



Allevo Architect & Actual

User Manual

For Allevo 3.5 and higher

Master record management and actual postings with Allevo

The additional modules Allevo Architect and Allevo Actual create an interface for the management of SAP master data and the creation of actual postings.

Allevo Architect allows for the automatic creation of the following SAP master data:

- CO: Cost centers, internal orders, cost elements, activity types, statistical key figures, business processes
- PS: Projects, WBS elements
- IM: Appropriation requests, Capital investment program
- PC: ProfitCenter

With **Allevo Actual**, you can handle the following actual postings and actual processes:

- FI Processing: G/L accounts, vendors, customers, assets
- CO Processing: transfer postings, activity allocations, statistical key figures
- LO Processing (Logistic): sales orders, purchase requisition

Chapters

1	Introduction	4
2	General functions of all modules	6
3	Architect: master data interface	10
4	Actuals: Post FI posting documents	32
5	Actuals: Actual data transfer to controlling.....	42
6	Actuals: Entering logistics documents	51
7	Additional functions	59



Table of contents

1	Introduction	4
2	General functions of all modules	6
2.1	Overview	6
2.2	Maintain schemes	7
2.3	Constants and fields in the satellite (mapping)	7
2.4	Calling directly from the Allevo Planning start screen (Excel)	9
2.5	Allevo constants in the Architect / Actual environment.....	9
3	Architect: master data interface	10
3.1	Functional overview and program startup	10
3.2	Field-mapping / constants.....	12
3.3	Controlling functions in field mapping.....	14
3.4	Program execution for the creation of master data	15
3.5	Appropriations-Request.....	16
3.6	Investment programs	18
3.7	Creating secondary cost elements	21
3.8	Create activity types	21
3.9	Create (or change) cost center	21
3.10	Create (or change) internal orders	23
3.11	Profit Center Profit-Center	24
3.12	Projects and WBS elements.....	24
3.12.1	Create (or change) projects or WBS elements	24
3.12.2	Special functions (Investment program, depreciation-data, settlement).....	27
3.12.3	Read project and WBS elements.....	29
3.12.4	Constants for direct dialog function.....	30
3.13	Create statistical key figures.....	30
4	Actuals: Post FI posting documents	32
4.1	Functional overview	32
4.2	Calling transactions	33
4.3	Maintain schemes.....	33
4.4	Field assignments for calling BAPI (constants)	33
4.5	Controlling functions	34
4.6	Program execution for creating FI documents.....	37
4.6.1	Create posting documents	37



4.6.2	Automatic document split	38
4.6.3	Reverse posting documents	39
4.7	Authorization checks.....	40
5	Actuals: Actual data transfer to controlling.....	42
5.1	Functional overview	42
5.2	Calling transactions	43
5.3	Maintain schemes.....	43
5.4	Field assignments for actual postings in controlling	43
5.5	Controlling functions	44
5.6	Technical details for program execution	46
5.6.1	Overview	46
5.6.2	COPC Manual reposting of primary costs	46
5.6.3	CORE Manual reposting of revenues	47
5.6.4	COAA Directly measure activity allocation	47
5.6.5	COMA Manual cost allocation.....	47
5.6.6	COKF Measure statistical key figures.....	47
5.6.7	CORV Reverse CO documents	47
5.6.8	COTS Interface for plant data collection (CATS).....	48
6	Actuals: Entering logistics documents	51
6.1	Functional overview	51
6.2	Calling transactions	51
6.3	Maintain schemes.....	52
6.4	Field assignments for calling BAPI	52
6.5	Controlling functions	53
6.6	Technical details for program execution	56
6.6.1	Overview	56
6.6.2	Creation of sales documents	56
6.6.3	Creating purchase requisitions (ME51N)	57
7	Additional functions	59
7.1	Calling via Customer button.....	59
7.2	Calling directly when reading/writing satellite data	59



1 Introduction

Allevo satellite tables are the ideal basis for the purpose of secondary planning or other customer specific business topics (e.g., for investment or personnel planning, or as an interface to the COPA).

The additional modules Allevo Architect and Allevo Actual create an interface for the management of SAP master data and the creation of actual postings. The following functions are supported:

Allevo Architect

Create (in some cases, also change) master data:

- CO: Cost centers, internal orders, cost elements, activity types, statistical key figures
- PS: Projects, WBS elements (in development)
- IM: Appropriation requests, Invest. programm
- PC: ProfitCenter

Currently, the functions are designed primarily to create new master records; the change function is only available for individual objects (e.g., orders). However, the functions are continually being developed further.

Allevo Actual

Actual processes and actual postings for

- FI with postings for G/L accounts, vendors, customers, assets
- CO with transfer postings, activity allocations, statistical key figures
- LO (Logistics) with sales orders, purchase requisition

The interfaces are usually operated in Allevo with the following logic:

- The user opens an Allevo layout in which the relevant satellite is set up with all input options in the Allevo master
- Calling can be done via a representative CO object (e.g., a cost center), or alternatively, via an Allevo object. The data in the satellite can be derived from data from the standard planning. The input can also be carried out independently of the usual Allevo planning functions.
- The user can optionally simulate posting or initiate the execution via satellite fields with controlling information (see below for the corresponding call).
- Results of the posting functions (for example, the newly created document numbers) are copied to the satellite table and are also displayed in the Excel-view the next time the Allevo layout is called.

Calling the interface, and therefore the transfer of the satellite data to an SAP document, can be variably integrated into the respective customer process. Possible scenario:

- Call transaction / report for the transfer of all new satellite data to the desired SAP documents.
- Click the Customer button in the Allevo planning view for the transfer of the satellite data being currently edited (independent of the start object).



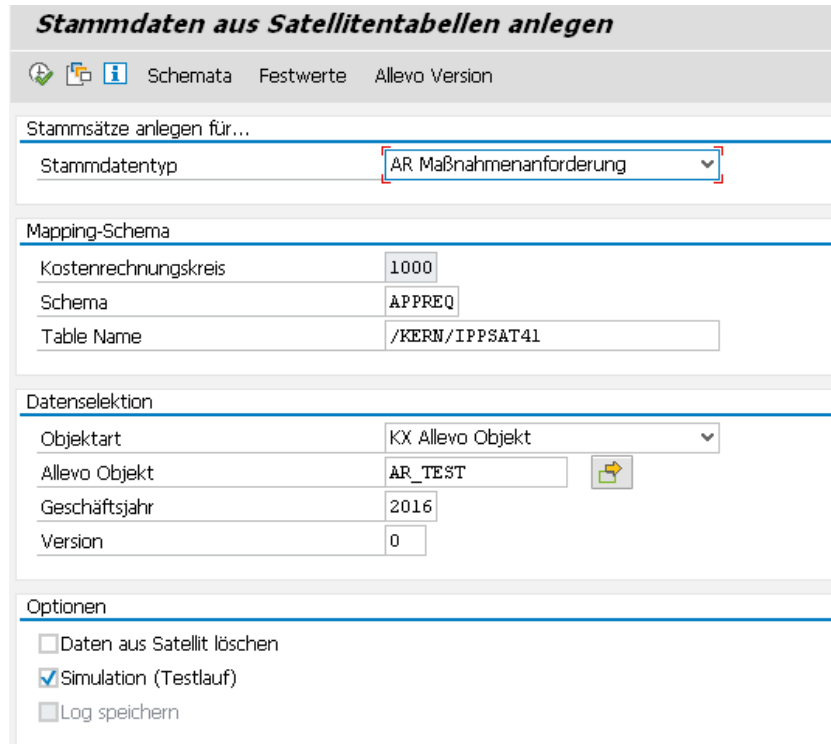
- BAdI for the automatic processing of satellite data when saving in Allevo planning (as with background execution)

All interfaces use SAP BAPIs (or function modules) for the transfer of data from a satellite table to SAP documents. For this, constants need to be set (mapping), which ensure the correct assignment of the satellite fields to components of the SAP function modules.

2 General functions of all modules

2.1 Overview

Allevo Architect and Allevo Actual have a number of basic functions, which are set up similarly for all interfaces. As an example, here is the start screen for the creation of appropriation requests:



Stammdaten aus Satellitentabellen anlegen

Schemata Festwerte Allevo Version

Stammsätze anlegen für...

Stammdatentyp AR Maßnahmenanforderung

Mapping-Schema

Kostenrechnungskreis 1000

Schema APPREQ

Table Name /KERN/IPPSTAT41

Datenselektion

Objektart KX Allevo Objekt

Allevo Objekt AR_TEST

Geschäftsjahr 2016

Version 0

Optionen

Daten aus Satellit löschen

Simulation (Testlauf)

Log speichern

Figure 2.1: Typical program start screen

Examples of shared functions

- A simulation mode is available for all interfaces, in order to, for example, check the entered satellite data for consistency.
- In all cases, a log is created in order to inform the user about the results (e.g., IDs of the created documents, error messages, etc.). Important information from the log (e.g. number of a new documents, error messages) can also be copied directly into the satellite table and are thus available on the Excel interface as a basis for further steps.
- Messages for program execution can optionally be written into the satellite table.
- Error messages can also be written into the SAP application log for later analysis in transaction SLG1 or Allevo transaction /KERN/IPPAPPLOG.
- Clear assignment of the satellite fields to the components of the SAP BAPIs
- The use of multiple schemes per satellite simplifies the creation of applications with different contents / constants
- Calling the SAP-internal help texts for the respective BAPIs.
- Special fields in the satellite can control which data of a satellite table are to be processed via the interface (e.g., via a satellite field with a release status).



2.2 Maintain schemes

A satellite can contain data for multiple applications, e.g. both for the creation and reversal of documents. For each application, a scheme has to be defined, which basically consists of only one ID code and a suitable description of the application. The scheme is created on the level of the satellite table and controlling area.

Changes can be made via the "Schemes" button (see Figure 2.1). A specification of the sequence only changes the sorting of the displayed list in the current version.

2.3 Constants and fields in the satellite (mapping)

All modules require an allocation of constants for the respective fields of the satellite table. Editing can be done via the button "Constants" (see Figure 2.1). The following figure shows the typical structure, using the creation of master data as an example:

Ziel-feld	Quellenfeld	Kurzbeschreibung
MD_DATE	CH_DATE	Datum
MD_USER	CH_USER	Benutzername
COMP_CODE	COMP_CODE	Buchungskreis
CO_AREA	KOKRS	Kostenrechnungskreis
IN_CHARGE	IN_CHARGE	Verantwortlicher des Profit Centers
PRCTR_HIER_GRP	PRCTR_HIER_GRP	Profit Center Bereich
PRCTR_NAME	PRCTR_NAME	Allgemeine Bezeichnung
PROFIT_CTR	PROFIT_CTR	Profitcenter
VALIDFROM	VALIDFROM	Datum
VALIDTO	VALIDTO	Datum

Figure 2.2: Field mapping for the creation of master data

Depending on the interface type (entered in "Map.area"), a structure is defined in the ABAP-dictionary, which contains all components that are relevant for the creation of a new data record (in the figure above, this is the structure "/KERN/IPP_S_MDPC" for the creation of Profit Centers):

- The fields of these structures are available via the F4-value help in the first column. Optionally, all existing components can be displayed via the corresponding button in the toolbar.
- The second column "Source field" contains the assigned fields of the satellite table (here, the F4-value help is also available). The fields can also contain additional formatting options (see below).
- The short description of the individual row is automatically transferred from the saved structure.



Example:	The Kern-specific structures (e.g., "/KERN/IPP_S_MDPC") usually contain all of the fields of the BAPI, which are called for the creation of a master record or another document. The documentation for the respective BAPI often contains further information on the meaning of the fields (calling can be done directly via the button of the same name in the upper right corner).
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All fields that are to be taken into account for the creation of a master record or other document must be filled with an appropriate value in the satellite table: whether a certain field is compulsory is difficult to say in general terms. (can depend on the Customizing in the respective current SAP implementation, for example). The Allevo check function (see toolbar) can therefore not take all general requirements into account.

The button "Insert all components" makes the entry easier when multiple assignments should be made simultaneously: all designated components are added to the list. However, only those components for which a field of the satellite table has been assigned are saved.

Checks:	Allevo provides a function for checking entries (see toolbar). Depending on the application area, the field assignments may be spread over several tabs (e.g., separated by header and item data). The check function only respects the currently active tab. When saving, all tests are run through.
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Special components / Controlling tasks

The first components in the figure above (those beginning with "MD_") have a special status and are available in all modules, regardless of the interface parameters of the respective BAPI. They perform specific control tasks when reading and writing the satellite data. Functions:

- When reading the satellite table, these components decide which data records should be relevant for further processing (example: the field MD_RELEASE can contain an individual specification for a release)
- After processing the satellite data and creating the corresponding SAP documents, information can be written back (e.g., component MD_DATE for the date of the document creation; MD_MESSAGE for saving messages from the document processing).
- Some components have a function for both reading and writing. For example, with the component MD_DATE, the current date is noted after a document is created; when the interface is run again, the respective rows in the satellite are ignored.

Options for the source field

In the column "Source field", the fields of a satellite table are displayed, the contents of which are transferred to the saved BAPI when a transaction is executed. The usual ABAP formatting options are available for these contents. Examples:

- Offset: The specification "COBJECT+6" reads the satellite field COBJECT starting from the 6th position
- Length: the specification "COBJECT(10)" only reads the first 10 characters of the contents from the satellite field COBJECT
- Offset and Length: The specification "COBJECT+6(4)" combines both of these formats (i.e. 4 characters starting from the 6th position)



As an alternative to a satellite field, you can also enter a fixed value. For the corresponding component, no entry in the satellite table is required. The constant must be specified with a single quotation, e.g., '1000' in order to set a controlling area to 1000.

Important:

These options cannot be applied to MD-components or to those components that are written back to the satellite table (e.g. number of a newly created document).

