific documentation of each step via an HTML text-editor with the option to export as a complete documentation.
- Integration of all Allevo functions and calling familiar SAP transactions
- Comprehensible execution of process steps using the “Completed” status

4.2 Calling and processing function

The Allevo Process Studio is called via transaction /ALLEVO/STUDIO or the corresponding entry in the Allevo Cockpit. The figure below shows the processing screen using the example of an investment plan:

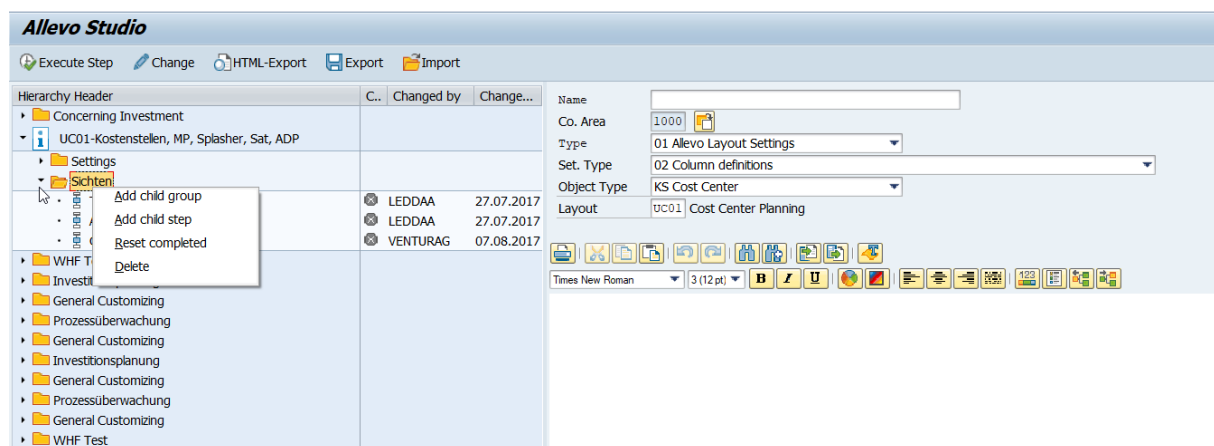


Figure 4.1: Allevo Process Studio

The Tree structure on the left can consist of any number of hierarchy levels; here we differentiate two basic functions:

- Groups for the organizational overview and
- Execution steps for the actual execution of tasks (calling transactions, etc.). The function [Execute] only has one meaning in this case.

Both elements (groups and steps) are created using the context menu of the Tree. Drag & drop functions can be used to move or copy entries at a later time.

Groups and steps have both a short description and an HTML long text description: both are saved in the current logon language. Both elements can explicitly be assigned to one controlling area only (otherwise the default controlling area set by the user is assigned).

Groups

Groups are classified via categories, which should also be set up in a customer specific manner. These categories make it possible to describe the organizational framework of the tasks (e.g., Customizing, regular adaptations....). The creation of categories is usually the first step when setting up Allevo Studio (see details below).

Steps

Steps are in this case the actual execution steps: they can be assigned to any level within a hierarchy and carry a processing status (see notes below for info on the properties of the “Complete” status).

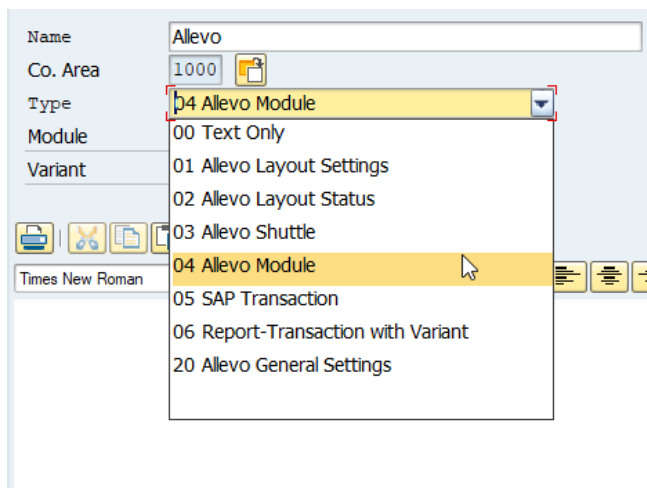


Figure 4.2: Allevo Process Studio

Depending on the desired function, different execution types are available for selection:

- “Text only” describes a step in which no further SAP internal functions are stored and can, for example, describe a task that is to be completed outside of the SAP system, (e.g., preparation of Excel data).
- For calling Allevo internal functions, different execution types are available. This makes it possible, for example, to jump directly to the settings for a predefined layout (depending on the execution type additional input fields will appear on the screen). With the Shuttle, on the other hand, the default object type and satellite apply.
- The Allevo Studio makes it possible to integrate any SAP transaction. For report transactions, the variant can optionally be specified.

Important: Via the button |Execute step| in Allevo Studio, the entered functions/transactions are only called with the respective start screen (e.g., with predefinition of parameters via a variant). The stored functions/transactions are therefore NOT directly executed.

Drag & drop

In Allevo Studio, the display of the nodes in the Tree should also represent the sequence with which the tasks are to be completed (there is no internal sorting). The sequence of the nodes or their assignment within groups can be changed with simple mouse functions (move, copy, delete, etc.). This also applies if additional branches are added via an import function.

4.3 Create and assign long text descriptions

A long text description can be entered per group and step. Then description is then saved internally in HTML format (in the logon language). The |Change| button switches between the viewing mode and the editing functions.

For creating the HTML texts, Allevo uses the so-called “BTF-Editor” in the SAP system: here, the basic editing functions are available with different font types, formatting options, paragraphs, lists and the option of inserting graphics. The texts can be exported / imported or printed. Links from the external HTML pages can also be inserted.

Note:	The BTF-Editore is from a technical standpoint a part of the SAP GUI delivery (“SAPBTFEditor.dll”). The functions are therefore dependent on the respective GUI version; corresponding SAP notes can be found via component BC-SRV-BTF.
--------------	---

For displaying the HTML pages, Allevo uses the SAP internal HTML viewer without additional controlling functions; when calling a link, Allevo automatically opens the default internet browser installed on the local PC.

Allevo also provides a superordinate function to transfer texts from all nodes within a group to the local browser for further processing: see button |HTML-Export|. Further functions are then available (for example, printing the documentation of an Allevo project).

4.4 Complete steps

In order to make the current processing status transparent, each step can be set to “Completed” (via the context menu): in the Tree display, the icon in the “Completed” column changes. The user and the date modified are also stored there.


The function “Completed reset” can be executed for each branch in the Tree display (e.g., when starting a new planning session). If desired, this can even be the top most branch.

4.5 Setting up categories for groups

Groups are classified by categories, which make it possible to describe the organizational framework (e.g., Customizing, regular adaptations...). The creation of categories is usually the first step when setting up Allevo Studio; the function can be called in Allevo Studio via Menu “Studio >> Categories for Group” or transaction ALLEVO/ST_GCAT.

Allevo Table Maintenance:

Upload Download Check






Group Cat.	ID	Language Key	Text
SE		DE	Schedule
UC		DE	Use Case
01		EN	Operating

Figure 4.3: Allevo Studio with categories for groups

The two-character ID of the category can be chosen freely – they have no predefined function. The icon is later transferred to the Tree display. Entries should be made for each language to be used.

5 Allevo-specific object type ("Allevo object")

The Allevo-specific object type "Allevo object" allows planning processes to be solved completely independently of the usual SAP objects. For this object type, Allevo's own master data are maintained, with each master record being assigned to a separate object category.

Allevo objects can also be joined in a group, similarly to cost center groups. However, any other SAP object types can also be included in these groups, for example, cost centers and cost center groups. This results in powerful functions for cross-object type work with Allevo.

Possible applications for the Allevo object:

- Connection of interface functions via satellites (for example for the CO/PA interface or creation of FI documents). In earlier versions of Allevo, real SAP objects (e.g., cost centers) had to be used for this.
- Preliminary planning for objects that are not yet available in SAP at the desired time (e.g., an order or project) with subsequent transfer of plan data to real SAP objects.
- Relaxed planning/calculation independent of SAP rules, with data storage in satellite tables or other Allevo-specific tables (see also Section 11.10).
- Starting point for cross-object type planning (e.g., representative for organizational units within the company) providing suitable objects in the Allevo planning screen.
- Starting point for specific reporting functions via CO-independent areas (for example, sales controlling by responsible employees). In this context, additional Allevo functions for providing data via satellites may also be helpful.

5.1 Functional overview

Depending on the application (see above), the Allevo object can also have different contents, for example:

- The name of an SAP user, who should execute a specific Allevo function.
- Planning objects that are not in the system
- Object levels that are not available as objects in SAP (e.g., company code in the case of FI planning)
- Existing SAP objects (e.g., internal orders...), that should be further specified for Allevo.

Accordingly, there are some specific features of the Allevo object:

- Own specific master data table
- "KX" is used as the ID of the object type. Accordingly, the starting transaction for single object planning is /ALLEVO/KX, and the set class is "KERN"
- Additional classification by object category depending on the application (see above, e.g., representative of a provisional order or as a user-specific entry).
- Within an Allevo layout, only one object category should be used (with respect to the entry for the constant VIRT_OBJECT_CAT). This category controls the interface when calling the relevant Allevo planning transaction.

Via the constant, the authorization can also be assigned for creating a new Allevo object directly from the start screen for planning. In this case: the user enters an invalid object number, a security query appears for the creation of the new object, and then a jump is made to the entry of master data for the Allevo object.

- Organizational assignment in the master record for the Allevo object is transferred to Excel as usual, and is then available for further functions (e.g., the company code in CC_BUKRS as the basis for functions in balance sheet planning).
- In the master record of the Allevo object, an actual CO object can be assigned and a reference to the "real" SAP world can be established.

Important: Data for the Allevo object KX, with the settings presented here, are only stored in Allevo-specific tables, i.e. in the namespace /KERN/. There is no transfer to SAP functions or tables.

As a result, the entered plan data are not available in SAP reports.

There are certain Allevo functions also cannot handle Allevo objects (e.g., in ProCED). Such exceptions also exist for functionalities in the Allevo Master. For example, there is no support for LAP rules & row definitions M & N. The necessary functional scope should therefore be defined in the implementation project.

5.2 Master data for Allevo objects

You can navigate to the master data maintenance for an Allevo object via the Cockpit, the menu of the respective planning transaction, or directly via transaction /ALLEVO/OBJ_MD.

Figure 5.1: Master record for Allevo object

The following properties can be applied to a master record (only apply to the current controlling area, see Figure 5.1):

- For the object number, it is intended only to use external number assignment (i.e. manual entry).
- Allevo object description
- Assigning an object category is recommended. One example effect: When starting the planning transaction, the F4-value help only shows the objects of those categories that are set up in the current layout (see settings below).
- Via "locked", an object can be temporarily locked for processing in Allevo (it no longer appears in status management).
- The currency type is transferred to Excel and used as the object currency (for planning and reading).
- The company code is transferred to Excel and can then be used, for example, during the implementation of FP.
- The assigned profit center is treated as a cost center, and is thus also transferred to Excel (this is relevant when planning is done with profit center integration).
- Further organizational assignments (business area, functional area and segment) currently only have an informational function, however, they can be very useful for customer-specific applications (see note below).
- A "Responsible user" has the same function as in the master record for cost centers (e.g. transfer to Allevo Master and evaluation in the constant USER_ELEMENTS)
- Comments are optional and can be used to provide explanatory notes to an object.

Allevo makes it possible to establish a reference to a real SAP object, allowing the transfer of plan data to a cost center or internal order (copy). This function is activated via the flag "SAP transfer". The relevant SAP object type and the planning object must be entered. When the transfer function is active, all plan data are also saved to the stored SAP object (using the usual SAP BAPIs).

Note: All entries and organizational assignments from the master record are also available in Excel via the constant MAP_FIELDS.

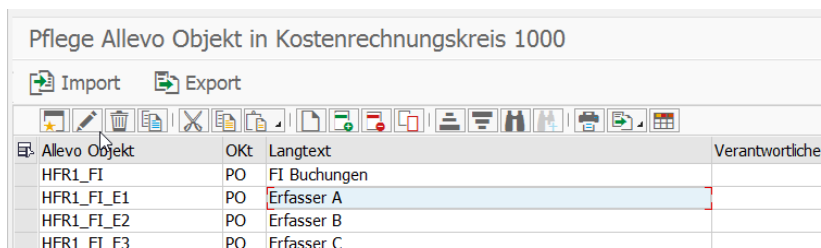
This can be useful if the Allevo object is used as a representative object for an organizational unit in the SAP system (e.g., representative of a company code in order to allow for higher level functions in planning and reporting).

The additional information in the master record may also be helpful for customer-specific requirements, which should be realized via BAdI (e.g., as additional filters).

The master data for Allevo objects are saved in the table /KERN/IPPVIRTOBJ.

5.2.1 Allevo Objekte über ALV Liste anzeigen / anpassen

Im Einstiegsbild der Transaktion /ALLEVO/OBJ_MD öffnet Button „Objektliste“ eine ALV-Liste aller aktuelle hinterlegten Allevo Objekte.



Allevo Objekt	OKT	Langtext	Verantwortlicher
HFR1_FI	PO	FI Buchungen	
HFR1_FI_E1	PO	Erfasser A	
HFR1_FI_E2	PO	Erfasser B	
HFR1_FI_E3	PO	Erfasser C	

Figure 5.1: Allevo Objekt über ALV Grid eingeben

Hier sind auch die üblichen Import- und Export-Funktionen über Textdatei hinterlegt (z.B. für Kopie zwischen verschiedenen SAP Systemen).

In der Symbolleiste zum ALV Grid erlaubt das zweite Symbol eine Umschaltung in den Editiermodus. Damit stehen die gängigen ALV-Funktionen auch Eingaben zur Verfügung (incl. Copy&Paste z.B. auch Excel Listen).

5.3 Properties of object categories

The object category makes it possible to use Allevo objects for different use cases (see the list below); the following specifications are currently stored:

- A three-character ID designates the object category.
- The columns "Comments" and "Long text" contain a general description without any other controlling functions.
- The "description" of the object category is transferred from the start screen of the Allevo planning transaction.

In order to handle only the Allevo objects of a particular category in a layout, the constant VIRT_OBJECT_CAT must be set.

5.4 Groups for the Allevo-specific object type (hierarchy)

Allevo objects can be put into groups similar to cost center groups. However, these groups can also contain any SAP object types, e.g., cost centers or even cost center groups. This results in powerful functions for cross-object type work using Allevo.

Note: Groups can be especially useful for selecting planning objects via the Tree. In the medium term, further functions should follow, especially those for working in MultiObject-mode (e.g., when starting via MOD).

You can access the maintenance of Allevo object groups/hierarchy via the Cockpit or via the master data maintenance for the Allevo object. It can also be accessed via the transaction /AL-LEVO/OBJ_GROUP.

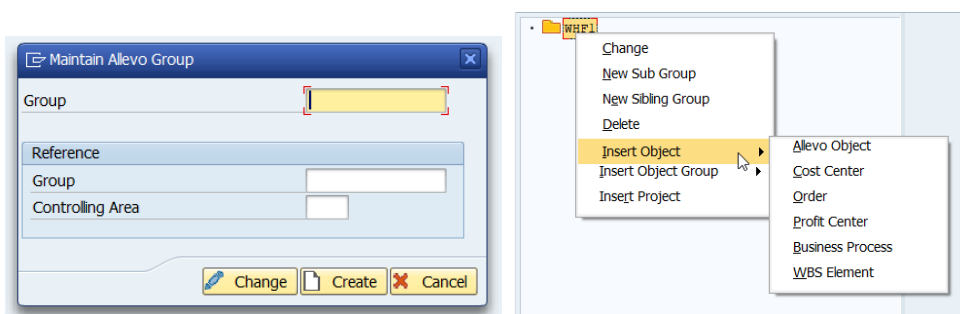


Figure 5.3: Entry to the maintenance of Allevo object groups

Groups for the Allevo object are assigned to the current controlling area. A group can also be created with respect to an already existing group (only makes sense in special cases, e.g., if a group is to be copied from a different controlling area). The group field on the start screen can also be left empty: in this case Allevo creates a hierarchy for the current controlling area. As a result, the top node in the hierarchy is called "Controlling area xxxx" and cannot be changed.

An Allevo object group can create any sort of hierarchy over Allevo objects and other CO object types that are relevant for Allevo planning. The integration of a subordinate group can take place in the following ways (Figure 5.):

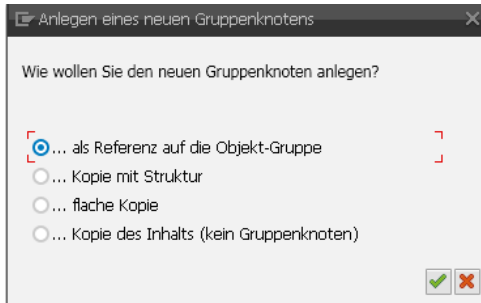


Figure 5.4: Allevo object group: integration of subordinate groups

Depending on the option, either a copy of the contents is created, or a reference to the original group is included. In the latter case, changes to the contents of a cost center group are automatically transferred to the Allevo group.

Each group can be described in the Allevo hierarchy using short and long text descriptions.

Groups are available for the following Allevo functions:

- Starting via an Allevo object in planning and reporting
- Allevo ABC (group list for Allevo objects)
- Object groups (1:n) for Allevo objects
- Allevo Master of the object group for Allevo objects
- Tree for Allevo objects (ABC and inplace, but without projects)
- Allevo authorization for Allevo objects
- Constants READ_GROUPS_FROM_SAP and MULTI_WITH_GROUPS
- Status management for Allevo objects
- MOD Allevo objects
- Shuttle

The cross-object type features are not applicable for all functions. For example, projects cannot be displayed as part of a group in the Allevo Tree (inplace or ABC). If necessary, adjust the contents in the implementation project.

5.5 Allevo object and the display of actuals

For various reasons, an Allevo object does not have its own actuals data. It may be helpful, however, to access data from existing SAP objects. Usually, this application will be customized according to customer-specific requirements; The data transfer therefore assumes a customer-specific report or BAdI.

Example: The Allevo object for long term planning is representative of a group of profit centers. In this case, the report for transferring actuals data would also aggregate to the group, and these data would then be transferred to the /KERN/ACOSP table.

Depending on the situation, an Allevo object can be helpful for specific reporting applications. In this case, actuals data can be provided via satellites (see functions for data transfer in Section 14.13).

5.6 Save plan data to an Allevo object

The planning process for Allevo objects is based on familiar CO functions: cost element groups are stored for 1:n functions (no account groups). The usual planning functions are supported for this purpose (i.e. cost elements, statistical key figures, activity types).

Note:	<p>The familiar CO vocabulary is used. In some cases, the Allevo object offers additional freedom: for example, a "cost element" does not have to be stored in the system as a planning element. Instead, a freely defined entry can be saved from Excel (e.g., as a collection place for unintended fixed costs or a freely defined group)</p> <p>Disadvantage: Errors arising from misspelling, for example, may not be immediately recognized.</p>
--------------	---

Plan data for an Allevo object are automatically written to the Allevo-specific totals table, in the same way as it can be addressed via the constant USE_ALLEVO_TABLES (e.g., /KERN/ACOSP)

Data can be copied between different planning versions, analogous to the functions in SAP transaction KP97 (transaction /ALLEVO/COPY_ACOSX).

Optionally, a switch to another CO object or profit center can be made in a MultiObject master. If necessary, a layout with the same name must also be created for A profit center in order to, for example, allow for the dissolving of account groups.

6 Program settings for Allevo

6.1 Functional overview of Allevo settings

Via the |Settings| menu, you can view the different parameters of the system. Here, you can see the years and versions from which the data was read, for which years and versions the data should be planned, and which of the numerous additional functions and variants of the planning workflow are being used.

Calling the settings menu is only possible for users in the “Allevo Administrator” authorization group.

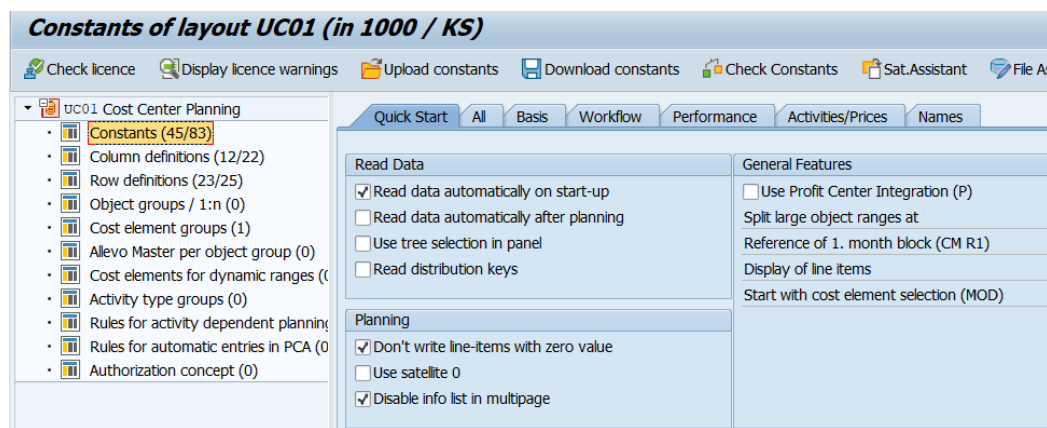


Figure 6.1: Overview of settings with the navigation Tree

When calling the settings menu, a navigation Tree is displayed that shows subordinate topics where different system parameters are summarized. Allevo settings always apply to a single controlling area, an object type (e.g., KS for cost center) and the selected planning layout. Central settings can be made in the *-layout. These settings are then automatically passed through to the current layout.

The numbers in parentheses for each branch on the left side of Figure 6.1 show where settings have already been made (where necessary for both the current layout and the superior *-layout). For each topic, check-routines are stored for checking the inputs. An overall test for all settings can be called from the Cockpit and is recommended after an Allevo update, in order to quickly react to any changes.

Allevo settings are not connected to SAP Customizing. Therefore, changes are not transferred or reported via SAP orders. Allevo settings can, however, be conveniently transferred to another SAP system using the download and upload functions (the transfer uses text files temporarily stored on the local PC).

Note:	You can find this function under Planning layout on the start screen. The upload/download can also be completed across modules via the transaction /ALLEVO/SET_UP_DOWN (see notes in Section 16).
--------------	---

6.2 Constants

6.2.1 Functional overview of constants

Allevo offers numerous constants that make it possible to influence program functions according to specific criteria (similar to Customizing in SAP). The constants can turn entire program functions on or off, or influence the way in which they function using additional attributes. Some examples:

- Using constants, the names of some Allevo buttons can be customized by the customer.
- Some constants influence the way in which Allevo reads the data from the SAP system and can be used for performance optimization.
- Because of the column and row definitions, Allevo is extremely flexible with regard to the design of the Excel planning interface (e.g., which data should be read and displayed). Using constants, the corresponding processing rules can be individually customized.

Due to the wide variety of possible settings, Allevo offers a “Quickstart”-screen with access to selected settings and a technical view of all stored constants.

The settings generally apply only to the current layout. Overall settings can be entered in the *-layout: in this way, the settings apply overall per controlling area and object type.

For certain settings, Allevo offers a global entry screen (e.g., for side calculation license numbers for assigning satellites).

6.2.2 Entry via “Quickstart”-screen

After calling the folder for constants, the following screen appears:

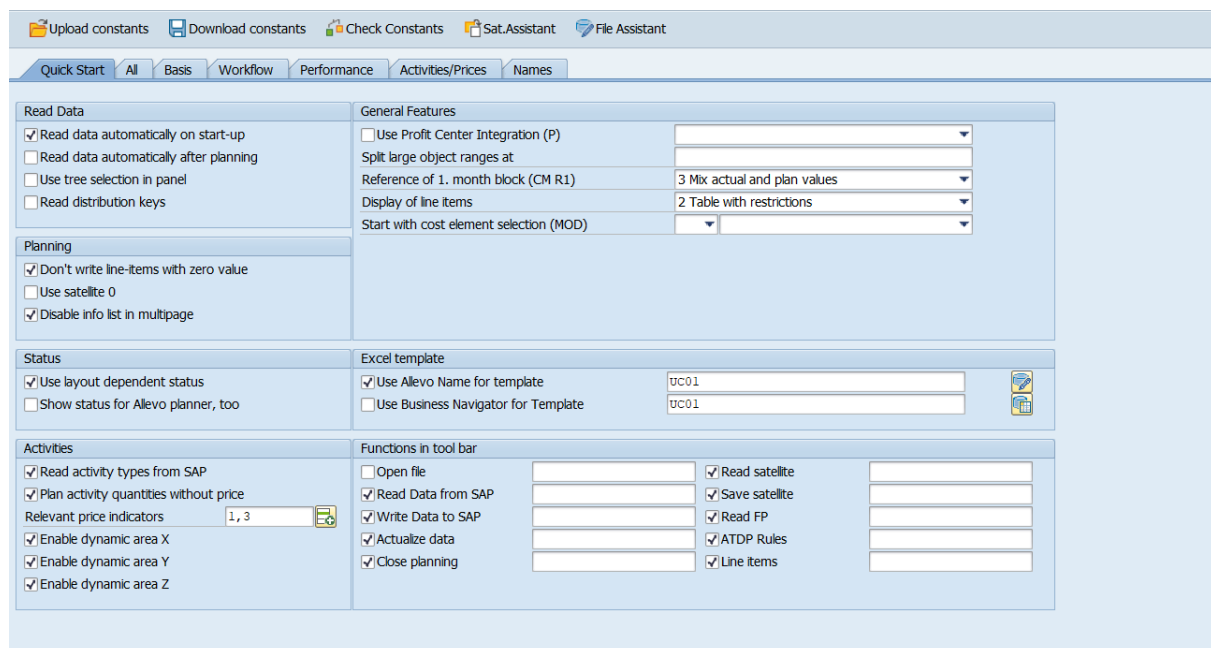


Figure 6.2: Quickstart for Allevo constants

6.2.5 Constants according to topic

Each newly added constant automatically receives a number, which on the one hand influences sorting and on the other hand makes it possible to assign a topic area, which is reflected in the descriptions on the tabs. The number allows for a rough classification into the following topic areas:

All	Alphabetically ordered list for all of the active constants for the current layout. The list also contains the constants from the *-layout that are relevant for program execution (colored gray).
Basis	Default settings, e.g., the registration of the license key and the general activation of the satellites used.
Workflow	Settings that control the workflow during the planning process.
Performance	Settings for improving the performance when using Allevo Multi (see Chapter 18)
Activity/Price	Setting for the display of prices.
Names	Distribution of the names of buttons and satellite tables.

6.2.6 Create a new constant

You can add a new constant with the help of the ALV functions in the icon toolbar.

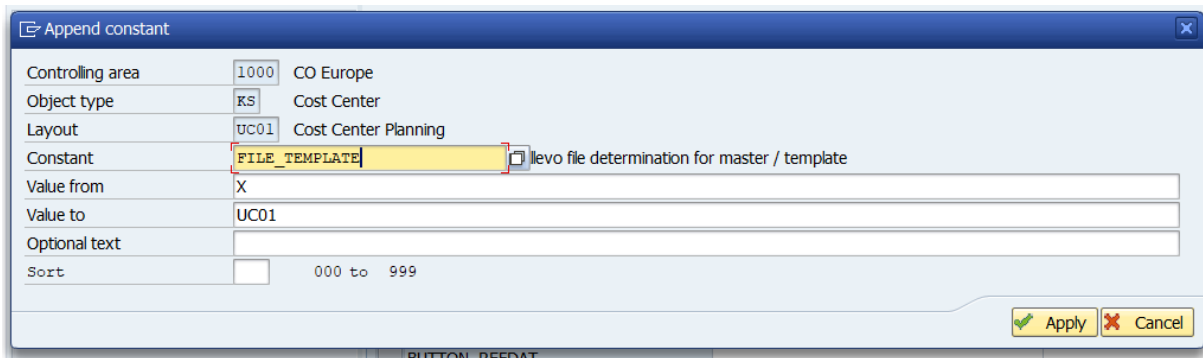


Figure 6.4: Creating or editing an Allevo constant

In the entry field “constant”, the F4-value help for all Allevo constants can be called. In principle, however, this is a field for free text input: the name does not have to be stored in the F4-help.

Note: This function is useful for customer-specific expansions, where processes are also to be controlled via constant parameters (e.g., activation of a BAdI function). Constants are usually used in the Z or Y namespace.

The entry field “Sort” determines the sequence in which the constants should appear on the tab. If no number is entered here, Allevo uses an internal suggestion process so that all constants with descriptions for buttons, for example, automatically show up on the “Names” tab.

In the “Optional Text” entry field, a description for the constant can be entered. Where necessary, be sure to delete any old entries in this field to avoid confusion.

6.2.7 Search for constants during program execution

During program execution, Allevo checks to see if a constant is set and adjusts the execution accordingly. Searching for a constant is carried out according to the following rule:

- If a constant is stored for the current layout, the constant characteristics are transferred
- If it is not found there, Allevo then searches in the *-layout

If a function is only required in a single layout, this should be defined directly in the planning layout where it should be applied. If a function should apply to all layouts of an object type for the current controlling area, the entry should preferably be made in the *-layout.

However, there are some “exceptions”, i.e. constants that Allevo only expects in the *-layout and that are only evaluated there. Entries into specific layouts are ignored for these constants. Some examples include (these constants are ignored during up/download):

- License number (LIC_KEY)
- General activation of the RFC destination (RFC_DEST)
- Activation of the extended rights check (LIST_RIGHT_CHECK)

The constant ACTIVE_SAT also has a special significance:

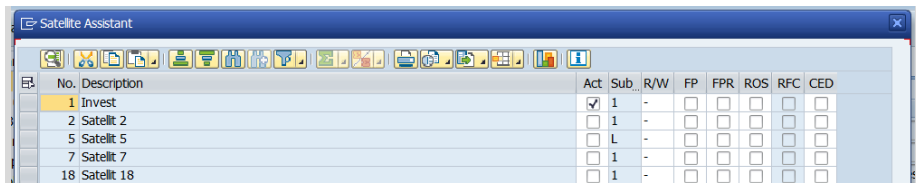
- On the level of the *-planning layout, it is determined which satellites can be used in the controlling area.
- On the level of a special planning layout, the maximum number of satellites available is determined by those that are active in the *-planning layout

The constant ACTIVE_SAT must therefore always be maintained in the *-planning layout.

6.2.8 Standard functions for the entry of constants

On the input screen for constants, the following processing functions are available via the toolbar:

Check license	Shows the contents of the current license (number of cost centers etc.)
View license log	Shows the log for analyzing license violations
Upload constants	Upload constants from a text file (see also Section 6.12)
Download constants	Save constants to a text file; all or only a selection of constants can be saved (see also Section 6.12)
Check constants	This check shows those constants that have invalid contents or are defined on the wrong level (some constants can only be entered in the *-layout). This check is especially useful after an Allevo update.
Sat. Assistant	There are some constants that must be set as a parameter for every satellite (e.g. the general activation of a satellite via ACTIVE_SAT). For these parameters, a binomial sequence of 0 or 1 is entered in a text field. The Satellite Assistant allows you to maintain these specific parameters in a central screen. This keeps the maintenance clear even when many satellites are in use.



No.	Description	Act	Sub	R/W	FP	FPR	ROS	RFC	CED
1	Invest	<input checked="" type="checkbox"/>	1	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Satellit 2	<input type="checkbox"/>	1	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Satellit 5	<input type="checkbox"/>	L	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Satellit 7	<input type="checkbox"/>	1	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Satellit 18	<input type="checkbox"/>	1	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Parameters in the Satellite Assistant:

- Description of the satellite; if no entry is made, the description stored centrally for the satellite is used (see Section 14.2)
- Assignment of the side calculation in which the satellite is to be used. Entries are only possible in the * -layout; The IDs of the side calculations that were created in the system (see also the next section) are available. The values are saved in constants such as ACTIVE_SAT.
- Act = activate satellite. This column is displayed only in the specified layout in order to activate a satellite for the current layout (entries are saved in the constant ACTIVE_SAT).
- L/P = determines satellite settings for reading and writing (see "Value to" for ACTIVE_SAT)
- FP = use satellite for "flexible-processing" (constant AVTIVE_FP, see the FP manual for details)
- FPR = use satellite for FP reading (constant ACTIVE_FP)
- ROS = change the reading sequence. Data from this satellite are read very early, or at least before the values for cost elements (see READ_ORDER_SAT). Data from the satellite can then be used to help determine the structure of an Allevo Master
- RFC = data are read and written via and RFC destination (see also the documentation for the constant RFC_DEST)
- CED = satellite for use with ProCED (such as ACT_PROCED)

File Assistant

There are a number of constants that organize the access to files that are necessary for working with Allevo (e.g. access to the Allevo Master or to data indices for offline planning). These constants usually begin with "FILE" in the name ID and use so-called "symbolic names" for access.

The assignment of these symbolic names to the actual path and file names in the network is done via the "File.Assistant" button. The functions are described in detail in Chapter 22.

6.2.9 Allevo licenses (modules and objects)

The licensing of Allevo carried out by means of a license key, which is to be entered for the constant LIC_KEY (for a general introduction, see Section 2.2): the general license key is in the "Value from" column.

Note: If, in addition to the Allevo standard functions, so-called side calculations are integrated into planning, an additional license key is required for the description of the content and the number of assigned satellites. These keys were introduced with Allevo 3.3; Starting with Allevo 3.4 the key is stored in the global constant LIC_KEY_SUBJECTS (see notes below).

A license key always applies to a specific object type. The key must always be entered in the *-layout and thus applies to the current controlling area. A license key can be issued in such a way that it can only be used in one controlling area (for example, to assign the number of planning objects for each controlling area individually).

Note: When saving a constant, Allevo checks whether additional controlling areas are set up for working with Allevo. When necessary, Allevo will query whether the license should be transferred to other controlling areas. Optionally, you can transfer the license only to those controlling areas that have the same “old” license key.

Subsequently, you can use the menu | Constants >> Transfer license to all KoKrs| to copy the license to all constants in the *-layout of other controlling areas.

If the constant LIC_KEY does not yet exist, Allevo automatically switches to “Workshop-mode” and saves the constant with the license key “WORKSHOP”. In this mode, all Allevo functions are available (999 objects are unlocked). However, the user may be reminded of the running test mode. This workshop mode is **NOT** available in a productive environment.

menu | Constants >> Transfer license to all KoKrs| allows you to copy the current license to any number of controlling areas (the controlling areas saved in the system are displayed as selection options). Where necessary, the LIC_KEY entry is automatically entered for the constants.

Display and check of license validity

The object license describes the maximum number of objects that can be planned in a year. A license violation occurs when more objects are planned via Allevo than are allowed with the license. The button | Check license| or the appropriate entry in the menu “constants” shows the extent of the currently entered license (e.g., unlocked modules): in particular, the number of licensed objects is shown in relation to the number of objects currently planned with Allevo (per year).

License Information		
	Licensed	Actual
Co. area (specific)	All	1000
Planning objects	99999 2017 ▼	13
HRC-Volume	9	
Main planning	<input checked="" type="checkbox"/>	
Reporting	<input checked="" type="checkbox"/>	
Offline planning	<input checked="" type="checkbox"/>	
CO-PA Interface	<input checked="" type="checkbox"/>	

Figure 6.5: Pop-up “License properties”

The figure above shows the number of currently planned objects (30) for the year 2016 as compared with the number of licensed objects (999). Process for determining data:

- The check is made with respect to the license entered for the current *-layout (in the example above, the entry is made via controlling area 1000).

- In a second step, Allevo determines all controlling areas for which the same license key is also entered and then calculates the sum of all objects. In the example above, the number is “30”. If the license key has been issued for a specific controlling area, then only this controlling area is considered.
- By default, the check is made according to the year as it is set in CX_WW. This can be changed in the popup.

The objects that are relevant during counting can be viewed in a detailed list that can be called from the popup with the header “License properties” (Figure 6.5) via F2 (“Details” icon):

- The first overview shows every relevant object (e.g., cost centers) according to the controlling area and the currently selected year (i.e. what the number “30” is based on in the figure above).
- You can break down this list to show results according to layout or current status using F8. This is the same view as when calling directly via transaction /KERN/IPPCHECKSTATUS.

Overviews regarding the number of active objects can also be called via status management (Section 7.7).

Display license log

In constant maintenance for the *-layout, the button |License log| shows a list of messages that have come up during license checks (e.g. a warning if a license is limited to a certain time period).

6.2.10 Allevo licenses for topics (side calculation planning)

Allevo supports working with individual side calculations, which can serve as a catch-all for auxiliary calculations, detail planning etc. Examples could include: Marketing campaigns, investment planning, personnel planning, or vehicle fleet planning. The implementation of topics is achieved via individual satellite tables in the SAP system. As a result, technically speaking, a side calculation is made up of the assignment of satellites to the desired side calculation. The definition of the subjects and the assignment of the satellites can be made via the menu “Constants >> Maintain Side Calculations”. The entries made here of a general nature: they are dependent on the controlling area and the object type.

Maintain side calculations according to Allevo licence:

Subject	Description	Active	Sat. Limit	Sat. Licens...	Sat. Used (...)
A	Leistungsarten-abhängige Planung	<input checked="" type="checkbox"/>	9	8	
C	CO-PA	<input checked="" type="checkbox"/>	9	8	1
D	Details zur Kostenartenplanung	<input checked="" type="checkbox"/>	9	8	
F	Fuhrpark	<input checked="" type="checkbox"/>	9	8	

Figure 6.6: Definition of side calculations and assignment of the number of satellites

Allevo contains a number of predefined topics that are available to the user. User-defined topics are also possible. For each side calculation, the number of satellites that are to contain plan data for the side calculation should be entered (right column in Figure 6.6).

Based on the list of the topics, the Satellite Assistant defines which satellite should be used for each side calculation. This is done in two steps:

- The entry in the *-layout determines which satellites should be actively used and to which side calculation planning they belong. In this step, it is also determined whether satellites should contain real plan data, or if they should only be read (the latter do not require a license).
- Only satellites that are entered in the *-layout can be activated for the respective named layout in the second step.

Note: If no side calculations have been created, a satellite can be activated with an entry of “1” in the column for the side calculation (entry in *-layout).

When saving the constants, Allevo checks the number of satellites per side calculation and compares these values to the license entered in the global constant LIC_KEY_SUBJECTS.

6.2.11 Global constants

For some select constants/settings Allevo offers a global input screen; e.g. to store the license number for side calculations (because the use of satellites must be comprehensive).

The global input screen can be called via the Cockpit menu or the transaction /ALLEVO/GLOB_CONST.

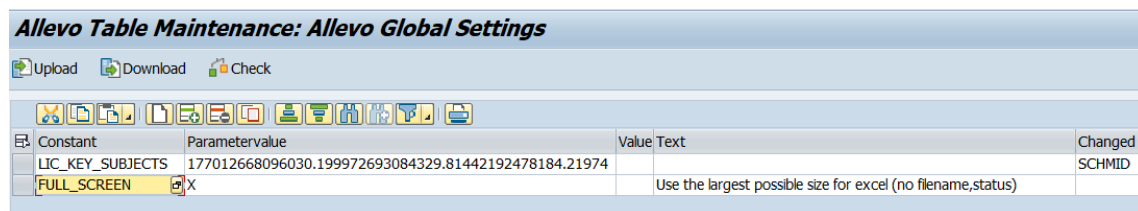


Figure 6.7: Enter global constants in the global input screen

If a global constant is explicitly set within a layout, it overrides the global entry.

6.3 Column definition (Column group)

6.3.1 Overview

The column definitions are an important element for controlling planning layouts. The column definitions maintained on the SAP-side create a bridge to the Excel planning layout and determine which years, periods, and versions should be addressed when reading and writing data from and to Excel (for this reason, the term “time range” is sometimes used).

ID	Code	Descript.	Text	V	fr	toV	frP	frYr	toP	toYr	M	2	P	W	Comm.f	ComY	Cov	S	P	D	Comm.3	CV3	CV3	F	Off fr-p	F	Off fr-yr	T	Off to-p	T	Off to-yr	
CM_R1	Plan			2	1	1	1	2014	12	2014	C																					
CM_R2	Plan			2	1	1	1	2015	12	2015	C																					
CM_RB1	Plan			2	3	3	1	2006	12	2006	C																					
CM_RB2	Plan			2	3	3	1	2007	12	2007	C																					
CM_W1	Plan			2	1	1	1	2014	12	2014	C																					
CM_W2	Plan			2	1	1	1	2015	12	2015	C																					
CM_RR	Actuals			1	0	0	1	2014	7	2014	C																					
CX_WW	Plan			2	1	1	1	2015	12	2015	C																					
CY_R1	Plan			2	0	0	1	2014	12	2014	C																					
CY_R2	Actuals			1	0	0	1	2013	12	2013	C																					
CY_R3	Actuals			1	0	0	1	2012	12	2012	C																					
CY_R99	Commitment			3	0	0	1	2013	12	2013	C																					
CY_RB1	Plan			2	3	3	1	2016	12	2016	C																					
CY_RB2	Plan			2	3	3	1	2017	12	2017	C																					
CY_RF1	Actuals			1	0	0	1	2004	12	2004	C																					
CY_RH1	Actuals			1	0	0	1	2011	12	2011	C																					
CY_RH2	Actuals			1	0	0	1	2002	12	2002	C																					
CY_RW	Plan			2	1	1	1	2015	12	2015	C																					
CY_W1	Plan			2	1	1	1	2014	12	2014	C																					
CY_WB1	Plan			2	3	3	1	2017	12	2017	C																					
CY_WB2	Plan			2	3	3	1	2018	12	2018	C																					
CY_WF1	Plan			2	1	1	1	2014	12	2014	C																					

Figure 6.8: Column definitions for reading and writing

By default, Allevo only provides the essential column definitions, e.g., for reading actuals data of the current year or for the specification of the planning year or planning version. The corresponding parameters are contained in the “Constant file” of Allevo. The import to the current layout can be carried out as with other settings (see Section 6.12). The default column definitions can be replicated and expanded as necessary.

As of Allevo 3.4., there is also a sort of “inheritance” of column definitions, i.e., the entries from the *-layout are passed to named layouts, if the corresponding ID is not also entered there (equivalent logic as with constants). Entries from the *-layout can only be changed there and not in the current layout. Entries from the *-layout are displayed with a different color: the 12 column definitions in the screenshot above are, however, all in the current layout.

Note:	It is possible to copy column definitions, even those entered in the *-layout. The copy is always created in the current layout and can have the same ID as the original entry from the *-layout (this results in subsequent individualization).
--------------	--

In some special cases, individual properties of the column definitions can be dynamically adjusted while working with Allevo. Examples:

- The constants FLEX_YEAR and FLEX_VERSION allow for “flexible version entry” for changing the year and / or version for the main planning year.
- In Allevo reporting, settings can be changed directly from the start screen
- Via the constant DYNAMIC_COLDEFS, changed settings are transferred from Excel (see also the section “Change column properties” in the Allevo & Excel manual). This makes it possible to access reference data from individual versions or time ranges directly from the planning interface.

For each column definition, specific restrictions to value type or activity can be stored.

Note:	<p>Usually, the characteristics of a column definition determine the contents of a column in an Excel sheet. The corresponding IDs can then be found in the header of an Excel column. In newer Allevo versions, this ID can also be in a row. In the current Allevo version, you can also visualize these IDs in rows (e.g. to view monthly blocks of planning and actuals values next to each other).</p> <p>In Excel, column definitions receive a suffix to define the contents of a cell with further detail (e.g., “Q” for quantities and “V” for values, possible entries are stored in the data element /KERN/IPPCOLTYPE). Further details for use in an Allevo Master are explained in the Allevo & Excel manual.</p>
--------------	--

6.3.2 Characteristics of a column definition

Column definitions have names that are used on the Excel side. For example, the column definition for reading actuals data for the current year is CX_RR. In Excel, a further extension is added to this name. This extension depends on what is entered in the column: values, quantities, or prices (further details can be found in the Allevo & Excel manual).

A column definition is usually made up of two characters on the front, an underscore “_” as a separator, and then at most three further characters for describing the meaning. The following naming conventions are standard:

- A “C” at the beginning stands for column. This denotes a column definition (as opposed to a cell or row definition).
- A “Y” as the second character denotes that the column definition is to be used for yearly values. An “M” as the second character, denotes monthly planning. An “X”, on the other hand, denotes that the column definition is relevant for both yearly and monthly planning.
- An “R” after the separation character “_” denotes that the column has a reading function, a “W” denotes a writing function.
- All other characters or numbers are simply used to create a unique code

Note:

The rules explained above refer to the Allevo standard for column definition names. In earlier program versions, the names had to be supplied with restrictions (for example, build using the logic CY_Rn or CM_Rn for reading, with “n” as a number between 1 and 99).

Today, names such as CY_RAA or CY_RP1 are possible, i.e. IDs that potentially provide more meaning. The validity of a name is always checked from the ABAP side.

With Allevo 3.5, the strict separation between reading and writing has been removed: nevertheless, it can be useful to retain the previous standards such as R and W (for read and write) in order to be able to recognize the meaning faster.

By clicking on the editing icon (✎) in the toolbar, the parameters for the currently selected column definition can be changed (see Figure 6.9)

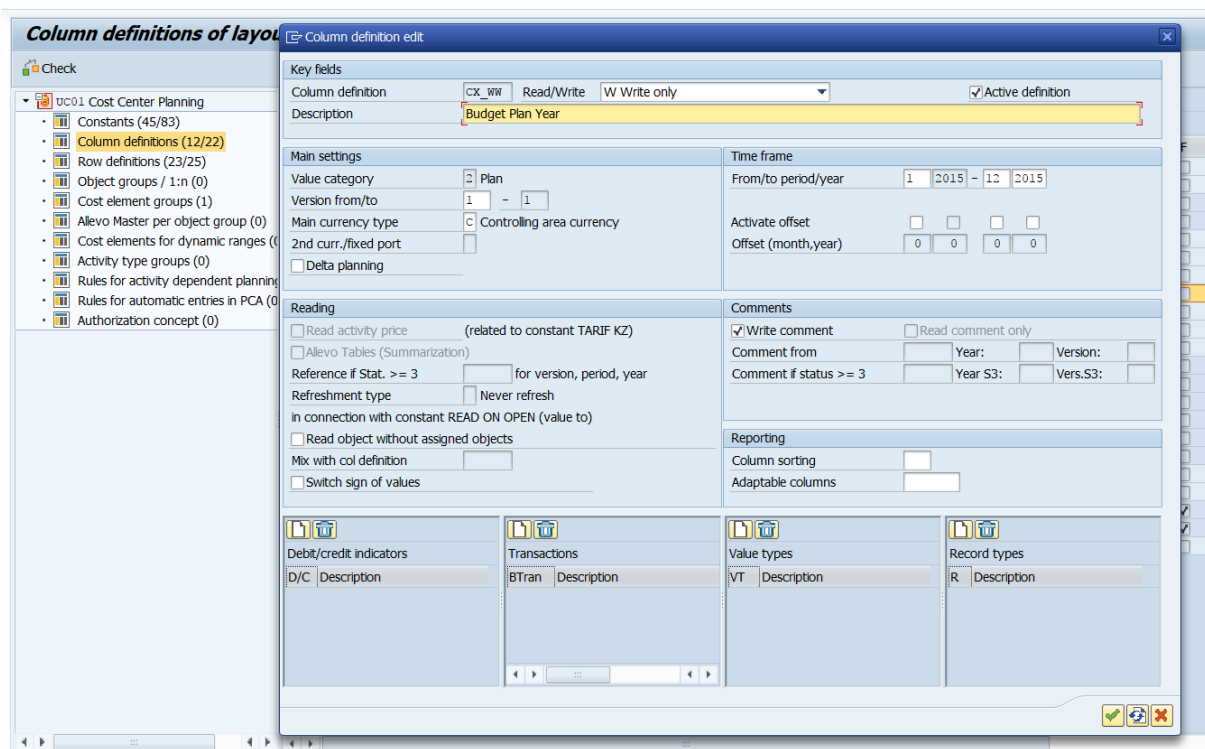


Figure 6.9: Settings for column definitions

A column definition can be set up specifically for reading, writing, or both. The last option is always recommended if entered data are to be reread for viewing in Excel (in earlier Allevo versions, two separate column definitions needed to be defined).

When reading reference data, Allevo can individually restrict the selection by transactions, value types, etc. (see Section 6.3.5 below). The following table describes other features in detail.

Name	Note
Column definition	Name of the column definition (see below for the naming conventions)
Read/Write	<p>R = read only</p> <p>W = write only</p> <p>X = read and write</p> <p>The last option is useful if the entered data are to be reread for viewing in Excel (only possible with the Balloon variant in the Allevo Master). Restrictions:</p> <ul style="list-style-type: none"> • Concrete assignment of planning year and version required • Reading via a second column definition is suppressed
Active Definition	Data can only be addressed by this column definition via the Allevo Master if this option is active (for example, can be used to temporarily disable column definitions).
Description	<p>Free text for a general description of the column definition.</p> <p>This text is shown on the reporting screen. Column headings in Excel are usually composed individually.</p>
Value category	Value categories are predefined groupings of SAP value types. Here it is determined which type of information should be processed in the column (plan data, actuals data, commitments, or budget; see also Section 6.3.4).
Version From/To	Indicates the versions from which data should be read. For write-columns, only a single version can be maintained.
Main currency	<p>Selection of the currency for which values should be displayed / processed. Options include (corresponding field groups in COSP/COSS in parentheses):</p> <p style="padding-left: 40px;">C = Controlling area currency (WKG)</p> <p style="padding-left: 40px;">O = Object currency (WOG)</p> <p style="padding-left: 40px;">T = Transaction currency (WTG)</p> <p>When using currency type "T", the currency key for primary costs can be predefined (see constant TRANS_CURRENCY).</p> <p>In profit center accounting, different names apply, and in addition, a fourth currency type "G" is possible (see the Allevo Profit Center manual for details). When using PC-integration with row definition P, the currency can also be defined via the constant PC_INT (see F1 documentation for the constant).</p>

Second currency/fixed portion	<p>When reading the data, a second value column can be created in Excel to display data in a second currency (via column suffix “_V2”, see Allevo & Excel manual)</p> <p>An entry of “F = fixed portion” permits the reading of fixed portions into the controlling area currency, as long as this information is available in the totals tables (COSP, COSS). In the case of actual-cost-splitting, these values are found under the value category 3 in the COSS table (also for primary costs). This requires a corresponding extension of the value types in the row and column definition.</p>
Delta planning	<p>Normally, planning is based on the principle that the last planned value represents the final planned value.</p> <p>If “delta planning” is activated, the rule is that the planning value already existing in the SAP system is supplemented by the new planning value. Please note that this approach requires precise organizational controlling of the planning processes.</p> <p>This setting is only relevant for write-columns.</p>
From/To period/year	<p>Specification of the periodicity for reading and writing. For writing columns, the To-Year must respect the From-Year.</p> <p>Allevo supports special periods 13 to 16 when reading actuals data:</p> <ul style="list-style-type: none"> • They are automatically included in the year value according to the specification in the column definition. • For monthly display in Excel, the data is transferred exactly according to the period. If necessary, additional columns must be created in Excel. In earlier Allevo versions, only 12 columns were supported in the Excel: there, Allevo would add the special periods to the value in period 12. <p>As of Version 3.4, special periods are also possible when reading and writing plan data. This function can be particularly helpful when storing plan data in the /KERN/ACOSx tables (e.g. when working with Allevo objects).</p> <p>Special periods for standard year planning need to be configured in SAP Customizing; a message from the BAPI draws attention to this (monthly planning only supports a maximum of 12 periods).</p> <p>Note: The constants FLEX_YEAR and FLEX_VERSION help Allevo to support so-called “flexible version entry”. In this case, the column definition is overwritten by the user’s current settings when planning is called. (see Section 3.2.7).</p> <p>When executing an Allevo transaction for reporting with reading of satellite data, the specifications for year and version can be copied from CX_RR to CX_RR (see details in section on Allevo reporting).</p>
Activate relative	<p>Instead of an absolute specification for period and year, relative specifications can be made in another column definition:</p> <ul style="list-style-type: none"> • For writing definitions, the reference is made in CX_WW • For reading definitions, the reference is made in CX_RR <p>The relative references can have any prefix.</p>

	For the “anchor points” CX_WW and CX_RR, a relative reference to a column of the same name is possible in the *-layout. (see next section).
Read activity price	<p>For reading the activity allocation (only for actuals), the display of a price on the level of the cost element/sender/activity type can be activated. The corresponding column in the Excel planning layout must already exist (see the Allevo & Excel manual for details).</p> <p>The constant TARIF_KZ defines how the characteristics “rate indicators” and “price unit” should be handled during reading.</p>
Allevo Tables (Summarization)	<p>A big advantage of Allevo is the direct integration into the SAP-ERP system. In special cases it may make sense to stray away from this direct integration. Two applications are currently supported:</p> <ul style="list-style-type: none"> • The reading and writing of data into Allevo-specific tables supports free calculation / planning using the Allevo-specific object type (see Section 3.8 or the constant USE_ALLEVO_TABLES). • For increasing system performance, it can be advantageous to go back to data in their aggregated state during reading (e.g., on the level of object or cost element groups). The entry here determines whether the data for the column definition should be read from summarization levels (see Chapter 16).
Reference if Stat. >= 3	<p>Once a planning object reaches status 3, another definition can be specified for reading. In this case, a reference to a different column definition must be entered.</p> <p>Background: this function can be helpful for multi-year planning. For example: For status 1 and 2, the column definition CY_R1 from the year 2016 is read with the version M1, which contains the planning values from the previous year. Planning is made under the column definition CX_WW in the same year, but into version M2. If plan data have already been transferred to SAP, resulting in status 3, it may be useful to read the current status, 2016/M2 under the reading column definition CY_R1 instead of the old status 2016/M2. This can be achieved by entering CX_WW in the column definition column for CY_R1.</p> <p>Special cases:</p> <p>(A) Displaying data on the object group level (e.g., in Allevo reporting functions when selecting via Tree). If the function “Reference if Stat. >=3” is simultaneously active, Allevo uses the following rule to determine the relevant status information for this group:</p> <ul style="list-style-type: none"> • If at least one object is planned (status 3 reached), reading is done via the entered reference (in the normal case, this is the planned data), • Otherwise, reading is done via the original entries in the current column definition (in the normal case, this is the actuals data). <p>(B) Jumping to another object type</p> <p>In Allevo MultiObject-mode, different object types can be addressed in a single master (e.g. cost centers and the corresponding orders). In this case, Allevo always takes the status of the current object into account (e.g. for an order, even though the entry is made via a cost center). If necessary, the column definitions are switched, even though no data are recorded.</p> <p>(C) Profit center-integration via row definition P</p>

	This case is different from case (B) in that the main object is used for determining status information (no separate status is maintained for the participating profit center).
Refresh type	<p>Allevo offers the possibility to automatically refresh data in the Excel planning view when plan data have been saved. This can be useful in the planning of activities and activity inputs, which are only evaluated by the activity prices stored in SAP after the data has been saved there.</p> <p>The function is activated via the "Value to" parameter for the constant READ_ON_OPEN. All column definitions that have an entry for the update type are read. Entry options include:</p> <p style="padding-left: 40px;">Empty = no update</p> <p style="padding-left: 40px;">1 = only update if status is 3</p> <p style="padding-left: 40px;">2 = always update</p> <p>The restriction on individual column definitions is mainly useful for performance reasons. Normally, this is only useful for columns that read plan data. An exception to this is mixed reading of the actuals / plan data within monthly planning. Then the appropriate update type must also be set for the actuals column, CX_RR (see F1-help for constant YEAR1_PERIOD).</p>
Read without objects from 1:N group	<p>Background: Plan data are usually only saved to a representative object if a 1:n group is stored. As a result, the remaining objects of the group can be ignored when reading plan data. Advantages:</p> <ul style="list-style-type: none"> • If there are numerous planning columns and large groups, this function can help with performance. • This setting prevents that values accumulate more and more if planning values are not only in the representative object. <p>Constants which extend the Allevo read functions to associated objects (e.g., KOSTL_WITH_OR) remain unaffected when this function is set within the column definition.</p> <p>Note: = "Value to" in constant PSP_WITH_OBJECTS from earlier Allevo versions has basically the same effect.</p>
Mix with column group	Allevo sums the values of the entered column definition for the current data (for example, a mix of actuals and planning values in a year column). Usually, meaningful results are only to be expected if the corresponding time ranges do not overlap.
Write comment	Only applies to the write column definitions. The function of planning comments is activated. Data are saved depending on the posting combination (e.g. object, cost element), the year and the version, and with an indication of the column definition (see Allevo table /KERN/IPPCOMMENT). For deviating definitions, please note the corresponding constants (e.g., GROUP_COMMENT).
Read comment only	Only applies to reading column definitions, that have been exclusively set up for processing comments (see "comment from").

Comment from	Reference is made to the column definition under which a comment was written. The following fields can then also be used to refer to the year and version (see also constant READ_COMMENT_SEQ for further options).
Comments if Stat. >= 3	As of status 3, an alternative column definition can be used to read comments (equivalent to the entry for "Reference if Stat. >= 3").
Reporting: Column sorting	For calling via an Allevo reporting transaction, this parameter defines in which sequence the column definitions should be listed in the start screen. The column definition must be active.
Reporting: Changeable columns	For calling via an Allevo reporting transaction, the user can enter some parameters directly in the start screen (e.g., year or version). The parameters entered here define the entry in the field via a 7-digit combination of 0 and 1. Selectable options include: value category (1), version-from (2), version-to (3), period-from (4), year-from (5), period-to (6), and year-to (7). The numbers in parentheses here represent the placement within the 7-digit combination: a combination of 1000100 enables the entry function of "value category" and "year-from" when executing a reporting transaction.

As a general rule, the column groups can be freely defined and even multiplied.

The column definition CX_WW has a special function: it defines the focus of the planning in the current layout, for example the main planning year and the corresponding planning version. This results in some dependencies and subsequent functions:

- Planning year and version are displayed in the Allevo start screen (only changeable in a special case known as "flexible version entry")
- The main planning year and version are crucial for status management. Even if several years are planned at the same time, the status is still controlled by these two entries.
- These two entries are relevant for reading and writing satellite data. When calling an Allevo transaction for reporting, the entries from CX_RR can automatically be copied to CX_WW (see constant FLEX_VERSION and FLEX_YEAR)
- Activity type-specific planning via Excel can only be performed for settings in CX_WW (see Chapter 12)
- The CX_WW setting is also used to plan the first 12 months of detailed monthly planning.

The following column definitions also have a defined meaning through Allevo:

- CY_RW is used for reading plan data that are included via CX_WW.
- CX_RR stands for the reading of actuals data for the current year. The column definition is also used to read actuals data for monthly planning in the first year (see options for constant YEAR1_PERIOD).
- CM_R1 stands for the reading of data for monthly planning of the first year, as long as the actuals data are to be displayed according to CX_RR (see options for YEAR1_PERIOD).
- CM_R2 stands for reading monthly plan data of the second year (see options for the constant YEAR2_PERIOD).

- CM_W2 sets the definitions for the month-specific planning in the second year. (Remember: CX_WW is used for the first year).

6.3.3 Relative payments and “inheritance”

Calling an Allevo planning master can only be carried out via a named layout. If a column definition is addressed in the master that is not available in the corresponding layout, Allevo automatically searches for the corresponding entry in the *-layout. The same logic applies for constants, however, the referenced column definitions are not displayed (yet) in the maintenance transaction for master records for the named layout.

By means of this “inheritance” of settings from the *-layout, the anchor points CX_WW and CX_RR can work with a reference for year and period, whereby the reference refers to the same column definitions in the *-layout.

Note: The functions described here can simplify the transition to a new planning year. In rare cases, only changes to the *-layout may be required.

6.3.4 Allevo-specific value categories

SAP classifies data according to many, sometimes very specific, values types. For example, "01" = plan), "04" = actuals, "11" = statistical actuals, etc. Allevo simplifies this through its own characteristic “value category”. This is an Allevo-specific combination of CO value types and PCA record types and is assigned directly as a feature of a column definition (e.g. “1” for actuals data, “2” for plan data). The category describes the features that are relevant for reading reference data.

The following table shows value types and record types that Allevo uses as a standard when reading reference data for a column group when there is no individual assignment (described further below).

Value category	CO value type (default)	PCA record type (default)
1 = actuals	4	0, 2
2 = plan	1	1, 3
3 = commitments	21, 22, 23, 26	Not relevant
4 = Budget	none	Not relevant

In rare cases, it may be useful to change or expand the default settings.

Note: Table /KERN/IPPVALCAT defines the allocation of value types (CO) and/or record types (PCA) to Allevo value categories. The column PRESET defines the defaults. This table is usually filled via the constant file of the Allevo delivery.

Allevo assigns the individual value types to these value categories by default. Normally, this will be sufficient, it is however possible to individually adapt the categories to specific requirements (see next sections).

6.3.5 Restrict reference data via transactions, value types, etc.

For each column group, the reading function may further be restricted to specific CO business transactions and/or value types. This is done by selecting a group in the corresponding tables via the specific settings menus.

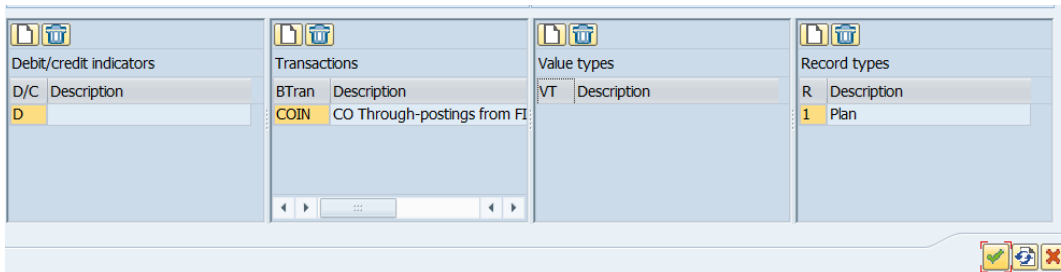


Figure 6.10: Transaction, value type and record type for each column group

If no entries are available, the following rules apply:

- There are no restrictions for the business transaction (all transactions are read).
- The value type is “1” for plan columns and “4” for actuals columns by default (see previous section).

Note: From these default settings, statistical plan data (e.g., for revenues of a cost center) are only read by Allevo if the value type 10 is additionally entered individually for the respective column group.

Individual entries for a column group are stored per layout in the Allevo tables /KERN/IPPCOLVGNG or /KERN/IPPCOLWTPP.

Settings for the transactions and value types can be made for both columns and rows. For the individual cell, the intersection of row and column definitions applies.

Important: The resulting intersection may also be empty, so that the cell remains empty after the extraction of the data. The constant TEST can be used to find empty intersections.

In profit center accounting, SAP uses the characteristic “record type” (e.g., 0 = actuals, 1 = plan) as equivalent to the CO-value type. Allevo allows the maintenance of value type and record type simultaneously in a single maintenance dialog (see figure above). This is especially important for Multi-Object use, if there is a change in object type from CO (e.g., KS) to PC in the Allevo Master.

6.3.6 Mass maintenance for base parameters of the column definition

The transaction /ALLEVO/COLDEF_MNT allows the user to change base parameters for column definitions via an Excel interface. The transaction is primarily intended for adjustments that are made in preparation for a new planning round (for example, change of planning year, version, ...). It is particularly useful if many layouts are in use at the same time or if many column definitions are to be adapted (creation / deletion of column definitions is NOT possible in this way, see notes below).

Changes in the column definitions can be made individually for each layout, or for all layouts.

Update column definitions

Selection parameters

Controlling Area to

Object Type to

Planning layout to

Incl. deactivated definitions

Incl. "Read comment only"

Source of Excel template

Start Inplace direct

Inplace via template(FILE/BDS)

Log.Filename of template

Output options

Header with fieldname text

Read only

Figure 6.11: global maintenance of column definitions

In the standard case, only active columns are taken into account. Comment columns are also ignored.

After entering the desired selection parameters Excel is called in inplace-mode.

Maintenance of Maintain column definitions via Excel-Inplace

Save and return

LINE	KOKRS	OBART	LAYOUT	COLKEY	READ_C	ACTIVE	VALCAT	RFRESH	REFST3	VERSFR	VERSTO	
1	1000	KS	1000	CM_R1		X	2	2	CM_W1	3	3	
3	2	1000	KS	1000	CM_R2		X	2		0	0	
4	3	1000	KS	1000	CM_RB1		X	2		3	3	
5	4	1000	KS	1000	CM_RB2		X	2		3	3	
6	5	1000	KS	1000	CM_W1		X	2		3	3	
7	6	1000	KS	1000	CM_W2		X	2		0	0	
8	7	1000	KS	1000	CX_RR		X	1		0	0	
9	8	1000	KS	1000	CX_WW		X	2		0	0	
10	9	1000	KS	1000	CY_R1		X	2	2	CY_WF1	0	0

Figure 6.12: List of the selected column definitions

The Excel folder automatically shows all relevant columns when the "Start inplace directly" selection option is active. Optionally, a template may also be stored in BDS or Allevo file management, e.g. for storing formulas or individual VBA functions (in this case it must be ensured that all columns are stored and the list is empty). The template cannot be used for uploading functions. Data is exchanged between SAP and Excel using the DATA area.

Important: Only existing column definitions can be changed in the offered characteristics. New entries are not currently supported.

Please be sure to follow these entry rules:

- The creation / deletion of column definitions is not allowed
- Index characteristics, such as controlling area, object type, layout and column definition can NOT be changed.

These rules are checked when data are transferred to SAP. If they are not followed the data cannot be saved in SAP.

6.4 Row definitions

6.4.1 Overview

Row definitions regulate the reading and writing of data on the row-level, i.e. for the respective cost element, activity type, or statistical key figures (for details please refer to the Allevo & Excel manual). The settings on the SAP side are only relevant for reading the reference data (see Section 9.1).

ID	RK Text	U	U	U	P	Q	ALD	T	P	Ex	P	S	BEKNZ List of CO activities	WRTTP	RRCTY
A	Primary costs				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H,S		01,04
B	Primary costs with quantities				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H,S		01,04
C	Internal service charges				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		01,04
D	Internal service charges with prices				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		01,04
E	Internal service charges credits				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H		01,04
F	Order accounting primary				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S	KOAO,KOAP,RKP8	01,04
G	Order accounting secondary				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		01,04
H	Order accounting secondary with prices				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		01,04
I	Secondary general				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		01,04
II					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H		
IS					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		
J	Secondary general with quantities				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		01,04
K	Credits for X (read), CC partner object				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H		01,04
L	Primary costs from COSB				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H,S		01,04
M	Activity types				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>			01,04
N	Capacity				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>			01,04
O	Special secondar w. partner obj. from to				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S		01,04
P	Profit center				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H,S		
Q	Statistical key figures fixed values				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>			01,04
R	Statistical key figures sum values				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>			01,04
S	Statistical key figures average				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>			
U	Planning profit center directly				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>			
X	Dyn. area credits with CC partner object				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	H		01,04
Y	Dyn. area order accounting secondary				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S	KOAL,KOAM,RKPW,RKPY	01,04
Z	Dyn. area internal services accounting				<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	S	RKIL,RKL,RKP3,RKP7,RKPL	01,04

Figure 6.13: Overview of row definitions

The same principle as for column definitions regarding “inheritance” applies here, i.e. the entries from the *-layout are transferred to the named layout if there is no code specifying otherwise. Entries from the *-layout can only be changed there and not the current layout. Entries from the *-layout are displayed in a different color.

As with column definitions, row definitions are defined on the SAP side and correspondingly used on the Excel side. The following characteristics can be relevant for definitions:

- business transactions (VRGNG),
- debit and credit indicators (BENKZ), and
- value types (WRTTP).

In the overview, Allevo shows where characteristics should be stored (see Figure 6.13).

Note:

The distinction between actuals and plan data (if necessary, the restriction on transactions) is made primarily by the entries for the column definitions. Further restrictions at the row definition level can lead to the intersection of a single line definition and a single row definition being empty. No values or quantities are shown.

The constant TEST can be used to display a list of possible empty intersections (see corresponding F1-help for the constant).

The line definition T has a special position for working with comments (it is not maintained in the master data).

6.4.2 Characteristics of a row definition

Row definitions have different properties that primarily control the reading of reference data. Such functions were implemented in earlier versions of Allevo using constants. These constants are also sometimes mentioned in the detail view of the row definition, in order to make the connection clearer (see also F1-help).

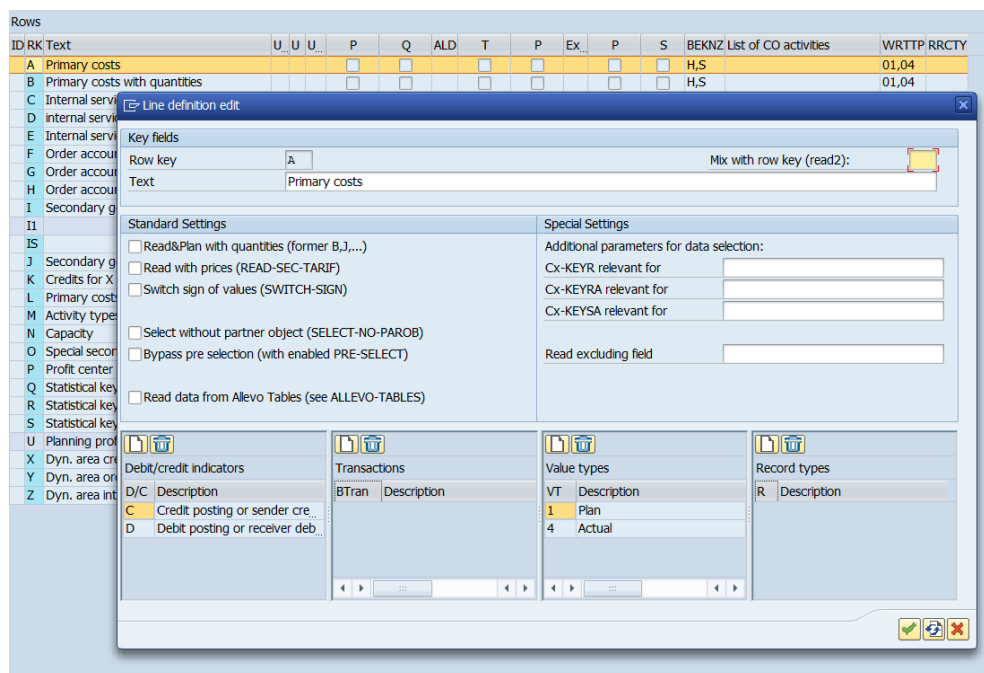


Figure 6.14: features of row definitions

Allevo can simultaneously read data via two separate row definitions and add the values: the second definition should be entered in the field “Mix with R-def.(read2)” (or as in earlier versions in the column “Read2” in the Excel master).

Row definitions primarily control the reading of reference data. These functions are traditionally bound to the first letter of a definition (for example, “A” for reading primary costs). However, some of the functions can now be activated as a characteristic (for example, "read quantities", which was previously the property of the line definitions "B" and "J".) When updating to 3.5 or higher, these characteristics are automatically set for the existing line definitions.

Row definitions have different properties which were implemented in earlier versions of Allevo via constants: these constants are also sometimes mentioned in the detail view of the row definition to make a simple reference to earlier versions (see F1-help for the relevant entry). The corresponding constants themselves, however, lose their meaning and are marked as "obsolete" in the F1 document. Such properties are taken over from the set constants during an Allevo update. Example: constant READ_SEC_TARIF affects the reading of prices: this is now the new flag "Always read prices".

Allevo can query individual database fields (for example, reading with restriction via functional area) when selecting reference data. The content of the selection is specified by column keys on the Excel side. These functions are described in detail in the next section.

6.4.3 Restrict reference data via additional attributes

A restriction of the read function can be carried out per row definition via additional attributes.

6.4.3.1 Debit/credit indicators for rows

If no settings are made for a row definition on debit and credit indicators, this only means that there are no limitations for this row definition. In this case, the row definition reads across all debit and credit indicators.

6.4.3.2 Transactions for rows

If no settings are made for a row definition, this only means that there are no limitations for this row definition. In this case, the row definition reads across all transactions.

Note:	Individually entered transactions are stored per row definition and layout in the Allevo table "/KERN/IPPROVVGNG". This table is also filled when a constant-file is uploaded.
--------------	--

6.4.3.3 Value types / record types for row definitions

For value types, all row definitions for which no allocation has been defined show the default values 1 (for plan data) and 4 (for actuals). This allocation is obtained, for example, when the constant-file of the Allevo standard delivery is read into the *-layout. This allocation can be changed individually for each layout and row definition (e.g., for a single row definition, you can only define statistical value types).

Note:	Individually allocated value types are stored in the Allevo table "/KERN/IPPROVWTTTP" depending on layout and row definition.
	Without an entry for value type, Allevo considers all value types that are defined by the respective column group (but by default, there is always a restriction; see notes above)

Use case: the row definitions A and B read primary costs, but by default without any statistically posted values. In order to read revenues, for example, in addition to "1" and "4", the value types "10" and "11" must also be entered.

Equivalent to the CO value type, SAP uses the characteristic "record type" (for example, 0 = actuals, 1 = plan) in the context of PC-accounting. Allevo allows you to maintain the value type and record type simultaneously in a maintenance dialog. This is particularly advantageous for MultiObject applications when a change from a CO object type (e.g., KS) to object type PC occurs in the Allevo Master.

6.4.3.4 Restriction via Excel keys such as CY_KEYR (and others)

When reading reference data, Allevo offers functions that allow the user to query individual database fields (e.g. restrict reading by functional area). The contents of the query / the field can be provided from Excel via column keys such as CY_KEYR, CY_KEYRA or CY_KEYSAs.

These functions were controlled in earlier Allevo versions via constants: in current versions, the relevant database fields can be directly entered as characteristics of a row definition (see F1-help for the corresponding constants, e.g., for READ_WITH_KEYR)

In special cases of PC planning, these fields can also be used for planning.

Example:

- When reading reference data from the COSP source table, the company code in the BUKRS field should also be taken into account, with respect to the current one in column CY_KEYR in the Allevo Master.
- For this, "BUKRS" must be entered in the row definition with "Use KEYR field as" (or in constant READ_WITH_KEYR in older versions).
- When reading from GLPCT or FAGLFLEXT, the database field RBUKRS is automatically used (since BUKRS does not exist there).

6.5 Object groups with aggregated data (1:n settings)

6.5.1 Planning / reporting via object groups

Note:	Though the examples used here involve cost centers, the following explanations also apply for orders and profit centers, and in an expanded form, also for projects.
--------------	--

Frequently, cost centers exist that are posted as actuals, but the planning of which - for reasons of simplification - is to be executed in aggregation across several cost centers. For a homogeneous group of these cost centers, an additional cost center is then usually set up as a pure planning cost center, to which only planning values but no actuals values will be posted.

Using the additional function "1:n", exactly one planning cost center can be allocated to a cost center group. If the planner wants to plan this cost center group, they select a defined planning cost center, i.e. during the planning preparations, central controlling must set status 1 only for this cost center, while all other cost centers within the group remain blocked and thus cannot be planned.

The representative object must be entered in the Master (exception see below): when the planner starts Allevo and reads the actuals data, the actuals of the entire group are cumulated and shown in Allevo. However, writing the plan data is only done for the planning cost center.

