



Flexible Planning

ALLEVO

User Manual

Effective from Allevo 3.5

Flexible Planning for Activities, Statistical Key Figures, Budgets, Primary and Secondary Costs

Flexible Planning allows to enter plan data for external planning objects. A typical example is a cost element manager planning for example insurance costs companywide for each cost center. To do so, he enters the relevant cost center - cost element constellations into a satellite. The Allevo own follow-up process »Flexible Planning« identifies combinations in the satellite that are to be posted, the business process that is to be executed and amounts that are to be posted (quantities, values, prices; as annual or period data; differentiated by plan versions, periods and years etc.) and then performs posting via BAPI.

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1 Allevo Flexible Planning (Introduction)

1.1 Data in Allevo Satellite Table

Satellite tables in Allevo offer much flexibility for merging detailed data from decentralized planning processes, such as, for example cost center planning, into a central data maintenance in SAP. There is consequently a wide range of applications. Satellites are for example regularly used to generate plan data on activity quantities or primary and secondary costs from a list of detailed measures and to save these data. Examples:

- The activity quantities of a sending cost center are determined from a list of all receivers and the respective quantities used.
- Depreciation costs are calculated on the basis of the individual investment activities of a cost center.
- Costs to be expected for individual projects result from a list of planned activities.

In all these examples, plan data are not only determined for the cost center to be planned but, implicitly, also for its partners. These are the receiving cost center in the first example, the investment order in the second example and the WBS element in the third example. Wouldn't it be convenient to automatically feed data to these objects? This is exactly the purpose that "Flexible Planning" of Allevo is applied for.

1.2 Planning with Flexible Planning

Flexible Planning features a **planning mode** and a **reading mode** (see section 5). The planning mode applies for the following postings (allocation type in brackets):

- Activities of a cost center with capacities and/or prices (AT)
- Primary costs (PC)
- Activity inputs from cost centers, orders or WBS elements (DA)
- Indirect activity inputs through order settlement costs of cost centers, specifying the settlement cost element, the sending cost center and the sending activity type (OS)
- Statistical key figures for cost centers, orders or WBS elements (KF)
- Original budgets and cost planning for orders and WBS elements (BP)
- Profit center planning for "old" or new general ledger

Planning can be on a monthly or annual basis, also for multiple years. If cost centers receive primary and secondary costs or statistical key figures, the posting can be activity-dependent.

The **reading mode** allows you to read already planned

- Input activities and
- Indirect activity inputs through order settlement costs



specifying the receiver (partner objects and/or objects of origin), to enter the data in the satellite and thus make it available to the sender. This function, however, is only available for the main planning year.



2 Program Start and Authorizations

2.1 Start Screen

Flexible Planning is an independent ABAP program in the Kern own naming environment. The transaction /ALLEVO/FP is used to open the module in the **planning mode** (for Allevo versions older than 3.0 it was /KERN/IPPPF); the transaction /ALLEVO/FP is used to open it in the reading mode (up to Allevo version 3.1 /KERN/IPPFPR).

Allevo: Flexible Planning (FP)

Schemes Constants Cancellation list Allevo Version

Process data from

Controlling Area 1000 Invest

Satellite 01 Test PSP

Scheme PSTEST

Select year and version

Fiscal Year 2018

Version 0

Select objects

Object Type KS Cost Center

Cost Center to

Set Name

Select objects as

Sender (Main Object COBJECT)

Receiver (Using FD_RECEIVER)

Show messages

Message Level

Figure 2.1: Start screen for Flexible Planning: here in the planning mode

The dialog covers two functions:

- Execution of planning functions depending on the chosen selection parameters (see section 4)
- Branching to program settings (via icons on the standard toolbar), which will be explained in the following sections

As in the Allevo main program, processing of satellite data is controlled by constants. These constants must be defined before starting the program (see detailed description in chapter 3).

Constants are maintained depending on the controlling area, the satellite and the execution scheme. The first step therefore must be to create an execution scheme.

2.2 Execution Scheme

Execution schemes allow setting up more than one valid combination of constants for a satellite and consequently processing data contained in the table according to different criteria.

The creation and maintenance of the execution scheme is performed using the button |Schemes|, which allows you to create up to 99 different execution schemes for each satellite.

A scheme is defined by an entry in the following columns:



- Scheme (key field, 6 digits, alphanumeric)
- Position (2 digits, numeric)
- Description (40 characters, text)

The position allows to control the sequence during program execution, in the case that several execution schemes are simultaneously activated for processing.