2.4 Calling directly from the Allevo Planning start screen (Excel)

It can be useful to start program functions of Allevo Actual and Allevo Architect directly from Allevo planning, in order to, e.g., directly create documents or master data. Two variations are available:

- Calling via the Allevo Customer button (see constant `BUTTON_CUST1`)
This variant has the advantage that the user can individually decide when an additional function should be executed.
- Automatic execution of the desired functions when satellite data is transferred (see constant `SATxx_PROC_AFT_WR` or `SATxx_PROC_BEF_RD`).
In this case, Allevo automatically checks which data records in the satellite should be edited (via corresponding columns with release flags). This variant should be used if documents should be changed in the dialog, as is done for e.g., WBS elements.

The functions are described in more detail in Chapter 7 "Additional functions".

2.5 Allevo constants in the Architect / Actual environment

The following Allevo constants support functions for working with the modules described here:

- `BUTTON_CUST1` Button 1 for calling customer specific functions
- `BUTTON_CUST2` Button 2 for calling customer specific functions
- `EMBEDDED_INTERFACE` calling Architect / Actual via the Allevo planning screen
- `SAT_BUT_READ_ALL` read data from all satellites simultaneously
- `SAT_BUT_SAVE_ALL` write data for all satellites simultaneously
- `SATxx_PROC_BEF_RD` execution of additional functions when saving satellite data
- `SATxx_PROC_AFT_WR` execution of additional functions when reading satellite data



3 Architect: master data interface

3.1 Functional overview and program startup

It can be useful to create CO master records / objects directly from the Allevo planning process. The data for the master record are collected in a satellite and are then transferred to the correct SAP transaction via standard-BAPIs as a master record or document.

Note:	The business background is shown in the accompanying SAP documentation. Calling the SAP documentation for the respective BAPI is integrated when the interface components are maintained in Allevo.
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The corresponding Allevo transaction /ALLEVO/ARCHITECT (or /KERN/IPP_SAT_MD_CR) currently supports the following object types, with the corresponding SAP transactions in parentheses:

- AR Appropriation requests (IMA11)
- IP Capital investment program (IM11, IM22)
- KA Secondary cost elements (KA06)
- KL Activity type (KL01)
- KS Cost centers (KS01)
- OR Internal orders: create and change (KO01, KO02)
- PC Profit Center (KE51)
- PR Project (CJ20N): create, change and read
- SK Statistical key figures (KK01)

The transaction has a simulation mode (test run) to check the completeness of the data. When creating master data, a corresponding log is generated.

After calling the transaction /ALLEVO/ARCHITECT, the following selection screen appears:

Stammdaten aus Satellitentabellen anlegen

🏠 📄 📄 📄 Schemata Festwerte Allevo Version

Stammsätze anlegen für...

Stammdatentyp AR Maßnahmenanforderung ▼

Mapping-Schema

Kostenrechnungskreis 1000
 Schema STD
 Table Name /KERN/IPPSAT84

Datenselektion

Objektart KS Kostenstelle ▼
 Kostenstelle 👉
 Geschäftsjahr 2013
 Version 0

Optionen

Daten aus Satellit löschen
 Simulation (Testlauf)
 Log speichern

Figure 3.1: Create master data from satellite table

The specification of the type determines which master records are to be generated (e.g., cost centers or statistical key figures).

If a satellite table should contain data for different applications, multiple schemes must be assigned, which can also contain different field assignments (e.g., also for distinguishing the functions for reading and changing WBS elements). As is the case with Allevo, a scheme is always dependent on the controlling area.

The selection of data from a satellite table is independent of the master data type: the object type refers back to the process or the transaction with which the data was collected in Allevo, i.e., the object type with which the data was collected. A restriction can be made for each object, which can then be further restricted by fiscal year and version (always only in the current controlling area).

Note:

If the creation or change of master data is done independently from other planning processes, it is recommended to start via an Allevo object (internal object type KX).

The execution of Allevo-Architect must be unlocked by a suitable entry in the license key. The check is carried out using the license key, which is saved in the * layout for the start object type.

All functions are also equipped with appropriate authorizations (see also the section on authorizations in the Allevo SAP manual).

A further restriction can be made via fields in mapping (e.g., MD_RELEASE).

Additional options:



- The parameter "Delete data from satellite" deletes all data records from the satellite table when the corresponding SAP master data has been successfully created. Alternatively, the program can write the results of the creation back into special satellite fields (for example, user, date, document number ...): these data records are ignored during the next program run (see below).
- A simulation (test run) can be useful for checking the completeness of the data in the satellite table. In this case, the program runs without creating any documents, but all possible errors are shown.
- All messages made when creating master data can optionally be written in the SAP application log (option "save log"). These logs can then be displayed via transaction SLG1 or /KERN/IPPAPPLOG. A log can be particularly useful if the program is scheduled as a background job.

With the execution of the transaction, all data that correspond to the given selection parameters are read (fiscal year/version or controlled via components starting with "MD_", see next section). At the end, a log appears with error messages or details about the created documents.

Note:

The execution functions can also be integrated into an Allevo-BAdI, for example, to start the creation of master data directly after saving a satellite in Allevo (or alternatively via a user-specified button in Allevo planning view).

Which route is ultimately chosen primarily depends on the customer's planning process.

3.2 Field-mapping / constants

Which fields should be transferred when creating a new document from a satellite table must be defined via field mapping: this is done for each controlling area and satellite table (call via button "Field-Mapping", see Figure 3.2)



Pflege des Mappings

Datenauswahl

Kostenrechnungsk: 1000 CO Europe
 Schema: STD ANLEGEN MASSNAHMENANF.
 Map.Bereich: MDAR
 Tabelle: /KERN/IPPSAT86 Allevo: Satellitentabelle 86
 Struktur: /KERN/IPP_S_MDAR Kern Struktur fürs Anlegen der Maßnahmen

Komponentenname	Satellitenfeld	Kurzbeschreibung
MD_DATE	ZZDATE	Datum
MD_OBJTYPE	ZZTYPE	Kern Stammdatentyp
MD_RELEASE	ZZRELEASE	MD Freigabe Status
MD_USER	ZZUSER	Benutzername
GJAHR	PJAHR	Geschäftsjahr
INVESTMENT_COSTS	ZZVALPYOC	Währungsbetrag an BAPI-Schnittstellen
INVESTMENT_COSTS_1	ZZVALNYOC	Währungsbetrag an BAPI-Schnittstellen
IVART	ZZIVART	Maßnahmenanforderungsart
KOKRS	KOKRS	Kostenrechnungskreis
PARTNER_1	ZZPARTNER_1	Partner
PARTNER_2	ZZPARTNER_2	Partner
PARTNER FUNCTION 1	77PARTNFR F1	Partnerrolle

Figure 3.2: Field-mapping for the creation of master data

Depending on the master record type (see info for the mapping area), a structure is defined in the ABAP-dictionary. This structure contains all components that are relevant for the creation of a new data record (in the figure above, this is the structure "/KERN/IPP_S_MDAR" for the creation of appropriation requests):

- The fields of these structures can be called from the first column using the F4-value help. Depending on the application, some components are displayed as compulsory fields. Allevo displays the corresponding rows automatically. Optionally, all fields can be displayed using the corresponding button in the toolbar.
- The second column must always contain the assigned fields of the satellite table (F4-value help is also available here).
- The short text description of the individual rows is automatically transferred from the saved structure.

Example: The Kern-specific structures usually contain all fields relevant for calling the BAPI for the creation of the master record (see list below). The documentation for the respective BAPI often contains further information on the meaning of the fields.

The structures are a point of reference for those fields that can be used in the satellite. The structures should **not** be directly integrated into the append of a satellite table.

All fields to be taken into account when creating a master record must be filled with a corresponding value in the satellite table: whether or not certain fields are compulsory can't be said generally, as this depends on the Customizing in the respective SAP implementation.



The button "Insert all components" can simplify the entry of values if multiple assignments are to be made at the same time: all designated components are added to the list. However, only those components for which a field in the satellite table is assigned are saved.

Note: The function for the creation of master data was first made available in Allevo version 3.0. In the earliest versions, there was no field mapping. Instead, the appropriate fields in the satellite table were identified with name matching. This function has now been replaced by field mapping.

3.3 Controlling functions in field mapping

The first four components in mapping (those beginning with "MD_") have a special meaning and are defined in all mapping areas, independent of the other interface parameters of the respective BAPI. These components take over specific controlling tasks for reading and writing the satellite data. In summary:

- Restrictions on the object type are possible, so that, for example, a satellite can be used for multiple tasks
- Relevant data records can be released individually
- After the creation of a master record, relevant information can be rewritten to the satellite table (e.g. user name, date of creation, or the number of the created SAP master record). As long as mapping for such fields exists and data is entered there, the corresponding rows are ignored in subsequent selections.

Details of the individual components:

Component	Meaning
MD_RELEASE	<p>This component controls the release of data records. An SAP master record is only created if a "1" is entered in the relevant field of the satellite table. This component is now a compulsory field, that is, without field assignment, no data is read from the satellite table (unlike in earlier program versions).</p> <p>For orders, it is possible to change functions (as of version 3.4); A "2" must be entered in the field for MD_RELEASE.</p> <p>Recommendation for data definition: /KERN/IPP_MD_RELEASE</p>
MD_OBJTYPE	<p>This component defines the master data type to be relevant for a row in the satellite. An entry of "AR" reserves the respective row for the creation of an appropriation request. Without any mapping to these components, the program tries to transfer all data records from the table.</p> <p>With this component, it is possible to create different master data types in a satellite table. Depending on the respective process with the customer, however, other data may also be stored in the same satellite table (e.g., planning data for processing via FP). Even in this case, sorting can be done with the component MD_OBJTYPE.</p>



	<p>If all data corresponds to the desired master data type in the satellite table and no distinction is required, the field can be ignored (optional component). If mapping is entered for the component, the master data type must also be entered for all relevant rows in the corresponding field of the satellite table.</p> <p>Recommendation for data definition: /KERN/IPP_MD_OBJTYPE</p>
MD_DATE MD_USER	<p>Log function: the date of creation or the name of the user can be found here after the creation of an SAP master record.</p> <p>A row in the satellite table is only processed if the respective fields are empty.</p> <p>Recommendation for data definition: DATUM or. UNAME.</p>
MD_MSG_TYPE MD_MESSAGE	<p>Log function: message type during program execution (e.g., "E=Error") and the text of the last message.</p> <p>Recommendation for data definition: BAPI_MTYPE or BAPI_MSG</p>

The number of a new master record can also optionally be written into a field of the satellite table: if an entry has already been made there, this row is NOT processed (applies to automatic number assignment, see note below).

For the other fields of the satellite table, a data definition as defined in the respective component for the BAPI or in the Kern-specific structure is recommended.

Details about specific object types are described in the following sections. The BAPIs, for which SAP usually provides its own documentation are also mentioned (see button "BAPI documentation" in the mapping input screen).

Kern-specific structures mentioned here also contain (via an INCLUDE) all fields of the BAPIs, which are used for the creation of the master records. The SAP components integrated in this way also show which topic areas are supported in the respective master record (e.g., BAPIAPPREQORDERS to assign an order when an appropriation request is made).

Note:

For master data, the ID code or the number of a new master record is usually provided manually. Mapping must also be set up for the corresponding component.

However, via the same component, a newly generated master record number is written back in the field of the satellite table when using automatic number assignment (e.g. component ORDER for internal orders). If there is already an entry in the relevant field, the row of the satellite table is ignored during selection (as with an empty entry for MD_RELEASE)

3.4 Program execution for the creation of master data

In execution mode, data from the satellite table are selected and then transferred to the relevant SAP-BAPIs according to the field mappings. Selection conditions are, as usual, the key fields of the satellite table: you can select, for example, via all representative objects, or only via individual objects.



The desired master data are always created completely in one run. If an error occurs, processing is aborted and the error is recorded in the log.

3.5 Appropriations-Request

The options available when creating an appropriations request, are much the same as those in transaction IMA11.

List of relevant components:

Called BAPI	<p>BAPI_APPREQUEST_CREATE</p> <p>As is usually the case, the F1-documentation for this BAPI can be called directly from constant maintenance (see the interface parameter in the following Allevo data structure).</p>
Data structure in SE11	<p>/KERN/IPP_S_MDAR</p> <p>This structure includes multiple table parameters of the above mentioned BAPIs. Here are the assignments to the interface parameters mentioned in the F1-help:</p> <ul style="list-style-type: none"> • Master data appropriation requests (IMAK,IMAKT,IMAKZS): BAPIAPPREQMASTER <> MASTER_DATA Parameter FISCAL_YEAR is transferred from the component GJAHR. • User fields: BAPIAPPREQUSER >> USER_FIELDS • Assignment of investment program position(s): BAPIAPPREQEXPPROGASSGN >> ASSIGNMENT_TO_POS • Organizational units: BAPIAPPREQORGUNIT <> ORG_UNITS • Internal orders: BAPIAPPREQORDERS <> ORDERS • Appropriation request variants (master data): BAPIAPPREQVARNT <> VARIANT • Total yearly planning values BAPIAPPREQPLANTOTAL <> PLAN_TOTAL; contents are taken from the fields OVERHEAD_COSTS, INVESTMENT_COSTS etc. The FISCAL_YEAR stems from the GJAHR with subsequent years. <p>The interface component POSNR (= internal number for appropriation requests) is only designed for program internal use.</p> <p>For the application of other fields, see the note below.</p>
Authorization check	<p>The authorization check in BAPI is completed via the function module AIA_CHECK_AUTH_COMPLETE.</p> <p>The functionality of the implementation determines which authorizations are ultimately needed: e.g., for the creation of appropriation requests, editing</p>



	<p>panning values, assignment of investment program positions, and the assignment of a variant to a planning version.</p> <p>Relevant authorization objects:</p> <p>A_IMA_ART Request type</p> <p>A_IMA_KOK Controlling areas</p> <p>A_IMA_GSB Business areas</p> <p>A_IMA_BUK Posting areas</p> <p>A_IMTP_ART Program type for investment programs</p> <p>A_IMPR_KOK Controlling areas for an investment program position</p> <p>A_IMA_REQU Appropriation requests requesting department</p>
SAP Notes	<p>When creating or changing appropriation requests, organizational units may be automatically derived from references, e.g., order type, model order or template order. For more information, see SAP Note 670565. For the derivation of the functional area, see also note 1613985.</p> <p>In older SAP releases, the object class was not always correctly taken from the order type (see note 1699130 and 372928).</p>

The above mentioned BAPI has a number of interface parameters. In order to simplify the control via Excel, some parameters were not adopted 1:1 in the Allevo interface. For example, the list of partners is currently limited (see fields PARTNER_1 to PARTNER_4 and the corresponding partner functions).