Note:	SAP offers a similar function for reporting. For example, in KSH2 with in the context menu for the group, then "settings for reports". There, a representative cost center can be entered. On request, these assignments from the SAP reporting system can be automatically transferred to the 1:n settings of Allevo.
--------------	--

The 1: n function also applies when reading planning values. However, since the assigned objects cannot (or *should not*) actually lead plan data, the 1:n resolution can normally be dispensed with for column definitions with plan data. This can lead to a performance improvement especially for large groups (see characteristics for column definition).

A combination of 1:n planning with dynamic reading functions is possible (see Section 9.2), i.e. the dynamic also covers entries for objects, which are not planned but only read via group allocation.

Special case Allevo MultiObject

In this case, multiple object types can be planned simultaneously via a single Master. The contents of controlling parameters (such as constants) are stored in this case in the entry layout, i.e. to the start

object type. An exception is the 1:n object groups described here: they must be entered for the respective object type (for a layout with the same name as the MO layout for the start object type).

Example: Entry via cost centers with simultaneous planning of internal orders. If a group is to be used for the internal order, this must be stored in the OR layout of the same name.

Application areas

The 1: n functions of Allevo have been developed primarily to support Allevo's planning functions. This is where most of the references in the documentation are aimed. The corresponding program functions are also used in other applications, for example:

- Selecting a group in Tree with aggregation of all relevant data (see Section 3.3).
- MultiObject-mode with entry of a group in the Allevo Master instead of a concrete planning object (see constant MULTI_WITH_GROUPS).

These functions are primarily for reporting purposes. The assignment of a planning object (e.g., a cost center) to the group for the 1:n master data is then not required. Allevo, however, automatically runs through the same functions as when ungrouping.

6.5.2 Setting up 1:n functions

The administrator defines the 1:n-groups (by double-clicking on the folder |1:n customizing|). They can specify there, which planning cost center is allocated to which cost center group.

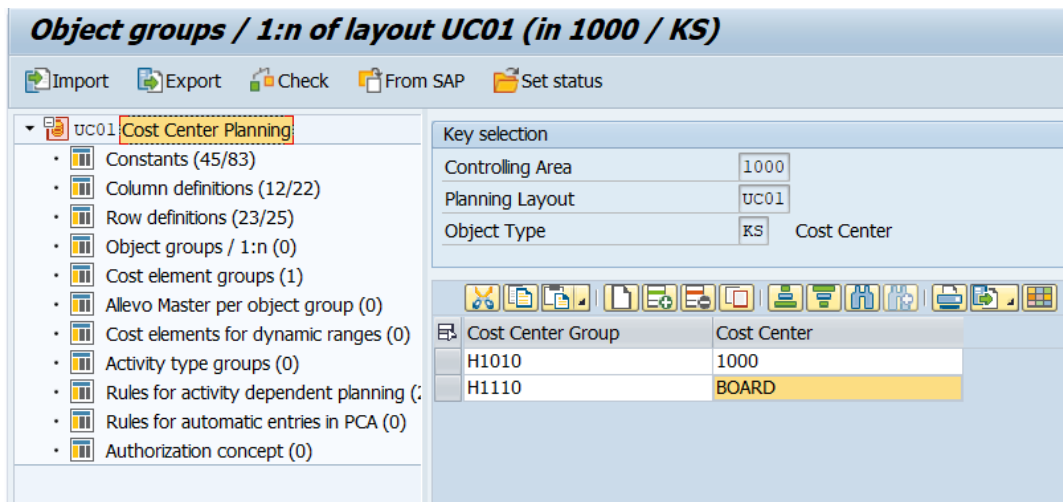


Figure 6.15: Definition of planning cost centers for a group

The entry fields are made up of a group and an assigned planning cost center as a representative object: they must be contained in the respective group (checked when saving).

Note: As of version 3.4, Allevo also considers 1:n assignments in the *-layout the same as assignments in the current layout (the assignments can also be made for layouts generally).

Since all cost centers entered here are usually also meant for planning, you can use the button |Set status| to set the Allevo status "01" for all entries.

SAP reporting also recognizes the assignment of a “rep. cost center” (e.g., in Transaction KSH3 in context menu and then “settings for reporting”). In order to use these settings in Allevo, two options are available:

1. Using the button |From SAP|, the SAP assignments can be transferred to the Allevo table. The entries are copied: this reduces the maintenance effort, and any adjustments for SAP reporting remain separate from Allevo planning.
2. Alternatively, the constant `READ_GROUPS_FROM_SAP` can be used to read the SAP assignments directly during the planning process. Allevo’s own 1:n assignments are then no longer required.

Allevo also takes into account groups which are stored as so-called "selection variants" (for example, via transaction KM1V for cost centers). As usual, the entry for the group must begin with a period. These selection variants can also be part of the fixed group definitions.

6.5.3 Enter 1:n groups in the Allevo Master (Excel)

In the Allevo Master, the column “MO_AO” usually contains the object number. This is also the case when planning via the 1:n function. By default, the cost center must be entered in MO_AO and not the ID of the group. This behavior is different from 1:n cost element groups (see Section 6.5).

However, if the constant `MULTI_WITH_GROUPS` is active, the group ID can also be entered on the Excel side. This can be especially helpful if users tend to know the group IDs and descriptions better. Plan data are nonetheless still saved to a representative object.

Note:	Entering a group on the Excel side is possible as of Allevo 3.3.20. Allevo then works equivalently as when dealing with 1:n cost element groups.
--------------	--

6.5.4 1:n groups resolution during planning

For individual object types, the assignment to groups can be defined in the SAP System in a time-dependent manner (for example, KS, PC). Since the relevant time range is defined by parameters of the column definition, Allevo creates an individual list of assigned objects for each column definition. Depending on the customer environment, the planning relevant data of a cost center group, for example, are read for different cost centers if necessary. The resolution per column definition can impact the performance of Allevo if 1:n groups are large. In this case, the constant `USE_COLDEF_GROUP` can be helpful to work with the same object list the whole time. The resolution of a group takes the entire time range covered by the column definition into account.

When calling planning, Allevo checks the SAP planning authorizations for each object in the 1:n group. In reporting mode (i.e. also when calling a group from the Tree), the authorization check is performed for read/write authorizations. If an authorization is missing, the respective object is not considered: this can lead to different results depending on the user. The standard conduct of authorization checks can be adapted using the constant `USE_1N_AUTH`.

6.5.5 Special features in reporting

The additional 1:n function of Allevo is not active by default if Allevo is called via a reporting transaction. For further details see Section 21.5 or constant `ONETON_REPORTING`.

6.5.6 Transfer object groups with 1:n assignment from SAP reporting

The SAP settings for reporting contain a similar assignment between groups and representative objects as is the case with Allevo. Example: see transaction KSH3 started via a hierarchy, then call the context menu for a cost center group and select "Settings for reports".

In order to avoid doing double maintenance, Allevo can also optionally transfer or read these assignments (see details in Section 27.13 or the documentation for the constant `READ_GROUPS_FROM_SAP`).

These SAP assignments can also pre-define the content of placeholders (e.g. for use with offline processing).

6.5.7 Special features for 1:n settings for projects

Within project planning, four different use cases exist with 1:n functions, since here the relationship between the planning elements is usually defined by the project structure and more rarely via a WBS element group. Depending on the case, the associated WBS elements are either automatically read or the user can specify them on the start screen.

- **1:n planning via WBS element groups**

In the same way as cost center planning, a group is assigned to each WBS element. This can be a WBS element group (see transaction CJSJ or KJH2) or a selection variant (created using transaction CJ8V).

The 1:n settings for groups are only taken into account as long as one of the following cases is used.

- **Allevo single-object planning: starting via a project**

If single-object planning of WBS elements is called via the transaction `/ALLEVO/PR` and a project number is entered there, Allevo uses the first WBS element of the project as a representative planning element for all WBS elements in the project.

In this case, automatic 1:n reading happens via all WBS elements of the project.

- **Allevo MultiPage: 1:n planning depending on level of project**

If the MultiPage planning of the object is called via transaction `/ALLEVO/PRM`, a project or WBS element group can optionally be used for starting: in both cases, Allevo generates a list of the corresponding WBS elements in order to display them on individual Excel sheets.

When selecting a project, the list of WBS elements can be restricted to only include elements of a certain level (see the "level" field in the selection screen). If the option "Hierarchy 1:n" is set in the entry screen, Allevo automatically activates the 1:n reading for the selected level: a WBS element on the selected level is therefore representative of the subordinate elements (data of the subordinate WBS elements are read and cumulated at this level).

- **1:n planning via line items in investment program**

If planning in MultiObject-mode is called via transaction /ALLEVO/PRMO, the constant ONETON_IMZO can optionally control the 1:n reading via line items in the investment program (see F1-help for the constant).

If the constant is active, all WBS elements belonging to the same item in the investment program are read for the WBS element.

This function is also available for use in MultiPage-mode (transaction /ALLEVO/PRM), but you cannot work with the levels for 1:n in this case.

At the level of the WBS elements, only those values that have been recorded directly to the WBS element are displayed. The constant PSP_ACT_CUMULATE ensures that a total sum is created, including the values for all lower-level WBS elements.

For WBS elements, there is an additional special function concerning the relationship between WBS elements and corresponding orders (or networks for business transactions). Details are described in the documentation for the constant PSP_WITH_OBJECTS. The function can be combined with all four above-mentioned 1:n functions.

6.6 Cost element groups (1:n settings)

During planning, it is often necessary to be oriented more strongly toward cost element groups than toward individual cost elements. In order to be able to make plans in this case as well, Allevo uses so-called "representative cost elements" (see Section 11.6 for further details).

Note: The statements here regarding cost element groups apply equally to account groups in the case of profit center planning. See also special instructions for working in MultiObject-mode below.

When the groups are resolved, Allevo checks whether the corresponding master records are available, for example, as cost elements in table CSKB. For PC and KX additional master records for the account are considered (table SKA1).

6.6.1 Entering cost element groups

In the program menu |Cost element groups|, the appropriate assignments for cost element groups and representative cost elements can be defined (or account groups and accounts for PC object types).

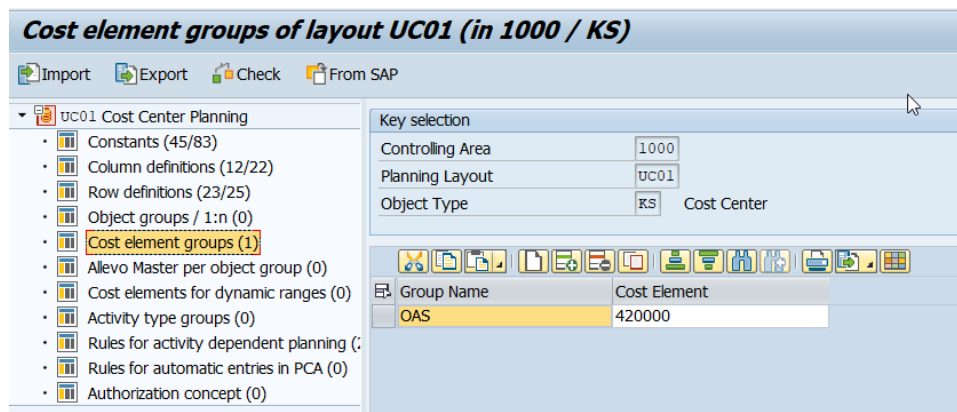


Figure 6.16: Assignment of planning cost elements to cost element groups

The entry field usually consists of a group and an assigned planning cost element.

Note:	As of version 3.4, Allevo also takes 1:n assignments in the *-layout into account, equivalent to the assignments in the current layout (the assignments can also be stored across layouts). When using MultiObject and changing the object type, please also pay attention to the notes further below in this section.
--------------	---

Groups without an assignment of a planning cost element can also be entered: in this case, reading can only be done via the group (function available as of Allevo 3.0). This prevents the accidental input of planning data. However, the entry of comments is still possible via the row definition “T” in the Allevo Master. Even SAP reporting recognizes the assignment of “representative cost elements” (see transaction KAH3 context menu and then “Settings for reports”). In order to be able to use these settings in Allevo, 2 alternatives are available:

1. Using the button |From SAP|, SAP assignments can be transferred to the Allevo table. The entries are simply copied: this reduces the maintenance effort, but settings for SAP reporting remain separate from Allevo planning.
2. Alternatively, the constant READ_GROUPS_FROM_SAP can be used to read out the SAP assignments directly when planning. The Allevo-specific 1:n assignments are then no longer necessary. By default, comments are saved to the cost element group. These can also be displayed via the group in SAP reporting (see section for report-report interface). If the comments should rather be saved to the planning cost element (as with planning values), the constant NO_GROUPCOMMENT must be set.

Note:	During planning, Allevo must resolve the cost element groups and then when reading the reference data, calculate the sum of all involved cost elements. The dissolving of large groups can impact the performance. In this case, the constant KAGRP_BUFFER can be helpful.
--------------	--

6.6.2 Special feature for MultiObject planning with profit center

If different objects are mixed in Allevo MultiObject, Allevo transfers the cost elements / account groups from the starting transaction. This rule applies for version 3.3 and higher; in older versions the groups for layouts of the same name had to be entered for all object types. By default, the groups only need to be stored for a single object type.

A special case arises when working with MultiObject-mode, if a switch is made between profit center planning and CO-object types.

Background:	Frequently, groups are created for accounts or cost elements with the same name and content in the SAP system. This ensures comparable evaluation possibilities. However, there may also be some deviations, e.g. <ol style="list-style-type: none"> 1) The same group names are used, but within PC accounting other accounts are assigned as cost elements in CO. 2) Completely different groups are created, i.e. with different names and structures. <p>Allevo takes both of these cases into account.</p>
--------------------	---

With this background in mind, please pay attention to the following:

- In older Allevo versions, groups with the same name and content had to be created (i.e. the same cost elements and accounts had to be contained in the group), because Allevo internally referenced only to a single group.
- As of Allevo 3.4, account groups or cost element groups are ungrouped if a switch between PC and CO object types is made. This ensures that a group is also read with the relevant cost elements / accounts, even if the content differs.
- If you are working in MO-mode and there are different names for groups, the respective layout must be created twice (once for PC and once for the relevant CO object type). Otherwise, entries in the table with 1:n links would not be possible. When reading reference data, for example, Allevo automatically looks for a layout with the same name for the other (either PC or CO) object type.

This combination is also allowed for applications in connection with Allevo objects (e.g. a combination of KX and PC)

6.6.3 MultiObject planning via MOD

MOD is a special form of MultiObject with the goal of being able to freely choose objects and cost elements directly from the Allevo start screen. The planning form then automatically generates a structure from the combination of the objects and cost elements and also takes the provision of rows for subtotals (see detailed description in Allevo & Excel manual).

If the MOD function is active and cost element groups are stored via 1:n, these groups are not ungrouped, but rather are directly entered in the Excel sheet with the name of the group (in a second step, the totals for the group are read in an individual row).

6.6.4 Transfer cost element groups with 1:n assignment from SAP reports

The SAP settings for reporting contain similar assignments between groups and representative cost elements as it is done in Allevo. For example, see transaction KAH3 displaying the hierarchy, then call the context menu for a cost element group with the entry “Settings for reporting”.

In order to avoid having to perform double maintenance, Allevo can optionally transfer or read these assignments (see details in Section 27.13 or the documentation for the constant `READ_FROM_GROUPS_SAP`).

6.7 Groups (for determining Allevo Master)

In some cases, it can be useful to use different Masters within a single layout, e.g. depending on the selected objects. For this function, objects can be combined into groups and entered in the |Groups| menu (e.g. as a cost center group).

When the planner selects a cost center, Allevo checks whether the cost center belongs to one of these groups. If yes, an Allevo Master that is stored for this group is loaded. To find the master, Allevo uses a symbolic file name that is automatically appended with the ID of the group (e.g. for use with the constant `BDS_ENABLED`).

Note:	This function only works if the symbolic file name is automatically generated by Allevo, as described in Section 22.4.2. The column “Value to” for <code>BDS_ENABLED</code> must be empty, and also for
--------------	---

FILE_TEMPLATE (more information available in the F1-help for the constant). The corresponding Master must also be stored in BDS or the Allevo file system under the generated name.

It is also important to ensure that the cost centers are not contained in several of the selected groups, as this can otherwise lead to confusion.

6.8 Restrictions for dynamic areas (cost elements and activity types)

Allevo also allows using the so-called dynamic ranges in the Excel planning layout, in particular reading data from activity allocation (Section 9.2).

Dynamic ranges can be quite performance-intensive since read operations are carried out with partially open instructions for selection. For this reason, a restriction to relevant cost elements can be set for this folder.

As of Allevo 3.4, it is alternatively possible to create a restriction based on recipient activity types. Since this filter is only applied after the posted rows are read, performance will not be markedly improved. This filter can be useful however, if only some of the activity types posted in the SAP system are to be used in planning (shortens the list in Excel).

The filters are passed through the dynamic range in Excel when the rows are created; The row definitions X, Y and Z are therefore relevant.

6.9 Rules for activity type-dependent planning

This range is only relevant if planning should be made in an activity type-dependent manner and the Allevo rule planning is used.

A prepared Excel file must be stored in the system for the maintenance of the master data of the set of rules: the call is optionally made via Allevo file management or the SAP document management in BDS (see also Sections 22.4 and 22.5). For the symbolic file name, a predefined naming convention applies according to the scheme: **ZIPP_LS_XXXX** (where XXXX represents the respective current controlling area).

The definition itself can be made either as a function of the planning layout, or by storing default values in the * -layout (the number of respective entries is displayed in the ALV Tree from the start screen). The input is made via three Excel ranges with the following contents / components:

- “Activity Type”: which cost centers provide which activity types?
- “Share”: proportion of the activity types
- “FixVar”: separation of fixed and variable parts

The corresponding database tables in SAP are /KERN/IPPLSTARS, /KERN/IPPANTEIL and /KERN/IPP-FIXVAR.

Working with activity type-dependent planning in Allevo and the corresponding rule set is explained in detail in Section 12.2.

6.10 Rules for automatic entries in PCA

This administration menu defines allocation rules for using profit center integration (see Section 17.4). Allocations are only necessary if planning for the cost element type 11 (revenues) is intended.

Note: When using the corresponding row definition, the rule for automatic entries allows the posting of a row value to another object than the one currently being planned. The object type can be PR, OR or KS. The allocation of the planning object to the automatic posting object is done in this menu.

If, for example, certain cost elements are to be planned for an order of the cost center and not for the cost center itself, this can be done by integrated planning directly from cost center planning.

The constant PC_INT must be active.

6.11 Authorization concept

Allevo offers a redundant authorization management for cost center, order and project access. It is particularly useful to work with the Allevo authorization concept when SAP authorizations do not use the organizational level, i.e. the individual cost center.

6.12 Tools for the administration and backup of settings

6.12.1 Export / Import constants and settings for text files

Through the menu |Planning layout| in the Allevo start dialog, you can access the general program settings for the planning layout and constants.

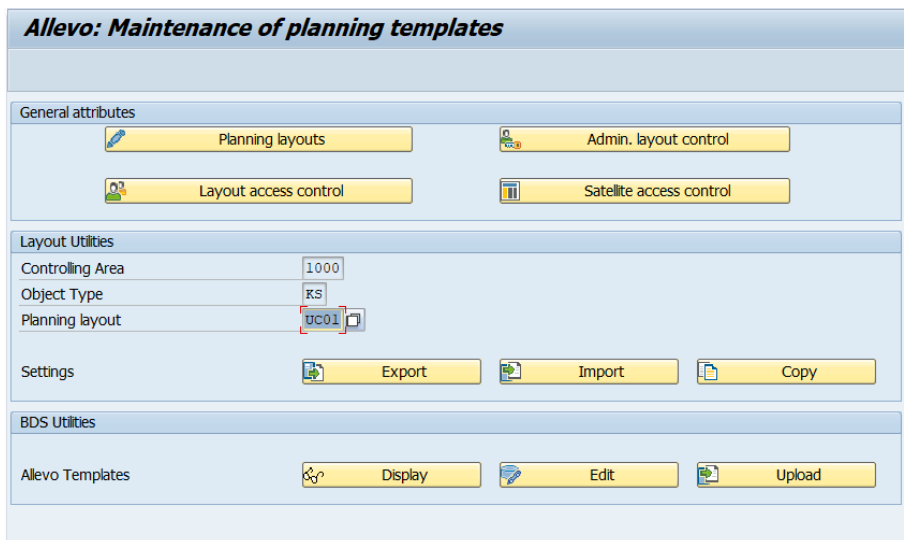


Figure 6.17: Administration of all constants and program options

The constants' settings refer to the active layout. The following functions are available:

- |Edit| switches to the editing mode for constants (as described for the function in Section 6.2)
- |Delete| deletes all constants of the current layout
- |Export| creates a text file of constants and settings which can be used, for example, to save data and |Import| back from another system, if needed. With these downloads and uploads, settings made in the test system can easily be transferred to the productive system.
- |Copy| transfers the constants to another layout in the same system.

Note: Constants and settings can also be transferred to layouts of another object type. In this case, however, care must be taken to ensure that the functions are individually adapted to the object type for some constants (becoming redundant in some target layouts).

Exporting constants / settings as a text file (download)

The export is normally done for the active layout. Alternatively, all layouts existing for a controlling area/object type can be exported. The content to export can be filtered (for example constants or column definitions only).

Import constants / settings as text file (upload)

When importing a file, the content is completely loaded in the internal memory, and the user then can choose from the list of layouts found in the file.

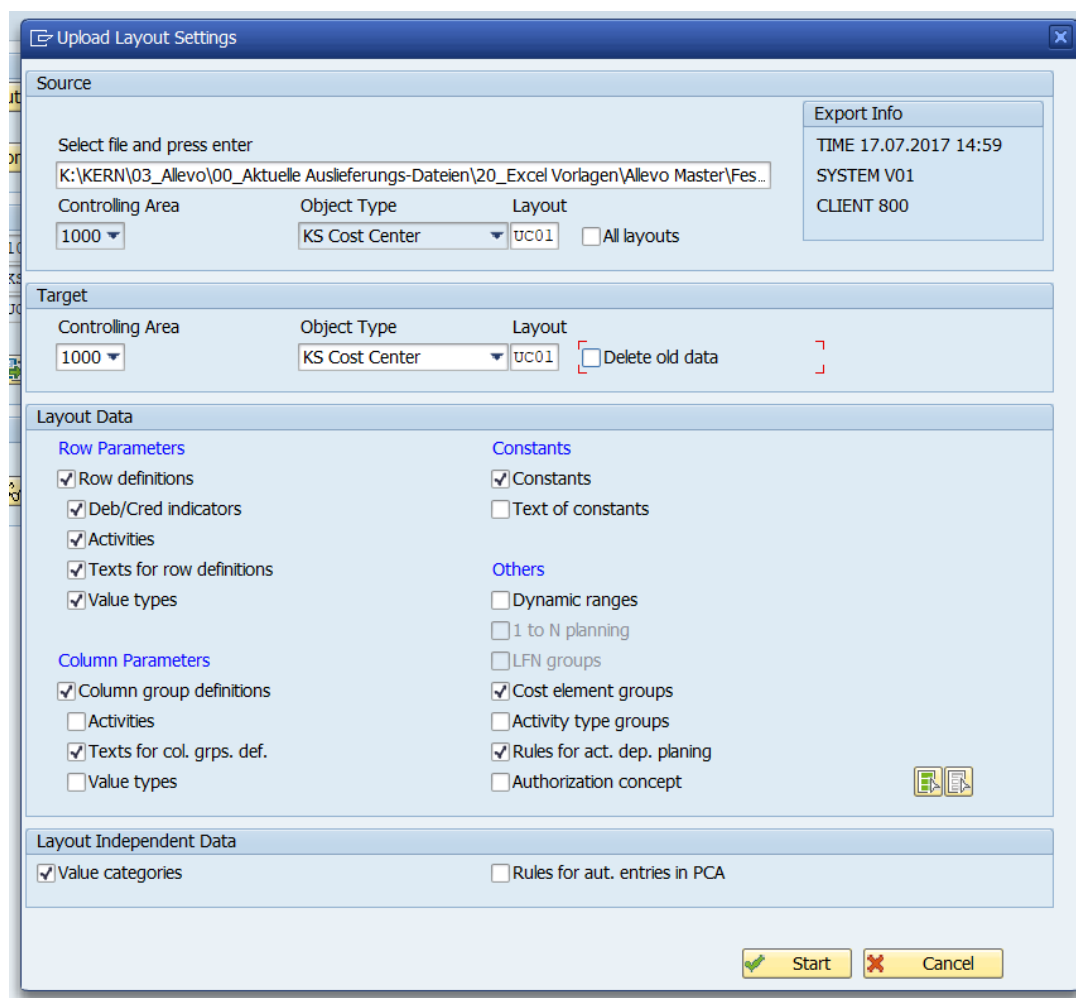


Figure 6.18: Program dialog when importing constants

In the upper right, the data of the source system are shown. A source file can contain data for different layouts. Accordingly, the layout to be imported must be selected from the file. Optionally, a layout with a different name can be selected as destination (if needed, it will be created).

The following must be respected when importing:

- The constants/settings to be imported can be individually selected in the "Layout data" field. By default, the layout data found for the respective text file entries are activated (corresponding to the data exported).
- When activating data in the field "Layout independent data", all existing data is read from the text file for import (without reference to the layout). The import is useful, for example, when switching from one system to another.
- When copying data, all constants/settings available in the text file are updated by default. (current exceptions include LIC_KEY, RFC_DEST and LIST_RIGHT_CHECK, which are only usable in the *-layout).
- Any constants/settings that may be available in the target layout will be maintained. To obtain a real 1:1 copy of the imported text file, the option "Delete old data" must be active.

Note:	For Allevo 3.0 and later, a new text file format is used. Allevo automatically recognized the different formats in the header. Therefore, the header in the text file must not be deleted. A back transfer from the current format to an earlier Allevo version is not supported.
--------------	---

6.12.2 Copying settings / constants

For copying, the same selection parameters are available as for importing/exporting

6.12.3 Cross-module upload / download of settings

Using the transaction /ALLEVO/SET_UP_DOWN or the corresponding menu entry in the Allevo Cockpit, settings from different Allevo modules can be simultaneously saved in a file and uploaded at a later time. All settings are transferred (e.g., all settings for a layout). This powerful function is explained in greater detail in Section 27.11.

7 Planning status management

7.1 Functional overview

Allevo offers the following status information for the planning object:

Status	Definition	Comment
1	Open	The status administrator sets this status in order to release the object for planning with Allevo.
2	Activated	This status is automatically set once the planner has read the reference data of the object for the first time (using Allevo).
3	Planned	This status is automatically set once the planner has transferred the plan data back to SAP for the first time (using Allevo).
4	Closed	This status can be set by the status administrator or by the planner when planning of the object is completed. If this status is set, no further planning values can be entered. One exception: A user with ZIPP_ST5 authorization status can still make changes afterwards. This setting can be changed using the constant AUTH_ST5_REDUCE.
5	Reviewed	This status is manually set by a user having the ZIPP_ST5 authorization (see Section 23.5). Such users can also reset the status. This setting can be changed using the constant AUTH_ST5_REDUCE.
6	Released	This status is manually set by a user having the ZIPP_ST6 authorization. (see Section 23.5)

At different places within the program, the Allevo status is shown using icons. By default, these are standard “traffic light” icons. The assignment and display of icons can be configured with the constant STATUS_ICON.

Allevo can provide the planning status individually for each layout, or for the central controlling area for all layouts (see Section 7.4).

As a rule, status 1 must be stored for the main planning year and the planning version, so that an object can be called for planning (planning year/version correspond to column definition CX_WW see Section 6.2.9). The query for status also applies to multi-year planning; further combinations of fiscal year/version are not relevant.

Note:	<p>This rule applies in particular when MultiObject transactions are called, which allow you to plan across the boundaries of the object type. For different object types, a separate layout must be created (with the same name as in the start layout).</p> <p>Alternatively, the constant STATUS_READ_ALL can be used to call planning without an entry in status management. Allevo generates the necessary status entry itself as soon as planning values are transferred to an object.</p>
--------------	--

Further status information is either generated from the program itself (e.g. when plan data are transferred) or is set individually (e.g. when closing planning). The use of individual functions is linked with special authorizations (e.g. for additional checks for status 5 and 6).

7.2 Calling status management

The processing screen for Allevo status management can be called in many ways; In all cases the authorization group ZIPP_STT (or a superior group) must be stored for the respective user. Possible ways to call include:

- Based on the authorization, it can be called in the start dialog of an Allevo planning transaction in the "Services" area with the | Status Management | button (see Figure 3.2)
- For planners that have multiple objects to plan, but do not have the authorization for status management, it can be called using a customized button (controlled via the constant STATUS, see Section 7.8).
- Status management can be called directly via the Cockpit or the transaction /ALLEVO/STATUS with an indication of the controlling area and the object type. In the layout selection, only those layouts where a status is assigned will be available for selection. The call takes into account the access for planners (see documentation for the constant STATUS)

In each case, the status management screen in Figure 7.1 appears.

7.3 Status management processing screen

7.3.1 Functional overview

Within status management, planning objects (e.g. cost centers) are shown with their planning status:

- As a list with a status for each object
- And in a condensed list with the number of objects for each status (for example, the number of objects with planning status 4 = closed).

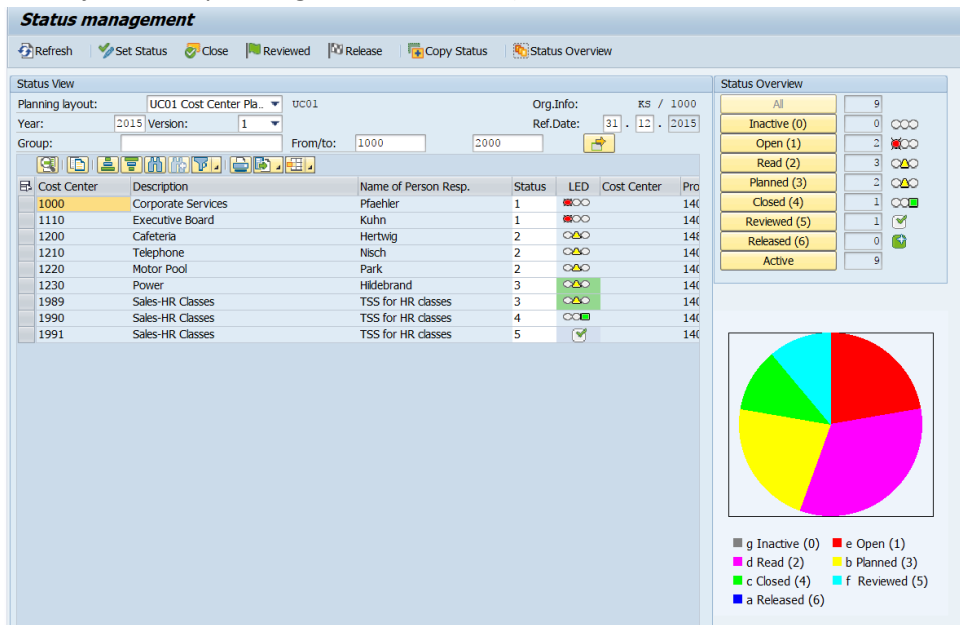


Figure 7.1: Status management, shown here including authorizations for reviewing and releasing

The list view of the selected objects shows the responsible planner for the master record and the current status. The display is made up of an ALV grid. Accordingly, the display structure can be adjusted to individual specifications and saved as a display variant. A variant of this list is always user-specific; if it is saved with the option "default setting", it applies to all object types.

Examples for additional information that can be displayed with the help of familiar ALV functions include:

- Information on the most recent changes to a status row including the user, date and time, as well as information on the most recent plan data transfer (you can see when the current object was last actively planned).
- Organizational assignments such as profit center, cost center, company code and period of validity
- Information on group ID, if a 1:n group is stored

Die Listendarstellung der selektierten Objekte zeigt im Standard einen Verantwortlichen (entsprechend Stammsatz und den aktuellen Status. Die Darstellung erfolgt über ein ALV-Grid; entsprechend lässt sich der Aufbau an individuelle Anforderungen anpassen und als Anzeigevariante speichern. Eine Variante dieser Liste ist immer benutzerspezifisch; gespeichert mit Option „Voreinstellung“ gilt sie für jede Objektart.

Beispiele für Zusatzinformationen, die mit Hilfe der bekannten ALV-Funktionen eingeblendet werden können:

A BAdI can also be used to insert customer-specific information. Alternatively, the user can directly display the master record for the currently selected object using the menu "Jump >> Master data" (e.g., via KS03 for cost centers).

After the first selection of the objects (see procedure below), the portion of objects per status are grouped to the right in the "Status overview" area. The selection can be further restricted by means of the corresponding buttons; for example, only display objects that are already "Active" or already "Closed". If such an additional filter is set, the button is subsequently grayed out. By default, no additional filter is set after the selection of the objects (i.e. what is shown when the "All" button is selected). However, an additional filter can also be preset with the constant STATUS_FILTER.

Note:	Frequently, all planning objects are transferred to status management before the planning is started (i.e. they are activated). For later calls, only the current status of activated objects is of interest: in this case, it makes sense to use the additional filter "Active" directly at the start.
--------------	---

Allevo can create a status individually for each layout or, alternatively, for all layouts within the controlling area and object type. The status is always dependent on planning year and planning version, which result from column definition CX_WW (see also Section 5.2).

7.3.2 Object selection

For the selection of objects within status management, the usual selection criteria such as groups or From/To are available. Presets of these parameters are usually adopted by the calling program.

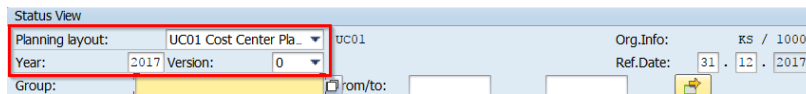


Figure 7.2: Status depending on planning year and planning version

Normally, you would change the status for planning year and version as it is preset in CX_WW. All other versions that are actively stored in the system are also available for selection and therefore restriction of the list. This can be useful, for example, when Allevo is working with flexible version start, where the user can select differing validity ranged (see constant FLEX_VERSION).

Note: A special situation also arises when planning via the additional module FP. In special cases, status entries are generated automatically for a layout with the name FP and also for versions with the same name. If there are entries in the status table, Allevo also displays this layout in the layout selection box (or other layouts for which a status exists).

The following filters are automatically respected when creating the object list:

- For cost centers and profit centers, Allevo checks the range of validity according to the “reference date” (see figure above): normally this is the last day in the selected year. This date can also be changed in order to only see cost centers that were valid at the beginning on the year, for example (the changed date must be changed within the selected planning year).
- For cost centers, Allevo also checks whether planning locks are set (a detailed evaluation and display of planning locks can be displayed with from the menu “Additional filter”).
- For internal orders, Allevo considers the deletion flag and, in individual cases, checks whether relevant transactions (RKP1, RKP2 or RKP2) are permitted. In this way, closed orders are also suppressed.
- For WBS elements, the planning indicator must be set in the master record.

Note: If the constant LIST_RIGHT_CHECK has been activated in the *-constants, only the objects for which the user has an SAP display authorization are displayed in status management (for details on the authorization check, see Section **Fehler! Verweisquelle konnte nicht gefunden werden.**).
This function is not available for WBS elements.

7.3.3 Change status

In order to change status information, a user must have ZIPP_STT authorization (or higher). In this Allevo role as a status administrator, a user can release planning objects for planning and change the planning status (between levels 1-4). The following entry possibilities are available:

- Change an object status directly in the corresponding column of the ALV grid.
- By selecting one or more rows and clicking the button |Set status|, the status can simultaneously be changed for multiple planning objects. In both cases, only status 1-4 are available for selection (also in the F4-value help). Caution: all selected entries are changed regardless of their previous status (potentially increased for the license count).
- To close objects in a controlled manner, click the |Close| button. In this case, only those objects which had already been planned (i.e., status 3), are set to status 4; Objects with status below 3

are reset, and thus removed from the status list. Important: in the end, the status list only contains objects that were actually planned.

- Status 5 (reviewed) and status 6 (released) can only be assigned using the buttons of the same name. The respective status is set for all currently selected rows (also depending on the previous status).

Note: The assignment of status 5 and 6 is designed for applications where a separate review of the planning results is required. Accordingly, the buttons |Review| and |Release| are only displayed if the current user has the authorizations ZIPP_ST5 or ZIPP_ST6 (and is thus authorized to set and reset the current status).

See constant AUTH_ST5_REDUCE to allow resetting of status 5 in a restricted manner.

7.3.4 Copy status

In order to organize planning in another fiscal year or version, all planning objects for the current planning session (Status larger than 0) can be transferred to another layout with a different combination of planning year and version (or even a different layout) using the button |Copy Status|.

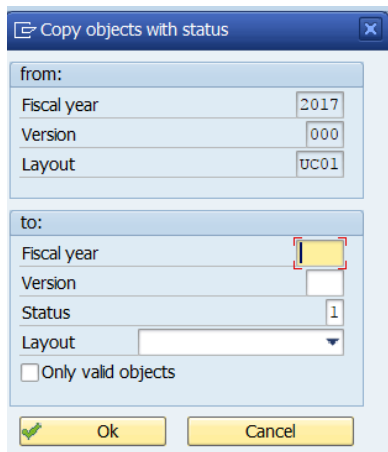


Figure 7.3: Copy status

Any planning version can be entered as the target, even those that are not active in the SAP system (if necessary, Allevo gives a warning).

Normally, the information for the target planning year and version are designed for future planning. In other words, the status is set to 1 in the target (the objects are automatically released for planning).

For some exceptions (e.g., when contiguous planning steps are involved), it may be useful to simply transfer the existing status. In this case, enter an "S" (=copy status from source) in the status field.

If the option "only valid objects" is selected when copying, Allevo checks whether the original list contains objects that are no longer relevant in the new planning year. The criteria are the validity range for cost centers and profit centers, and the system status is checked for orders, and WBS elements (query for "I0046 closed").

Note: The copy function can be assigned additional authorization via the constant STATUS_COPY to prevent unintentional calling (if access to status management is unlocked for many employees).

7.4 Status dependent on the Allevo planning layout

In the standard delivery of Allevo, the status is controlled independently from the planning layout. If the constant STAUTS is active in the respective planning layout (entry of X in “Value from”), the status can, however, be controlled depending on the planning layout.

Status management shows whether the status is controlled centrally or if it is dependent on the planning layout (see Figure 7.4 and Figure 7.5).

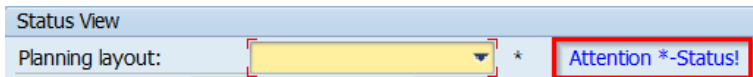


Figure 7.4: General status with the indication “*-Status”

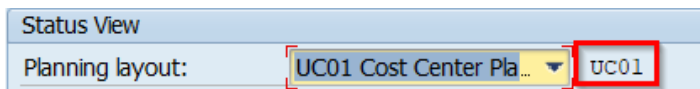


Figure 7.5: Status dependent on the planning layout

The decision whether the status is to be centrally planned or using the relevant planning layout, is usually made in the project phase. For retroactive changes with integration of specific layouts in one common layout, it may be necessary to merge existing status information. In this case the additional report /KERN/IPP_STATUS_MERGE can be useful assuring that the then highest status found is taken.

7.5 Update status to another layout

To display workflow functions, changes to the status in a layout can influence the status in another layout (for example, to release objects in the subsequent layout for planning when the preceding planning has ended).

A control table defines what the entry in the subsequent layout should look like. The table is filled using the menu “GoTo >> Next Status”:

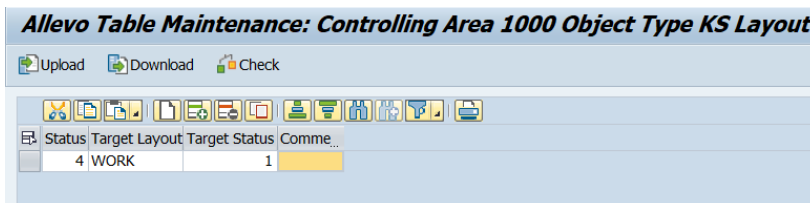


Figure 7.6: Stats dependent on the planning layout

In the example above, a cost center is automatically opened for planning in layout WORK (status 1), when the planner closes this cost center in the current layout. The status entry in the subsequent layout is made for the respective main planning year (and also for the version there).

Note: For this function, the constant STATUS must be active. Entries in the subsequent layout are only created or changed if a previous status change has been triggered via the Excel planning interface (direct change in status management does not trigger entries in the subsequent layout).

7.6 Status overview by layout dependent status

If a separate status is maintained for each planning layout, there is occasionally the need to display the respective status in an overview. You can call this overview via the |Status Overview| button

within status management. The button appears only if the user has authorizations for groups ZIPP_ST5 and ZIPP_ST6.

Status Overview - Fiscal Year: 2015 Version: 1

Cost Center	Description	Responsible Person	M001	NJ08	REP1	SC01	SC05	TZL1	UC01	UC08	US01	*
1000	Corporate Services	Pfaehler						3	3			3
1110	Executive Board	Kuhn					3	3				3
1200	Cafeteria	Hertwig						3				3
1210	Telephone	Nisch						3				3
1220	Motor Pool	Park						3				3
1230	Power	Hildebrand						3				3
1989	Sales-HR Classes	TSS for HR classes										
1990	Sales-HR Classes	TSS for HR classes										
1991	Sales-HR Classes	TSS for HR classes										
2100	Finance & Administration	Nagy							2			
2200	Human Resources	Gilbert										
2300	Procurement 1	Fuhr										
2301	Procurement 2	Fuhr										
2302	Procurement 3	Fuhr										
2410	RE Vacanct apartment	Eisenmann										
2420	RE Vacanct office	Eisenmann										
2430	RE Vacanct, other business objects	Eisenmann										
3010	Management Global Sales	Jane Miller										
3020	Sales US	Lorna Francis										2
3030	Sales Europe (incl. UK)	John Sullivan										2
3040	Sales Japan	Chris Nelson										2
3100	Motorcycle Sales	Jutz										3
3105	Automotive Sales	Wette										
3110	Pump Sales	Baler										
3120	Paints and Solvents Sales	Behrmann										
3125	Sales Pharmaceuticals and Cosmetics	Weiß										
3130	Light Bulb Sales	Lingen										
3135	Sales Foodstuffs	Neumann										
3140	High-Tech Sales	Braun										
3150	Elevator Sales	Lingen										
3199	Motorcycle Sales	Jutz										

Figure 7.7: Status overview for different planning layouts

The status overview is simply a display function: the objects listed are those from the original selection, but now with the status information from other layouts. It is therefore immediately recognizable which objects are also being processed in other layouts and whether they have the same or a deviating planning status.

7.7 License warnings

The number of objects in status management is also relevant for Allevo licenses, with the following rules:

- Allevo creates a sum of all objects that have a status of 3(=planning) or higher
- All controlling areas equipped with an Allevo layout are taken into account
- Each object is only considered once per year, even if it is addressed in multiple layouts

Normally, new planning objects are added with status 1: these objects are not directly relevant for license checks (only applicable as of status 3). However, the number of new objects shows whether the license limit may be exceeded as planning progresses. Therefore, when saving, Allevo also checks objects with status 1 and, if necessary, issues a warning.

Note: Changes in planning status can also be made via the additional module FP. Normally a layout with the name "FP" is addressed and also a version "FP" (see FP manual). In status management, this layout is automatically selected as soon as status entries exist.

A complete overview of the current license situation can be displayed in the Cockpit via the menu |Cockpit – License overview|. This license overview is also available in status management with a restriction for controlling area and object type via the menu |Tools – License warnings| for the following reports:

1. "Active by controlling area" shows the number of licenses per controlling area and the utilization of objects for the currently selected year. By clicking on the license number, you can see details on the license scope. From here, you can jump to a list of all license-relevant objects.
2. "Active by version and layout" shows details on license use for the current year. All layouts and versions with a status entry are displayed (summary rows are shown in yellow).
3. "All active planning objects" shows the same as information as number 2, but as an overview for all years, layouts, versions...

The overview shows the following details in the columns:

- "Active (St >=3)" shows the number of objects included in the current license
- "Licensed" shows the number of objects used for the current license
- "Active (St >=1)" shows the number of objects currently entered in the status table.

The evaluation is designed to help recognize critical situations.

Note: Usually, administrators receive a warning once per day if there are any license issues (e.g. through newly added objects). The constant ACT_LICENSE_WARNING allows this function to be customized.

7.8 Status menu for the planner

For planners that have multiple objects to plan, but have no authorization for status management, a personal status menu can be activated (via the "Value to" column for the constant STATUS; see F1 help for details).

In this case, an additional button |Status overview| appears in the upper area of the Allevo start dialog.

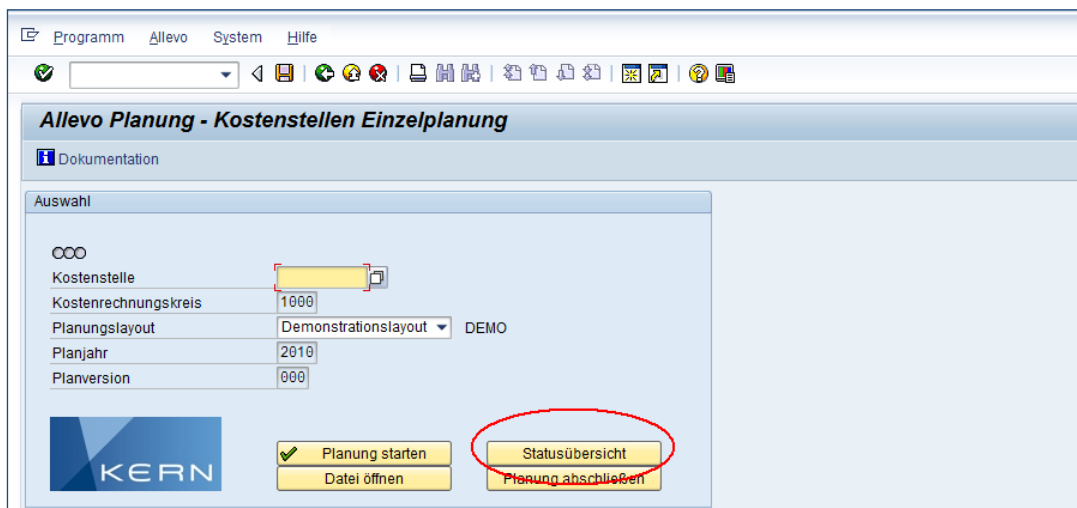


Figure 7.8: Personal status menu for the planner

In this mode, the planner only sees those objects for which they have an SAP planning authorization. Depending on the entries for the constant, the planner can change any entries, or can only set status 4 (= closed).

7.9 Display status in Allevo planning view

In the Allevo start screen as well as the planning input screen, the status of the respective start object is usually shown (e.g., CC_STATUS in the Excel master).

In the case of a MultiObject, it may be important to know the Allevo status for each listed planning object. The constant READ_STATUS activates such a function.

7.10 Constants for use with status management

The following constants have effects on functions in status management or for the display of status information:

- STATUS control call of status management for planning layouts
- READ_STATUS show status in the Allevo planning view
- STATUS_COPY Parameter for copying status information
- STATUS_FILTER default filter in status management
- STATUS_READ_ALL read objects without a valid Allevo status
- STATUS_SEND_EMAIL send an email after planning is released
- STATUS_ICON determine icons for displaying the Allevo status
- AUTH_ST5_REDUCE restrict the authorization for reducing from status 5
- ACT_LICENSE_WARNING set up warnings for license counting information

8 Allevo planning layouts

8.1 Functional overview for planning layouts

Allevo offers a very wide range of variability, if the task is to use specific planning layouts for different purposes, and access different Excel planning layouts. Due to system requirements, Allevo generally differentiates by controlling areas and object types, i.e. for each combination of controlling area and object type, a separate Excel planning layout (Excel file) must be created.

Which Allevo Master to use can be individually adjusted according to specific requirements:

- Allevo has so-called "named" planning layouts and a superior layout for each controlling area and object type (without a defined short name). Settings can optionally be made in the named layout, or in the higher-level layout, with settings being passed through if necessary.
- An Allevo-Excel Master can be integrated in different layouts, however, different masters can also be addressed in a single layout (e.g., depending on a cost center group, see Section 6.7).
- Each layout can have different authorizations (e.g., for separate planning of personnel costs)
- The satellites used are activated for the respective planning layout and these can be provided with individual authorizations

For the setup of new layouts, Allevo offers a multitude of help functions (e.g. up/download of settings or copying data from an existing layout). If an Allevo Master with appropriate constant files already exists, the Allevo wizard can transfer these settings to a new layout.

Allevo offers an evaluation of the layout depending on important characteristics (see Section 8.9).

8.2 Settings of the Allevo planning layout

With the selection of an object (for example, a cost center), it is sometimes unclear which business tasks are to be completed. Tasks can be differentiated, for example, according to budget and forecast processing for plans corresponding to different years and versions, or planning processes can be divided according to their business content, such as cost of materials and personnel expenses.

Allevo offers the possibility to define as many individual planning layouts as necessary. Each planning layout has its own settings. The planner is shown a selection of different Excel planning layouts designed for different tasks.

Different planning layouts can be created using the button |Planning layout| in the "Administration" area of the start dialog (see Figure 3.2). Only the administrator is authorized for access (authorization group ZIPP_LAY and/or ZIPP_ADM). When the menu is opened you see the following screen:

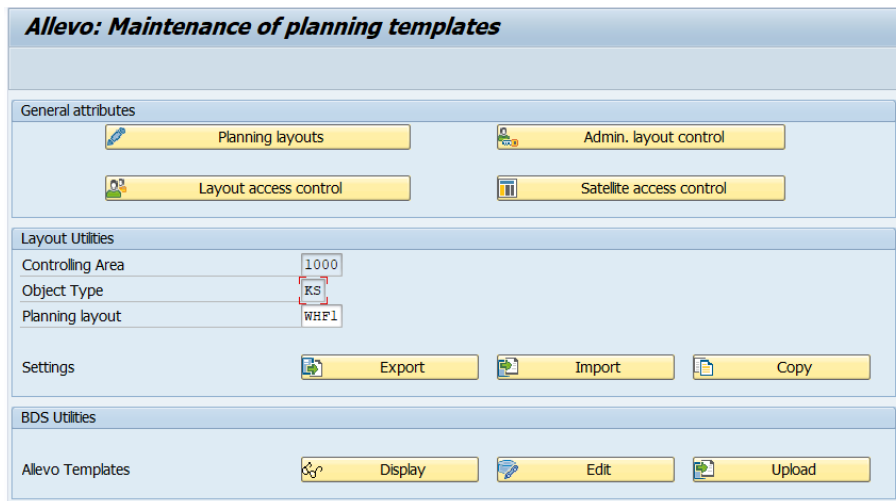


Figure 8.1: Options for defining the planning layout

From here the user can access all basic functions of layout administration (creation of layouts, allocation of authorizations, upload/download of constants ...). The respective functions are described in the following sections.

Note: The authorization group ZIPP_ZMM is additionally required for using the functions |Planning layout| to |Satellite-Authority| in the upper block (see also Chapter 23).

8.3 Defining planning layouts

The basic data of an Allevo planning layout consist of a four-character ID, a description and an indication of the application mode (e.g., MultiPage-mode).

The processing of these basic settings for the planning layout is done by clicking on the |planning layout| button with the following overview:

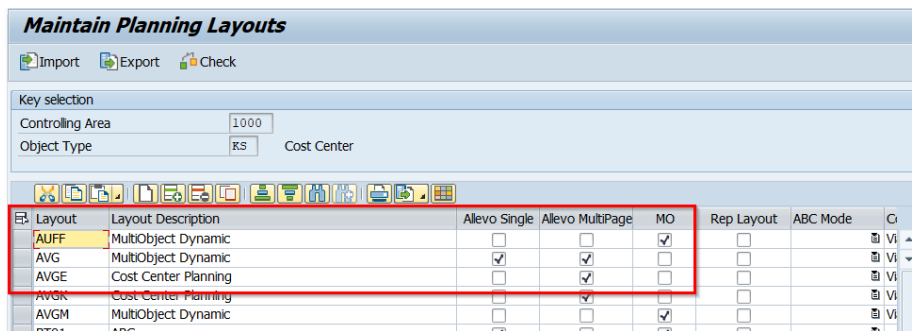


Figure 8.2: Defining planning layouts

Allevo layouts are addressed with a four-character ID and are automatically assigned to the object type of the start transaction and to the current controlling area when they are created. A description of the layout is stored in a language dependent manner, and when a new layout is created, it is saved in the current logon language. Later, when a layout is selected, Allevo first searches in the logon language and then other languages.

The entries in the columns 'Single', 'MultiPage', 'MO' (MultiObject) and 'REP' (Reporting) control the layout list on the Allevo start screen. If no entry is made, the layout is shown for all planning transactions except reporting.

Note:

When starting planning via ABC, a unique definition must be made (e.g., only mark the “Multi” column for MultiPage-mode).

As of version 3.4, “ABC mode” is selected in a separate column. If no entry is made there, ABC searches for the appropriate mode from the standard columns (see ABC manual).

Allevo Single	Allevo MultiPage	MO	Rep Layout	ABC Mode	C
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Single	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MultiPage	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MultiObject	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reporting	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HRC Reporting	

This ABC mode is also relevant for Allevo-inplace-mode if the call is made from the panel (Allevo 3.5 and higher).

Please note that for each entry made in this table, one Allevo Master must be stored in the form of an Excel file containing the actual planning interface. Please read Section 20.9 for more information.

The individual performance of a layout results from the assigned constants or other settings. For this reason, it is often useful to copy an existing layout or to create a new constant file via import (the relevant parameters can then be changed). The Allevo Wizard uses the same approach.

Delete layout

To delete a layout, the appropriate row is simply removed from the ALV list. When editing of the list is complete, Allevo checks the missing layouts with a security query. If desired, all data / settings are deleted from the Allevo tables that were previously assigned to the layout (not only the master record).

In earlier versions, the settings are saved in the background (e.g. constants, but also status information), optionally, the layout could also be rebuilt with the entry of the ID. In order to locate the data from these old layouts, Allevo offers a check function: the data for such old layouts can be subsequently deleted.

8.4 Read data for a layout with the Allevo Wizard

This function simplifies the creation of a new layout by reading existing constant files. In this case, the planning master is addressed via Allevo file management. The corresponding file path is automatically applied. Consequently, the layout can be immediately used for planning without further configuration (e.g., also for planning a workshop)

The wizard is called from the “Editing” menu in the Allevo Cockpit.

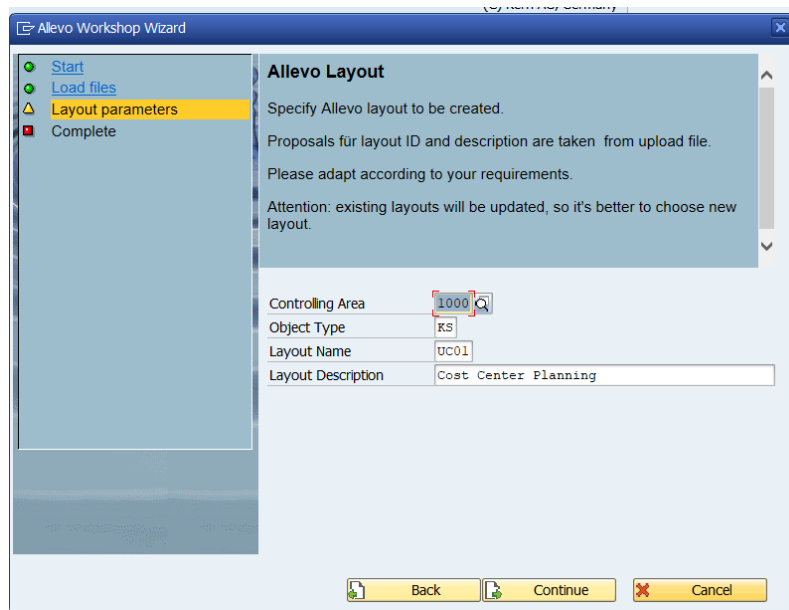


Figure 8.3: Allevo Wizard for the creation of planning layouts

In the first step, a path for accessing the Allevo Master and for reading a constant file is entered. In the second step, IDs and descriptions for the layout can be assigned (defaults are from the imported constant file). The Wizard is designed to quickly create a new layout; if a layout already exists, a warning is displayed.

8.5 Access control for planning layouts

Allevo uses the authorization object ZIPP_LAY to control access to planning layouts. This authorization object is only evaluated by Allevo if it is defined in the system by the authorization administration (see Section 23.5). Additionally, authorization access can be controlled directly via Allevo settings. This can be useful if access should be temporarily changed during the planning process.

The access authorizations for planning layouts can be given to a single employee, or also for an appropriate SAP user role. The two buttons |Layout authorization| and |Admin authorization| reflect these two options (see Figure 3.1):

- **Authorization for planning tasks**
This function restricts access to the use of planning layouts. Example: a planner can access the layout for materials costs, but not the one for personnel costs. Only the layouts with a valid authorization access are shown in the Allevo start screen.
- **Authorization for layout administration**
Defined here are the specific tasks that the layout administration can execute, i.e. what changes can be made to the Allevo settings (e.g., for editing |constants|, |cost element groups|, |1:n planning| etc.).

Access authorizations are assigned for each layout, either at the user level or via roles.

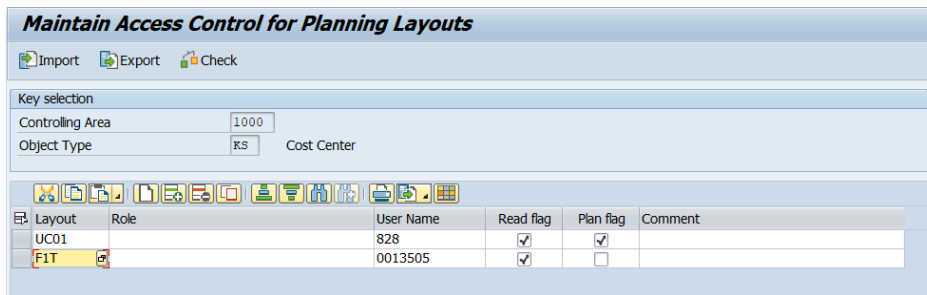


Figure 8.4: Controlling authorization for planning layouts

Figure 8.4 shows the input screen with authorizations for planning tasks. Here, planning and reading are differentiated. In the “reading” mode, the button for “transfer plan data” may be missing in the Excel input screen.

Note: If the “planning” flag is inactive (i.e. only reading mode is set), the usual SAP authorization checks will still be made when calling a planning transaction. This means that planning authorization is still required. The control here is different than in reporting mode.

At least one of the two flags must be marked, otherwise the layout will not appear for selection in the Allevo start screen. If the current user only has access to a single layout, this layout is automatically suggested in the selection field of the start transaction.

A note in the comment field can also be helpful if access authorizations are temporarily changed.

Note: Entries are only required if restrictions are explicitly wanted. If no entry is made for a planning layout, all planners or administrators are authorized to use the planning layout. However, as soon as an entry has been made, the access authorizations only refer to existing entries.

The access authorizations apply additionally to the authorizations defined in SAP on object levels. Thus, the SAP planning authorizations are not circumvented.

For a layout, the character * can also be entered: in this case the current authorization applies for all existing layouts automatically.

8.6 Access authorizations for satellites

As with the layout, access to satellites can be defined for each user or via SAP authorization roles. Authorizations are verified when accessing a satellite via Allevo during planning, when retrieving data in the reporting interface and when uploading/downloading satellite data in the additional module “Allevo-Shuttle”.

Note: A restriction for satellite access is often required with respect to personnel planning (data protection).

In this context, separate filing locations for satellite data are sometimes needed (in another SAP system, such as HR system). For this application, Allevo offers specific remote functions for accessing satellites (see Section 14.8).

Authorizations for the access to satellites are allocated via the |Satellite authorizations| button (see Figure 8.1). The entry in the field "Type of authorization" defines whether access is allowed for satellite maintenance (and Shuttle) or for planning tasks (including reporting). Satellites without access authorization may not be shown in the selection lists (see also Section 14.9 and the Shuttle Manual).

8.7 Copying and adapting constants

Every entry made in the table in Section 8.3 requires its own constants and parameters in the row definition, i.e. every planning layout has its own constants and parameters. In this way, flexibility of use is ensured.

With the copy function (see Figure 8.1), the constants and row definitions can be easily transferred to the newly created planning layout. If the constants need to be changed for the new layout, this can be done directly from this menu.

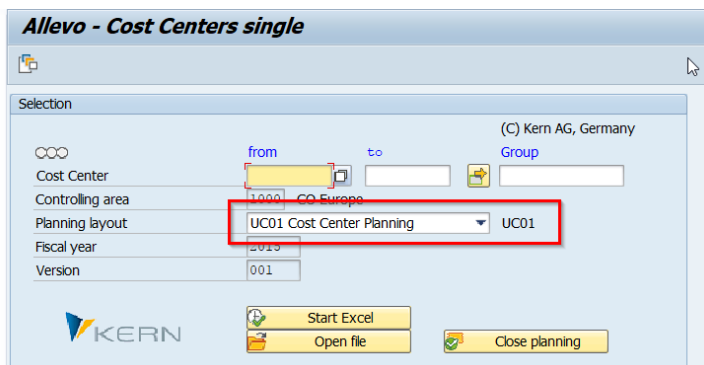
Note: The basic setting of the constants – before the definition of further planning layouts – is copied by the entry “*” under planning layout.

Further functions of constants are explained in detail in Section 6.12.

8.8 Layout when entering the planning transaction

When all settings are made, the layout is added to the selection list in the Allevo start screen (See Figure 8.5) At this point, the planner needs to select the planning layout appropriate for the business task at hand – be it personnel planning, material costs planning with identical constants or projection with a different planning version in the background.

Note: The planner only sees the planning layouts they are authorized to access in the input screen (see Section 8.5).



The screenshot shows the 'Allevo - Cost Centers single' selection screen. It features a 'Selection' section with the following fields and values:

- Cost Center: [Empty]
- Controlling area: 1000 CO Europe
- Planning layout: UC01 Cost Center Planning (highlighted with a red box)
- Fiscal year: 2019
- Version: 001

At the bottom of the screen, there are three buttons: 'Start Excel', 'Open file', and 'Close planning'. The KERN logo is visible in the bottom left corner.

Figure 8.5: Using different planning layouts

8.9 Layout overview

The many ways to work with Allevo can lead to a large number of layouts in order to set up the corresponding functions. Sometimes the overview can be lost, especially if central parameters are to be changed.

In this case, Allevo provides support via the transaction /ALLEVO/LAYOUT_INFO or the corresponding entry in the Cockpit menu: a list of central parameters and characteristics of the layouts used is generated. Some topics include:

- Layout master data
- Number of objects with status information

- Number of satellites and their application
- Number of assigned groups (via 1:n functions)

Currently, this list has only display functions. Therefore, no explicit authorization checks are carried out in the program.

In addition to the layout overview, the transaction /ALLEVO/SAT_INFO provides a where-used list for satellites: all layouts in which satellites are integrated are listed (see Section 13.11).

9 Data transfer from SAP to Excel

9.1 Read reference data

The read function concerns the display of historical data (reference data) in the Excel file, as it is regularly wanted in the planning process. The data is displayed in Excel columns which are defined by the Allevo column definitions. For each year, additionally differentiated according to plan/actuals/budget/commitment and/or quantity/value/price, there is a separate column and thus a separate column definition.

This allows historical data to be read for almost any number of years and versions. Multiple monthly tables with 12 month blocks are available exact monthly planning.

For reading and for writing operations, individual column definitions can be limited to months, quarters or half-year periods.

Normally, this information is defined by the Controlling and is therefore fixed for the execution of planning. Depending on the planning process, the selection (e.g., for year and version) can also be carried out by the planner themselves, either at the start of a planning transaction or directly through changes on the Excel side. These individual options are controlled via constants (see constant FLEX_VERSION or DYNAMIC_COLDEFS).

9.2 Dynamic reading

The manual planning of secondary costs (activity cost allocation and secondary costs from order settlement) cannot be carried out on the basis of the cost element alone. In addition, the sender relationship, i.e. the sender cost center and the sender activity type, must be defined.

Due to the huge number of possible combinations, it is, often very difficult to take account of all conceivable sender relations when setting up the planning template (Allevo Master).

For this reason, Allevo offers the option to dynamically generate the lines for input activities and secondary order settlement costs in the Allevo Master – all while the reference data for the relevant object is being read. For each historical posting relationship, Allevo automatically generates a new row in Excel, specifying the cost type, the sender cost center and the type of sender activity.

In this context, we talk about the dynamic ranges:

- Z for activity allocation
- Y for indirect activity allocation through order settlement
- X actuals credits from activity allocations.

Please see the Allevo-Excel manual for more detailed information.

For Allevo 3.3 and higher, the dynamic ranges can also be used for external activity relationships (see details in Section 25).

Note: The use of dynamic ranges may be quite performance intensive, as read operations are carried out without definite selection criteria. For this reason it is possible to specify the cost elements to be considered for the dynamic via the settings in the folder |Dynamic ranges| (see Section 6.8).

If using MOD, data for all cost centers in the initial selection are read (valid for version 3.5 and higher, for earlier versions, only for the representative cost center.)

9.3 Currencies

Data can be read in each of the currencies specified, i.e. in the controlling area currency and in object currency, or in both currencies simultaneously. This is controlled via the column definitions.

9.4 Actuals values; fixed and variable

If required, actuals values can be differentiated according to fixed and variable portions. The necessary settings can be made in the column definitions (definition for "second currency/fixed portion").

Note:	<p><u>Prerequisite:</u> The SAP system carries forward the differentiation into fixed and variable portions in the secondary cost totals tables.</p> <p>If this is done via splitting, care must be taken to represent splitting via the transaction KSI1/KSP2 (actuals/plan primary). The transaction also controls split primary costs in COSS, where they are read with value type 2 (plan) or 3 (actuals).</p>
--------------	--

9.5 Reading cost center activity types from SAP

In the case that activity types are to be planned for a specific cost center, Allevo allows the user to read out the available activity types from the system when the cost center is opened.

Criteria is the availability of a price for the activity type of the cost center corresponding the required combination of planning year and planning version as per column definition CX_WW, i.e. if prices are already planned (even temporarily) the activity type will also be read for the cost center (based on the SAP table COST).

The function is activated via the constant LSTAR_FROM_SAP: subsequently, all identified activity types of the current cost center are transferred to the Allevo Master (entry made in rows with row definition M, including the activity type description).

Note:	<p>For this reason, at least as many lines as the maximum number possible for a cost center should be configured for activity planning in the Allevo Master. The activity types are listed in alphabetic order.</p>
	<p>The CY_KEYS column (sender activity type; normally only necessary for activity input planning) in the Allevo Master shows the activity price indicator of the relevant price.</p> <p>If rule planning is activated for the combination of cost center and activity type (see Section 12.2), X is added to the price indicator (with reference to the definition in the "Activity type" table belonging to rule planning). This can be useful for the case that prices with an activity price indicator 3 (manual planning) are to be planned with Allevo.</p>

9.6 Cost centers with costs from assigned objects (OR, PR)

In this case, Allevo calculates totals from the direct costs for the cost center and the cost of the corresponding orders or WBS elements (corresponding to the assignment in the master record). Restrictions are possible, e.g., by object class. The function is controlled via the following constants:

- KOSTL_WITH_OR read cost centers with the assigned orders
- KOSTL_WITH_OR_EX definition of individual selection characteristics in orders

- KOSTL_WITH_PR read cost centers with assigned WBS elements

9.7 Projects with costs from assigned objects

The functions described in the last section are available in a similar form for projects. The following constants are relevant:

- PSP_ACT_CUMULATE actuals costs with values from subordinate WBS elements
- PSP_WITH_OBJECTS and PSP_WITH_OBJECTS_OR, for reading WBS elements and assigned objects

Further details can be found in Section 6.5.7.

9.8 Read quantities for primary costs

It is also possible to read out and plan quantities according to primary cost types. For this purpose, use the row definition B. The procedure is analogous to that in Section 11.8.

Note:	Primary costs on monthly level cannot be processed simultaneously with quantities
--------------	---

9.9 Display prices for activity allocation

In addition to the reading function already mentioned, Allevo offers a feature for viewing planned activity prices used for the allocation of activities. The extensions of the column definitions “_PV” (variable activity price), “_PF” (fixed activity price), “_PU” (activity price unit) are to be used on the Excel side.

Note:	With the value category "Actuals" for column definitions, actuals values for prices are also read. Otherwise its planning values are read (see also constant TARIF_WRTTP).
--------------	--

9.10 Elimination of IC sales

The constant IBV_ELIM activates the Allevo elimination of IC sales.

Effect for CCA: When the reference data is read, data records are deleted for the row definitions F, G, I and J (secondary costs, reading via the cost element), in which the sender and receiver of an allocation are simultaneously elements of the selection.

In profit center accounting, the function is available for the row definitions A, B, C and D, and additionally for P for profit center integration. The activation is independent of the settings for CCA.

For further details, see the documentation for IBV_ELIM.

9.11 Restrict reference data via additional attributes

Allevo allows you to restrict the read data via additional attributes that can be individually defined in Excel (e.g., restrictions for a specific functional area). For the transfer from Excel to SAP, Allevo uses a column key with a special meaning: currently, these are CY_KEYR and CY_KEYS A.

The constants READ_WITH_KEYR and READ_WITH_KEYS A control which additional attributes should be taken into account and for which column definitions these should apply. Additional attributes

could be: functional area, partner functional area, and cost center group, or any field with the database table. For details see the F1 documentation for the constant READ_WITH_KEYR. The additional restrictions can be especially useful for applications within profit center (see Profit Center manual).

10 Display line items

Allevo inplace allows the planner to call a line item report with the respective button.

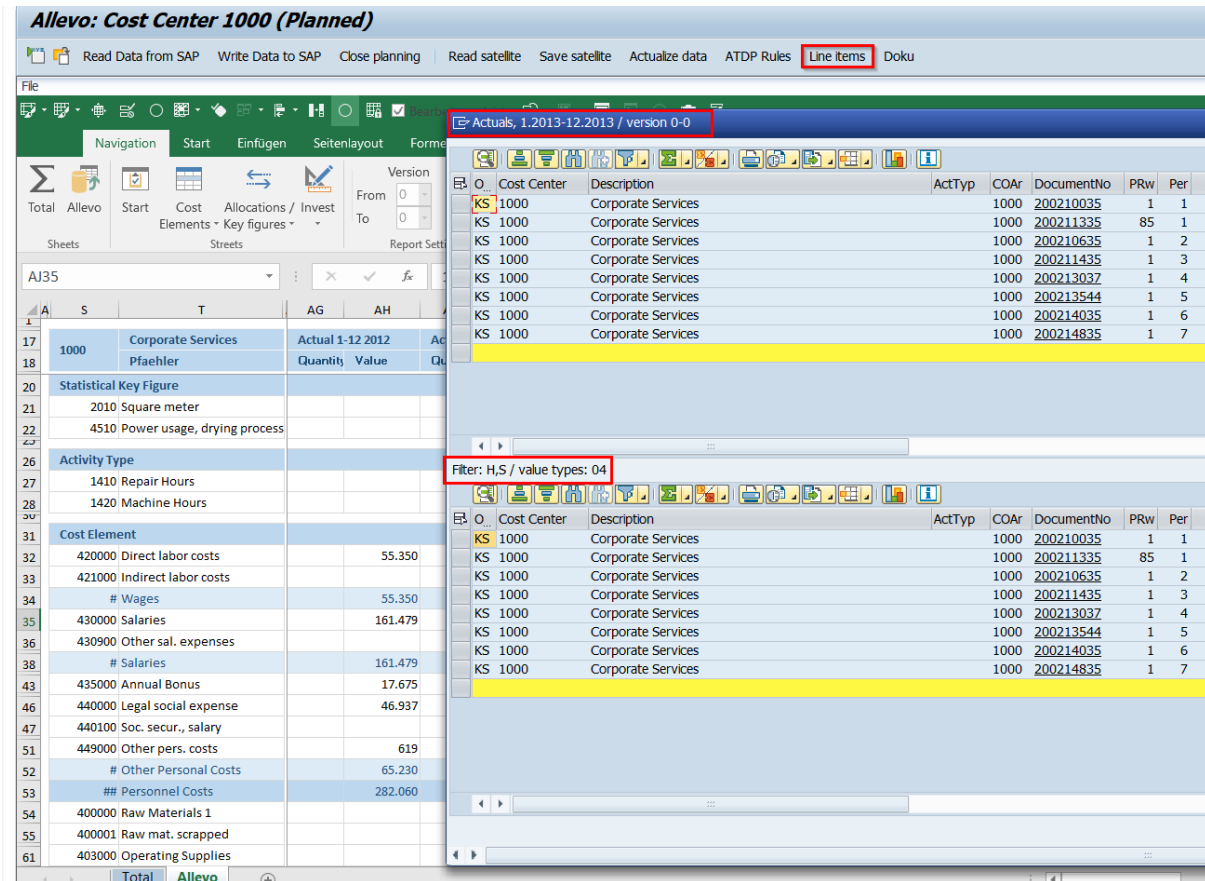


Figure 10.1: Line item report (here for a profit center)

This function only generates a line item report for the active column in Excel. The displayed report is divided into two areas:

- In the upper part, line items are shown as they would appear in the SAP report.
- In the lower part, line items that are decisive for the calculation of the total value of the current cell are displayed. The filters that are set via the row and column definitions in Allevo are also applied here (e.g., business transactions or debit/credit sign).

If two different row definitions for reading are active in the master (column "read" and "read2"), then the contents of the line item list are also selected in two steps according to the two line definitions. In the header for each part of the report, the selection criteria are shown (see green arrows in Figure 10.1).

The display if line items can be called for plan, actuals, and commitment.

Note: The list for the line item report has multiple columns, whereby the combination depends on the respective object type. Here, a logical pre-selection should be made and saved as an ALV variant (to support the end user). Allevo separates ALV variants depending on whether values for planning, actuals or commitments are displayed.

Optionally, ALV variants can also be saved depending on the object type. This can be especially useful in MultiObject applications, if different object types are consolidated in an Allevo Master (see constant `LINEITEM_LAYOUTS`).

Individual columns in the line item list are underlined (e.g., purchasing document number). Here, a link for the corresponding SAP original document is stored (for calling via SAP document flow). If this jump is not wanted (for data protection reasons), please pay attention to the constant `LINEITEM_EXCLUDE`.

The following constants allow for individual controlling of the line item display:

- `BUTTON_LINEITEM` contains the text for the button |Line item| and can also hide the button completely.
- `LINEITEM` determines which of the two table sections should be displayed
- `NO_LINEITEM_BUSTRANS` controls the differentiation between primary and secondary costs.
- `LINEITEM_EXCLUDE` allows the call of original documents to be prevented for certain document types.
- `LINEITEM_LAYOUTS` allows, ALV variants to be saved depending on the object type

Note: For offline use, it can be helpful to transfer information on line items directly to the Allevo Master. The transaction `/ALLEVO/SAT_LITEMS` makes this possible (see also Section 15.10).

11 Allevo planning function

11.1 Overview

The planner is the person in charge of the planning of objects such as cost centers, internal orders or WBS elements. They have the option to retrieve the Excel planning file via the SAP transaction and to transfer the plan data of their planning object to SAP.