Further specifics of the Allevo interface:

- The document number of the appropriation request (field POSID) can be externally specified if the corresponding option in Customizing of the appropriation type is set.
- Variants and planning version: Allevo allows for the assignment of a variant to an appropriation request (see component of the substructure BAPIAPPREQVARNT). If an external number assignment for variants of the current appropriation request type (IVART) is set, APPREQVRNT must also be filled.
- Variants and planning versions: Allevo allows the assignment of a planning version for newly created variants (based on GJAHR and VERSI).
- Total planning values: based on the current planning year (component GJAHR), planning values for up to 3 consecutive years can be provided; separated according to overhead costs, investment costs and revenue (see, e.g., components OVERHEAD_COSTS, INVESTMENT_COSTS and REVENUE). Planning takes place with the controlling area currency (see BAPI interface parameter PLAN_TOTAL).
- An investment reason for the appropriations request is supported (INV_REASON); without specifications regarding the percentage breakdown (PERCENTAGE_IR), 100% is set by default.
- Allevo supports user defined fields. These are provided in the master record of the appropriations request (see components USER00 to USER13_ACC_PER).



- New appropriation requests can be assigned a position in the investment program (see components INV_PROG, PROGRAM_POS, APPR_YEAR). Without any specifications in PERCENT_PROGRAM_POS, 100% is set by default.
- Optionally, an order can be assigned for the implementation of the appropriation (component ORDERID)

Information regarding depreciation-simulation

If specifications are set for asset class (ANLKL) and activation date (AKTIV) in mapping, Allevo creates a master record for depreciation-simulation. In this case, further specifications regarding cost center (RSP_COST_CENTER) and company code (RSP_COMP_CODE) are required. The following can be entered as optional specifications:

- AFABE Actual depreciation area
- AFASL Depreciation key
- NDJAR Planned useful life in years
- BUSINESS_AREA Business area

Note: With appropriations requests with depreciation-data, only the document for appropriations requests is created. If there are no errors there, the depreciation-data for this document number are attached. The Allevo check to see whether the documents are correctly assigned only deals with the master records for appropriations requests.

3.6 Investment programs

Possible options when creating positions for investment programs largely correspond to transactions IM11 and IM22. This specifically refers to:

- The creation of positions in the investment program and
- The creation of sub-trees or the arrangement of positions below a sub-tree

The relevant program definition must already exist. List of the components involved:

Called BAPIs	Allevo uses the following functions: <ul style="list-style-type: none"> • BAPI_EXPENDITUREPROGDEF_CREATE = Create program definition • BAPI_EXPENDITUREPROGTREE_CREAT = Create expenditure program sub-tree
Mapping area	MDIP Required as an entry for the constant EMBEDDED_INTERFACE for calling via Customer button
Data structure in SE11	/KERN/IPP_S_MDIP_MD /KERN/IPP_S_MDIP_PR with data for program definition /KERN/IPP_S_MDIP_PO with data for position



Authorization check	<p>The BAPI undergoes checks via FB AIPA_AUTHORITY_CHECK_IP</p> <p>Relevant authorization objects for the program:</p> <ul style="list-style-type: none"> • A_IMTP_ART for program type • A_IMPR_VER Responsible user • A_IMPR_APS Approval level <p>Relevant for program position:</p> <ul style="list-style-type: none"> • A_IMPR_BUK Company code • A_IMPR_GSB Business area • A_IMPR_KOK Controlling area • A_IMPR_PRC Profit Center
SAP Notes	<p>Individual SAP notes are available for the BAPIs. Please search for the above mentioned BAPIs in SAP support if necessary.</p>

The functions for creating positions or insertion in the hierarchy are can be found in the F1-help for the SAP function module BAPI_EXPENDITUREPROGTREE_CREAT (can be called via the corresponding button in constant maintenance).

Specifics when implementing via Allevo:

- Every row of the satellite table corresponds to a hierarchy level in the investment program.
- Via the component PROGRAM, the name of the investment program is provided (compulsory field).
- The component MD_PARENT should always be retained in the superior level of a new program position. If no field assignment exists (or the corresponding field in the satellite is empty), Allevo tries to order the new position into the highest level (i.e., directly below the program).
- The component MD_PROGRAM only plays a role in special cases and allows for the creation of a header entry for the investment program. If a "1" is entered in the corresponding satellite field, Allevo interprets the data of the corresponding satellite row as the header data of a new investment program. Further rows in the satellite can then be positions for this program.
- Allevo supports customer specific fields in the master record of an investment position (see components that begin with USER *).

Here is a typical view of field assignment:



Zielfeld	Quellfeld	Kurzbeschreibung
MD_DATE	MD_DATE	Datum
MD_PARENT	ZZPOSPARENT	Identifikation einer InvestitionsProgrammPosition
MD_USER	MD_USER	Benutzername
AKTIVP	ZZAKTIVIERUNG	Geplantes Aktivierungsdatum
ANLKL	ZZANLAGENKL	Anlagenklasse
APPROVALYEAR	PLAN_YEAR	Geschäftsjahr
COMPANY_CODE	BUKRS	Buchungskreis
COST_CENTER	ZZKOSTL	Kostenstelle
CO_AREA	KOKRS	Kostenrechnungsbereich
POSITION	ZZPOSNAME	Identifikation einer InvestitionsProgrammPosition
PROGRAM	ZZPROGRAM	Investitionsprogrammname
REASON	ZZINVESTGR	Investitionsgrund
RESPONSIBLE	ZZVERANTWORTNR	Verantwortlicher

Figure 3.3: Field assignment for the creation of positions in an investment program

In this example, the satellite field ZZPOSNAME contains the ID-code of the new position to be generated. ZZPOSPARENT contains the name of the superior position and ZZPROGRAM contains the name of the investment program.

Information regarding depreciation-simulation

If specifications are set for asset class (ANLKL) and activation date (AKTVP) in mapping, Allevo creates a master record for depreciation-simulation. In this case, further specifications regarding cost center (RSP_COST_CENTER) and company code (RSP_COMP_CODE) are required. The following can be entered as optional specifications:

- AFABE Actual depreciation area
- AFASL Depreciation key
- NDJAR Planned useful life in years
- BUSINESS_AREA Business area

Note: For program positions with depreciation-data, only the document for the position is created. If there are no errors there, the depreciation-data for this document number are attached. The Allevo check to see whether the documents are correctly assigned only deals with the master records for the program positions.

Use case example

Positions in the investment program are determined peripherally and assigned below an existing position which, for example, reflects an organizational unit.

An Allevo object is used as a representative object for the superior level (ideally with the same ID-code as the investment position) and serves as a point of entry into an Allevo planning transaction for the user. If Allevo objects and superior investment positions have the same name, the ID-code can be directly transferred to MD_PARENT.

A Customer button is available for users in the planning interface in order to create investment positions as necessary (if needed, these can be additionally controlled via the component MD_RELEASE, in order to, e.g., map a release process).



After creating the new positions in the investment program, planning values can be posted in a second step via the Allevo FP module (budget/costs correspond to transaction IM35, see the user manual for "Flexible Planning").

3.7 Creating secondary cost elements

The possible options available when creating cost elements correspond to those in transaction KA06. List of the components involved:

Called BAPI	BAPI_COSTELEM_CREATEMULTIPLE
Data structure in SE11	/KERN/IPP_S_MDKA
Authorization check	Authorization object K_CSKB is checked via calling the function module K_CSKB_AUTHORITY_CHECK in BAPI (see the corresponding SAP documentation).

3.8 Create activity types

The possible options available when creating activity types correspond to those in transaction KL01. List of the components involved:

Called BAPI	BAPI_ACTTYPE_CREATEMULTIPLE
Data structure in SE11	/KERN/IPP_S_MDKL
Authorization check	Authorization object K_CSLA is checked via calling the function module K_CSLA_AUTHORITY_CHECK in the BAPI (see the corresponding SAP documentation).

3.9 Create (or change) cost center

The possible options available when creating cost centers correspond to those in transaction KS01 or KS02 for change functions. List of the components involved:

Called BAPI	BAPI_COSTCENTER_CREATEMULTIPLE Create new BAPI_COSTCENTER_CHANGEMULTIPLE Change master data BAPI_COSTCENTER_GETDETAIL1 for checking for changes
Data structure in SE11	/KERN/IPP_S_MDKS
Authorizations	The authorization objects K_CSKS und K_CCA are checked via calling FB K_CSKS_AUTHORITY_CHECK in BAPI (see corresponding SAP documentation).
Call Allevo-Inplace	Constant EMBEDDED_INTERFACE with MDKS



The creation or change of cost center master data is always done in the current controlling area if "1" is set in MD_RELEASE. If there is no field assignment for MD_RELEASE, then all data records are processed.

Based on the controlling area and the component COSTCENTER, Allevo checks whether a cost center has already been created with a time interval in the SAP system (to distinguish between creation and change mode).

Special notes for creation:

- A time interval can be set for each call. The end date is set to 12.31.9999 by default if no other date is given via the component VALID_TO.
- The master record is immediately saved in an active version (the interface parameter MASTER_DATA_INACTIVE is not currently evaluated).
- The cost center master record recognizes two described text fields: a name (NAME) and a description (DESCRIPT). Both text fields are created in the language found in the component MD_LANGU. Without any specification here, Allevo uses the logon language by default.
- Allevo can only process one language per row: texts in different languages have to be on different rows in the satellite (from the second row, Allevo automatically switches to change mode).
- Allevo does not currently support the transfer of long text descriptions.

Special notes for the change function (as of Allevo 3.4.32):

- For all components with field assignments, Allevo checks whether or not the contents should be changed. If there are no anomalies, no update is made in the master record (see the log output below).
- The data in the satellite table is always the leading part: Interim changes in the SAP master record are overwritten. Information in the SAP master record, which is not addressed via the Allevo interface, is retained.
- For each component defined as a text field where a field assignment is also saved, Allevo checks whether the corresponding satellite field is filled. If it is empty, Allevo deletes the corresponding field in the SAP master record (technically executed through the transfer of the special character '.' to the BAPI).
- A row with a deviating start date in VALID_FROM automatically creates a new time interval in change mode if the content of another field has been changed.

Log output:

Typ	Meldungstext
Keine Änderung	für Kostenstelle 2-1000 (Sprache DE)
Keine Änderung	für Kostenstelle 2-1110 (Sprache DE)
Keine Änderung	für Kostenstelle 2-1200 (Sprache DE)
Kostenstelle	2-1210 wird geändert (Sprache DE)
Keine Änderung	für Kostenstelle 2-1220 (Sprache DE)

Figure 3.4: Log for the creation or change of cost centers



3.10 Create (or change) internal orders

The possible options available when creating internal orders correspond to those in transaction KO01.

List of the components involved:

Called BAPI	BAPI_INTERNALORDER_CREATE
Data structure in SE11	/KERN/IPP_S_MDOR
Authorization check	The authorization objects K_ORDER, K_AUFK_ART and K_VORGNG are checked via calling FB K_ORDER_AUTHORITY_CHECK in BAPI (See the corresponding SAP documentation).

Mapping for the field ORDER is required if the order type is set to manual number assignment. With automatic number assignment, on the other hand, the generated document number is written back to the satellite table via this component.

Special notes:

- When creating an internal order, organizational units are partially derived automatically. Such data are transferred when a new document is created via BAPI only if the corresponding screen field is also enabled for entry in the respective order type (it should be noted that the field selection must have been saved at least once in SAP Customizing). For more information, see SAP Note 367820.
- An entry in the mapping field ORDER is required when the order type provides automatic number assignment (e.g. in change mode).
- Allevo takes the transfer of customer specific field extensions into account via the structure CI_AUFK. Restrictions also apply here (e.g., for decimal values)

Information regarding depreciation-simulation

If specifications are set for asset class (ANLKL) and activation date (AKTIV) in mapping of the satellite, Allevo creates a master record for depreciation-simulation. The depreciation-relevant cost center is transferred from the entry of the responsible cost center in the order. If it is not set, the requesting cost center is used by default.

For a depreciation area, a depreciation key and the useful life can also be provided (see mapping field ANIB*).

Restrictions apply for the data transfer, and thus the respective requests must be clarified in the implementation project.

Change function

As of version 3.4, changes to order master data equivalent to transaction KO02 are also possible. For this, a "2" must be entered in the satellite field for MD_Release. Changes will be made only for those objects for which mapping is saved (also applies to depreciation-data). In this case, changes are logged via the fields MD_USER and MD_DATE in the satellite log (should be empty before changes are made).



Excel is the leading system: the relevant orders (order numbers) must be specified there. An automatic reading of master records with transfer to the satellite table should be carried out at this time via customer specific reports.

3.11 Profit Center Profit-Center

The possible options when creating Profit Centers correspond to those in transaction KE51.

List of the components involved:

Called BAPI	BAPI_PROFITCENTER_CREATE
Data structure in SE11	/KERN/IPP_S_MDPC
Authorization check	Authorization object K_PCA is checked via the functional module K_PCA_RESP_AUTHORITY_CHECK in BAPI (see SAP-documentation and SAP-notes 1251305 and 672834).

3.12 Projects and WBS elements

First and foremost, Allevo Architect is intended for the creation of new master records. For the object type PR, powerful change functions are also implemented: for changing the actual master records as well as for inserting new WBS elements into the project hierarchy.

In this sense, Allevo can also read project structures (see transaction /ALLEVO/SAT_MD_RD). The satellite does not have to be the leading system for the adjustment of data. Thus, central dialog functions of transaction CJ20N can now also be mapped via Excel. Activation of this function in the Excel dialog is done using Allevo constants.

3.12.1 Create (or change) projects or WBS elements

Allevo Architect allows you to create projects and WBS elements, but also to expand existing project structures or change WBS elements. The data are processed via a satellite table as a "transfer medium". Allevo therefore uses the standard SAP interface (see the following BAPI list).

If such master records are also changed via SAP transactions (e.g., CJ20N), then the read function of Allevo should be used so that the data in the satellite correspond to the most up-to-date status.

If specifications are required that are not supported by the BAPIs (e.g., allocations for an investment program or depreciation-data), Allevo uses a call to transaction CJ02 in the background to transfer the values. The corresponding constants can be found on the "Special" tab (see the figure below). These functions are described separately in the next section.

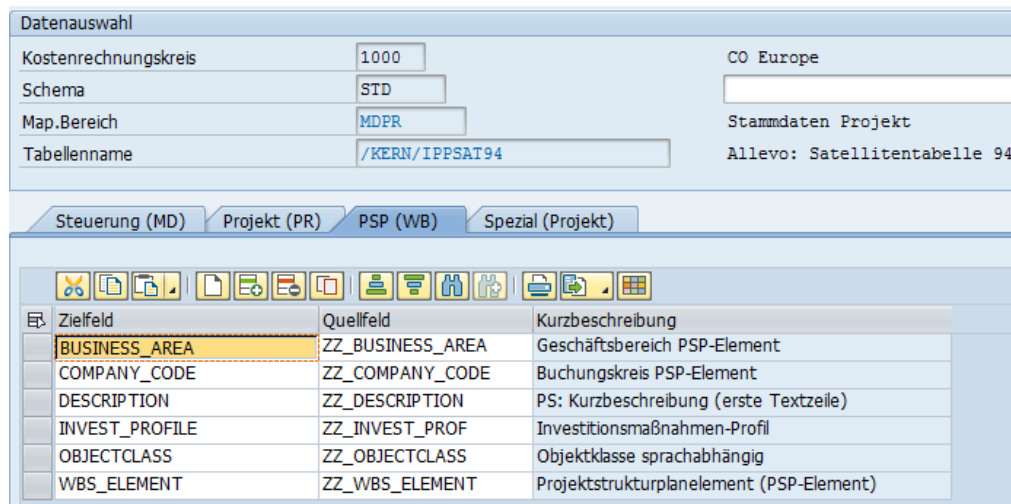


Figure 3.5: Example of field mapping for reversal

List of the components involved for creating / changing:

Called BAPI	<p>BAPI_BUS2001_CREATE Create project definition</p> <p>BAPI_BUS2054_CREATE_MULTI Create WBS elements</p> <p>BAPI_BUS2054_CHANGE_MULTI Change WBS elements</p> <p>BAPI_BUS2054_SET_STATUS Set status</p> <p>BAPI_BUS2054_GETDATA Read detailed data for WBS elements</p> <p>See also the SAP documentation for these function modules.</p> <p>Transaction CJ02 is used for special functions such as the assignment of investment programs or depreciation-data</p>
Data structure in SE11	<p>/KERN/IPP_S_MDPR_MD</p> <p>/KERN/IPP_S_MDPR_PR with data for the project</p> <p>/KERN/IPP_S_MDPR_WB with data for the WBS element</p>
Authorization check	<p>The BAPI undergoes checks for the project definition via FB CNAU_AUTHORITY_PROJ with the following authorization objects:</p> <ul style="list-style-type: none"> • C_PROJ_KOK controlling area authorization • C_PROJ_PRC Profit Center authorization • C_PROJ_VNR Project manager authorization <p>For WBS elements via FB CNAU_AUTHORITY_PRPS:</p> <ul style="list-style-type: none"> • C_PRPS_KOK controlling area authorization • C_PRPS_PRC Profit Center authorization • C_PRPS_VNR Project manager authorization • C_PRPS_ART Project type authorization



	<ul style="list-style-type: none"> • C_PRPS_KST Cost center authorization <p>Further authorizations are necessary if assignments are made via transaction CJ02, e.g.:</p> <ul style="list-style-type: none"> • A_IMTP_ART, A_IMPR_KOK For the assignment of investment programs
SAP Notes	<p>For the BAPIs for the project system, a number of SAP notes are available. It is important to realize that many such notes refer to errors. Please search for the above mentioned BAPIs if necessary. Here is a small sample:</p> <p>1906715 Info on BAPI_PROJECT_MAINTAIN</p> <p>1718799 BAPI puts WBS element on level 1</p> <p>1168921 New WBS does not take over the project status</p>

The functions for creating projects or WBS elements are saved in the F1 help of the program or in BAPI_BUS2054_CREATE_MULTI.

Specifics when implementing via Allevo:

- Each row of the satellite table corresponds to a WBS element. Additionally, the project definition must be entered as the first row via the constant PROJECT_DEFINITION. All rows thereafter in the satellite are then interpreted as WBS elements (until the next project definition).
- The corresponding hierarchy level is described via the component MD_LEVEL: "0" is the highest hierarchy level, i.e. the project definition. There are no other additional characteristics in Allevo mapping to distinguish between header and item data.
- Within a single hierarchy level, the sequence in the satellite table determines further sorting in the project hierarchy on the SAP side.
- Project and WBS IDs should be entered in the satellite field as a text field in the external display (CHAR24). This makes it so that the display on the Excel-side remains understandable for the user.
- When a new project is created, the object class is usually a compulsory field: it must either be entered in the project profile or be passed to the WBS element as a parameter from the Allevo interface.
- If MD_RELEASE is used, the release must be realized in the project row and additionally for each WBS element (enter "1").
- Change function: When working with object type PR, Allevo automatically distinguishes between functions for creating and functions for changing:
 - If a WBS element does not exist, the project hierarchy is inserted at a defined location;
 - If the WBS element already exists, Allevo reads the respective master record and changes the fields that have mapping. Exceptions to this are the special functions described in the following section: there, the data in the satellite are always the leading part.



3.12.2 Special functions (Investment program, depreciation-data, settlement)

The following special functions are not supported by the above mentioned BAPIs. They are, however, important parameters within the framework of investment planning. In these cases, Allevo uses transaction CJ02 for the transfer of data (batch input). The authorization checks saved there must be respected.

These special functions are represented along with the constants on an additional tab, "Special". In order for Allevo to assign the matching WBS element internally, the constant WBS_ELEMENT must be set (Normally with a cross reference to the same satellite field as in the tab "WBS (WB)").

This is available for creating and in change mode. For these special functions, however, there is no read function: the specifications set from the satellite may overwrite the assignments that are already stored in the master record of the WBS element (the data should be completely available per topic area in the satellite).

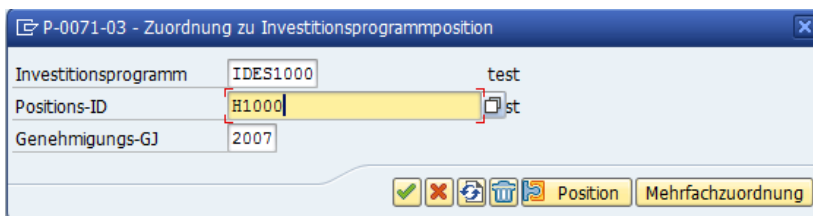
Set system status for WBS element

Via the component SET_SYSTEM_STATUS, you can set the system status for the WBS element. This function is specifically intended for the initial setting of the status. The English ID codes are used in this case:

- REL Release (I0002)
- LKD Locked (I0043)
- TECO Technically completed (I0045)
- CLSD Closed (I0046)
- AALK Account assignment locked (I0064)
- MDLK Master data locked (I0065)
- DLFL Deletion Flag (I0076)

Assignment of investment program

Call in CJ02 via the menu "Extras>>Investment program":



Allevo supports the assignment of a position in the investment program, however, there cannot be multiple assignments. The corresponding Allevo constants for the assignment of satellite fields beginning with "P" (=Investment Program):

- IP_PRNAM Investment program name
- IP_POSID Position-ID (in investment program)
- IP_GJAHR Approval fiscal year



The assignment is only completed if all constants are saved in mapping and the fields in the satellite are filled. The assignment can also be carried out in change mode.

Framework:

- A WBS element cannot be assigned to a program position if this has already done on a superior level (otherwise Allevo will stop the transfer).
- A WBS element should not be assigned to a program position if superior WBS elements are entered as account assignments (the corresponding SAP warning is recorded in the Allevo run-log).
- Via a call of the function module AIPA_AUTHORITY_CHECK_IP in transaction CJ02 a check of the authorization objects A_IMTP_ART and A_IMPR_KOK is made.
- In change mode, existing entries are overwritten.

Information regarding the depreciation-simulation

Call in CJ02 via the menu "Extras>> depreciation-simulation data"

PSP-Elm	P-0071-02			
ab Geschäftsjahr	2016	Sel. Anlagenklasse		
AfA-Simulationsaufteilungen				
Klasse	Kostenst.	Aktiv.Datum	Prozent	Betrag
1100	1200	11.11.2016	55,00	0,00
5000	1000	11.11.2016	45,00	0,00

Allevo supports a division of at most three asset classes with corresponding parameters. The corresponding Allevo constants begin with "DS" (=Depreciation Simulation):

- DS_1_ANLKL Asset class (1)
- DS_1_KOSTL Cost center (1)
- DS_1_AKTIVP Planned activation date (1)
- DS_1_AUFPR Distribution percentage rate (1)

The field names for row 2 and 3 begin appropriately with DS_2... DS_3...

A row is only created if all corresponding constants are saved in mapping and all fields are filled in the satellite.

General set-up:

- An investment profile must be stored for the WBS element (for example, provided via the constant INVEST_PROFILE or derived from the project profile).
- Change mode: if the data for the depreciation-simulation are already saved, Allevo deletes these entries and creates new allocations (satellite as the leading system).

Information regarding settlement rules

Call in CJ02 via the menu "Detail >> Settlement rules":



PSP-Element		P-0071-02									
Abrechnung Ist											
Aufteilungsregeln											
Typ	Abrechnungsempf...	Empfänger-Kurztext	%	Äquivalenzziffer	Betrag	BRegTyp	Abr...	Nr.	S...	ab ...	ab GJ...
KST	1000	Corporate Services	80,00				PER	1			

Currently, Allevo supports the entry of the settlement for settlement receivers over at most two rows (shown only as one row in the figure above). The corresponding constants begin with "SR" (=Settlement Rules):

Component	Meaning
SR_1_KONTY	Account assignment type in accordance with the settlement profile; The current logon language in the SAP system is relevant for the ID codes (e.g., KST, AUF, ANL when logged on in DE);
SR_1_EMPGE	Settlement receiver (e.g., the corresponding cost center)
SR_1_PROZS	Settlement percentage
SR_1_PERBZ	Settlement type (e.g., PER or GES)

The field names for row two begin appropriately with DS_2. For the other fields in the figure above, the recommended entry from SAP is used.

General set-up:

- A recommended value for the settlement profile must be saved in the project profile (is checked by Allevo).
- An appropriate results-analysis key must be included (e.g., via the project profile or an Allevo constant). If necessary, a message in the Allevo run-log will point this out (see the notes in the long text of the log).
- The allocation of a settlement rule to a statistical WBS element is not possible.
- The settlement rule can only be allocated if at least one indicator is set for billing element, account assignment element, or planning element.
- Allevo takes data from the satellite only if there are no settlement data saved for the WBS element (change function is not available).
- In change mode, existing rows are overwritten.

3.12.3 Read project and WBS elements

In order to expand existing project structures or change WBS elements, they need to be temporarily saved in a satellite table as a "transfer medium". The Allevo transaction /ALLEVO/SAT_MD_RD is available for this purpose (see the Allevo manual for versions 3.4.22 and higher).



Important: In most cases it is useful to make changes to the WBS master records for each project. In this case, Allevo planning transactions are started via a project and Allevo reads the satellite data via a representative WBS element. For this WBS element, data for the interface must also be saved. To this end, Allevo provides the component REPR_PSPNR, which must be allocated to COBJECT of the satellite table (via mapping).

3.12.4 Constants for direct dialog function

In order to align project master data interactively in the Excel dialog, the following constants must be set.

- SATxx_PROC_BEf_RD activates the function for reading from existing master records (for projects and WBS elements).
- SATxx_PROC_AFT_WR activates the transfer of the changed values from the satellite table to the SAP master data

The corresponding function ID codes are MRPR for reading and MDPR for changing. The saved functions assume that Allevo is called in MultiObject-mode (with the relevant project number as the start object). The set up could look something like this:

SAT36_PROC_AFT_WR	MDPR	WHF1
SAT36_PROC_BEf_RD	MRPR	WHF_R1

Effects:

- When reading the satellite data, Allevo automatically initiates a function for reading the SAP project master data and transferring it to Excel according to the field mapping.
- When saving the satellite data, an update of the project-/WBS-master data in SAP is made automatically. When starting to read a satellite again, these data are also transferred to Excel.

The BAPIs for reading and changing PR master data use the same field names, with only a few exceptions. It can be enough to create a collective scheme for both applications (as shown in the figure above).

Note: On the other hand, it may be useful to use different field assignments for reading and writing (if, for example, changes should only be allowed for a limited number of fields).

3.13 Create statistical key figures

The possible options when creating statistical key figures correspond to those in transaction KK01. Here is a list of the components involved:

Called BAPI	BAPI_KEYFIGURE_CREATEMULTIPLE
Data structure in SE11	/KERN/IPP_S_MDSK



Authorization check

Authorization object K_KA03 is checked via calling the function module K_KA03_AUTHORITY_CHECK in the BAPI (see corresponding SAP documentation).