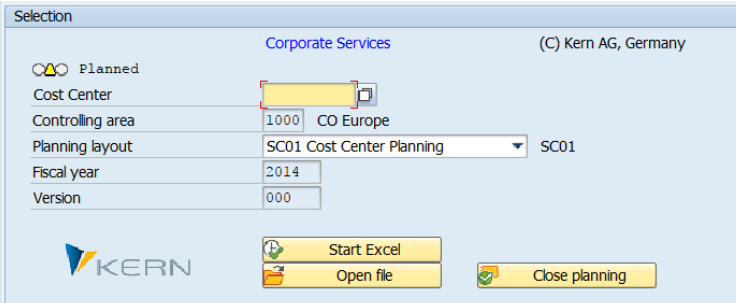


Figure 11.1: Input screen after a call from the planner

In the simplest scenario, after calling the relevant planning transaction, the planner only needs to enter the number of an object (i.e. a cost center, internal order, or WBS element¹, see Figure 11.1).

Note:	It is only possible to plan cost centers or orders that have first been created as master data in SAP and released for planning by an Allevo status.
	If the Allevo Master is also defined in relation to the planning layout (see Section 8.2), then the mandatory Planning Layout field will also appear in the start screen.

The controlling area is taken from the user specifications and can be set under the menu item |Allevo|. All other visible details are specified by the administrator and only displayed to the planner for their information.

By pressing the |Start planning| button, the Excel planning layout (see Figure 11.2) is opened. Alternatively, the planner can open an Excel planning file which has already been processed. In this case, a planning object must also be entered, and Allevo checks to make sure that all entries in the saved data are valid.

¹ Instead of a WBS element, a project can also be entered. Allevo then searches for the WBS element that is representatively planned for the project (see also Section 6.5.7)

The screenshot shows the SAP Allevo Cost Center 1000 (Read) interface. The top menu bar includes options like 'Read Data from SAP', 'Write Data to SAP', 'Close planning', 'Read satellite', 'Save satellite', 'ATDP Rules', 'Line items', and 'Doku'. Below the menu is a toolbar with various icons for navigation and data management. The main area displays a table with columns for 'Actual 1-12 2012', 'Actual 1-12 2013', 'Actual 1-7 2014', and 'Plan 1-12 2015'. The table lists various cost elements such as 'Corporate Services', 'Direct labor costs', 'Salaries', and 'Raw Materials 1'.

Line	Cost Element	Actual 1-12 2012	Actual 1-12 2013	Actual 1-7 2014	Plan 1-12 2015	Plan 1-12 2015
		Quantity Value	Quantity Value	Quantity Value	Price Quantity Value	Quantity Value Comment
17	1000 Corporate Services					
18	Pfaehler					
31	Cost Element					
32	420000 Direct labor costs		55.350	33.178		480.000
33	421000 Indirect labor costs					88.888
34	# Wages		55.350	33.178	0	568.888 0
35	430000 Salaries		161.479	144.222		905.806
36	430900 Other sal. expenses					57.689
38	# Salaries		161.479	144.222	0	963.495 0
43	435000 Annual Bonus		17.675			200.000
46	440000 Legal social expense		46.937	26.847		222
47	440100 Soc. secur., salary			9.259		333
51	449000 Other pers. costs		619	361		
52	# Other Personal Costs		65.230	36.467	0	200.555 0
53	## Personnel Costs		282.060	213.867	0	1.732.938 0
54	400000 Raw Materials 1					56.000

Figure 11.2: SAP menu fields in the planning view (here, Allevo for cost centers)

After opening the most recent history of the relevant cost center via |Read reference data|, the planner can start carrying out the planning. This is done by entering the planning values into the cells provided for this purpose. By pressing the |Transfer data| button, the planner can transfer the data to SAP, even repeatedly. This means, each time this function is executed, the planning values in SAP are updated to the state represented in the Excel file.

With |Close planning|, the planner confirms that they have finished the planning of cost centers/orders/WBS elements. Allevo always checks if plan data have already been recorded: Status “3 = planned” must be stored. After calling the close planning function, the status changes to “4 = closed”, and the planner cannot make any further changes (see Section 7). Special cases:

- In MultiPage-mode, the main objects of all Excel sheets are closed.
- In MultiObject-mode, only representative objects are closed (appended objects are not closed, also applies to cross-object type planning).
- With MOD, all objects of the start selection (e.g., an object group) are closed (if previously at status 3).

The described buttons (and others) can be given different descriptions by using constants, or can be completely hidden. The following table shows an overview of the available functions.

Allevo functions (buttons can be hidden or re-named)	
Read reference data	This function is used to read all data existing in SAP for the current object (such as the cost center) and to transfer the data into the Excel planning file. The settings for the current layout specify which data is read (in particular via line and column definitions, see Chapter 6). Following the initial reading of the actuals data, the planning status is set to "In progress" (constant BUTTON_REFDAT).

Allevo functions (buttons can be hidden or re-named)	
Transfer plan data	<p>Transfers all plan data of the Excel planning file into the relevant SAP tables (also data of the satellites). The planning can be traced directly via classic SAP reports (constant BUTTON_PLANDAT).</p> <p>Optionally, Allevo can simulate the first step of the transfer to check for possible error messages and warnings (see constant PLAN_TESTRUN).</p> <p>The constant WARNUNG_PLANEN defines what should happen if the planner has not read any reference data.</p> <p>The button for “Transfer plan data” is automatically hidden if Allevo switches to reporting mode (see Section 23.8.2).</p>
Close Planning	<p>Used to terminate the planning. The planning transaction is then blocked for the respective cost center (constant BUTTON_PLAN_END).</p> <p>The block can be removed again by the status administrator (see Chapter 7). If the constant STATUS_SEND_EMAIL is set, Controlling is informed of the closed planning via email.</p> <p>In MultiPage-mode, all objects in the master are closed (e.g. an entire group).</p> <p>In MultiObject-mode, planning is closed in an “object type pure” manner, so that planning can be reopened later if necessary. Example: when starting with a cost center, corresponding orders are not closed (version 3.3 and higher). The constant CLOSE_OBJECT_MO should be used if the start object contains no plan data of its own.</p>
Read satellite	<p>This option only reads the contents of a satellite, irrespective of the other reference data available. When the button is clicked, a selection list of active supplementary tables appears. Additionally, a version can be selected (constant BUTTON_SAT_READ). See constant SAT_BUT_READ_ALL to read all satellites simultaneously.</p>
Save satellite	<p>This button is used to transfer the contents of the satellite table from Excel to SAP without additionally transferring any other planning to SAP. (constant BUTTON_SAT_SAVE). See constant SAT_BUT_SAVE_ALL to save all satellites simultaneously.</p>
Line items	<p>This button is used to open the single items report for a specific cost element. The cursor must be placed on either plan or actuals values (constant BUTTON_LINEITEM). See constant LINEITEM to configure the line item list).</p> <p>Allevo can also transfer line items in satellites and make them available for offline planning.</p>
Refresh data	<p>Only appears in status 3. Starts a Refresh of plan data only (constant BUTTON_PLAN_READ).</p>
Read FP	<p>Only appears when the additional module for flexible processing is activated for the reading function (constant BUTTON_FP_READ).</p>
Open file	<p>Open existing Excel file (constant BUTTON_DAT_OPEN).</p>

Allevo functions (buttons can be hidden or re-named)	
Save as	<p>Save the current Allevo Master as an offline or backup file including reference data and current plan data (constant <code>BUTTON_SAVE_AS</code>). The suggested path and file name can be preset via the constant <code>FILE_BACKUP</code>.</p> <p>This function is also called by default if the Allevo planning view is exited via F3.</p> <p>The file can be used for further planning in offline mode and then later uploaded to Allevo using "Open file".</p>
Display ADP rules	This function shows the SAP tables that contain the rules for the activity dependent planning (constant <code>BUTTON_LSVAR</code>).
Documentation	Displays customer-specific documentation on the planning process (constant <code>BUTTON_DOCU</code>).
Save comments	Only in reporting mode: saves comments (constant <code>BUTTON_COMMENT</code>).
Comment overview	Only in reporting mode: Overview of reporting comments (constant <code>BUTTON_COMVIEW</code>).

Each time one of these functions is called, Allevo can optionally query the current status of the data entry on the Excel-side (execution of macros on the Excel-side) in order to stop the execution of a certain function if necessary. This makes it possible to use individual Excel functions for completeness checks.

The constants mentioned here allow two central settings of buttons to be configured:

- Individual text can be used in place of the standard texts shown in the list above. The descriptions can be language dependent.
- Depending on the application, it may make sense to hide the button completely. This can also be done with respect to specific SAP user names.

For further details, see the F1-help for the constants beginning with "BUTTON_xxx".

Two other buttons are available for supporting customer-specific requirements. The respective functions can be implemented as a customer-specific ABAP development within the framework of the implementation project (see the description for `BUTTON_CUST1`).

When exiting the planning view (e.g., via F3), Allevo asks if the current processing status should be saved in an offline Excel file. This corresponds to the "Save as" function. With the constant `BEENDEN_TEXT` further queries and functions can be saved in this dialog.

Note:	<p>By default, numbers in Allevo value fields have two decimal places (when planning yearly and monthly values). This can be changed with the constant <code>NO_ROUNDING</code>.</p> <p>By default, Allevo adheres to the SAP sign rule for absolute fields: costs have a positive sign, debits have a negative sign. The constant <code>SWITCH_SIGN</code> allows the inverse representation, i.e. each time the data is transferred between SAP and Excel, the sign is reversed.</p>
--------------	--

11.2 Edit plan data offline

The previous chapter described how planning is performed directly in SAP when Excel is started directly via an SAP transaction. The "Save as" button allows the planner to save an already opened

master as a local Excel file, and then resume planning offline. All relevant reference data are then contained there.

In the second step, the data of this planning file can then be uploaded back to Allevo. The |Open file| function in the start screen of the planning transaction (see Figure 11.2) can be used for this purpose. In this case too, the appropriate planning object must be re-entered. Allevo checks whether all the data stored in the saved file are correct: afterwards, Allevo opens the planning file and the same functions are available as described in the last section (including the transfer of plan data).

Note: For an import, the data must be saved so that SAP recognizes a valid file path. Otherwise, an error message will appear from the SAP Desktop Integration. No special characters (including periods) should be used in the name. Since the import of each planning file is first copied in the temporary Windows directory, the same rule applies to the path here (see the Windows environment variable %TEMP%).

If Allevo is only partially used in offline mode, it is possible that an object (such as a cost center) could be directly changed in the system by employee 1, while employee 2 enters plan data in an offline file, uploads it later and then overwrites the previous entries. In this situation, the constant `WARNUNG_VORLAGE` can be helpful.

If planning is regularly done offline, the saving and uploading of files one at a time is a labor-intensive process. To reduce this complexity, special Allevo additional transactions are available for offline planning. They allow you to generate all relevant Excel files in one step and also to import data from any number of files back to SAP (see details in Chapter 18).

11.3 Content of cost center, order and project planning

Allevo differentiates the following planning areas:

Area	Contents	Cost Centers	Orders	WBS elements
Statistical key figures	Fixed or total values	x	x	x
Activity planning (activity output)	Activity type, quantities, prices (if applicable)	x		
Primary costs	Cost element, values, quantities (optional)	x	x	x
Activity input (Debit)	Cost element, sender objects, activity type, quantities	x	x	x
Order settlement (Debit), Primary cost share	Cost element, values	x	x	x
Order settlement (Debit), Secondary cost share	Cost element, sender objects (source object), activity type, quantities	x	x	x

A planning comment for a key figure, activity type and cost element can be entered for all planning areas. In addition, it is possible to record a general comment for each object.

In the planning process it is often normal that the quantities or values for an activity type or cost element are derived from preceding calculations or lists. Here, Allevo enables the individual utilization of the full Excel functionality. By using the "satellites" function (see Section 14) it is possible to specifically transfer such information into a central table in SAP and, in doing so, make it available for controlling in a convenient manner.

As a rule, only absolute planning values are recorded via Allevo. When posting via stored SAP functions, Allevo automatically checks the difference to the previously planned value and posts the delta document to the planned line items. If the delta value has the value zero (because the same value has been passed several times), then zero values are also generated for the line items. To avoid these unnecessary documents, the fixed value NO_ZERO_DELTA must be set (see F1- documentation).

Note: For information on the planning of profit centers please refer to the Profit Center manual.

11.4 Planning horizon

Almost unlimited years/versions can be planned simultaneously from one Excel planning layout (also for any number of months).

If planning is to be made depending on the activity type and this should be carried out directly from the Excel planning layout, quantities and values per activity type can only be transferred for the first year (according to column definition CX_WW). Planning of the other years is activity independent.

Activity type dependent planning by rules (see Section 12.2) is not limited by these restrictions.

11.5 Monthly / periodic distribution of planned values

Multiple planning alternatives are available:

- Annual values with specification of the SAP distribution key
- Splasher function in the Allevo Master for the distribution of annual values to months and planning based on monthly values (see Allevo & Excel manual)
- Direct input of monthly values in the Allevo Master

The distribution key is customized in a separate column for each key value (e.g. cost element). By extending the column definitions (suffix "_DKV" for variable and "_DKF" for fixed) the distribution keys can be used for specific years and versions (such as CX_WW_DKF for the main planning year).

Note: The above extensions to column definitions replace the former Allevo column definitions CY_DISKEY. When upgrading a project, the Master must be adapted accordingly.

Examples for the SAP distribution key:

1 = Even distribution

2 = Analog distribution (default in Allevo)

3 = Percentage distribution (multiplication of each period with the previous value)

If no distribution key from Excel is provided via the column definition, Allevo uses the SAP distribution key "2 = Analog distribution" with the following effects:

- If planning values were previously posted, then monthly distribution is used as the basis for the distribution of the new planning values.
- Without previous planning values, even distribution is used (same as for 1).

The simplest case is for the distribution key to be permanently stored in the Master. Alternatively, Allevo can read an existing distribution key from SAP. This function is controlled by the constant READ_DISKEY for values and quantities and READ_DISKEY_ALL for reading the “total” distribution key.

Note:	In the case of the statistical key figures, the distribution key is only relevant for the key figure type "Total values". For the key figures of the “Fixed” value type, the annual value is posted for each month (as with SAP, the type is set up in the master data for the key figure).
	For individual cost elements the “Either-Or” principle applies. Specific combinations of year and version are planned exact-to-the-month or per year. Nevertheless, it is possible to plan on a monthly basis during the first year, on a three-month basis in the second year and on a six-month basis in the following years. This decision can also be made individually for each cost element.
	The Allevo Master offers a function for bi-directional planning. This allows bi-directional entries in the year column and in the month column in Excel. Distribution information is maintained even if the year column is edited. The function requires no formulas (see the section on the "Splasher" function in the Allevo & Excel manual).

11.6 Planning for cost element groups (1:n)

Frequently, there is a need to orientate planning more by cost element groups than by individual cost elements. For this case, Allevo offers an interesting additional functionality for planning. Allevo uses so-called “representative cost elements” (see Section 6.6 for details on the settings of this function). In the Excel planning layout, the key for the cost element group is entered instead of a single cost element. When reading the reference data, Allevo aggregates the data from all cost elements of the group. The planning is then executed later for the assigned planning cost element according to the process specified by the Allevo row definition.

Note:	In general, this functionality is only useful for planning primary costs and primary order allocation costs. When integrating secondary cost elements, the planning context needs to be taken into account.
--------------	---

For parallel posting via SAP transactions, please note the following: If plan data are also entered via SAP transactions (such as KP06), this must also be done for representative cost elements in the same way. Otherwise, the next time reference data is read by Allevo, it would create a sum for the plan value, and if further corrections were made by the user, the entire planning value would additionally be written to the representative cost element (delta posting is not intended here).

In MultiObject-mode, it is possible to switch between CO object types and profit centers. This switch is also observed by Allevo when interpreting cost elements or account groups (e.g., when ungrouping into cost elements/accounts and reading from reference data). If both types of groups are entered differently in the SAP system, this information must also be stored in the Allevo settings (see note in Section 6.6).

Reporting function: For Allevo 3.0 and higher, there is no need to specify cost elements if data is only to be read for the respective cost element group. This helps to avoid entering plan data by mistake. However, it is still possible to enter comments via row definition T in the Allevo Master.

11.7 Planning for object groups (1:n)

A similar feature for planning object groups (cost centers, orders or WBS element) is also available. Planning is then done via a single representative object with the values read for the group.

- In contrast to planning for cost element groups, this representative object (such as a single cost center) is also entered as a planning object in the Allevo Master (column MO_AO). However, the values of all objects in the group are read.
- In current Allevo versions, the ID of the group can be entered in the Excel sheet (see constant MULTI_WITH_GROUPS).

Care should be taken to make sure that plan data are only entered for the representative objects. Otherwise, the next time reference data is read by Allevo, it would create a sum for the planning value, and if further corrections were made by the user, the entire planning value would additionally be written to the representative cost element (delta posting is not intended here). This is especially important if plan data are entered in parallel via SAP transactions (such as KP06).

Section 6.5 describes the setup and execution of 1:n functions.

11.8 Quantity planning for primary costs

When using row definition B, quantities can be planned for primary costs. For this, quantities must be allowed for the cost element and a unit must be defined (see the flag “Apply quantities” in the master record for the cost element). The following conditions must also be met:

- A quantity is stored in the master record for the cost element, or
- The quantity is provided during posting. In this case, Allevo uses the key CY_KEYR for the transfer from Excel to SAP. Important: the quantity transferred for each cost element must be consistent (i.e. no changes after entering the first planning value).

Quantities can be planned both as activity type-dependent or -independent.

Note:	SAP note 352610 – quantities: Updating of CO summary records to show which restrictions are retroactively applicable for the recording of quantities per cost element.
--------------	--

11.9 Create plan comments

Allevo allows multiple variants for creating comments within planning:

(A) Sheet comments

- In the Excel range CC_COMMENT a long text comment can be created and is then saved to the currently active object (e.g. to a cost center).
- An exception to this is the MOD variant in MultiObject-mode. When starting via a group, comments are saved to this group (if the group structure changes, the comments remain intact).
- In MultiPage-mode comments can be made per sheet and per object.

- Long text comments are saved in the Allevo table /KERN/IPPLTEXT. A maximum of 5000 characters can be saved.

(B) Plan comments

- Detailed plan comments are created for each posting combination (e.g., for an object and cost element). These can be controlled via the write column definition: this allows multiple comments to be created in a single Excel row (enter in Excel using an “N” suffix for the column definition).
- On the Excel side, row definition T specifies that no values should be handled, but rather only text (or only values in month columns).
- The entries in the Allevo table /KERN/IPPCOMMENT with reference to the respective column definition are saved. Other characteristics such as year and version are derived from the current column definition. The comment text may contain max. 255 characters. Special cases:
 - Depending on the planning process (for example, with row definition C), a comment is stored together with the ID of the activity type (that is, for each KL object). Such texts may not be found when reading via a deviating row definition (see constant LSTAR_COMMENT_OFF to skip activity type).
 - Optionally, a comment can be saved with additional information to the sender, e.g., a combination of sender cost center and sender activity type (table field KLOBJEKT, see constant LSTAR_COMMENT_ON).
 - Additional attributes (such as functional area) are activated for planning via the constant READ_WITH_KEYR (see F1-help). A corresponding characteristic value in CY_KEYR is also taken into account when saving and reading comments.

(C) Satellites

- Satellites can also be used for saving comments. To-the-row reading can be helpful in this case (e.g., with a reference to the cost element or other posting element).

The contents of these tables can also be viewed and edited in Shuttle, e.g., copying to a different year or version (call via Cockpit or the function |Satellite tables| on the start screen for Allevo planning transactions).

All comments are also available in SAP evaluations in the report-report interface (see Chapter 14.11)

The settings for plan comments can be controlled individually via the relevant column definitions. The following constants provide further options:

- NO_GROUPCOMMENT controls the entry of comments when planning via cost element groups (1:n) or when starting via a group in MOD.
- GROUP_COMMENT controls the display of comments in the report interface if the evaluation is made via cost element groups.
- READ_COMMENT_SEQ identifies the year and version when reading comments

- USE_EXTENDED_COMMENT comments with an extended functionality
- LSTAR_COMMENT_OFF save Allevo comments without the activity type
- LSTAR_COMMENT_ON save Allevo comments with the additional info on the sender.
- BUTTON_COMMENT label the button: save comments

Another option for storing comments is available if an Excel table with the name "ZZObjectFields" is created in the Allevo Master. These data cannot currently be evaluated on the SAP side. See relevant section in the Allevo & Excel manual.

A very specific comment function is provided by Allevo in the reporting transactions (see Section 20.9).

11.10 Allevo tables with plan and actuals data

By default, Allevo posts the plan data in the ERP system via BAPIs, which are made available by SAP for such applications. The results are then directly available in SAP reporting.

As an alternative, plan data that are originally only created in satellite tables can then be posted to SAP in a second step via additional modules such as FP or the CO/PA interface. In this way, satellites can be used for further consolidation. In the end, posting is still done via BAPIs or other SAP standard functions.

However, in some cases it may be useful to save Allevo plan data completely independently of other SAP functions. In this case the data do not appear in the usual SAP totals tables or in the line items and also not in SAP reporting.

Note:

In this way, planning scenarios can be created that are completely independent of other frameworks of the SAP system, e.g. free calculations, planning without relevant master data, etc.

The function is used, for example within the framework of FID planning (see Chapter 25) or for the Allevo object type KX (see Section 3.6).

For these applications, Allevo saves the plan data in their own tables, which are similar to the original totals tables from SAP (tables begin with /KERN/ACOS*, so for example, /KERN/ACOSS is equivalent to the SAP table COSS). The data are then read from here.

The function for working with Allevo tables is activated with the constant USE_ALLEVO_TABLES. The activation can be carried out as a function of row and column definitions. For the row definition, it is a parameter in the constant, whereas column definitions are activated in the master record with the flag "Allevo tables". Further details can be found in the F1 help for the constant USE_ALLEVO_TABLES.

Functions when reading:

- Reading is done from the /KERN/ACOSx tables.

- For prices (table /KERN/ACOST) reading is done with the standard characteristics value type = 01 and price indicators = 004. Additionally, start objects and selection characteristics are taken into account (via partner object): this enables object-specific price determination.
- Reading with changing reference is possible via a column definition entry for "Reference if Stat. > = 3". It is also possible to switch between SAP and Allevo tables. Actuals data is first read from SAP tables. After the first planning, plan data is read from the Allevo tables.

For the reading of data, it may also be useful to first fill Allevo tables with data as required for the respective application (as in the context of the FID planning, see Chapter 25).

For Allevo 3.4 and higher, PRE_SELECT can also be used for performance improvement: the selection is made via the Allevo tables (ACOSx), the usual Allevo tables for comments, and additionally via SAP tables with profit center data.

Functions when planning:

- All values are written in the Allevo tables (years, months, primary and secondary costs). Annual values are always distributed evenly.
- For secondary costs, the price is also written if it is transferred at year > 0 and for months with the column type FP. Only total values (= fixed values) are handled.
- If planning with quantities, Allevo automatically determines an appropriate quantity unit (see note below).
- The debit indicator is always 'S'.
- Posting is done with the following transaction types: "RPK1" for primary costs, "RPK3" for secondary costs, "RPK2" for prices.
- The currency type is taken from the write column definition. For currency type T, the constant TRANS_CURRENCY must also be set.
- For row definition C, postings can also be made without partner objects.

The following sequence is used to determine the quantity unit of secondary costs (determination can be analyzed using the constant TEST):

1. Read from master record for the activity type, if the activity type is entered or if entries are assigned to the cost element (as long as the unit is unique).
2. Transfer from planning cost element if not found in the first step
3. Read from the Allevo table /KERN/IPPSECUNIT (an individual assignment for the unit can be stored for the cost element; entries are made via the transaction /KERN/IPPSECUNIT).

Non-supported functions

When using Allevo tables, some planning functions are not available, for example:

- Activity-dependent rule planning
- Calling line items

Therefore, the relevant functional scope should first be determined in the project.

12 Activity-dependent planning for cost centers

Activity-dependent planning is only relevant for cost centers, since orders and WBS elements cannot generate their own activities. This means that costs are allocated directly to the activities performed by the cost center during the manual planning process. As an alternative, SAP also offers the splitting or formula planning functionality, where allocations are not planned in detail, but are calculated on the basis of predefined rules.

Depending on the activities performed by the cost center the following transactions can be planned with Allevo:

- Statistical key figures
- Primary costs (values)
- Order settlement (values (primary) and quantities (secondary))
- Direct activity allocation (quantities)

Allevo offers multiple procedures for activity-dependent planning. The difference between the procedures lies in the time and the place where the allocation of costs, activity inputs and statistical key figures to activity types is made:

- With the **Direct procedure** type, the allocation is made in the Allevo Master, i.e. in the Excel planning template. This is where individual cost values for each activity type can be directly entered or calculated by formula. Once the plan is saved, the values that appear in Excel for the relevant activity will be correspondingly posted in SAP.
- **Planning by rules** is based on the principle that fixed calculation rules for activity dependent planning exist in the company. These rules can be implemented in Allevo. In this case, the differentiation on the Excel side of costs, activity inputs or statistical key figures by activity types is not necessary. In fact, allocation is automatically done in accordance with the company's rules when the plan data is being saved. The work-intensive differentiation in Excel becomes redundant.
- The third variant allows you to use existing data from SAP totals tables as **reference data** and to take the necessary rules from there. Such reference data could include historical data from old postings or data for a planning version created solely for this purpose. The function is activated with the constant READ_ADP. The reference data can also extend an existing set of rules (the priority is defined in the constant, see F1 documentation).

Note: The respective cost elements must be defined in the column definitions CY_ADP or CM_ADP for activity-dependent planning in the Allevo Master (see Allevo & Excel manual).

12.1 Direct procedure: Allocation via Excel

This procedure should be chosen any time that no definite set of rules is available for the allocation of costs etc. to the activities of a specific cost center.

- The planner decides on the costs to be planned for each individual cost element and activity type, and feeds the data to the Excel planning template.
- Even if the amount of costs for an individual activity type can be calculated by formula, it is dependent on other planning components (e.g. currently planned quantities). The rules according to which the allocation for activity types and the splitting into fixed and variable components is done, can therefore only be established during the planning process and cannot be predefined as fixed rules.

If annual values are planned, a differentiation is made between fixed values/quantities and variable values/quantities. Both areas can be provided with their own distribution key. Within the framework of a month-specific planning, the planning of fixed and variable values/quantities is also possible. For more details, please refer to the Allevo & Excel manual.

Note:	Activity-dependent direct planning (ADP) is only possible for one fiscal year. With regard to the planning year and the planning version, this type of planning uses the settings for the column definition CX_WW (see Section 6.2.9).
	This procedure, however, is not recommended if planning is to be done exactly-to-the-month for several activity types and differentiated by fix and variable elements simultaneously. There are some simple design restrictions for the Excel layout.
	If planning exact-to-the-month is done for one activity type per cost element only, monthly planning can only be done for two years. The first twelve months then represent the fixed planning share, the second twelve months represent the variable share. Constant YEAR2_PERIOD must be set. In Excel, the key columns CM_FV1 and CM_FV2 have to be defined (see Allevo & Excel manual)
	When already planned data is read again from SAP to Excel, the settings of CY_RW are decisive.

12.2 Planning by rules: Allocation via sets of rules

This procedure should be chosen if a fixed set of rules is available, so that the following components can be decided before the actual planning process is started (for changes during the planning process see Section 12.4):

- Which cost centers provide which activity types?
- At which proportion are costs distributed on the activity types of the individual cost center?
- At which proportion are costs per activity type split into fixed and variable components?

Note:	Planning by rules can be used for exact-to-the-month planning and for multiple years. The rules, however, apply to all years covered.
--------------	---

Planning by rules is activated with the constant LSTAR_VARIATOR (enter X in the "Value from" column). In addition, a previously prepared² Excel file must be deposited in the SAP Business Document Navigator, which is used for specifying the rules. The following naming convention applies to the Excel file (see Sections 22.4 and 22.5): **ZIPP_LS_XXXX** (XXXX replaced by the controlling area).

Rules can be defined via the Allevo menu |Settings| in the folder |Rules for activity dependent planning|. The Excel file previously deposited in the Business Document Navigator appears here.

Settings can be made in a layout-dependent manner or by defining them as default values in *-layout. The definition follows the three components described below.

Tip:	Define your rules with reference to the layout. An editing mode will then be available for the planner during the planning process (see Section 12.4).
-------------	--

² The Excel file is supplied by Kern AG.

Note: In the Excel template (Allevo Master) the column definitions CY_ADP and CM_ADP must be defined. Please refer to the Allevo & Excel manual.

12.2.1 Component 1: Which cost centers provide which activity types?

The table "Activity type" on the Excel sheet "ADP" is filled by entering the activity types for each cost center.

Tip: The structure of the table is similar to the report in SAP (transaction KSBT). If activity prices for cost centers and activity types are edited when preparing the planning, this report is a good download source for defining the set of rules.

Note: The "Activity type" table must be complete. Cost centers that are not explicitly stated here with the specification of their activity types are always planned in an activity-independent way.

12.2.2 Component 2: Share of activity types

The table "Share", which is opened through the Excel navigation, must be filled with data.

This table is used to determine at which proportion costs are split to the activity types previously specified for the cost center. This can also be done depending on the cost element or cost element group to be planned (for cost allocation the activity type; statistical key figure).

The table is structured as follows:

Field	Contents
LAYOUT	Layout for which the rules are set up.
KOSTL	Cost center to which the subsequent rule applies. An entry must be made for each activity type defined in the "Activity type" table for the cost center. The cost center field can contain a specific cost center or a * in the case that the entry applies for all cost centers which are not separately defined.
TYP	<ul style="list-style-type: none"> a) K must be entered if cost splitting is concerned. The cost element (or *) must then be specified in the field KSTAR_LSTAR_STAT. b) KG is entered when cost splitting is dependent on cost element groups. In this case, the cost element group must be entered in KSTAR_LSTAR_STAT. c) L must be entered if splitting of activity inputs is concerned. The receiver activity type (or *) must then be specified in the field KSTAR_LSTAR_STAT. d) S must be entered if splitting of statistical key figures is concerned. The statistical key figure (or *) must then be specified in the field KSTAR_LSTAR_STAT. <p>In cases (a), (b) and (d) the correct entries must be made. * is not possible here.</p>

KSTAR_LSTAR_STAT	Cost element, (input) activity type or statistical key figure for which the rule is set up. * is possible, if the subsequent splitting rule applies to all cost elements (activity types, key figures) that are not specifically defined.
LSTAR	Activity type for which the share is specified in the field ANTEIL. These are the activity types customized for the relevant cost center in the IPP_Lstar table. If only one activity type is set per cost center covering 100% of the costs, this entry is redundant. * is not allowed.
ANTEIL	Percentage (value between 0 and 100). The total sum across all activity types for the cost center may not exceed 100. If the total sum remains below 100, the remainder will be accounted for as independent costs.

Note: In principle, the entry * is used as placeholder for all values. Care must be taken, however, to set up the values from the left (KOSTL) to the right (LSTAR), since *-entries are possible in two fields (KOSTL and KSTAR_LSTAR_STAT).

Example entries:

LAYOUT	KOSTL	TYP	KSTAR_SENDER	LSTAR	ANTEIL	Comment
PROD	1000	K	*	P-HOUR	40	
PROD	1000	K	*	S-HOUR	60	
PROD	1000	K	400000	P-HOUR	50	
PROD	1000	K	400000	S-HOUR	50	
PROD	*	K	500000	P-HOUR	10	
PROD	*	K	500000	S-HOUR	90	

12.2.3 Component 3: Splitting into fixed and variable portions

The table "FixVar", which is opened through the Excel navigation, must be filled with data.

This table is used to determine at which proportion cost and activity inputs, which have been assigned to one type of activity, are split into fixed and variable components. This can be performed in relation to the cost element (or the receiver activity type) to be planned.

The table is structured as follows:

Field	Contents
LAYOUT	Layout for which the rules are set up.
KOSTL	Cost center for which the subsequent rule applies. An entry must be made for every activity type defined in the "Activity type" table for the cost center. The cost center field may contain a specific cost center, a cost center group or a *. A leading * must be added if a group is used (SAP group).
TYP	<p>a) K must be entered if cost splitting is concerned. The cost element (or *) must then be specified in the field KSTAR_LSTAR.</p> <p>b) KG is to be entered when cost splitting is done dependent on cost groups. In this case the cost element group must be entered in KSTAR_LSTAR.</p> <p>c) L must be entered if splitting of activity inputs is concerned. The receiver activity type (or *) must then be specified in the field KSTAR_LSTAR.</p> <p>In cases (a), (b) and (d) the correct entries must be made. * is not possible here.</p> <p>Statistical key figures cannot have a variable part. For this reason, statistical key figures are always accounted for as a fixed portion without requiring a specific entry.</p>
KSTAR_LSTAR	Cost element or (input) activity type for which the rule is set up: * is possible if the subsequent splitting rule applies for all cost elements (activity types) that have not been individually defined.
LSTAR	Activity type for which splitting is made. If no activity type is customized for the cost center, 100 percent is posted for the fixed portion.
FIX	Percentage (value between 0 and 100) of the fixed portion. The difference to 100 will be automatically booked as variable portion.
VS_FIX	SAP distribution key used to account for the annual value (fixed portion). If the entry is missing, key 1 is applied.
VS_VAR	SAP distribution key used to account for the annual value (variable portion). If the entry is missing, key 1 is applied.

12.3 Combining the direct allocation procedure and planning by rules

A combination of both procedures is possible. In this case, the constant LSTAR_VARIATOR (planning by rules) must be activated.

The decision for which of the two procedures to use is made on the specific cost element level. This is done by entering the relevant control figure in the columns with the definitions CY_ADP and CM_ADP (1-4; see the Allevo & Excel manual for details).

Optionally, Allevo can save the entered values for the column key CY_ADP/CY_ADM in SAP in order to easily enter them in the appropriate Excel cell the next time Allevo planning is called (see constant SAVE_ACTDEP).

12.4 Planning by rules: Changes during the planning process

It is possible to give the planner access to the rules while they are working in the Excel file. The access can be authorized in relation with the three components (see above) and be defined as read-only or read/write access.

For this purpose, a three-digit code, composed of the numbers 0, 1 or 2 must be defined in the constant LSTAR_VARIATOR (in the "Value from" column).

- Figure 0 = no view
- Figure 1 = read-only mode
- Figure 2 = read/write mode

The first digit of the code represents rule component 1, the second rule component 2 and the third one stands for rule component 3. If, for example, the code **112** is entered in the "Value to" column, it means that the planner is allowed to see rule components 1 and 2 and to change component 3 for their cost center. During the planning process, the planner will now be able to modify or specify the distribution rules "fixed/variable" for their cost center as a function of the types of costs and activities.

Note:	The planner can only see the rules which have previously been created for the selected planning layout. If the rules are created as default values for a *-layout or *-cost center, they are not visible for the planner.
	Any entries made by the planner are saved with reference to the planning layout and the relevant cost center. The planner therefore may replace the default rules defined *, if applicable.

13 Allevo Master

The Allevo Master defines what is to be planned and in which form. It determines the planning specifications and thereby defines which details are relevant for the cost center (i.e., statistical key figures, activity types and cost elements).

Only the key figures, activity types and cost elements defined in the key columns are decisive for the transfer of data to SAP or the reading from SAP. The data entered into the key fields must match the master data existing in SAP³.

Note:	An automatic transfer of the relevant cost elements, activity types, and sender objects depending on specific cost centers/orders/WBS elements etc., is not possible with a dynamic structure of the Allevo Master. Thus, it is the Allevo Master which determines the completeness and the scope of the planning. (An alternative solution is ProCED; please see the ProCED-manual)
	There is, however, the possibility to read out activity settlement and order settlement data (in cost terms) for the specific object and to dynamically adapt the Allevo Master on the basis of the data records collected (so-called Y and Z areas, see Section 9.2).
	When transferring data from Excel to SAP, Allevo checks whether the cost elements, activity types etc. also exist as a master record in SAP. If not, an error message is issued.

13.1 General structure

The setup of the planning template in Excel (Allevo Master) follows certain structures determined by the program. See the Allevo & Excel manual for a detailed description.

The installation package includes an example file which is suitable as a template for setting up an individual customer-specific Allevo Master.

The following explanations are general by nature and they apply equally well to cost centers, orders and WBS elements.

13.2 Changes in the structure of an Allevo Master

As long as the conventions for the designation and use of the Excel names are complied with, it is possible to freely change, add, or delete rows and columns. When deleting items, it must be ensured that no necessary Excel name definitions are deleted.

If a new cost element is to be added for planning, simply add a new row in the Allevo Master, specify the relevant row definition and enter the cost element.

Note:	Additional columns may be used e.g. in order to derive plan or forecast data by using Excel formulas.
--------------	---

13.3 Excel sheet and workbook protection

Using worksheet protection, it can be ensured that the planner does not change any important entries in the Allevo Master or does not even see any control-relevant data.

³ However, leading zeros need not be entered.

Setting the worksheet protection for the central planning layout may only be done via the special "Customizing" worksheet which is supplied together with each Allevo Master. In addition to other data, the password for worksheet protection can be specified in this worksheet.

Workbook protection ensures that neither the sheet name nor any hidden worksheets can be viewed again.

Note:	If worksheet protection is set via the Excel standard menu, the Allevo read functions are blocked.
	Please find more detailed information on Excel protection mechanisms in the separate Allevo & Excel manual.

13.4 Excel functions and Excel macros

In principle, all Excel functionalities are maintained under SAP. Thus, in addition to worksheet protection, other classic Excel functions such as validities, conditional formatting, formulas, hiding of rows/columns/sheets, filters, structuring etc. are available. In addition, customer-specific Excel macros can be used, but must be set up in a separate VBA module.

Note:	If Excel functions are restricted by worksheet protection, these functions should be controlled by a macro. In this case, the macro must be designed such that worksheet protection is disabled immediately before the use of any function, and enabled again immediately after use.
	Complex macros should always exclude events (such as e.g. "change" or "activate"), as these may interfere with the operations of the Allevo program routines. If these events are nonetheless required, this must be individually discussed with Kern AG.

14 Allevo satellite tables and side calculations

14.1 Functional overview

In the Excel planning layout, a useful special functionality for the interaction with SAP dynpro can be set up: satellites!

As a rule, these supplementary satellite tables are used as an auxiliary to identify quantity and value components for certain cost elements, activity types or key figures using detailed plans. Examples:

- Details for cost element planning and activity dependent planning
- Leasing- und investment planning (incl. derivation of depreciation)
- Maintenance tasks and vehicle fleet planning
- Salary and employee costs from personnel planning
- Resource applications
- Marketing budgets
- SAP CO/PA interface

Note:	The individual applications of these Controlling specific additional calculations are designated as “side calculation” or as “side calculation planning”. Each topic is part of the Allevo license (see the corresponding note above). A topic is made up of at most 9 Allevo satellites
--------------	--

An interesting aspect of these satellites is that the data entered in these detailed plans can also be stored centrally in SAP and then read back to Excel. Multi-layout data changes can be made via the Allevo menu |Satellites| or using the Shuttle transaction /KERN/IPPSHUTTLE (with many specific editing options). This data can also be used for other customer-specific analyses and evaluations.

As many as 99 satellites can be used in Allevo: A satellite is made up of two digits within the range 01-99. Satellite 00 has a special function, which we won't discuss in detail here. For each satellite table, a database table is assigned in the SAP system, in which the first 7 fields have a predefined structure. The database accesses the reading and writing functions for data via these index fields in Allevo. By default:

- Satellite 01 works with table /KERN/IPPSAT01,
- Satellite 02 works with table /KERN/IPPSAT02, etc.

These standard satellites are delivered only with the required index fields. All additional fields are added by the customer with an append. This ensures that the necessary data structure is maintained for the customer (see the notes for append fields in the next sections).

Note:	For Allevo 3.5 and higher, other tables from the namespace /KERN/ or /KERN/ can be assigned, as long as they correspond to the prescribed field structure in the index. In the delivery state, these tables can contain the index fields in order to map standard use cases (such as the standard case of investment planning).
--------------	--

For each satellite in the Allevo Master, two Excel ranges need to be defined: The link between these satellites in Excel and the corresponding table in SAP is provided via the read / write functions of Allevo.

In general, satellite ranges can be flexibly defined in the Allevo Master: this applies for the number and names of both columns and rows. In order to allow for synchronization of the respective ranges

between the Allevo Master and the customer-specific table in SAP, the field definitions made in the Allevo Master must be mapped to SAP. This is done with a so-called append structure for the respective table in SAP and can be done by the customer themselves.

Note:	The setup of satellite tables is a central aspect of the implementation of planning with Allevo side calculations. In order to map a specific side calculation, up to 9 satellites can be assigned (writing). This number can be found in the license for the side calculation.
--------------	---

The transaction ALLEVO/SAT_INFO provides usage information for all currently used satellites; this evaluation is available from the Cockpit (see details in Section 14.11).

General notes:

- It is perhaps clear from the use applications mentioned, that the meaning of a satellite is determined by configuration in the Allevo implementation project (for example, by setting up a table append for storing the desired information). For this reason, the standard satellite table has only a neutral description in the SAP Dictionary (for example, "Allevo: Satellite table 12"). An individual description can be assigned in the project. With an assignment for side calculation planning, an individual description can be assigned (see next section).
- The Allevo satellites are filled with data, which can be seen as central components in the planning process. Consequently, great damage can be done due to incorrect operation or incorrect uploads. Therefore, Allevo provides a specific function for satellite backup and restore (see Section 14.13).
- Data in satellite tables can be automatically provided via additional interface functions, including data from CO/PA, data transferred from ALV Reports or BW DataSources (see Details on reading Functions in Section 15).
- For convenient use within planning, additional information can be added when reading the data in Allevo fields; such as the text for the material number (see Section 15.11).

On occasion, the planning process also includes data with no predetermined structure (such as individual sub-calculations for a cost center). The user therefore decides how the sub-calculation is structured. For this application, Allevo offers an alternative to the satellite table, which is described in the Allevo & Excel manual (see "Save any object-relevant data in SAP" or F1 help for the constant NO_LAYOUT_FOR_FIELDS). In this case, no customizing is required on the SAP side.

14.2 Satellite settings (Satellite Cockpit)

Settings for a satellite are entered via transaction /ALLEVO/SAT_DETAILS (can also be called via the Cockpit "Satellites >> Satellite Cockpit").

Allevo Satellite Cockpit

Satellite Number: 01
 Satellite Text: Investitionsplanung
 Subject:
 Read Only:
 Reference Table:
 Backup Table: /KERN/IPPSAT01 Type: 0 Qty: 10

Fields Used in Layouts

/KERN/IPPSAT01

TabPos	Field Name	Data element	Type	Length	Dec.Places	Short Description
1	MANDT	MANDT	CLNT	3		Client
2	KOKRS	KOKRS	CHAR	4		Controlling Area
3	SETCLASS	/KERN/IPPHRSETCLASS	CHAR	4		Allevo: Set class
4	COBJECT	/KERN/IPPHRCOOBJECT	CHAR	24		Allevo: HR/CO planning object
5	PJAHR	GJAHR	NUMC	4		Fiscal Year
6	VERSION	/KERN/IPPHRVERSN	CHAR	3		Allevo: Version of Satellite tables
7	ZEILE	/KERN/IPPHRZEILE	NUMC	10		Allevo: Line index of Satellite tables
8	PROJECT		CHAR	40		Project
9	INV_CAT		CHAR	40		Invest category
10	INV_TYPE		CHAR	40		Asset class
11	QUANTITY		DEC	15	3	Quantity

Figure 14.1: Satellite details / Satellite Cockpit

Calling this transaction is the first step if a new satellite is to be used in Allevo. Changing to an already existing satellite can be done via F4 (or the icon in the toolbar). The F4 selection is also integrated into all other areas of Allevo for selecting a satellite.

Settings that are saved in the Cockpit include:

- A text description of the satellite: the individual description reflects the contents of the side calculation covered for the customer. The description is also displayed at the calling points for satellites. Optionally, a description can be given for each Allevo layout via the constant SATxx_TAB_NAM, in the case that an individual text should be provided for each object type and controlling area. This function only exists for compatibility reasons (see documentation for SATxx_TAB_NAM).
- Assignment to a side calculation (see Section 6.2.10)
- The flag “read only” determines that the content of the satellite table can only be read. Plan data cannot actively be saved from the Allevo Master (such a satellite does not require a license).
- In contrast to the Allevo standard satellite tables (/KERN/IPPSAT01 to 99), a reference table can be assigned, where Allevo then saves all data. The F4 selection shows only those /KERN/ and /KERNC/ tables that have the required index structure (see Section 14.5)
- Display a backup table to be set up via transaction /ALLEVO/SAT_BKR (see Section 14.13).

Satellite settings are saved in table /KERN/IPPSATSUBJ (except for settings for backups)

Note:

For Allevo 3.5 and higher, every used satellite is shown with an entry. Previously, only satellites assigned to a side calculation were displayed.

When updating to a current version, Allevo automatically fills the table with all satellites that are active in the Allevo layout. This function can also be manually executed from the menu “Satellites >> Import act. satellites”

The transaction provides two additional views:

- The list of the fields in the satellite tables can be helpful when creating an Allevo Master (for example, the number of each field).
- A where-used list for the layouts in which the satellite has been used (comparable to entries in the satellite overview, see Section 14.11).

14.3 Append fields for the satellite table in SAP

Allevo is delivered with 20 standard satellites (numerated from 0 to 19) and can be extended to up to 100 satellites as needed. Before they can be used in planning, satellites must first be set up. This rule applies for standard satellite tables in the namespace /KERN/IPPSATxx: as of Allevo 3.5, other tables with a distinct structure can also be integrated (see note below).

You begin with the design of the satellite table in Excel. If the necessary columns and the data types to be used are already defined, the append structure can be set up in accordance with the respective table in SAP (see Figure 14.2). The tables are already defined and named in SAP with their basic structure (i.e. the key fields). Later, the unique allocation of the table fields between SAP and Excel is implemented on the basis of the supplementary append structure.

The append structure always starts with field 8 (Index 8). The first seven fields are designed for the key fields. When setting up the append structure, precise mapping of the data types (date, number, ...) must be ensured so that the data can be saved correctly.

Note:	The SAP data types CURR and INT in append structures are not always sufficiently supported when utilizing external interfaces. In order to avoid any problems, we recommend using the data types DEC or NUMC in SAP.
	Instead of the pre-defined fields, an include can be allocated to the append. This structure can also be used in multiple tables (which can simplify an Allevo-specific backup of satellite tables, see Section 14.13). The required fields are defined as structures via transaction SE11.

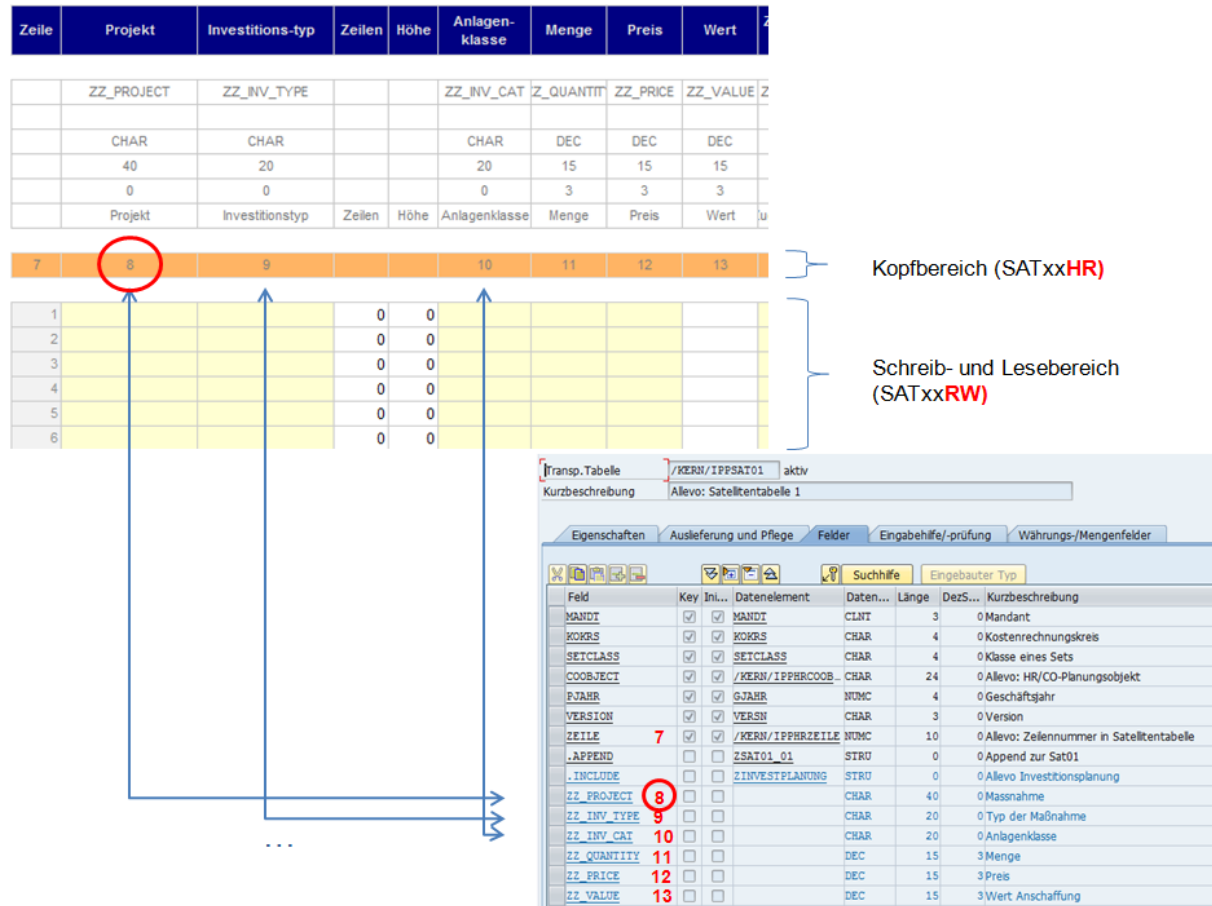


Figure 14.2: Append structure of the SAP table and Excel names of the satellite tables

Note: The data in the satellites can be edited at different locations in the system (for example in the Allevo Master or using the additional module "Shuttle"). In order to protect sensitive contents, specific authorizations can be assigned to the satellite. This can be done individually for each user or group (via layout management, see Section 8.6 and Figure 8.1).

14.4 Copy templates for satellite appends

For common applications with satellite tables, the Allevo delivery package contains predefined structures, which can be used as a copy template for the definition of append fields. Included are, for example, examples of investment planning and interfaces for the additional module ProCED.

These structures can be called as data types in SE11. The name corresponds to the following format: /KERN/IPP_SAT_PROCED, so for example /KERN/IPP_SAT_PROCED_PR as a template for linking ProCED with WBS elements.

IMPORTANT: The structures should only be used as a copy template for viewing the correct field definitions. They should NOT be directly added to the append of a satellite, since there may be changes in future Allevo versions.

14.5 Satellites with "ground tables"

By default, Allevo satellite tables have the names /KERN/IPPSAT01 to /KERN/IPPSAT99: contained within this name are important index fields. The actual data structure is extended by the user via ap-

pend fields (see the section above). Alternatively, a satellite can also reference another database table if it is stored in the /KERN/ or /KERN/ namespace and the index fields in question exist there. These tables can also contain data fields for standard use directly from the standard delivery, e.g. for the standard case of investment planning.

One condition: The first 7 index fields have to be EXACTLY like our previous satellite tables. We make sure that changes in the structure of “ground tables” remain compatible. These tables can be directly transferred to productive Allevo applications. Changes in the structure are made in a compatible way so that data exchange via the Excel Master is maintained after an Allevo update (there, it is common to use the column in the satellite table as an access key; therefore, there can also be no shifting of the table structure on the SAP side).

14.6 Satellite ranges in the Allevo Master (Excel)

To transfer data to Excel, corresponding ranges must be entered in the Allevo Master. For each satellite table two Excel ranges must be created: Header and Write/read (see also Figure 14.2).

SAP-Table	Header area (Excel)	Write/read area (Excel)
/KERN/IPPSAT00	SAT00HR	SAT00RW
/KERN/IPPSAT01	SAT01HR	SAT01RW
/KERN/IPPSAT02	SAT02HR	SAT02RW
...
/KERN/IPPSAT99	SAT99HR	SAT99RW

The satellite ranges with the suffix “HR” and “RW” reflect the simplest use. In certain cases, other namespaces may be necessary (see details in Allevo & Excel manual).

Die genannten Satellitenbereiche mit Suffix „HR“ und „RW“ spiegeln die einfachste Anwendung wieder. In besonderen Fällen können weitere Bereiche erforderlich sein (siehe ausführliche Beschreibung im Allevo-Excel-Handbuch).

Example: Allevo Master files can also be used for uploading and/or downloading the satellite data in the additional module "Shuttle". In these cases, a second read/write area named SATxyRWS (most of the times identical with the area addressed by SATxyRW) must be available in the Excel file.

14.6.1 Header for defining column display (Excel)

The header line is used to bring together the table fields in Excel and the columns in the satellite tables. This is done via the index of the append structure.

The header line lies outside the table and runs across all columns from which data is to be written to SAP, including the column with row numbers (Index 7). It must be ensured that the columns with the row numbers remain a part of the Excel table.

The allocation of the respective column is made via the index, that is, via the position of a field in the append structure. These indices are entered into the header line above the corresponding column of

the satellite table (see Figure 14.2). Therefore, the sequence of the columns in the Excel satellite table can be freely selected and also changed retroactively, without the append in SAP requiring any changes. If, in the case of the above example (see Figure 14.2), the column "Access" is to be shifted to the start, it would only be necessary to simultaneously shift index 11 of the header line.

Example: In position 8 of the append structure, the field ZZ_Project is used to record the planned project. In the Excel template, the number 8 must be entered into the header line above the column "Project", into which the quantities are later written.

14.6.2 Satellite range for reading and writing data (Excel)

The write/read range comprises all lines and columns of the table intended for storage. The row numbers (Index 7) must be contained therein, but the other key fields of the table do not.

In this range, there are also fields that cannot not be completed directly, but rather are completed with formulas (e.g. "Quantity * Price"). The content of these fields can also be stored in SAP.

Note:	When reading tables from SAP to Excel, the fields containing formulas are not overwritten. However, the content is immediately re-determined through automatic calculation of the formula.
	It is permissible to use the Excel functionality to split up the Excel name definitions and thus to expand the range of a table (e.g. it is possible to insert columns with additional information, which are not intended to be saved in SAP). However, columns to be saved require a field in the append structure and the associated index in the header line.

14.7 Notes for working with satellite data

The mode of operation for transferring the data from the Excel supplementary tables into the SAP tables is always identical. If the planner initiates the data transfer by clicking the button |Save data to SAP|, the program checks whether the relevant SAP table already contains data for the cost center. If this is the case, all data related to the cost center is first deleted before the current entries from the Excel planning file are re-written into the table. In this way, data consistency between the Excel planning file and the SAP tables is guaranteed.

Note:	Deviations from this rule can be useful, and are controlled via constants (see list below). Especially for application in MultiObject mode, data can be read and written simultaneously over several objects at the same time.
--------------	--

When working with satellites, the following points must be considered:

- Every satellite must be assigned to a side calculation (for Allevo 3.3 and higher and corresponding license management).
- All tables used must be activated in the *-layout via constant ACTIVE_SAT. This activation describes with which object types the satellite should be used (per controlling area). In addition, the tables used for the specific planning layout must be activated in the corresponding constant of the planning layout. In both cases, the "Satellite Assistant" can help with simple entry.
- The "Value to" column for the same constant (of the planning layout) can be used to specify whether read only or read/write access shall be granted for the table (see F1-help for ACTIVE_SAT).

A restriction in the *-layout automatically applies to the named layouts (if there is a deviating entry, a warning appears). For Allevo licenses, only those satellites that are actually meant for planning are relevant.

- The constant READ_ORDER_SAT defines whether the reading operation for a specific satellite is to be done before or after reading cost elements.
- The constant FOPEN_READSAT allows you to control the reading of satellites once the files are opened (independent of other reference data).
- Similar to SAP procedures, satellite data is saved with a reference to the version and the fiscal year (corresponding to the settings in CX_WW), which means that when using the |Save satellite| button the data is always saved in the specified planning version.
- Customer specific functions can be saved for each satellite (carried out by BADIs). The call can be made either before or after reading/writing. Additional functions, such as calling FP or the CO/PA interface, can be executed after saving the satellite.
- Satellites and additional functions are always processed in the sequence of the satellite numbers (i.e. Sat01, Sat02...). This should be taken into account if other superior functions are stored in which data from one satellite are processed with data of another satellite (if necessary, a satellite with reference data must have the smaller number, so that it can first be saved).
- Only those data records are transferred from Excel to SAP for which a value or other entry is defined in the column after the row number. It doesn't matter whether this column is assigned to a field of the append or is a simple auxiliary column.
- The entries in the satellite do not depend on the selected planning layout (see Section 8.2). Therefore, if a satellite is addressed by two different Allevo Masters with identical selections⁴, entries overwrite each other.
- The satellite range in Excel must at least contain all the fields created as append structure in SAP⁵, but it's also possible to add additional fields to the satellite in Excel (such as calculation fields). Also, certain fields can be hidden in Excel.
- It is possible to set up several satellite tables in one Excel worksheet.
- Cells containing formulas will not be overwritten with data in the read and write area, so that the formulas are preserved. However, in the case that during the current planning process in the Allevo Master a formula was changed, an inconsistency between the Excel data and the SAP data may occur.
- In the standard procedure, when transferring the data from SAP to Excel, the data is read from the planning version currently set for the CX_WW constant. However, there is also the option to have the data of another version displayed via the |Read satellite| button. This functionality can be used e.g. for the forecast process by having the data of the budget version displayed as the starting point of the forecast.

⁴ With matching object number, controlling area, financial year and version.

⁵ If the supplementary table in Excel does not contain all the fields of the SAP append, these SAP fields are overwritten with "empty" when the supplementary table is saved.

- The constant SATxxSELECT (xx being a placeholder for the relevant satellite) is used to adapt the selection of the data, for example, to read data without reference to the object number or version. This is particularly useful if master data is saved in a satellite with cross-table characteristics (such as texts or translations). The function is only available for reading: the relevant data in this case must be entered via the satellite maintenance or the Shuttle. In some cases, it may also make sense to write: for this, the missing fields in the satellite index must be provided via Excel (such as the version number for cross-version reading).
- In some situations, it can be useful to aggregate satellite data before transferring it to Excel. Example: the planning Master is started through a cost center group (1:n function or selection in the Tree), and the planning screen then shows all data aggregated in a group. It can be advantageous in such cases to also calculate the corresponding totals for the details in the satellite (not only in Excel but already in SAP). Constant GRP_READ_SATxx (xx again being the placeholder for the number of the satellite) can be used in this case. The constant specifies which columns are taken as aggregation keys and which columns are used for calculating totals. The grouping function can also be used to transfer multiple planning objects directly to Excel and then write them back (e.g. for multiple selection in MOD).
- “Merge” function: when reading satellite data, it may be useful to mix data from two tables. Example: A satellite contains plan data that is to be regularly expanded by specifications from another satellite (without entered plan data being deleted). Thus, when reading the satellite table with the plan values, only the contents of particular columns are to be replaced by data from a second table. This function is set via the constant SATxx_MERGEyy (with xx or yy as the number of the involved satellite tables, for details, see F1 documentation for the constant).
- There are often references to master records or other SAP documents in satellite tables (e.g. material or customer number). For display purposes in Excel, it can be useful to also have an appropriate description for these references (e.g. short description for material or customer name). Allevo offers additional functions in order to make such information automatically available (see Section 15.11).
- In the *-layout via the |Constants| folder under the |Names| tab, the tables can be individually named. Default values are pre-set. However, naming is not important for the operation of the program and does not change the technical designations of the tables in SAP. It only serves to represent the customer terminology when using the buttons |Read satellite|, |Save satellite| or the menu |Satellites| (in earlier Allevo versions, an individual description per layout was possible, but this function is no longer supported).

14.8 Confidential data in satellite tables (Remote access)

Especially in the context of personnel planning, it may be desirable to store the associated personnel data in a satellite table outside of the CO client, for data protection reasons. Allevo offers two solutions in this case:

- (A) Saving the data in a separate client: this function is controlled via the constant SATxx_CLIENT (see F1 documentation)
- (B) Access via an RFC connection: in this case, the satellite table can also be stored in a completely different SAP system.

To set up the remote system (B), additional transport is required. This is provided by Kern AG (allowing the use of 50 remote satellites instead of 100 local satellites).

The following steps are required:

1. A RFC destination must be created under transaction SM59 in the source system used by the user for logging in to SAP and starting Allevo.
2. The Allevo constants (*-constants) are extended by the parameter RFC_DEST. In the “Value from” column, the exact key of the destination in accordance with SM59 must be entered. This setting applies for all planning layouts and cannot be separately specified for individual planning layouts!
3. In the "Value to" column, a combination of 0 and 1 must be entered. Each digit represents one of the satellite tables, namely

Digit 1: Satellite 01

Digit 2: Satellite 02

...etc.

1 signifies that this table communicates with the remote system; 0 signifies that this table communicates with the source system.

The entry can also be made with the help of the “Satellite Assistant” in constant maintenance (in the column “RFC”).

4. All tables which communicate with the remote system must be available in both systems with a structure that is as identical as possible (remote and local, same append structure). A completely identical structure is no longer possible, since SAP checks for identical field names (identical field names are then not written/read, but the access is not broken).

These settings specify that the data of the supplementary table is read from the table in the remote system and is even saved therein. No data is administered in the source system. Access via the |Satellite tables| function is then no longer possible (see Section 14.9).

Note:	<p>Only one remote system can be addressed, which means that the tables cannot be distributed across several remote systems.</p> <p>The RFC user must have at least the authorizations for Allevo planners (i.e. group ZIPP_PLA for the authorization object S_PROGRAM).</p> <p>Remotely stored satellites can have some restrictions as compared to a local installation (e.g., no implementation of a BAdI before reading and writing data).</p>
--------------	--

14.9 Satellite maintenance/Shuttle: display and edit data

The |Satellite tables| menu in the Allevo start dialog automatically calls the Allevo module “Shuttle”. For a detailed description, see the Allevo Shuttle manual. Additionally, Allevo comments can also be displayed and edited here, such as copying to another year or version (incl. sheet comments).

Note:	For versions 3.3 and higher, the Shuttle module is connected here. For older versions, individual editing functions are called (so-called “satellite maintenance”).
--------------	---

14.10 Satellite 00

Besides the satellites described above, there is another satellite with a special function: satellite 00 (/KERN/IPPSAT00). This satellite has the special feature that it is immediately read when the Excel planning file is opened in SAP. The other tables are only processed after clicking the |Read reference data| button.

Satellite 00 therefore is the perfect choice any time central controlling options are to be managed in one satellite, which dynamically controls the definitions, e.g. for reading operations, once the Excel

planning file is opened. Another application area is the defining of object type groups when using MultiObject.

Note:	The satellite 00 can only be accessed once per Excel planning file. It is activated via the constant SAT_00_ACTIVE. In the “Value to” column, the Excel sheet where the table is located must be specified.
	The use of Satellite 00 is primarily intended for MultiObject. Using Satellite 00 in Multipage on the planning layout to be multiplied is not possible, since the table may only be used once for each Allevo Master.
	The constant SAT_00_SELECT offers interesting features for controlling the selection.

14.11 Satellite where-used-list

Satellites and the side calculations that they contain are an important component in the Allevo planning process. Since there is such diversity in the way satellites can be applied, it is important to have thorough documentation. The transaction /ALLEVO/SAT_INFO can be helpful in this case. This transaction shows a where-used-list for all currently used satellites.

This evaluation can also be accessed via the Cockpit and can be made for individual satellites, or for all active satellites. The following figure shows the selection screen:

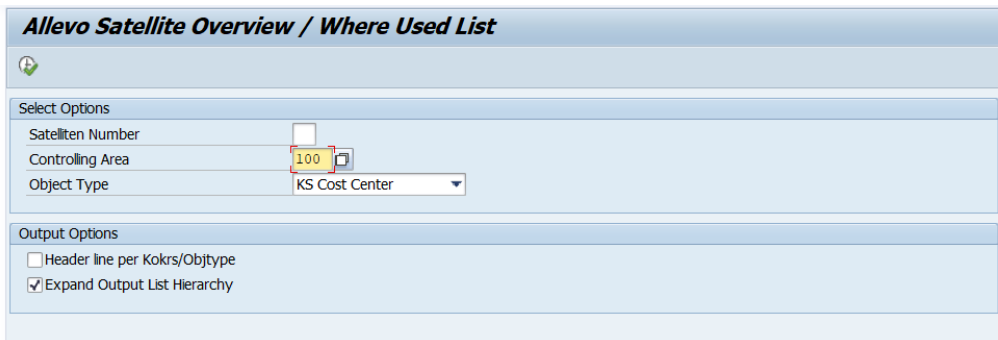


Figure 14.3: Selection screen for satellite where-used-list

The evaluation is made up of a hierarchical list with a single header per satellite table. If desired, a header can also be displayed per controlling area and object type. Optionally, all rows can be shown from the evaluation (option “list with complete hierarchy”).

The where-used list can help answer the following questions:

- Which satellites have been used in Allevo until now?
- To which layouts or controlling areas and object types is each satellite connected?
- Which satellites have a read only function and which also have a writing function?
- To which additional modules is a satellite connected (FP, ProCED, CO/PA)
- Which descriptions are used for the satellites in the layouts?

The list also shows the names and descriptions of the satellite appends. The corresponding structure (dictionary structure) can be identified via the evaluation “Export system info” from the Allevo Cockpit (or as header data when calling “Excel initial” in Shuttle). In addition to a satellite overview, the transaction /ALLEVO/LAYOUT_INFO offers a layout overview with the number of associated satellite tables (see Section 8.9).

14.12 Important constants for working with satellites

The following constants are specifically important for working with satellites:

- ACTIVE_SAT list of the active constants
- ACTIVE_SAT_SORT change the sequence when reading/writing satellite data
- SAT00_ACTIVE activate satellite "00"
- SATxx_TAB_NAM name of the supplementary table (usually set in the *-layout)
- READ_ORDER_SAT determine the order for reading
- READ_AFTER_PLAN_SAT re-read the satellite data after planning
- FOPEN_READSAT determines the reading process for offline files
- SATxxSELECT for defining which selection parameters should be deactivated for the key
- SAT00_SELECT for defining which selection parameters should be deactivated for satellite "00"
- GRP_READ_SATxx for selective reading and aggregation of data
- NO_SATFIELD_CHECK deactivate data checks for satellite tables
- SAT_BUT_READ_ALL read data from all satellites simultaneously
- SAT_BUT_SAVE_ALL save data for all satellites simultaneously
- SATxx_CLIENT satellite data in a separate client
- SATxx_COPA directly call the Allevo interface for CO/PA

14.13 Satellite backup/restore

The Allevo satellites are filled with data, which can be seen as central components in the planning process. Consequently, the damage is great when, for example, data is lost due to incorrect operation or incorrect uploads. In some cases, it may also be useful to restore a particular state.

With the Allevo backup/restore functions it is possible to save the contents of any satellite tables in a separate satellite table. The target table has to have the same structure as the source table (i.e. the same append structure). The backup target tables do not require licenses.

Allevo backups can be made using two different processes:

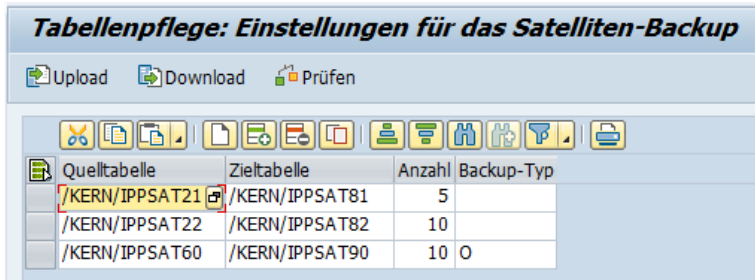
1. With a complete-backup, the contents of a satellite table are completely copied into the target table. This backup must be explicitly started by the user (or run as a background job, e.g., for daily backups during the planning process)
2. With a "per-object-backup", each write operation is logged to a satellite table in the background and the previous status is saved in the backup table.

Only one of these options can be used at a time (determination is made per satellite). Allevo saves the information on backup date and time for each backup: for process (1), there is an entry for the entire backup, for option (2), there is an individual entry for each object. Accordingly, the procedures for the restoration of data also differ.

Allevo allows a maximum of 99 backups, so that there can be a single backup for each satellite table.

14.13.1 Settings for satellite backups

All satellite tables to be backed up need to be defined via transaction /ALLEVO/SAT_BKR.



Quelltabelle	Zieltabelle	Anzahl	Backup-Typ
/KERN/IPPSAT21	/KERN/IPPSAT81	5	
/KERN/IPPSAT22	/KERN/IPPSAT82	10	
/KERN/IPPSAT60	/KERN/IPPSAT90	10	O

Figure 14.4: Setup of satellite tables for backup

The definition consists of the assignment of the source and target table: the target table can also be a satellite table, or alternatively, a customer-specific table in the namespace /KERN/, Z- and Y (for Allevo 3.5 and higher). The correct structure of the target table is of utmost importance here (see note below).

The entry in the “number” column determines how many backups Allevo should maintain in the target table simultaneously (up to 99 backup runs are possible).

The entry for “backup type” determines which backup process should be used: complete-backup or dynamic for each change made to an object.

Important:	The source table and target table MUST have the same structure (append-structure). It is therefore recommended to work with the append with a reference to a shared structure instead of with individually defined fields. Such structures are defined via transaction SE11 and can be included in satellite appends via an INCLUDE command. Expansions are then automatically available.
Note:	The number of a backup and the ID of the object are saved in the COBJECT column in the target table.

14.13.2 Create backup

If a satellite table is set up for "per-object-backup", the previous state is stored in the defined backup table each time an object is modified in Allevo. This function is activated as soon as the settings for the backup are made (see previous section).

For the “complete-backup” procedure, backup storage is started via the transaction /ALLEVO/SAT_BACKUP. The only available selection parameter is the name of the satellite table. The available satellites for selection (that were set up for complete-backup via transaction /ALLEVO/SAT_BKR) can be called via F4.

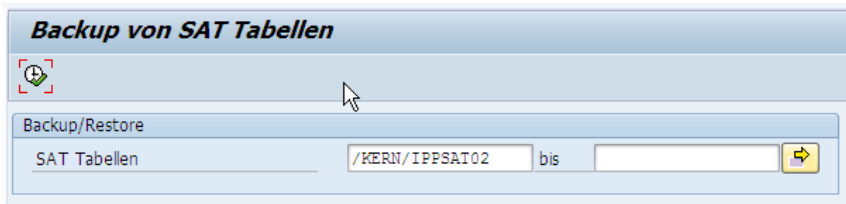


Figure 14.5: Set up complete-backup for satellite tables

The complete contents of the satellite table(s) are saved (also for all years and versions).

Note: During a complete-backup, all backups are logged with the date and time of the backup in the table /KERN/IPPSAT_BLG. For per-object-backups, the log can be found in /KERN/IPPSAT_OBL (also with other details such as the object number).

The entries of the respective log files are available as selection parameters for data restoration.

14.13.3 Restore satellite data

Depending on the application, it may be helpful to see previous states of individual objects or to view the complete status at a given time. For this, the process also differentiates itself, depending on which backup procedure was used.

In both cases, the restoration of data is started via the transaction /ALLEVO/SAT_RESTORE. Figure 14.6 shows an example of the selection parameters for a satellite table with a complete backup.



Figure 14.6: Restore satellite table

The name of the satellite to be restored must be entered. After selecting the controlling area and the object type (as a minimum qualifier), the date of the backup can be selected via F4.

Other parameters in the “Data contents” section can also be set: data can be restored for all objects or only selected objects.

When restoring data that were backed up with the per-object procedure, an object must first be explicitly entered in order to access the log table from the last backup with F4. Alternatively, a date can

be entered: in this case, the restoration program searches through individual logs and tries to restore the data for this date.

important: According to the selection parameters, all data that correspond to the selection are overwritten or deleted. This function should therefore be used with caution.

Allevo generates a log for each restoration (table /KERN/IPPSAT_RLG or /KERN/IPPSAT_ORL).

15 Using satellites and allocating data

15.1 Functional overview

Allevo satellites offer multiple ways to allocate planning relevant data. They can function using active data entry (e.g., secondary planning investments), or as simple information providers for additional information in reading mode (e.g., relevant information from master data).

In order to compile this information in an individual manner, an Excel upload via, or a customer-specific program for compiling data from different SAP source tables into a satellite table Shuttle can be used.

As an alternative, Allevo offers a number of interface programs for transferring data from existing SAP documents and then linking them to different Allevo functions. Possible sources:

- Actuals line items (especially for display while using offline planning)
- Transfer of asset depreciation simulation / depreciation simulation per cost center
- Transfer from a BW DataSource / extractor
- Transfer of data from the ALV display of reports or queries
- Transfer of data from materials calculations (in accordance with CK13N)
- Transfer from CO relevant data records

The following sections describe the corresponding transactions and their specific functions and application possibilities. In all cases, the transfer to Excel (i.e. for processing in the Allevo Master) is made with the help of Allevo satellites. Allevo also offers diverse functions to help realize customer specific data allocation in satellites, e.g., via customer specific BAdI implementation or data transfer reports. The requirements can be adjusted in the Allevo implementation project if necessary.

When allocating data, it can be useful to use SAP background processing (for example, to provide current day-to-day information with overnight runs).

Provide additional information/text for master data

For Allevo interfaces with reading functions, references to master records or other SAP documents are often transferred to a satellite (e.g., material or customer number). In this case, it may be useful to provide additional information (such as descriptive texts) automatically. This general Allevo function is described in Section 15.11 below.

Reading function for MultiObject

In MO-mode, satellites are often used to build a planning structure that will suit the individual needs of the customer (e.g., to only show posting combinations with values). This support is provided by a special function of MOD or ProCED (see the Allevo & Excel or ProCED manual). The special functions of Satellite 00 are related (see Section 14.10).

15.2 Reporting functions via Allevo satellites

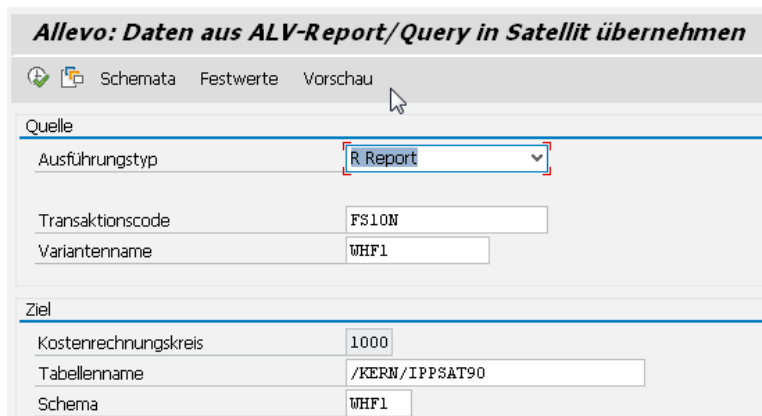
The above Allevo functions for data transfer can supplement the planning content or be the basis for individual reporting independent of the planning functions. In the case of reporting functions, the satellite itself often assumes the central role for the transfer and presentation of the results (e.g., together with graphics). Optionally the output is again made via MultiPage-mode or via lists in Multi-Object mode. For the latter, an entry via the MOD variant of Allevo can be useful for attaining an output over several objects. This allows a flexible selection of the objects involved on the SAP side. If only the data in the satellite is important, the main planning range in the Allevo Master can be omitted completely – it is enough to set the MOD constants on the SAP side for the extended object selection when starting (for the MOD functions, see the Allevo & Excel manual).