4 Actuals: Post FI posting documents

In many cases, initial data for FI postings are already available in Excel lists or entering them via Excel is simply more convenient than via manual entries in SAP transactions. In this case, it is useful to call on Allevo Actual for FI postings. Possible applications:

- Closing entries such as accruals
- Incoming invoices with many line items

As is common with Allevo, the parked data are saved in satellite tables.

4.1 Functional overview

Data in satellite tables can be directly posted in SAP accounting. The Allevo-specific functions correspond to transactions such as FB01 and FB50 (incl. reversal as in FB08). To execute these functions, standard BAPIs are called again.

Note:	The business background is shown in the corresponding SAP documentation for the above transactions. In addition, during maintenance of the interface components in Allevo, a call to the SAP documentation for the respective BAPI is included.
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The most important functions of the interface are found in transaction /KERN/IPP_FI_POST:

- Creating schemes and assigning constants in order to arrange BAPI components and satellite table fields (see button "Constants" in the Figure 4.1).
- Creating FI documents in accordance with the selection of the relevant data in the satellite table via calling the relevant SAP-BAPIs or executing the reverse function (similar to the creation of CO-master data; see previous section).

Satellite data can be collected in two ways: 1) As a secondary process of planning, where the entry into the Allevo transaction takes place via the relevant planning object, or 2) completely independently via a separate layout; in this case, an Allevo object (internal object type KX) can be used as an entry object.

Note:	The execution of Allevo Actual must be unlocked via an appropriate entry in the license key; the check is carried out using the license key, which is stored in the * layout for the starting object type. All functions are additionally fitted with their own appropriate authorizations (see also the section on authorizations in the Allevo SAP manual).
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The posting functions themselves can also be directly integrated into the Allevo planning process, for example, by calling via Customer buttons in Allevo planning view (see constant BUTTON_CUST1) or via BADIs after saving the satellite data. Be sure to reconcile the necessary customer-specific adjustments in the implementation project accordingly.

The SAP functions allow you to create documents with up to 999 items. For mass processing, Allevo can perform an automatic document split, whereby intermediate totals are created via a clearing account.

Die SAP Funktionen erlauben die Anlage von Belegen mit max. 999 Positionen. Für die Massenverarbeitung kann Allevo einen automatischen Beleg-Split durchführen, wobei Zwischensummen über ein Verrechnungskonto erstellt werden.

4.2 Calling transactions

The following figure shows the start screen of the transaction /KERN/IPP_FI_POST.

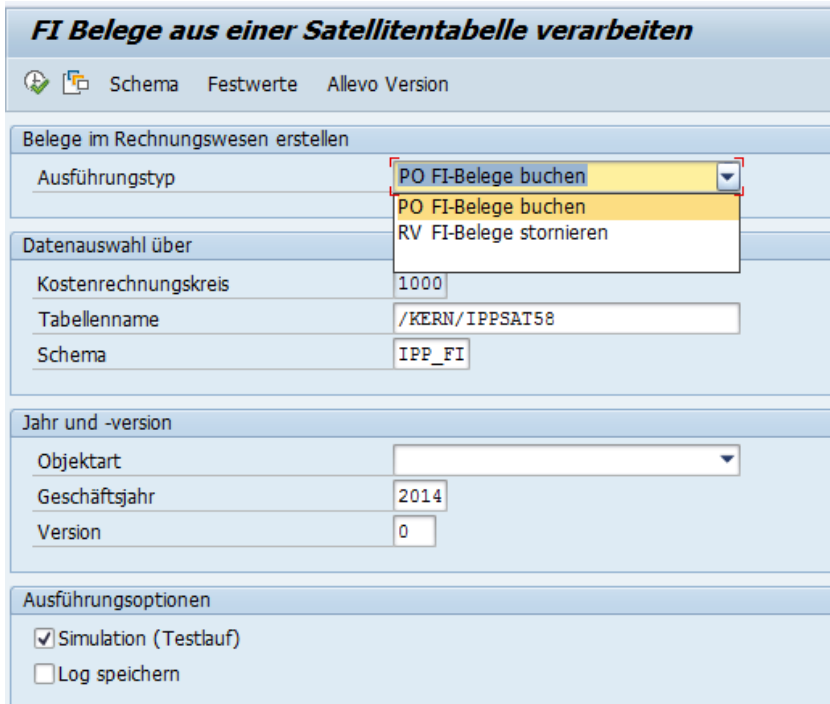


Figure 4.1: Transaction start screen

The desired FI documents are created in execution mode (F8) of the transaction.

Satellite data is selected using the usual key fields of a satellite table (for example, controlling area, planning year, version ...). As an option, a simulation of the document creation can be run (test run): all functions are executed including creation of a document number, only it is not saved. The test run is thus particularly suitable for error analysis. With the "Save Log" option, Allevo creates a log in the SAP Application Log (evaluation via transaction SLG1).

4.3 Maintain schemes

A satellite may contain data for multiple applications (e.g. for the creation of documents and also for reversal). For each application, a scheme must be defined, which basically consists of only on ID-code and a suitable description of the application. The scheme is created at the level of satellite table and controlling area.

Changes can be made via the button "Scheme" (see Figure 4.1). An indication of the sequence currently changes only the sorting of the displayed list.

4.4 Field assignments for calling BAPI (constants)

Allevo uses the same assignment functions used in the creation of master data in order to provide the BAPIs with data for posting in accounting. Due to the complexity of the BAPIs, assignment between BAPI components and the fields of the satellite table are controlled via multiple tabs. These are dependent on the contents to be processed via the Excel file (e.g.,



according to the type of offset account, with or without tax information). Field assignments are always assigned by a combination of satellite table and scheme.

Festwertpflege

Import Export Prüfen Alle Komponenten anzeigen Alle Komponenten löschen BAPI Dokumentation

Datenauswahl

Kostenrechnungsk 1000 CO Europe
 Schema IPP_FI Anlage Belege Rechnungswesen
 Map.Bereich FIAC Beleg Finanzwesen
 Tabelle /KERN/IPPSAT58 Allevo: Satellitentabelle 58

Steuerung (MD) Belegkopf (HD) Sachkonto 1 (G1) Sachkonto 2 (G2) Steuer (TX) Kreditor (AP) D...

Komponentenname	Satellitenfeld	Kurzbeschreibung
AC_DOC_NO	ZZIPP_AC_DOC_NO	Belegnummer eines Buchhaltungsbeleges
BUS_ACT	ZZIPP_BUS_ACT	Betriebswirtschaftlicher Vorgang
COMP_CODE	ZZIPP_COMP_CODE	Buchungskreis
DOC_DATE	ZZIPP_DOC_DATE	Belegdatum im Beleg
DOC_TYPE	ZZIPP_DOC_TYPE	Belegart
HEADER_TXT	ZZIPP_HEADER_TXT	Belegkopftext
PSTNG_DATE	ZZIPP_PSTNG_DATE	Buchungsdatum im Beleg
USERNAME	ZZIPP_USERNAME	Name des Benutzers

Figure 4.2: Field assignments for creating FI documents

Every tab has a name, which contains an ID-code: the code is used on the one hand to indicate the data structure, and on the other hand it is used on the Excel-side to determine which information is contained within a row and, if necessary, determine via which rows the field assignments should be processed. On the Excel-side, multiple posting information details can be saved in a single row: e.g., entries for the document header (HD) and to the rows (G/L account, vendor, tax information...).

Excel rows are always processed sequentially. Example: all rows are posted under the same document number until a new document header is transferred from Excel (this information is controlled via the identifier "HD").

Document numbers are assigned automatically when the document is created and are then logged in the satellite table. Therefore, component AC_DOC_NO is regarded as a compulsory field. If there is already a number in the corresponding satellite field, the row is ignored (similar to the components MD_DATE / MD_USER for date of creation and user).

Note:

The corresponding satellite field should have the same data definition as AC_DOC_NO (e.g., data type BELNR_D), i.e. they should not be numerically defined – Allevo would also consider an initial number of 0 as a valid document number.

4.5 Controlling functions

All components of the first tab begin with "MD_" and have the central control functions to read and write satellite data independently from the other interface parameters of the respective BAPIs.



Komponentenname	Satellitenfeld	Kurzbeschreibung
MD_DATE	MD_DATE	Datum
MD_MAP01	MD_MAP01	Mapping area 1
MD_MAP02	MD_MAP02	Mapping area 2
MD_MAP03	MD_MAP03	Mapping area 3
MD_MAP04	MD_MAP04	Mapping area 4
MD_MAP05	MD_MAP05	Mapping area 5
MD_RELEASE	MD_RELEASE	MD Freigabe Status
MD_USER	MD_USER	Benutzername

Figure 4.3: Field assignments for the central controlling functions

Some settings / rules:

- Relevant data records in the satellites can be released individually.
- After a master record is created, relevant information can be written back to the satellite row (e.g., user name, date of creation, or number of the created document). If a field assignment exists for these components and data are entered there, the corresponding rows are ignored during subsequent selection.
- Multiple information details can be saved in a single row; the sequence can be adjusted.

Detailed overview of the function of individual parameters:

Component	Meaning
MD_RELEASE	Controls the release of data records. An FI document is created only if there is a "1" entered in the satellite table field. Without the assignment of a field for this component, the program attempts to transfer all data records from the table. Recommended data definition: /KERN/IPP_MD_RELEASE
MD_RELEASE_TEST	It can be advantageous to control relevant data during a simulation (test run) of document creation via a release button. Without field assignments for this component, the column for MD_RELEASE is evaluated for this parameter. Recommended data definition same as for MD_RELEASE
MD_MAP01... MD_MAP10	These components define which contents should be found in the respective row on the Excel side. For these components you must enter an ID-code that describes the field assignment topics (i.e. "HD" for document header, "G1" for G/L account etc.) A maximum of 10 such components are available: they are interpreted sequentially when transferred to Excel (MD_MAP01, MD_MAP02...). In order to start a new document with a new row, "HD" should be entered in the satellite field for the component MD_MAP01. Recommended data definition: ZZIPP_MD_MAP01, ZZIPP_MD_MAP02 etc.



MD_DATE MD_USER	<p>Log function (compulsory fields): After a document is created, the date of creation can be found here, as well as the name of the user that created the document. A row of the satellite table is only processed if the corresponding fields are empty.</p> <p>Note: After creating a new document, the generated document numbers are written back to the satellite table (see the field assignment for header data).</p> <p>Recommended data definition: DATUM or UNAME.</p>
MD_MSG_TYPE MD_MESSAGE	<p>Log function: Message type during program execution (S success, E error, W warning, I info, A abort) and the text from the most recent message.</p> <p>Recommended data definition: BAPI_MTYPE or BAPI_MSG</p>
MD_SPLIT_NR MD_SPLIT_ACCT	<p>Automatic document split: Number of rows and clearing account, for details see the note in section 4.6.2 below.</p>
AC_DOC_NO	<p>The document number is actually not an Allevo-specific control field, but should be mentioned here, because it has a similar meaning.</p> <p>A document number is automatically assigned when a document is created, and is then logged in the satellite table. For this reason, the component AC_DOC_NO is also a compulsory field for Allevo. If the corresponding satellite field is not empty, Allevo assumes that a document number has been entered and ignores the corresponding row (similar to the components MD_DATE / MD_USER for date of creation and user)</p>

For the other fields of the satellite table, a data definition is recommended as it is saved in the respective component for the BAPI or in the Kern-specific structure. The corresponding SAP BAPI documentation is directly accessible via the button "BAPI Documentation" (see Figure 4.2).

The interface processes the satellite rows in the order that is specified via the Index of the table (i.e. corresponding to the numeration in the column "rows"). The columns that are entered for the components MD_MAP01 to MD_MAP10 define what is to be processed within a row and which order applies.

1	HD			
2	G1			
3	G2			
4	HD	G1	AR	
5	HD	G1	AP	
6	HD	G1	G2	
7	HD	G1	AP	TX
8		G1	AP	TX

Figure 4.4: Start screen of the transactions

The table is intended to help explain the behavior by interpreting the satellite rows:



- Row 1 only contains header data: A new document begins here. The corresponding document positions with postings from two G/L accounts following in rows 2 and 3
- Rows 4 to 6 contain an entry for header data as well as the corresponding positions: depending on the case, either with a vendor (AP) or customer (AR) posting.
- Rows 7 and 8 contain additional information regarding taxes (TX). These two rows are posted in a single document: the ID-code "HD" is not entered in the last row, therefore, the previous header entry remains active.

The following sections contain technical details for the creation and reversal of documents. The integrated BAPIs are also mentioned here, although SAP also has its own documentation available for these (can be called directly from constant maintenance).

4.6 Program execution for creating FI documents

In execution mode, data are selected from the satellite table and transferred to the relevant SAP-BAPIs according to the field assignments. The basis of the selection conditions are, as usual, the key fields of the satellite table. You can select via all representative objects, or also via individual objects. These parameters result from the general conditions with which the data were collected in the Allevo master (layout, start object ...).

Depending on the application, additional components are checked:

- If a field assignment for MD_DATE or MD_USER exists, the corresponding satellite field must be empty
- When creating a posting document, the document number in AC_DOC_NO should also be empty.

Each posting document is created individually (with all items). If an error occurs in this process, the document processing will be aborted and the error will be noted in the log. Allevo then automatically skips to the next document for processing. In the end, this can lead to a partial processing of the documents.

4.6.1 Create posting documents

List of the components involved:

Called BAPI	BAPI_ACC_DOCUMENT_POST BAPI_ACC_DOCUMENT_CHECK (Simulation) For these modules there are multiple SAP notes; please check for the respective version, e.g.: <ul style="list-style-type: none"> • 2083799 Collective note for posting with accounting-BAPIs • 626235 – Tax postings with accounting-BAPIs • 1372327 Document number gaps in BAPI_ACC_DOCUMENT_POST • 1045412 General Ledger transaction <> 'RFBU' For postings with AW-TYP= 'BKPF' (activates RFBU as standard value). There can be max. 999 items per document, Allevo can execute an automatic document split (see note below).
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Data structure in SE11	/KERN/IPP_S_FIAC_AP Vendor /KERN/IPP_S_FIAC_AR Customer /KERN/IPP_S_FIAC_G1 G/L account 1 /KERN/IPP_S_FIAC_G2 G/L account 2 /KERN/IPP_S_FIAC_HD KHeader data /KERN/IPP_S_FIAC_MD Control document creation /KERN/IPP_S_FIAC_TX Entries for taxes These structures contain all the components that can be assigned to the BAPI via field mapping.
------------------------	---

Figure 4.2 above shows an example with field assignments for a document header.

The named BAPI is usually used to release a corresponding posting in accounting depending on the respective business transaction. This preceding business transaction is described in the header data of the interface via the component BUS_ACT (for example, the transaction "SD00 = Billing data" when transferring from SD). Without a field assignment for BUS_ACT, current SAP versions automatically post the "RFBU" transaction (= FI postings in the BAPI): in older releases, BUS_ACT must be entered from the outside (i.e. via Allevo field assignment or subsequent installation of SAP Note 1045412).

Special features when posting via BAPI:

- In the posting BAPI, taxes cannot be automatically calculated, and therefore must always be transferred with an explicit value (see SAP notes 367175 and 2011553). Examples regarding the treatment of taxes are described in the SAP-note "626235 – Tax postings with accounting BAPIs"
- Posting keys cannot be directly transferred to the interface of the BAPI (such a field is therefore not available as a component in field assignment). Instead, a "transaction key" can be transferred (component ACCT_KEY in G/L account), which SAP otherwise uses for automatic postings. The relevant transaction key can be found via Customizing transaction FBKP (see the section "automatic postings" per group, found in table T030B).
- If no transaction key is transferred, BAPI attempts to derive the relevant posting key from the +/- sign of the amount posted in combination with the account type. The search is based on the following scheme:
 - Account type S: Positive = Debit= 40. Negative = Credit = 50
 - Account type D: Positive = Debit = 01. Negative = Credit = 11
 - Account type K: Positive = Debit = 21. Negative = Credit = 31

The named posting keys are permanently saved in the BAPI; other keys do not respond to the +/- sign process – this is especially the case with posting keys for incoming payments (i.e. "15" for account type "D") and outgoing payments (i.e. "25" for account type "K").

4.6.2 Automatic document split

The SAP functions allow the creation of documents with a max. of 999 items. For bulk processing, Allevo can perform an automatic document split, whereby subtotals are generated via a clearing account.

Necessary entries for the constants:



- MD_SPLIT_NR Number of rows from which a split should be made.
The entry should be saved as a fixed value for the constant.

- MD_SPLIT_ACCT Clearing account for document split
This can be fixed in mapping or can be specified in Excel (in the header level).

The document split is carried out automatically before the satellite data are processed (i.e. before the creation of the FI document) if the above two constants are set in the scheme. Step-by-step:

- Before reaching the number of rows specified in MD_SPLIT_NR, a summary row with items is inserted to the clearing account.
- This is followed by a header row for the next document. The data from the previous header is adopted (Allevo increases the number in the name of the header in order to keep the process comprehensible).

After this process, all satellite data with the inserted rows for document split are written back to the satellite table (including re-numbering the row numbers: this makes the division visible when reading satellite data in Excel later). This is followed by the creation of the FI document.

Note: The automatic document split can cause minor restrictions as to the structure of the Allevo master. For example, a sequential entry of the positions is required (as is required later in the FI-document) in order to allow for an accurate counting of the rows.

4.6.3 Reverse posting documents

For this execution category, it is important that for each document to be reversed, only one row exists in the satellite.

List of the components involved:

Called BAPI	BAPI_ACC_DOCUMENT_REV_POST BAPI_ACC_DOCUMENT_REV_CHECK (Simulation)
Data structure in SE11	/KERN/IPP_S_FIRV

The function for reversing a posting document only has a few transfer parameters: Primarily, this is the number of the source document. Accordingly, the field assignment is relatively simple (there is no differentiation between multiple tabs as shown in the first chapter of this manual). An example:

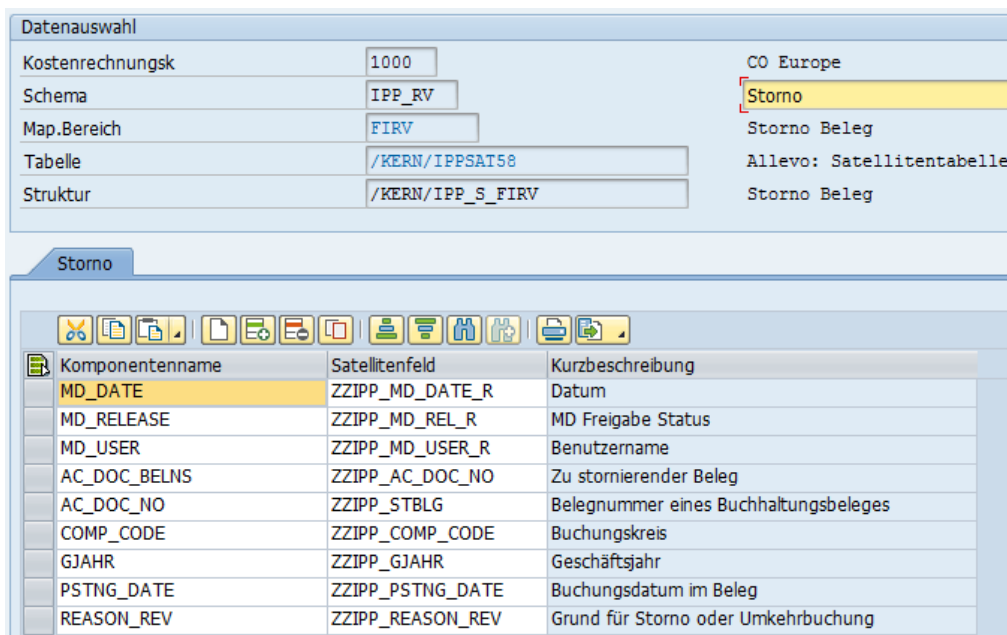


Figure 4.5: Example for field assignment for reversal

The component AC_DOC_BELNS must point to the column with the document numbers that are to be reversed. After execution of the transaction, AC_DOC_NO contains the document number of the created reversal document. This component is also used as an input parameter for external document number assignment.

Special features for reversal via BAPI:

- The reverse document type is always transferred from SAP-Customizing (see transaction OBA7).
- Only those documents that were created via BAPI or via the posting interface (e.g., via IDOC) can be reversed. Documents created using transaction FB01 or other FI transactions cannot be reversed using BAPI (see SAP Note 1799990).
-

Note: The transfer of parameters to BAPI_ACC_DOCUMENT_REV_POST has been adapted by SAP over time. The Allevo field assignments are based on the status of the BAPI development described in SAP note 1005440 (the modifications mentioned in the SAP note need to be input if necessary).

4.7 Authorization checks

The BAPIs use the general SAP interface for accounting, which is also used when posting the follow-on documents in MM or SD.

This SAP interface generally does not carry out its own authorization checks, since posting to accounting is normally a follow-up process that should not lead to the termination of the entire process. For example, if a user has the authorization to post an invoice in SD, the corresponding FI follow-on document should also be posted without the user needing further authorizations in FI.



For more information, see the SAP note "1748416 Authorization checks for accounting BAPIs". In order to prevent possible misuse of the BAPIs by external systems, SAP offers the following options:

- A scenario-based check via Note 1906927; in Note 1923728 you will find scenarios that are executed when posting via BAPIs (maintained via SACF-Workbench).
- The BAPI can be individually expanded via user exits (BAdI) and can be fit with specific authorization checks.

For these reasons, Allevo transactions have their own authorization checks, although these are largely based on the normal SAP-checks.

Allevo-specific authorization checks

For calling BAPIs via Allevo transactions, specific authorizations are defined, which are to be entered into appropriate roles by the SAP Administrator.

- General controlling (creation/reversal, simulation, mapping set-up): The Allevo authorization groups ZIPP_FI1, ZIPP_FI5 and ZIPP_FI9 are checked (see the user manual Allevo & SAP section "Authorizations in Allevo").
- Business access according to the SAP standard: the authorization objects F_BKPF_BUK and F_BKPF_KOA are checked here. The check is carried out at header and item level and authorizations for all relevant posting combinations must exist (otherwise no document is created).

See also the section for authorizations in the Allevo SAP manual.



5 Actuals: Actual data transfer to controlling

For controlling applications, Excel is often used in order to identify data that are relevant for allocation. In this case, using Allevo-Actual can be helpful for CO postings. As is common with Allevo, the pre-determined data are first saved in satellite tables.

5.1 Functional overview

Data in satellite tables can be directly transferred as actual values into SAP controlling via Allevo specific functions. For these functions as well, SAP standard BAPIs are called that have an equivalent function to the corresponding SAP transactions.

Note:	<p>The business background can be found in the corresponding SAP documentation (e.g. using keyword "Manual actuals posting CO-OM-CCA").</p> <p>Equivalent functions are made available by the SAP transaction BATCHMAN and the corresponding documentation of the BAPIs used there (this is of course without the Excel interface).</p> <p>In addition, when the interface components are maintained in Allevo, a call to the SAP documentation for the respective BAPI is included.</p>
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Allevo supports the following execution categories (equivalent SAP transactions shown in parentheses).

- COPC Manual reposting of primary costs (KB11N, KB41N)
- CORE Manual reposting of revenues (KB41N)
- COAA Directly measure activity allocation (KB21N)
- COKF Measure statistical key figures (KB31)
- COMA Manual cost allocation (KB15N)
- CORV Reverse CO document

The corresponding field assignments are carried out and data in satellites are evaluated via transaction /KERN/IPP_CO_POST in order to create the desired CO postings (similar to the creation of CO master data, see section further above).

The entry of satellite data then proceeds in one of two ways. If it is done as a secondary process of planning, then the entry into the Allevo transaction takes place via the relevant planning object. If, however, the data entry is to be carried out completely independently via a separate layout, an Allevo object (internal object type KX) can be used as a start object.

Note:	<p>The execution of Allevo Actual must be unlocked via an appropriate entry in the license key. The authorization check is made via the license key that is saved in the * layout for the starting object type.</p> <p>All functions are additionally equipped with appropriate authorizations (see also the section about authorizations in the Allevo SAP manual).</p>
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As an option, posting functions can also be integrated in the Allevo planning process – e.g. by calling via Customer buttons in Allevo planning view (see constant BUTTON_CUST1) or via



BADs after saving the satellite data. Be sure to reconcile the necessary customer-specific adjustments in the implementation project accordingly.

5.2 Calling transactions

The transaction /KERN/IPP_CO_POST offers two general functions:

- Set-up of constants in order to assign BAPI components and fields to a satellite table (see the button "Constants" in Figure 5.1)
- Creation of CO documents after selection the relevant data in the satellite table via a call to the relevant SAP-BAPIs.

Ist-Daten aus einer Satellitentabelle in Controlling übernehmen

Schema Festwerte Allevo Version

Belege im Rechnungswesen erstellen

Ausführungsart

Datenauswahl über

Kostenrechnungskreis

Tabellenname

Schema

Jahr und -version

Objektart

Kostenstelle

Geschäftsjahr

Version

Ausführungsoptionen

Simulation (Testlauf)

Log speichern

Figure 5.1: Start screen of the transactions

The desired CO documents are created in execution mode of the transactions.

If desired, a simulation of the document creation is possible (test run): for this, all functions are run, but nothing is saved. The test run is especially useful for error analysis.

5.3 Maintain schemes

A satellite can contain data for multiple application cases. Each application consists of an ID code and a suitable description of the application. Changes can be made via the button "Scheme" (see Figure 5.2), a specification of the sequence currently only changes the sorting of the displayed list.

5.4 Field assignments for actual postings in controlling

In order to supply the BAPIs with data for posting purposes in controlling, Allevo uses the same assignment functions as for the creation of master data. Due to the complexity of the BAPIs, however, the assignment between BAPI components and the satellite table fields are controlled via multiple tabs, depending on the contents to be processed via the Excel file. Field assignments are always assigned a combination of satellite table and scheme.



Festwertpflege

Import Export Prüfen Alle Komponenten anzeigen Alle Komponenten löschen BAPI Dokumentat

Datenauswahl

Kostenrechnungsk	1000	Kostenrechnungskreis 1000
Schema	ALAPC	ALA Pr. Co. Posting
Map.Bereich	COPC	CO Ist-Daten für Primäre Kosten
Tabelle	/KERN/IPPSAT41	Allevo: Satellitentabelle 41

Management (MD) **Kopf (HD)** Positionen (IT)

Komponentenname	Satellitenfeld	Kurzbeschreibung
CO_AREA	ZZCO_AREA	Kostenrechnungskreis
DOCDATE	ZZDOCDATE	Belegdatum
DOC_HDR_TX	ZZDOC_HDR_TX	Belegkopf-Text
DOC_NO	ZZDOC_NO	Belegnummer
OBJ_KEY	ZZOBJ_KEY	Referenzschlüssel
OBJ_SYS	ZZOBJ_SYS	Logisches System des Ursprungsbeleges
OBJ_TYPE	ZZOBJ_TYPE	Referenzvorgang
PERIOD	ZZPERIOD	Periode
POSTGDATE	ZZPOSTGDATE	Buchungsdatum
TRANS_CURR	ZZTRANS_CURR	Transaktionswährung
TRANS_CURR_ISO	ZZTRANS_CURR_ISO	Iso-Code Währung
USERNAME	ZZUSERNAME	Name des Benutzers
VARIANT	ZZVARIANT	Schnellerfassung CO-Istbuchungen: Variante

Figure 5.2: Field assignments for the creation of CO documents

Each tab has a name that also contains an ID code: this gives a reference to the data structure. On the Excel side, multiple information details can be saved in a single row, e.g. information regarding the header (HD) and the items (IT).

Processing the Excel rows is always done sequentially. Example: all rows are posted under the same document number until a new document header is transferred from Excel (this information is controlled via the field MD_HEADER).