Often, Allevo objects can be used to group the data according to the essential characteristics (e.g., display per company code).

15.3 Basic functions (scheme, constant, preview)

A satellite can contain data for multiple applications (e.g., data regarding master data, depreciation simulations, line items, etc.). Accordingly, this data comes from different sources. The contents of the corresponding Allevo data allocation functions are described in the next sections.

These superior functions are called from the toolbar of the individual data transfer transaction, shown here using the example of data transfer from an ALV Report:



The screenshot shows the configuration screen for the transaction 'Allevo: Daten aus ALV-Report/Query in Satellit übernehmen'. It is divided into two main sections: 'Quelle' (Source) and 'Ziel' (Target).

Quelle (Source):

- Ausführungstyp: R Report
- Transaktionscode: FS10N
- Variantenname: WHF1

Ziel (Target):

- Kostenrechnungskreis: 1000
- Tabellenname: /KERN/IPPSAT90
- Schema: WHF1

Figure 15.1: Basic functions for controlling data transfer (scheme, constants, preview)

These data allocation functions rely on central functions that will be described in the next sections. The first goal is the assignment of relevant information from the source to the fields of the satellite table for the subsequent transfer to Excel.

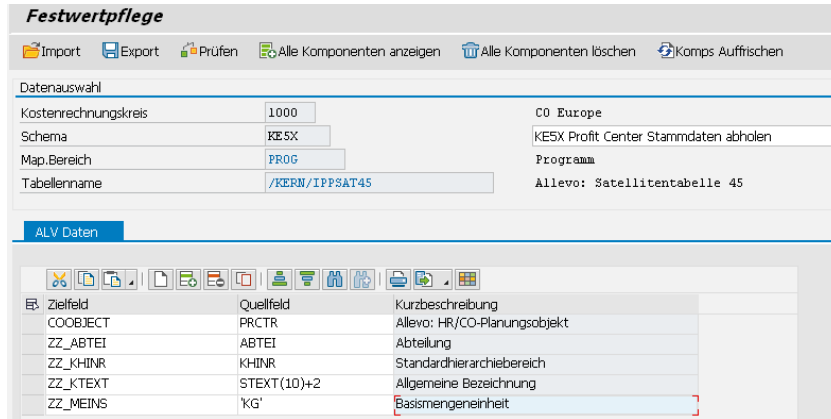
15.3.1 Schemes, constants, and mapping

Normally, for each use case, a **scheme** is defined that is made up of an ID and an appropriate description of the use case. The scheme is then created at the level of the satellite and controlling area.

Constants help define which data fields should be transferred from the source and which should be the corresponding target fields in the satellite (mapping). The assignment of these constants is made based on the controlling area, satellite and scheme.

Note: Depending on the interface function, Allevo first starts with a test run for the integrated transaction in order to (1) check the link between stored reports and (2) to obtain the structure of the data (for subsequent mapping). This test run should of course be made with a sensible selection variant, which must be stored in the start screen of the Allevo transaction.

Example for transferring ALV data from a report:



Zielfeld	Quellfeld	Kurzbeschreibung
COBJECT	PRCTR	Allevo: HR/CO-Planungsobjekt
ZZ_ABTEI	ABTEI	Abteilung
ZZ_KHINR	KHINR	Standardhierarchiebereich
ZZ_KTEXT	STEXT(10)+2	Allgemeine Bezeichnung
ZZ_MEINS	'KG'	Basismengeneinheit

Figure 15.2: constants with mapping for data transfer in satellites

In the upper area, a “Map Area” is shown (among other things): the code in the entry field represents the execution type via which the field assignment has been called up. This specification is important if reading functions are to be called automatically from Allevo planning (see constant SATxx_PROC_BEF_RD).

In the bottom half of the figure above, the column on the left shows the satellite table fields to be filled. In the next column, the assigned components of the currently active interface function: in the example above, source fields supplied by the ALV list in transaction KE5X are available for selection. The description of the fields is transferred from the satellite fields. Details on mapping that are dependent on the interface function are described in the next sections.

As can be seen in the figure above, simple ABAP processing functions for character strings can also be stored in the source field. Parts of the contents of a source field can thus also be transferred (see, e.g., satellite field ZZ_KTEXT with the transfer of 10 characters from STEXT, beginning with the third character).

A component can be transferred to several different satellite fields: this can be particularly helpful when a component is handled by the ABAP processing functions for character strings (for example, to divide parts of a component into different fields of the satellite table).

The fields in satellites can also be supplied with fixed contents, such as ZZ_MEINS in the example above.

The index fields of the satellite (such as year and version) can also be filled using field assignments. Usually, however, these would be fixed in advance (such as in the example above for GJAHR). Without mapping, the fields are automatically filled with the entries from the start screen of the respective transfer transaction. If an index field is left blank (e.g., no content for COBJECT), then the respective row is deleted.

Note: The COBJECT field usually plays a special role for the representative object via which Allevo later transfers the data in the Excel planning screen.

In the example above, the field is filled with a profit center from transaction KE5X. If the corresponding components in the source contain no data, Allevo fills the field with the entry from the selection screen (if there is an entry there).

15.3.2 Preview for source data

Allevo offers a preview function which is accessed via the “Preview Function” button. The data of the linked interface functions can be shown in their original form.

KKrs	Profitcenter	Gültig ab	Gültig bis	Bezeichnung	Langtext	Verantwortlicher PC
1...	1000	01.01.1994	31.12.9999	Motorräder	Motorräder	Robert
1000	1005	01.01.1994	31.12.9999	Automotive	Automotive	Kelly
1000	1010	01.01.1994	31.12.9999	Hochleistungspumpen	Hochleistungspumpen	Bosch
1000	1015	01.01.1997	31.12.9999	Produktion Zubehör	Produktion Zubehör	Fernandez
1000	1016	01.01.1997	31.12.9999	Verkauf Zubehör I	Verkauf Zubehör I (konzernintern)	Ricardo
1000	1017	01.01.1997	31.12.9999	Verkauf Zubehör II	Verkauf Zubehör II (Kunden)	Batista
1000	1018	01.01.1997	31.12.9999	Verkauf Zubehör (ES)	Verkauf Zubehör (Spanien)	Gonzales
1000	1060	01.01.1994	31.12.9999	Nahrungsmittel	Nahrungsmittel	Bocuse
1000	1070	01.01.1994	31.12.9999	Pharma und Kosmetik	Pharma und Kosmetik	Koenig

The preview itself is also an ALV list. The tool tip for the column description shows the field name of the current column for the assignment to the desired satellite field (mapping component). This preview is accessible without any setup steps (e.g., definition of a satellite).

Note: This is also the most important goal of the preview function. A user sees which data can be called before any set up steps have to be made.

15.4 Transfer data from depreciation simulations in satellites

15.4.1 Functional overview

Within the framework of Allevo planning processes, regular access to depreciation data is required. These data are usually accessed via the SAP report RASIMU02 (Transaction AR18 = depreciation simulation).

Background: with this report, it is possible to simulate future depreciations. The entry of the report date determines to which (future) fiscal year the simulation should be run or for which fiscal year a simulation for a specific time range should be made.

For this reason, Allevo offers functions for transferring the results of a depreciation simulation into a satellite table as the basis for further planning functions. It is even possible to use multiple satellites for different uses, for example:

- Determination of monthly depreciation values for one satellite

- Determination of new asset additions for the current year in a second satellite

Solution properties:

- Depreciation data are available as both monthly and yearly values (for up to 3 years).
- The data are automatically assigned to the stored cost centers.
- Optionally, an accumulation can be made at the level of the asset class (see note for assignment of cost elements below).

The corresponding transaction /ALLEVO/RD_DEPR (or /KERN/IPP_RD_DEPR) uses the same basic functions as the transfer of data from BW extractions (see the general note further above). For example:

- Creation and selection of a scheme for the satellites where the constants are stored (for Allevo 3.4.19 and higher, earlier versions only used the STD standard scheme).
- Set up of field assignments (constants), which allow the result of a depreciation calculation with the relevant parameters to be written into the fields of a satellite table.
- Call the SAP report RASIMU02 with a defined selection variant and save the relevant data in the satellite table.

Note:

All of the parameters that are necessary for an accurate depreciation calculation must be stored in the selection variants of RASIMU02. Allevo does not use any of its own parameters when calling in this case.

Authorization check: calling the interface is only possible if the current user also has an authorization for SAP transaction AR18.

The transfer of data from an ALV report was not yet available in the first NetWeaver Base Version 7.0. Therefore, EHP1 or the individual installation of SAP Note 946699 is necessary. Allevo checks the function before calling the field assignments / constants.

In current ERP versions, SAP also offers the report RASIMU_ALV01, which allows additional fields from the asset master to be transferred (see SAP Note 427827). In order to connect the respective transaction AR18N, the general ALV transfer in Allevo should be used (see section below).

After calling the transaction, the following selection screen appears:

Allevo: AfA-Simulationsdaten in einen Satellit laden

Schemata Festwerte Vorschau

Variante von RASIMU02

Variantenname WHF3

Mapping-Schema

Kostenrechnungskreis 1000

Satellit /KERN/IPPSAT58

Schema WHF1

Satellitenschlüssel

Objektart Kostenstelle

Kostenstelle 1000

Geschäftsjahr 2020

Version 99

Zusatz Infos / Verdichtung / Filter

Update Felder mit Zusatz-Infos

Nach Anl.Kl./Kst.Art summieren

Entf. Zellen unter Gesamtwert

Andere Optionen

Anzeige Sat.-Daten vor Sichern

Daten für Jahr/Vers. löschen Löschen auf Basis CO-Objekt

Figure 15.3: Entry for transfer of data from a depreciation simulation

The most important parameters when executing the interface and transferring the data to a satellite:

- Name of the selection variant with which RASIMU02 is to be called.
- Satellite table for storing the data; saving is always done per controlling area. If necessary, this must also be taken into account in the report variant for RASIMU02 (for example, calling via suitable company codes).
- Scheme for the satellite (to be created in advance via the |Schemes| button). Multiple schemes per satellite can be useful if multiple years should be read one after another (see also the merge function for “other options”)
- Entries such as object number (e.g. cost center), fiscal year and version are transferred in the respective index fields of the satellite if there are no assignments via constants.

Note for determining COBJECT: depreciation data are usually assigned to a cost center, which is then automatically transferred to the COBJECT field of the satellite table. For this, the interface provides the fields KOSTL or KOSTLV (the responsible cost center). If no object number is delivered from mapping, the default from the start screen is used (if there is no default entry, rows without an object assignment are deleted).

In current Allevo versions, depreciation data can also be saved for orders (component CAUFN) or an Allevo object. The latter can be sensible for transferring depreciation date per company code.

- The option “Update fields with additional info” allows data that are set up in the Allevo transaction /ALLEVO/SAT_TXT_RULE to be read (= rules for making additional info available). Fields in the satellite index can also be addressed here.

- The option “summarize according to asset class/cost element” allows the aggregation of the data according to object, asset class and cost element (if the latter has been determined via mapping, otherwise only object and asset class are relevant).
- An entry in “Delete rows below total” allows especially small depreciation amounts to be suppressed.

Other options:

- “Display satellite data before saving” allows for a manual check of the read data before it is saved in the satellite (a sort of preview for the transferred data).
- The options for deleting / merging data in satellites are described in Section 15.4.5 below.

All parameters for executing the depreciation simulation via RASIMU02 must be saved in the called depreciation selection variants. Please note the following:

- The Allevo interface saves data to a predefined controlling area. Accordingly, the parameters also need to be selected in the selection variant (for example, with a restriction to the relevant company codes).
- The option “list assets” must be set in the selection screen of the depreciation variant.
- In the selection screen, RASIMU02 offers the option “Evaluation time period” with the options “monthly, quarterly, 6-month and yearly”. By default, Allevo assumes that one of the first options will be selected (e.g., monthly). When selecting “Year”, the transfer parameters (i.e. the components in field mapping) are filled with different contents from SAP than expected from the descriptions of the constants / components. This can lead to confusion as to the meaning of the fields, but does not limit the function of the interface.

Some Allevo constants with yearly values are simply calculated internally as the sum of monthly values.

Note:	<p>The SAP report also allows the transfer of valued asset additions (base values) to the determined depreciation.</p> <p>In this context, Allevo also offers transaction /ALLEVO/ASSET_ACQ (similar to SAP transaction S_ALR_87012050) in order to enable the transfer of asset movements (e.g., additions) to a satellite.</p>
--------------	--

15.4.2 Field assignments (constants)

Here, it is determined which fields of the interface should be transferred to a satellite. For the basic functions, see Section 15.3).

The assignment of these constants is made on the basis of controlling area and satellite table (see the button “Constant” in the start screen).

Note: When calling the field assignments, Allevo starts a test run for RASIMU02 to check the basic functionality of the ALV interface. This should be done with a sensible selection variant, which must then also be stored in the start screen of the Allevo transaction.

The usual Allevo assignment table is shown for assigning the components of the interface table and the fields of the satellite table.

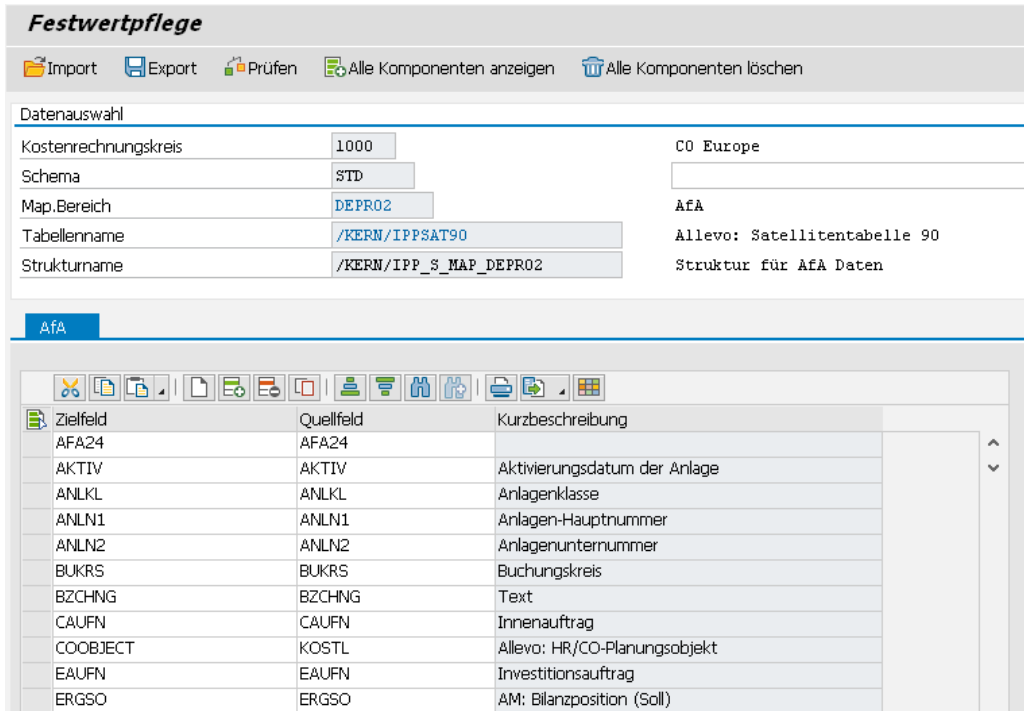


Figure 15.4: Field assignments for depreciation data

The column on the left contains the fields of the satellite table to be written to. The second column contains the fields (components) of the interface to the depreciation report. Please note the following:

The available components are stored in the structure / KERN / IPP_S_MAP_DEPR02 (accessed via transaction SE11 for direct display in the ABAP Dictionary). It is a subset of the components that are available for ALV output via the SAP report. This subset is supplemented by additional information, e.g. from the master record of assets, such as inventory and serial number (contents of table ANLA).

Note: Depending on the execution parameters of RASIMU02, different components of the ALV are filled with data. Which these are can be identified via a direct call of RASIMU:

- In the ALV output for RASIMU, change to "Settings >> Display variants >> Current". The corresponding popup shows all fields that are available in the current view. In the context menu, the option "Tech. field names" displays the components with their field names.
- It is, of course, possible to transfer the contents of columns that were not previously displayed from the list of "hidden fields" and to check their contents in the ALV output.

Filling the COBJECT index field: The cost center (interface component KOSTL) must be transferred to the satellite table as a representative object. The aggregation function is based on this and the asset

class. If the field is not filled when the data are transferred, Allevo transfers the cost center from the initial screen of the transaction (without this default, rows with an empty cost center are ignored).

Executing a depreciation simulation for “Year”

The description of the interface components (last column in Figure 15.4: Field assignments for depreciation data) is primarily for simulations within a year, i.e. calling RASMU02 with “Monthly, quarterly or 6-month” in the selection parameter “Evaluation time range” (Example: AFA01 = planned depreciation month 01).

If the report is started with an evaluation time range of “Year”, individual fields are filled with contents that have a deviating meaning. Examples:

- AFA01 = cumulated depreciation at the beginning of year
- AHK01 = Normal depreciation at the beginning of the year
- ZAHK01 = Cumulated normal depreciation at the beginning of the year
- BCHW01 = Residual book value at the beginning of the year
- AFA02 = Additional depreciation in year of evaluation
- AHK02 = cumulated acquisition value at the end of year
- ZAHK02 = Additional acquisition value in year of evaluation
- BCHW02 = Residual book value at the end of the year

These deviating meanings must be considered when setting up the constants. Additionally, some internally calculated Allevo components cannot be sensibly used for a yearly evaluation (e.g., AFA_Y1 to AFA_Y3 for calculated yearly values). These should therefore not be used in mapping.

15.4.3 Additional information (e.g., for account identification)

The interface provides two ways to add data to the output that are not originally provided through RASIMU02:

- Special components in structure /KERN/IPP_S_MAP_DEPR02, which are filled directly from the interface with content if the associated constants are assigned to a satellite field.
- Additional info, whose info is stored in Allevo transaction /ALLEVO/SAT_TXT_RULE (= provide rules for additional information).

Both of these functions can also address fields in the satellite index. The contents of the COBJECT field can be determined by such an additional function, which is then the basis of the aggregation by asset class. Allevo creates the relevant row numbers only after the data are stored in the satellite table.

Allevo specific constants and account identification

The following information is provided individually by the Allevo data transfer interface because it is not available in the ALV output:

- AFA_Y1, AFA_Y2, AFA_Y3 for yearly values (e.g., as the sum of AFA01 to AFA12). A field assignment to these components is therefore only useful for evaluation period "month".
- ANLN1, ANLN2 Asset main-number/ sub-number;
The information is only available in the interface as a compound object number in the OBJECT field.
- INVNR_ANLA Inventory number of the asset (from ANLA, master record of the asset)
- AM_SERNR Serial-number of the asset (ANLA)
- KTOGR Account determination / grouping (ANLA)
- KTOPL Account plan (via T001, master record company code)
- KTGRTX Account determination identification
- KTNAFG Expense account normal depreciation (table T095B, see below)
- REPDATE Report date from the header of a RASIMU02 call
- DEPR_AREA Depreciation area

Determining cost elements (expense account)

The assignment to a cost element is helpful for the correct processing of depreciation data within Allevo planning. For this reason, the data transfer offers an automated determination of the cost element in KTNAFG using the abovementioned components KTOPL, KTOGR and DEPR_AREA and the data in table T095B.

Important: The 3 components mentioned must be set in mapping to perform the account determination. The cost element in KTNAFG is also the basis for aggregation at the level of asset class.

Of course, the relevant cost elements can also be assigned in the Allevo Master in order to cover customer-specific requirements (no aggregation should take place beforehand).

Function "Update fields with additional info"

This option allows you to add data where the determination is stored in the Allevo transaction /ALLEVO/SAT_TXT_RULE (= provide rules for additional information). Here a multi-stage determination as an example application:

58	CAUFN	1	W	ANLA	Auftrag	EAUFN	BUKRS	ANLN1	ANLN2		
58	COBJECT	2	W	AUFK	Kostenstelle	KOSTV	CAUFN				

Figure 15.5: Determination of cost center via additional info for creation

In the case in the figure above, the determination of COBJECT is made in two steps:

- Step (1) determines the number of an investment order that is stored in the field EAUFN of an asset and writes it in the CAUFN field of the satellite.
- Step (2) determines the responsible cost center KOSTV from this asset and transfers it as COBJECT.

If no cost center can be determined in this way, Allevo assumes the default entry for the COBJECT from the start screen.

15.4.4 Special feature for the Preview function

The preview for depreciation data transfer has two different display variants:



- The first display option shows the data as they are provided from the current selection variant of RASIMU02. Depending on this variant, the column structure may differ (e.g., depending on the entries for year / period). It is thus recognizable which information is available.
- The second variant shows the data after they have been transferred to the Allevo table structure with all components that are also available in mapping (based on /KERN/IPP_S_MAP_DEPR02). In addition, the fields filled by Allevo in the interface are also filled here (for example, yearly totals, but also ANLN1 and ANLN2 with asset main / sub-number, see also note above).

In both cases the conversion to satellite data has not yet taken place. The options "Update fields with additional info" and "Sum after asset class/cost center type" will therefore not go through.

The technical name of a field is again displayed using the tool tip for preview (see basic information on the preview function above).

Note:	<p>Here is a further note on how the technical name when directly executing RASIMU02 can be recognized.</p> <p>Usually, when calling the F1-help in the ALV output screen, only the stored components are named, but not the field name that is required for Allevo mapping. Therefore, you cannot immediately recognize which components are relevant in Allevo based on the output values.</p> <p>In this case, it can be helpful to use a basic function of ALV in the layout settings; See ALV menu "Settings >> Display variants >> Current", then in the dialog for "Change layout", call the context menu with "Technical field names on".</p>
--------------	---

15.4.5 Delete or merge existing depreciation data

Via the section "Other options" in the selection screen, the following variants are available for deleting / merging existing data.

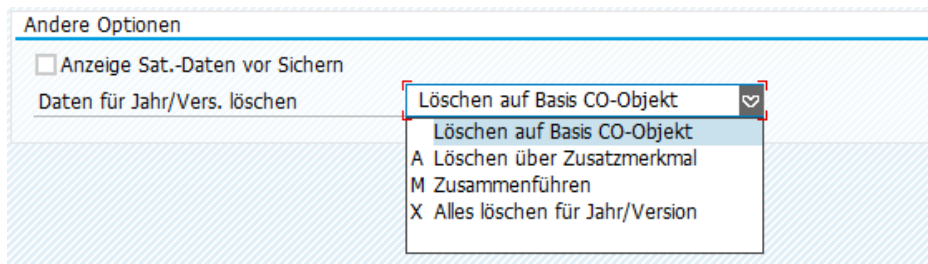


Figure 15.6: Delete / mix existing depreciation data

The following options are available for selection:

- “Delete based on CO-Object” deletes data in the satellite for all currently addressed objects, such as cost centers (with regard to year and version).
- The option “X = delete all for year/version” deletes all depreciation data in satellites from the start screen for the respective year and version.
- Option “A = delete with additional attributes” allows any field in a satellite to be checked and then the relevant rows to be deleted.

Use example: depreciation data for cost centers are determined for a defined company code (stored in the report variant). To ensure that all cost centers to this company code are removed from the satellite, the company code must be stored in a field of the satellite table. The name of this field is also entered in the start screen.

- Option “M = merge” allows depreciation data of several program calls to be transferred into the same rows of the satellite table if the mapping of the individual calls uses different fields in the satellite (this can be represented by separate schemes).

Example for merge: the depreciation simulation shows period relevant data for a single fiscal year. In order to transfer data for multiple years in an exact manner, RASIMU2 can be called multiple times (each time with an appropriate report date).

- The first scheme writes to the satellite normally (deleting existing data if necessary)
- The second scheme writes in the same satellites, but in different fields for the relevant depreciation data (second period block). Depending on other characteristics, these data should, of course, supplement the satellite rows generated in the first run.
- The M option must be set for the second run (and others). Then, in the start screen, another field opens for entering the satellite fields to be used as “key fields for merge”. Input is a comma-separated list. These fields must each unambiguously identify a satellite row: by default, these are the satellite fields for asset main / sub-number. If no matching row is found, the interface creates new rows.

15.4.6 Program execution

In execution mode, the report RASIMU02 is started with the chosen selection variants (see Figure 15.4: Field assignments for depreciation data. Allevo checks the authorization with transaction AR18. The most important parameters in the selection screen:

- Name of the selection variant to be called with RASIMU02
- Satellite table for storing the data (saved per controlling area)
- Depreciation data can be saved either to cost centers, orders, or to an Allevo object. Usually, the corresponding field COBJECT in the satellite key is derived via the mapping to the depreciation data (for example, from the responsible cost center). The object number in the selection screen is only used if no entry is available via the depreciation data (or if no cost center is assigned via mapping). Rows without assignment by mapping and without a default object are ignored (not written to the satellite table).
- The entries for year and version respond to the corresponding columns in the satellite table.
- Optionally, an accumulation for each object, cost element, and asset class can be carried out: automatic account determination for component KTNAFG should be active (otherwise aggregation is only at the level of object and asset class).
- If a total value is entered, it is checked for each row and, if necessary, a row below this limit is not written to the satellite table.

The result is written with the selected field assignments in the satellite table. All old entries in satellites with year and version in the current controlling area are deleted beforehand.

15.5 Transfer data from BW DataSource to satellites (extractor)

15.5.1 Functional overview

Data from a BW DataSource are transferred to a satellite table via transaction /ALLEVO/ BW_EXTRACT (or KERN/IPP_BW_EXTRACT). Two basic functions are involved:

- Setup of field assignments (mapping): this allows the data extraction results to be written to the satellite table with the correct parameters.
- Executing the extraction and saving the data in the satellite table

Note:	Currently, all DataSources (extractors) for which a functional module is stored for data acquisition can be integrated (extraction method F1). See also the definition in SAP transaction RSA1. Transaction RSA3 is available in order to test the usability of a DataSource.
--------------	---

After calling the transaction, the following screen appears:

Datasource zu einer Satellitentabelle extrahieren

Mapping

Satellitentabelle

Table Name	/KERN/IPPSAT85
Schema	WHF1

Default-Schlüsselwerte

Diese Werte überschreiben die vom Mapping

Kostenrechnungskreis	1000
Objektart	KS Kostenstelle
Planungsobjekt	1000
Planungsjahr	2014
Version	0

Quelldaten

DataSource	OFI_AA_12	Drücken Sie Enter um die Selektion anzuzeigen
------------	-----------	---

Selektion

Selections (Internal Format)			
Feld	Von_Wert	Bis_Wert	Kurztext
AFABER			Bewertungsbereich echt ode
BUKRS			Buchungskreis
FISCPER	2006001	2006012	Geschäftsjahr / Periode

Figure 15.7: Start screen for BW data extraction

Most important parameters:

- Indication of the satellite table for storing the data
- A scheme for field assignments for the DataSource and satellite. Assignments for the key fields of the satellite can also be made here (i.e. controlling area, object number, etc.)
- Optionally, the contents of the satellite key fields can also be supplied by mapping the constants. Or they are predefined: Allevo then takes the entries from the default data. In this way, data can be stored very easily under a particular version or a representative object.
- The lower area defines the SAP DataSource (and thus the stored extractor). Depending on this definition, the possible selection parameters are offered in a list.

15.5.2 Field assignments (mapping)

In this area, you define which interface fields should be transferred to a satellite (button “Constants”). For the basic functions, see Section 15.3 above.

Hier wird definiert, welche Felder der Schnittstelle in einen Satelliten übernommen werden sollten (Button „Festwerte“). Zu den Grundfunktionen siehe Abschnitt 15.3 weiter oben).

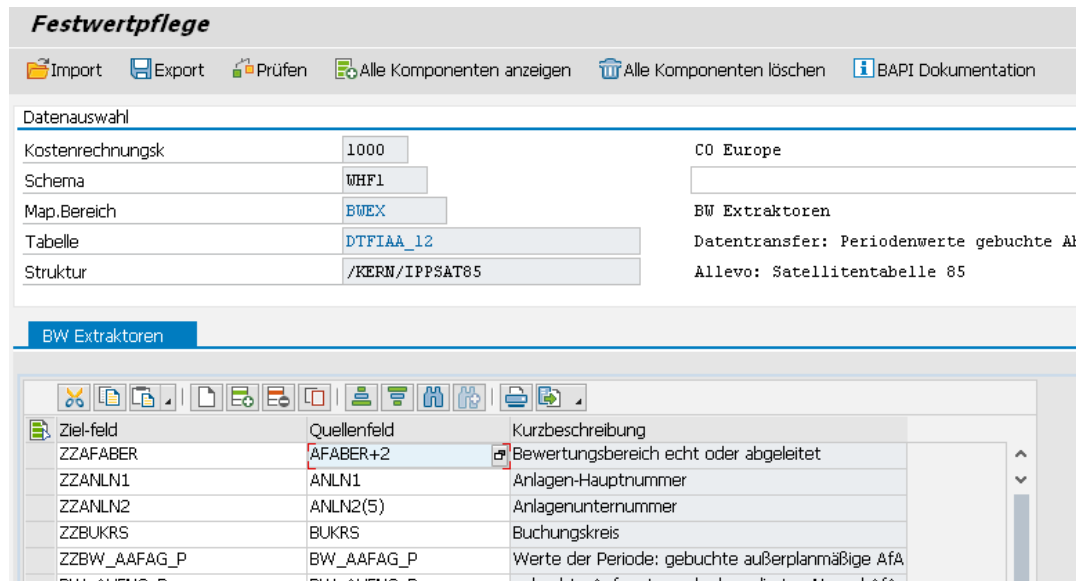


Figure 15.8: Field assignments for DataSource

The column on the left contains the fields of the satellite table, where the data are to be written. In the second column, the source fields of the DataSource are listed: these fields are structurally defined according to the entry for “Table” in the top part of the screen.

15.5.3 Program execution

In execution mode, the extractor is started with the selected selection parameters (as a full upload). The result is written in the satellite table according to the selected field assignments.

15.6 Transfer data from SAP evaluations with ALV

15.6.1 Overview and requirements

Allevo offers specific functions for transferring data from the ALV output of a report, a query or a drill down report to a satellite table. Three such execution options are available:

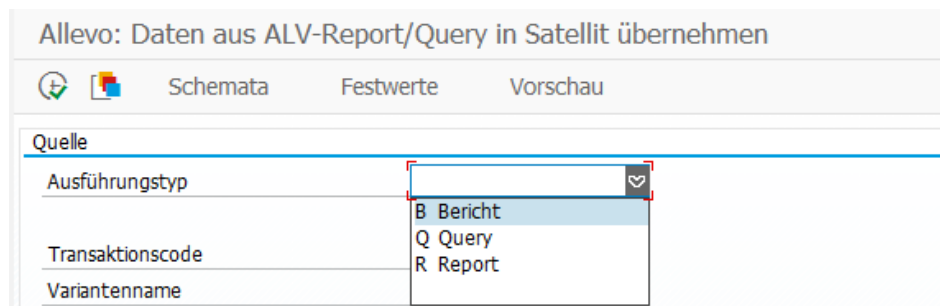


Figure 15.9: Execution options for ALV data transfer

For these transfer functions, the following requirements must be met:

- The functions described here are only available for SAP evaluations where the output has been configured to ALV. In many SAP reports, this is the case: SAP note 747469 provides an overview.

Accordingly, the SAP List Viewer must also be selected as the output media in the called evaluations.

- Reports/queries/drill down reports must output their data via ALV (List Viewer).
- A transaction must be assigned for each report/query/drill down report. The respective transaction is called by Allevo and checked for execution authorization (There is no need for a general authorization for SA38 or SQ01).
- When a query is executed, the user must be assigned to the relevant query user group.
- The list of data fields is derived from the properties of the report or the query. This SAP functionality is not yet available in the first NetWeaver version 7.0. EHP1 or the installation of SAP Note 946699 is required.
- The functions described here are only available for SAP evaluations for which the output is set to ALV. In many SAP reports, this is the case: SAP Note 747469 (changeover to SAP List Viewer) provides an overview.

Report integration

In some instances, additional settings are required so that the output is made via ALV.

Examples:

- Material management reports partly take into account the user parameter ME_USE_GRID (= ALV Grid Control in Purchasing Reporting); In the FI area, FIT_ALVC may be required.
- In other cases, additional customizing may be required, see e.g., “Default values for transactions” in Customizing for purchasing reports.

Query integration

- The interface functions described here refer to queries that are created via transaction SQ01 (not on “QuickViews” of transaction SQVI).
- Allevo supports queries in the workspaces “Standard” (for client dependent applications) and “Global” (with a connection to SAP transport).
- To execute the query via the Allevo interface, a transaction must be assigned to the query.

Drill down report integration

Drill down reports can be used in the following areas, among others:

- Profit center plan actuals comparison
- Cash flow reports
- Balance sheet numbers /-reports
- Public Sector Management (PSCD)
- Investment management
- Property management

15.6.2 Functions

ALV data transfer is controlled via Allevo transaction /ALLEVO/RD_PRG_ALV. This transaction contains two basic functions:

- The setup of field assignments (mapping): the result of the transfer can be written into the satellite table with the correct parameters.
- Execution of the report or query and saving the data in the satellite table

An execution transaction must be assigned to both the report and the query. An SAP authorization check is carried out automatically. The entry for the Allevo transaction results in the following start screen:

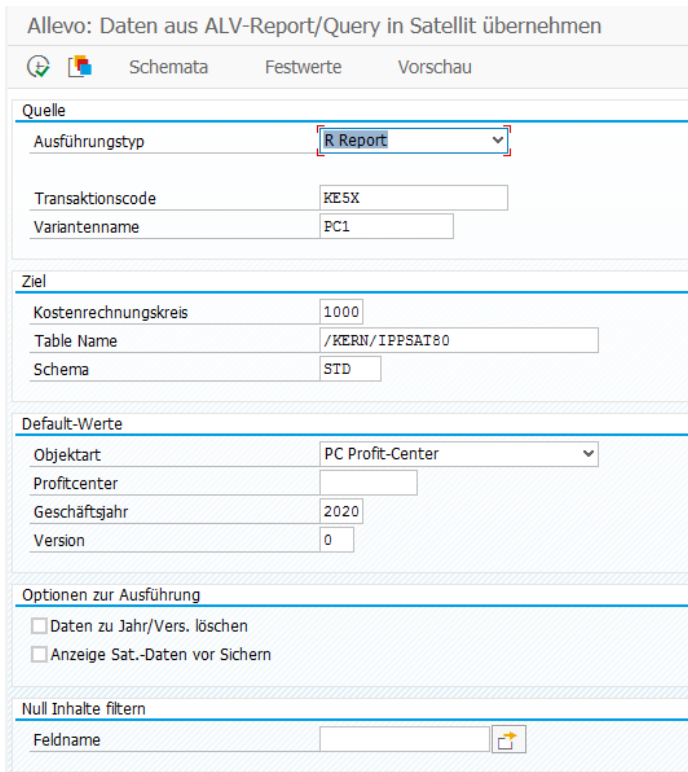


Figure 15.10: Start screen for ALV data transfer (here with a list of profit center master data)

The execution type differentiates between report, query, and drill down report. Please observe the following:

- In all cases, Allevo expects the entry of a transaction that starts the corresponding report or query (for authorization check). In the example above, transaction KE5X is used to retrieve a report with profit center master data.
- A selection variant should be created for the transaction (or the stored report / query). When the Allevo transaction is executed, the stored report / query is executed invisibly for the user, in order to transfer the data to the satellite table.
- In some cases (for example, for tests), it may be useful to call report / query without a variant: this opens the selection screen for user input. In this case, the called report / query must also be executed manually via F8. When returning with F3, Allevo transfers the result of the last program run.

- Several schemes can be stored for each satellite table. In principle, this allows the satellite to be filled via different sources (to stay with our example, a list of master data for cost centers and profit centers). In this case, the constants (components of the interface) are also stored in the scheme. As usual, all constants are also stored according to controlling area.

Allocation of default values:

- Key satellite fields (such as year and version) can be provided via constant mapping. The contents are then transferred, for example, from the ALV data of the called report.
- Without mapping, or with missing mapping contents, Allevo uses the default values from the selection screen. In this way, all data can be stored easily under a particular version or a representative object. This rule also applies to the controlling area: the content of the field KOKRS in the satellite can also be overwritten by an entry in mapping.

Options for execution:

Normally, Allevo deletes only the data for those objects which are addressed by the current program call during program execution. Advantage: the program can also be executed successively for different objects.

Alternatively, all data for the given combination of year and version can be deleted before Allevo writes the data into the satellite table (option "Delete data for year / version"). This ensures that no legacy data remain in the table.

Allevo can show a preview the result of an ALV transfer before the corresponding data are written to the satellites ("Display sat. data before saving"). Optionally, the user can also abort the process with this option.

Filter empty contents:

Any number of satellite fields can be entered for this filter. At least one of these fields must have contents: only then will Allevo transfer the corresponding rows to the satellites and avoid the transfer of unnecessary information. Example: the ALV output contains comments or totals rows that should not be transferred to the satellite (there are then empty columns that would otherwise carry values).

15.6.3 Constants for field assignments (mapping)

As soon as a satellite and a report or query are entered in the start screen, the required field assignments can be made (call via the button "Constants", for the base functions, see Section 15.3).

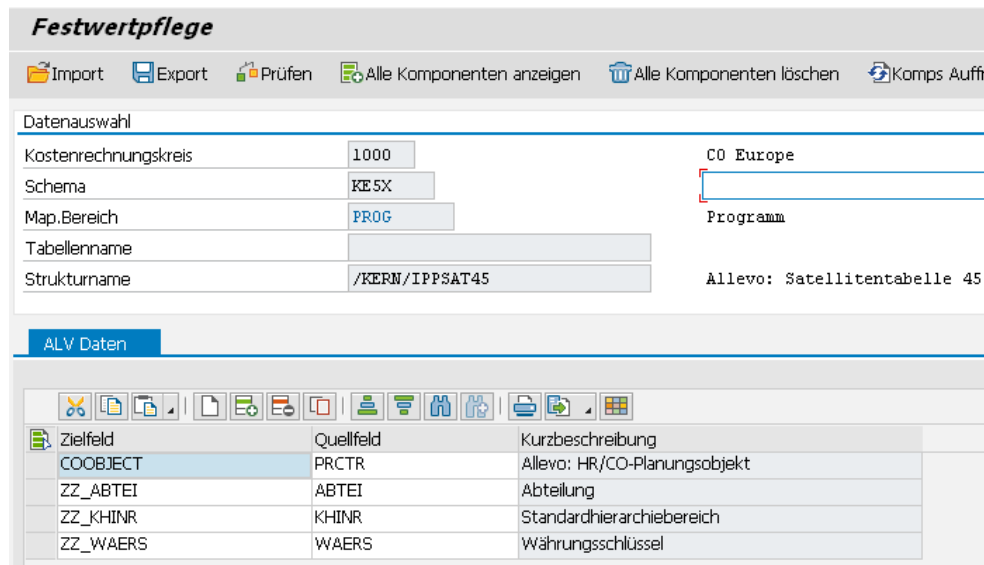


Figure 15.11: Field assignments for ALV data transfer

The column on the left contains the fields of the satellite table where the data should be written. The source fields in the second column are automatically taken from the report or query.

Determining the ALV source fields

In order for Allevo to display the information / components used in the ALV as a constant, the filed report / query must be called once. It is a good idea to have a suitable variant entered in the start screen. The call is made automatically the first time you enter constant maintenance.

After this initial call, the determined fields / components are stored temporarily for further processing (table /KERN/IPPMAPCOMP) and are then available in the F4 field selection for mapping. The display shown via the button |Source structure| can also be useful. Here, Allevo shows all the components together with the data definitions that are stored in ALV (for example, as a basis for the creation of a satellite append).

Note: In order to determine the ALV source fields, certain prerequisites must be fulfilled, as mentioned in the introductory section above.

The button [Source structure] is currently not available in other interfaces. There, suitable structures are available in the ABAP Dictionary, where the data definitions can be found.

An update of the list with the ALV components can be made at any time with the |Refresh components| button in constant maintenance.

After the initial call, the normal entry screen for constants appears. The display is on either one or two tabs (header and position data): this depends on whether the data in the ALV of the called report is made with one or two levels.

Background: The two-level output corresponds to a hierarchical representation in the ALV. Depending on this, the corresponding data are also available in the Allevo interface via one or two tables

(header and position data): two tabs are automatically provided for entering the associated constants. When executing the interface with data transfer to the satellite, one row is always created per position: Allevo ensures that data from a header table are repeated.

The technical name of a field results from the tool tip in the Allevo preview function.

Note:	<p>A second way to find out the technical name of the fields for an ALV output.</p> <p>Typically, when you call the F1-help in the ALV output screen, only the stored component is named, but not the field name required for Allevo mapping. With the output values, it is not possible to immediately see which component is relevant in Allevo.</p> <p>In this case, it is helpful to use a basic function of ALV in the layout settings: see ALV menu "Settings >> Display variants >> Current"; Then in the dialog for "Change layout", call the context menu with "Technical field names on".</p>
--------------	---

15.6.4 Program execution

In execution mode, a report a query is started with the chosen selection variants. The result is automatically written in the satellite table with the selected field assignments.

If the query is carried out via a two-level ALV, one row is always created per item: Allevo ensures that entries from a header table are repeated accordingly.

The assignment of constants can also be done for satellite index fields. Empty entries can occur if no valid data is provided via ALV. These rows are then ignored by Allevo (this can happen only if neither the mapping nor the start screen provide a valid value).

For additional options for deleting previous data and filters for the new data, see notes above.

Authorization Check: Allevo searches for a transaction for the relevant report and checks the corresponding authorization.

Preview function

Allevo currently only supports the preview function for the single-level output of a report or query.

15.7 Transfer SAP materials calculations to satellites

Allevo provides functions for transferring data from materials calculations, allowing it to be prepared for further planning in Excel. Some applications could include:

- Estimation of utilization and requirements based on planned sales (for example, in conjunction with Allevo COPA interface), or derivation of values for activity planning.
- Overhead costing / post-calculation based on planned services / prices.

Allevo offers display formats for materials calculation similar to SAP transaction CK13N:

- LI List of materials with calculation data
with information such as costing- number, type, date, version, and status.
- IT Itemization

With all cost components for the current material (quantity structure of costs); Subordinate materials are not resolved.

- EX Bill of materials explosion

With complete resolution of the costing structure (evaluated structure parts list). The level of resolution of subordinate components can be individually assigned.

- CC Cost component

With fixed costs and total costs in a cost estimate, organized by, e.g., raw materials, freight costs, third-party services, etc. (depending on the stored element scheme, including cost elements for cost components).

An Example of the display of a materials calculation in Excel:

ITEM	CA	PRODI	LOTSIZE	COST_ELE	Text	Katar	CO AREA	CU	CO AR	QUANTIT	PRICE	Q	ACTIVITY	T	WORK_CEN	COST_CENT
E	P-100	100	0000625000	Direkte Leistungsverr. Rüsten			EUR		H	1422	1310	0000004230				
E	P-100	100	0000620000	Dir. Leistungsverr. Maschinenkosten			EUR		H	1420	1310	0000004230				
E	P-100	100	0000619000	Dir. Leistungsverr. Fertigungsstunden		493,69	EUR		H	1421	1310	0000004230				
M	P-100	100	0000890000	Verbrauch Halbfabrikate		13.597,80	EUR		ST	100,00						
M	P-100	100	0000400000	Verbrauch Rohstoffe 1		163,84	EUR		M2	64,00						
M	P-100	100	0000400000	Verbrauch Rohstoffe 1		400,00	EUR		ST	800,00						
E	P-100	100	0000625000	Direkte Leistungsverr. Rüsten		4,63	EUR		H	1422	1320	0000004230				
E	P-100	100	0000620000	Dir. Leistungsverr. Maschinenkosten			EUR		H	1420	1320	0000004230				
E	P-100	100	0000619000	Dir. Leistungsverr. Fertigungsstunden		1.234,21	EUR		H	1421	1320	0000004230				
E	P-100	100	0000625000	Direkte Leistungsverr. Rüsten		6,93	EUR		H	1422	1906	0000004230				
E	P-100	100	0000620000	Dir. Leistungsverr. Maschinenkosten		443,77	EUR		H	1420	1906	0000004230				
E	P-100	100	0000619000	Dir. Leistungsverr. Fertigungsstunden		493,69	EUR		H	1421	1906	0000004230				
E	P-100	100	0000625000	Direkte Leistungsverr. Rüsten		16,79	EUR		H	1422	1904	0000004220				
E	P-100	100	0000620000	Dir. Leistungsverr. Maschinenkosten		569,17	EUR		H	1420	1904	0000004220				
E	P-100	100	0000619000	Dir. Leistungsverr. Fertigungsstunden		442,54	EUR		H	1421	1904	0000004220				
M	P-100	100	0000400000	Verbrauch Rohstoffe 1		5.120,00	EUR		ST	200,00						
E	P-100	100	0000625000	Direkte Leistungsverr. Rüsten			EUR		H	1422	1905	0000004230				

Figure 15.12: Display of a materials calculation in Excel





15.7.1 Functional overview

The program for transferring data from the materials calculation is called from the Allevo Cockpit (“Satellites” menu) or the transaction /ALLEVO/READ_MAT_CE. Two basic functions are contained here:

- The creation of a scheme and the setup of field assignments (mapping): the data from the materials calculations can be written to the satellite table with the correct parameters
- Calling the corresponding SAP BAPIs for reading the calculation for a predetermined selection of materials and saving the data in a satellite table.

After the call, the following selection screen is shown:


Allevo: Materialkalkulation in Satelliten übertragen


 Schemata
  Festwerte
  Vorschau

Vorgang

Ausführungstyp

Mapping

Kostenrechnungskreis 

Satellit Actual CK13N Liste EX

Schema Komplette Auflösung

Satellitendaten

Planungsjahr

Version

Planungsobjekt

Daten für Jahr/Vers. löschen

Anzeige Sat.-Daten vor Sichern

Materialien

Selektionstyp

Material bis

Werk bis

Materialeigenschaften

Materialart bis

Warengruppe bis

Beschaffungsart bis

Kalkulationsdaten

Kalkulation

Kalkulationsvariante bis

Kalkulationsstatus bis

Kalkulationsversion bis

Gültig am

Elementesicht

Stücklistenauflösung

Auflösungstiefe

Kalkulationslosgröße

Filter

Positionstyp bis

Zeilen mit Menge 0 ignorieren

Kopf ignorieren in Baugruppen

Figure 15.13: Screen for transferring data from a materials calculation

The execution type determines the structure and level of detail of the evaluation.

As with other Allevo interfaces, multiple schemes can be used for each controlling area and satellite table. In this way, for example, it is possible to do a transfer using different execution types (and therefore different forms of a materials calculation) for the same satellites.

Section “Satellite data”: The selection of the relevant materials (“main material”) is made by default using organizational criteria such as plant or material type. The typical combination is usually represented by an Allevo object. Therefore, the specification for the representative planning object in the satellite table is currently limited to object type KX. When the program is run, the data for the planning year and version are also transferred to the index fields of the satellite table (unless an individual assignment is defined for the constants).

Section “Materials”: The selection of the materials for which data for the material costing is to be transferred can be set individually: in the figure above, for example, a direct input is provided with presets for plant and material.

Alternatively, the list of materials can also be provided via a second satellite, which may contain information about planned quantities. When you change the selection type for materials, the following fields for selecting suitable characteristics also change.

Materialien	
Selektionstyp	P Material/Werk über Satellit
Satellitennummer	97
Satellitenvariante	WHF1
Feld mit Material	ZZMATNR
Feld mit Werk	ZZPLANT

Figure 15.14: Predefined material and plant via additional satellites

The data in this controlling satellite are addressed via a selection variant, which, for example, predefines for which year and version the planned materials should be transferred. Using different variants offers some advantages if different combinations of materials are to be analyzed (the stored report /KERN/IPP_SAT_SELECTION does not contain any functions, but rather serves the maintenance of the variants).

Also required is an entry with the fields in the corresponding satellite table in which the plant or material is entered.

Section “Material properties”: The selection of materials can be restricted by material type and procurement type.

Section “Calculation data”: Allevo respects the predefined calculation variant or the corresponding calculation status. If suitable cost estimates are not found for a material, a note appears in the log after the program is executed.

Sections “Bill of materials explosion” and “Filter”: Depending on the execution type, further selection options are available to adapt the transfer of the data to the satellite. The example above shows the options for the most detailed list with the resolution of all levels (EX = BOM explosion). There are special filter options:

- Using a filter by item type, only the specified calculation parts are written to the satellites and transferred to Excel (for example, only own goods/services or only integrated materials).
- The bill of materials can also contain items for which no quantity is indicated. These items are usually irrelevant for further calculations. Optionally, they can be removed from the list.
- Header lines in assemblies are a special feature, since totals are entered over all components. If the components are displayed simultaneously in Excel, this can result in multiple amounts being counted. Optionally, these header lines can be omitted.

15.7.2 Constants for field assignments (mapping)

As soon as a satellite and a report or a query are entered in the start screen, the required field assignments can be made (call via button "Constants"; for the basic functions see Section 15.3 above).

Festwertpflege

Import Export Alle Komponenten anzeigen Alle Komponenten löschen BAPI Dokumentation

Datenauswahl

Kostenrechnungskreis	1000	CO Europe
Schema	WHF_EX	
Map.Bereich	MCEX	MCE Auflösung
Tabellenname	/KERN/IPP_S_MCE_EX	Structure for Mapping MCE Explosion
Strukturname	/KERN/PPSAT67	Allevo: Satellitentabelle 67

MCE Auflösung

Zielfeld	Quellfeld	Kurzbeschreibung
ZPROD_MATNR	PRODUCT_MATERIAL	Materialnummer
ZPROD_MAKTX	PRODUCT_DESCRIPTION	Materialkurztext
ZPROD_LOTSIZE	PRODUCT_LOTSIZE	Losgröße der Erzeugniskalkulation
ZPROD_LOTS_UNIT	PRODUCT_LOTSIZE_UNIT	Mengeneinheit der Losgröße
ZPROD_KLVAR	PRODUCT_COSTING_VARIANT	Kalkulationsvariante
ZPRICE_QUAN_UNIT	PRICE_QUANTITY_UNIT	Mengeneinheit des Preises
ZPLANT	PLANT	Werk
ZPERCH_ORGANIZ	PERCHASING_ORGANIZATION	Einkaufsorganisation
ZPERCH_INFO_REC	PERCHASING_INFORMATION_RE...	Nummer des Einkaufsinfosatzes
ZORIGIN_GROUP	ORIGIN_GROUP	Herkunftsgruppe als Untergliederung der Kostenart
ZOPERATION	OPERATION	Vorgangsnummer
ZMATERIAL_VERS	MATERIAL_VERSION	Versionsnummer zum Feld MATERIAL
ZMATERIAL_GUID	MATERIAL_GUID	Externe GUID zum Feld MATERIAL
ZMATERIAL_EXT	MATERIAL_EXTERNAL	Lange Materialnummer zum Feld MATERIAL
ZMATERIAL	MATERIAL	Materialnummer

Figure 15.15: Field assignments for data transfer from materials calculations

The column on the left contains the fields of the satellite table where the data should be written.

The source fields in the second column are provided via the stored SAP-BAPI (dependent on the execution type).

The list of the source fields corresponds to the interface parameters that are provided by the respective BAPI. Source fields that begin with "PRODUCT_" are special in that they are individually transferred from the properties of the materials called for cost determination (main materials).

15.7.3 Program execution

In execution mode, the calculation data are read in the desired format and saved to the entered Allevo object (alternatively, the object could also be found via mapping, but this does not make sense in most realistic use cases). All the data saved for the entered object in the satellite will be deleted first (again by year and version).

Materials for which no suitable cost estimate is stored are named in the execution report.

Prerequisite for the selection of data is the authorization to show the product cost estimate (as for CK13N, authorization object K_KEKO, see next section).

15.7.4 Technical background

Depending on the execution type, different SAP functions are called for reading the costing data. Here are the corresponding parameters:

Called BAPI	<ul style="list-style-type: none"> EX: BAPI_COSTESTIMATE_GETEXPLOSION IT: BAPI_COSTESTIMATE_ITEMIZATION LI: BAPI_COSTESTIMATE_GETLIST CC: BAPI_COSTESTIMATE_GETDETAIL <p>Please also observe the SAP notes for these modules, for BAPI_COSTESTIMATE_GETEXPLOSION:</p> <ul style="list-style-type: none"> 1900477 - Performance 2352019 – Missing value according to structure.
SE11 Data structure	<ul style="list-style-type: none"> /KERN/IPP_S_MCE_EX /KERN/IPP_S_MCE_IT /KERN/IPP_S_MCE_LI /KERN/IPP_S_MCE_CC <p>These structures contain all components assigned to a satellite via field mapping. The structures give an overview of the usable components.</p> <ul style="list-style-type: none"> /KERN/IPP_SAT_MAT_CK13 <p>This structure contains fields that are typically useful when a detailed bill of materials is transferred. It can be used as a template for a satellite append (please copy it if necessary, do not include it directly in the append, since the fields in future Allevo versions may change).</p>
Authorization	<p>The BAPIs check the authorization object K_KEKO using the function module CK_F_K_KEKO_AUTHORITY_CHECK (= authorizations in the product cost estimate). This function checks, among other things, whether a display of valuation views is allowed for the current costing variant or organizational elements (for example the plant).</p> <p>The same check can also be made with transaction CK13N.</p> <p>See also the documentation for the respective BAPI.</p>

Via the button [BAPI documentation] in constant maintenance, the SAP documentation for the respective BAPI or fields can be accessed.

15.8 Interface to SAP Easy Cost Planning in the project system

The SAP functions for Easy Cost Planning (ECP) enable quantity- and feature-based cost planning at the level of project structure elements. Components of the planning in this case include materials

and internal / external services. The SAP system evaluates the entries with the prices that have been stored and assigns the costs according to WBS element and cost element.

You can call up functions for ECP using transaction CJ20N or directly via CJ9ECP using the SAP Project Builder. Thus, ECP roughly corresponds to a side calculation plan, as is usually depicted in Allevo with the help of satellites.

15.8.1 Functional overview

Allevo supports the ECP functions like a side calculation plan: existing calculation data is read from the SAP tables and transferred to Excel via satellite. Changes and additions in Excel are transferred to SAP ECP when plan data are transferred: an overall costing is then executed (that is, bills are resolved and prices are retrieved). An update to cost elements for the WBS element is also carried out automatically. When reading reference data again to Allevo, this data is then again available in Excel.

The following figure shows a simple example (list) for changing prices in Excel.

POSID	POSN	TY	MATNR	INFNR	KOSTL	LSTA	LTEXT	MENGL	MEEH	TPREIS	WERTN	KSTAR
I/4004-3	00004	J					System optimization	1	ST			
I/4004-3-4	00001	E			0000004205	1421	Software	6	H	8776,98	52.662	0000619000
I/4004-3-4	00002	M	DPC9029				Monitor 17"	1	ST	1000,00	1.000	0000400000
I/4004-3-4	00003	F		5300000558				2	KG	12000,00	24.000	0000400000
I/4004-3-4	00004	M	DPC1020				Pentium 3 Prozessor 500 MHz	1	ST	150,34	150	0000410000
I/4004-3-4	00005	E			0000004205	1421	Lohnstunden	6	H	8776,98	52.662	0000619000
I/4004-3-4	00006	E			0000004205	1421	Lohnstunden	6	H	8776,98	52.662	0000619000

Figure 15.16: Data from Easy Cost Planning (PR) in Excel

This manual only describes the functions of the interface to Allevo; The user should be familiar with the functions and the common SAP ECP transactions (e.g., working with costing variants).

Functions of the interface:

- The data of an entire project with all the WBS elements are always read and written. The storage in the satellite table is carried out as usual under the WBS number in the COBJECT field.
- Reading and writing can take place via separate satellites or a common satellite. Different field assignments can be used for reading and writing.
- The Allevo functions can replace the original SAP dialog, controlled via Excel and satellite table. ECP data in the selected project are automatically read from the SAP document and transferred directly to the SAP document when saving via Excel (these extended dialog functions are controlled via Allevo constants).
- Calculations can also be made completely in Allevo and saved in satellites (with a later transfer to SAP). This can be useful for pre-calculations for new projects.
- ECP is offered for various SAP object types (e.g., internal order, appropriation request). The Allevo interface is currently only implemented for projects, which is probably the most common application.

15.8.2 Requirements

The SAP functions of the Allevo interface are only available as of SAP ERP 6.0, EHP3 (Allevo checks the versions of the SAP base functions). Additionally, some other settings are required in Customizing for the project system (Section "Planning costs >> Easy Cost Planning"):

- A CO version for Easy Cost Planning must be set up (default is "000")
- A costing variant for Easy Cost Planning must be created and be assigned to a project profile via the planning profile (it is recommended to use the SAP delivered costing variant PS06).
- The option "activate planning for network activities with Easy Cost Planning" must be set: The update of Allevo ECP plan data is currently only based on cost elements for WBS elements, not on network activities. In individual cases, it may also be necessary to execute the report RCN-PRECP (= Activation of ECP in several plan versions for projects).

In general, the "Plan Integration" flag cannot be set in the master record for the project profile (tab "Controlling"), since the Easy Cost Planning costing method cannot be used for planning-integrated projects.

Note:	Allevo uses the function module CNECP_READ and CNECP_MAINTAIN as an interface to SAP. Please see the corresponding SAP notes. The following error corrections should be implemented: 2018532 / 1814305 Dump when reading calculations.
--------------	--

15.8.3 Setting up the interface functions

The interface can be set up via transaction /ALLEVO/ECP or the corresponding entry in the Allevo Cockpit menu. Two basic functions are contained:

- Setup of field assignments (mapping) for reading and writing data. One or two satellite tables transfer the data between Excel and SAP. The data can also be saved in the satellite table as a backup.
- Program execution for reading the data (from ECP to the satellites) or for transferring the data to ECP. This two-directional data transfer is triggered directly in Allevo planning (e.g., when transferring plan data).

Calling the transaction delivers the following start screen:

Easy Cost Planning Daten aus Allevo verwalten

Festwerte Allevo Version

Ausführung

Typ R Daten aus ECP lesen ▾

Projektdefinition I/4004

Mapping-Schema

Kostenrechnungskreis 1000

Table Name /KERN/IPSAT37

Default-Werte

Geschäftsjahr 2016

Version 0

Optionen

Simulation (Testlauf)

Figure 15.17: Start screen of the Allevo interface to Easy Cost Planning (PR)

The execution type is differentiated between a reading and a writing function. The exchange of data with the SAP system is always done for a whole project:

- When reading, all project data are saved to the satellite. The representative object there is (as usual) the first WBS element in the project, unless another assignment is made using constants (satellite field COBJECT).
- The writing function of the Allevo interface (i.e. changing the SAP ECP data) automatically checks whether costing data have been changed and, if necessary, transfers these new rows to SAP. Controlling in this way can also be executed via the constant MD_RELEASE.

The program execution (and the assignment of constants) depends on the controlling area and satellite. Allevo does not recognize any individual schemes here (in the background, the schemes ECP_R and ECP_W are used).

The entries for fiscal year and version refer to the corresponding fields of the satellite table: they serve as default values if no assignments are made to the constants.

The parameter “Simulation (Test run)” can be used for both execution types:

- For R = Read, no data are written to the satellite table. Allevo simply names the number of found rows in ECP for the current project.
- For W = Write, the data are taken from the current satellite table and are transferred as a test to SAP ECP.

The test run is important for writing in order to control for messages from ECP before actually transferring data.

When writing, the data transferred to SAP are deleted from the satellite table. Access from the Allevo Master is therefore only possible after re-reading the ECP data.

The transaction /ALLEVO/ECP is not only the entry point for setting up the interface functions: reading and writing ECP data can also be executed in the dialog here. Usually, this comparison between SAP document and data in the satellite is wanted directly when the Excel processing screen is called: the activation of these functions via Allevo constants is described in Section 15.8.5 below.

15.8.4 Field assignments (mapping)

As soon as a satellite and a report or a query are entered in the start screen, the required field assignments can be made (call via button "Constants"; for the basic functions see Section 15.3 above).

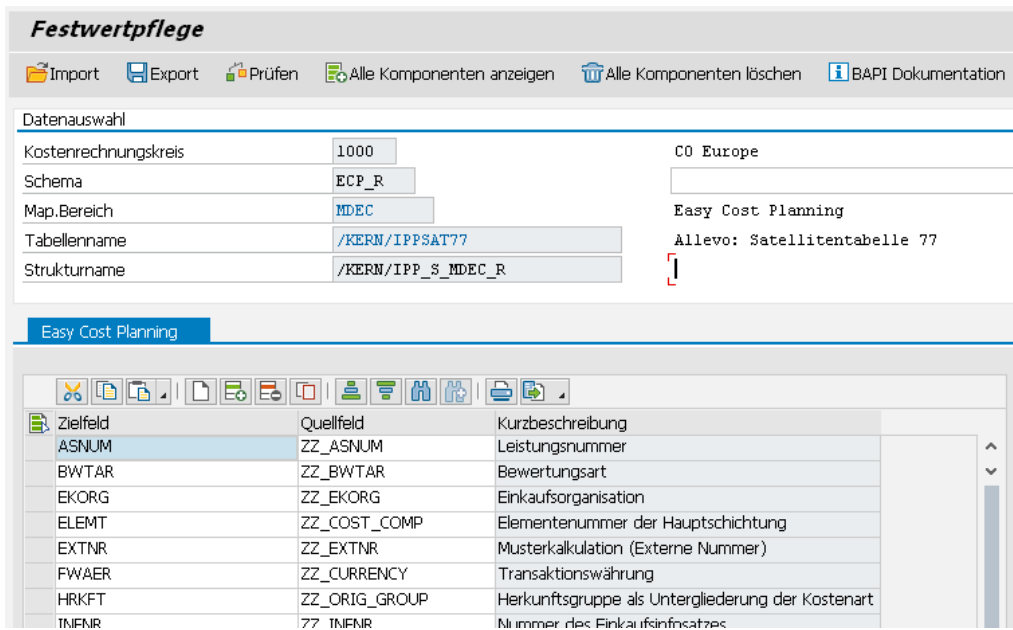


Figure 15.18: Field assignments for Easy Cost Planning (read)

The column on the left shows the interface components (different for reading and writing). The second column contains the fields of the satellite table, where the data are to be written (or for writing, the source). The descriptions of the components are taken from the interface.

The fields in the satellite table index are automatically determines:

- For COBJECT, the internal ID of the respective WBS element is entered.
- Year and version are taken from the entries in the start screen (or from the Allevo parameters when calling from there).

Allevo does not check for entries in required fields. Without a field assignment for certain components (project, WBS and position number, material and/or activity, price, etc.), working with the interface will not be possible.

Note: The Allevo interface is based on the SAP function module CNCEP_READ and CNCEP_MAINTAIN (available as of SAP ERP 6.0 EHP3). The respective SAP documentation can be called via the button "BAPI documentation" in constant maintenance.

Both SAP function modules for reading and writing ECP data have different interface parameters. As a result, components in the Allevo input screen are also different for constants. The following table compares some central interface components:

Write	Read	Meaning
PSPID	PSPID	Project definition (such as PROJ-PSPID)
WBS_NAME	WBS_NAME	WBS Element (such as PRPS-POSID)
PS_POSNR	PS_POSNR	WBS Element (such as PRPS-PSPNR) Contents can be transferred to the satellite table in COBJECT if saving should be done per WBS element (which is only sensible in special cases).
ITEM_NUMBER	POSNR	Item number in ECP Using this entry, the reference to existing rows of the calculation are created when transferring data to SAP ECP. Rows with no entry for ECP item number are created for the first time.
TYPPS	TYPPS	Item type. Allevo transfers all items in the SAP ECP calculation using the reading function (incl. surcharges that are determined via the SAP costing scheme). When transferring plan data, changes in SAP ECP are currently only made for the following item types: M = Material (with indication of plant in WERKS) E = internal services (via LSTAR and KOSTL) F = external services (via INFNR purchasing info record)
FLAG_DELETE_ITEM		Enter 'X', if a data row should be deleted.
MATNR	MATNR	Material number
WERKS	WERKS	Plant
LSTAR	LSTAR	Activity type
KOSTL	KOSTL	Cost center
INFNR	INFNR	Purchasing info record
DESCRIPT	DESCRIPT	Item description (can be changed)
QUANTITY	MENGE	Quantity
UNIT_OF_MEASURE	MEEHT	Unit of measure
COST_ELEM	KSTAR	Cost element
TOTAL	TPREIS	Total price transaction currency

Write	Read	Meaning
FIXED	TPREIFX	Fixed price in transaction currency
CURRENCY	FWAER	Transaction currency

The different SAP field names for reading and writing components make it necessary to create separate schemes for both functions. This may be helpful to other reasons as well (for example, when changes/entries should be restricted to a few fields).

When creating ECP plan data, the following rules should be taken into account (see also the documentation for the function CNEP_MAINTAIN):

- If a new cost row is created, the field ITEM_NUMBER must remain empty. An item number is automatically assigned by SAP when the plan data is transferred. At the same time, the new row is sorted into the previous structure of the calculation.
- In order to delete an existing row, an X must be entered for the component FLAG_DELETE_ITEM.
- Depending on the item type, different fields may be used for entering a feature (e.g. MATRN = Material number and LSTAR = Activity type). This is different than the entry from in the SAP dialog of ECP.

Constants with a special controlling function when writing

The first three components in Allevo mapping begin with “MD_”. These have a special role and transmit specific controlling functions when transferring satellite data to SAP.

- MD_RELEASE controls the release of data records. If this field is actively entered as a constant, a “1” must be entered in the corresponding field of the satellite table in order to transfer data to SAP ECP (otherwise the data would only be saved in the satellite table on the SAP side). The component can be used to enable an individual release of planning.
- MD_USER and MD_DATE serve as log functions: after transferring a plan to SAP ECP, the date of creation/change and the name of the user can be found here.

15.8.5 Program execution

The data exchange between satellite table and ECP is always done for an entire project, so all ECP data of a project are handled simultaneously. Accordingly, the selection is made via a single or multiple projects. The entry in the satellite tables is made with the usual WBS numbers as COBJECT.

In read-mode (R), the ECP data are written with the selected field assignments to the satellite table. In the reading function, Allevo transfers all items of the SAP ECP calculation (including surcharges determined via the SAP calculation scheme). All old satellite entries for the selected project are first deleted (for year and version from selection).

In write-mode (W), changed rows of the satellite table are transferred to the SAP ECP functions (on the basis of project number). Please note:

- The assignment of data from the satellite table to the rows of the SAP ECP calculation is made using the ECP item number (field PS_POSNR).
- Planning rows with empty item numbers are newly created in SAP ECP; If necessary, bill of materials lists can be ungrouped or dependent components such as surcharges added.

- The transfer of plan data is carried out according to SAP ECP currently only for the item categories M, E and F.
- When the calculation is executed, prices for internal services are calculated for the current date (prices should be created accordingly).

Note:	ECP plans are posted via transaction KEKP and transferred with this characteristic to the totals table COSP.
--------------	--

Direct refresh of SAP in the Allevo Excel dialog:

The transaction /ALLEVO/ECP is primarily the initial step for setting up the interface functions, but it can also be used to read and write ECP data (i.e., for comparing SAP documents and data in the satellite). However, this comparison is normally wanted directly when the Excel processing screen is called: the following two constants must be active:

- SATxx_PROC_BEF_RD activates the function for reading ECP data from an SAP project.
- SATxx_PROC_AFT_WR activates the transfer of ECP data changed in Excel after saving the satellite data.

When entering the constants, xx should be replaced by the number of the satellite. The corresponding function code in the "Value from" column is MDEC, so the scheme in column "Value to" should be entered as ECP_R and ECP_W. Effects:

- When reading satellite data, Allevo automatically branches to the function for reading the ECP data and transfers the field mapping accordingly.
- When writing the satellite data, an update of the ECP data is made automatically, incl. an automatic recalculation (e.g., for determining additions). When re-reading the satellite, these data are then also transferred to Excel.

Allevo should be called in MultiObject-mode with the project as the start object.

15.9 Provide data from SAP master records

15.9.1 Functional overview

During planning, additional information from SAP master records is often very helpful and can be transferred to the Excel interface (see constant MAP_FIELDxx).

For more complex requirements, it may be useful to transfer properties of the master records using a satellite. This can be the basis for change functions that are executed through Allevo Architect, for example.

This extended read function is provided via transaction /ALLEVO/SAT_MD_RD.

The transaction uses the same basic functions as when transferring depreciation data (see general notes above). Example:

- The creation and selection of a scheme for satellites in which constants are saved.

- Set up of field assignments (constants). Master records with the relevant parameters can therefore be written into the fields of a satellite table.
- Calling the SAP read function for master data for transferring the data to the satellite table.

Note: Allevo currently only supports the reading of master data to projects or WBS elements.

15.9.2 Read data to a project

Allevo can read master data from both the project definition and the corresponding WBS elements and transfer the master data to Excel via satellites.

Example: In order to expand the existing project structures via Architect or change WBS elements, these need to first be temporarily saved in a satellite table as a “transfer medium” for transferring to Excel.

Corresponding components:

Master data type	PR project
Called BAPI	BAPI_BUS2001_GETDATA Read data on the project level BAPI_BUS2054_GETDATA Read data for WBS elements
Data structure in SE11	/KERN/IPP_S_MRPR_PR Data for the project definition /KERN/IPP_S_MRPR_WB Data for the WBS element
Direct integration	Constant SATxx_PROC_BEF_RD with "MRPR" in the “Value from” column and the scheme in the “Value to” column. Example: <ul style="list-style-type: none"> • SAT36_PROC_BEF_RD with MRPR and WHF_R automatically reads the master data from satellite 36 for projects/WBS elements with the field assignments defined in the scheme PR_R. • In order to transfer changes in the satellite data directly back the SAP master records, the constant SAT36_PROC_AFT_WR would also be required with MDPR and PR_W (if PR_W is the appropriate write scheme in Allevo Architect).

Data transfer can be executed with the help of the dialog transaction /ALLEVO/SAT_MD_RD or by directly calling a satellite table with the constant SATxx_PROC_BEF_RD (see parameters above).

Field assignment setup (constants)

Requirement: The satellite tables must exist with the appropriate append structure and a scheme must exist for the field assignments.

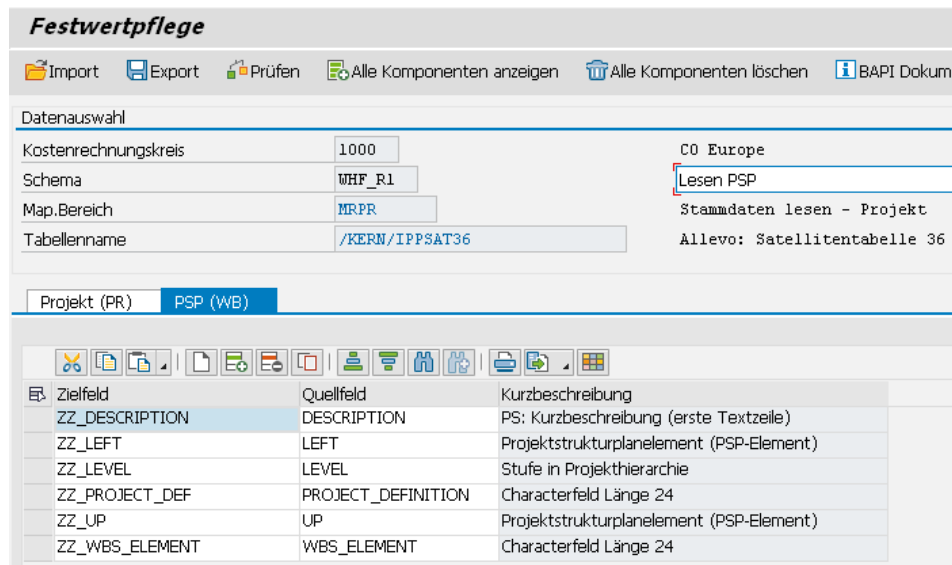


Figure 15.19: Field assignments for reading data to a project

In order to correctly set up the project hierarchy in the satellite, a field assignment for the project number must always be entered in the WBS element tab (usually this is the same entry as on the project tab).

There are field assignments with entries for the project definition and WBS elements.

For further processing via Allevo, it is important to correctly select the entry for the COBJECT in the satellite. This can be done using the following interface components:

Components for Project definitions (IDs):	
PROJECT_DEFINITION	ID of the project definition (external display)
PSPNR	Internal ID of the project definition
REPR_PSPNR	Internal ID of the WBS element that is used as a representative object in Allevo (by default, the first WBS element in the project). The designation here is especially helpful for the entry in the satellite index field COBJECT, so that the corresponding data are also read correctly in Allevo planning (when starting with a project).
REPR_WBS	External display for REPR_PSPNR, or the WBS element used as a representative object in Allevo (is often the same ID as in the project definition).
Components for displaying WBS elements:	
WBS_ELEMENT	WBS element number in external display
PSPNR	Internal ID for the WBS element
LEVEL	Level within the hierarchy (especially necessary when changing data via Allevo Architect).

Executing the read function

Allevo can read data for individual WBS elements or for entire projects.

Stammdaten in Sat.-Tabelle laden

Stammdatentyp

Stammdatentyp

Stammdatenselektion

PSP-Element

Projektdefinition

Mapping-Schema

Kostenrechnungskreis

Schema

Table Name

Satellitenschlüssel (Defaults)

Objektart

PSP-Element

Geschäftsjahr

Version

Figure 15.20: Load project master data into a satellite

The execution can be done per project or for a list of any WBS elements. The COBJECT is taken from mapping (see the list of possibilities above). The entry from the selection screen is used if there is no entry designated from the field assignments.

Note: For editing functions via Allevo Architect, the selection should always be made for the project in order to be able to access the entire project structure on the Excel side.

A selection made directly from WBS elements can be useful if the structuring is not required, but additional info should be made available for help during planning.

The satellite key can also be entered with a different object type. Example: a list of many WBS objects is to be changed on across projects. The summary call from an Allevo planning transaction could in this case be made via an Allevo object.

Example of a simple list of changes for WBS descriptions:

Projektdefinitionen					
ZZ LEVEL	ZZ PROJECT DEF	ZZ WBS ELEMENT	ZZ DESCRIPTION	ZZ PR PROFILE	ZZ V
0	I/4004		Sales Workst.: Implementation "Nellos"	0002	
1	I/4004	I/4004	Test Ändern PSP	0002	
2	I/4004	I/4004-1	Organisation and Design	0002	
2	I/4004	I/4004-2	Planning in Detail and Execution	0002	
3	I/4004	I/4004-2-1	PSP-Element I/4004-2-1	0002	
3	I/4004	I/4004-2-2	PSP-Element I/4004-2-2	0002	
2	I/4004	I/4004-3	Preparing for Implementation	0002	
3	I/4004	I/4004-3-1	Concepts	0002	
3	I/4004	I/4004-3-2	Concepts(2)	0002	
3	I/4004	I/4004-3-3	Implementation	0002	
3	I/4004	I/4004-3-4	System optimization	0002	

Figure 15.21: Project structure as a list in Excel

15.10 Prepare line items for offline functions

15.10.1 Background

When Allevo is used with offline functions for planning or reporting, there is no connection to the SAP system. Consequently the line items cannot be directly called (see popup as described in Chapter 10).