5.5 Controlling functions

All components in the first tab begin with "MD_" and have a central controlling function for reading and writing satellite data independent of the interface parameters of the respective BAPIs.

Management (MD) **Kopf (HD)** Positionen (IT)

Komponentenname	Satellitenfeld	Kurzbeschreibung
MD_DATE	ZZCDATE	Datum
MD_HEADER	ZZHEADER	Byte Wert
MD_PRTYPE		CO-Ausführungstyp
MD_RELEASE	ZZRELEASE	MD Freigabe Status
MD_RELEASE_TEST		MD Freigabe Status
MD_TIME		Tageszeit
MD_USER	ZZCUSER	Benutzername

Figure 5.3: Field assignments for central controlling functions



Here is a detailed overview of the individual parameters:

Component	Meaning
MD_RELEASE	Controls the release of data records. An FI document is only created if a "1" is entered in the field of the satellite table. Without a field assignment for this component, the program attempts to transfer all data records of the table. Recommended data definition: /KERN/IPP_MD_RELEASE
MD_RELEASE_TEST	It may be advantageous to control the relevant data during a simulation (test run) of a document creation via its own release switch. Without field assignment for this parameter, the MD_RELEASE column is evaluated. Recommended data definition: same as for MD_RELEASE
MD_PRTYPE	Optionally, the data of different processing types can be saved in a satellite table. Recommended data definition: /KERN/IPP/CO_PROC_TYPE
MD_HEADER	A "1" marks the current Excel row as the header: Allevo begins with a new document and adds the item data of the current and subsequent rows (until the next row is filled with "1"). Recommended data definition: /KERN/IPP_CO_HEADER
MD_DATE MD_USER	Log function: After creating a document, the date of document creation can be found here, as well as the name of the user who created the document. A row in the satellite table is only processed if the respective fields are empty. Note: After creating a new document, the new document numbers are written back to the satellite table (see the field assignment for header data). Recommended data definition: DATUM or UNAME
MD_MSG_TYPE MD_MESSAGE	Log function: the message type during program execution (S Success, E Error, W Warning, I Info, A Abort) and the text of the last message. Recommended data definition: BAPI_MTYPE or BAPI_MSG

For the other fields of the satellite table, a data definition is recommended as it is defined in the respective component for the BAPI or in the Kern-specific structure. The associated SAP BAPI documentation is directly accessible via the button of the same name (see top right of Figure 5.2).

Summary:

- Relevant data records in satellites cannot be released individually
- After creating a master record, relevant information can be written back to the satellite table (e.g., user name, date of creation, or document number). If a field assignment exists for



these components, and data are entered there, the corresponding rows are ignored for subsequent selection.

- Within a single row, multiple information details can be saved; the sequence can be adjusted.

5.6 Technical details for program execution

5.6.1 Overview

In execution mode, data from the satellite table are selected and corresponding field assignments are transferred to the relevant SAP BAPIs. The selection conditions are, as usual, the key fields of the satellite table: you can select via all representative objects, or via individual objects.

Each CO-document is created entirely by itself (with all items). If an error occurs in the process, the document creation is aborted and is noted in the log. Allevo then automatically continues to the processing of the next document. For this reason, processing may only be partially completed at the end.

When a document is created, the corresponding BAPIs also go through the rules for SAP data validation, as defined in the CO Customizing under the topic "Validation of Accounting Documents". Invalid rules can result in error messages in the Allevo execution log (e.g., "BSEG does not have a component with name xxx"). If necessary, first adjust the rules in Customizing and execute SAP report RGUGBR00 (see also SAP Note 44352).

Technical details for the creation of documents are described below. Also mentioned are the respectively integrated BAPIs for which SAP usually provides its own documentation (it can also be called directly in constant maintenance). For additional information on the BAPIs used, see SAP Note 737917 (BAPIs CO Actual Postings from Release 4.7) and the corresponding SAP documentation.

Note:	<p>In the following, the data structures with all components of the data transfer to the respective BAPIs are also mentioned. The name "xx" is to be seen as a placeholder for the respective data level (that is, to be replaced by the ID code "MD", "HD" or "IT").</p> <p>The structures can serve as a copy template for building the required satellite tables. However, the structures must NOT be included directly into the append by include-statement (as a protection against incompatibilities with future Allevo versions).</p>
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5.6.2 COPC Manual reposting of primary costs

This function posts a document for primary costs according to SAP transaction KB11N (Business transaction RKU2). List of the components involved:

Called BAPI	BAPI_ACC_PRIMARY_COSTS_POST
Data structure in SE11	/KERN/IPP_S_COPC_xx



Figure 5.2 above shows an example with field assignments for the header.

5.6.3 CORE Manual reposting of revenues

This function posts a document for revenues according to SAP transaction KB41N (Business transaction RKU2). List of the components involved:

Called BAPI	BAPI_ACC_REVENUES_POST BAPI_ACC_REVENUES_CHECK (Simulation-mode)
Data structure in SE11	/KERN/IPP_S_CORE_xx

Figure 5.2 above shows an example with field assignments for the header.

5.6.4 COAA Directly measure activity allocation

This function posts a document for activity allocation according to SAP transaction KB21N. List of the components involved:

Called BAPI	BAPI_ACC_ACTIVITY_ALLOC_POST
Data structure in SE11	/KERN/IPP_S_COAA_xx

5.6.5 COMA Manual cost allocation

This function posts documents with manual cost allocation according to SAP transaction KB15N (Business transaction KAMV). List of the components involved:

Called BAPI	BAPI_ACC_MANUAL_ALLOC_POST
Data structure in SE11	/KERN/IPP_S_COMA_xx

5.6.6 COKF Measure statistical key figures

This function posts documents with statistical key figures according to SAP transaction KB31 (Business transaction RKS). List of the components involved:

Called BAPI	BAPI_ACC_STAT_KEY_FIG_POST
Data structure in SE11	/KERN/IPP_S_COKF_xx

5.6.7 CORV Reverse CO documents

This function reverses a document in the system, which was created through a manual actuals posting in controlling. Here, we are dealing with a true reversal, i.e. the document to be reversed is read and then reposted with the opposing sign.



List of the components involved:

Called BAPI	BAPI_ACC_ACT_POSTINGS_REVERSE
Data structure in SE11	/KERN/IPP_S_CORV_xx

Important field assignments:

- The component RVRS_NO must contain the document number to be reversed, e.g., a reference to the satellite field in which the above mentioned execution types have written a document number.
- The component DOC_NO contains the document number of the newly created reverse document.

Example:

Target Field	Source Field	Short description
CO_AREA	ZZCO_AREA	Controlling Area
DOC_NO	ZZDOC_NO_RV	Document Number
RVRS_NO	ZZDOC_NO	Document Number

Figure 5.4: Field assignment for CO reversal

Allevo takes the usual constants into account for release functions even for reversals.

5.6.8 COTS Interface for plant data collection (CATS)

This interface allows for the entry of new time data and activities with a transfer to the SAP Time Sheet. The corresponding SAP functions are summarized with the term "CATS" (Cross Application Time Sheet).

Note: All SAP transactions for plant data collection are summarized in an area menu; the easiest way to call this is by entering "CATS" in the SAP command field.

For applications with "CATS", individual entry masks are regularly required: a requirement that clearly calls for a combination of SAP and Excel. Here is a simple example for the entry of times for WBS elements.

CATS		Date Data			Time Data			Booking Data				Date registered	Comment
#	Workday	Weekday	Workdate	Starttime	Endtime	CATSHous	Sending Cctr	Activity Type	WBS Element	Document Nr			
1	3	Do	3. Mrz. 16	8:00	12:00	4,00	1000	1423	T20301				
2	4	Fr	4. Mrz. 16	10:00	13:00	3,00	1000	1423	I4004				
3	5	Sa	5. Mrz. 16	8:00	10:00	2,00	1000	1423	T20301				
4													
5													
6													
7													
8													
9													

Figure 5.5: Example for CATS Time Sheet via Excel



The Allevo execution type "TS = Plant data collection" corresponds to the functions of the transaction CAT2. The most important components of the interface include:

Called BAPI	BAPI_CATIMESHEETMGR_INSERT (Is also used when connecting external systems via IDOC).
Data structure in SE11	/KERN/IPP_S_COTS
Authorizations	<p>Checks via info type with the help of the following function modules:</p> <ul style="list-style-type: none"> CATS_CHECK_SINGLE_PERNR based on personnel number. CATS_CHECK_PROFILE_AUTHORITY based on profile. <p>See corresponding authorization objects such as P_ORGIN and S_PER-SONAS</p>

Based on the BAPI, Allevo supports the following applications:

- Postings of presence/absence as well as wage type for personnel management
- Postings that generate activity allocations in controlling
- Feedback for project system, maintenance and customer service
- External activities for materials management

The prerequisites for recording data via the Allevo module are the same as for other CATS applications. For example, a personnel number must be created for the affected employees in the SAP system (info type 0105 = Communication). This also applies when recording times of external employees.

There is only one tab for the definition of constants. Each row in the satellite table is processed individually. Example for field assignment:

Zielfeld	Quellfeld	Kurzbeschreibung
MD_DATE	MD_DATE	Datum
MD_MESSAGE	MD_MESSAGE	Der eigentliche Text einer Meldung
MD_MSG_TYPE	MD_MSG_TYPE	Meldungstyp: S Success, E Error, W Warning, I In...
MD_PRTYPE	MD_PRTYPE	CO-Ausführungstyp
MD_RELEASE	MD_RELEASE	MD Freigabe Status
MD_RELEASE_TEST	MD_RELEASE_TEST	MD Freigabe Status
MD_TIME	MD_TIME	Tageszeit
MD_USER	MD_USER	Benutzername
ACTTYPE	ACTTYPE	Leistungsart
CATSHOURS	CATSHOURS	Stunden
CO_AREA	KOKRS	Kostenrechnungskreis
DOC_NO	DOC_NO	Belegnummer
EMPLOYEENUMBER	EMPLOYEENUMBER	Personalnummer
FCST_FIN_DATE	FCST_FIN_DATE	Prognostiziertes Endedatum des Vorgangs aus der...
REC_CCTR	REC_CCTR	Empfangende Kostenstelle
SEND_CCTR	SEND_CCTR	Sendende Kostenstelle
UNIT	UNIT	Mengeneinheit für Anzeige
WBS_ELEMENT	WBS_ELEMENT	Projektstrukturplanelement (PSP-Element)
WORKDATE	WORKDATE	Datum

Figure 5.6: Field assignment for plant data collection CATS

Special notes for processing:



- Data records are posted as a block; all data records must be free of errors (see also simulation). Information regarding the documents generated can be written back to the satellite table (incl. document number)
- A direct forwarding to HR info types only takes place if the "Release upon saving" option is active in the profile. A direct release via the interface in Allevo is not currently possible (BAPI component RELEASE_DATA). The transfer of a workflow recipient is also not currently supported.
- The BAPI function for long text descriptions is not currently supported.



6 Actuals: Entering logistics documents

6.1 Functional overview

Data in satellite tables can be used to directly generate documents for logistics. In the first step, an interface to sales documents is implemented (i.e. VA01). SAP Standard BAPIs are called to perform these functions.

Note: The business background can be found in the corresponding SAP documentation for the transactions. In addition, when the interface components are maintained in Allevo, a call to the SAP documentation for the respective BAPI is included.

The most important functions of the interface are saved in transaction /KERN/IPP_LO_POST:

- Maintenance of scheme and assignment of constants in order to assign BAPI components and fields of a satellite table (see the button "Constants" in the next figure).
- Creation of sales documents according to the selection of the relevant data in the satellite table via a call to the relevant SAP BAPIs (similar to the creation of FI documents, see the previous chapter on this topic).

The entry of satellite data then proceeds in one of two ways. If it is done as a secondary process of planning, then the entry into the Allevo transaction takes place via the relevant planning object. If, however, the data collection is carried out completely independently via a separate layout, an Allevo-specific object can be used as a start object.

Note: The execution of Allevo Actual must be unlocked via an appropriate entry in the license key. The authorization check is made via the license key that is saved in the * layout for the starting object type.

All functions are additionally equipped with appropriate authorizations (see also the section about authorizations in the Allevo SAP manual).

As an option, posting functions can also be integrated in the Allevo planning process – e.g. by calling via Customer buttons in Allevo planning view (see constant BUTTON_CUST1) or via BAdIs after saving the satellite data. Be sure to reconcile the necessary customer-specific adjustments in the implementation project accordingly.

The following functions are currently not supported or only exist with restricted functionality:

- Items with configurable materials
- Credit card data
- Long text descriptions (SAP script texts) with more than 255 characters
- No support of customer specific fields
- Change of existing sales documents not possible (only creation of new documents)

6.2 Calling transactions

The following figure shows the start screen for the transaction /KERN/IPP_LO_POST.



LO Sales Order aus Satellitentabelle schreiben

Schema Festwerte Allevo Version

Sales Order erstellen

Ausführungstyp SO Sales Order

Datenauswahl über

Kostenrechnungskreis 1000

Tabellenname /KERN/IPPSAT76

Schema WHF1

Jahr und -version

Objektart KS Kostenstelle

Kostenstelle 1000

Geschäftsjahr 2015

Version 0

Ausführungsoptionen

Simulation (Testlauf)

Log speichern

Figure 6.1: Start screen of the transactions

The desired documents are created in execution mode (F8) of the transaction.

The selection of satellite data is made with the help of the usual key fields in a satellite table (from controlling area to version). Optionally, simulation of the document creation is possible (test run): all functions are executed including creation of a document number, only it is not saved. The test run is thus particularly suitable for error analysis.

With the "Save Log" option, Allevo creates a log in the SAP Application Log (evaluation via transaction SLG1).

6.3 Maintain schemes

A satellite can contain data for multiple application cases, e.g. for the creation of documents and for document reversal. Each application consists of an ID code and a suitable description of the application. The scheme is then applied to the level of the satellite table and controlling area.

Changes can be made via the button "Scheme" (see Figure 6.1), a specification of the sequence currently only changes the sorting of the displayed list.

6.4 Field assignments for calling BAPI

In order to provide the BAPIs with data for the creation of sales documents, Allevo uses the same mapping functions as for the creation of FI documents: Due to the complexity of the BAPIs, assignment between BAPI components and the fields of the satellite table are controlled via multiple tabs. These are dependent on the contents to be processed via the Excel file (e.g., according to the type of offset account, with or without tax information).

Field assignments are always assigned by a combination of satellite table and scheme.



Festwertpflege

Import
 Export
 Prüfen
 Alle Komponenten anzeigen
 Alle Komponenten löschen
 BAPI Dokumentation

Datenauswahl

Kostenrechnungsk: 1000 CO Europe
 Schema: WHF1 Gutschriften anlegen
 Map.Bereich: LOSO
 Tabelle: /KERN/IPPSAT76 Allevo: Satellitentabelle 76

Steuerung (MD) **Kopf (HD)** Position (IT) Partner (BP) Einteilungen (SL) Preis (PR)

Ziel-feld	Quellenfeld	Kurzbeschreibung
DISTR_CHAN	ZZDISTR_CHAN	Vertriebsweg
DIVISION	ZZDIVISION	Sparte
DOC_TYPE	ZZDOC_TYPE	Verkaufsbelegart
ORD_REASON	ZZORD_REASON	Auftragsgrund (Grund des Vorgangs)
SALES_ORG	ZZSALES_ORG	Verkaufsorganisation

Figure 6.2: Field assignments for the creation of sales documents

Each tab has a name that also contains an ID-code: on the one hand, this gives a reference to the data structure, and on the other hand, this ID-code is used by Excel to define which information should be contained within a row, and if necessary, for which rows the field assignments should be processed. On the Excel side, multiple document information details can be saved in a single row, e.g., information regarding the header (HD) and the items (IT).

Processing the Excel rows is always done sequentially. Example: all rows are posted under the same document number until a new document header is transferred from Excel (this information is controlled via the ID "HD").

6.5 Controlling functions

All components in the first tab begin with "MD_" and have a central controlling function for reading and writing satellite data independent of any other interface parameters of the respective BAPIs.

Steuerung (MD) **Kopf (HD)** Position (IT) Partner (BP) Einteilung (SL) Preis (PR)

Ziel-feld	Quellenfeld	Kurzbeschreibung
MD_DATE	ZZMD_DATE	Datum
MD_MAP01	ZZMD_MAP01	Mapping area 1
MD_MAP02	ZZMD_MAP02	Mapping area 2
MD_MAP03	ZZMD_MAP03	Mapping area 3
MD_MAP04	ZZMD_MAP04	Mapping area 4
MD_PRTYPE	ZZMD_PRTYPE	LO-Ausführungstyp
MD_RELEASE	ZZMD_RELEASE	MD Freigabe Status
MD_RELEASE_TEST	ZZMD_REL_TEST	MD Freigabe Status
MD_SCHEME	ZZMD_SCHEME	Schema für die Festwerte
MD_TIME	ZZMD_TIME	Tageszeit
MD_USER	ZZMD_USER	Benutzername
MD_VBELN	ZZVBELN_VA	Verkaufsbeleg

Figure 6.3: Field assignments for central controlling functions



Some settings / rules

- Relevant data records in the satellites can be released individually.
- After a master record is created, relevant information can be written back to the satellite row (e.g., user name, date of creation, or number of the created document). If a field assignment exists for these components and data are entered there, the corresponding rows are ignored during subsequent selection.
- Multiple information details can be saved in a single row; the sequence can be adjusted.
- Document numbers are automatically assigned when documents are created and are then logged in the satellite table (component MD_VBELN): if there is already a number in the corresponding satellite field, the row is ignored (similar to the components MD_DATE / MD_USER for date of creation and user).

Here is a detailed overview of the individual parameters:

Component	Meaning
MD_RELEASE	Controls the release of data records. An FI document is only created if a "1" is entered in the field of the satellite table. Without a field assignment for this component, the program attempts to transfer all data records of the table. Recommended data definition: /KERN/IPP_MD_RELEASE
MD_RELEASE_TEST	It may be advantageous to control the relevant data during a simulation (test run) of a document creation via its own release switch. Without field assignment for this parameter, the MD_RELEASE column is evaluated. Recommended data definition: same as for MD_RELEASE
MD_PRTYPE	Execution type: useful if a satellite table also contains data that are different from the current execution type. Valid value: "SO" for the creation of sales documents.
MD_SCHEME	The specification of a scheme can be useful if a satellite table is to be processed with different field assignments (e.g. for different document types such as credit memo and standard order in the same satellite). Valid value: "SO" for the creation of sales documents.
MD_MAP01... MD_MAP10	These components define which contents should be found in the respective row on the Excel side. The abbreviations describing the individual topics of the field assignment are to be entered there (i.e. "HD" for header, "IT" for item etc.) A maximum of 10 such components are available: they are interpreted sequentially (MD_MAP01, MD_MAP02...) when transferring data from Excel to SAP. In order to start a new document with a new row, "HD" should be entered in the satellite column with the component MD_MAP01.
MD_VBELN	Document number as a log function.



MD_DATE MD_USER	Log function (compulsory fields): After creating a document, the date of document creation can be found here, as well as the name of the user who created the document. A row in the satellite table is only processed if the respective fields are empty. Note: After creating a new document, the new document numbers are written back to the satellite table (see the field assignment for header data). Recommended data definition: DATUM or UNAME
MD_MSG_TYPE MD_MESSAGE	Log function: the message type during program execution (S Success, E Error, W Warning, I Info, A Abort) and the text of the last message. Recommended data definition: BAPI_MTYPE or BAPI_MSG

For the other fields of the satellite table, a data definition is recommended as it is defined in the respective component for the BAPI or in the Kern-specific structure. The associated SAP BAPI documentation is directly accessible via the button of the same name (see top right of Figure 5.2).

The interface processes the satellite rows in the order in which it is specified in the index of the table (i.e. according to the numeration in the column "rows"). What should be processed within a row and which order should be followed is defined by those columns that are entered for the components MD_MAP01 to MD_MAP10.

1	HD		BP	
2		IT		PR
3		IT		PR
4	HD	IT	BP	PR
5			BP	

Figure 6.4: Activate field assignments in the satellite table

The table is intended to explain the behavior when interpreting the satellite rows.

- Row 1 only contains header data: In this case for the document header (HD) and information about the partner (BP). A new document begins here.
- For this document, two items are included (row 2 and 3), each with an indicator of the price.
- Row four begins a new document (HD). It only has one item (IT) and an indicator of the price). However, in this case, there are two partners (BP) entered.

In the table above, the individual specifications for mapping always occur in the same column. It is not a requirement, but can help with interpretation: Allevo always interprets the information in a row in the order of the mapping components (beginning with MD_MAP01).



6.6 Technical details for program execution

6.6.1 Overview

In execution mode, data are selected from a satellite table and transferred to the SAP-BAPI according to the field assignments. The selection conditions are, as usual, the key fields of the satellite table: one can e.g., select via all representative objects, or via individual objects. These parameters result from the general conditions with which the data were collected in the Allevo master (layout, start object ...).

Depending on the application, additional components are checked. If, for example, there is a field assignment for MD_DATE or MD_USER, the corresponding satellite table must be empty.

Technical details for the creation of documents are described below. Also mentioned are the respectively integrated BAPIs for which SAP usually provides its own documentation (it can also be called directly in constant maintenance).

6.6.2 Creation of sales documents

List of the components involved:

Called BAPI	<p>BAPI_SALESORDER_CREATEFROMDAT2</p> <p>SAP designed this BAPI for the sole purpose of creating sales orders (business object BUS2302). As it is for other sales document types (credits, debits...) SAP recommends using the function module SD_SALES_DOCUMENT_CREATE, which has the same interface parameters (see SAP note 93091).</p>
Data structure in SE11	<p>/KERN/IPP_S_LOSO_BP Business Partner Structure for mapping</p> <p>/KERN/IPP_S_LOSO_HD Header Structure for mapping</p> <p>/KERN/IPP_S_LOSO_IT Items Structure for mapping</p> <p>/KERN/IPP_S_LOSO_MD Management Data</p> <p>/KERN/IPP_S_LOSO_PR Pricing Structure for mapping</p> <p>/KERN/IPP_S_LOSO_SL Schedule lines</p> <p>These structures contain all copponents that can be assigned to the BAPI via field mapping.</p>
Customer-specific enhancements	<p>Fundamentally, the SAP BAPI can also pprovide data for customer-specific fields. The requirements are explained in SAP note 143580.</p>

Refer to Figure 6.2 for an example with field assignments for the header.

When creating documents, the document number (MD_VBELN) also has to be empty.

Each sales document is created entirely by itself (with all items). If an error occurs in the process, the document creation is aborted and is noted in the log. Allevo then automatically continues to the processing of the next document. For this reason, processing may only be partially completed at the end.



Special features when posting via BAPI:

- For items relevant to delivery, the delivery quantity is entered via an entry in the schedule lines, otherwise the quantity field in the created sales document remains empty. For other cases (e.g., credit, debit), a specification in the component TARGET_VALUE is sufficient.
- Entries regarding partners and price conditions can be entered on the header and item level (for the latter with item number).
- The transferred item numbers must be unique, otherwise only the last row "wins".

Creation of text descriptions

In sales documents, long text descriptions are of great importance. Allevo can currently provide two text descriptions per header and item level. The length is currently limited to 255 characters (in order to be able to work with CHAR type standard fields in satellites) and does not allow text formatting like bold or underlined text.

As an example, here are the definitions of the fields for the header level:

- ITF_ID_HD1 and ITF_ID_HD2 with the entry of the Text-ID (4 characters)
- ITF_TEXT_HD1, ITF_TEXT_HD2 with the actual text (255 characters).

The specification of the text object (VBBK or VBBP), which is also required, is assigned automatically, depending on whether the text is transferred to the header or the item level. Allevo uses the current logon language when transferring the texts to the SAP BAPI.

Authorization checks

The SAP BAPI for creating sales documents is subject to checks for the following authorization objects:

- V_VBAK_VKO Sales document: authorization for sales areas
- V_VBAK_AAT Sales document: authorization for sales document types

For general controlling within the transaction (creation/reversal, simulation and setup of mapping), Allevo authorization groups ZIPP_LO1, ZIPP_LO5 and ZIPP_LO9 are additionally requested (see the section on authorizations in the Allevo SAP manual).

6.6.3 Creating purchase requisitions (ME51N)

Allevo supports the creation of purchase requisitions with header and item data similar to ME51N. Allevo does not currently support document text descriptions (or change functions).

List of the components involved:

Called BAPI	BAPI_PR_CREATE Create purchase requisitions (BANF)
Data structure in SE11	/KERN/IPP_S_LOPR_HD Header data for mapping /KERN/IPP_S_LOPR_IT Item data for mapping /KERN/IPP_S_LOPR_MD Management Data These structures contain all of the components that can be assigned to the BAPI via field mapping. The following transfer structures of the BAPI are currently not supported:



- Heater and item text descriptions
- Account assignment
- Individual partner addresses
- Customer-specific fields
- Version management / version data

Each document is created individually (with all items). If an error occurs in this process, the document processing will be aborted and the error will be noted in the log. Allevo then automatically skips to the next document for processing. In the end, this can lead to a partial processing of the documents.

Special features when posting via BAPI:

- The generated document number is found in component PREQ_NO
- Allevo supported
- Entries regarding partners and price conditions can be entered on the header and item level (for the latter with item number).
- The transferred item numbers must be unique, otherwise only the last row "wins".

Authorization checks

For the execution of the BAPI, the user should have the same authorizations as required for ME51N.

For general controlling within the transaction (creation/reversal, simulation and setup of mapping), Allevo authorization groups ZIPP_LO1, ZIPP_LO5 and ZIPP_LO9 are additionally requested (see the section on authorizations in the Allevo SAP manual).



7 Additional functions

7.1 Calling via Customer button

It can be useful to create documents directly from Allevo planning, for example via an Allevo Customer button. Appropriately, the Allevo function module /KERN/IPP_EMBED_INTERFACE is used, where you should enter BUTTON_CUST1 (or BUTTON_CUST2) in the constant. The function module allows for the execution of all interfaces with the following features:

- Per layout, only one interface function can be called.
- The constant EMBEDDED_INTERFACE controls the functions with additional parameters such as satellite number and mapping area (e.g. LOSO for creating a sales order)
- In this application, it is often helpful to automatically save the current data in the satellite or to read the data again after creating the document (e.g. to read the relevant document numbers). The pop-up for querying the satellite number can be suppressed if desired (see documentation on the constant SAT_BUT_READ_ALL and SAT_BUT_SAVE_ALL).

Using the Customer button with the named function modules is especially useful in order to test functions of an interface directly from Excel (possible when using Inplace and when calling via ABC). See the F1-help for the named constants.

For executing in test-mode (simulation), the function module /KERN/IPP_EMBED_INTERFACE_SIM is available (also controlled via the constant EMBEDDED_INTERFACE).

Example: If processing for FI-postings via the mapping area FIAC is to be carried out via separate user groups, working in different Allevo layouts can be helpful (e.g., one group for creation and simulation, another group for posting). This also allows for different assignments of the customer-specific buttons (for example via BUTTON_CUST1).

7.2 Calling directly when reading/writing satellite data

Allevo can independently check whether Architect or Actual functions are called directly when saving or reading satellite data. This function is especially helpful if documents are to be changed in the dialog, as is done for e.g., WBS elements.

Depending on the application, both of the following constants must be set:

- SATxx_PROC_BEF_RD for activities before transfer of satellite data to Excel (e.g., reading available WBS master records in the project)
- SATxx_PROC_AFT_WR for activities after saving the satellite data (e.g., for creating new documents)

In both cases, xx should be replaced with the number of the relevant satellite. Details can be found in the F1-help for these constants.