In this case, Allevo provides a solution using satellites: the relevant line items are copied into a defined satellite per ABAP report. When creating the offline planning files, the line items are transferred to the Excel planning file, which corresponds to the current object selection (for example, to the selected cost center).




Note:	For navigation on the Excel side, the respective macros must be active in the Master. This allows you to jump from an Excel cell directly to the appropriate line item. These functions are usually customer-specific and are usually implemented in the implementation project.
--------------	--

The same fields as those in the general Allevo line item list are available. In this case, however, a drill down is not possible for downstream SAP documents as it is when working directly in SAP inplace mode. The export mode is currently only available for actuals data.

15.10.2 Export line items

Line items can be exported to the desired satellites using the transaction `/ALLEVO/SAT_LITEMS`.

Einzelposten in eine Satellitentabelle laden

   Vorschau

Vorgang

Ausführungstyp L Layout

Objektauswahl

Kostenrechnungskreis

Objektart KS Kostenstelle


Alle Objekte mit Status

1:n Beziehungen vom Layout

Gruppe

Gruppenname


Kostenartenselektion

Kostenart bis 

Gruppenname

Ausführungsoptionen

Planungslayout

Spaltendefinition bis 

Alle Einzelposten gem. Periodenangabe

Zusätzliche Einschränkungen der Spaltendef. berücksichtigen


Anzeige Sat.-Daten vor Sichern

Alte Daten löschen

Bezogen auf Objektselektion

Unabhängig von Objektselektion

Filter

Feld 1 BUKRS Buchungskreis bis 


Feld 2 bis 

Figure 15.22: Load line items in a satellite table

The export program can be executed in two ways, which differ in the way that the fields of the line item list are transferred to a satellite table:

- The newer way, “M = Mapping” allows a flexible assignment of information from the line item list to fields in the satellite (available for Allevo 3.5 and higher). The corresponding Allevo standard functions have been described in previous sections (setting up schemes, field assignments, etc.). This method is very flexible and should be preferred for new installations.
- “L =Layout” is a method that corresponds to the original form of the data transfer. In this case, information on the satellite is obtained from the settings for the layout constant SAT_LINEITEMS. The field names in the satellite must largely match those of the line item list.

The export of data to the satellite table is always made based on an Allevo layout. This layout defines the year and the version under which the data in the satellite are saved (i.e. according to CX_WW).

For selecting the relevant objects, three options are available:

- Objects in the provided layout that are maintained with an Allevo status.
- Objects from the 1:n relationships in the provided Allevo layout. The line items are saved under the representative object in the satellite table.

- All objects of an SAP group (such as a cost center group). This selection can be useful for reporting uses if a status is not required or STATUS_READ_ALL is used. With this option, all objects of the group are selected independent of their status in the layout.

These options can also be combined using multiple calls in succession. In this case, the previous data should not be deleted, but rather the entries for the selection should be simply overwritten (see delete option "Based on object selection").

Cost element selection

In order to limit the amount of data, the line item list can be filtered according to cost element: either by providing the single values for the cost element (also with From/To selection) or via a cost element group. See also additional filters below.

Execution options

The period for which the line items are made available results from the entered layout or the selection of column definitions, since the relevant data for the year and for the period are stored there.

In the Allevo planning screen, the individual items can be displayed in two different views, which can be set up using the LINEITEM constant. The display can be either as a list of all line items that are found for a cost element or restricted according to the definitions in the respective Allevo column definition (for example, limited by value types and activities). These two options are also available for selection in the report for line item export: see the option "Read all line items" or "consider extra restraint of the column definitions".

The report offers a specific preview function for checking the data before they are exported to the satellites (see option "Preview satellite data before saving").

Delete prior data

It can be useful to transfer line items into a satellite table in several steps. In this case, it must be ensured that data from previous runs are retained. The deletion option "Based on object selection" can be used here.

Filter

As mentioned above, line item exports can be filtered to include only certain cost elements. In addition, two further fields of the satellites can be used for a restriction, using either selection via multiple selection or minimum and maximum value, respectively. The function can be useful for a restriction by document type or organizational unit. Please note:

- The values entered for the filter must correspond to the data format of the selected field. If necessary, an internal format should be used (e.g., beginning with zero). Allevo does not provide any automatic conversion here.
- The filter does not have any influence on the performance when reading the data: it is only used to reduce the number of data records in the satellite.

Note:	Of course, a large number of line items increase the size of the Excel file that is generated during offline planning. In this respect, a restriction on the amount of data should be given sufficient attention. The entered cost element group could, for example, contain a list of the cost elements as defined in the Allevo Master.
--------------	---

15.10.3 Set up export function for variant M (mapping)

The newer variant, “M = Mapping” allows a flexible assignment of information from the line item list to fields in the satellite (available for Allevo 3.5 and higher). The selection of the relevant satellite table is made directly in the selection screen. The corresponding Allevo standard functions have been described in previous sections (setting up schemes, field assignments, etc.). This method is very flexible and should be preferred for new installations. The layout constant SAT_LINEITEMS has no meaning for this method.

15.10.4 Set up export functions for variant L (layout constants)

For the older execution variant of the report, the constant SAT_LINEITEMS must be active in the selected layout. Under “Value from”, the number of the satellite table should be entered. “Value to” describes the prefix for the definition of matching fields in the satellite: these fields must follow a given naming convention and correspond to those which are available in the Allevo line item list (see next section, for details see F1-help for the constant). Only those columns that are found in the satellite table with a field of the same name are filled.

Note:	In the table appends, the fields are usually created with a prefix code such as "ZZ". This code must be entered under "Value to" of the constant SAT_LINEITEMS. Example: If you use the abbreviation "ZZ", a field ZZBLDAT must be created in the append to transfer the document date of the line item list.
--------------	--

15.10.5 Components of the line item list

A list of common fields in the line item list are available in the ABAP dictionary as the structure /KERN/IPP_SAT_LINEITEM (see appropriate Allevo UseCase).

Additionally, a summary of the available fields per object type of the structure /KERN/IPP_S_XX_OFFL_ITEM_ACT can be found, with “xx” as a placeholder for the respective object type. For example, for object type KS, the fields in the structure /KERN/IPP_S_KS_OFFL_ITEM_ACT are available (can be displayed via transaction SE11).

All named structures should NOT be directly integrated in the append of a satellite table using an INCLUDE command, in order to ensure compatibility with future Allevo versions. The structures are only designed as a copy template for the definitions of the fields in the satellites.

Eine Liste gängiger Felder der Einzelpostenliste steht im ABAP-Dictionary als Struktur /KERN/IPP_SAT_LINEITEM zur Verfügung (siehe passender Allevo UseCase).

Profit center Accounting:

In this case, the export structure is not only dependent on the object type, but also depends on whether the Allevo reference data are to be read for the classic or the new general ledger. The differentiation is made in the Allevo layout via the constant PC_READTABLE; the corresponding data structures are /KERN/IPP_S_PC_OFFL_ITEM_ACT and /KERN/IPP_S_PC_OFFL_ITEM_NGL.

Compatibility with S/4Hana:

The dictionary structures mentioned above contain, in part, components in the /KERN/- namespace, e.g., /KERN/KOSTL instead of field KOSTL as in the original SAP line item tables. These differences (seen as of Allevo 3.4) with field names are necessary in order to be compatible with S/4Hana.

When working with the constant SAT_LINEITEMS, the original field name can be used in the satellite append (and the necessary prefix, i.e. ZZKOSTL). Allevo ensures the correct allocation of the content.

15.11 Provide additional information/text for master data in satellites

15.11.1 Functional overview

Data in satellite tables can be provided automatically via Allevo interface functions (for example, from depreciation simulation or data from CO / PA, see the following chapter). Frequently, references to master records or other documents are also included in the SAP system (e.g., material or customer number). For viewing in Excel, it is helpful to have appropriate descriptions, or other additional information (e.g., short descriptions of the product or the name of the customer). Allevo offers special functions to add such information automatically. These functions can be optionally executed when reading and/or writing data. Some features:

- The parameters for determining additional texts must be stored in fields of the satellite (or controlled by fix values).
- The determination can be made independent of language.
- Calling the function can optionally be done when writing satellite data, reading or via a transaction to fill many objects simultaneously.

In order to execute such a function, Allevo must know in which SAP table the description can be found and with which characteristics it is to be read. This control information is stored in an Allevo control table.

15.11.2 Set up control table

The basis for this function is the Allevo control table /KERN/IPPTFRRULE: for each relevant key field it defines how to find additional information (e.g., an associated description). Matching entries are recorded via transaction /ALLEVO/SAT_TXT_RULE.

Tabellenpflege:

Upload Download Prüfen Bearbeiten

Sat. Nr.	Zielfeld	Typ	Regel/Tabe	Bezeichnung	Zielfeld/P	Parameter 02	Parameter 03	Parameter	Parameter	Parameter
1	COMMENT_INV	R	CEPCT	Profit-Center Text	LTEXT	(SY-LANGU)	COBJECT	'99991231'	KOKRS	
2	ZZKUNNR_NAME	W	KNA1	Name des Kunden	NAME1	ZZKUNNR				
5	ZZMATNR_TEXT	<input checked="" type="checkbox"/>	MAKT	Text zum Material	MAKTX	ZZMATNR	(SY-LANGU)			

Figure 15.23: Satellites with additional texts for key fields

The rules should be entered for each satellite. Relevant entries:

- In the column “Target field” the field of the satellite table where the additional information should be stored must be entered.
- In the column “Rule/Table”, enter the name of the table in which the additional information is stored (currently, it has to be a table, in future updates, fixed rules may also be possible).
- The field “Description” is a free comment text. It has no meaning for further functions.
- After this, there is a list of 10 parameters that are relevant for selection. The first parameter is always the field of the database table that is to be read and transferred (the target field).
- Further parameters reflect the selection conditions: they must be entered according to the index fields of the current table. Normally, you would want to transfer information from the current data record of the satellite (such as the material number). Fix values (in single quotations) or SAP system parameters (in brackets) can also be entered. Important: all parameters must always be filled according to the main index of the table to be read.

The entry in the column “type” determines when a rule should be applied. The following entries are possible:

ID	Text	Note
R	Read	The data are filled when reading a satellite table (applies to all Allevo modules). This option has advantages for language-dependent additional texts, which are then shown in the logon language in Excel.
W	Write	The data are filled when writing a satellite table. This option is also available for all Allevo modules.
X	Read and Write	Function R and W simultaneously
leer	Other cases	A satellite without an explicit entry is only filled when executing the transaction KERN/IPP_UT_TFRRULE.

Figure 15.23 shows an example use case with additional text for fields in three satellite tables.

Die Fehler! Verweisquelle konnte nicht gefunden werden. zeigt beispielhaft Anwendungsfälle mit Zusatztexten für Felder in drei Satellitentabellen.

- The entry in the first row allows you to enter the description of a profit center target field COMMENT_INV into the satellite table. Data is read from the SAP table CEPCT with the texts for the PC master record (see column Rule/Table): the corresponding field of the table is entered in the first "Parameter" column. All other fields are evaluated during selection. The sequence here must match the main index of the master data table. In this case, the first four fields are from table CEPCT (without field MANDT):
 - (SY-LANGU) transfers the current language
 - COBJECT is a field in the satellite table with the ID of the profit center
 - '99991231' is a fixed specification for the period of validity (see note further below)
 - KOKRS transfers the controlling area from the field of the same name in the satellite table.

In special cases, an extended selection can be useful, if the specification of a single value is not sufficient for the selection. In the example above, the text for the profit center is read for a predefined date. In this case the relevant text must necessarily be stored with exactly this date (here '99991231'). Therefore, alternatively, an interval can be entered separated by a forward slash. If multiple records are found in this interval, Allevo uses the first record. Examples of selection:

- '20160412'/'20171231' First data record in the provided date range
 - (sy-datum)/'20991231' First data record from today to '20991231'
 - (sy-datum)/ Frist data record from today
 - /(sy-datum) First data record before today
- The second row determines the name of a customer from table KNA1 and field NAME1 and writes it into the field ZZKUNNR_NAME of the satellite table. As a selection parameter, only the ID of the customer is used in field ZZKUNNR (the index of KNA1 consists only of the customer number).
 - The last entry reads a language-dependent material text; the current language being transferred in this case as the last parameter (as defined in the main index to MAKTX).

The example here describes how a selection needs to be structured:

- First and foremost, the necessary selection parameters need to be made available via the satellite table.
- Fix values (such as the date in the first row) require single quotation marks (as in ABAP).
- ABAP specific system parameters can be combined with quotation marks (e.g., components of the ABAP duration variable "SY").
- Free selection: currently, each parameter in the index must have an entry (either by mapping to the appropriate field in the satellite or by a constant as shown above in the example for the date). If the content of a field is not relevant for the selection, the entry of a From/To value with the maximum value can help. For example, '00' / '99' for a two-digit, numeric field. Allevo may use the contents of the first row found in the database table. A free selection using * is currently not supported.

There are a maximum of 10 parameters available for accessing the master data table: the first parameter always contains the field from which contents are to be selected. The other nine parameters are transferred to the corresponding WHERE condition (always in the same order as in the main index of the master data table, see entries in SE11).

Several field assignments can be made per satellite; In this case, several rows must also be entered in the control table. Allevo addresses the rows one by one. In order to specify a specific sequence, the column "Nr" can be filled with a number (Allevo 3.5 and higher). This is particularly useful if the result of a first determination is required for further steps (for example, reading the cost center according to a feature in the satellite row, then reading the cost center texts in the second step).

15.11.3 Program execution

If a satellite is not set up to read or write automatically, you must execute transaction /ALLEVO/SAT_TXT_UPD to update all records according to a selection.

Satellitentabelle über der TFR-Regeln aktualisieren

Nummer des Satelliten	<input type="text" value="20"/>		
Kostenrechnungskreis	<input type="text" value="1000"/>		
Objektart	<input type="text" value="KS Kostenstelle"/>		
Kostenstelle	<input type="text"/>	bis	<input type="text"/>
Gruppe	<input type="text" value="MO_KS_1"/>		<input type="text"/>
Planjahr	<input type="text" value="2015"/>	bis	<input type="text"/>
Version	<input type="text" value="0"/>	bis	<input type="text"/>

Figure 15.24: Update additional texts in the satellite table via TFR rules

The corresponding report reads the data records of a satellite table via predefined selection parameters and expands the descriptions according to the rules in the table /KERN/IPPTFRRULE.

Note: Language dependent additional texts are transferred to the satellite in the current logon language.

16 Integration in report interface

16.1 Functional overview

Allevo centrally stores the information entered during the planning process in the satellites on the Excel side in SAP-ERP. The Allevo administrator may open and edit satellite contents in SAP via the |Satellites| menu in the Allevo start screen or via the Shuttle. The planner (and other SAP users), however, has no access to these data, even if they themselves have entered them during planning (unless they call data again via the planning interface).

In this situation, it may be helpful to include Allevo functions as detail view directly in SAP Reporting, similar to calling line item reports via the SAP report/report interface.

In that way, Allevo-specific contents may be displayed:

- Planning comments, details on investment and personnel planning, as well as contents of other satellites may be reproduced via SAP standard reports in this way at any time.
- In addition, the Allevo Reporting transaction may be called directly from here.

16.2 Purpose of use and functions

Double-clicking on one of the lines in an SAP report (e.g. in transaction GR55) opens the SAP report/report interface and displays Allevo-specific contents. Two general types of display are available for selection in the Allevo implementation of this interface:

- Contents of Allevo additional tables are displayed, such as comments or satellite contents.
- The appropriate Allevo reporting transaction is called for the selected object (e.g. a cost center), in order to display contents via the Allevo Master.

The call automatically includes the relevant object type (Setclass). Depending on the application case, further selection criteria are adopted from the SAP report (such as fiscal year, version, cost center, cost element).

The Allevo implementation of the interface includes single cost elements and a list of cost elements as they result from double-clicking on a row with cost element groups. In this case, comments are, for example, displayed for all cost elements of the group. Optionally, you can also display all comments of a group by double-clicking on a row containing a cost element.

On the other hand, Allevo offers the possibility to directly enter and store comments for a cost element group: these can also be displayed (see note below).

The Allevo interface also shows flexibility with regard to the version (e.g. reading from a different version) and characteristics that exceed the limits of the object type (e.g. reading detailed information on all cost centers in the current profit center).

The SAP report/report interface must be established for the desired Allevo functions in order to be able to use the mentioned functions. The necessary steps will be described in the following sections. Basically, two steps are required:

- Set up selection variants for the Allevo report /KERN/IPPCA051R. The program contains all functions currently provided by Allevo for the report interface: the name of a variant affects which of the offered functions will actually be executed during the later call.

- To call from Reporting, each selection variant must be assigned to at least one report group; a selection variant may be used in as many SAP report groups as desired.

16.3 Set up variant for report/KERN/IPCCA051R

A suitable selection variant is required for report /KERN/IPCCA051R to be able to use the report interface. This report can be called via transaction /ALLEVO/REPVAR_MNT, the Allevo Cockpit (Menu “Extras”) or via an SAP transaction for report execution (e.g. SA38 and SE38).

Note: The report is at this point not executed directly. The call only serves to provide suitable selection variants when leaving the report interface later on.
The name of the variants controls parts of the function.

16.3.1 Parameters in the selection screen

The report shows the following selection screen.

Figure 16.1: Selection parameters of report /KERN/IPCCA051R (part 1)

The specifications in the upper section “Interface parameters” are unimportant at this point: most contents are automatically adopted later (when calling via the report interface) from the transfer parameters of the report interface. Only mandatory fields must contain a value when saving a variant (this is currently only the controlling area).

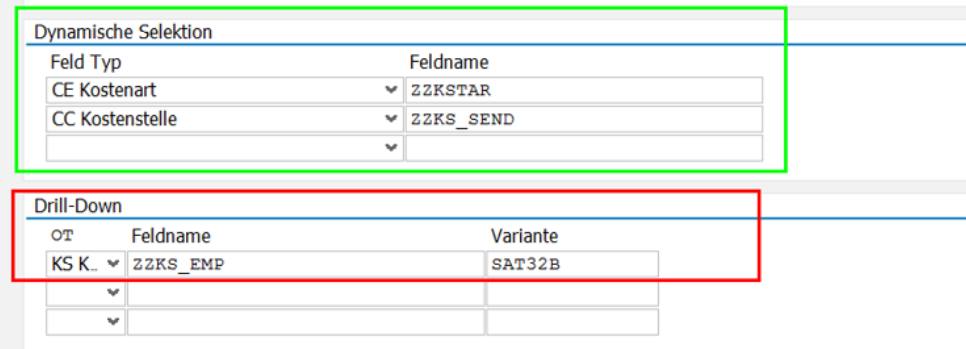
The specifications in the lower section “Individual parameters” are not provided with data by the interface and may, depending on the application case, be preset with a sensible entry (some application cases will be explained below).

- “ALV layout variant”: Contents of Allevo tables – e.g. the satellites – are displayed via an ALV grid. It may be useful to predefine the desired allocation of columns (see Section 16.5).

- Reading data may be restricted via “Setclass” (e.g. 0106 to read for the profit center only). If the Setclass is not set, Allevo will determine the right entry using the data transferred by the calling report (depending on whether object numbers for cost centers or orders are named in the transferred selection parameters).
- Access to (satellite) data that have been entered under another object type (see Section 16.6).
- “Planning layout“: The report sometimes needs to access contents of an Allevo planning layout (e.g. to go to Allevo Reporting, see Section 16.3.3).
- “Selection of version“: a specification is useful if data are to be read with a different plan version than set in the current report (e.g. in cross-version comments).

Specifications for “Dynamic Selection”

The following figure shows additional parameters for dynamic selection.



Dynamische Selektion	
Feld Typ	Feldname
CE Kostenart	ZZKSTAR
CC Kostenstelle	ZZKS_SEND

Drill-Down		
OT	Feldname	Variante
KS K.	ZZKS_EMP	SAT32B

Figure 16.2: Dynamic selection in the selection parameters for Report /KERN/IPPCA051R

Background: if detailed satellite data are displayed via the report interface, Allevo uses the object number (e.g. cost center) to read all satellite rows for this object number. Often, however, satellite data are specifically stored for each cost element, with the cost element contained in a field of the satellite append, i.e. individually per Allevo installation. Consequently, there is no general selection function for the cost element, although it is actually available via the interface after selection by the user.

To still enable further filtering of the displayed satellite rows, entries are required in “Dynamic Selection” with two specifications respectively:

- Type of field to additionally be used as filter; only attributes provided via the SAP report interface may be selected.
- Name of the corresponding satellite field

The application will be explained with the example entries in Figure 16.1:

- The first row defines the cost element as additional filter criterion via “Field type”; it can be found in field ZZKSTAR of the satellite append.
- Satellite data shall additionally be filtered via the cost centers in field ZZKS_SEND. Simultaneously, Allevo recognizes that this attribute (cost center) is normally already used for selection via field COBJECT in the satellite index. This selection condition is automatically deactivated (thus, the filter only relates to field ZZKS_SEND).

Note: An additional filter via “Dynamic Selection” takes automatic conversions into account that are stored in a characteristic. The corresponding selection thus considers the internal and external

	display of possible values for this attribute (e.g. reading via cost elements independent of leading zeros).
--	--

Specifications in “drill down”

This additional function allows for a modified viewing of data in the satellite by double-clicking on a column that will then also be used as deviating attribute of filtering (selection in ALV with display of satellite data). This function will be explained in section 16.7 further below.

Name of a Selection Variant

A “variant name” (variant ID) with a special importance regarding the report interface must be entered: the ID (or parts of it) defines the functions to be executed later by the Allevo report when calling from the interface (e.g., display of comments or contents of a satellite). Correspondingly, there is an Allevo-specific naming convention for this variant name, which must be kept depending on the desired function.

The following general functions are distinguished:

- Display contents of Allevo satellites.
- Go to display of Allevo planning comments, reporting comments or sheet comments.
- Directly switch to the Allevo transaction for reporting.

A selection variant is created via the icon for “Save” or the key combination “Ctrl+S” just as with other SAP reports.

16.3.2 Report variant to display Allevo table contents

The control with variants allows contents of Allevo additional tables to be displayed on the screen in a tabular form. The following are supported:

- Satellites
- Row comments
- Sheet comments
- Reporting comments

The following list shows the provided Allevo tables.

Satellite or other Allevo table	Components of the name (ID) of the variant (* = any)
Satellite 01, usually table /KERN/IPPSAT01	*SAT*01*
Satellite 01	*SAT*02*
...	...
Satellite 98	*SAT*98*
Satellite 99	*SAT*99*
/KERN/IPPCOMMENT	*COMMENT* or *KOMMENT*

Satellite or other Allevo table	Components of the name (ID) of the variant (* = any)
/KERN/IPPCOMMENT	*COMMENT*2* or *KOMMENT*2*
/KERN/IPPREP01	*REP*01*
/KERN/IPPREP02	*REP*02*
/KERN/IPPLTEXT	*LTEXT*

The left column contains names of possible Allevo tables that may be included (satellites, comments or report comments).

The right column shows name components that must be contained in the variant names to ensure that the report interface will later on read and display data of the correct table. Examples:

- If components “SAT” and “02” are contained in the name, the report will automatically read appropriate data from the corresponding satellite (e.g. /KERN/IPPSAT02): in the simplest case, a variant name “SAT02” is suitable.
- With name component *REP*, the Allevo Reporting comments are displayed (current entries or archive).
- With *LTEXT*, Allevo shows the sheet comments for the current object. An Allevo layout needs to be entered in the variant for this function (available from Allevo version 3.3).

Concrete example of a variant:

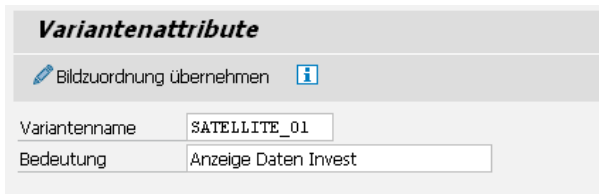


Figure 16.3: Variant for the display of data from satellite 01

The first reasonable name component is always adopted; the variant name should therefore be clear (i.e. the variant name for reading a satellite should not contain both “01” and “02”).

Note: It is, however, entirely reasonable to create different selection variants for the same table, in order to, for example, work with different column structures (names would then be e.g. “SAT01A” and “SAT01B”: in both cases, the Allevo report performs the function intended for the display of satellite 01).

A report group controls which variant is executed when calling via the report interface (see next section).

As you can see in the list above, the name components for comment table /KERN/IPPCOMMENT represent a special case. Here, two versions may be selected:

- The first entry automatically includes the cost element when calling via the report interface.
- If “2” is additionally contained in the variant name, the cost element will be ignored; the report consequently shows all comments regardless of the current cost element.

Note:	Allevo planning also allows comments to be entered and stored directly for a cost element. A suitable controlling parameter must be active in the Allevo constant GROUP_COMMENT in order to display these comments in the report interface. Using this constant also requires the planning layout to be stored as parameter of the selection variant (in accordance with Figure 16.1).
--------------	--

16.3.3 Report variant to switch to the Allevo reporting transaction (Allevo Master)

Table contents are listed as basic functions of the Allevo Report interface. Alternatively, it is also possible to directly switch to Allevo Reporting transactions (e.g. /KERN/IPPKSREP in the case of cost centers).

The variant name must contain two components for this call: "ALLEVO" and "01". Furthermore, an Allevo layout set up for the Allevo Reporting functions must be specified in the corresponding selection parameters (see Figure 16.1).

The interface transfers year and version from the reporting time frame to the Allevo column definitions CX_RR and CX_WW (if available) and starts Excel inplace for the current object, e.g., the current cost center. In this case, the structure of the stored Allevo Master defines further information to be displayed.

Note:	The remaining column definitions should meaningfully be created in the relevant Allevo layout with relative reference to CX_RR or CX_WW.
--------------	--

16.4 Allocation in the report group

After creating the variants with the given naming conventions, they must be entered in the relevant report group to enable the call via the SAP report/report interface.

The relevant SAP transaction is GR52: a processing screen as in Figure 16.4 appears after selecting a report group and confirming via "Enter".

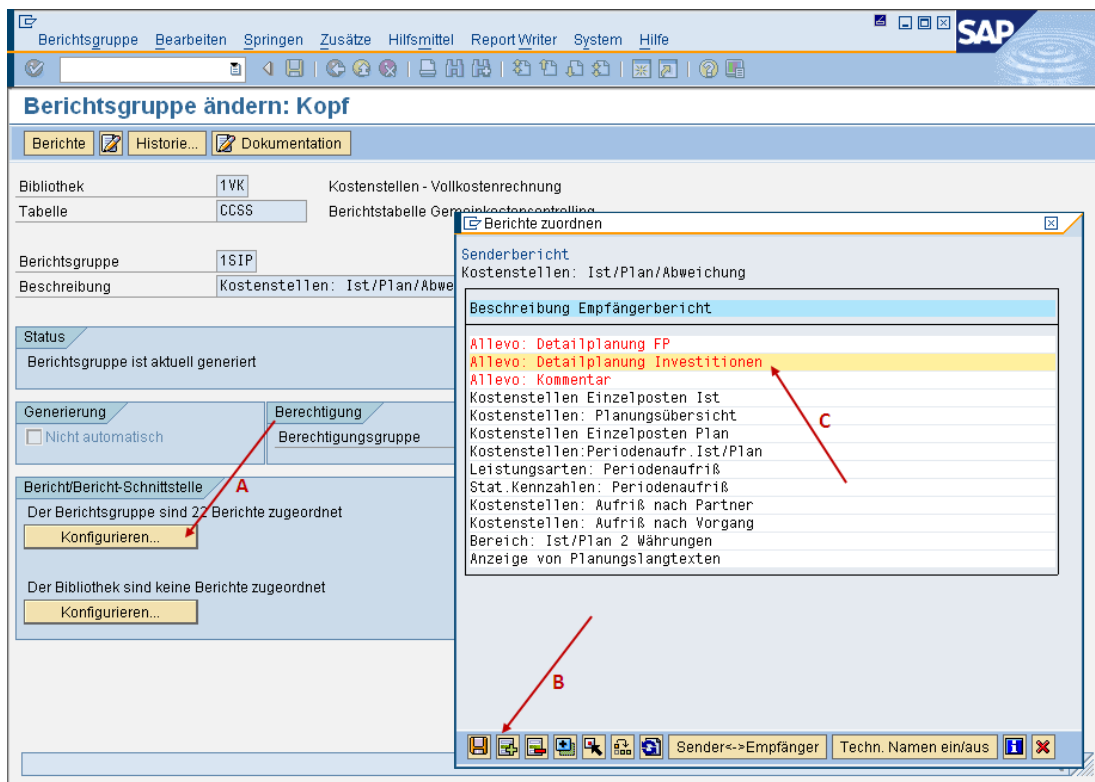


Figure 16.4: Installation report/report interface

The following steps are required:

- (A) Using button |Configure...|, the popup “Allocate reports” opens (see arrow A in Figure 16.4).
- (B) Generate a new row in this popup using icon “Insert rows”. Another popup opens for the “Selection of a report writer report”: select button |Other report type| and then RT (= ABAP report). Now, the query for report name and variant follows (see Figure 16.5).

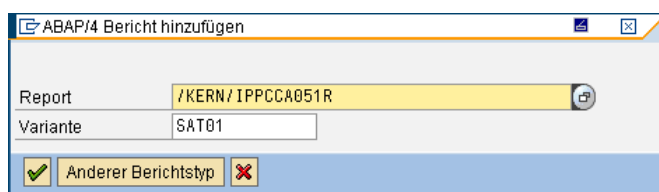
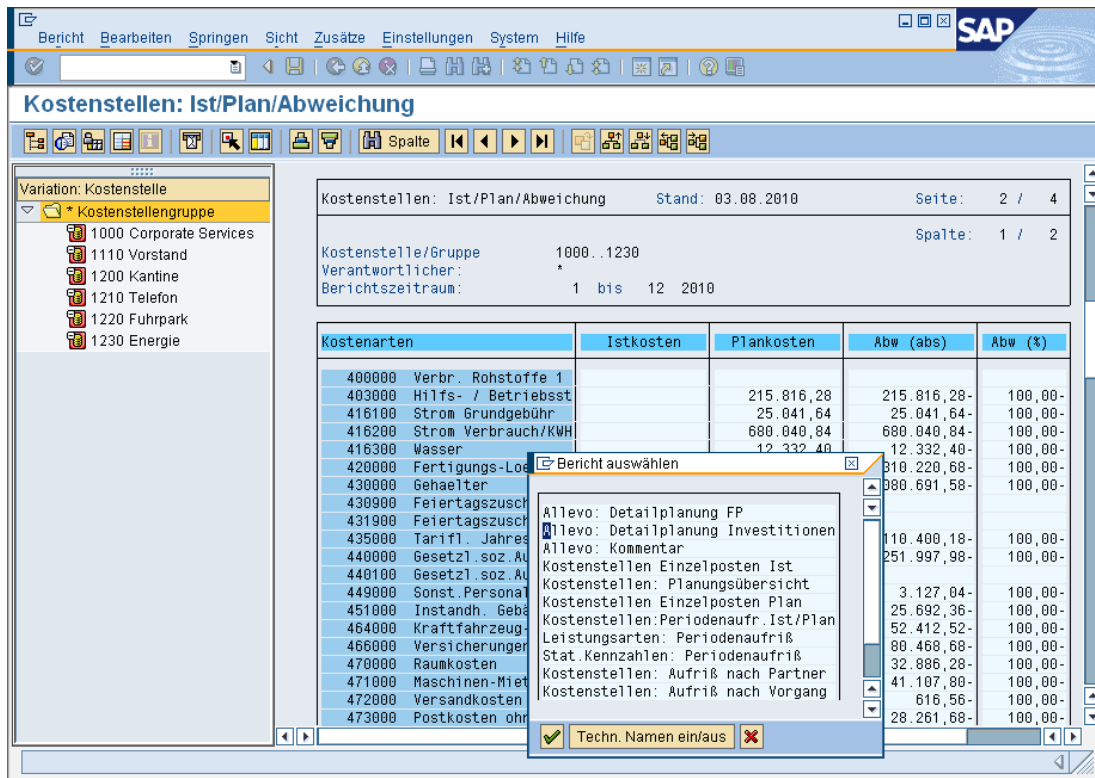


Figure 16.5: Add ABAP Report with variant in the report/report interface

Enter the report name /KERN/IPPCCA051R with the desired selection variant and adopt this entry: a new row “Allocate reports” appears in the popup (see Figure 16.4).

- (C) Now, only a name that will not appear to the SAP user later in the SAP report is missing. Entry is made in the popup under “Description receiver report” (see Figure 16.4).
- (D) Control of the entry in transaction GR55: Double-clicking on an amount field opens the selection list of available detail reports.



The screenshot shows the SAP report interface for 'Kostenstellen: Ist/Plan/Abweichung'. The main table displays cost types with columns for 'Istkosten', 'Plankosten', 'Abw (abs)', and 'Abw (%)'. A dropdown menu is open over the table, listing various report options such as 'Allevo: Detailplanung FP', 'Allevo: Detailplanung Investitionen', and 'Kostenstellen: Planungsübersicht'. The 'Techn. Namen ein/aus' button is visible at the bottom of the dropdown.

Kostenarten	Istkosten	Plankosten	Abw (abs)	Abw (%)
400000 Verbr. Rohstoffe 1				
403000 Hilfs- / Betriebsst		215.816,28	215.816,28-	100,00-
416100 Strom Grundgebühr		25.041,64	25.041,64-	100,00-
416200 Strom Verbrauch/KW		680.040,84	680.040,84-	100,00-
416300 Wasser		12.332,40	12.332,40-	100,00-
420000 Fertigungs-Lo		310.220,68	310.220,68-	100,00-
430000 Gehaelter		380.691,58-		100,00-
430900 Feiertagszusch				
431900 Feiertagszusch				
435000 Tariftl. Jahres			110.400,18-	100,00-
440000 Gesetzl. soz. Au			251.997,98-	100,00-
440100 Gesetzl. soz. Au				
449000 Sonst. Person			3.127,04-	100,00-
451000 Instandh. Geb			25.692,36-	100,00-
464000 Kraftfahrzeug			52.412,52-	100,00-
466000 Versicherungen			80.468,68-	100,00-
470000 Raumkosten			32.886,28-	100,00-
471000 Maschinen-Miet			41.107,80-	100,00-
472000 Versandkosten			616,56-	100,00-
473000 Postkosten ohr			28.261,68-	100,00-

Figure 16.6: Call Allevo detailed planning from the SAP report/report interface

Note: In the case that a great number of detail reports have been created, it may be easy to lose the overview of which variant is included where: button |Techn. names on| may be helpful in this case (see Figure 16.6).

16.5 Centrally define ALV layout for Allevo Report

Satellite tables may contain complex information and consequently comprise many columns. It is not always useful or desired to display all this information via the report interface; an adjustment in the column structure is therefore meaningful.

Since all Allevo table contents are displayed via an SAP ALV grid, the display may be comfortably adjusted via the ALV layout. Users may modify these layouts depending on the authorization: this corresponds to the SAP standard functions for ALV layouts.

Exception: Allevo uses a generic function to display table contents, since contents of different tables must be displayed. A variant may therefore NOT be saved as presetting (default).

An ALV layout may alternatively be predefined. The following steps are necessary:

- Include an Allevo table as described in the previous sections.
- Then call Reporting (GR55) by double-clicking on a data row. Select Allevo table view and create of the desired column structure with the help of the usual ALV layout functions. Save the ALV layout variant under a new name (including special signs „/“ in the beginning, as is usual with general ALV layouts).
- Go back to transaction /ALLEVO/REPVAR_MNT to extend the relevant selection variant for report /KERN/IPPCCA051R (see Figure 16.1): enter the ALV layout variant in the selection parameter of the same name. Save the selection variant under the same name as before.

When calling the report interface the next time, the modified ALV view should appear as it was pre-set.

The ALV view is mandatory for all users during this procedure since such an ALV layout may no longer be modified by the user.

16.6 Special function: Cross-object type reading for profit center

With profit center reports (when working with profit center integration, see Chapter 17), it is possible to directly access data of allocated objects (e.g., to display comments that have been entered to corresponding cost centers). This means that data do not appear for the PC itself in this case.

For this application case, the selection screen for report /KERN/IPCCA051R offers the two selection fields “Source Setclass” and “Additional Source Setclass” in addition to the standard Setclass (see Figure 16.1). The respective entry will define the objects for reading.

Example: Assuming the Setclass is 0106 (= profit center) and the source Setclass is 0101 (= cost center): then, (satellite) data will be selected for all cost centers where the given profit center is stored.

Cross-object type reading is currently possible for the combination of profit center with cost centers (0101), orders (0103) and WBS elements (0110).

An entry in both fields for the “Source Setclass” allows for switching to two different object types within one call. The function is however not yet available during selection of sheet comments or in the application of drill down functions.

16.7 Special function: drill down in the satellite display

This additional function permits a modified view of satellite data by double-clicking on a specific row. This requires at least one additional variant to be available for report /KERN/IPCCA051R. Installation steps:

- The name of the drill down column must be entered in the report main variant. In addition, reference to the subvariant must be made.
- The drill down column must then be entered as an additional filter in the subvariant.

In the following example, data from satellite 33 are included with additional filter and drill down function. First, the suitable specifications for the main variant:

Dynamische Selektion			
Feld Typ	CE Kostenart	Feldname	ZZKSTAR2
Feld Typ		Feldname	
Feld Typ		Feldname	

Drill-Down			
OT	OR ...	Feldname	ZZAUFTRAG
OT		Feldname	
OT		Feldname	
		Variante	SAT33B
		Variante	
		Variante	

Figure 16.7: Main variant in drill down function

The main variant contains (as shown in the example above) the cost element as a filter of dynamic selection.

The “Drill-Down” section defines that column ZZAUFTRAG shall be used in the satellite append for further branching to single internal orders. Important: the specification on the object type is only required if the corresponding object contains an object number. In case of fields without reference to

an object number (e.g., drill down via activity type), the column for the object type (OT) must remain empty.

In the example above, report variant SAT33B shall be used for the display. The following entries must be maintained in this subordinate variant:

Dynamische Selektion	
Feld Typ	Feldname
OR Auftrag	ZZAUFTRAG
CE Kostenart	ZZKSTAR2

Drill-Down		
OT	Feldname	Variante

Figure 16.8: Subvariant in drill down function

The entry in “Dynamic selection” ensures firstly that the transferred order will be used as an additional filter of selection, and secondly that the cost element will be kept as a filter.

The application of report variants via drill down appears as follows:

KKrs	SKIs	Planobjekt	Jahr	Vsn	Znr	Auftrag	Kostenart	Aufnr unkonvertiert	Kstar unkonvertiert	Σ	Wert
1000	0101	1000	2016	0	1	100002	530000	100002	530000		111,000
1000	0101	1000	2016	0	2		530000	100002	530000		111,000
											222,000
1000	0101	1000	2016	0	6	100003	530000	100003	530000		888,000
											888,000
1000	0101	1000	2016	0	7	100006	530000	100006	530000		999,000
											999,000
											2.109,000

Figure 16.9: Display of data via main variant in report interface

In the example here, starting was performed via cost center 1000 as planning object; the filter to cost element was additionally adopted from the SAP report. An ALV display variant was further stored in the report variant for the sorting according to order number.

Double-clicking on an order opens the view of all data for the respective order regardless of the cost center selected previously (display via report variant SAT33B):

KKrs	SKIs	Planobjekt	Jahr	Vsn	Znr	Aufnr unkonvertiert	Kstar unkonvertiert	Auftrag	Kostenart	Σ	Wert
1000	0101	0000001000	2016	0	1	100002	530000	100002	530000		111,000
1000	0101	0000001000	2016	0	2		530000		530000		111,000
1000	0101	0000001077	2016	0	8		530000		530000		444,000
											666,000
											666,000
											666,000

Figure 16.10: Display of drill down data via side variant in report interface

All cost centers with data stored for the order are consequently listed as planning objects.

Note:	<p>The selection parameters controlling area, business year, and version may currently not be dynamically adopted using the previous values from GR55 or the main variant. They must therefore be permanently stored in both report variants (the report variant must therefore be adjusted, e.g., upon transition to another business year).</p> <p>This restriction due to technical reasons applies only when using the drill down variant.</p>
--------------	--

16.8 Authorizations

Whether contents of a satellite can be displayed or not, depends on the authorizations of the registered user.

In a first step, the relevant SAP authorizations for calling the GR55 reports must be available, e.g., for the selected current objects and cost elements. Since the original selection conditions of the SAP reports are transferred to the Allevo functions of the satellite/report interface, the call of the satellites is performed within the framework of these specifications and in that way also these authorizations.

If specific access authorizations are assigned to a satellite in the Allevo planning layouts, the users of the SAP reports must also be stored here (otherwise, data will not be displayed in the report interface either).

17 Profit center integration

Profit center integration allows data from a profit center to be read or posted while planning a cost center or another planning object. Therefore, the profit center is not directly called, read or planned. Everything works via representative objects in the overhead cost management of SAP CO (cost center, order, WBS element).

Note:	Direct planning of the profit center is possible as well. A separate module and manual are available for this purpose (see Profit Center manual).
--------------	---

17.1 Profit center data

Generally, it is sufficient in operative planning in SAP, and even necessary for subsequent functions, to enter planning data on the CO objects cost center, orders and WBS elements. These data are automatically carried forward to the corresponding profit center via the SAP default settings for plan integration. In this context, the profit center must be seen as a superior report object summarizing the planning results of the single CO objects that are assigned to it.

There are, however, reasons for changing to the profit center perspective during the planning process, even if planning is primarily done for cost centers or orders. The profit center perspective allows for simultaneously observing revenues and costs, which is not possible from the individual order or individual cost center point of view.

At this point, interests for implementing an efficient planning process are often conflicting. How can cost center planning be effective, if revenues must simultaneously be observed for this purpose, which is only possible in the profit center? And how can planned revenues, which can only statistically be recorded for cost centers and can therefore not be subject of an automatic entry to the profit center, eventually be posted to the profit center?

17.2 Profit center integration during cost center planning

In general, the normal procedure is maintained. Allevo cost center planning is started. From there, it is possible to retrieve data from the profit center and – with a detour via an order or WBS element – post it to the profit center.

17.3 Reading reference data

17.3.1 Scope and limitations

Reading data is always done for the profit center defined in the master data of the selected cost center. It is only done for cost elements (corresponding to the account in profit center accounting) marked by a special row definition in the Allevo Master.

Note:	<p>Allevo does not verify whether a profit center is also assigned to other cost centers, which means that the same data would also be shown when selecting the other cost center.</p> <p>All actual and planned values recorded for the account specified in the Allevo Master are read from the profit center. This applies for all column definitions available also for cost center planning of Allevo. The data can also be read on a monthly basis.</p>
--------------	---

	Further differentiation within the account, for example, according to the partner profit center, or the display of quantities is not supported. It is however possible to limit the data for the relevant account with respect to the criteria "ledger", "operation", "record type" and "debit/credit indicator".
	Allevo also reads the balance carried forward for the account (period 0). It is therefore possible to even read end-of-period values of balances sheet accounts.

Allevo usually considers the current company code when reading reference data for the profit center (also useful for performance reasons). The following rules apply:

- The relevant company code is adopted from the master record of the current profit center.
- If there is no company code stored here, the list of company codes for the current controlling area will be used instead.

The latter rule also applies if data of PC integration are read for a superior group (e.g., a cost center group). If the company code is missing for a relevant profit center, the list for the controlling area will be used.

17.3.2 Settings

The following parameters must be maintained for profit center integration.

- Constants
- In the Allevo planning layout for CO planning, the constant PC_INT must be activated via column "Value from". In the "Value to" column, the currency for reading data must additionally be specified, i.e. HSL for company code currency or KSL for profit center local currency.

Allevo then reads both debit and credit postings via row definition P. A debit/credit indicator stored in the Customizing of the row definition will be ignored during reading of data. A separate S/H display may be achieved via the additional constant PC_BEKNZ.

Working with the new general ledger requires further settings. These are explained in the Allevo Profit Center manual (PC_READTABLE, PC_NGLA_PLANNING).

Note:	The profit center local currency usually corresponds to the controlling area currency but may also be defined differently in controlling area customizing.
--------------	--

- Row definitions

For any cost elements/accounts that are not to be read from the cost center but from the profit center, the row definition P (for example, instead of A) must be specified in the corresponding column. Each line is therefore either read from the cost center or from the profit center.

If the reading function is to be restricted for individual accounts with respect to operations, record type and debit/credit indicators, this can be done by defining a new column definition, for example P1, with the corresponding restrictions.

- Ledger

If the reading of data is to be restricted to a specific ledger (for example 8A), this can be achieved by a corresponding entry in the "Value to" column in the LEDGER constant.

- Version

When using profit center accounting through the new general ledger, a different version may be required for reading. In this case, the constant PC_INT_VERSION should also be set.

17.4 Reading function (planning)

17.4.1 Scope and limitations

Planning of values is normally not done directly for a profit center, but rather for a substitutional object of overhead cost planning. This can be the cost center used for the planning itself. In this case, the posting to the profit center is automatically made via the plan integration in SAP, which must be activated for this purpose, and does not require any further settings in Allevo.

If, however, revenue accounts (cost elements of type 11) are to be addressed, these can only be posted statistically to the cost center. Statistical postings are not transferred to the profit center. It is now necessary to find another way for planning revenues.

Allevo offers two options: Direct planning of the profit center (direct approach) or representative planning of an orders or a WBS element assigned to a profit center directly from cost center planning (automatic entry).

This planning is restricted to pure value planning per cost element (comparable to primary cost planning). Quantities or secondary allocations, partner profit centers, or functional areas cannot be planned. All periods (months included) available in Allevo cost center planning are supported.

17.4.2 Revenue planning via direct approach to the profit center

The direct approach refers to the profit center and controlling area defined in the master record of the start object (e.g. of the cost center). This type of planning requires row definition U.

Note:	As no standardized SAP-BAPI is available, the operation used for planning the profit center via Allevo is different from the planning of objects from cost center accounting (cost elements, orders, WBS elements). A batch input is used here.
	For this purpose, it is necessary that the SAP standard layouts, which are also used for the manual planning of profit centers (8A-111), and the corresponding authorizations are made available to the planner.
	Strictly speaking, Allevo checks if the set planner profile of the user has the necessary planning layout. If this is indeed the case, Allevo controls the position of the layout and returns the corresponding variable to the program, which represents the position of the layout in the planner's profile. If negative, Allevo tries to set a planner profile for the posting procedure, which has the layout 8A-111.

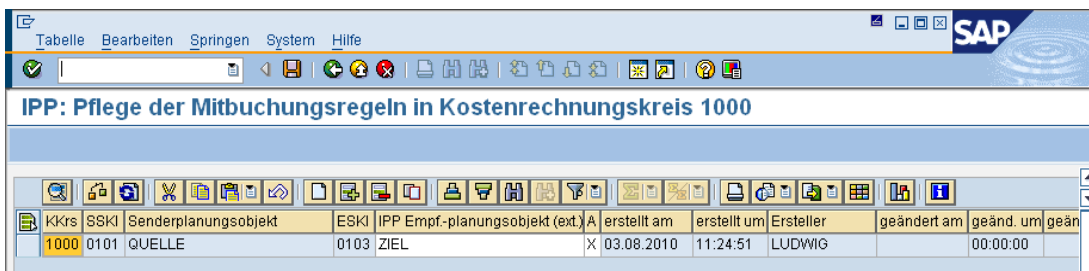
17.4.3 Revenue planning via automatic entry

This alternative again uses plan integration according to SAP standards. Revenue postings for the object types 'order' and 'WBS element' are "real postings" which are automatically made to the profit center assigned to these objects.

The “automatic entry” under Allevo is more of a "re-direction". Instead of the cost center, the object defined for the cost center is posted. This is done for cost elements that are marked by the row definition P in the Allevo Master

Note: The redirection to another object type is exactly limited to one order or WBS element per cost center.

The access path to the necessary program settings is via |Settings| and |Rules for automatic entries in PCA|. This program screen can also be used to view existing data and create a sample upload file. The allocation is saved in the SAP table /KERN/IPPSECPST



KKrs	SSKI	Senderplanungsobjekt	ESKI	IPP Empf.-planungsobjekt (ext.)	A	erstellt am	erstellt um	Ersteller	geändert am	geänd. um	geän
1000	0101	QUELLE	0103	ZIEL	X	03.08.2010	11:24:51	LUDWIG		00:00:00	

Figure 17.1: Example SOURCE (Setclass 0101) directing to TARGET (Setclass 0103)

17.4.4 Satellite/report interface in profit center reports

If planning is based on the cost center or another planning object, but the report view is the profit center, the satellite/report interface has no target when changing the object type. Please see Sections 14.11, and 16.5 for more information.

17.5 Relevant constants of PC integration

The following constants affect functions of profit center planning:

- PC_INT Activate PC integration (incl. currency type)
- PC_INT_VERSION PC integration with new general ledger: version actual data
- PC_BEKNZ PC integration separated by debit and credit
- PC_NGLA_PLANNING Activate PC planning via new general ledger
- PC_READTABLE Read PC reference data from new general ledger
- PC_REP_COMP_SEL Selection company code in PC Reporting
- NO_COMPANYCODE Read reference data without restriction to company code
- LEDGER in cost center planning and profit center integration

18 Allevo in offline mode

The start transactions described above (see Chapter 3) are opened to call the Allevo Master directly in the Excel dialog (inplace mode).

The offline functions, on the contrary, allow the central controlling to generate Excel files for the different objects in a single operation and store them in a network folder. The corresponding transaction is therefore the ideal tool for repeated reporting via Excel files (e.g., monthly reporting).

Optionally, the generated Excel files may be used for the offline entry of planning data. This procedure may be beneficial for planners that do not have SAP access. Allevo may then automatically re-read the Excel files with the planning data.

The corresponding Allevo transactions for starting offline functions are included in the Allevo Cockpit (for details about the execution see Section 18.2).

Note:	To use the planning functions in this module, they must be released via an appropriate entry in the license key. You may need to arrange the required SAP user licenses directly with SAP.
--------------	--

18.1 Functional overview

The basic Allevo planning transactions can generate a local copy of the planning file (including all reference data relevant for planning). It is then possible to continue working with the data of this Excel file offline. After completion, data can be transferred to SAP using |Open file| in the start screen of the Allevo planning transactions.

If many objects are required to be planned offline, saving and uploading each file individually is a time-consuming task. Allevo offers additional transactions for offline planning to reduce the effort and time required (both for generating data and for reading).

Note:	The generation of Allevo offline files is in many cases also used for reporting purposes; e.g. for the monthly evaluation “at the push of a button”. Allevo supports this application through different special functions (e.g. conversion to PDF file or parameters for an automatic allocation of the file name depending on the evaluation period).
--------------	--

They allow to:

- Generate all relevant Excel files in one step
- Transfer the planned data from any number of files in one step to SAP.

Allevo planning in the offline process comprises the following steps:

1. In a first step, the necessary Allevo planning files are created for the planning objects, which can be found below the start group. This is done using the standard Allevo transactions and running them, one by one, for each planning object and/or each relevant subgroup. In the background, the desired Excel files are generated with all reference data read from SAP and saved in a previously defined download folder. Then, the files only need to be distributed among the individual planners (for example, by email or via the Allevo planning calendar).
2. The planner can now work in the Excel files without being connected to the SAP system.

3. After planning completion, files are saved in a central upload folder and transferred in one batch to SAP. When uploading the data, the system verifies if the data belong to the specified group. Authorizations are checked as in the main program.

These steps are normally done by central controlling; offline planning is therefore centrally controlled. The offline module runs with all object types supported by Allevo. Important requirements for offline planning are:

- The objects and/or groups relevant for the offline process must be grouped in one common start group.
- It must be possible to individually save and upload an offline file as described in Section 11.2 (especially for verification of the provided path specifications).

The generated Excel files of offline planning are stored with a “speaking” file name to facilitate identification (e.g. on a central network path).

Note:	There is no direct connection to the SAP system when using Allevo for offline planning or offline reporting. Consequently, the usual display of line items via a pop-up is not available either. In this case, an additional function of Allevo may be useful to provide line items via satellites (see notes above).
--------------	---

Additional Options

- Files may also be exported in PDF format: Allevo supports periodic reporting functions in this way. A reasonable naming of the export file should be ensured (see Allevo file management).
- Excel files may automatically be re-imported after the export: this is especially helpful if automatic calculations (surcharges ...) are stored in the Master and planned values need to be recalculated for many objects. A similar function (Batch mode) is available also in the ABC.

A customized program may be executed after generating and before uploading an Excel file. It is installed on the respective local Windows work center. The program might for example ensure individual processing of Excel data. Further details are described in the documentation for the constants OFFLINE_GEN_PROGRAM and OFFLINE_PLAN_PROGRAM.

18.2 Execute Offline Transactions

Allevo offers the following transactions for offline planning:

- /KERN/IPP_OFFL_GEN
Allevo offline mode: Generate data
- /KERN/IPP_OFFL_IMP
Allevo offline modus: Import planning data

Note:	For Allevo 3.0 and higher, the offline program can no longer be accessed via the menu of the relevant Allevo single object transaction as was the case in previous program versions. The new, optimized offline process is now always accessed via the above stated transactions.
--------------	---

Executing the offline transaction requires authorization group IPP_ADM or ZIPP_MM.

18.2.1 Generate files with reference data

Analog to the logic used in Allevo Multi, a group is resolved for offline planning. The data of the plan objects found are written in one or several Excel files. The generating transaction runs through the same functions as the relevant Allevo single object transactions. This guarantees identical functionalities (such as using the same Excel layout).

Note:

In complex hierarchies, it may be necessary to run the Allevo basic functions very often in order to generate the Excel files. Please keep the amount of time required for this process in mind for your planning.

Excel is called also when exporting offline files in order to transfer the data (also if the call is invisible for the user). For that reason however, the export may NOT be executed as a background job.

Excel files are generated for offline planning via transaction /ALLEVO/OFFL_GEN. The following program dialog appears.

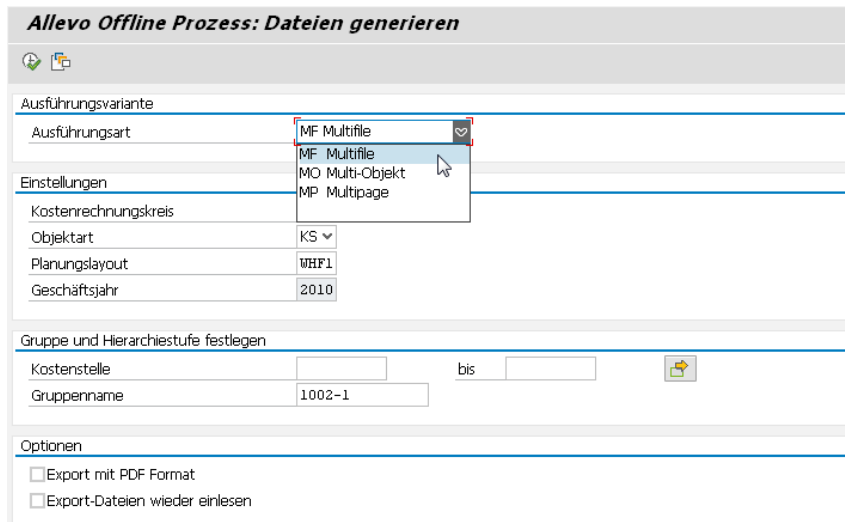


Figure 18.1: Offline process: Generating files with reference data

The type of execution specifies the Allevo single object transaction that shall be used to generate the desired files. The following types are available:

- MF MultiFile: A file with reference data is generated for every object found in the group
- MP MultiPage: A MultiPage file is generated for each group of objects (the file has one page for each object)
- MO MultiObject: A file is generated for every object found in the group (the representative object defines the further file structure)

Controlling area, object type and planning layouts must previously be defined, similar to the process in the single transaction dialog mode. In particular, the same planning layout can be used in the offline process.

Selection of Planning Objects

In model type MF and MO, one file is generated for each object (exception MOD; see note below); in case of MP, one file is generated for each group of the selected hierarchy level (see notes in Section 18.4). Correspondingly, there are differences in the selection parameters for the object:

- In model type MP, objects may be selected via a group in the respective planning hierarchy. The entry in field “Level” specifies if the planning files for a certain group shall contain also the planning objects in the respective subgroups. As an alternative, planning files may be created independently of the hierarchy level if planning objects are located directly below the node (see Section 18.4).
- In model type MF and MO (exception MOD), a file is created for each planning object of the specified group; it may be resolved again in the entire hierarchy. This may also be a selection variant that is for example created for cost centers via transaction KM1V. Alternatively, From/To specifications and multiple selection are possible for the planning object.

Note:	<p>The model type MO considers also the special type MOD showing all objects of a group on the same Excel sheet as list (see also Allevo & Excel manual).</p> <p>The selection screen of offline transactions is in this case the same as in the MultiPage execution type, since this also involves generating a single file for all objects of a group.</p> <p>Execution in the offline transaction requires the relevant cost elements to be defined via constant DYN_KSTAR_FIX (no entry in the dialog).</p>
--------------	---

Save planning file

The generated files are located in a defined download file after execution of the transaction (see notes in Section 18.2.3 below). A list of the generated files is displayed as log.

The offline generation function may in that way be efficiently used also for central Reporting via Allevo.

Note:	<p>The functions in the Allevo planning calendar additionally allows for automatically sending these files to the responsible planner.</p>
--------------	--

Output as PDF

The Allevo functions for generating offline files are often used for reporting purposes as well: entering planning data is in that case not intended. It may therefore be useful to generate PDF files as an alternative to the Excel files (see corresponding activation button in Figure 18.1). The path and file name of the export file have the same structure as in the Excel export (only that the file ending is .pdf).

Note:	<p>PDF files are usually smaller than complex Excel Masters; the file format is therefore suitable also if export files shall be regularly sent as e-mail (e.g. within the framework of a monthly reporting). The corresponding function in the Allevo planning calendar may be used for this purpose.</p>
--------------	--

Common Excel functions are of course no more available when displaying the PDF file (neither is the usual Allevo navigation).

The generation of a PDF file corresponds to the output of a printed document; suitable print areas must therefore be defined in the Excel Master. The output itself is performed macro 'Ant-loop.SaveAsPdf' (stored in the Allevo Master from version 3.2). Complex outputs (e.g. across various areas on a page) may be displayed using customized Excel macros.

With constant `BUTTON_SAVE_AS` active, the PDF export is available when directly working in the Excel planning interface (see F1-help for the constant).

Re-import of exported data

Excel files may automatically be re-imported after the export: this is especially useful if automatic calculations (surcharges...) are stored in the Master and planned values shall be recalculated via many objects.

Requirement for this function: the export and import directories defined in the file management must be the same.

A similar function (Batch mode) is available also in the ABC and HRC (to e.g. determine effects of general changes in prices).

18.2.2 Import planning data to SAP

After planning completion, the Excel files must be collected in a central "upload" folder. Transaction `/KERN/IPP_OFFL_GEN (/KERN/IPPMBPP)` reads the files and imports them to SAP using the same functionality as for |Save data to SAP| in Inplace mode.

The upload transaction uses the same selection parameters as for generating files. These parameters, among others, are used to define the relevant file names (in accordance with the name conventions defined). Here, the same entries should be made as for generating the files. The files may not be renamed during the planning process.

In addition, the upload routine verifies if data of the read Excel files really belong to the group specified during the transaction start (see constant `CHECK_SHEET_ON_OPEN` to deactivate this verification). Authorizations are also checked analog to the main program.

Note: Allevo usually displays a message in case of Excel files without relevant planning data. Constant `SUPPRESS_EMPTYWARNING` serves to switch off these messages.

When the transaction is completed, all successfully uploaded files are moved from the upload folder to a so-called copy folder (as backup). Erroneous files or files that don't belong to the specified planning group remain in the upload folder. It is also recommended to create an additional backup of the file to be planned.

Note: Import is also possible right after exporting files (see documentation in the previous section).

18.2.3 Execution Log

Allevo internally maintains an execution log of all offline planning runs (when generating offline files and during import). The corresponding table /KERN/IPMBPLOG contains an error status, path and file name for every offline file. These entries are the basis for automatically sending the files by e-mail (a function of the planning schedule).

18.3 Basic settings for offline planning

18.3.1 Access to Allevo Master and up/download files

Before the programs can be started in the offline process, two symbolic file names must be defined:

- for finding the Allevo Master (can be found via constant BDS_ENABLED or FILE_TEMPLATE as usual) and
- to define path and file names used for saving the Excel files (upload and download; to be entered in constant FILE_OFFLINE).

The required settings for accessing the files will be explained in detail in section 22.8. The following functions may be very useful in the offline process:

- Placeholders are used to generate individual file names that are self-explaining, e.g. by indicating the relevant cost center (see Section 22.6.2.)
- Placeholders additionally allow to work with available network paths to, for example, comply with prescribed network authorizations according to departments (see Section 22.6.3).

18.3.2 Authorizations in the offline process

Requirements for the execution of offline transactions:

- Planning data may only be read via the import transaction if the corresponding attribute is set in the Allevo license; otherwise, files may only be exported (e.g. for reporting functions). Authorization group ZIPP_ADM must be available; this applies both for the export of files as well as for reading planning results.

In offline transactions, the usual Allevo planning functions are called and executed consecutively for the selected objects (Excel is also called in the background but not displayed). This also involves running the corresponding authorization checks (e.g., activity 02 for object K_CSXS_PLA for the involved cost centers): the planning authorization is also checked when generating Excel files with export of reference data. This is to avoid that authorization problems will be recognized during reading only.

Note:	<p>Offline Reporting</p> <p>If the generation of Excel files is only applied for reporting, the user might not have a planning authorization; in this case, verification is also not useful. For this case, Allevo offers two options to change the call to reporting mode, which only requires the reading authorization:</p> <ul style="list-style-type: none"> • Set button “Read” in the access control for the layout. This may be performed user-specifically if necessary.
--------------	--

- Constant "AUTH_PLAN_START" for individual configuration of the authorization check in the Allevo start screen.
- In any case, the user needs SAP authorization for the reading of data (e.g. activity 03 for object K_CSXS_PLA for the involved cost centers).

18.3.3 Constants in the offline process

If a layout is used for offline planning, the following constants should be defined:

- READ_ON_OPEN must be active; this assures the automatic transfer of reference data from SAP to Excel ("Value from" = X)
- MULTIFILE may not be active (field "Value from" = blank)
- If additional satellite data are to be transferred to Excel, the constant ACTIVE_SAT must be set for the relevant satellite.
- If a Master with MOD functions is stored in execution type MO, the relevant cost elements must be defined in constant DYN_KSTAR_FIX.

Call in reporting mode, i.e. data are to be generated only but not re-read:

- AUTH_PLAN_START Authorization check during start (check for reading/planning)

The following constants may be helpful for the import of planning files that have been generated offline:

- FOPEN_READSAT activates re-reading of satellites from SAP when opening an existing Allevo planning file (independent of reading reference data).
- RE_READ_ON_OPEN allows to re-read all remaining reference data when opening an existing Allevo planning file.
- HEADER_NO_ERROR to import offline file in case of deviating selection
- SEND_COLDEFS may be helpful if you wish to always read data on the basis of the current reference data (e.g. for automatically calculated values). The constant here ensures that reference data will be transferred to the Master again in an updated version before reading.

Integrate customized Windows program at the local work center:

- OFFLINE_GEN_PROGRAM Call after download
- OFFLINE_PLAN_PROGRAM Call before upload

18.4 Rules for resolving the SAP group hierarchy of the planning object

When generating MultiPage files (execution type MP) or integrating an MOD Master, one Excel file is created for all objects in a group. The selection of relevant object files is always done via a group within the group hierarchy. The selection parameter "Level for hierarchy" defines, in this case, how the relevant planning objects are found and in which form they will be shown in the Excel file later.

The Allevo logic of the definition for the level should therefore be taken into account when creating the hierarchy.

18.4.1 “Pseudo” hierarchy Level “-1”

The special function of a negative “hierarchy level” is only possible during the generation of offline files. The specification triggers Allevo to generate its own export file for all groups of the hierarchy (only the start group as exception).

The generation transaction goes through all nodes of the start group and creates a list of subordinate groups. A file carrying the group name is generated, irrespective of whether planning objects are directly assigned in the group (this is the central difference to level 0 in the following section).

Note:	Depending on the hierarchy structure, a cost center, for example, will be included in various export files (for each superior group). That is why this special function is not available during reading of data. Files of superior groups may become very large!
--------------	---

The hierarchy level “-1” is not stored in the F4 documentation for the entry field.

18.4.2 Hierarchy Level 0 (or blank)

The generating transaction runs through all the nodes in the start group and creates a list of subordinate groups. As soon as a planning object is found in one of these groups, a file is generated with the name of the group.

Im- portant:	If there are several subgroups with planning objects in one of these groups, the individual objects are resolved as well and integrated in the generated file. The same rules apply for these subgroups when generating the files afterwards. When creating the groups, please ensure that a subgroup with planning objects does NOT contain any further subgroups!
-------------------------	--

18.4.3 Hierarchy level 1 (or higher)

The generation transaction only runs through the nodes of the specified hierarchy level and generates files with the name of the corresponding subgroup if planning objects are contained. The planning objects of the subgroups are also included and added to the file. The easiest way to proceed is if groups only cover two levels, as shown in the following example.

18.4.4 Example 1: Group with two levels

Groups containing only two levels do not require any entry for the level (see figure below).

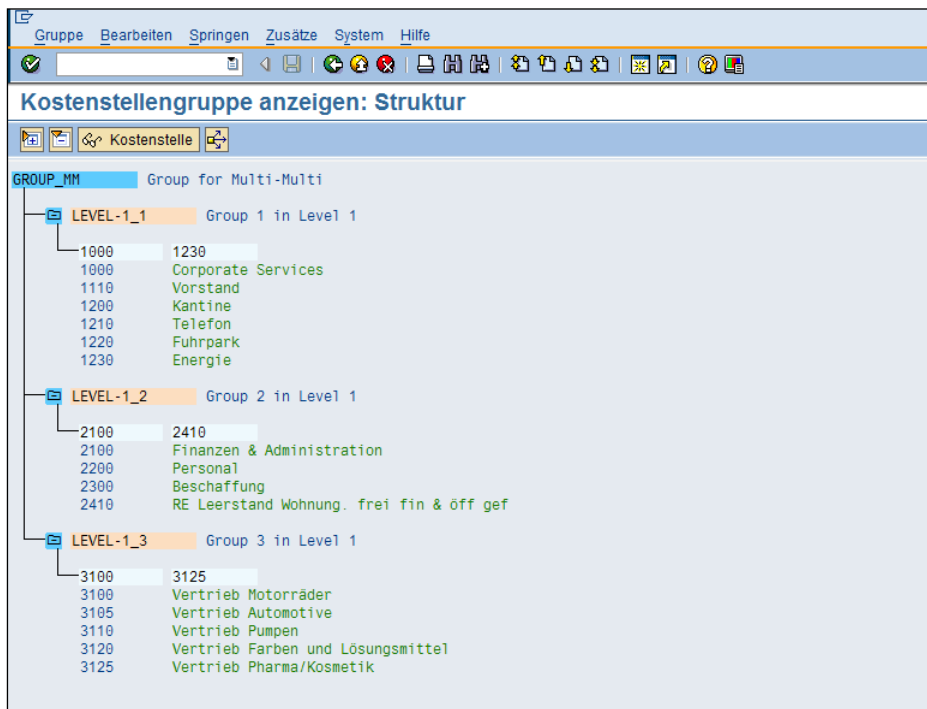


Figure 18.2: Example for a group

In this case, three files are generated: one file for subgroup LEVEL-1_1, LEVEL-1_2 and LEVEL-1_3. The files contain worksheets for each assigned cost center.

18.4.5 Example 2: Groups with more than two hierarchy levels

The following figure shows an example with groups and three hierarchy levels.

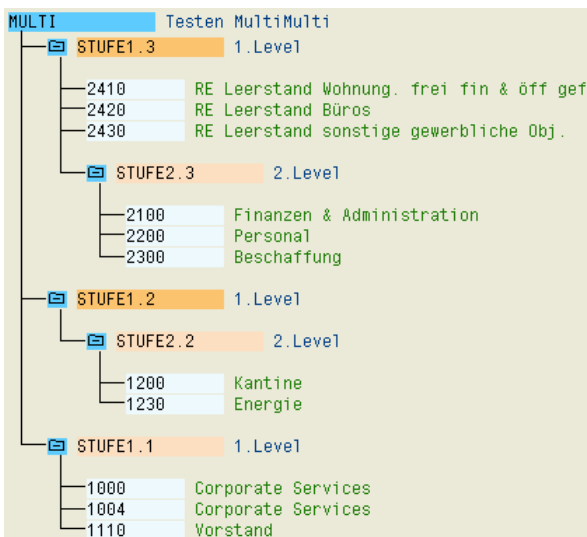


Figure 18.3: Group with more than 2 levels

Resolving of the groups depends on the entry in the selection parameter "Hierarchy levels".

- Level = "-1"

An export file is created for each group below the start group MULTI. This function is not available during reading of data.

- Level = 0

Files are generated for groups “Level1.3”, “Level2.3”, “Level2.2” and “Level1.1”. The planning file for “Level1.3” contains also the objects of group “Level2.3”, (2100,2200 and 2300).

Stufe1.3	Stufe2.3	Stufe2.2	Stufe1.1
2410	2100	1200	1000
2420	2200	1230	1004
2430	2300		1110
2100			
2200			
2300			

- Level = 1

Files are generated for the groups “Stufe1.3”, “Stufe1.2” and “Stufe1.1”. The planning files contain also the objects of the respective subgroup.

Stufe1.3	Stufe1.2	Stufe1.1
2410	1200	1000
2420	1230	1004
2430		1110
2100		
2200		
2300		

For reporting purposes, it may be useful to export objects on different levels (as in the example here with specification of level 0); planning data should, however, always be imported via Excel planning files with clearly assigned objects (as in level 1 here).

19 Allevo planning calendar

19.1 Functional Overview

The planning calendar allows users to schedule and control repeated controlling activities (tasks). In the current program version, these activities cover pure e-mail functions, which can directly be started from the SAP system. Example:

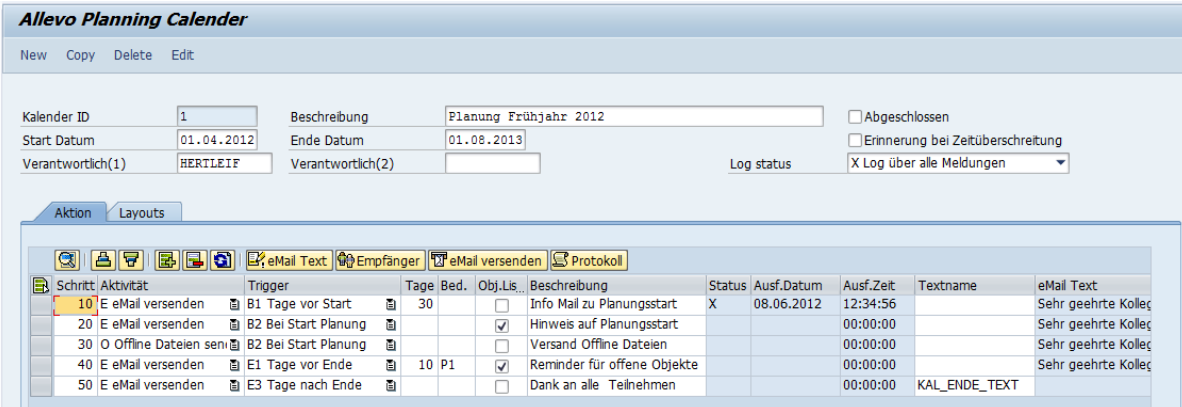
- E-mail to all planners to be informed during the current planning process. Optionally, a list of all assigned planning objects (such as cost centers) can be included as attachment.
- Sending the Excel file during the offline process

Both applications are based on the allocation of the planners to the objects (such as the individual cost centers) or groups used during planning. Based on this allocation, the relevant email addresses are found (for example by reading the user master data).

19.2 Processing screen for the planning calendar

19.2.1 Call and header specifications

The planning calendar is started via transaction /ALLEVO/CAL_WF.



Schritt	Aktivität	Trigger	Tage	Bed.	Obj.Lis.	Beschreibung	Status	Ausf.Datum	Ausf.Zeit	Textname	eMail Text
10	E eMail versenden	B1 Tage vor Start	30			Info Mail zu Planungsstart	X	08.06.2012	12:34:56		Sehr geehrte Kolleg
20	E eMail versenden	B2 Bei Start Planung				Hinweis auf Planungsstart			00:00:00		Sehr geehrte Kolleg
30	O Offline Dateien senden	B2 Bei Start Planung				Versand Offline Dateien			00:00:00		Sehr geehrte Kolleg
40	E eMail versenden	E1 Tage vor Ende	10	P1		Reminder für offene Objekte			00:00:00		Sehr geehrte Kolleg
50	E eMail versenden	E3 Tage nach Ende				Dank an alle Teilnehmen			00:00:00	KAL_ENDE_TEXT	

Figure 19.1: Allevo planning calendar

A planning calendar contains the following specifications in the header:

- Description
- Runtime defined by start and end date
- Two persons in charge (may be relevant for information that are to be sent automatically)
- Reminder for timeout
if active, a program message appears when starting the Allevo Single transaction to remind the user in charge of the action to be executed.
- The entries in field "Log.Status" define which level of detail is to be applied for the log of actions in the planning calendar. On the most detailed level, a log entry is generated for each email sent (display each activity via button "log").

19.2.2 View “Actions”

During ongoing planning, the planning calendar can be used to schedule different e-mail dispatch activities (column “Activity”).

- Dispatch of information relevant for planning (e.g. notes for meeting dates or the processing status)
- Sending of files for offline planning or recurring reporting requirements (Excel and PDF format are supported)

The entry in column “Trigger”, as well as the one in “Days”, define when the activity is performed. Functions at the beginning of planning (e.g. XX days before the scheduled start) or at the end are supported.

Important:	Actions are not automatically started at the due date, but must always be confirmed by the person in charge. This person gets a program reminder as soon as the defined time is reached.
-------------------	--

Start of activities can also be linked to specific conditions, such as status query (see column with the same name).

The column "Obj. list" indicates whether a list of the planning objects the individual planner is responsible for, is added to the e-mail as attachment.

Example:	A few days before the end of planning, an email shall be sent to all planners who have not completed their planning up to then. A list of pending objects is attached to the email.
-----------------	---

Whether and when an activity has already been completed can be seen from the entries in the columns "Status", " Processing date" and "Processing time". A detailed log may then be queried using the button of the same name (detail level is controlled via the corresponding entry on the header level).

19.2.3 View “Layouts”

This view defines for which layouts the planning calendar is applicable. Year and version are adopted from the column definition of the layout and are only shown for information purposes. The allocation of the layout to the planning schedule has major importance, since the relevant e-mailing lists are set up on the basis of the status data for the relevant planning objects.

19.3 E-Mail contents/text

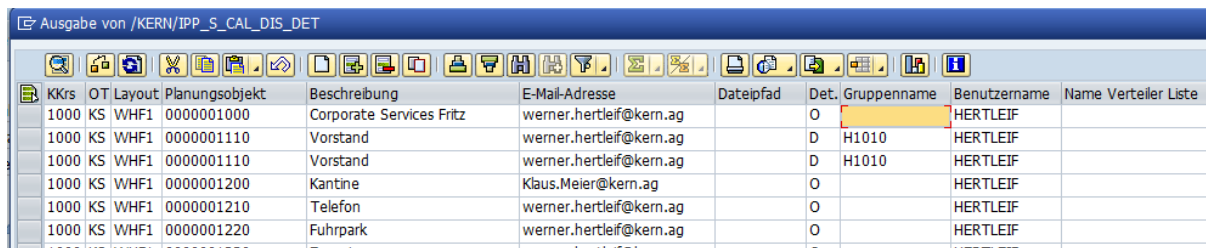
The button "E-mail text" on the "Action" tab can be used to add or edit text in the e-mail to be dispatched. After being saved, the text can be found in the column "Email text".

Alternatively, SAP transaction SO10 can be implemented for standard texts. This can be done by specifying the name of the desired text in the column "Text name" (see example in Figure 19.1, step 50). In this case, transaction SO10 is directly started when clicking on the button |Email text|. The advantage of this variant is the possibility of saving and using text in multiple languages.

19.4 E-Mail Recipients

The relevant email recipients are determined for every activity in the planning calendar according to the current conditions (for example, on the basis of the object status in the allocated layouts). It is therefore recommended to check the list of recipients before dispatching the emails using the button |Recipients|.

- When using |Send e-mail|, the list of recipients results from the object status or the conditions defined. By default, only single objects are listed (e.g. all relevant cost centers).
- When using |Send offline files| the objects result from the log of offline files generated so far. The list can include both single objects AND groups.



KKrs	OT	Layout	Planungsobjekt	Beschreibung	E-Mail-Adresse	Dateipfad	Det.	Gruppenname	Benutzername	Name Verteiler Liste
1000	KS	WHF1	0000001000	Corporate Services Fritz	werner.hertleif@kern.ag		O		HERTLEIF	
1000	KS	WHF1	0000001110	Vorstand	werner.hertleif@kern.ag		D	H1010	HERTLEIF	
1000	KS	WHF1	0000001110	Vorstand	werner.hertleif@kern.ag		D	H1010	HERTLEIF	
1000	KS	WHF1	0000001200	Kantine	Klaus.Meier@kern.ag		O		HERTLEIF	
1000	KS	WHF1	0000001210	Telefon	werner.hertleif@kern.ag		O		HERTLEIF	
1000	KS	WHF1	0000001220	Fuhrpark	werner.hertleif@kern.ag		O		HERTLEIF	

Figure 19.2: List of recipients in the planning calendar

Recipients, who are listed several times, for example as a result of the direct allocation of objects and simultaneous presence in a group, will only receive one e-mail. Duplicates are deleted before the emails are dispatched.

In addition, the list of recipients can be edited before dispatch, this may be required, for example, if an e-mail address is not correct or not available.

19.5 Edit Mailing List

Before using a mailing list, the persons in charge must be assigned to the objects or groups once (incl. e-mail addresses) to set up the mailing list. This allocation is done via transaction /KERN/IPPCAL_DISTR.

Pflege Stammdaten für Verteiler Liste

Selektion

Kostenrechnungskreis: 1000

Objektart: KS

Planungs Layout: WHF1

Excel Vorlage

Upload Excel Datei

Start Inplace direkt

Inplace mit Vorlage (BDS...)

Log.Dateiname der Vorlage: ZIPP_CAL

Options

Feldbeschreibung in Kopfzeile

Nur lesen

Figure 19.3: Mailing list for the planning calendar

The allocation is always done for the controlling area and the object type.

The layout specification is optional: in this way, allocation of recipients may be done for all layouts at the same time or individually for each layout.

Selecting "Start Inplace direct" opens an empty Excel sheet and fills in the allocations stored in the system. As an alternative, a template can explicitly be set up via SAP-BDS or the Allevo file management (Allevo searches in the sequence).

Note: Using an explicit Excel template for maintenance of the mailing list is beneficial when aiming to automate the functions on the side of Excel (e.g. via formulas). Such a file must be created specifically for the customer (not included in the Allevo delivery package).

To access such an Excel file, the symbolic file name entered above must in a first step be set up in the BDS or in the Allevo file management. (ZIPP_CAL is only a suggestion here).

The following figure shows a mailing list in Excel.

Maintenance of IPP-CCA-tables

Save and return

Table: /KERN/IPP_S_CAL_DIS_EXC Maintain distribution list for Cost Center

	A	B	C	D	E	F	G	H	I	J
	KOKRS	OBART	LAYOUT	COBJECT	GRPNAME	REC_USER_ID	REC_ID	EMAIL		ERROR_TEXT
2	1000	KS	WHF1		1010A		TEST	TEST@kern.ag TTT@Kern.ag		
3	1000	KS	WHF1		TEST	HERTLEIF		werner.hertleif@kern.ag		
4	1000	KS	WHF1	0000001000			TEST	TEST@kern.ag TTT@Kern.ag		
5	1000	KS	WHF1	0000001011		HERTLEIF		werner.hertleif@kern.ag		
6	1000	KS	WHF1	0000001012		HERTLEIF		werner.hertleif@kern.ag		

Figure 19.4: Edit mailing list

Every line in this mailing list corresponds to an allocation either to the single object (column COBJECT) or to a group (column GRPNAME):

- The recipient can be identified via the SAP user name, possibly to be entered in column REC_USER_ID. Allevo will later on determine the e-mail address from the user master record (and later display in columns EMAIL upon the next call).
- As an alternative, any name can be entered under REC_ID and the corresponding email address in the next column (with multiple addresses separated by blanks). The data are specifically recorded under this name in the SAP system. The name ID may be used several times in the column REC_ID: Allevo automatically adds the emails indicated in the first place (in case of further rows, entering the ID in REC_ID is sufficient)
- Direct entry of an e-mail address is only possible in combination with an entry in REC_ID (saved in table /KERN/IPPCAL_USR).

When transferring the data to SAP, some system checks are automatically made (such as availability of SAP user names). Error messages are written in the column ERROR_TEXT.

19.6 Search recipients

When allocating an email address to the planning object or to a group, a multi-level search process is started. It is based on the mailing list, which can be created via transaction /KERN/IPPCAL_DISTR (see Section 19.5).

On the basis of these allocations, Allevo now searches an email address for every object, following this sequence:

1. Verification of allocations to the object and in the current layout:

- If a SAP user name is allocated to the object (for example cost center), the email address is adopted from the corresponding master record.
- In the case that a freely chosen name with an email address is allocated to the object, this address is added (or various).

2. If searching for the current layout provided no results, entries will be searched without reference to the layout (corresponds to logic for the * layout).

3. If the search was generally unsuccessful on the object level, searching will be continued on the group level. For this purpose, a list of all groups the current object is allocated to is created. Each group is then searched for an SAP user and/or a free email address. Here again, the current layout is checked in the first run and, if no results are shown, the search will be repeated without reference to the layout.

Note:	As a result of the allocation of groups (see step 3) it may happen that an email address is shown more than once for the same object. The list of results also shows these entries (with reference to the relevant group). Duplicates are always deleted before dispatch.
--------------	---

When sending offline planning files (e.g. in the MultiPage application), email addresses have to be allocated to the used groups. In this case, searching is started on the group level (with reference to the layout first, then, if needed, without reference to the layout).

How email addresses are found can be seen in the list of recipients (see Figure 19.2, column "Det."):

- "O" indicates that the entry directly refers to the object.
- "D" indicates that determination was performed and the address has been found through the group (see column "Group name").

If offline plans have been generated on the group level (e.g. in the MultiPage application), e-mail addresses must be allocated to the groups used. In this case, the search is started right on the group level: at first considering the layout and then, in the second run, without layout.

19.7 Send E-Mail

The button |Send e-mail| is used to start the currently selected activity:

- First, the current list of recipients opens (see Figure 19.2) and can be edited now if necessary. Allevo identifies the recipients from the allocations stored in the master data (see section on the mailing list). If an activity shall be repeated, Allevo will ask if the available list of recipients shall be used again (as an alternative, recipients may be determined from the master records once more).
- A warning message appears if the list contains objects without a valid e-mail address.
- The user may then cancel the activity and edit the recipient or add an email address (see section 19.4).

Dispatching e-mails follows the following principle:

- When sending general information, every recipient gets an email, even if they are allocated to multiple objects. The list of relevant objects can optionally be added as attachment (see button for object list).
- When sending offline files, a separate e-mail is generated for each file, which may be sent to multiple recipients if required. Planners, whose objects are distributed over several files, receive several e-mails.

The two lists are consequently different. Entries may be deleted from the list if necessary (for example, if some information is not relevant for individual employees or if single offline files shall not be sent).

Allevo displays a warning message if rows in the list do not contain any e-mail address.

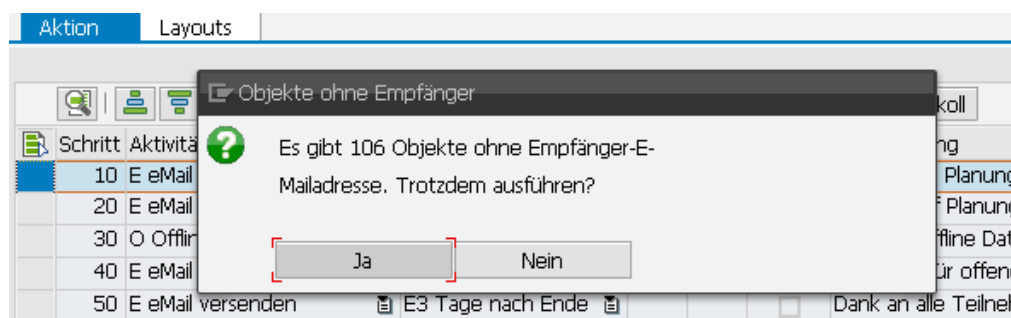


Figure 19.5: Warning if e-mail addresses are missing

Depending on the header data settings of the planning calendar, Allevo creates a log for the sent e-mails. The log may be queried for the activity via button "Log" at any time.

Additional notes about sending offline files:

- Excel files with reference data are generated for offline planning via transaction /ALLEVO/OFFL_GEN (see chapter 18).
- The transaction may be executed in steps (e.g. consecutively for various groups).
- A log entry containing relevant additional information is generated during the export for each exported file: e.g. Allevo layout, file name, relevant objects or the group that the export was executed for (see table /KERN/IPPMBPLOG).
- The planning calendar then again reads this log table and tries to send the file included there (provided that it has been generated via the current layout).

19.8 Technical background

Allevo uses SAPconnect functions for dispatching e-mails, which must be set up correspondingly in the customer system. All dispatch orders are processed via transaction SOST and logged there as well.

20 Additional Allevo modules

20.1 Functional overview

Satellites form the interface between Excel and processing in SAP for a series of Allevo additional features and side calculations. These additional functions can provide data for Excel (reading) or transfer data to the corresponding SAP modules (writing). The following additional modules are described in separate manuals.

Some additional modules can be executed directly during reading and writing of data, or as a separate function where satellites are working while data buffer:

- Depending on the interface complexity, the call as a separate function may be useful for performance reasons.
- Background execution is possible to some extent: the performance gain is then also maintained for direct integration in the Allevo Excel interface (in current Allevo versions, the calling sequence may also be affected).

Allevo constants, which may be set up individually for each interface (e.g. via the Allevo Sat. Assistant, see Section 6.2.), control the execution of a call. Examples:

- ACTIVE_PROCEED Activate ProCED call from Allevo
- ACTIVE_FP Activate call of FP in the Allevo planning layout
- ACTIVE_FP_PARAM Call FP in the background
- SATxx_COPA Direct call of the Allevo CO/PA interface for CO/PA
- ACTIVE_COPA_PARAM Call CO/PA interface in the background

20.2 Profit center planning

Profit center planned values are often generated through a fully automated process called “integrated planning” in SAP. Integrated planning – if active – ensures that a profit center is automatically (or at least by pushing a button) planned with the allocated objects (cost center, order, WBS element). Furthermore, transferring planning data from CO/PA is possible. Therefore, if the profit center is to be directly addressed in planning, there are normally special reasons for working directly on the higher aggregation level of the profit center.

Profit center planning is to a great extent integrated in the architecture of Allevo. The usual Allevo settings are therefore generally available. These include:

- Status management
- MultiPage
- Representative planning (1:n via profit center and account groups)
- Satellites
- Line item display
- Reporting
- Control of the Excel planning interface via row and column definitions

Further information is provided by the Profit Center manual.

20.3 Allevo ProCED

Often, SAP objects cannot be planned according to a strict cost element structure, since different planning events are to be addressed depending on the business purpose. Why then include cost elements in a planning form, where 90% of the cost elements are simply unnecessary for the individual planning event or may affect system performance due to communication with the system?

The Allevo additional module ProCED (Provide Cost Element Dynamics) aims to determine the ideal and therefore often individual cost element structure for the respective planning object beforehand and create the planning form in a dynamic process at runtime. Therefore, it is necessary to set up certain rules for the relevant planning structure for an object or object type.

Further information can be found in the separate ProCED manual.

20.4 CO/PA Interface

From the technical point of view, the planning process of the profitability analysis in SAP (CO/PA) is completely independent from cost center accounting (CCA). This is understandable, since the planning data are based on completely different data models and thus on different entry sheets. CO/PA works with characteristics and value fields that can be flexibly used and individually extended by the customer, while cost center accounting is always based on more or less the same structure of cost elements, activity types and statistical key figures. SAP does not support integration of both planning types in one uniform process.

At this point, interests for implementing an efficient planning process may often be conflicting. How can cost center planning be efficiently structured, when there are interdependencies with the planning of revenue elements, such as turnover or sales volumes? The idea behind the CO/PA interface is the intention to be able to make CO/PA postings from an Allevo satellite. The normal procedure is maintained. Allevo cost center planning is started. The planning of CO/PA elements is done via a satellite. Thanks to the flexibility of Allevo satellites, the planning structure for CO/PA data can be freely designed. Costs are directly posted to the cost center during the planning process. The CO/PA data are entered in the same Excel form and transferred to the satellite on the SAP side. As a result, the satellite in SAP contains all CO/PA planning data that have been entered during cost center planning through an integrated process.

The CO/PA interface receives these data and writes them to SAP CO/PA. Please see the separate manual for CO/PA interface for more details.

20.5 Allevo FP: Flexible Processing

Allevo satellites offer a very flexible solution for integrating detailed data from decentralized planning processes, such as cost center planning, into a central data platform on the SAP side. Possible applications are abundant. Satellites are regularly used to generate and save planning data for activity quantities or primary and secondary costs from a list of detailed measures. Examples include:

- Activity quantities of a sending cost center are determined from a list of recipients and their respective quantities used.
- Tax depreciation costs are calculated on the basis of the individual investment activities of a cost center.
- The costs to be expected for a project are determined on the basis of a list of planned measures.

In all these examples, planning data are not only determined for the cost center to be planned, but implicitly for the respective partner, too. In the first example, this is the receiving cost center, in the second example, it is the investment order, and in the third example the WBS element. The additional Allevo module "Flexible Processing" makes it possible to feed these objects automatically with data.

Please see the separate manual "Flexible Processing" for more detailed information.

20.6 Allevo Shuttle: Edit satellite data/comments

The Allevo module "Shuttle" is started via the menu |Satellites| in the Allevo start dialog. Here it is possible to list the Allevo comments entered so far and edit them if necessary (incl. sheet comments).

Further information can be found in the separate Allevo Shuttle manual.

20.7 Allevo Architect: Create/change master data

Allevo allows create master data relevant for CO directly from the planning process and – with some restrictions – modify them. The functions refer to the following objects:

- CO: Costs centers, internal orders, cost elements & activity types, statistical key figures
- PS: Projects, WBS elements (currently only as customized solution)
- IM: Appropriation requests

The features are continuously being expanded (e.g. G/L accounts, vendors, customers, investments).

Please see the separate Allevo manual Architect & Actual for more information.

20.8 Allevo Actual: Actual Processes and Postings

Allevo makes it possible to create documents for other SAP application areas directly from the planning process; the following application processes are currently supported:

- FI Posting to G/L accounts, vendors, customers, investments
- CO activity allocation, key figures, transfer posting, data entry for SAP CATS
- LO (logistics): Customer order, purchase requisition (under development)

The functions are continuously being expanded.

Please see the separate Allevo manual Architect & Actual for more information.

20.9 Allevo HRC: Personnel Planning and Controlling

Allevo HRC is a controlling tool focusing on statistical key figures that are truly relevant in personnel planning and personnel controlling. HRC does not claim to be able to simulate complex or specialized personnel calculation rules in the plan. The module primarily addresses the (personnel) controller with the aim of performing a fully integrated planning of personnel costs and quantities in SAP CO. The call is only possible via the Allevo ABC.

More information can be found in the Allevo HRC manual.

21 Allevo reporting

21.1 Functional overview

Allevo Reporting provides the tried-and-tested interface between SAP and Excel for the reporting process: monthly variance analyses and forecasts are supported (including feedback and reasons).

Note:	<p>The functions described here are closely related to the standard Allevo, with display of business results as when entering planning data (e.g. structure via row and column definitions) and are in that way rather limited. Other Allevo standard functions, however, may also be perfectly applied in reporting. Examples:</p> <ul style="list-style-type: none"> • Satellites make it possible to transfer data from a variety of SAP sources to Excel (see notes in chapter 15). • The Allevo offline functions make it possible to create and send Excel or PDF files or store them at certain positions in the network. This is ideal for repeated evaluations (see Section 18).
--------------	---

Allevo Reporting may be called via the Cockpit or via single transactions specifically for each object type (e.g. /ALLEVO/KSREP for cost centers). These transactions are also included in the SAP report interface, e.g., as detail view in transaction GR55 (see Section 14.11).

Call and function of the Reporting module are close to the Allevo standard functions of the respective object type (e.g. cost center, profit center, order, WBS element); the expanded selection screen of the respective reporting transaction makes it possible to flexibly specify year/version for the used Excel column definitions.

Allevo Reporting has access to all satellites: it is therefore possible to also include the usual side calculations (e.g. investment or personnel planning). Using the Allevo satellite upload in that way offers an easy way to integrate non-SAP systems as well.

Note:	Different from the planning process, users only need reading authorization for the relevant object for Allevo Reporting (for example, activity 03 for the object K_CSXS_PLA in cost center planning).
--------------	---

Two operating modes must be distinguished when setting up reporting:

1. Standard reporting

The structure of the reporting view is mainly defined by the Controlling. During Customizing, a relative time reference should be set up in the column definitions. If the user changes the main planning year in the start screen, the years will automatically be adapted accordingly in other column definitions.

2. Ad-hoc reporting

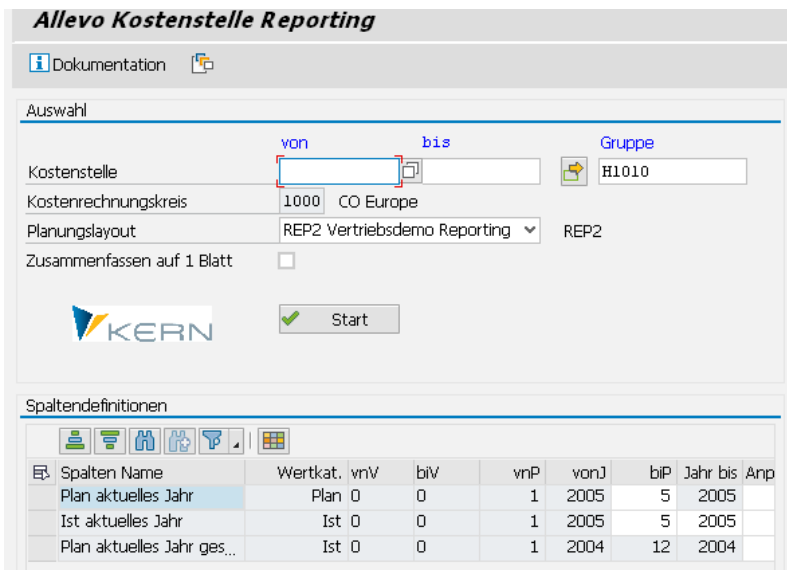
Ad-hoc planning provides more freedom for reporting. The user can directly change the specifications for year and version for several column definitions in the start screen. The controller should only make sure at the turn of period/year that suggested values are correctly set in the Customizing.

Note:	The operation mode "Ad-hoc Reporting" additionally allows the user to change specifications such as year and version directly in Excel (see notes in the Allevo & Excel manual).
--------------	--

It may happen that Excel functions depend on whether data are being planned or the Master is functioning in the reporting mode only. When using a Master both for reporting as well as for planning, it may be useful to evaluate an information about the mode also on the side of Excel (e.g. to individually show or hide columns). This information is transferred from SAP to Excel via the constant MAP_FIELDxx; direct query for the transaction code in Excel is an alternative.

21.2 Example: Cost center reporting

In the following, the reporting is started for cost centers via transaction /ALLEVO/KSREP as an example (see Figure 21.1).



Spalten Name	Wertkat.	vnV	biV	vnP	vonJ	biP	Jahr bis	Anp
Plan aktuelles Jahr	Plan	0	0	1	2005	5	2005	
Ist aktuelles Jahr	Ist	0	0	1	2005	5	2005	
Plan aktuelles Jahr ges...	Ist	0	0	1	2004	12	2004	

Figure 21.1: Selection in cost center reporting

Reporting can be run on any aggregation level (for single objects or groups). When groups are selected, outputs can be on one sheet per group, if the corresponding button “Combine on 1 sheet” is set in the selection view (all single object values are added).

The button may be preset via constant REPORT_MODE: this is useful e.g. if a reporting layout is to be used primarily for totals display. The button is also automatically set and highlighted in grey when selecting objects in reporting via the Allevo Tree function (with constant OBJ_SEL_IN_EXCEL active).

Note: The button label used to be “Group on one sheet”: the function however does not apply for groups but for every selection of objects.

The list in the lower section of the screen shows the column definitions of a layout with all specifications set active for direct change upon start of the reporting transaction (see explanations in Section 6.3). All fields highlighted in white are editable. Usually, at least CX_RR will be included in the list: in many cases, you will define specifications in other columns with reference to CX_RR.

Satellite data are also selected via the main planning year and the corresponding version in Allevo Reporting (specifications in CX_WW).

Note: The technical short names of column definitions are not shown by default but can temporarily be added using the function "Change layout" in the symbol bar.

21.3 Special feature of profit center

For profit centers, the selection screen also shows the company code.

If a profit center is allocated to several company codes, it can be useful to perform analyses on a superordinate level. If necessary, the input field for the company code can be released for this purpose (see constant PC_REP_COMP_SEL). The entry * calculates the totals covering all company codes.

Note: Totaling over several company codes will only give reasonable results when working with the controlling area currency or a uniform company code currency.

21.4 Reporting Views

The following shows one simple example of a reporting view: In May of the reporting year, the person in charge of the cost center is interested in the development of actuals figures compared to plan figures. The focus could be represented as in Figure 21.2:

Jahr		Menge	Wert	Investition	Personal	Total
Filter aus	Monat	Abweichung				
ALLEVO	Pfahler	Jan	Feb	Mrz	Apr	Mai
1000	Corporate Services	2005				
Statistische Kennzahl						
Kostenart						
400000	VERBR. ROHSTOFFE 1	↑ 8343	↑ 8338	↑ 8340	↑ 8337	↑ 8434
*	Zwischensumme 2					
416300	WASSER	↓ -16	↑ 134	→ 3	↑ 115	↑ 1946
430000	GEHAELTER	↑ 428	↑ 1161	↑ 1161	↑ 154	↑ 13654
435000	TARIFL. JAHRESLEIST.	↑ 83	↑ 60	↑ 14	↑ 14	↑ 25
440100	GESETZL. SOZ. AUFW. GEH.	↑ 264	↑ 120	↑ 62	↓ -24	↑ 179
449000	SONST. PERSONALKOSTEN	→ 1	→ 0	→ 2	→ 0	→ 3
*	Zwischensumme 3					
451000	INSTANDH. GEBÄUDE	→ 5	↑ 179	↑ 34	↑ 122	↑ 121
466000	VERSICHERUNGEN	↑ 33	↑ 22	↑ 95	↑ 116	↑ 105
470000	RAUMKOSTEN	↑ 72	↑ 205	→ 6	↓ -61	↑ 72
471000	MASCHINEN-MIETEN	↑ 66	↑ 170	↑ 170	↑ 24	↑ 45
473000	POSTKOSTEN OHNE TEL.	↑ 135	↑ 22	↑ 41	↓ -34	↑ 172
476100	EDV-MATERIAL	↑ 26	↑ 16	↑ 26	↑ 21	↑ 31
476500	SONST. VERWALTUNGSK.	↓ -17	→ 3	↑ 149	↓ -17	↓ -18
476900	SONSTIGE KOSTEN	→ 3	↑ 40	↑ 52	↑ 27	↑ 77
*	Zwischensumme 4					
481000	KALK. AFA SOFTWARE	↓ -17588	↓ -8843	↓ -8840	↓ -8842	↓ -8843
483000	KALK. AFA MASCHINEN	↓ -5958	↓ -5959	↓ -5957	↓ -5958	↓ -5959

Figure 21.2: Example of a Reporting view

In this display, the responsible employee can immediately recognize where action is required. The button |Period| can be used to show the corresponding figures of the period.

Jan	Feb	Mrz	Apr	Mai	Jan	Feb	Mrz	Apr	Mai	Jan	Feb	Mrz	Apr	Mai
2005					2005					2005				
IST					PLAN					Abw.				
94	99	97	100	3	8.437	8.437	8.437	8.437	8.437	↑ 8343	↑ 8338	↑ 8340	↑ 8337	↑ 8434
1.962	1.812	1.943	1.831		1.946	1.946	1.946	1.946	1.946	↓ -16	↑ 134	⇒ 3	↑ 115	↑ 1946
13.650	13.653	13.653	13.585		14.078	14.814	14.814	13.739	13.654	↑ 428	↑ 1161	↑ 1161	↑ 154	↑ 13654
1.123	1.146	1.192	1.192	1.181	1.206	1.206	1.206	1.206	1.206	↑ 83	↑ 60	↑ 14	↑ 14	↑ 25
2.742	2.886	2.944	3.054	2.851	3.006	3.006	3.006	3.030	3.030	↑ 264	↑ 120	62	↓ -24	↑ 179
26	27	25	27	24	27	27	27	27	27	⇒ 1	⇒ 0	⇒ 2	⇒ 0	⇒ 3
3.023	2.848	2.994	2.906	2.906	3.028	3.027	3.028	3.028	3.027	⇒ 5	↑ 179	↑ 34	↑ 122	↑ 121
1.048	1.059	986	965	976	1.081	1.081	1.081	1.081	1.081	↑ 33	↑ 22	↑ 95	↑ 116	↑ 105
3.388	3.255	3.454	3.521	3.388	3.460	3.460	3.460	3.460	3.460	↑ 72	↑ 205	⇒ 6	↓ -61	↑ 72
2.107	2.003	2.003	2.149	2.128	2.173	2.173	2.173	2.173	2.173	↑ 66	↑ 170	↑ 170	↑ 24	↑ 45
1.821	1.934	1.915	1.990	1.784	1.956	1.956	1.956	1.956	1.956	↑ 135	↑ 22	41	↓ -34	↑ 172
496	506	496	501	491	522	522	522	522	522	↑ 26	↑ 16	↑ 26	↑ 21	↑ 31
2.180	2.159	2.014	2.180	2.180	2.163	2.162	2.163	2.163	2.162	↓ -17	⇒ 3	↑ 149	↓ -17	↓ -18
1.295	1.258	1.246	1.271	1.221	1.298	1.298	1.298	1.298	1.298	⇒ 3	↑ 40	↑ 52	↑ 27	↑ 77
17.588	8.843	8.840	8.842	8.843						↓ -17588	↓ -8843	↓ -8840	↓ -8842	↓ -8843
5.958	5.959	5.957	5.958	5.959						↓ -5958	↓ -5959	↓ -5957	↓ -5958	↓ -5959

Figure 21.3: Example of a Reporting view with details on the period

The respective line-item report can be called as in the planning form via button |Line items| (see Chapter 10).

21.5 Reporting with 1:n groups for objects (e.g. cost centers)

The Allevo additional function 1:n describes an object group and the corresponding planning object (e.g. the allocation of a cost center group and exactly one planning cost center). When calling a layout with such 1:n relations via a reporting transaction, Allevo does by default **not** include these group allocations: this means that only the reference data for the representative object are read.

The constant ONETON_REPORTING makes it possible to use these allocations (and summation) in reporting, too.

Note: If button “Combine on 1 sheet” is active in the report selection screen during start of reporting, this constant will be ignored: this means that if the selection (e.g. a cost center group) also contains objects with 1:n allocations during the start, still only the representative object will be considered during combination of all objects on one sheet.

21.6 Reporting comments

Reporting also supports the input of comments: up to three entries can be made, for example to justify and approve differences before presenting the report to the management. This function therefore enhances the communication in the decentralized reporting process of a company.

Reporting comments are saved specifically for the employee. Texts are entered using three special column definitions with predefined key (CC_RP1_N, CC_RP2_N and CC_RP3_N). Unlike column definitions of planning, the entries do not need to be entered in the Allevo settings on the SAP side (for details see Section 21.8.3).

The comments are entered with regard to the planning element as usual; e.g., on the level of cost element or statistical key figure (not group). Use button |Save comments| to transfer comments to the SAP system. A valid row definition is additionally required for writing.

Button |Comment overview| opens a list of comments created so far (see Figure 21.4).



Kostenart	KL-Objekt	Belegdatum	Text	Text
416300		25.11.2010	Rohrbruch Januar	In Ordnung

Figure 21.4: Reporting comments

In the default setting, the comment overview shows a list of all comments made by the currently registered user; the stored F4 value documentation shows a list of all users that have created comments so far.

This list of comments may be restricted via the creation date. Optionally, it is also possible to list old entries that are stored in the Allevo archive for reporting comments.

Note: Comments are saved in table /KERN/IPPREP01. Reporting comments can be archived via transaction /ALLEVO/REPARCH (see Figure 27.5).

The reporting comments are available in the SAP report/report interface, too. Set up is described in detail in Chapter 14.11.

Existing comments can be deleted by entering a blank space in the respective Excel cell. It is not sufficient to simply delete the content, since the Allevo Master does not transfer empty contents to SAP for performance reasons (old entries would therefore remain in table /KERN/IPPREP01).

21.7 Read satellite data

Satellites often contain data of a detailed planning that should be available in reporting as well. However, these data are usually read in Allevo on the basis of year and version in the (write) column definition CX_WW. This (write) column definition, however, usually has no importance in reporting mode, but CX_RR, which may serve as reference for further column definitions, is relevant in this case.

Specifications in CX_RR may automatically be transferred to CX_WW in order to still enable reading satellite data in reporting transactions. This function is controlled by constant FLEX_YEAR and FLEX_VERSION (see F1 documentation).

21.8 Setting up Allevo Reporting

The first step for setting up Allevo Reporting is to create a planning layout for the object type: for a cost center, for example, via transaction /ALLEVO/KS, button |Planning layout|.

The steps required for setting up the planning layout are described in detail in Chapter 7.8. With reference to reporting, the settings described in the following must also be observed.

21.8.1 Activate layout for reporting

In principle, a planning layout can be used for reporting 1:1. X must be set in the column "REP Layout" in the master data of the planning file (as in Figure 21.5).

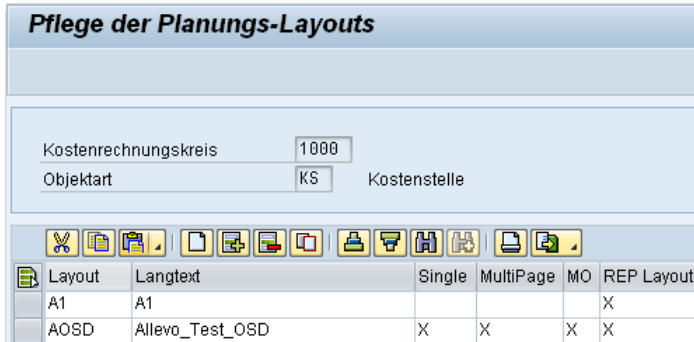


Figure 21.5: Active planning layout for Reporting

It is also possible to create specific reporting layouts, which do not appear in other planning transactions. In this case, only the switch for "REP Layout" must be set (like for A1 in the sample layout in the figure above).

Note: Allevo Reporting only recognizes one start screen per object type. The usual Allevo planning transactions are executed in the background: constant REPORT_MODE serves to control whether calling the respective Single, Multi or MultiObject transaction (see notes there).

21.8.2 Column definitions: attributes for reporting

The maintenance dialog for column definitions provides a "Reporting" section (see Section 6.3.2). Here, the attributes for the column definitions are specified. The section in Figure 21.6 shows the read column group "Actuals current year" as displayed in the start screen in Figure 21.1

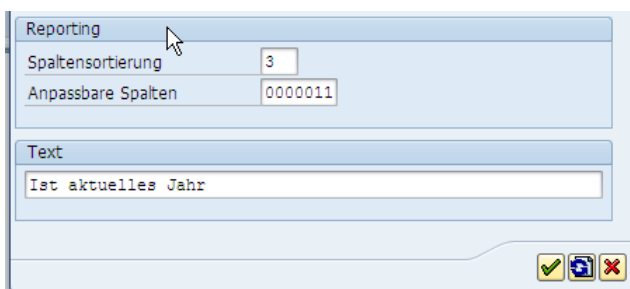


Figure 21.6: Reporting attributes in the column definition

The attribute "Column sorting" specifies where the column definitions will be shown in the selection screen (without this specification, the column definition is not listed).

The attribute "Adaptable columns" indicates which columns will be editable by the user in the reporting view (see white fields in Figure 21.1). The activation code comprises seven digits, which stand for the seven attributes of the column definitions in the start screen of the selection form.

Examples:

- A "1" in the first place indicates that the user can change the value category (actual, plan ...). "0" indicates that no entries can be made in this field by the user.
- "1" in the last two columns (see Figure 21.6) makes it possible to change the end of the planning period (month and year).

Note: In fields with a relative reference, year and period specifications are determined just before being accessed in Excel. The value shown in the Allevo start screen may therefore vary.

In addition, it is recommended not to unlock the year/version fields to be entered when the reference value is relative.

21.8.3 Setting up reporting comments

When setting up reporting comments, please make sure that the column definitions for the three available reporting comments are CC_RP1_N, CC_RP2 and CC_RP3_N. Figure 21.7 shows a different definition compared to the plan comment columns.

CC_RP1_N	CC_RP2_N	CX_WW_N
CC_RP1_N	CC_RP2_N	CY_RV_N
Berichtskommentare Planer	Berichtskommentare Steuerungskreis	Kommentare

Figure 21.7: Column definitions for reporting comments

Comments are saved in table /KERN/IPPREP01.

21.9 Constants for reporting functions

The Allevo Reporting functions may be individually controlled using the following constants:

- REPORT_MODE Define reporting execution mode with two options:
 - Display in Excel (Single, MultiPage, MultiObject)
 - Preset button "Combine on 1 sheet" in the selection screen
- ONETON_REPORTING Treatment of 1:n relations in Allevo Reporting
- MAP_FIELDxx Transfer of additional information from SAP master records
- PC_REP_COMP_SEL Selection company code in reporting for profit center
- BUTTON_COMMENT Buttons for "Save comments"
- BUTTON_COMVIEW Button for comments management
- FLEX_YEAR Read data from satellites via year in CX_RR
- FLEX_VERSION Read data from satellites via version in CX_RR

22 Access to files (e.g. Allevo Master)

22.1 Overview

Allevo needs access to files in different locations. Some examples for the path and file names that must be specified when installing Allevo are given here:

- Depending on the layout, different Allevo Masters may be set up. The access to these Excel templates is certainly the most important basic setting of every Allevo implementation.
- For planners wanting to also save the files in a local system, a meaningful path and file name will be suggested.
- For the offline process, the Allevo Master files are automatically filled with reference data and stored in the file system. A convention on file names is required for this automated storage, in order to prevent mutual overwriting of files. In addition, the file name should give some information on the content of the file (e.g., name of the cost center).
- Some editing functions of Allevo also use the Excel interface (for example satellite management or Allevo Shuttle). The corresponding Allevo templates must automatically be retrieved here as well.
- Allevo provides an F1 documentation containing a description of all relevant constants for individual installation procedures. In addition, customized instructions for the planning process can be stored.

As can be seen from the list, several requirements must be fulfilled, for example, for reading templates or suggesting file names for files to be created. Allevo is highly flexible regarding the way the path and file name administration can be stored in the system (technical implementation). The main characteristics are:

- Any location in the network or other file management systems can be addressed, provided that the directory can be referenced as URL.
- The files can also be stored in the SAP internal document management system (BDS = Business Document Service).
- Allevo uses short names (so-called "symbolic file names") that are translated into the correct access type depending on the application. The user only needs this short name and doesn't have to remember long file names.
- There are fixed symbolic file names that are addressed as soon as a valid file name is referenced. These symbolic file names can, in some cases, automatically be generated from the current data (e.g. layout or controlling area).
- Different constants are available for the individual access control per layout.

Which way is selected for the technical implementation in the individual case, depends on the application and, for example, the specific company's network topology. In order to reduce maintenance time and work, it is recommended to select a central filing location for the Allevo Master. Only in cases of worldwide use, it may be advantageous to save copies in the local network in order to reduce, for example, loading times.

22.2 Compatibility with previous Allevo versions (FILE)

In previous Allevo versions, the SAP customizing transaction FILE had to be set up for accessing files saved in the network. For version 3.0 and higher, the allocations required between symbolic and

physical file names can be made directly in the constants settings in Allevo (using the button |File.assistant|).

To ensure compatibility with previous program versions, settings made via SAP transaction FILE are still being accepted and read. For new projects, we recommend using the Allevo internal solution. The main reason is that the SAP transaction generates a mandate independent Customizing and therefore requires an SAP transfer order.

Note:	The required steps for setting up the SAP transaction FILE are described in previous Allevo manuals.
--------------	--

22.3 Set up Excel Master files

A crucial point for every Allevo implementation is setting up Excel Master files. Since this is so important, the following section will describe access to these files in detail. This sample procedure can be used for all other application cases as well.

By default, the following steps are required for setting up the Allevo Master:

- Creating symbolic file names
- Saving the Excel Master in the BDS or reference to a physical network path to the Master
- Setting up constants that, depending on the layout, refer to different Masters.

Note:	<p>In most of the cases today, the symbolic names can be selected freely, usually with a descriptive short name in order to facilitate the identification of the file (such as IPM1 = international planning master).</p> <p>In previous Allevo versions, these short names were automatically suggested by the system following a predefined naming convention. The free allocation of names and control via the constants is easier to set up and allows a better overview.</p> <p>Previous names are still processed if no file is found, in order to ensure compatibility with previous program releases.</p>
	The previous naming conventions are described in detail in the manuals up to Allevo 2.9.

22.4 Determination logic for the Allevo Master

22.4.1 Control via constants

Two ways of setting up the Allevo Master in the system are described in the first part of this chapter:

- Through the SAP internal document management (BDS) or
- Via storage in network directories

Which method is finally used for accessing the Allevo Master is controlled by a set of rules (such as constants in the layout).

Kostenrechnungskreis	1000		
Objektart	KS	Kostenstelle	
Planungslayout	WZHF5	KS MOD	

Parameter	Wert von	Wert bis	Text
BDS_ENABLED	X	ZWHF_MOD	BDS für Allevo Vorlage verwenden
FILE_TEMPLATE		ZWHF_MOD	Pfad-/Dateiname für Allevo-Master
FILE_DOCU	X	DOK<BUKRS>	Pfad/Dateiname Anwender Doku
FILE_HELP		WHF_HELP	Pfad-/Dateiname bei Festwerte Hilfe Dateien
FILE_DOWNLOAD	X		Pfad-/Dateiname für Offline Download
FILE_OFFLINE		WHF1 OFFLINE	Pfad-/Dateiname bei Offline-Upload

Figure 22.1: Constants for accessing the Allevo Master

In the example of Figure 22.1 above, the constant BDS_ENABLED was used to enable access to the SAP document administration ("Value from" is active). The symbolic file name ZWHF_MOD is used: this must be the name under which the Allevo Master was imported to the BDS before. You can find a detailed description in the following section.

The constant used for the access to a network path is FILE_TEMPLATE. It is not activated here, but the same symbolic file name as for the BDS has been set (the same name can be used). Section 22.6 below describes how to set up a symbolic name for access to the network.

Note: In our example, a symbolic name beginning with Z is used. This is not mandatory; any short name is possible (such as FILE_HELP in the line defining search for help files).

If no symbolic name is set in the field "Value to" for an active constant, Allevo tries to generate such a name using a predefined naming convention (see Section 22.4.2).

If none of the mentioned constants are activated, Allevo will check via the file assistant whether a general symbolic name is defined with an entry depending on the specific application. For accessing an Allevo Master, for example, the symbolic name ALLEVO_TEMPLATE is used.

Note: The Excel template format (*.XLTM) should always be used for storing the Allevo Master via the file management: this ensures that a temporary working copy is created on the user's workcenter when starting Allevo planning. You may optionally use *.XLSM when calling via BDS, since the download process from BDS creates this local copy itself.

If such a general symbolic name is defined in the file management system, the corresponding path will be used; otherwise, Allevo will check all entries that may have been set up via SAP transaction FILE (for compatibility with previous Allevo versions). The general, fixed symbolic names are listed below together with the specific applications.

If these determination steps do not result in any Master being found (e.g. after initial installation for workshop), Allevo will open the usual file selection dialog where the Master can be selected individually (this function is not available in production systems, these always require a determination to be set up).

Note: Figure 19.1 shows an entry for constant FILE_DOKU: the placeholder <BUKRS> is part of the symbolic file name which is replaced by the real short name for the company code in real Allevo planning processes. This functionality allows to meet even the most individual requirements (see section 22.6.2 for details and specific applications).

22.4.2 Symbolic Name Generated by Allevo

In the example above, the constant BDS_ENABLED was activated and, at the same time, a symbolic name was associated. This clearly defines the determination logic.

Another possibility is to activate the mentioned constants without a symbolic name for "Value to". In this case, Allevo tries to generate a name which is then used to retrieve the data from the BDS. The naming convention used is identical to the ones common in previous Allevo versions.

For the Allevo Master, for example, a naming convention with the following components is applied:
ZIPP_(OBART)_(KOKRS)_(LAYOUT)_(IPPGROUP)

The terms in brackets are replaced by the valid parameters:

- ZIPP = Predefined prefix
- (OBART) = Object type key (KS, OR, PC or PR)
- (KOKRS) = Controlling area key
- (LAYOUT) = Planning layout key
- (IPPGROUP) = Entry as in 1:n settings |Group|, otherwise empty

Example: Within the context of cost center planning with the controlling area 1000 and the layout TEST, Allevo will try to find an Excel Master under the symbolic name ZIPP_KS_1000_TEST.

The following table shows a few additional examples:

OBART	KOKRS	LAYOUT	Group (optional)	Symb. Name
KS	1000	PERS		ZIPP_KS_1000_PERS
KS	1000		S1	ZIPP_KS_1000_S1
KS	3000	A111	Market	ZIPP_KS_3000_A111_Markt
OR	4000	D		ZIPP_OR_4000_D
PR	1000			ZIPP_PR_1000

The automatic determination of symbolic names is set up for BDS_ENABLED and FILE_TEMPLATE. In the case that the corresponding constant is active but no entry is available for "Value to", Allevo will try to implement the naming convention.

Note: If none of the constants is active, Allevo will run through the previously used definitions in SAP transaction FILE. The same naming convention applies as described above.

All mentioned examples refer to the naming convention for the Allevo Master. Other applications may require additional name components (see Section 22.7).

22.4.3 Determination steps

The above explanations show that Allevo runs through a set of internal queries in order to find the applicable file name in the determination logic. The following approaches can be used for determining a symbolic name:

- Using a default value
- Reading from field “Value to” of the relevant constant
- Generation of a search term for the symbolic file name using placeholders and data from the current object

The individual steps and conditions required can be summarized as follows (here, as example, for searching a symbolic name for the Allevo Master). Searching always starts with the constant FILE_TEMPLATE:

- If FILE_TEMPLATE is active:
 - The entry in “Value to” has top priority
 - If no entry is available there, the system will try to deduce a symbolic name from the current object data
 - If nothing is specified via |File. Assistant|, the name ALLEVO_TEMPLATE will be used
- If nothing is stored here either, analysis of BDS_ENABLED will be started
- If BDS_ENABLED is active:
 - The entry in field “Value to” has top priority
 - If no entry is available there, the system will try to deduce a symbolic name from the current object data
- Query for SAP transaction FILE with symbolic name according to the naming convention and the current object data
- If no name can be found or no file is stored for the name, Allevo will generate a corresponding message.

22.5 Store Allevo Master in BDS (Business Document Service)

Using the SAP internal Business Document Service has the advantage that access can be set up independent from the rest of the network. For this purpose, the relevant Allevo Master must be uploaded to the BDS before the initial call. This can be done in two ways:

4. Via SAP transaction OAOR (=Business Document Service), allowing to upload any number of documents to BDS
5. Using the equivalent Allevo transaction /ALLEVO/BDS_MNT, with the advantage that relevant Allevo characteristics are preset already
6. Via transaction /ALLEVO/BDS_UPLOAD, which makes it possible to upload several Excel files simultaneously. It is especially useful during the project stage, when new versions of a Master (or several Masters) are regularly created. Previous versions are in that case automatically removed from the BDS.

Note:	When using a large number of documents in BDS, it can be helpful to create an Allevo-specific overview (Settings - show Allevo templates in BDS).
--------------	---

22.5.1 Technical requirements for working with BDS

The class name /KERN/IPPVORLAGEN must be set up in transaction SBDSV1 in order to use BDS for the first time.

It may be useful to copy an existing entry of the type “OT = Other Objects” for this class name, which makes it possible to upload documents to BDS (document class BDS_LOC1, BDS_POC1, BDS_REC1 and object name BDS_CONN00).

Important:	If there are false attributes in SBDSV1, uploading an Allevo Master to the BDS will be cancelled e.g., with output of error message SBDS152.
-------------------	--

In previous SAP versions, XLS used to be stored in the SAP system as the only Excel file format: when using a current SAPGui version however, format XLSM may be used (as for Report writer, 1286768). It may however be required to create an XLSM document type explicitly for working with BDS. The relevant settings are made via the SAP Customizing for “ArchiveLink” in two steps:

- A form type describes the technical format of a document (e.g. XLSM, PDF). Here, characteristics for the MIME type and the application are stored. Entries are made via the SM30 view "V_TOADD". See also SAP note 1895122.
- In a second step, a document type must be set up via transaction OAC2 to enable working in the BDS with form type XLSM.

Note:	All adjustments mentioned here are equivalent to the requirements in other SAP applications with Office integration (e.g. Excel call via Report Writer). They are usually adopted from the SAP basis (possibly upon first transfer of the Allevo transfer order). See also the Allevo installation guide for further details.
--------------	--

22.5.2 Authorizations for working with BDS

Files are usually uploaded to BDS by an Allevo administrator. This requires the following authorizations:

- Authorization to call transaction OAOR or the Allevo-specific transactions named above
- Authorization object S_BDS_DS/BC-SRV-KPR-BDS with
 - Authorization for “/KERN/IPPVORLAGEN” as CLASSNAME.
 - Authorization for class type “OT” as CLASSTYPE.
 - Authorizations 1-6 and 30 in ACTVT.
- Authorization object S_GUI with

- Authorization for activity 60 in ACTVT (for access to a local file directory).

22.5.3 Uploading via transaction /ALLEVO/BDS_MNT or OAOR

Document management in BDS is done via the Business Document Navigator which is started using transaction OAOR. The class name /KERN/IPPVORLAGEN and the class type OT must be specified in the start dialog.

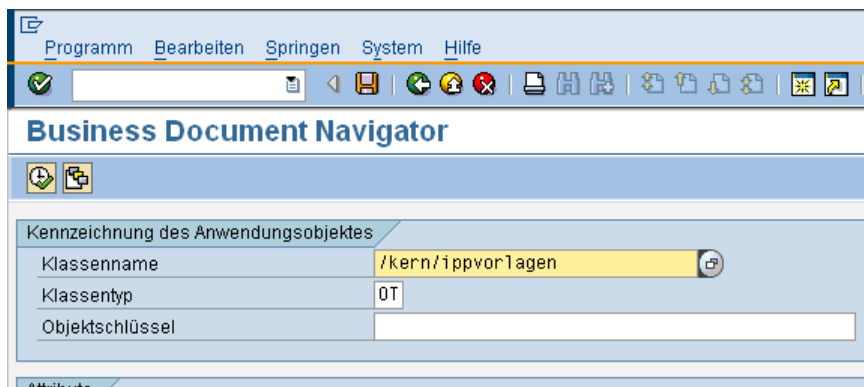


Figure 22.2: Starting the Business Document Navigator (OAOR)

Specifying the object key is optional here: The key can be used to store Allevo templates in folders and is recommended when working with a large number of Excel planning layouts. If the specified object key is not available yet, the corresponding folder is automatically created (with new templates being saved there).

Note:	<p>As an alternative to the start via OAOR, you may also use transaction /ALLEVO/BDS_MNT, which offers the following advantages:</p> <ul style="list-style-type: none"> • The entries for class name and class type are preset. • Only BDS entries of the Allevo naming convention may be accessed in the editing screen. • An F4 documentation is available in the selection screen for the fields for object key and description (display of values created in the BDS thus far). • For the description, which must contain the symbolic file name, you may search using parts of a name and *. <p>Otherwise, the editing functions are identical.</p>
--------------	--

To create a new document (the Excel planning file), double click on Table template on the Create tab in the next window – bottom left in the dialog (Figure 22.3). The files are shown which can be selected to integrate the Excel document.

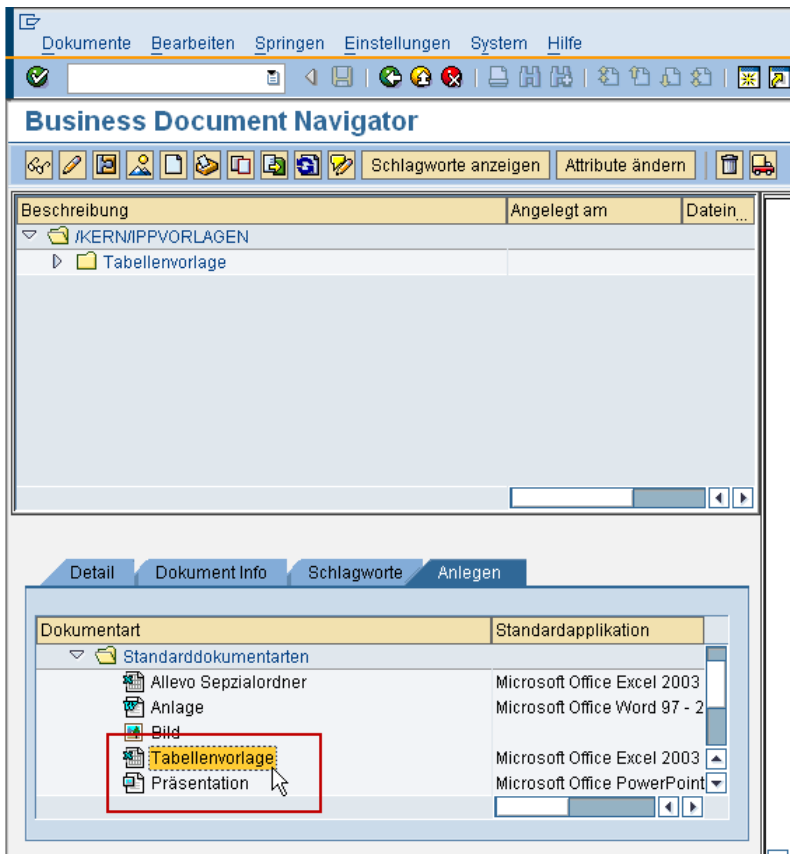


Figure 22.3: Insert an Excel document

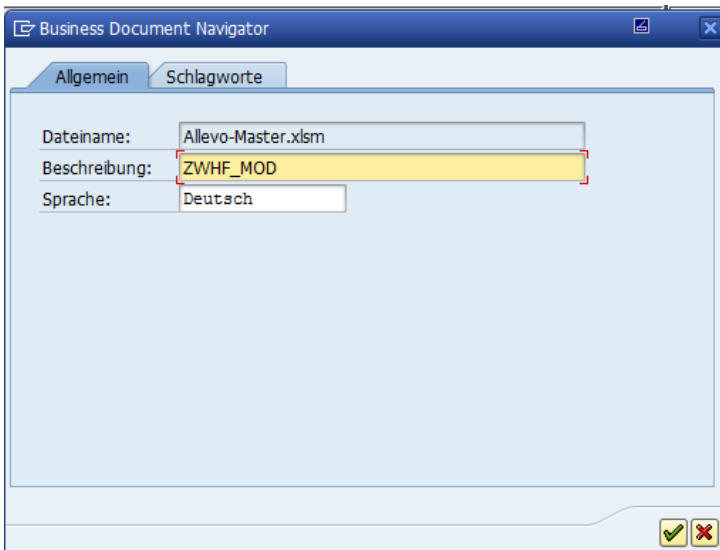


Figure 22.4: File description according to naming convention

Important: Enter the symbolic name to be used for opening the file in field “Description”; i.e. the same name specified for constant BDS_ENABLED.

Within the framework of the SAP function, e.g. via |Document – Change|, the document may be edited and saved again within the Business Document Navigator.

Note: In order to be sure to find the desired Allevo Master, care should be taken to avoid uploading two Masters with the same name to the Business Document Navigator (not checked by BDS!).

22.5.4 Upload via Allevo BDS uploader

The Allevo BDS uploader is started via transaction /KERN/IPP_BDS_UPLOADER or, alternatively, using the button |Upload| in the administration view of the planning layout (in the section "Auxiliary functions").

The BDS uploader allows direct uploading of an Excel file in accordance with Allevo naming conventions. In addition, multiple files can be uploaded at the same time.

Important: The files in the BDS are overwritten if entries with the same name are already available. This prevents accidental access to previous versions.

The selection screen after program start is shown in Figure 22.5.

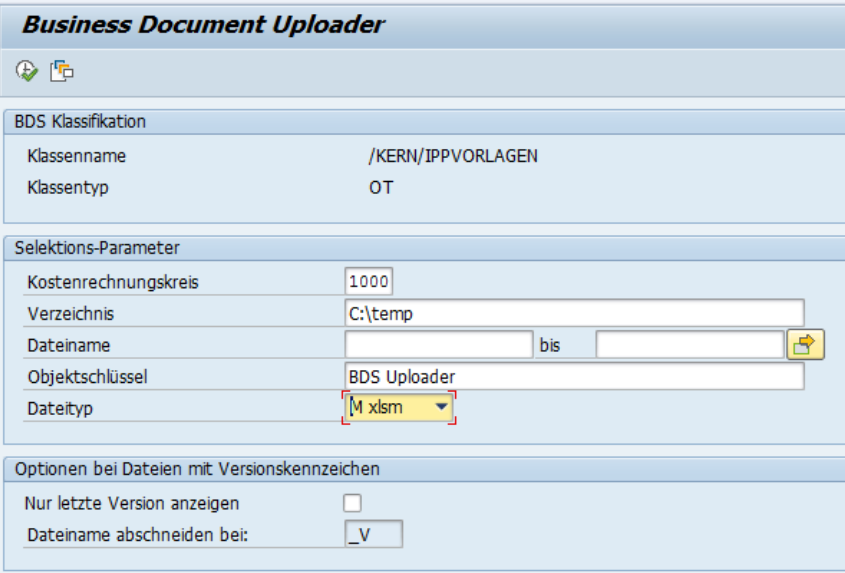


Figure 22.5: Selection for BDS Uploader

The specifications of the class name and class type relevant for Allevo are preset. The directory indicates the source from which one or more Excel files are read: depending on the file type, XLS, XLSM, or both types are included. "File name" can be used to restrict the selection to single files.

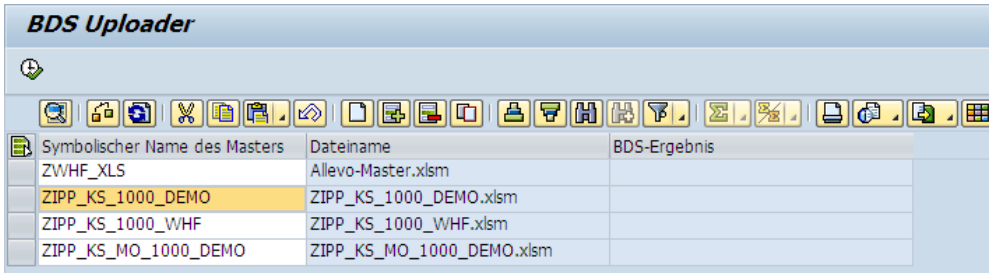
Note: The specification for the controlling area does not directly affect data selection. It is however useful for the allocation of a symbolic file name via the F4 documentation in the next window (see below).

If files with the same name are regularly uploaded, it may be useful to choose the selection variant accordingly.

Note: In addition to the parameters for uploading with OAOR, the characteristic "Object key" is used here (predefined with "BDS Uploader"). All documents uploaded with this transaction are

grouped under this key in the BDS (like folders, you can easily see which way was used for uploading). Manually created documents with another object key are still overwritten, since Allevo only searches for the symbolic names (without regarding the object key).

Having started selecting via F8, a list of all Excel files found is displayed, corresponding to Figure 22.6.



BDS Uploader		
Symbolischer Name des Masters	Dateiname	BDS-Ergebnis
ZWHF_XLS	Allevo-Master.xlsm	
ZIPP_KS_1000_DEMO	ZIPP_KS_1000_DEMO.xlsm	
ZIPP_KS_1000_WHF	ZIPP_KS_1000_WHF.xlsm	
ZIPP_KS_MO_1000_DEMO	ZIPP_KS_MO_1000_DEMO.xlsm	

Figure 22.6: List of files in the BDS uploader

The column "Symbolic name of Master" corresponds to the name in the BDS, under which the Excel file is saved or searched for afterwards (must be identical with the entry in constant BDS_ENABLED). This name can freely be changed: F4 value help shows all names currently found in the system for constant BDS_ENABLED (in form of a list for all planning layouts for the controlling area specified in the start selection).

Note: Both upload and BDS are case-sensitive. The correct spelling must be respected for the symbolic name of the Master.

The name of the Excel file (without extension) is used as the default value in the column "Symbolic name of Master". The ideal solution is to save the original file on the drive with the appropriate name. In this way, no further adaptations are required.

The upload is started via F8 or the "Start" symbol. All files listed are uploaded. All lines that are not to be included in the upload must be deleted! Files on your drive will not be removed.

The results of the BDS upload are recorded in the last column, such as error messages, "added" for new entries, and "changed" if an entry already existed under the same name (entries with the same object keys and names are always overwritten!).

Versions

In the course of a project, the Excel Master is continuously improved. In other words, new versions are steadily created; very often in the same directory even though only the most recent version should be uploaded to BDS. This process is supported by the section "Options for files with version indicators" in the selection screen of the BDS Uploader (Figure 22.5). You might need to set the flag for "Show only last version" there. In addition, a short name can be entered in the field "Cut file name at". This short name defines which files contain different versions of the same Master.

Example: Three versions exist for an Allevo Master with the following file names:

- TEST_1000_V1.xlsm
- TEST_1000_V2.xlsm
- TEST_1000_V3.xlsm

In BDS, the symbolic name TEST_1000 should be used. The cut would in this case be set at "_V". The BDS uploader now searches the file modified last on the basis of the editing date and time, only shows this file and suggests the symbolic file name "TEST_100".

Note: The same object authorizations must be available for working with the BDS uploader as for using transaction OAOR (see Section 22.5.3).

22.6 Allevo-specific file management

In this application too, a symbolic name is used as search term and translated into a precise path and file name (see entry for the constant in Figure 22.1) when executing an Allevo transaction through the determination logics. Allevo uses specific logics with specifications of physical path and file names for translating the symbolic name.

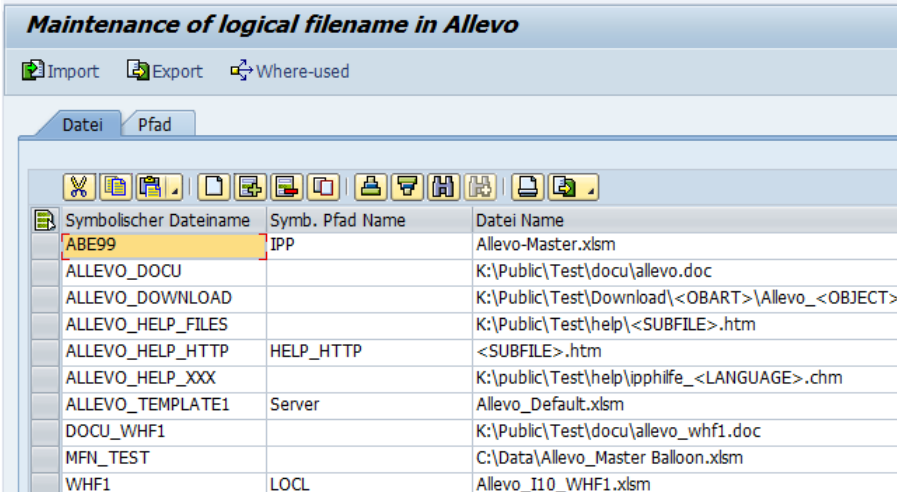
As with Allevo file management, central network paths are used for the SAP transaction FILE to address the relevant Allevo files. The disadvantages of using this variant are:

- FILE is a Customizing transaction; any changes must be made in the development system first and can only then be transported.
- FILE is a generally valid transaction, which can be adapted to Allevo-specific requirements only to a certain extent.

Due to these disadvantages when using the FILE transaction, we recommend using the Allevo integrated file management with its possibilities.

22.6.1 Edit symbolic names in the file assistant

The editing dialog (see Figure 22.7) is accessed via the button |File. Assistant| in the constant view.



Symbolischer Dateiname	Symb. Pfad Name	Datei Name
ABE99	IPP	Allevo-Master.xlsm
ALLEVO_DOCU		K:\Public\Test\docu\allevo.doc
ALLEVO_DOWNLOAD		K:\Public\Test\Download\<OBART>\Allevo_<OBJECT>
ALLEVO_HELP_FILES		K:\Public\Test\help\<SUBFILE>.htm
ALLEVO_HELP_HTTP	HELP_HTTP	<SUBFILE>.htm
ALLEVO_HELP_XXX		K:\public\Test\help\ipphife_<LANGUAGE>.chm
ALLEVO_TEMPLATE1	Server	Allevo_Default.xlsm
DOCU_WHF1		K:\Public\Test\docu\allevo_whf1.doc
MFN_TEST		C:\Data\Allevo_Master Balloon.xlsm
WHF1	LOCL	Allevo_I10_WHF1.xlsm

Figure 22.7: File management: Assign file names

Any number of entries can be made in the column "Symbolic file names". Entries in Allevo are case-sensitive. Upper case letters, however, have proven to be easier to read.

Note:	The Allevo file management system provides an export and import function (see Figure 22.7) making it possible, for example, to save all contents as text files or transfer the files to another SAP system. Import always transfers all contents (existing entries are overwritten).
--------------	--

Some symbolic names are preset, such as ALLEVO_HELP for the help files of the constants. They form the default values if no other constants are defined for specific requirements. These are the default short names:

- ALLEVO_TEMPLATE: Standard master template (independent of the layout)
- ALLEVO_BACKUP: Backup path
- ALLEVO_DOCU: User documentation
- ALLEVO_DOWNLOAD: Download folder
- ALLEVO_HELP: Constant for help files
- ALLEVO_OFFLINE: Storage in the offline process

If these entries are available, no separate reference via constants will be required. The names are automatically shown when opening Allevo file management; the entries will, however, only be saved if a path is entered.

Example:	ALLEVO_TEMPLATE must be set to integrate a central Allevo Master template. The central help file requires an entry in ALLEVO_HELP (see Section 19.5.2).
	Whether the preset names are used in practice depends on the individual project requirements. For central storage of help files, ALLEVO_HELP will be used in most cases. Access via ALLEVO_TEMPLATE, on the contrary, is not recommended when multiple Excel Masters are used.

In most application cases, however, individual specifications exist for the layout, depending on the object or organizational data. These are controlled via the constants, by allocating a symbolic name and the corresponding path and file names in Allevo file management (see example in Section 22.6).

The file names can include placeholders which are replaced by the actual program parameters only when the file is opened. In Figure 22.7, for example, it is the definition for ALLEVO_HELP with the placeholder <SUBFILE> in the file name. When accessing the constant help, this is replaced by the name of the relevant constant. Allevo then directly refers to the relevant chapter in the help file.

If more than one Allevo file are available in the same folder, it is recommended to explicitly specify the file path and a symbolic name on the "Paths" tab.

Maintenance of logical filename in Allevo

Import Export Where-used

Datei Pfad

Symb. Pfad Name	Pfad-Typ	Pfad
Server_Template		\\Server\Allevo\Template\
Server		K:\Public\Test\Allevo_files
OFFLINE	C	C:\Test\Offline\copy
OFFLINE	D	K:\Public\Test\Offline\download
OFFLINE	U	C:\Test\Offline\upload
LOCL		C:\tmp
IPP		C:\ipp\<OBART>\
HELP_PUBLIC		K:\Public\Test\Help\
HELP_HTTP		http://192.168.10.15/
FTP-Folder		ftp://intra.firma.de/files/controlling/

Figure 22.8: File management: define paths

The names specified in the field "Symb. path name" can be freely chosen. Please note that all entries in Allevo are case-sensitive.

The column "Path" designates the directory in the file system where the files are stored. Access to these directories follows the same determination logic as used by the operating system (Windows) - i.e. server name, IP address and URL/FTP path. For example, the first line shown in Figure 22.8 refers to a server path. It must begin with two back slashes (\\). The use of placeholders is also possible (see description for object types in line 7 "IPP").

Note: Specifying a path type is only necessary if the settings refer to offline planning (see Section 19.5.6).

In a final step for accessing the searched file, Allevo connects the specifications on the path and file names. Please make sure that the relevant structural separation mark is included at the end of the path name: such as "\" for Windows path names, "/" for FTP-URL. If no separation key is set, "\" is added at the end by default.

Note: The following test scenario can be used for the path and file name:

- Replace all existing variables by an appropriate value.
- Open the file explorer or a browser.
- Enter the path and file name in the address line and confirm by pressing Enter.
- If specifications are correct, Excel will be started and the respective file will open.

22.6.2 Use of placeholders

For some file functions, it can be useful to use placeholders in order to address or generate different file names depending on the application. Placeholders may be located at any place in the file name or in the symbolic file name. This makes it possible to deal with special requirements. Applications:

- An Allevo layout is normally linked to a Master. Using placeholders in the symbolic file name ("Value to" in the constant) makes it possible to avoid this rule and address different Masters in

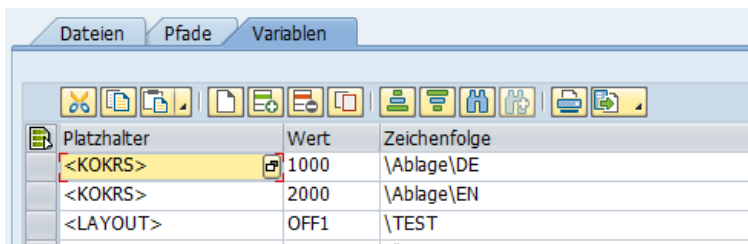
one layout. Example: in case of slow network connections, it may be useful to install the Allevo Master (depending on the region) on different servers to accelerate the starting process. This could also be controlled, for example, via the company code as placeholder.

- Different file names are to be created in the offline process in order to avoid overwriting previously generated files. In this case, a placeholder should be placed in the definition for the file name (e.g. the object number). The file name may also contain placeholders for year and period in order to get a clear name for each period.
- The offline process can also be useful for storing the generated files in previously defined network directories, which are created e.g. according to organizational units and network authorizations. In such cases, placeholders such as <SUBGROUP> may be useful. Each group is then allocated to a specific target directory in file management.

At runtime, Allevo replaces the placeholder by the current parameter during execution: in that way, the currently set controlling area may become part of the currently addressed file path via placeholder <KOKRS>. This makes it possible to address different paths in dependence on the controlling area. The corresponding paths must then be available in the network as well.

22.6.3 Variables and allocated character strings

Sometimes, appropriate paths are not available or should not be created (e.g., due to existing authorizations). For this case, placeholders may be replaced by concrete name parts in the path. Example: The controlling area is 1000, a suitable part in the path name would be “\Ablage\DE”. Allevo supports this implementation through the third tab of the file management (see figure below).



Platzhalter	Wert	Zeichenfolge
<KOKRS>	1000	\Ablage\DE
<KOKRS>	2000	\Ablage\EN
<LAYOUT>	OFF1	\TEST

Figure 22.9: Place holders and allocated character strings

The placeholder is to be specified in the first column. It is followed by the value in SAP and the character string to be used for the respective value. To translate a symb. path, Allevo searches an entry in this table and, if possible, adopts the found characters to the final path. Otherwise, it is the value itself.

This replacement function is of course not always useful for all placeholders, e.g., in case of time specifications such as <TIME>. The possible entries are still specified in the column for the placeholder as F4 value help (except for parameters resulting from column definitions).

* may also be entered as “value”: This entry will be included by the Allevo determination if no specific value is available. Application example: Specific paths shall be addressed for single cost center groups. A standard path is stored for all groups via *.

In individual cases, it may be useful to not translate a parameter into a character string (e.g., in the context of Allevo offline functions). In this case, suffix “!” should be included (e.g. <SUBGROUP>!).

22.6.4 List of possible placeholders (variables)

The placeholders may reflect generally valid system parameters or contain Allevo specifications.

Generally valid system parameters:

Placeholder	Meaning
<OPSYS>	Operating system according to requirements
<INSTANCE>	Instance of the SAP system
<SYSID>	Name of the SAP system
<DBSYS>	Data base system
<SAPRL>	ERP release
<HOST>	Name of computer
<CLIENT>	Client
<LANGUAGE>	Login language, two digits
<DATE>	Current date
<YEAR>	Current calendar year, four digits (to be distinguished from <PLANYEAR>)
<SYEAR>	Current calendar year, two digits
<MONTH>	Current calendar month
<DAY>	Day
<WEEKDAY>	Weekday
<TIME>	Time
<STIME>	Hour and minute
<HOUR>	Hour
<MINUTE>	Minute
<SECOND>	Second

Allevo-specific parameters (variables):

Placeholder	Meaning
<KOKRS>	Controlling area

<BUKRS>	<p>Company code assigned to the current object.</p> <p>In special application cases, such as calling via a group in offline planning, it may happen that no object is available. Allevo will then use the representative object that is possibly stored in the group characteristics in SAP Reporting (see notes in Section 6.5.6 for 1:n groups).</p>
<OBART>	Object type
<LAYOUT>	Allevo planning layout
<OBJECT>	Object number
<PLANYEAR>	Planning year (from CX_WW)
<VERSN>	Version (from CX_WW)
<MAINGROUP>	<p>Main group in the offline module specified in the offline transaction (specification is empty when selecting single objects or From/To).</p> <p>The content is only available upon export/import of a file; not during determination of the symb. name for the Allevo Master.</p>
<SUBGROUP>	Subgroup in the offline module: group that is transferred to the planning transaction in the MultiPage mode or for layout with MOD. It results from the level selected for resolving the main group.
<OBJGROUP>	<p>Group in the standard hierarchy that is stored in the master record of an object; e.g., for the cost center (determination might also be time-dependent based on the period in CX_WW). Available for object types KS, PC, BP and KX.</p> <p>Application case: Offline files shall be saved in sub-directories carrying the same short name as the group in the master record of the respective cost center.</p>
<SUBFILE>	Is only used when accessing Allevo F1 documentation: the placeholder is replaced by the name of the previously selected constant at run time. Allevo then directly refers to the relevant chapter in the help file.
<FILESERVER>	This placeholder is filled with the contents of the user parameter /KERN/IPP_FILESERVER at runtime. The parameter used to be intended for generating customer-specific file names: you can use any text that should be contained in the symb. file name or path (not necessarily only the name of a server).
<OFFL>	<p>Flag for offline mode with the following contents:</p> <ul style="list-style-type: none"> • "0" if Allevo is called in the dialog • "1" if Allevo functions are called via offline transactions (e.g. /ALLEVO/OFFL_GEN) <p>This placeholder is useful, for example, to use a different Master depending on the call via an offline transaction.</p>

The parameters shown in the following, make it possible to use specifications from Allevo column definitions in the current layout. A specific naming convention for placeholders applies in this case. It has the following pattern:

<YY_YY_XXXXX>

with YY_YY representing the five-digit short name of the column definition, XXXXX standing for the placeholder of the desired field (<CX_RR_PERIODTO>, for example would read the field "Value to" of the column definition CX_RR).

Parameters for the column definition:

Placeholder	Meaning
<YY_YY_VERSIONFR>	Version (from-value)
<YY_YY_VERSIONTO>	Version (to-value)
<YY_YY_PERIODFR>	Period (from-value)
<YY_YY_PERIODTO>	Period (to-value)
<YY_YY_YEARFR>	Year (from-value)
<YY_YY YEARTO>	Year (to-value)

Note: Using placeholders with reference to column definitions is recommended, for example, when monthly reporting is established with Allevo using offline transactions. The specification of year and month in the file name prevents overwriting the files of previous months.

22.6.5 Additional editing functions for the placeholder

Additional editing functions can be added to placeholders in order to limit the number of characters in the file name and to reposition the file. Examples:

<KOKRS(2)>	Provides the first two signs of the corresponding parameters: for controlling area ABCD, only AB appears in the file name.
<KOKRS+1>	A parameter is used without the first character: controlling area ABCD in this case becomes BCD.
<KOKRS+1(2)>	Combinations are also possible: controlling area ABCD now becomes BC.
<SUBGROUP>!	<p>The content of a placeholder is not being replaced via allocated character strings as described in Section 22.6.5. Instead, the current content is kept (e.g. short name of a group) and will be used for further determination of a name or a path.</p> <p>Application case: in offline planning, files shall be stored depending on controlling areas in specific directories defined by character strings for <SUBGROUP>. At the same time, the controlling area short name shall appear in the name of</p>

the generated file: here, <SUBGROUP>! should be used (controlling area "H1010" appears with the "H1010" in the file name).

22.6.6 Network authorizations

For accessing the network directories, all Allevo users participating in the planning process need at least reading rights, and in some cases, also writing authorizations (if, for example, backup files are saved there).

22.6.7 File management - example FILE_TEMPLATE

The following example attempts to explain Allevo file management more in detail using the constant FILE_TEMPLATE.

Several Allevo Masters are available on a network path. For constant FILE_TEMPLATE, the following parameters are defined:

- "Value from" contains X to activate the Allevo-specific file management
- "Value to" contains a symbolic name in analogy to BDS_ENABLED

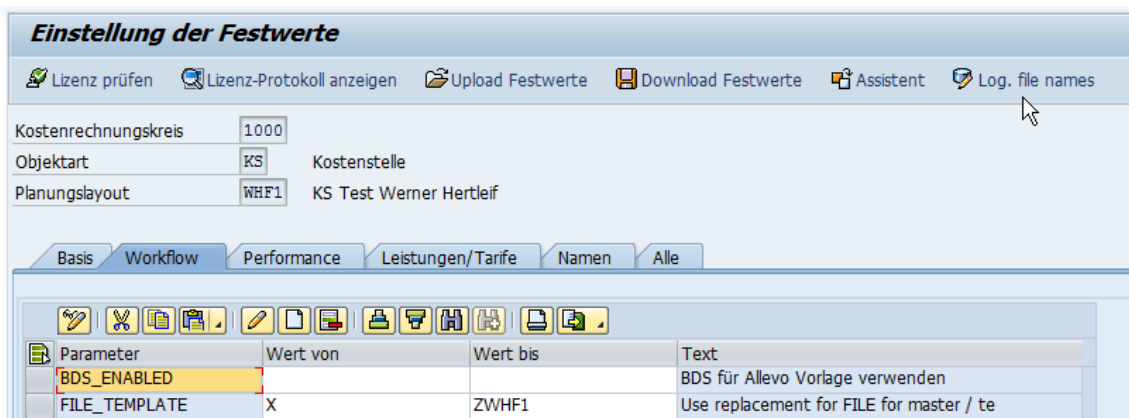


Figure 22.10: File management: Activate constant

In the example in Figure 22.10 above, the symbolic name ZWHF1 is used. It is defined in file management under the file name "Allevo_I10_WHF1.xlsm" and saved under the local path "C:\tmp". After merging, this results in the file reference "C:\tmp\Allevo_I10_WHF1.xlsm" (see last line in Figure 22.7 or Figure 22.8 above).

In this example, the symbolic name was defined in the field "Value to". Without such a definition, Allevo tries to compose the key from the current parameters (like object and layout). The naming conventions explained in the following sections specify which parameters are relevant.

22.7 Other applications

In the following, we will explain other applications, in particular regarding exceptions from standard name determination procedures in the Master.

The description is based on the use of the Allevo file management (see |Settings|, button |File assistant|). If no entry is available here, Allevo will start search runs like in previous program versions (depending on the specific application, queries to BDS or via SAP transaction FILE).

Depending on the application, an appropriate constant must be set in Allevo (starting with FILE_*); a symb. name may alternatively be used as default (starting with ALLEVO_*).

Note:	The internal file management introduced with Allevo 3.0 is still not available for all application areas (such as the Shuttle). The previous rules are applied here (such as storage in BDS).
--------------	---

22.7.1 F1 documentation for Allevo constants

Allevo provides F1 documentation in two languages, where the individual constants are explained. The help is opened via F1 after having placed the cursor in the column "Parameters" or the "Value from" column of the constant in question. Languages DE and EN are available.

Opening the F1 documentation requires Allevo to know the path for the corresponding file. The following parameters for the symbolic name apply:

- Default symb. name: ALLEVO_HELP
- Constant: FILE_HELP

Two alternatives are available

(1) Calling the HTML files on the Kern homepage

The documentation can be called in the browser using the following link:

http://www.kern.ag/allevo-online/Help/EN/hh_start.htm

Capital and lower case are to be observed as in the given link. To directly receive the explanation for the selected constant, the following entry should be stored in the file management:

http://www.kern.ag/allevo-online/Help/<LANGUAGE>/hh_goto.htm#<SUBFILE>.htm

The placeholders <LANGUAGE> and <SUBFILE> are provided with contents by Allevo itself when calling the F1 documentation. The placeholder <SUBFILE> is automatically replaced by the name of the just selected constant: it is in that way directly transferred to the HTML start screen.

(2) Calling CHM files in the customer network

Two files are delivered for this purpose:

- IPPHILFE_DE.chm
- IPPHILFE_EN.chm

When calling the F1 documentation, Allevo automatically transfers the respective constant (<SUBFILE> therefore does not need to be specified). If both help files are stored centrally on a network server that can be accessed by all users, the corresponding path should be stored in ALLEVO_HELP. Example:

k:\Allevo\Help\ipphilfe_<LANGUAGE>.chm

Depending on the login language, different help files may be called. Use placeholder <LANGUAGE> in the definition for the file name (see also example above on the HTML-Help).

If the constant FILE_HELP is active, but no symbolic name is defined in the field "Value to", Allevo will search the file management system for the symbolic name ZIPP_HILFE to ensure compatibility with former program versions. If no path or file name can be determined via the file management, the logical file name ZIPP_HILFE will additionally be resolved in transaction FILE. Only one path should be defined there, where the help files mentioned above can be found (languages are automatically set).

Note: If only the table of contents is shown in the left column when opening Windows help files (CHM files) and the content is missing in the right column, this can be due to a Microsoft security update. This problem occurs when the CHM file is opened from the server via UNC path, or via HTTP.

Microsoft offers several solution approaches and an instruction for their implementation with group rules (see <http://support.microsoft.com>). The following solution uses the security zone variant, which means it determines in which security zones Internet Explorer is allowed to open the CHM file. These settings can be defined using the following registration key:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\HTMLHelp\1.x\ItssRestrictions

Define a DWORD value (32 bit) with the designation MaxAllowedZone and allocate a value (0-4) from the following table.

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\HTMLHelp\1.x\ItssRestrictions

MaxAllowed Zone	Local Zone	"Local Intra-net"	"Reliable Sites"	Internet zone	"Restricted Sites"
0	Authorized	Blocked	Blocked	Blocked	Blocked
1	Authorized	Authorized	Blocked	Blocked	Blocked
2	Authorized	Authorized	Authorized	Blocked	Blocked
3	Authorized	Authorized	Authorized	Authorized	Blocked
4	Authorized	Authorized	Authorized	Authorized	Authorized

Opening and reading CHM files is then possible from the authorized zones.

22.7.2 User documentation

The button "Documentation" in Allevo planning transactions can be used to create one or several customized documentations - object type or layout-specific, if required. When using the Allevo file management system, it is also possible to open the corresponding files through the network. As an alternative, BDS can also be used.

The following parameters can be accessed via the Allevo file management:

- Default symb. name: ALLEVO_DOCU
- Constant: FILE_DOCU

If no entry is available in the file management for the name ALLEVO_DOCU and constant FILE_DOCUE is not active (no X in field "Value from"), Allevo will automatically search for the corresponding files via BDS.

Note:	If the constant FILE_DOCU is active, a valid symbolic file name should be specified in the field "Value to". At this place, no naming convention is defined for the automatic file searching.
--------------	---

When using BDS, the documentation files must be uploaded via transaction OAOR first (or /KERN/IPP_BDS) with class name /KERN/IPPVORLAGEN and class type OT. The following naming convention must be applied to search for the files:

ZIPP_(OBART)_DOKU_(KOKRS)_LAYOUT_(LANGU)

Some parts are optional here; ZIPP_(OBART)_DOKU_(LANGU) for example, which is used to save the documentation for a specific object type and language.

The searching procedure runs through different levels. If, for example, no entry is found for the current layout, Allevo will continue searching on the controlling area level. In some cases, several searching runs in BDS are performed until a matching entry is found.

Example:	Key ZIPP_KS_DOKU_1000_DEMO_DE should make it possible to find the cost center planning for controlling area 1000 with layout DEMO (language DE). If this key is not found, Allevo will first search for an EN language version and then continue searching without layout specification and, if no results are found, without controlling area (the final search term would therefore be ZIPP_KS_DOKU_EN).
-----------------	--

22.7.3 Default directory for file download

Once the planner leaves the Excel interface, a security prompt appears, asking whether he/she wants to save the currently opened file. Allevo suggests a file name and a directory to store the file in, which is predefined by the following parameters:

- Default symb. name: ALLEVO_DOWNLOAD
- Constant: FILE_DOWNLOAD

To create identical download directories for all users, another option is to define the symbolic file name ALLEVO_HELP via the file assistant (see |Settings|). No separate entry is required then for the constant.

When determining the physical path/file name, Allevo distinguishes by path specification and suggested file name. Some examples:

- K:\Public\Download\Allevo_<OBJECT>_<YEAR><MONTH><DAY>
- K:\Public\Download\<OBART>\Allevo_<OBJECT>

In the first case, the same directory is suggested every time, in the second case, a sub-directory is added for each object type. The determined path must be available in the system; otherwise, the SAP default path will be used.

In both examples, the object number (e.g. cost center) is part of the file name; in the first case, the date is specified in addition.

Further application details are described in the F1 documentation for constant FILE_DOWNLOAD.

If the constant ALLEVO_DOWNLOAD is active, but "Value to" is not specified, Allevo will start the searching procedure using a symbolic name with the following naming convention:

ZIPP_(OBART)_**DOWNLOAD**_(KOKRS)_(LAYOUT)

The terms in brackets are replaced by the current values prior to starting the file search. If, for example, a backup is to be made for the cost center Master of controlling area 1000 and layout TEST, the logical file name ZIPP_KS_BACKUP_1000_TEST must be defined via the file assistant. The name must always contain the term "DOWLOAD".

If no file name can be determined using the logic described above, Allevo will start the search procedure from versions up to 2.9 (with the functions of SAP transaction FILE). In this case, Allevo always uses a symbolic name resulting from the above-described naming convention.

Note:	Variables for the physical file name can be used when setting up FILE. If no variables are used, Allevo will automatically follow the convention <OBJECT>_<PLANYEAR>, i.e. the object number (for example the cost center) and the plan year are added to the file name, when saving the backup.
--------------	--

22.7.4 Create backup files

Allevo can save a copy of the planning file in a defined folder for every planning process. Depending on the configuration, this may be the last plan version or a daily backup, for example. This is determined when setting up the name.

Corresponding file names must be set up in file management in order to be able to activate this function. The following parameters are used for the symbolic file name:

- Default symb. name: ALLEVO_BACKUP
- Constant: FILE_BACKUP

The physical file name used when saving the Excel files in the target directory can be customized to meet individual requirements. The corresponding program parameters are again provided to be used as placeholders when defining the physical file name. Example:

ALLEVO_KS_<OBJECT>_<YEAR><MONTH><DAY>.XLSM

Under this file name, a backup is made for each object (here: cost center): one new file every day the cost center is worked on.

If the constant ALLEVO_BACKUP is active but no entry is made for "Value to", Allevo starts searching with a symbolic name following the following conventions:

ZIPP_(OBART)_BACKUP_(KOKRS)_(LAYOUT)

The terms in parentheses must be replaced by the relevant values. If, for example, a backup is to be made for the cost center Master of controlling area 1000 and layout TEST, the logical file name ZIPP_KS_BACKUP_1000_TEST must be defined via the file assistant.

If no file name can be determined by the logic described above, Allevo will start the searching procedure used until version 2.9 (with the functions of SAP transaction FILE). In this case, a symbolic name resulting from the above-mentioned naming convention is used for searching.

Note:	Variables for the physical file name can be used when setting up FILE. If no variables are used, Allevo will automatically follow the convention <OBJECT>_<PLANYEAR> , i.e. the object number (for example the cost center) and the plan year are added to the file name, when saving the backup.
--------------	---

22.7.5 Activity-dependent planning

SAP Office Integration together with a corresponding Excel template are used by Allevo for entering master records of activity-dependent planning. This file is accessed either via the Allevo file management or the SAP Business Document Service. The entry in file management has higher priority here (see also Section 12.2).

A fixed naming convention with the following scheme is applied for the symbolic file name:

Symb. name: ZIPP_LS_XXXX

with XXXX representing the current controlling area.

22.7.6 Application in the Shuttle

The additional module Shuttle accesses Allevo file management using the following naming conventions for the symbolic file names:

ZIPP_SAT_UPL	As general template
ZIPP_SAT_UPL_XX	Satellites of specific Shuttle Masters (with XX as satellite number)
ZIPP_SAT_UPL_XX_ttt	Several Shuttle Masters are saved for one satellite (with "ttt" as any desired text)

See the Shuttle manual for further details.

22.8 Settings for offline planning

Two symbolic file names must be defined in order to be able to start the programs in the offline process:

1. One for finding the Allevo Master
2. One to define the path and file name used to save the Excel files (up and download)

The first one is the Allevo Master name as specified in the layout. No further settings are required for offline use.

Storage of files (second point) requires a few specific definitions for the up and download paths as well as for correctly naming the generated files. The explanation below presumes that the file assistant is used for defining path and file names.

Note: Like in previous program versions, the settings can also be set via SAP transaction FILE. Disadvantage: this transaction generates a client-independent Customizing and requires an SAP transfer order (must therefore be executed in the development system of the user). When using the Allevo transaction, settings can be defined in the target system and more functionalities are available.

22.8.1 Assign file names (File.Assistant)

The relevant controlling parameters for the symbolic file name are:

- Default symb. name: ALLEVO_OFFLINE
- Constant: FILE_OFFLINE

In the planning layout to be used for executing offline functions, the constant FILE_OFFLINE is usually activated and a valid symbolic file name is assigned to it. If the constant is inactive, Allevo will check whether the symbolic name ALLEVO_OFFLINE is available in the file assistant and possibly use the path specified there for exporting and importing files.

Note: If no name is found, Allevo will search for definitions in the SAP transaction FILE. In our example, the relevant symbolic names are found with a broader naming convention. The basics will be described in the section below.

SAP transaction FILE, used until Allevo 2.9, is by far more complex than the Allevo file management system. For this reason, it should only be used to ensure compatibility with existing Allevo installations.

The symbolic name defines the names offline files are given and the directory to which the files will be saved. The file names generated when reading and saving reference data must be unique and identical to avoid overwriting existing files. Therefore, it is recommended to use placeholders in the file name, which will be replaced by the actual data when generating the files. In Section 22.6.2, you can find a list of predefined parameters.

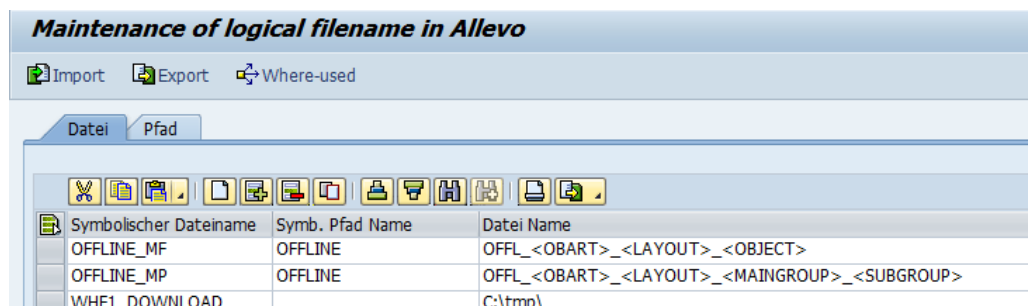


Figure 22.11: File management: File names for offline mode

Figure 22.11 shows examples for two variable file paths. The first entry can be used for offline planning in MultiFile or MultiObject mode (MF, MO), where one file is created for each representative object. In cost center planning processes with the layout TEST, the file OFFL_KS_TEST_1000.XLSM would be generated for cost center 1000.

Note: If the object is not specified in the file name, the ID of the relevant single object will automatically be added for the functions MF and MO

The file name in the second line of Figure 22.11 is suitable for MultiPage mode (MP). In this mode, one file is generated for each combination of group and subgroup.

In both cases, the symbolic path name "OFFLINE" is allocated, ensuring correct separation of files during upload/download (see Section 22.8.2).

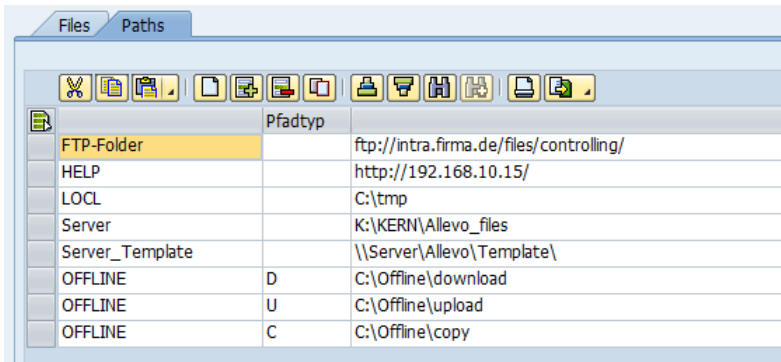
22.8.2 Allocate File Paths (File.Assistant)

When working with offline transactions in Allevo, three folders are required for each planning layout:

- All Excel files needed for planning are stored in the download directory. These files contain all reference data required for planning.
- The upload directory must contain all files that are to be imported into the SAP system after completion of the offline planning.
- The import transaction then saves all files which have been successfully transferred to SAP in the copy directory.

Note Usually, three different directories are used for the single files. If Allevo recognizes that directories for up and download are identical, it will neither copy nor delete any upload files.

Although three different directories are used, only one symbolic name is required. The three file paths are distinguished by the "path type". The same symbolic path name must therefore be created three times with specification of the path type and directory (see OFFLINE in Figure 22.12).



	Pfadtyp	
FTP-Folder		ftp://intra.firma.de/files/controlling/
HELP		http://192.168.10.15/
LOCL		C:\tmp
Server		K:\KERN\Allevo_files
Server_Template		\\Server\Allevo\Template\
OFFLINE	D	C:\Offline\download
OFFLINE	U	C:\Offline\upload
OFFLINE	C	C:\Offline\copy

Figure 22.12: File management: Paths for the offline mode

The path type specifies the folder used for downloading, uploading, and copying the files. There is no restriction to the number and type of folders allocated; reading and writing authorizations must be available

22.8.3 Symbolic names (transaction FILE)

There is an SAP specific file management provided via transaction FILE. Allevo will use this if no symbolic name for the offline mode could be found via its own file management (see previous section).

Example: There are some restrictions for the use of transaction FILE compared to Allevo file management. It is only supported for compatibility with previous Allevo versions.

Please refer to our manuals of previous Allevo versions (up to Allevo 2.9) for more information on the steps required for setting up the offline mode using SAP transaction FILE. Here, we will only refer to the naming conventions used for the symbolic name compared to the short names MF, MP and MO, used today.

The naming convention for accessing files via transaction FILE again contains the object type, controlling area and planning layout with the following structure:

ZIPP_(OBART)_XXXXX_(KOKRS)_(LAYOUT)

The shortcut "XXXXXX" has a specific control function, since it defines the folder type to which reference is made. The following table shows possible values for the download, upload and copy folders.

Execution Type	Download	Upload	Copy
MultiFile	MFDOWN	MFUPL	MFCOPY
MultiPage	MMDOWN	MMUPL	MMCPY
MultiObject	MMODOWN	MMOUP	MMOCOPY

Example: The entry ZIPP_KS_MFDOWN_1000_LOCL designates the download folder in controlling area 1000 with planning layout LOCL (object type KS = cost center, type of execution MF = Multi-File).

The fact that folder types are distinguished via the symbolic file name has the consequence that at least three symbolic names must be created via transaction FILE (correspondingly higher, when more layouts and controlling areas are used).

23 Authorizations in Allevo

23.1 Functional overview

In general, Allevo uses the authorization rules according to SAP. When opening Allevo planning, it is particularly checked whether the user has the authorization for planning the relevant SAP objects (e.g. for cost centers in the context of cost center planning). Planners may therefore read and plan the same via an Allevo transaction in the same way they would via the original SAP transactions.

Note:	There may be some exceptions to that rule. Example: The controlling area is a central organizational element of Allevo planning; here, changes are possible using an Allevo internal function and do not explicitly require an authorization for the execution of SAP transaction OKKS.
--------------	--

Allevo distinguishes two different user modes:

- The **planner** is the person who is in charge of, for example, cost center planning. They are able to activate the Allevo Master via the SAP transaction and transfer the planning data of their cost center to SAP. The term “planner” comprises pure reporting tasks, in case that the reporting is not handled separately.
- The **controller** performs all other task of the different levels:
 - Typical controller tasks, such as the preparation of Excel files, maintenance of auxiliary tables in SAP (“satellites”), maintenance of settings for planning (“constants”, Allevo-specific additional tables), control of planners, etc.
 - Rather administrative tasks such as backup and restore of satellites and planning comments, set up and execution of regular planning support operations, etc.

Depending on the structure of your company and requirements during the planning process, some tasks may be assigned to the Controlling or rather to the administration. General allocations are therefore neither possible nor reasonable. These tasks may also be separated on the SAP authorization level if necessary.

Caution:	Some areas of the authorization management may rather be assigned to the SAP authorization administration by creating a customized authorization object. In this case, it is essential to proceed in a coordinated manner in order not to completely stop current project tasks or even the production operation. More information will be provided in the following sections.
-----------------	--

When planning the granting of SAP authorizations in the Allevo environment, it has proven to be useful to separate business from Allevo organizational authorizations (at least on the role level). This does not automatically apply to the creation of composite roles.

In line with the initially mentioned Allevo maxim not to avoid any SAP authorizations, reporting and planning components of Allevo may be viewed as alternatives to the SAP standard transactions.

Additional time must only be invested for those planners that have not been planning as SAP users so far but are meant to do so in the future. In this case, corresponding business roles are probably missing. Strictly speaking, this is not part of the Allevo introduction but a positive consequence of consolidating effects of Allevo, since important business processes are no longer running outside the SAP system.

The necessary tasks may be very different for the Allevo organizational SAP authorizations. The business component, however, usually drops out, since controllers are already equipped with appropriate authorizations.

23.2 Planner roles

A planner role usually consists of:

- One to four authorization objects with a few values, and
- The appropriate planning and reporting transactions

The possible authorization objects for maintenance are shown in the following figure.

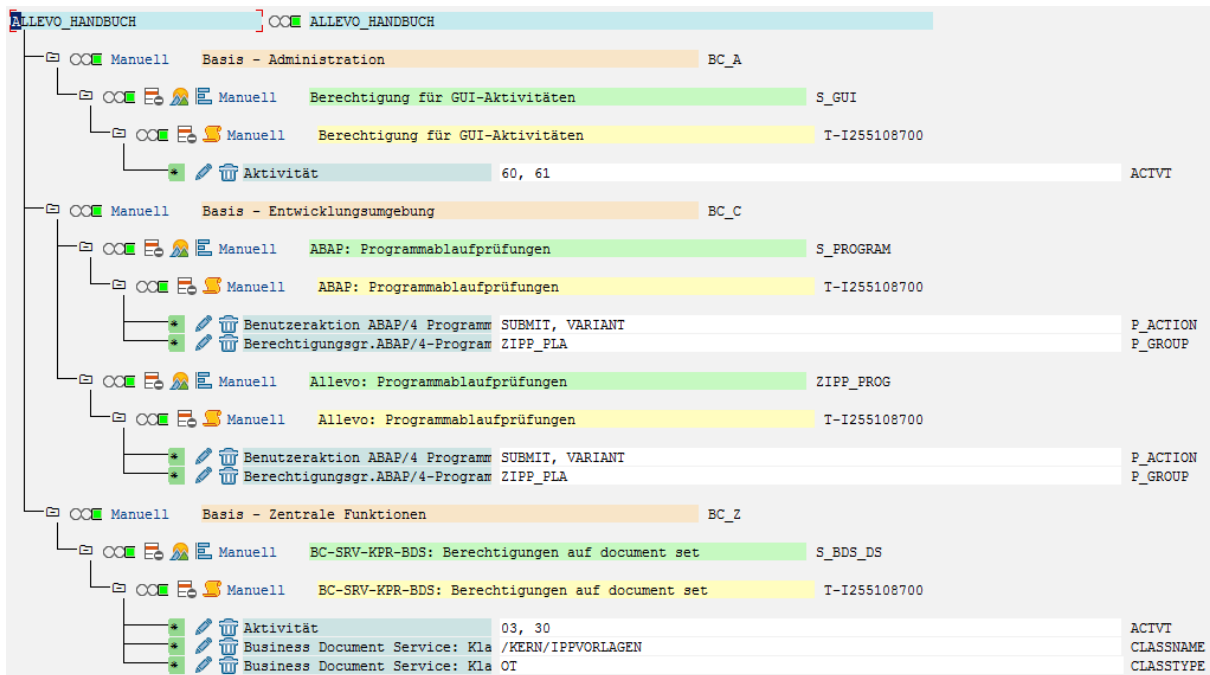


Figure 23.1: Role with authorization objects for planners

Characteristics of authorization objects:

Authorization Object	Authorization Field	Value	Comments
		60	Import
		03	Export
<i>S_PROGRAM</i>	P_ACTION	SUBMIT	
		VARIANT	Create/modify planning
	P_GROUP	ZIPP_PLA	Show planning
	KOKRS	<...>	
	KOSTL	<...>	
	KSTAR	<...>	
	ACTVT	27	Show summary records
	KSTAR	<...>	
		02	Change
		03	Show

23.3 Controller roles

Users with the role of a **status administrator** see the additional bar "Services" with additional buttons for data maintenance in |Satellites| and for access to the |Status management| when the Allevo transaction is opened (see section 7). Three sub-roles can be defined in status management

- Status administrator for status 1 – 4
- Status administrator inspector: status 5
- Status administrator reviewer: status 6

Compared to the planner and the status manager, the **administrator** has the additional right to access to administration menus (|Settings| and |Planning layout|; see Chapter 6 and Section 7.8).

In the case that different planning layouts (see Section 8.2) are used simultaneously, the **super administrator** may also issue access administrations for individually defined planning layouts and for the individual administration menus.

These Allevo-specific roles are mapped via the standard authorization concept of SAP (see Section 23.5).

Note:	In some cases, it may be useful to add such Allevo-specific functions to the authorization rules available in SAP. Allevo offers an additional, own authorization check, which is described in Chapter 24.
	Other specific authorizations are applicable for the layout definition and/or viewing and editing data in satellites (see corresponding sections in this manual).

23.4 Allevo transactions

Authorizations for the following transactions are required for working with Allevo (depending on the license model):

- Central Allevo transactions

/ALLEVO/COCKPIT	The Cockpit is a central entry point for controllers and provides a way to call all other Allevo transactions via the menu. Access authorizations to the subordinate transactions are supervised for each of these calls.
/ALLEVO/COCKPIT_ALL	Like /ALLEVO/COCKPIT, but without authorization check for the available transactions.
/ALLEVO/AGENDA	Allevo Agenda as entry for planners

- Single transactions for the central Allevo planning functions

Object Type	Single	Multi	MultiObject	Reporting
Cost centers	/ALLEVO/KS /KERN/IPPKS	/ALLEVO/KSM /KERN/IPPKSM	/ALLEVO/KSMO /KERN/IPPKSMO	/ALLEVO/KSREP /KERN/IPPKSREP (/KERN/IPPKSREPK)
Orders	/ALLEVO/OR /KERN/IPPOR	/ALLEVO/ORM /KERN/IPPORM	/ALLEVO/ORMO /KERN/IPPORMO	/ALLEVO/ORREP /KERN/IPPORREP
WBS elements	/ALLEVO/PR /KERN/IPPPR	/ALLEVO/PR /KERN/IPPPRM	/ALLEVO/PRMO /KERN/IPPPRMO	/ALLEVO/PRREP /KERN/IPPPRREP
Profit Center	/ALLEVO/PC /KERN/IPPPC	/ALLEVO/PCM /KERN/IPPPCM	/ALLEVO/PCMO /KERN/IPPPCMO	/ALLEVO/PCREP /KERN/IPPPCREP
Business process	/ALLEVO/BP /KERN/IPBPB	/ALLEVO/BPM /KERN/IPBPBM	/ALLEVO/BPMO /KERN/IPBPBMO	/ALLEVO/BPREP /KERN/IPBPBREP
Allevo objects	/ALLEVO/KX /KERN/IPPKX	/ALLEVO/KXM /KERN/IPPKXM	/ALLEVO/KXMO /KERN/IPPKXMO	/ALLEVO/KXREP /KERN/IPPKXREP

- Transaction for calling Allevo additional functions (usually for administrators)

Transaction	Description
/ALLEVO/SHUTTLE	Satellite uploads or downloads and table editing
/ALLEVO/TAB or /KERN/IPPTAB (old)	<p>Allevo table maintenance (former view 5 in the Shuttle).</p> <p>Display of table contents in the Kern AG naming environment (exceptions are HRC tables with posting information).</p> <p>To display data in satellites, the user must be authorized for at least one Allevo layout (as for Shuttle call). The authorization group ZIPP_HR1 is required to display data in HRC tables.</p> <p>The transaction comprises a change mode, which is linked to authorization group ZIPP_TAB. The function is only meant for support cases.</p> <p>For further details, please see Section 27.9.</p>
/ALLEVO/SAT_BACKUP	Satellite backup
/ALLEVO/SAT_RESTORE	Satellite restore
/ALLEVO/SAT_BKR	Set up satellite backup/restore

/ALLEVO/REPARCH	Archiving and management of comments
/ALLEVO/OFFL_GEN /ALLEVO/OFFL_IMP	Offline planning (generation of offline files and import planning)
/ALLEVO/FILE	Allevo file management
/ALLEVO/BDS_UPLOAD /ALLEVO/BDS	Upload Excel Master to the SAP document administration (BDS). Upload Excel Master to BDS as for TA OAOR, but with restriction to the Allevo specifications for class name and type.
/ALLEVO/CP_IDL	Transfer of customized transactions to the Cockpit.
/ALLEVO/AGENDA /ALLEVO/START_MNT	Central processing of Allevo Agenda contents.
/ALLEVO/CAL /KERN/IPPCAL_DISTR	Allevo Planning Calendar with e-mail notifications. Central configuration of mailing lists for the planning calendar.
/ALLEVO/STATUS	Direct call of the Allevo status management.
/ALLEVO/LAY_INFO	Layout overview (list of layouts with key figures)
/ALLEVO/APPROG	Display Allevo logs in the SAP Application Log

- Allevo object

Transaction	Description
/ALLEVO/OBJECT /ALLEVO/OBJ_MD	Master data for Allevo object
/ALLEVO/OBJ_GROUP	Master data group/hierarchy for Allevo object

- Other Allevo additional functions (only required in exceptional cases)

Transaction	Description
/ALLEVO/GRP_EXP /KERN/IPP_GRP_EXP (old)	Resolve object/cost element groups and export to Excel
/KERN/IPP_AGGR	Create Allevo summarization levels
/ALLEVO/SAT_LITEMS	Provide line items for offline planning/reporting
/ALLEVO/UP_DOWN	Cross-module up/download of settings

- Transactions for calling additional modules (usually for administrators)

Transaction	Description
-------------	-------------

/ALLEVO/FP	Additional module Flexible Processing; see user manual “Flexible Processing” (reading and writing)
/ALLEVO/PROCED	Dynamic provision of relevant posting combinations for all object types supported by Allevo
/ALLEVO/COPA	Allevo interface to CO/PA (reading and writing)
/ALLEVO/SAT_MD_CR	Create CO master data via satellites
/ALLEVO/FI_POST	Create FI posting documents via satellites
/ALLEVO/CO_POST	Transfer of actual data to the Controlling (via satellites)
/ALLEVO/HRC_START	Allevo HRC personnel controlling

Direct access to the general SAP planning transactions (such as KP06, KP26, KP46 for planning cost centers) are not required for execution of Allevo.

23.5 Authorization object ZIPP_PROG for program execution

An authorization object ZIPP_PROG allowing for control via authorization groups (authorization field P_GROUP) should be available in the system when using Allevo. A list of authorization groups for Allevo can be found below.

Allevo checks for availability of an appropriate authorization group for the current user in its program modules. Whether and which parts of Allevo the user is authorized to open and execute, therefore depends on the group that they belong to.

Note:	<p>The authorization object ZIPP_PROG is optional: if not available, Allevo will check the alternative entries for authorization groups stored in S_PROGRAM.</p> <p>Since S_PROGRAM is also used by other SAP users, we recommend creating ZIPP_PROG in all cases. An orderly approach for the creation is to be ensured, i.e. including all relevant authorization groups (since otherwise Allevo may no longer be used).</p>
--------------	--

Suitable single authorizations are available for each function in the Allevo start screen.

To minimize the administrative effort, superior authorization groups representing a meaningful combination of single authorizations may be selected: Allevo now checks single authorizations first and then (if not fulfilled) the superior groups.

23.5.1 Available Single Authorizations

The following authorization groups are available for single authorizations:

- **ZIPP_STT**
Authorization group for status management; is checked upon call via button |Status management|
- **ZIPP_ST5**
This group makes it possible to assign status 5 (checked) in status management. ZIPP_STA is required in addition to call the status management (see also special notes in Chapter 7). Additional functions:

- (1) The user (inspector) may remove Status 5; e.g. change it to Status 3 to revise planning.
- (2) In current Allevo versions, the inspector can modify planning data even with Status 4 (release).

Constant AUTH_ST5_REDUCE makes it possible to adjust these functions.

- **ZIPP_ST6**
If belonging to this group, status 6 (release) may be assigned in the status management. ZIPP_STA is required as well (see also special notes in Chapter 7).
- **ZIPP_SAT**
Authorization group for direct satellite maintenance; checked upon call via button |Satellites|
- **ZIPP_LAY**
Authorization group for layout administrators; checked when calling via button |Planning layout| in the Allevo start screen. Creating/modifying master data for the layout or assigning authorizations also requires ZIPP_ZMM.
- **ZIPP_SET**
Authorization group for maintenance of layout settings (button |Settings|) and central maintenance of Agenda entries.
- **ZIPP_TAB**
Additional authorization for general table maintenance via transaction /ALLEVO/TAB (equal to the 5th layout of the Shuttle).
- **ZIPP_MM**
This authorization group allows the execution of offline download functions (see Chapter 18).

The following single authorizations refer to Allevo additional modules and are not contained in any superior authorization group (see next section).

Authorization group	Area	Meaning
ZIPP_KOM	Comment	Authorization for the administration of backups for reporting comments via transaction /KERN/IPPREPARCH (see Section 27.5).
ZIPP_MD1	Architect	Create/change master data
ZIPP_MD5	Architect	Simulation mode for creating/changing master data
ZIPP_MD9	Architect	Set up Mapping / constants for creating master data
ZIPP_FI1	Actuals: FI documents	Create or cancel FI documents
ZIPP_FI5	Actuals: FI documents	Simulation mode for creating/cancelling FI documents (test run)
ZIPP_FI9	Actuals: FI documents	Set up Mapping / constants for FI
ZIPP_CO1	Actuals: CO actual documents	Create CO actuals documents

ZIPP_CO5	Actuals: CO actuals documents	Simulation mode for creating CO actuals documents (test run)
ZIPP_CO9	Actuals: CO actuals documents	Set up Mapping / constants for CO actuals documents
ZIPP_LO1	Actuals: logistics document	Create or cancel logistics documents
ZIPP_LO5	Actuals: logistics document	Simulation mode for creating or cancelling logistics documents (test run)
ZIPP_LO9	Actuals: logistics document	Set up field assignment / constants for logistics documents
ZIPP_CP1	CO/PA Interface	Allevo CO/PA scheme administrator.
ZIPP_CP2	CO/PA Interface	Allevo CO/PA constant administrator
ZIPP_CP3	CO/PA Interface	Allevo CO/PA administrator allocation table
ZIPP_FP1	FP Flex.Planning	Allevo FP scheme administrator
ZIPP_FP2	FP Flex.Planning	Allevo FP constant administrator
ZIPP_FP3	FP Flex.Planning	Allevo FP cancellation administrator
ZIPP_HR1	HRC	Allevo HRC administrator (without planning authorization)
ZIPP_HR2	HRC	Allevo HRC global planner (without check on HRC authorization groups)
ZIPP_HR3	HRC	Allevo HRC evaluations
ZIPP_HR4	HRC	Allevo HRC master data
ZIPP_HR7	HRC	Allevo HRC Reporting (without check on HRC authorization groups).
ZIPP_HR8	HRC	Allevo HRC Reporting
ZIPP_HR9	HRC	Allevo HRC planner (HRC authorization groups are also considered)

23.5.2 Superior authorization groups

The following superior authorization groups form a combination of single authorizations according to meaningful roles for the Allevo planning.

- **ZIPP_PLA (planner)**

This group allows the execution of Allevo planning functions, and therefore corresponds to the role of the planner. ZIPP_PLA is in any case necessary for calling the single transaction start screen. It is not included in any other group.

- ZIPP_CST**
 ZIPP_CST is composed of ZIPP_LAY and ZIPP_SET; it therefore opens layout and settings maintenance. ZIPP_ZMM is required to create/change layouts or assign authorizations (as for ZIPP_LAY).
- ZIPP_ADM (administrator)**
 This group makes it possible to execute the administration tasks, corresponds therefore to the role of the administrator.

 ZIPP_ADM summarizes the following authorizations: ZIPP_STA, ZIPP_CST and ZIPP_MM, or alternatively the single authorizations ZIPP_LAY and ZIPP_SET, if ZIPP_CST is not defined.

 Additionally, ZIPP_ADM authorizes the adjustment of settings in FP and the CO/PA interface (see descriptions there).
- ZIPP_STA (Status administrator)**
 This group makes it possible to control the status management – usually the role of the status administrator/division controller. ZIPP_STA summarizes ZIPP_STT and. These authorizations allow for changing the status between 1 and 4.
- ZIPP_ZMM (Super administrator)**
 Additional authorization for creating/changing layouts (including constant upload via transaction /ALLEVO/SET_UP_DOWN). This groups makes it possible to execute the Allevo-specific authorization management for planning layouts (see Section 8.5). Furthermore, authorizations for the single administration menus (see Section 24.4) may be assigned in dependence on the planning layout.

Schematic illustration of the three levels (without ZIPP_ST6 and ZIPP_ST5):

ZIPP_PLA	ZIPP_ZMM	ZIPP_ADM				ZIPP_TAB
Planner	Super Admin	Administrator				Table management
		ZIPP_STA		ZIPP_CST	ZIPP_MM	
		Status management/Satellites		Layout settings	Offline planning	
		ZIPP_STT	ZIPP_SAT	ZIPP_LAY	ZIPP_SET	
		Status management	Satellites	Layout admin.	Settings	

Note: Authorization groups contain all authorization groups located below on one level (cumulative). SAP roles must comprise several of such groups depending on the task.

23.5.3 Create and assign authorization groups

The authorization groups are included in the installation kit. Manual processing is possible by creating and maintaining groups and associated texts in tables TPGP and TPGPT via transaction SE16.

The corresponding authorization groups are then assigned to the respective user via roles or activity groups in the authorization group ZIPP_PROG (alternatively S_PROGRAM) by setting the variables “P_ACTION = SUBMIT” and “P_GROUP = authorization group”.

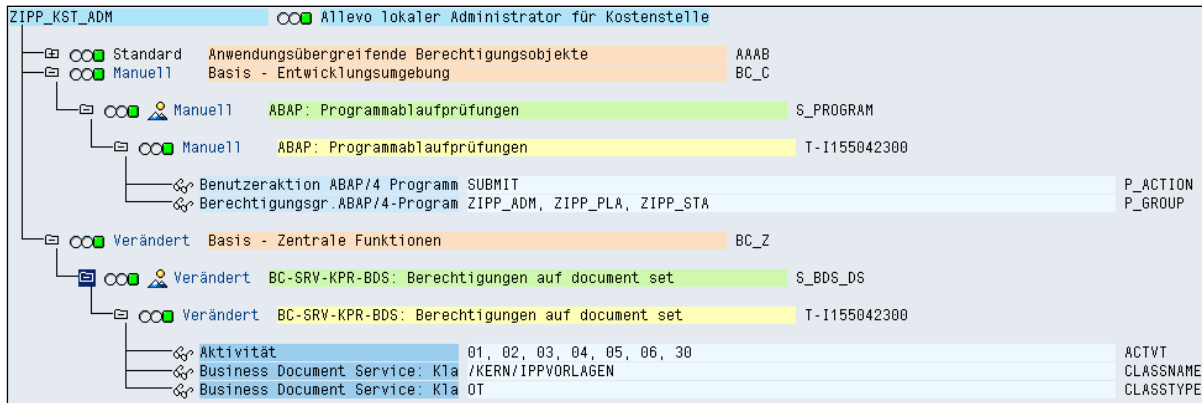


Figure 23.2: Example for the authorizations of a local administrator

Furthermore, the respective user must hold SAP authorizations for cost center planning (orders, WBS elements, profit center) as well for the display of actual values.

23.6 Authorization object ZIPP_LAY for layout access

Allevo uses the authorization object ZIPP_LAY to control the access to planning layouts: this authorization object is only evaluated by Allevo if provided by the system. The access authorization may additionally be controlled via Allevo-specific settings (see Section 8.5).

Note:	The authorization object ZIPP_LAY is to be distinguished from the authorization group of the same name, which is described above.
	In addition to this short overview, a detailed documentation can be provided by Kern AG upon request.

Important: this functionality is activated in the moment that the authorization object has been created by the administration (e.g. via transaction SU21). The corresponding profiles, roles and user master records must then be added as well: users with no appropriate profile cannot start Allevo planning.

The authorization object ZIPP_LAY uses the characteristics controlling area, object type and Allevo layout (here, patterns such as * may be entered). The activities 33 for reading as well as 72 for planning are currently being used (with 33 also required for 72).

23.7 Authorization objects for the Business Document Navigator

The restriction of authorizations for a certain class name in the Business Document Navigator (transaction OAOR or /KERN/IPP_BDS) is done in the authorization object S_BDS_DS (BC-SRV-KPR-BDS: authorizations on document set).

As parameter for CLASSNAME, enter “/KERN/IPPVORLAGEN”. The restriction to the required class type OT can be specified under CLASSTYPE. The activities (1-6, 30) are maintained under ACTVT.

23.8 Authorization checks for planning and reporting

23.8.1 Overview

Before reading reference data and before new planning data can be saved in SAP, Allevo checks whether the current user holds the required SAP authorizations: this is done for every object and where appropriate for every cost center (especially in the MultiPage and MultiObject mode). The check covers 4 situations:

- Start of Allevo
- During object selection in the Tree
- In the MultiPage mode for every sheet (object)
- In the MultiObject mode for every object

Where appropriate, an authorization check is therefore performed prior to calling the Excel planning interface (e.g. single object). If the start object is representative for a group, each determined object of the 1:n group is checked (see also constant USE_1N_AUTH).

Which checks are performed depends on the object type. Allevo uses functional modules recommended for the respective object type by SAP (e.g. K_CSXS_PLA_AUTHORITY_CHECK for cost center planning): a documentation is sometimes provided there. These modules may also contain customer-specific extensions/checks.

Note:	In addition to the SAP authorization checks, Allevo performs its own access checks in the situations named above, providing further controlling options. These Allevo-specific access checks will be described in Chapter 24.
--------------	---

The checks usually follow the subsequent scheme (exceptions occur in the MO mode, see below):

1. Check for availability of an authorization for the respective object. Authorizations for "Show planning data" and "Change planning data" are checked, depending on whether Allevo is to be started in the reporting mode or for planning.
2. Checks on the start object: when calling a planning transaction, range, or contents of a group:
 - a. Authorizations "Show planning data" and "Show summary records" must be available
 - b. When planning is called, "Change planning data" is also checked
3. Check for each object and cost element while reading reference data
 - a. If more than 10 cost elements are to be read, the check will be done for "Show summary records" first for combinations of objects with *
 - b. If (3a) is not successful, an individual check for "Show summary records" is performed for each combination of object and cost element
4. Prior to saving planning data, Allevo checks the writing authorization for each object and cost element (check on the cost element level may be switched off via constant).

The following sections explain, which SAP authorization objects are being queried in the respective application: listed for each object type with the relevant characteristics for planning and reading (corresponds to transaction SU21). The lists may serve as a basis for setting up suitable Allevo roles. Some characteristics are only mentioned for completeness; they can be recognized by the placeholder "<...>", contents must therefore be "selected appropriately by the customer".

Allevo has an internal reporting and reading mode that partially affects the authorization checks as well (see following sections).

Some features of the authorization checks may also be individually controlled via constants. Examples:

- Checks on the cost element named in (3) may be prevented using constant NO_KSTAR_CHECK (e.g. for performance reasons).
- Constant RIGHT_OBJECT_PSP allows for an individual control of the authorization check for projects and WBS elements. Even though SAP offers dependencies from organizational units, there are no authorization objects where, for example, a WBS number may be stored.
- Constant AUTHORIZATION supplements the SAP authorizations named so far by Allevo-specific authorization checks. Their contents will be described in Chapter 24 in this manual.
- When including all objects while working in with MultiObject, you may not want the start object to be checked, especially if it is not being planned itself. For this application case, constant AUTH_PLAN_START is useful (see section below).

23.8.2 Differentiation planning / reporting / reading mode

Allevo internally distinguishes a planning and a reporting mode; this is the basis for the SAP authorization checks for the activities "Create/change" or "Read". Consequences:

The "Reading mode" is active in the following cases:

- The planning object is already closed for planning (i.e. from status 4).
- In the layout settings, only the flag for "Read" is set.

The reporting mode is applied in the following situations:

- Call of an Allevo Reporting transaction, such as /ALLEVO/KSREP.
- Allevo planning is called for a combination from year/version, even though this combination is not released for planning in the Customizing (exception KX object: planning is possible if active, since data are saved in Allevo-specific tables).
- Working with the reporting layout in the ABC (see corresponding attribute in the master record for the layout).
- Call of a group in the object Tree (the planning mode may however be forced via constants as well).

Consequences:

- Button "Adopt planning data" is no longer available in either of the cases (automatically hidden). In reporting mode, however, comments may still be stored. This requires BUTTON_COMMENT to be active (comment functions are deactivated in reading mode).
- The reading mode does not directly affect the extent of the SAP authorization check; normally, the check for the activity "Create/change" is performed. In reporting mode, the authorization check is only performed with "Read".

23.8.3 Authorization checks in MultiObject mode

In this case, different object types may be included for planning (e.g. cost centers and corresponding internal orders). This requires authorizations for all involved object types (regardless of the start transaction).

In some cases, planning is even performed without the starting object, especially when using the additional module ProCED: the start object (e.g. a cost center) then only serves to identify assigned objects (e.g. orders and WBS elements). A planning authorization for the start object is not necessary: constant AUTH_PLAN_START defines what will be checked upon the start. Normally, however, the Allevo status must be maintained for the start object (see also constant STATUS_READ_ALL).

23.8.4 Check for the cost element

A cost element authorization check is by default performed for all objects named in the following. The activity "02 = Change" is only checked in the planning mode.

Authorization object	Auth.field	Value	Comments
	KSTAR	<...>	
		02	Change
		03	Show

This check on the cost element level may be deactivated via constant NO_KSTAR_CHECK.

23.8.5 Cost centers

Allevo uses the functional module K_CSXS_PLA_AUTHORITY_CHECK for the authorization check of cost center planning (see corresponding documentation in SE37). The module specifically checks the authorization object K_CSXS_PLA for each cost center addressed in the Allevo Master. A check for the display of summary records is done via function K_REPO_CCA_AUTHORITY_CHECK.

The following authorization objects/checks are relevant.

Authorization object	Auth.field	Value	Comments
	KOKRS	<...>	
	KOSTL	<...>	
		02	KS Change planning data
		03	KS Show planning data
	RESPAREA	<...>	
		1002	Create/change planning
		1003	Show planning
		3027	Select summary records
	KOKRS	<...>	
	KOSTL	<...>	
	KSTAR	<...>	
	ACTVT	27	Show summary records

23.8.6 Orders

Allevo uses the functional module K_ORDER_AUTHORITY_CHECK for the authorization check with internal orders. The module specifically checks the authorization object K_ORDER for each object addressed in Allevo.

The following authorization objects & checks are relevant.

Authorization object	Auth.field	Value	Comments
	RESPAREA	<...>	
	AUFART	<...>	
	AUTHPHASE	<...>	
		1002	Create/change planning (only required for planning)
		1003	Show planning
		3027	Select summary records
	AUFART	<...>	
	KOKRS	<...>	
	KSTAR	<...>	
	ACTVT	27	Show summary records

23.8.7 Profit center

For the profit center authorization check, Allevo uses the functional module K_PCA_RESP_AUTHORITY_CHECK. The module specifically checks the authorization object K_PCA for each profit center addressed in the Allevo Master (applies for new and classic general ledger).

The following authorization objects/checks are included:

Authorization object	Auth.field	Value	Comments
	RESPAREA	<...>	
		1002	Create/change planning (only required for planning)
		1003	Show planning
		3027	Select summary records
	KSTAR	<...>	

For the classic general ledger, Allevo profit center postings are performed via Batch input to the corresponding SAP planning transactions; the following authorization objects must be assigned for this purpose (not necessarily required for the new general ledger).

Authorization object	Auth.field	Value	Comments
	BRGRU	<...>	
	ACTVT	16	Execute
	GLRLDNR	8A	
	GLRRCTY	<...>	
	GLRVERS	<...>	
	ACTVT	02	Change
		03	Show

See also SAP note "103818" about the PC authorization management.

23.8.8 WBS elements / projects

SAP offers several possibilities to control the planning authorization for a WBS element. However, the WBS element or project is never part of an SAP role.

In the standard case, Allevo runs only one authorization check in the application area project system; as well as the usual check on the cost element level.

Authorization object	Auth.field	Value	Comments
Standard authorization checks for object type PR			
	PSARG	0131	Planned costs
		A	Show
		V	Change

Constant RIGHT_OBJECT_PSP activates another SAP authorization object for the check in Allevo. The associated checks refer to organizational parameters from the master record of the WBS element or project (e.g. depending on the cost center or profit center). These options are described in detail in the F1 documentation on the constant.

Note: This concept of authorization check has been revised from Allevo version 3.3.18 and differs from the previous logic in central aspects. For information about earlier versions, please see previous documentation.

23.8.9 Business process

Allevo uses the functional module K_CBPR_PLA_AUTHORITY_CHECK for the business process authorization check (check for authorization object K_CBPR_PLA), as well as functional module K_ABC_AUTHORITY_CHECK to display summary records.

The following authorization objects/checks are relevant.

Authorization object	Auth.field	Value	Comments
	KOKRS	<...>	
	PRZNR	<...>	
		02	Change GP planning data
		03	Show GP planning data
	AUTHAREA	<...>	
		1002	Create/change planning
		1003	Show planning
		3027	Select summary records

23.8.10 Allevo object

The Allevo-specific authorization check is available for Allevo objects.

23.9 Authorization Checks for |Status management| and |Satellites|

The constant LIST_RIGHT_CHECK is used to activate specific authorization checks in the named functions. These correspond to the checks required for calling CO reports (e.g. created via SAP ReportPainter).

23.9.1 Authorization for the object display in |Status management|

Two conditions lead to the execution of an authorization check for displayed objects in status management (exception is object type PR where there is no check available yet):

- By default, the planning authorization for objects is queried upon call by the status manager (at least authorization group ZIPP_STA).
- If status management is opened by a user with a planner role ("Value from" set for STATUS), status management will appear in display mode. In this case, the selection of objects may additionally be restricted via LIST_RIGHT_CHECK (the check is then done for reading authorization).

The authorization check is performed with the same function as during start in the Allevo Single or MultiObject (see further below). The check for cost center as example:

Authorization object	Authorization field	Value	Comments
For cost centers			
	KOKRS	<...>	
	KOSTL	<...>	
	ACTVT	02	Planning
		1003	Show planning
		3027	Select summary records

23.9.2 Object selection under function |Satellites|

From Allevo 3.3, the function |Satellites| directly branches to the Shuttle as a general Allevo tool for data editing in satellites. This call automatically includes the constant AUTHORIZATION_SHUTTLE (possibly in compliance with the Allevo-specific authorization check, in previous versions it was LIST_RIGHT_CHECK).

With an active constant, the following authorization checks are performed during selection of the relevant cost centers and orders (no check is available for other object types yet):

Authorization object	Auth.field	Value	Comments
For cost centers			
	KOKRS	<...>	
	KOSTL	<...>	
	ACTVT	02	
	RESPAREA	<...>	
	KSTAR	<...>	
	CO_ACTION	1002	Create/change planning
For orders			
	RESPAREA	<...>	
	AUFART	<...>	
	AUTHPHASE	<...>	
	CO_ACTION	1002	Create/change planning

23.10 Create FI posting documents

The check for the following authorization objects is performed on the header and item level.

Authorization object	Authorization field	Value	Comments
FI documents			
	BUKRS	<...>	Company code of postings
	ACTVT	01	Create
	KOART	S	Postings to G/L accounts
		D	Postings to customers
		K	Postings to vendors
		A	Postings to investments
	ACTVT	01	Create

The above-named authorization groups must be available for the execution of the corresponding transaction (create and cancel).

23.11 Constants that affect authorization checks

The following constants allow for an individual control of authorization checks (while SAP checks are still being performed).

- NO_KSTAR_CHECK Deactivate Allevo authorization check for cost element
- NO_KSTAR_LIST Authorization check of cost elements with no output list
- AUTH_PLAN_START Planning authorization for start object
- RIGHT_OBJECT_PSP Configure authorization checks for project
- LIST_RIGHT_CHECK Authorization check in status management

- STATUS Authorization to also display the status management for planners
- AUTHORIZATION_SHUTTLE Shuttle with authorization checks
- AUTHORIZATION, OWN_AUTH_TRACE Control of the Allevo-specific authorization control (see notes in the next chapter)
- USE_1N_AUTH Resolve object group depending on authorizations

24 Allevo-specific access checks / authorization control

24.1 Overview

Allevo-specific access checks represent a redundant authorization check and should only be used if available SAP authorizations cannot sufficiently be restricted and if administration of authorizations is to be done by Controlling.

The Allevo-specific access check does NOT disable SAP authorizations. It is always in addition, and is therefore restrictive.

Note:	The Allevo-specific access checks further provide functions that are not available in the SAP standard. The “Only-Group” function, for example, defines that planning is only allowed by starting from a group (with WBS elements via project), and can then not be done from a single object.
--------------	---

The access checks are available for all object types supported by Allevo (cost centers, orders, profit center and WBS elements). They are also particularly useful for Allevo objects, since SAP-specific authorization checks are – for understandable reasons - not available here.

Currently, the Allevo-specific access checks do not distinguish between authorizations to make changes (planning) and for reading (e.g., for reporting).

The following steps activate the access checks:

1. Create a customer-specific table (for example, in namespace Z) to include all relevant authorization relations. A maintenance dialog must be created for data entry (e.g. via SM30) and, if necessary, also a suitable transaction.
2. Activate the check via constant AUTHORIZATION.
3. For every field in the customer table, mapping can be entered in Allevo Customizing with the corresponding Allevo-specific field.

The steps will be described in detail in the following sections.

Two procedures are distinguished for the creation and use of the customer-specific authorization tables:

- The table may be arranged for all objects, and authorizations can be entered in a common Z table for all relevant object types (both for cost centers and orders). You can immediately see what is included for the respective user; data types in the table must be generally applicable.
- As an alternative, you can arrange the table specifically for each object type; this may require several Z tables. This can be a meaningful solution if you want to use different authorization strategies depending on the object type: e.g., search via groups for cost centers or authorization for WBS elements via individual criteria that are stored with patterns. While creating the table, data types may be used specifically for the respective object type (e.g., KOSTL for cost center); this might also facilitate maintenance.

The examples in the following sections are reflect a cross-object approach, thus following the first procedure.

Note: Allevo authorization control has been fundamentally revised in Allevo 3.0. The enhanced functionalities are no longer compatible with previous program versions. Please remember this when upgrading!

The functionalities of previous versions are included in the new functions: incompatibility mainly affects the names in field assignments. When upgrading to the new version, these constants must be re-allocated.

Another option is to set the "Value from" parameter in the constant AUTHORIZATION to "2" (instead of X) in order to be able to continue using the previous authorization check (and in that way the previous name): this "solution" is only temporarily available.

24.2 Table with Allevo-specific rules for access checks

The access checks are represented in an SAP table: this can often be a customer-specific table (in name space Z).

Note: Further explanations also refer to a customer-specific table.

For Allevo 3.4 and higher, however, an authorization table for standard applications is already contained in the standard delivery (table name /KERN/IPPAUTHSMP). This table may be used as default without any mapping.

Transaction /ALLEVO/AUTH_MNT is available for creating entries.

The table must contain a field for each desired feature of the access check. The field names may be freely assigned following internal guidelines.

Sicht "Allevo eigene Berechtigung ab version 3.0" anzeigen: Übersicht

Benutzername	Obj-Index	KKrs	Art	Layt	Gruppen...	Planungsobjekt	Bis Planungsobjekt
HERTLEIF	1	1000	KS	WH*	H2130		
HERTLEIF	2	1000	KS	WH*	H1010		
HERTLEIF	3	1000	KS	WHF1		1110	1200
WENZM	1	1000	KS	ABEM	H2100		
WENZM	3	1000	KS	WHF1	H2132		
WENZM	4	1000	KS	WHF1		1000	
WIESEW	1	1000	PR	PR01		T-20301.*	
WIESEW	2	1000	PR	PR01		T-20302.+++1	
WIESEW	3	1000	PR	PR01		T-20303	T-20305

Figure 24.1: Allevo authorization table: Example for cost center

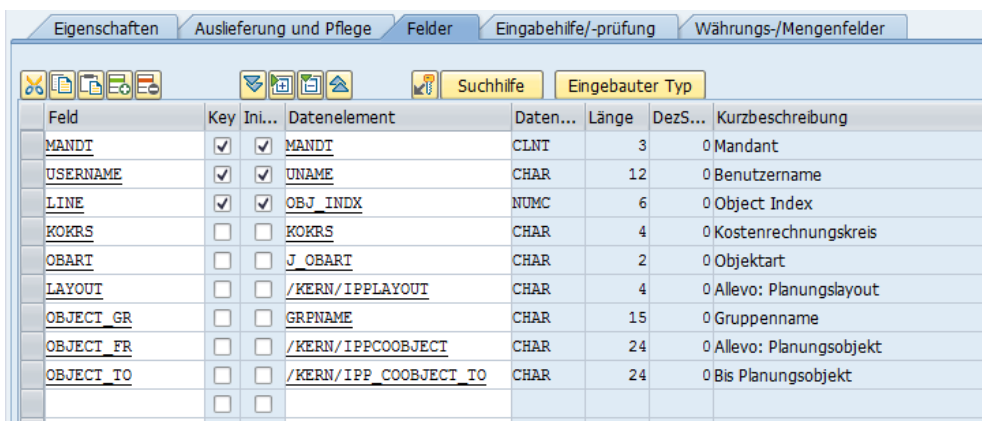
Access checks are assigned on the basis of individual users: see first column in Figure 24.1. In this example, checks have been assigned for cost centers and cost center groups (object type KS): the user may only call a cost center if directly specified, located in one of the ranges indicated there or contained in one of the groups.

In this example, a cost center can be authorized as single value or as range with From/To specification: the same fields are being used, since the authorization control will know how to perform the query itself.

A group assignment is required for opening Allevo planning from a group (e.g. in MultiPage mode). In this case, the access check only searches on the group level (not for the included objects). If a group is released, starting from groups arranged on a lower level in the hierarchy is then allowed as well.

The example also shows how access checks can be maintained depending on the layout: a direct layout entry allows access only for the specified layout, whereas entries with WH* allow for access to all layouts starting with WH. The greatest advantage of these patterns is that they may significantly lower the number of data records that need to be entered. Except for the user name field, patterns may be used in all fields; e.g., also for specifications on the object as shown in the last rows for WBS elements (useful, since the project structure can usually also be recognized from the structure of the short name).

The figure below shows the table structure of the example above (via transaction SE11); it additionally contains recommendations for useful data elements.



Feld	Key	Ini...	Datenelement	Daten...	Länge	DezS...	Kurzbeschreibung
MANDT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MANDT	CLNT	3	0	Mandant
USERNAME	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	UNAME	CHAR	12	0	Benutzername
LINE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	OBJ_INDX	NUMC	6	0	Object Index
KOKRS	<input type="checkbox"/>	<input type="checkbox"/>	KOKRS	CHAR	4	0	Kostenrechnungskreis
OBART	<input type="checkbox"/>	<input type="checkbox"/>	J_OBART	CHAR	2	0	Objektart
LAYOUT	<input type="checkbox"/>	<input type="checkbox"/>	/KERN/IPPLAYOUT	CHAR	4	0	Allevo: Planungslayout
OBJECT_GR	<input type="checkbox"/>	<input type="checkbox"/>	GRNAME	CHAR	15	0	Gruppenname
OBJECT_FR	<input type="checkbox"/>	<input type="checkbox"/>	/KERN/IPPCOBJECT	CHAR	24	0	Allevo: Planungsobjekt
OBJECT_TO	<input type="checkbox"/>	<input type="checkbox"/>	/KERN/IPPCOBJECT_TO	CHAR	24	0	Bis Planungsobjekt

Figure 24.2: Field definitions in SE11 for the authorization table

The table corresponds to the general model described in the beginning: there is a column OBART for the object type; both cost centers and WBS elements are specified in the same field (e.g. OBJECT_FR).

Since the authorization check performed later does not only compare values directly, **make sure to use character fields as data elements**. This is especially important if patterns are to be used and prevents unwanted conversions between internal and external representation. For the object level, for example, you may use the data element /KERN/IPPCOBJECT.

A unique key must be defined to allow several entries for each user. In the example here, an additional row number is used as part of the index (field LINE).

Note:

Basically, you may also include all the characteristic fields in the key for the sake of clarity.

In the example here, an additional numeric field, which will be counted in sequence upon entry (like row number), is used. This solution is useful in case of many attributes in order to comply with the maximum key length defined by SAP.

24.3 Constant AUTHORIZATION

The Allevo-specific access checks are activated via the Allevo constant AUTHORIZATION (from version 3.4, the constant can also be entered on the level of the general * layout). This constant contains an X in the column "Value from" and the name of the table presented above including the access rules in the column "Value to". Field assignment as described in the next section, is only possible once the constant is active.

The current version of access checks is not entirely compatible with previous versions. Entering 2 in "Value from" activates the method used in version 2.9 and lower (useful to prevent rearranging of existing authorization tables).

Note: By removing X in the field "Value from", access checks that have been set can be deactivated; this is useful, e.g., for short-term tests (entries in the field assignments are kept).

If the constant is active together with the Allevo standard table /KERN/IPPAUTHSMP, access checks will be run even without explicit field assignment using a default mapping (see next section).

24.4 Field assignment for Allevo-specific access checks

Assignment to internal fields is required once for the access checks in the customer-specific table. The assignment can be found in the Allevo settings under the entry |Authorization concept|.

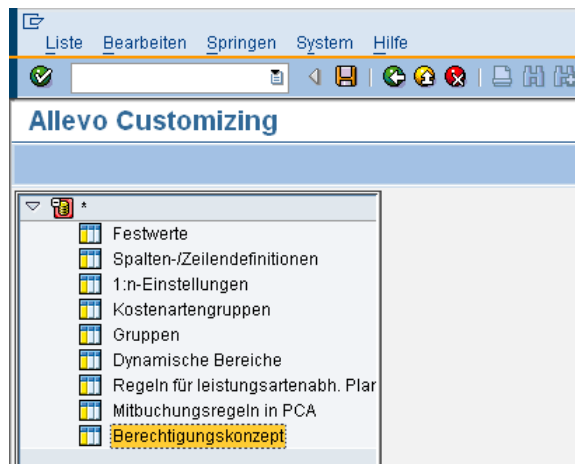


Figure 24.3: Opening the authorization concepts

Allevo then shows the currently stored assignments.







Festwerte für Allevo Berechtigung

Kostenrechnungskreis

Tabelle

Planungslayout

Tabellen-Name

Festwert	Wert	Text
FIELD_KOKRS	KOKRS	Feld für Kostenrechnungskreis
FIELD_KOKRS_FROM		Feld für Kostenrechnungskreis (Wert von)
FIELD_KOKRS_TO		Feld for controlling area (Wert bis)
FIELD_KOSTL		Feld für Kostenstelle
FIELD_KOSTL_FROM	OBJECT_FR	Feld für Kostenstelle (Wert von)
FIELD_KOSTL_GRP	OBJECT_GR	Feld für Kostenstellengruppe
FIELD_KOSTL_TO	OBJECT_TO	Feld für Kostenstelle (Wert bis)
FIELD_LAY	LAYOUT	Feld für Allevo-Layout
FIELD_LAY_FROM		Feld für Allevo-Layout (Wert von)
FIELD_LAY_TO		Feld für Allevo-Layout (Wert bis)
FIELD_OBART	OBART	Feld für Objektart
FIELD_ONLY_GROUP		Feld "Gruppe nicht auflösen"
FIELD_SORT		Feld für Sortierung
FIELD_USER	USERNAME	Feld für Benutzername

Figure 24.4: Field assignment for the authorization table

The current table containing the access checks is specified in the header of the editing function (according to constant AUTHORIZATION). The first column in the list shows all Allevo internal constants for mapping: entries depend on the object type that was used to start Allevo. The fields in column "Value" are used to assign a field of the table (assignments are stored in the Allevo table /KERN/IPP-PARAMAU).

Note: The icon "Re-initialize" in the SAP symbol bar deletes all constants; the list will be re-filled with constants relevant for the current object type.

Only the constant FIELD_USER requires an obligatory entry, since the Allevo access checks are performed explicitly for each user: only data records relevant for the current user are read.

In the example of Figure 24.4, the relevant fields for cost centers are listed: there are equivalent fields for other object types. The example, however, already makes it possible to recognize the scheme of assigning names:

- If the check is always done on the level of a single cost center, the corresponding field of the table should be stored in constant FIELD_KOSTL.
- As an alternative, checks may be performed for objects of a certain range (e.g. cost center From/To). Add the endings FROM and TO to the fields (single cost centers are also recognized).
- FIELD_KOSTL_GRP is used for assignment of a group.

- For Allevo 3.4 and higher, generic components are available in the field assignments (e.g. FIELD_OBJECT instead of specific fields such as FIELD_KOSTL or FIELD_AUFNR). This also facilitates the field assignment when a common table is to be used for different object types (cost center and order number may in this case be specified in the same field of the customer table, the component FIELD_OBART ensures correct treatment).

Functional key F5 (or the icon in the symbol bar) deletes all assignments.

The following table contains the most important constants and their application depending on the object type.

Constant	Object type	Required Entries
FIELD_USER	All	Field name for the user; this is the only mandatory field of the authorization check.
FIELD_LAY	All	Field name for layout
FIELD_KOKRS	All	Field name for controlling area
FIELD_OBART	All	Field name for object type: this component MUST be assigned if access checks for different object types are included in the same table (e.g., to facilitate the entry of rules). In this case, generic fields e.g., for the object number should be used as well (see the list below). FIELD_OBART will be evaluated in MultiObject mode even if different object types are addressed in the same Master.
FIELD_SORT	All	Field name if an explicit search sequence is to be defined.
FIELD_KOSTL	KS	Field name for cost center
FIELD_KOSTL_GRP	KS	Field name for cost center group
FIELD_AUFNR	OR	Field name for order
FIELD_AUFGR	OR	Field name for order group
FIELD_PROJ	PR	Field name for project (external display of the project number is expected).
FIELD_PSPCL	PR	Field name for WBS element (external display of the WBS element is expected)
FIELD_PSPGR	PR	Field name for WBS element group
FIELD_BUKRS	PC	Field name for company code
FIELD_PRCTR	PC	Field name for profit center
FIELD_PRCGR	PC	Field name for profit center group
FIELD_ONLYGROUP	All	Field name for a prohibition to resolve groups (see Section 24.5.4).

This table only contains the parameter names allowing a query for one of the characteristics; then, the comparison will be made with specification in the assigned field or by using a pattern (see Section 24.5.3). Further available constants allow querying via ranges (with From/To specification, see section below).

As mentioned above, further generic fields are available as components for Allevo 3.4 and higher:

Constant	Object type	Required entries
FIELD_OBJECT	All	Field name for object; depending on the object type, it is treated in the same manner as components such as FIELD_KOSTL or FIELD_AUFNR
FIELD_OBJECT_FROM	All	Field name for object (Value from)
FIELD_OBJECT_TO	All	Field name for object (Value to)
FIELD_GROUP	All	Field name for group; depending on the object type, it is treated in the same manner as FIELD_KOSTL or FIELD_AUFGR
FIELD_GROUP_FROM	All	Field name for group (Value from)
FIELD_GROUP_TO	All	Field name for group (Value to)

The specified field assignments are stored in the Allevo table /KERN/IPPPARAMAU.

For version 3.4 and higher, we recommend using these generic field names in order to facilitate the step towards a cross-object access check. Specific components for the newly introduced checks for Allevo object and business process are no longer available anyway.

If the constant AUTHORIZATION is active and the Allevo standard table /KERN/IPPAUTHSMP is entered there, the access check may be performed without any concrete field assignment as was described before. The following table fields will then be evaluated automatically:

Constant	Table field	Meaning
FIELD_USER	USERNAME	User (mandatory field of check)
FIELD_KOKRS	KOKRS	Controlling area
FIELD_BUKRS	BUKRS	Company code
FIELD_LAYOUT	LAYOUT	Allevo layout
FIELD_OBJECT	OBJECT	Planning object
FIELD_GRPNAME	GRPNAME	Group
FIELD_ONLY_GROUP	ONLY_GROUP	Special function for evaluation group

These standard field assignments will be evaluated only if at least one data record can be found in the table /KERN/IPPAUTHSMP with the authorization rules.

24.5 Process of executing the access check

By default, the Allevo-specific access check is run when a planning transaction is started (for example when using |Start planning|). The only exceptions are MultiObject transactions: here, only the start object is checked at first, and all other objects are checked only when transferring planning data.

When starting an Allevo planning transaction, all access checks that the current user is entered for will be read into the internal memory.

Note:	If no data record is found, the control is negative. In other words: appropriate data records must be available for every user if the Allevo-specific access check is activated.
--------------	--

After selecting an object (e.g., cost center) and calling |Start planning|, all user-specific table rows are run through one by one using the access rules, until a combination of values that matches the selection parameters is found. This means that authorization is given; if no matching rows can be found, no authorization is given.

For this verification process, every row is broken down into its logical parts and analyzed. Five separate control cycles are run through in the following sequence:

1. Object type
2. Controlling area
3. Company code
4. Layout
5. Planning object/planning object group/project

Allevo first analyzes within one row, which of the fields are assigned in Customizing. Only these fields are queried. Then, the five individual tests named above will be performed. Only if all checks have been successful for the table row will the row be rated as “successfully checked”.

24.5.1 Object type check / MultiObject mode

This individual check mainly refers to standard object types in Allevo planning: KS, OR, PC and PR. They are always checked for consistency.

Note:	Special case "PD": This short name can be specified for the object type PR as an alternative and shows that the authorization for the WBS element is defined through the project definition. If the project is released, all associated WBS elements will be permitted as well.
--------------	--

Depending on the object type, the following checks are possible:

- KS: Cost center or cost center group
- OR: Order or order group
- PC: Company code, profit center or PC group
- PR: WBS element, WBS element group or project

Tip: If the object type is included in the authorization table, other fields can also be used with a second function (for example, one field for cost centers and orders).

Special features in MultiObject Mode

In this mode, Allevo allows an object type change in the Master, e.g. starting from a cost center and planning dependent orders. The Allevo-specific access checks may also be applied to the corresponding objects with some restrictions: in this case, mapping for the object type is required and objects must be entered together with their object type (e.g., the order number in the same field as the cost center but with a different object type).

Without object type mapping, only objects of the start object type will be checked.

24.5.2 Checking other fields (general)

The constants in the access check Customizing use the following scheme:

- FIELD_<XXXX> Field for the absolute value of a check
- FIELD_<XXXX>_FROM Field for the from-value of a check
- FIELD_<XXXX>_TO Field for the to-value of a check

The short name <XXXX> is used as placeholder and must be replaced by the name of the relevant fields. The following names are possible for <XXXX>:

- KOKRS Controlling area
- BUKRS Company code
- LAY Planning layout
- KOSTL Cost center
- KSTGR Cost center group
- AUFNR Order
- AUFGR Order group
- PRCTR Profit center
- PRCGR Profit center group
- PSPEL WBS element
- PSPGR WBS element group
- PROJ Project

The following rules apply for the assignment of field names to constants:

- If the check is defined via a clear field value, the constant FIELD_<XXXX> should be assigned to a field in the authorization table.

- To query intervals, assignments must be made for the constant FIELD_<XXXX>_FROM and FIELD_<XXXX>_TO.

Allevo checks by default for consistency of entries. If an entry is found in the authorization table for the current cost center, access will be allowed.

Note:	A check for inconsistency on the other side, would also be possible (do not allow objects from). Corresponding operators (e.g. NE = Not Equal) are possible; the constant FIELD_<XXXX>_OPT is meant for such future developments.
--------------	---

24.5.3 Using patterns

When analyzing lines of the authorization table, contents of relevant fields are compared by default (normally using operator EQ for equal). As an alternative, the Allevo access check offers two symbols for analyzing patterns:

- the * symbol serves to allow any character string for searching

Example: With object type PR, the entry "P.2000.*" finds all WBS numbers beginning with P.2000 (normally all subordinate WBS elements).

- the + symbol allows single characters for searching

Example: an entry "11++10" for the cost center would allow all cost centers with 6 digits, beginning with "11" and ending with "10".

Important:	The patterns are available for all components of the authorization table, but not in the field for the user name.
-------------------	---

24.5.4 Start from group

When starting from a group (e.g. in MultiPage transaction), Allevo checks whether the group is stored in the authorization table itself or whether it is released by a superior group. Only the standard hierarchy is searched through in this case.

In this check, the group is not resolved but processed as a whole. Planning will not be started if single elements are released in other ways.

Note:	There is no such dependence on the standard hierarchy when starting from a single object. In this case, objects of all groups are determined and then compared to the start object.
--------------	---

24.5.5 Checking groups and special case FIELD_ONLY_GROUP

If a group is maintained, the user may only call Allevo from this group or a subordinate group. Other groups are not allowed even if all allocated objects are included in the authorized group (this behavior applies for all Multi applications such as MultiPage and MOD, but also for the Tree).

Background: this behavior is different from the Allevo check for SAP standard authorizations: here, starting is permitted with at least one authorized object.

In some cases, further restriction may be useful, so that a combination of objects may only be called from a group completely (e.g., for display in MultiPage mode). This function is provided via FIELD_ONLY_GROUP. It is further possible to allow Allevo planning to be started only from the exact group entered; for WBS elements, this is the project (please clarify the specific conditions in the introductory project).

24.6 Authorization trace

Given the complexity of Allevo access control, it can be very useful to get an overview of the single checks to be performed. Such a log is created by the so-called "Authorization Trace". This must previously be activated via the constant OWN_AUTH_TRACE in the Allevo layout (X in the field "Value from"). The name of the user that the log shall be created for must be specified in "Value to". When executing the planning transaction (button |Start planning|), the authorization log is created in the Excel view. A program dialog is provided for opening the log.

Layt	Objekt	Mdt	Ar	Planungsobjekt	Gruppenname	Bis Planungsobjekt	Benutzername
LAYO	LINE	MAN	OB	OBJECT_FR	OBJECT_GR	OBJECT_TO	USERNAME
LAY			OB	KOSTL_FROM	KOSTL_GRP	KOSTL_TO	USER
1	HERTLEIF	000001	1000	KS WH*	H2130		
OT	Prüfe Objekttyp			KS		KS	
US	Prüfe Benutzer			HERTLEIF	I EQ	HERTLEIF	
CA	Prüfe Kostenrechnungskreis			1000	I EQ	1000	
LY	Prüfe Layout			WHF1	I CP	WH*	
gp				3000	I EQ	H2130	
2	HERTLEIF	000002	1000	KS WH*	H1010		
OT	Prüfe Objekttyp			KS		KS	
US	Prüfe Benutzer			HERTLEIF	I EQ	HERTLEIF	
CA	Prüfe Kostenrechnungskreis			1000	I EQ	1000	
LY	Prüfe Layout			WHF1	I CP	WH*	
gp				3000	I EQ	H1010	
3	HERTLEIF	000003	1000	KS WHF1	1110	1200	
OT	Prüfe Objekttyp			KS		KS	
US	Prüfe Benutzer			HERTLEIF	I EQ	HERTLEIF	
CA	Prüfe Kostenrechnungskreis			1000	I EQ	1000	
LY	Prüfe Layout			WHF1	I EQ	WHF1	
ks	Prüfe Kostenstelle			3000	I BT	1110	1200

Zugang untersagt

Figure 24.5: Log of Allevo access checks

The data range comprises individual blocks corresponding to rows in the customer-specific authorization tables (blue). The columns are arranged like the columns in the authorization table. The names of the different fields are indicated in the header.

The other rows of the table show the individual control steps executed for the current planning row. In the first place, the checked value is shown followed by the content of the check.

The last line in the log ("Access given") indicates whether the check has been successful. The steps that have led to this result are displayed above.

24.7 Integration into Allevo planning transactions

The access check is started once the user clicks on the button |Start planning| or |Open file|. The following list provides various examples of application cases with object type KS (= cost center); the examples apply correspondingly for other object types as well.

Case 1: Single planning or MultiObject (e.g. table /KERN/IPPKS or /KERN/IPPKSMO).

- The program searches for a rule for the specified cost center.
- If this cannot be found, the program will check all groups the cost center is allocated to (but only groups with resolving enabled).
- If no release can be found, the program returns to the Allevo screen.

Case 2: Single planning with object selection via Tree on the Excel side

- The program transfers the list of selected objects to Excel.
- When selecting an object in Excel, the access check is started (if there is no authorization, no data will be read).

Case 3: Multi planning with interval or multiple selection

- The program checks the access for every cost center selected using the same logic as described for case 1. Cost centers without authorization will not be transferred to Excel

Case 4: Call of Allevo transaction from a group (1).

- If the constant for a group is defined (e.g. FIELD_KSTGR), a rule is searched for the group indicated in the selection.
- If none can be found, the program will run the access checks for other cost center groups and checks if the group specified is a subgroup of a released group.
- If no release can be found, the program returns to the Allevo screen.

Case 5: Opening the Allevo transaction from a group (2).

- The constant FIELD_GROUP is not defined, contains no entry or the authorization table contains no such field.
- The group specified is resolved (if no prohibition) and access is checked for every element individually. Note: this function is available only with restrictions; please clarify in the introductory project.

Case 6: Allevo Single and opening an existing file (button |Open file|).

- The Excel file is opened, header data of the planning working sheet are read and the cost center is recognized. The program then checks for a release of this cost center – as in case 1.

Case 7: Allevo Multi and opening an existing file.

- The Excel file is opened, and the list of planning sheets is read. The header data are used to identify the cost centers.
- The program goes through the list and verifies for each cost center if an authorization is available, like in case 1. Processing is terminated and control is passed back to the form as soon as a cost center is blocked (no release).

24.8 Special features for projects

Two types of groups may be available for WBS elements: the project and the WBS element group. The access check can include both groups (constants beginning with FIELD_PROJ and FIELD_PSPGR). The following rules apply:

1. Start from the project
 - a) Project is released: OK
 - b) WBS of level 1(!) from the project is released: OK
 - c) Project is not released: ERROR
 - d) No WBS of level one from the project is released: ERROR

2. Entry from WBS group
 - a) WBS from the group is released: OK
 - b) No WBS from the group is released: ERROR
 - c) One element of the group is also part of a released project and the indicator "OnlyGroup" is not set: OK
 - d) One element of the group is also part of a released project and the indicator "OnlyGroup" is set: ERROR

25 FI Dynamic (FID)

The Allevo application »FI Dynamic« (FID) allows to dynamically read ‘external activity relations’ of customers and vendors analogous to the dynamics of ‘internal activity relations’.

25.1 Background and systematics

Allevo functions that are called “Dynamic” serve to support the planning of secondary costs from internal activity relations (directly or indirectly). This requires specifications on the sender object (e.g. cost center) and activity type. Along with current receiver objects, a variety of combinations that is usually not available in the Allevo Master may be relevant here. Therefore, row definitions read the relevant information from SAP and enter the data dynamically into the Master (see also Section 9.2).

In addition, Allevo uses these dynamic editing functions of FI Dynamic for external activity relations, e.g. for planning costs of deliveries from external agents. Such costs are usually posted via FI and transferred to CO for each document. Contents of the relevant partner object result from the account type specified in the document (e.g., K = vendor). To keep the usual “CO” way of thinking, Allevo converts the account type and associated account (vendor number) to an appropriate object type (e.g. “KR”). This information will then appear in the Allevo Master following the same scheme as for example a partner cost center in activity allocations planning.

This special Allevo feature is not included in the original SAP CO planning.

The following relations between account type and representative object type apply in Allevo:

Account type	Name	Object type in Allevo	Debit/Credit
A	Investments	AN	S
D	Customers	DB	H
K	Vendors	KR	S
S	G/L account	SK	S
M	Materials	MA	S

FID offers the special function of a line item display in the Allevo Master (without creating summary records). In this case, the Allevo-specific object type ZZ is used for the partner object. In the Master, you may even display the posting text.

25.2 Relevant functions

The Allevo Report /KERN/IPP_AGGREGATE_DATA_FID summarizes the relevant COEP line items for each cost center, cost element and offset account (as partner FI object) and writes the summary records in table KERN/ACOSS (in analogy to other SAP CO functions). Call via transaction /ALLEVO/AGGR_FID.

Constants and entries in column definitions allow Allevo to know when to read data from the FID summary record table instead of using common CO tables (also relevant for reading planned values).

The FID relevant rows appear in the dynamic area of Allevo. Specifications on the partner object are provided by the usual columns CY_KEYSTYPE and CY_KEYS (e.g. vendor) or CY_KEYRTYPE and CY_KEYR (customer).

Required settings for FID:

- Activate the constant USE_ALLEVO_TABLES for access to an Allevo-specific summary record table /KERN/ACOSS.
- Set up the relevant column definitions for reading and writing FID data using button “Summarization”.
- Activate the constant READ_PARTNER_TEXTS for reading texts/descriptions via the Allevo comment functions.
- Optional: Transfer texts for the cost center from SAP using constant READ_ELEMENT_TEXTS

Please see also chapter 8 “Planning data in Allevo-specific tables” or the F1 constant documentation for general information on the application of constant USE_ALLEVO_TABLES.

25.3 FID Settings

25.3.1 Activate Allevo-specific tables with planning data

The constant USE_ALLEVO_TABLES generally activates planning via Allevo-specific tables (“Value to” = X); therefore, also the reading of aggregated FID data from table /KERN/ACOSS.

To be able to use the corresponding functions in the dynamic area, the relevant row definitions must be entered in field “Value to” as comma-separated list; e.g. “X,Y,G1” to import data into the dynamic ranges X and Y. In addition, the row definition that is to be used for reading the values must be entered in “Value to”. We recommend using your own definitions here, such as G1 for reading in the dynamic area Y.

Note	An entry in “Value to” is absolutely necessary for reading via Dynamic, since /KERN/ACOSS is read for all rows as default EXCEPT for the Dynamic.
------	---

25.3.2 Row and column definitions

The used row definitions must be reconciled with the appropriate business transaction (usually COIN), so that relevant specifications appear as rows in the dynamic area (e.g., enter business transaction COIN in row definitions X & Y or delete the entries for the transaction, since reading is only done from Allevo-specific tables anyway).

If column definitions are to transfer FID data, the button “Summarization” must be activated in the master record (applies both for read and write column definitions).

Note	As common in the Dynamic, data are searched in all years stored in the column definitions, no matter if “Summarization” is set or not.
------	--

In the Master, relevant row definitions must additionally be entered in column "read2" in order to allow for reading reference data already during the first call.

Important in period planning: Period planning is only supported in the "Balloon" variant, via a three-line range of COL_M in the Allevo Master. Here, the corresponding column definitions must be entered with suffix "_V", since Allevo would otherwise try to write quantities into this column (FID data are internally treated like secondary costs).

25.3.3 Provide text descriptions for the partner object

The Allevo function of comment columns allows to read descriptive texts for the involved objects from SAP and transfer them to the Allevo Master. This function is controlled via the constant READ_PARTNER_TEXTS:

- "Value from" must contain a comma-separated list of up to 8 column definitions to be used for the transfer. For example: "CY_R3, CY_R3" (each without suffix "_N").
 - The position in the list defines which text of a column definition will be transferred.
- For further details, please see the documentation for constant READ_PARTNER_TEXTS.

25.3.4 Transfer text description to cost element

Usually, the text description of a cost element is stored permanently in Allevo. This is not possible in the dynamic area since relevant cost centers are not known when arranging the Master. In this case, constant READ_ELEMENT_TEXTS may be used to directly adopt the text from SAP (see documentation on the constant).

25.4 Summarization / aggregation of FID data

The report /KERN/FID_AGGREGATE_DATA reads data for 'external activity relations' with vendors and customers and summarizes them to totals lines in table /KERN/ACOSS (analogous to SAP functions for COSP). The corresponding transaction is /KERN/IPP_AGGR_FID.

The relevant information is read from SAP table COEP; relevant account types are K = vendor, D = customer (object types of the FI module) and the corresponding offset account (field GKONT = number of customer and vendor).

Example for selection screen upon call:

Sammeln von FI-Daten in /KERN/ACOSS in Bezug auf Gegenkonten

Haupt-Schlüsselauswahl

Kostenrechnungskreis: 1000
Ledger: 0

Schlüsselauswahl

Geschäftsjahr: 2011 bis:
Version: 0 bis:
Werttyp: 4 bis:
Vorgang: COIN bis:

Objektauswahl

Objektart: KS Kostenstelle
Kostenstelle: 1000 bis:
Kostenstellengruppe:
Kostenartengruppe:

Übertragene Gegenkonto-Arten

Übernahme Kreditoren-Buchungen
 Übernahme Debitoren-Buchungen
 Übernahme Anlage-Buchungen
 Übernahme Sachkonten-Buchungen
 Übernahme Material-Buchungen

FI-Daten aggregieren
 Alte Daten löschen

Figure 25.1: Aggregate data

Selection is done with predefined CO objects. One cost element group may be included per object type: this leads to the dynamic in the Allevo Master being restricted to elements of this group as well.

Note	Optionally, it is possible to execute the program several times, in order to, for example, get different summarizations depending on the cost element group.
------	--

Summarization / aggregation function:

- The button “Aggregate FI data” serves to aggregate data for each offset account or partner object. Explicit indicators comprising one object type (2 characters) and one explicit key are saved in field /KERN/ACOSS-PAROB.
- During active aggregation, data are totaled via account type GKOAR and the account GKONT of COEP. The corresponding partner object entries in PAROB contain a “simulated” object type reflecting the type of offset account (e.g. “KR” for vendor, “AN” for investment).
- During transfer on the document level (data as in COEP, no aggregation), the report creates an individual key comprising posting number and posting row as “simulated” partner object. Corresponding entries then contain the object type “ZZ” in PAROB.

Existing / old data may optionally be deleted for the selected objects.

Special notes:

- The report offers value type and business transaction as selection characteristic: entries 04 (= actual) and COIN (= transfer from FI document) are suggested. Both specifications are written into the ACOSS table as well: the column / row definitions for reading via the Allevo Master must therefore be organized appropriately.
- The debit/credit indicator (field BEKNZ) is set according to the type of offset account (GKOAR): e.g. S for vendor, H for customer.
- The aggregation is done for all fields in the currency of the transaction, object, and controlling area as well as the provided quantity fields.

25.5 Treatment in the Allevo Master

There are no adjustments necessary: »external activity relations« with vendors and customers are represented in the same way as the dynamic of »internal activity relations«.

Transfer offset account: FID supports both an aggregated display of data for each partner object as well as a line item display (see notes above). Depending on that, relevant information is transferred to the partner object using the following column definitions:

- CY_KEYSTYPE:
for the partner object type (e.g. KR for vendors and “ZZ” for single documents)
- CY_KEYS:
for the partner number (e.g. vendor) with aggregated version; otherwise the original document number from COEP
- CY_KEYS_A:
only important in line item display (transfer of item number)

CY_KEYS and DY_KEYR that have been used for ILV so far, are being generalized: the vendor is located below S, the customer below R.

25.6 Checklist for setup steps

The following table shows the an example setup when working with the dynamic range “Y”:

Step	Action/constant	Explanation
Transaction	/KERN/IPP_AGGR_FID	Transfer aggregated COEP data to table /KERN/ACOSS
Row definition	Optional: Copy “G” to GF	G is then kept as standard reading function for other rows.
Row definition	Entry COIN as business transaction for row definition (here “Y” and “GF”)	You may continue without also specifying the business transaction, since the restriction is already made through the aggregation report.
Row definition	Optional: Copy “G” to GF	Enables separated reading function in other rows
Column definition	Reading via CX_RR, CY_R1 Activate summarization for reading	Current year, historic years AJ-1, AJ-2
Column definition	Writing via CX_WW, CY_W1, ..., CM_W1, CM_W2, ... Activate summarization for writing	Years, periods that “FI data” are planned for
Column definition	CY_RE, CY_RP	“Only comment” with reference to CX_RR is sufficient

Constant	READ_ELEMENT_TEXTS	CY_RE, CY_RP
Constant	USE_ALLEVO_TABLES	"Value from" : X "Value to": Row definitions GF,Y
Master	Insert column def. CY_RE_N	Delivers the cost element text
Master	Insert column def. CY_RH1_N	Delivers the partner text (FI object)
Master	If period values: CM_R1_V	Suffix "_V" required for restriction to values
Master	Set up/check dynamic range	Entry and range name CC_Y under CY_KEY
Master	Row definition GF	Insert under Write & Read
Master	Row definition Y	Insert under Read2

26 Performance and summarization levels

26.1 Overview

Allevo is a universal and flexible planning tool along with the Excel Master, which determines the data to be read from SAP (e.g. depending on column and row definitions). The high degree of flexibility, however, may have an impact on performance in some application cases, for example, compared to processing data in SAP standard reports. If requirements are complex, the Allevo working performance should be checked using productive data (already during introduction).

Allevo offers different possibilities or parameters to improve the performance, if needed. Which parameters are to be used depends on the customer-specific application; for example, on the number of cost elements specified in the Master, the size of the cost centers or cost center groups or the use of dynamic ranges.

Depending on the situation, the performance can be optimized by activating certain constants. Alternatively, an Allevo-specific table with summarized data can be used for reading (historical) actual and planned data.

The constant TEST can be useful for a first run-time analysis of Allevo functions (see Section 26.2).

26.2 Allevo-specific run-time analysis (constant TEST)

Two Allevo-specific functions may serve for a first run-time analysis of Allevo functions (especially for reading reference data):

- Command SAP2EXCEL shows the data transferred from SAP to Excel. This may be useful for content analysis. The time until the respectively next table is displayed gives an impression of the time needed for assembling the data. However, this also comprises Excel functions that are run, for example, after transfer of the previous table.
- The constant TEST may also be helpful during the Allevo setup. If this constant is activated via “Value from” in the respective Allevo layout, a log listing the times required for the single reading steps appears after reading the data (run-time/ performance analysis).

Furthermore, “empty” selections may be displayed using column “Value to”. Examples:

- The intersection of row and column definitions shows no common features, i.e. no matches of the stored business transactions.
- An object group is stored in the Master and constant MULTI_WITH_GROUPS is active. No data are read for a group without assigned objects.

This function is especially useful in the context of Allevo administration. It should stay deactivated during ongoing operations (see also F1 documentation on the constant).

Note:	To use this function during ongoing operations, the test function may be activated temporarily by entering TEST in the command field. It applies only for the current user and only until he/she leaves the corresponding Allevo transaction or enters TESTCLEAR in the command field.
--------------	--

26.3 Performance with large 1:n groups

The use of large 1:n groups (containing many allocated objects and/or cost elements) can negatively affect the performance when reading reference data, especially if the Master contains many column definitions. The following options may help:

- The 1:n function for objects generally applies for reading planned values as well. Since the allocated objects, however, can in fact not contain any planning data (or “should” not), 1:n resolving may optionally be skipped for column definitions with planning data. This may lead to performance improvements, especially in the case of very large groups (see corresponding characteristic for the column definition).
- Normally, Allevo runs the required access check for each object in a group. The check may be reduced to the first object using constant USE_1N_AUTH. This automatically leads to all other objects being released as well.
- Master records may be time-dependent for some object types (e.g. for KS and PC). Correspondingly, Allevo resolves groups for each column definition individually (according to the relevant time interval). If constant USE_COLDEF_GROUP is active, the resolving is done only once over the entire time interval of all column definitions.
- If the cost element hierarchy is complex, it may be beneficial to temporarily save the allocations of group and cost element (see constant KAGRP_BUFFER). This is especially recommended if cost element groups do not result from formulas in the Master but are read directly from SAP.

26.4 Performance Dynamic Ranges

Using dynamic ranges may affect the performance, since cost elements or sender objects are not defined for the search.

To accelerate the process, cost elements for the activity allocation and order settlement should be listed in the Allevo menu |Settings| and |Dynamic ranges|.

26.5 Parameters/constants that affect performance

The following constants may lead to an improvement of Allevo performance (especially when reading large amounts of data). They can usually be found in the tab “Performance”.

SELECT_TURBO	Read reference data in blocks (by default active for version 3.3 and higher). From Allevo 3.5 with performance optimization for the reading of reference data for S/4 Hana.
KAGRP_BUFFER	Resolve cost element groups via buffer tables (recommended when reading very large cost element groups)
PRE_SELECT	Preselection (active by default for version 3.0 and higher, however not in Multi-Object mode)
SELECT_SEQ_COUNT	Avoid long SQL statements (from 3.3 set by default)
USE_1N_AUTH	Control authorization check for 1:n object groups
USE_COLDEF_GROUP	Column definitions with central object list. The constant reduces efforts to create the Allevo internal object list when using 1:n groups.

READ_MULTI_AREAS	Temporal storage of selection characteristics in MultiPage mode (facilitates the data transfer SAP <> Excel).
INDEX_COS	Index for reading from COSP and COSS
KL_OBJECT_OFF	Ignore KL objects
NO_COMPANYCODE	Company code for reading profit center data
NO_KSTAR_CHECK	Authorization checks on the cost element level
READ_BLOCKS	Transfer large amounts of data to Excel in blocks
TEST	Activation of the Allevo run-time analysis

Further details are provided in the documentations on these constants (F1).

26.6 Summarization levels / data aggregation

In order to improve performance during the reading process, Allevo makes it possible to create tables for primary and secondary costs respectively containing summarized data (tables /KERN/IPP-COSP1 and /KERN/IPPCOSS1). The corresponding aggregation functions may be applied to those actual and planning data that are not changing during the ongoing planning process.

Background:

- Depending on the number of data records in SAP-specific tables and
- Depending on the configuration of the underlying data base (table indices),
the selection of actual data may take some time.

Allevo makes it possible to create your own, summarized tables without redundant data records. This is done firstly by leaving out data records of

- irrelevant years and
- irrelevant objects

Secondly, a secondary cost summarization may be applied. In this case, summary records are created according to the settings in the Allevo layout and stored in the database table. The aggregated data might then apply for single layouts only.

Example:	<p>Several cost centers are to be included in the reading of reference data for a planned cost center via the Allevo 1:n functions. The aggregation run stores the resulting total values for each combination of planned cost center and cost element. Consequently, only the aggregated values need to be read in the planning process: this may lead to a significantly reduced amount of data during reading (1:n group does no longer need to be resolved).</p> <p>These aggregated rows, however, only contain the correct values when reading with 1:n. Values that are allocated to the planned cost center only, can no longer be determined with the aggregation tables.</p>
-----------------	--

Allevo offers the following aggregation functions:

- Aggregation to planning objects if 1:n groups are stored (as described in the example above)

- Including the constants KOSTL_WITH_OR and KOSTL_WITH_PR, or PSP_WITH_OBJECTS. The aggregation run identifies data of allocated objects using the same functions as in Allevo planning.
- Summary records on the level of cost element groups (for all elements in a hierarchy). The function is especially useful when reading values for summary records of the Allevo Master from SAP (not calculated in Excel) or when planning via a cost element group.
- Summary records on the level of object groups for all elements of the hierarchy specified in the start screen. Useful, for example, in Allevo Reporting when selecting groups or a group via the Tree.
- Summary records on the level of object groups and cost element groups

The function requires two steps:

- Activate the summarization table for each column definition
- Determine the aggregated data via a layout-specific aggregation run

Restrictions:

- The aggregation functions are available for object type KS, OR and PR (not for PC).
- There is currently no aggregation within the project hierarchy for PR (nor for the top WBS element, which usually carries the same name as the project).
- Summarization to groups includes no selection variant: these must still be resolved and read dynamically.

26.6.1 Activation of summarization

The aggregation function is activated for each column layout using the button “Summarization”; activation is done simultaneously for primary and secondary costs.

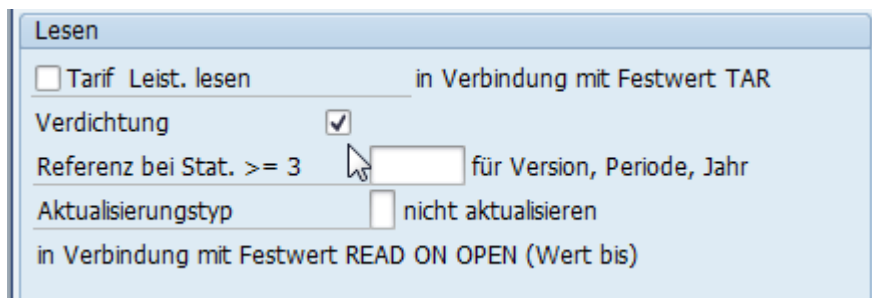
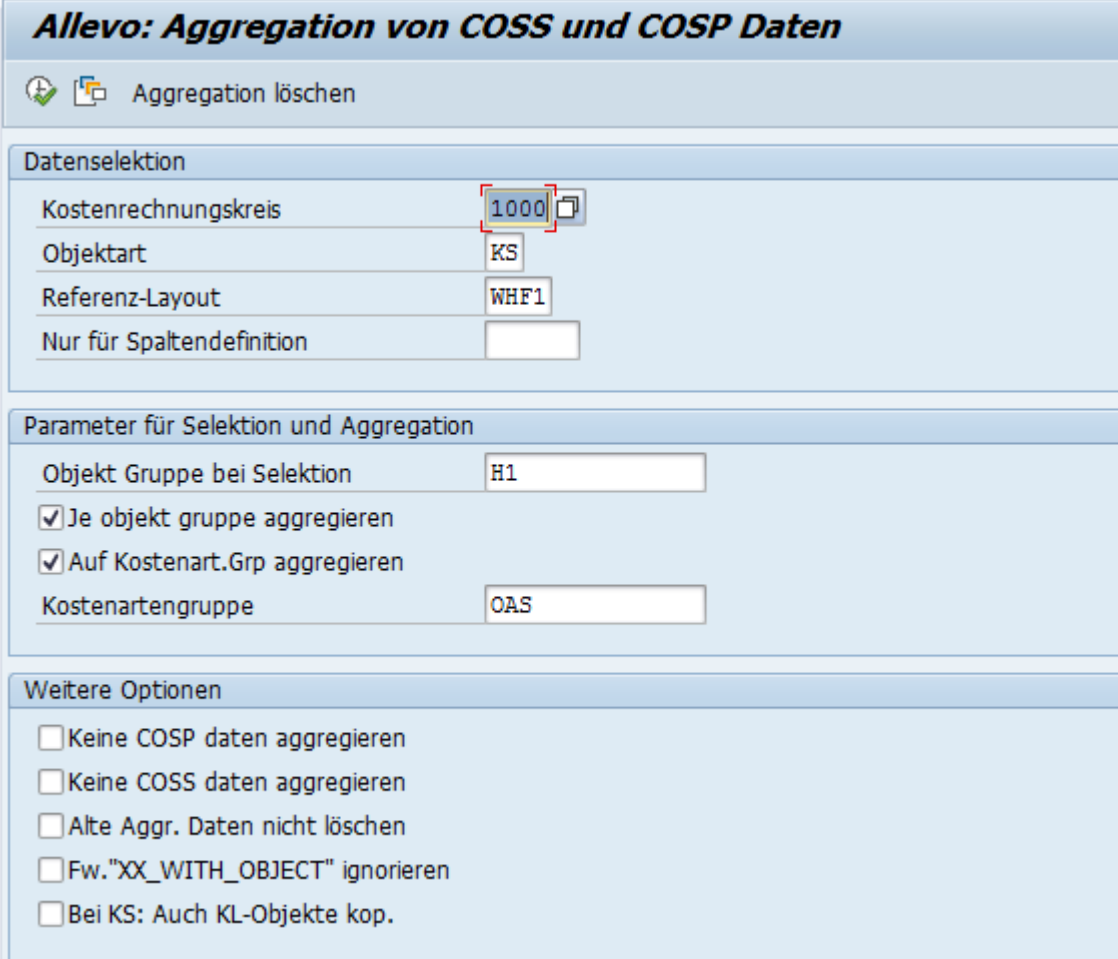


Figure 26.1: Activation of summarization in the Allevo column definition

If the flag is set, the Allevo function “Read reference data” will first check whether suitable entries are available in the tables /KERN/IPPCOSP1 and /KERN/IPPCOSS1. Otherwise, Allevo uses the standard reading routine: this logic is also used to read data if the summarization function is active but the aggregation run has not yet been performed for determination of data.

26.6.2 Aggregation run to determine summarized data

The aggregation run is started with transaction /KERN/IPP_AGGR or the corresponding entry in the Allevo Cockpit. The following selection screen appears.



Allevo: Aggregation von COSS und COSP Daten

Aggregation löschen

Datenselektion

Kostenrechnungskreis: 1000

Objektart: KS

Referenz-Layout: WHF1

Nur für Spaltendefinition:

Parameter für Selektion und Aggregation

Objekt Gruppe bei Selektion: H1

Je objekt gruppe aggregieren

Auf Kostenart.Grp aggregieren

Kostenartengruppe: OAS

Weitere Optionen

Keine COSP daten aggregieren

Keine COSS daten aggregieren

Alte Aggr. Daten nicht löschen

Fw."XX_WITH_OBJECT" ignorieren

Bei KS: Auch KL-Objekte kop.

Figure 26.2: Selection screen for determination of summarized data

Normally, aggregation is done for all column definitions in a layout where the flag “Summarization” is set. Restriction to one column definition may be useful if, for example, only data of one year have changed (and aggregation shall be performed again).

All objects in the defined group are selected. The group may also be used to create group summary records. Object type PR is an exception: here, WBS elements may be selected by predefining project definitions or the project profile.

Note: The “Object group for selection” in the hierarchy should meaningfully contain all subgroups that may be addressed by Allevo (then, totals will be calculated automatically and stored in the summarization tables). To be on the safe side, the program additionally reads all groups stored in 1:n relations and adds all objects found there.

Specifications in the lower section “Other options” are only relevant for service purposes.

When the program is started, a list of all relevant years and versions is created first; then, the following steps are performed for every combination:

- Deletion of all previous entries in table /KERN/IPPCOSP1 and /KERN/IPPCOSS1 on version, year and value type.
- Copy of all relevant data records from COSP and COSS to the mirroring tables /KERN/IPPCOSP1 and /KERN/IPPCOSS1.
- Read allocated objects (e.g. KL objects or according to constants) and add to the amounts of the respective cost element.
- A totals line is created for each cost element group based on the entries for the cost element (according to the specification in the start screen of the transaction). These rows are newly created in the summary records table.
- In the last step, a totals line is created for each object group (according to specifications in the transaction start screen). Various details are being removed on this level (e.g., about partner and original object), i.e. the involved rows are summarized. These rows are created again in the summary records table.
- For object groups without value for a cost element, blank rows are available in the summarization tables (this prevents Allevo to execute a complex selection using the original tables).

The program generates a log specifying the number of rows that have been modified or inserted compared to the original state.

Note:	Specifications on object groups are saved per controlling area; this also covers the case that a group contains orders from different controlling areas (several entries per group are then stored in the summarization table).
--------------	---

26.6.3 Use summarized data in planning transactions

Every Allevo planning transaction checks for availability of data records for the current object in the summarization level when it is started.

Note:	As a precondition, reading from the summarization must be activated in at least one active column definition. If data are available for the object in the summarization level, these will not be checked for completeness. Reading for the corresponding column definition will only be performed from the summarization level. There will be no subsequent reading from COSP or COSS.
--------------	---

However, it is possible to generally prevent reading from the summarization level via the menu after opening the Excel planning layout.

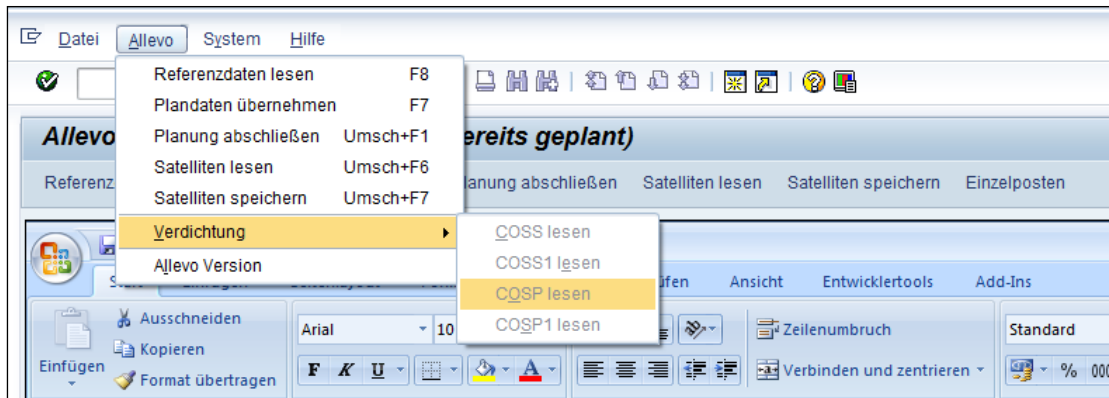


Figure 26.3: Selection options for the data basis

26.6.4 Remove Data from Aggregation

When starting an aggregation run, the entries in table /KERN/IPPCOSP1 and /KERN/IPPCOSS1 are deleted (with version, year and value type according to current program parameters).

In general, all data of a year are deleted for each controlling area and object type using button |Delete aggregation| (see Figure 26.2).

27 Additional Information and Tools

27.1 F1 Documentation (HTML)

Allevo contains an F1 documentation in two languages, where all constants are explained in detail (|Settings| > |Constants|). Once the cursor is placed on a constant, the relevant help chapter for the constant can be opened by pressing F1.

There are two options for calling these help files:

- The texts are available in HTML format on the KERN homepage. Link to these files is stored automatically in Allevo (no set up required).
- The HTML files can also be stored in the customer network (only useful in exceptional cases).
- In earlier Allevo versions, help files were provided also in the CHM format. This made it possible to store the files in the customer network only, reference to these files had to be entered in ALLEVO_HELP (the CHM format is no longer supported for current Allevo versions).

Note: The documentation in HTML is also available for constants of the Allevo additional modules (FP; COPA, ProCED).

Each module provides a summarized documentation of all constants which can be called as first entry (via pseudo names such as “_Constants_ALL”). This additional entry is useful especially for full-text search.

Details about the access to help files are explained in the section on the Allevo file management (see Section 22.7.1).

27.2 Customer-specific documentation

One or several customer-specific documentations can be stored in the Allevo planning transactions using button “Documentation” - where appropriate, depending on the object type or on certain layouts. Any Office documents on the local work center may be used.

This requires access to the documents to be set up in the system (via BDS or the Allevo-specific document administration; see Section 22.7.2). A button to open the documents will then be available in every start dialog of an Allevo planning transaction as well as in the Excel editing view.

27.3 SAP standard functions / transactions

A series of SAP standard functions are helpful when working with Allevo:

- Plan line items for cost centers (transaction KSBP) indicate who (entered by) planned what (business transaction) and when (date of entry, of adding), and whether planning with Allevo has been successful (document header).
- Using the transaction STAD (Business Transaction Analysis), it can also be followed who made which postings or deletions in the system and when. (Warning: data are only available for 48 hrs. after saving, depending on the system settings!)
- Transaction ST05 starts the performance trace, SE30 supports detailed run-time analyses. In new SAP releases, it is transaction SAT.

- SAP report RKPLNC27 deletes zero summary records in COSP and COSS if there are no line items available. The SAP function may for example be useful when Allevo determines the relevant posting rows automatically via ProCED and many rows appear with empty values.
- Several Allevo modules can write error messages or other notes into the SAP Application Log. The log is used for example for postings via Allevo FP, when entering master data or actuals postings. Entries are usually displayed with the SAP transaction SLG1: the relevant Allevo messages can be found under object ID “/KERN/ALLEVO“. The transaction /ALLEVO/APP_LOG gives the same result; analysis is restricted to Allevo messages.
- The SAP transaction OKKS allows to switch between different controlling areas. The controlling area is a central organizational element of Allevo planning; switching might be performed via Allevo-internal functions.

SAP offers a series of transactions that are frequently required in the environment of Allevo planning (e.g. generate plan copies). Many of these transactions can be directly integrated into the Allevo planning process:

Transaction	Description	Allevo functional module
KSA8	Plan calculation of imputed costs for cost centers	/KERN/IPP_PLAN_ACCRUAL_KS
CJ46	Surcharges PLAN: projects	/KERN/IPP_PLAN_OVERHEAD_PR
CJ9FS	Copy project calculation	/KERN/IPP_PLAN_COPY_PR
CJ9B	Copy WBS plan to plan (collective processing)	/KERN/IPP_PSP_COPY_PR
CJ9E	Plan settlement for projects (start and reset depending on call)	/KERN/IPP_PLAN_SETTLEMENT_PR

Allevo functional modules are provided to automatically execute these transactions (see last column): they may be integrated into the Allevo planning process via Badi or customer button. For the corresponding call, however, an individual program extension according to the desired process is additionally required.

27.4 Allevo Debugging Mode

Allevo offers an own debugging mode that allows to visualize transfer tables of the data exchanged between SAP and Excel. The debugging mode is activated via the corresponding entries in the SAP command field and records the exchanged data in the Allevo functions |Read reference data| and |Adopt planning data|. The following commands are possible:

- TAB2SAP (or TABREAD) displays data that are transferred **from Excel to SAP**. The contents also specify which criteria are to be used for data selection in SAP.
- Command TAB2EXCEL (or TABWRITE) displays tables that are used to transfer the selected data **from SAP to Excel** (when reading reference data).
- Command TABBOTH shows the tables for both directions.



Figure 27.1: Entry of the TABREAD command to activate debugging

For example, if command TAB2SAP is entered in the planning screen, the following transfer tables will be displayed for selection:

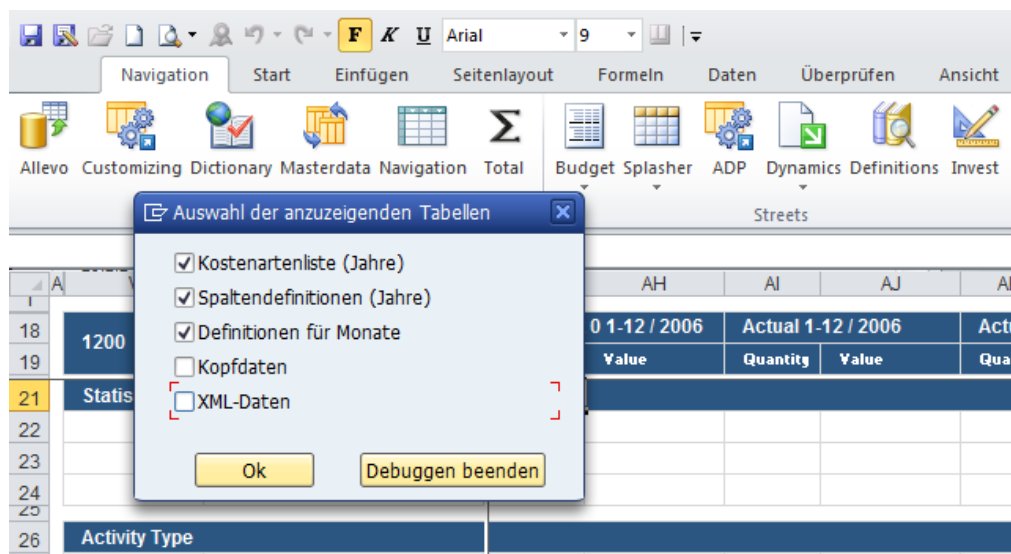


Figure 27.2: Selection of internal tables (here for TAB2SAP)

When using TAB2SAP in the Allevo start screen, tables that are relevant only once during call of the Master are displayed as well (e.g. Sat00). The current data for all selected interface tables will be displayed in the next step:

ZS	Kostenstelle	LeisArt	LeisArt	Währungsbetrag	Menge erfasst gesamt	Währungsbetrag	Menge erfasst gesamt	Vert.	Tariff gesamt	Tariff gesamt	TarEh
A	0000430900			0,0000	0,000	0,0000	0,000		0,00	0,00	
A	0000420000			0,0000	0,000	0,0000	0,000		0,00	0,00	
A	0000430000			152.829,9800	0,000	0,0000	0,000		0,00	0,00	
C	0000615000	AC680	REP	28.000,0000	140,000	0,0000	0,000		0,00	0,00	
C	0000635000	1210	1540	1.560,1300	36,000	0,0000	0,000		0,00	0,00	
C	0000618000	4120	1412	387,3600	80,000	0,0000	0,000		0,00	0,00	
C	0000637000	2200	1560	5.446,8000	72,000	0,0000	0,000		0,00	0,00	
C	0000634000	1210	1530	103,5600	996,000	0,0000	0,000		0,00	0,00	
C	0000636000	1220	1550	16.251,3900	996,000	0,0000	0,000		0,00	0,00	
C	0000615000	73010	1410	1.500,0000	1.500,000	0,0000	0,000		0,00	0,00	
C	0000633000	1200	1520	3.009,8300	72,000	0,0000	0,000		0,00	0,00	
IT	0000632000			1.799.028,0000-	0,000	0,0000	0,000		0,00	0,00	
IT	0000625000			14.798,5200-	0,000	0,0000	0,000		0,00	0,00	

Figure 27.3: Example of a transfer table

The table contents are displayed when calling the functions |Read reference data|, |Plan| and |Save comments|, as well as |Read sat.| and |Write sat.|.

A log can also be created for the data shown in the **Tree on the Excel side** (only useful for layouts with activated tree functionality). In this case, the data are not shown on screen, but saved in a file with XML data (directory can be selected). This function is activated by entering TREETEST in the command field. It will be enabled until the user leaves the corresponding Allevo transaction or enters TRECLEAR in the command field.

27.5 Archiving reporting comments

Allevo Reporting makes it possible to display previous versions (maximum 999) of comments (as described in Section 21.2). In order to be able to access these historical comments, archiving procedures must be run (these must be started manually, for example at the end of the planning cycle).

With every archiving run, a copy of the comments is saved in the archive. The original entries are not deleted. Transaction /KERN/IPPREPARCH can be used to create new archive entries; this transaction also provides an overview of all existing archiving cycles (see Figure 27.4).

Hauptselektion

Aktuelle Kommentare

Archivierung vom bis

Letzte Archiv Nr: 7

Dieses Tool archiviert Reporting Kommentare, löscht aber keine aktuellen Einträge.
Vor neuen Archivierungslauf bitte Sicht "Aktuelle Kommentare" wählen und die relevanten Zellen markieren.

KoRechKrs	Setklasse	Layout	Name	Planobjekt	Belegdatum	Text	Text	Text	Bkp. Num.	erstellt am	erstellt u
1000	0106	MF2	FUHR...	0000001018 403000	26.07.2010	Test 1					00:00:0
1000	0106	MF2	FUHR...	0000001018 403500	26.07.2010	Test 2					00:00:0
1000	0106	MF2	FUHR...	0000001018 404000	0000001021 26.07.2010	Test 3					00:00:0

Figure 27.4: Display of Current Reporting Comments

The default view shows all current Reporting comments.

The selected rows can be copied under a new number to the archive using the button |New archiving|. Authorization group ZIPP_REPC is required. A short descriptive text can be added to the archiving cycle.

By choosing another selection of entries, it is possible to view archive entries from previous saves. (see Figure 27.5).

Hauptselektion

Aktuelle Kommentare

Backup vom bis

KKrs	SKls	Layout	Benu...	Planobjekt		Belegdatum	Text	Text	Text	Bkp. Num.	erstellt am	erst. um	Erst..	Bemerkung
1000	0101	WHF2	HER...	0000001000	400000	11.10.2011	Test Kommentar 1			2	12.10.2011	13:30:22	HER..	Erster Archivlauf
1000	0101	WHF2	HER...	0000001000	400000	12.10.2011	Kommentar1 für Archiv Lauf			3	12.10.2011	13:40:16	HER..	Neuer Archivierungslauf
1000	0101	WHF2	HER...	0000001000	403000	11.10.2011	Test Kommentar 2			2	12.10.2011	13:30:22	HER..	Erster Archivlauf
1000	0101	WHF2	HER...	0000001000	403000	12.10.2011	Kommentar2 für Archiv Lauf			3	12.10.2011	13:40:16	HER..	Neuer Archivierungslauf
1000	0101	WHF2	HER...	0000001000	400000	12.10.2011	Kommentar1 für Archiv Lauf					00:00:00		
1000	0101	WHF2	HER...	0000001000	403000	12.10.2011	Kommentar2 für Archiv Lauf					00:00:00		

Figure 27.5: Archived reporting comments

In this case, archiving numbers and the corresponding date of the archiving cycle are also shown in the list. Entries are sorted by plan object and cost element; comments can thus directly be followed in the course of time.

Note: Transaction group ZIPP_KOM is required to call the transaction.

27.6 Resolving object / cost element groups and export to Excel

The transaction/KERN/IPPKAGRPEXP provides a report that resolves the hierarchy of the object and cost element groups and provides them as Excel file (TAB-separated list).

The list shows all components of the group with the summation level. Groups are resolved in the following hierarchies:

- AC Accounts of profit center planning
- KA Cost elements of CO planning
- KF Statistical key figures
- KS Cost centers
- OR Internal orders
- PC Profit center

Export Gruppen-Hierarchie und Inhalte

Aktion

Aufzulösender Gruppentyp: KA Kostenarten

Selektionsparameter

Über direkte Eingabe Lesen aus Customizing-Tabelle

Kostenrechnungskreis:

Gruppe:

Sprache:

Info zu Buchungen

Ausgabe-Optionen

Export Ordner:

Kennzeichen einer Gruppe:

Beschreibung zur Gruppe:

Beschreibung der Positionen:



Export Gruppen-Hierarchie und Inhalte	
 	
Aktion	
Aufzulösender Gruppentyp	KA Kostenarten
Selektionsparameter	
Kostenrechnungskreis	1000
Gruppe	OAS
Sprache	DE
<input type="checkbox"/> Info zu Buchungen	ab Jahr für Objektart
Ausgabe-Optionen	
Export Ordner	C:\temp
Kennzeichen einer Gruppe	#
Beschreibung zur Gruppe	
Beschreibung der Positionen	S

Figure 27.6: Export cost element structure

A special character can be selected to flag group levels in the output list (such as * or #); optionally, a group description can be included. For the position, either a short or long text can be transferred as description: the function depends on the group type that is to be resolved (not all SAP master records provide two separate text fields).

During export, you may include information indicating whether postings have been made in the selected group in recent years. The output file might then contain an additional column with the header “Posted”.

Note: Posting records are queried on the basis of entries in SAP tables COSS and COSP. The function is activated using the button “Info on postings” and specification “from year”. If the group that is to be resolved is a cost element, an object type must additionally be specified for determination of relevant postings (see selection screen in Figure 27.6).

Application of analysis:

- Especially the list of cost elements may be very useful in the Allevo introductory project, in order to, for example, fill Allevo Master files with appropriate cost element structures or check whether all cost elements are included (see next section). Usually, the list is also the basis for working with the Allevo additional module “Master generator” (for further details, see separate manual).
- At a later stage of the planning process, the analysis may be useful to see if new cost elements have been added that might be relevant for planning in Allevo. Comparison can be semi-automatic by using additional Excel functions in the so-called cost element monitor (request from Kern AG if necessary).

Note: The option “Reading from Customizing table” is no longer available as of Allevo 3.5. It was only useful when regularly exporting the same cost element groups.

27.7 Cost element monitor for Allevo Master

If the Allevo Master contains cost elements that are entered permanently, there may be uncertainties about whether these entries are current and complete or whether changes might be required for the next planning round.

In this case, the transaction /ALLEVO/GRP_EXP is useful, with cost elements being exported according to a predefined hierarchy. Here, the export may check for posted elements similar to ProCED (see previous section).

This cost element export forms also the basis for an efficient Monitor function realized via a separate Excel file:

- Cost elements from an SAP export are read and listed. A comment may be added to each cost element (kept also during repeated reading).
- Other columns show cost elements from an Allevo Master (or various) for comparison.
- Allocations are made to exact cost elements: in that way, the user can directly see whether a cost element is available in a Master or not.

Corrections about the Allevo Master must still be made manually.

If interested, the required Excel file (of the so-called “Allevo Monitor”) may be requested from our support. The available functions are described in a separate documentation.

Note: Alternatively, Allevo may monitor whether posted cost elements are missing in the Master during planning execution and display a warning in case of deviations.

The screenshot shows a window titled "Allevo Ausfuhrungsprotokoll" with a toolbar and a list of messages. The messages are:

- ⚠ Kostenart 430600 wird für die Planung genutzt, fehlt aber im Allevo-Master!
- ⚠ Kostenart 430601 wird für die Planung genutzt, fehlt aber im Allevo-Master!

This check may be set via constant CHECK_KSTAR_GRP (see details in the F1 documentation, PRE_SELECT must also be active).

27.8 Central maintenance of the planning Agenda (via Excel Upload)

As described in Chapter 3, a planning Agenda can be used to have a clear overview when starting with Allevo planning transactions. The Agenda can be set up for each user, controlling area, and single transaction. The easiest application is a list of single transaction variants. As an alternative, Controlling can provide a central list via Excel upload (transaction /KERN/IPPSTART_MNT, authorization ZIPP_SET).

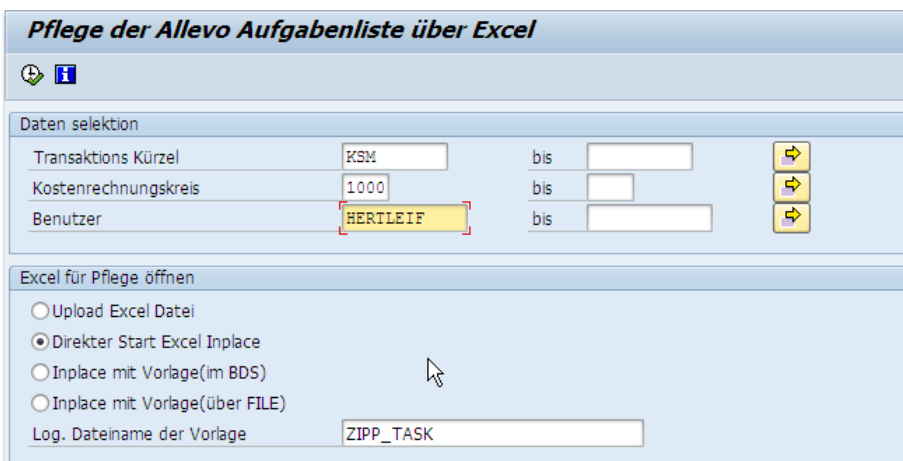
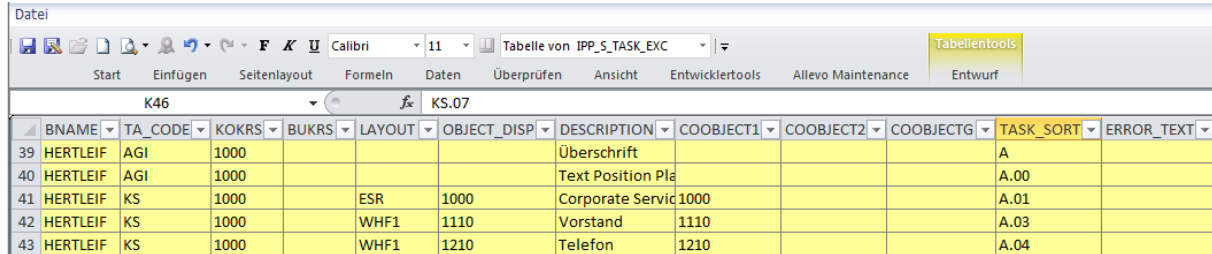


Figure 27.7: Setting up the planning agenda

When selecting "Direct start Excel Inplace", a list of all tasks currently available in the system is shown and can be changed here, if needed. As an alternative, a template can be used (logical file name must be specified in the BDS).



	BNAME	TA_CODE	KOKRS	BUKRS	LAYOUT	OBJECT_DISP	DESCRIPTION	COBJECT1	COBJECT2	COBJECTG	TASK_SORT	ERROR_TEXT
39	HERTLEIF	AGI	1000				Überschrift				A	
40	HERTLEIF	AGI	1000				Text Position Pla				A.00	
41	HERTLEIF	KS	1000		ESR	1000	Corporate Servic	1000			A.01	
42	HERTLEIF	KS	1000		WHF1	1110	Vorstand	1110			A.03	
43	HERTLEIF	KS	1000		WHF1	1210	Telefon	1210			A.04	

Figure 27.8: Selection parameters for the planning agenda

Each row corresponds to a user-specific task in transaction /ALLEVO/AGENDA. The four first columns contain the selection parameters specified when starting the transaction: user name, short name of the Allevo single transaction, controlling area and layout. This information must correctly be set for new rows, to ensure that the task is found.

Note: Entry of a company code in column BURKS is only relevant for transactions for profit center planning.

The entry in column "TA_CODE" controls the call of the desired Allevo transaction, e.g. "KS" for calling the planning for single cost centers, "KSMO" for calling the cost center planning in the Multi-Object mode. Two special functions may be stored here:

- "AGI" as characteristic for info / text files
- "AGT" to call SAP transactions that might be useful in the planning environment.

See also the notes below.

The following parameters are used as start parameters of selection when starting an Allevo transaction:

- COBJECT1: Entry of ID of a single object or of the from-object when using a Multi transaction (e.g. a cost center)
- COBJECT2: Entry of to-object in multiple selection (e.g. in the MultiPage mode) or the project number with object type PR
- COBJECTG: Name of the group for data selection (e.g. in the MultiPage mode or in a layout with Tree display)

Multiple selections may currently not be entered in Excel (see the note below).

The task itself is defined by the following characteristics:

- DESCRIPTION: Free text for general description of the task
- OBJECT_DISP: Any short name for the chosen selection

The field TASK_SORT later defines the sort sequence of the list when the agenda is displayed. If a period (.) is contained as a special character here, a two-level display will be set up (e.g. "A.01", "A.02" ... in the example above). The respective header (title) should then be entered without a period.

Note:	<p>The definition via Excel contains only single objects, From/To values and groups.</p> <p>Multiple selections are not supported. These must be saved in the Allevo single object transactions as variant. Existing rows containing such multiple selections are not displayed on the Excel side (and in that way not overwritten either).</p> <p>Rows sorted via entry "ZFAV" are excluded as well: these rows are then created as so-called "favorites" via the new object selection in the Allevo Inplace mode. In this way, Allevo separates centrally defined "tasks" from favorites created by the user.</p>
--------------	---

Special functions (text rows, call via SAP transaction)

The Agenda used to be intended for calling Allevo transactions. Today, the following special functions are additionally used through special entries in column "TA_CODE":

- The code "AGI" (= Agenda Info) in column "TA_CODE" flags a text line that might contain, for example, additional information for the processing of planning tasks.
Text lines are also useful when tasks are to be grouped. The appropriate sort indicator must then be stored in field "TASK_SORT"; e.g., simply letter "A" in this line or "A.01", "A.02" and so on for subordinate tasks. The period in this field automatically triggers Allevo to generate the desired two-level hierarchy (with the text line as superior group name).
- The code "AGT" (= Agenda transaction) in column "TA_CODE" flags a line that shall be used to call an SAP transaction. The transaction code itself must be provided in OBJECT_DISP and is in that way visible also when calling the agenda. DESCRIPTION may again contain any text describing the transaction.

Rows with such special functions can only be set up using the Excel upload.

27.9 Display or edit data in Allevo tables

The transaction /ALLEVO/TAB makes it possible to display and modify contents of tables in the /KERN/ and /KERN/ naming environment. Data editing requires the authorization group **ZIPP_TAB**. The authorization group ZIPP_HR1 is queried in addition for tables of the additional module HRC.

Caution:	<p>This is a very powerful table editing function; it should be used very carefully!</p> <p>The function used to be part of the additional module Shuttle in previous Allevo versions; it is still available there (layout "5 Allevo – Edit table"), unless the Shuttle has been called directly from an Allevo start transaction.</p>
-----------------	--

The edit dialog knows the following basic functions that can be started using the corresponding buttons:

- "Display source data" as a pure display function
- "Edit data" enables you to change or replace data (only with authorization group ZIPP_TAB).
- "Delete source data" removes all data records from the selected table according to the specified selection.

After clicking on the desired button, a selection screen for data selection opens.

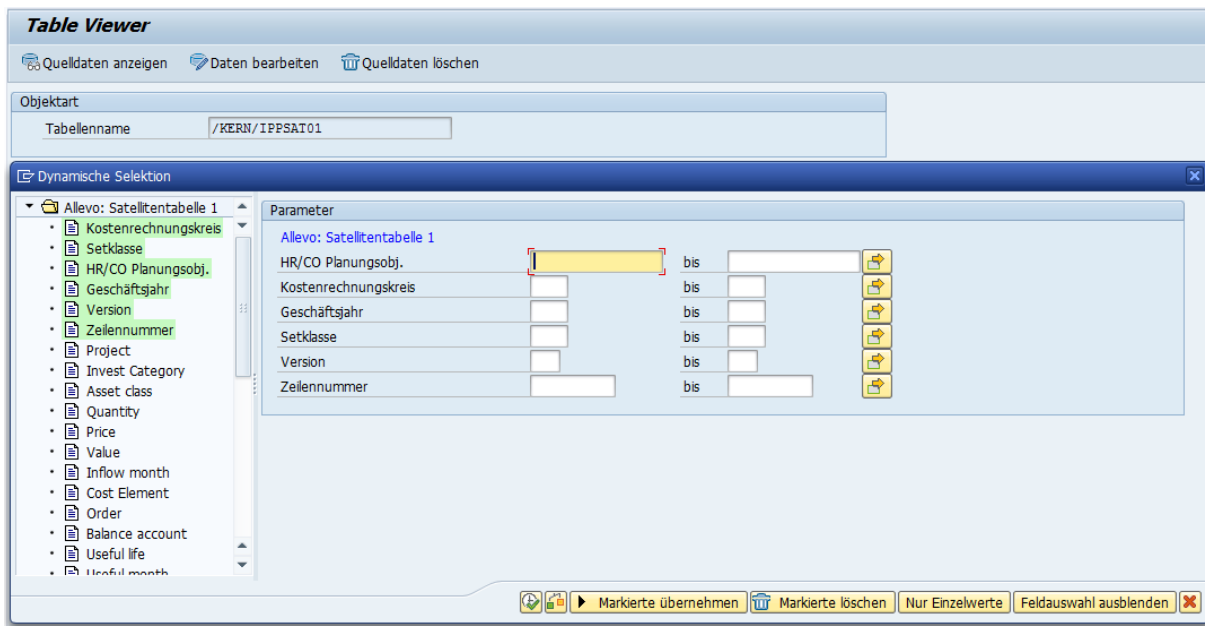


Figure 27.9: Select contents of tables in a KERN naming environment

Conversion to an internal format is not stored in the selection fields at this point. To select, for example, data for a cost center “1000“, the following entry must be made in internal display: “0000001000”.

Note This rule must particularly be observed if data is to be excluded from selection. With improperly entered parameters, the deleting function would lead to data loss.

The list on the left side shows all database fields for the selected table: the fields in the main index are marked in color and are shown also on the right side for selection of selection conditions. The editing functions here result from an integrated SAP standard function.

- The fields from the list are adopted to the selection area using button |Adopt selected| or upon double-click.
- Button |Delete selected| serves to remove the fields from selection.
- The button |Only single values| restricts selection to single values and not to a From/To range.
- The button |Hide field selection| deletes the list of fields.

The icon |Execute| or key F8 adopts the selected parameters, starts selection and displays the corresponding data (see Figure 27.10).

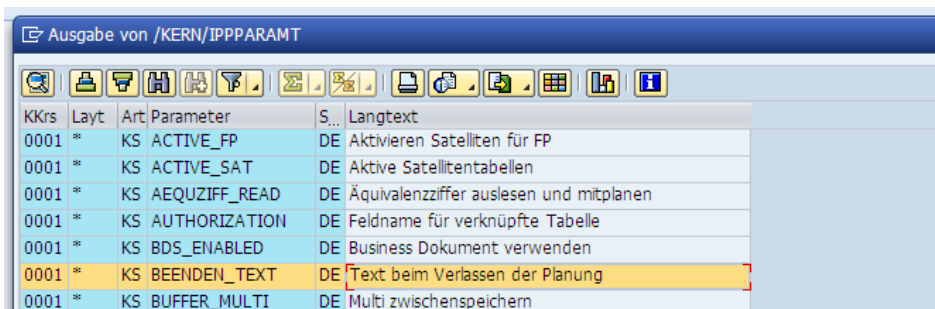


Figure 27.10: Edit tables in the /KERN/ naming environment

The symbol bar provides the common ALV editing functions. The columns with fields in the main index are marked in color.

Note A list of found data records appears also in function |Delete source data|. The query “Delete selection?” appears as the last possibility to cancel the delete process.

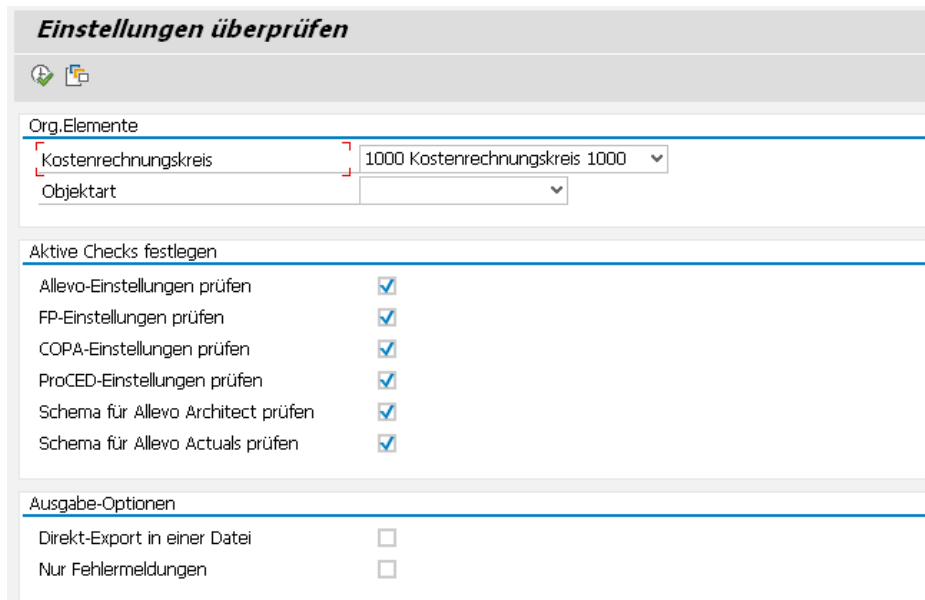
27.10 Overall check of Allevo settings

The efficiency of Allevo is reflected, in the variety of setting options available in the transactions and additional modules. Allevo therefore offers functions allowing plausibility checks of entries.

An overall check may further be started via the Cockpit (or transaction /ALLEVO/CHECK_SET), which may be run including all settings, if desired. There may be several reasons to execute this check, for example:

- Transition from test to production system or the other way round.
- Query changes in the SAP system that affect Allevo; e.g., check on 1:n groups where the representative object has changed.
- Overall check after an Allevo update to be able to react to changes.

The check may optionally be restricted to single Allevo functions.



Einstellungen überprüfen

Org.Elemente

Kostenrechnungskreis 1000 Kostenrechnungskreis 1000

Objektart

Aktive Checks festlegen

Allevo-Einstellungen prüfen	<input checked="" type="checkbox"/>
FP-Einstellungen prüfen	<input checked="" type="checkbox"/>
COPA-Einstellungen prüfen	<input checked="" type="checkbox"/>
ProCED-Einstellungen prüfen	<input checked="" type="checkbox"/>
Schema für Allevo Architect prüfen	<input checked="" type="checkbox"/>
Schema für Allevo Actuals prüfen	<input checked="" type="checkbox"/>

Ausgabe-Optionen

Direkt-Export in einer Datei	<input type="checkbox"/>
Nur Fehlermeldungen	<input type="checkbox"/>

Figure 27.11: Allevo overall check

Critical sources are marked as error and should be repaired to ensure stability of Allevo functions. Export to a text file may be useful in case you need assistance by our support team.

27.11 Cross-module up/download of Allevo settings

Transaction /ALLEVO/SET_UP_DOWN or the corresponding menu entry in the Allevo Cockpit makes it possible to save different Allevo modules simultaneously in one file and upload them again later. All settings are transferred, respectively (e.g. all settings on a layout).

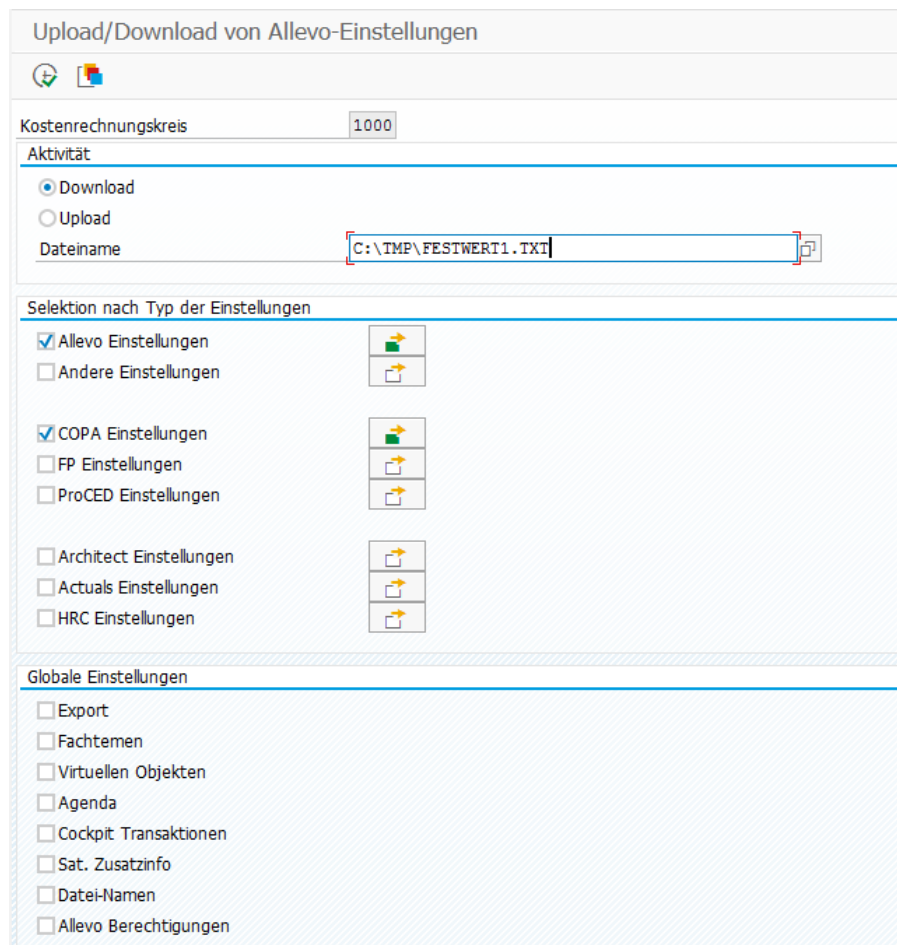
Note: This function is very powerful and is usually reserved for the administrator. The authorization groups ZIPP_LAY and ZIPP_SET are therefore queried when downloading constants; the upload additionally requires ZIPP_ZMM.

This cross-module function serves as backup system but also to transfer settings between SAP systems.

The function only includes settings within one controlling area.

27.11.1 Download (Export)

The following figure shows the selection screen for the download function.



The screenshot shows the 'Upload/Download von Allevo-Einstellungen' dialog box. At the top, there are icons for refresh and help. Below that, the 'Kostenrechnungskreis' is set to '1000'. The 'Aktivität' section has 'Download' selected. The 'Dateiname' field contains 'C:\IMP\FESTWERT1.TXT'. The 'Selektion nach Typ der Einstellungen' section has the following options checked: 'Allevo Einstellungen', 'COPA Einstellungen'. The 'Globale Einstellungen' section has the following options checked: 'Export', 'Fachtemen', 'Virtuellen Objekten', 'Agenda', 'Cockpit Transaktionen', 'Sat. Zusatzinfo', 'Datei-Namen', 'Allevo Berechtigungen'.

Figure 27.12: Cross-module download (export) of Allevo settings

The settings for the Allevo main module as well as for the additional modules such as FP, ProCED and the COPA interface are available for selection.

A multiple selection is available for each type of settings: for example, all layouts in the current controlling area are listed. This detailed view allows you to flag single layouts (or schemes) for the export or even transfer all.

The buttons in the section “Global settings” includes the global Allevo constants, as well as side calculations with the allocation of satellites.

After program start via F8, an overall list of all selected settings appears; e.g. the selected layouts or satellite settings in additional modules such as FP or ProCED. Further selections may be made here before the text file is exported.

Note: The two-level selection offers a central advantage: the selection parameters may be stored for recurring exports and imports.

27.11.2 Upload (Import)

During upload, the specifications on the different types of constants are being copied from the respective file; no further selections are made in the start screen.

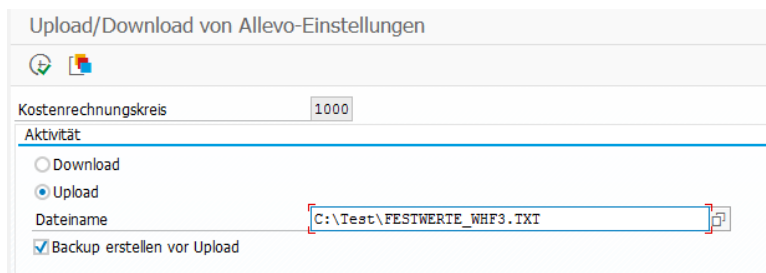


Figure 27.13: Cross-module upload (import) of Allevo settings

It is recommended to generate a backup prior to the actual import (see corresponding option in the figure above). These backup data are saved as a file in the same directory that contains the file with the new data (the name contains “settings_backup” and time specification).

After execution via F8, a list containing all settings stored in the constants file appears. The import may be performed for all constants or via a selection.

Note: The overall import knows no setting for the controlling area. In current Allevo versions, data are imported to the currently set controlling area (according to OKKS); this may therefore be different from the controlling area that was set for data export. In that way, it is also possible to copy data a different controlling area.

In previous versions (older than 3.4.13), data could only be exchanged between identical controlling areas.

27.12 Reorganize constants

In previous Allevo versions, the list of freely available constants would be imported using a file upload, since there was no F4 search available. This also involved the import of constants that were not meant to be used for the respective layout. To increase transparency, it may be useful to reorganize constants for example in such way that the constant list shows only active entries.

Such a reorganization can be done for each controlling area and object type using the Allevo transaction `/ALLEVO/CONSTS_REORG`.

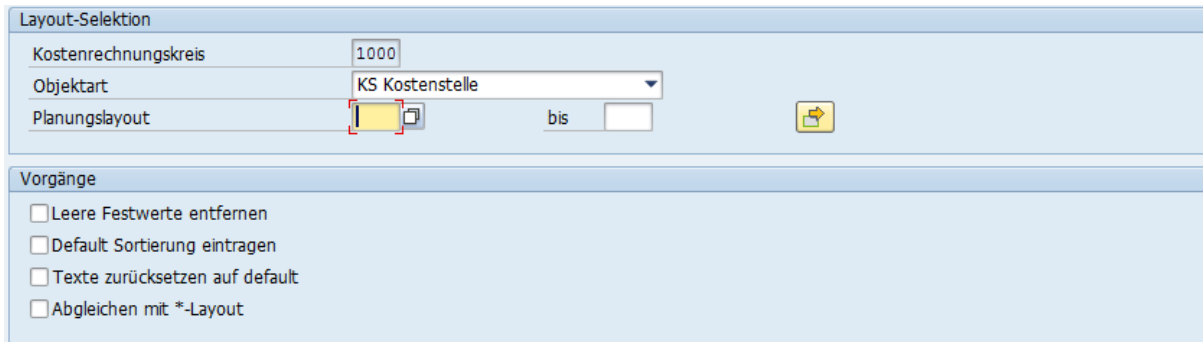


Figure 27.14: Re-organization of constants

The following options are available:

- “Remove empty constants” deletes all constants with empty columns “Value from” and “Value to”. However, constants that are defined in the * layout will be kept (empty entries may replace specifications from the * layout).
- “Enter default sort sequence”: this option refers to the display of constants under different tabs. Today, Allevo contains a suggested value so that constants referring to names also appear on the tab “names”. You may therefore also adopt the suggested values to the current constant entries.
- “Reset texts as default”: the delivery package today also contains a constants description. Specifications in the constant management are therefore only required for customer-specific constants, which are relevant, for example, for BAdI implementations.
- The option “Compare to * layout” checks whether a constant in the named layout contains the same contents as in the * layout. The constant in the named layout might then be removed. This option especially facilitates maintenance of various layouts.

Note: Reorganization functions that remove constants should not be executed in the planning stage; they may, however, be useful in the course of an upgrade project.


27.13 Transfer objects of 1:n allocation from SAP Reporting

The Allevo 1:n functions use representative objects to read data for an entire group (see Section 6.5). SAP offers a similar function in Reporting (to be set, e.g., for cost centers via transaction KSH2: context menu for the group, then “Settings for reports”).

Representative objects may be adopted from the SAP Reporting to the Allevo 1:n functions with the help of report `/KERN/IPP_FILL_1TON_GROUPS`.

Note: The report is primarily intended for background processing with frequent comparison of allocations; this is why no transaction is currently assigned. In the medium term, a call from the Allevo 1:n maintenance transaction scheduled.

After calling the report via SA38, the following selection screen appears:



The screenshot shows a SAP selection screen titled "Allevo: Übernahme der Berichts-Einstellungen in SAP für 1:n Gruppen". The screen is divided into several sections:

- Zentrale Parameter:** Contains three input fields: "Kostenrechnungskreis" with the value "1000", "Objektart" with a dropdown menu showing "KS Kostenstelle", and "Planungslayout" with the value "WHF1" and a "bis" field. A yellow icon with a right-pointing arrow is located to the right of the "bis" field.
- Optionen für Update der 1:N Tabelle:** Contains four radio button options: "Aktualisiere ohne Löschen" (selected), "Bestehende Einträge löschen", "Ändere nur bestehende Einträge", and "Füge nur neue Einträge hinzu".
- Optionen für Update der Status Liste:** Contains one checkbox option: "Setze Status für rep. Objekte".
- Ausführung:** Contains one checkbox option: "Test".

Figure 27.15: Adopt objects in 1:n allocation from SAP Reporting

All allocations stored in the SAP Reporting are adopted (no further selection from groups). An update can be done for multiple planning layouts simultaneously. Existing 1:n table entries are either complemented or completely replaced.

The report can also adopt the found representative objects automatically into the Allevo status table.

27.14 Allevo system information

With this function, Allevo-relevant information is read from the current SAP system and exported to a text file. The function may be especially useful in support cases and is called via the menu "Cockpit >> Export System Information" or transaction /ALLEVO/SYSTEM_INFO.

Allevo: Relevante System-Informationen in eine Datei schreiben

Info-Bereiche

- SAPGUI
- SAP System
- Satelliten-Struktur

ABAP Laufzeitfehler

- Laufzeitfehler exportieren

Datum

Benutzername

Laufzeitfehler Nr.

Datei-Optionen

Dateiname

- Datei öffnen

Figure 27.16: Selection screen for the Allevo system information

The following information is currently available for the export:

- Information on the installed SAP GUI and Excel version; incl. comparison with requirements for the application of SAP Office Integration (based on specifications in the SAP note 722513).
- Data on the current SAP systems, also available in the SAP dialog under menu “System >> Status” (incl. installation number).
- Structure of all satellites with append. Export is done as tab-separated list, which can be transferred to Excel via copy & paste (useful to transfer appends to other SAP systems).
- Export of information for an ABAP runtime error. The entry fields for date and user name will only open if the corresponding button is set. Button “Select” makes it possible to select the error description in the Allevo environment (similar to SAP transaction ST22).

The generated information is saved as a text file in the defined directory. A preview of exported data is possible.

Note:	The text file containing the system information may especially be useful in error analyses by our support.
--------------	--

27.15 Copy planning data within Allevo-specific tables

The Allevo-specific summary record tables (e.g. /KERN/ACOSP) are used in different application cases; e.g.:

- Enter planning data for Allevo objects
- Save temporary data for SAP objects that cannot be stored in the original SAP tables, e.g. data from a transfer of old data or specific selected data as in Allevo FID (see constant USE_ALLEVO_TABLES).

The Allevo-specific summary record tables are supported via all common Allevo planning functions, e.g., for planning via cost elements, statistical key figures, activity types.

Similar to KP97, data in Allevo-specific summary record tables can be copied between different plan versions (transaction /ALLEVO/COPY_ACOSX).

Datenkopie in /kern/acosex-Tabellen und /kern/ippcomment in Jahr/Versn

Objektauswahl

Kostenrechnungskreis	1000
Objektart	KX Allevo Objekt
Allevo Objekt	COPA_DIV_01 bis COPA_DIV_07
Setname	

Vorlage

Geschäftsjahr	2016
Version	0
<input type="checkbox"/> Ist (als Vorlage für Plan)	

Ziel

Geschäftsjahr	2017
Version	0

Tabellen

- /kern/ippcomment
- /kern/acosp
- /kern/acosr
- /kern/acoss
- /kern/acost

Ablaufsteuerung

- Vorhandene Daten nicht ändern
- Zurücksetzen und überschreiben
- Testlauf

Figure 27.17: Copy planning data for Allevo-specific tables

Currently, data are copied on annual basis, and therefore with no restrictions to periods. Copy mode:

- In the standard case, only planning data are copied (value types 1, 2, 8 and 10).
- The option “Actual” (as a template for plan) makes it possible to copy rows with a value type normally representing actuals data. Data records with value types 4, 3, 9 and 11 are selected and implemented for plan (value type 4 to value type 1; 3 to 2, 9 to 8 and 11 to 10).

Object selection can be done as multiple selection or from a group. Default suggestion is the object type KX. Other SAP objects may, however, also be selected (provided that their data are stored here).

If “Do not change existing data” is set, new posting combinations will be inserted.

A “test run” shows the number of data found prior to the copy. The number of actually written data may be different (e.g. due to option “Do not change existing data”).