Controlling Area	1000	Satellite	1
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Scheme	Position	Description
10	10	Invest to Orders
PSTest	20	Test PSP
XXX	30	Test A

Figure 2.2: Creating an execution scheme

You can subsequently change the scheme position and description. Especially changes in the item number are important for the case that the sequence of execution shall be changed.

Note: A scheme can only be deleted after previously deleting all constants belonging to it.

2.3 Authorizations

In general, Flexible Planning considers authorizations stored in SAP for the execution of planning functions. Furthermore, an authorization to execute the respective transaction must be available (e.g. for /ALLEVO/FP).

Customizing functions (change scheme and constants) as well as the maintenance of the cancellation table is usually reserved for employees with administration rights. Correspondingly, individual authorizations regarding the authorization groups ZIPP_FP1, ZIPP_FP2 and ZIPP_FP3 are stored here. Users of the higher authorization groups ZIPP_ADM have access as well (see also notes about the authorization object ZIPP_PROG in the manual "Allevo & SAP").



3 Constants and Program Settings

3.1 Definition of Constants

Constants are particularly used to link satellite fields to the processing program. It is therefore necessary to define the satellite fields containing the relevant information.

The view of constants is accessed via the button |Constants| after having specified the controlling area, the satellite and the execution scheme (see Figure 2.1). The following input template will appear:

Maintenance of FP constants

Controlling Area: 1000 Satellite: 1 Scheme: 0001 1 FP Invest

Parameter in IPP activ. planni.	Value from	Value to	Text
ALLEVO_ACTIVE	X		Aktiv für direkten Aufruf aus Allevo
ALLOC_TYPE	PC		Verrechnungsart
CANCEL_ACTIVE	X		Aktivierung der Stornierung auf gelöschte Zeilen
FD_KSTAR	CE_INV		Feldname: Kostenart
FD_QNTY_FIX	VALUE_INV		Feldname: Gesamtmenge fix
FD_RECEIVER	ORDER_INV		Feldname: Empfänger
OBJECT_TYPE	OR		Empfänger-Objektart

Figure 3.1: Arrangement of execution schemes

The following types of constants are being distinguished here:

- Constants beginning with “FD_” are linked to a field in the satellite (field mapping).
- All other constants control the workflow of planning or contain additional information.

A list containing all constants available in the system can be called in the first entry column via F4. After having selected a constant, you can further use a F1 documentation providing additional information on the meaning of the constant; also parameters that are to be set in the columns “Value from” and “Value to”. It applies here:

1. Constants with field mapping (beginning also with “FD_”) expect the name of a field of the selected satellite (usually a field from the append) in the column “Value from”. The F4 value help in column “Value from” shows a list of all fields in this satellite.
2. Both “Value from” and “Value to” can be individually occupied with other constants. Contents are provided by the F1 documentation.

Note: The F1 constant help is a central Allevo function. The installation is described in the manual “Allevo & SAP”.

For some parameters, such as the main planning year, different constants are available for their determination. Contents can be permanently assigned, read from the satellite via field mapping or determined via an Allevo column definition. The necessary determination rules are described in the next section.

Texts describing the constant are stored in the system but can be modified by the user and saved language-dependently (specifically for the selected scheme).



Up-/download functions are available to transfer constants to a different SAP system (copies all entries regarding a scheme).

Note: You can optionally use the ALV standard functions „Copy text“ and „Enter into new Row“

The function “Check constants” controls for example the validity of entered constant names and satellite fields. In each scheme, at least the constants FD_ALLOC_TYPE and/or ALLOC_TYPE, FD_OBJECT_TYPE and/or OBJECT_TYPE, FD_RECEIVER and a field FD_QNTY... must be established.

3.2 Determination Rules (e.g. for the Planning Year)

Individual parameters required for the execution of Flexible Planning can be defined in different ways; the main planning year will serve as example here:

- The constant PLANYEAR centrally determines the planning year (entry in column “Value from”).
- The planning year can optionally be adopted from a satellite field. The associated mapping is performed via the constant FD_PLANYEAR.
- An Allevo column definition can further serve as alternative source; this is set via the constant COLDEF.
- The column definition can also originate from a satellite field; mapping is performed via the constant FD_COLDEF.

The variety of possibilities for the determination of a parameter, such as the planning year, requires a rule for the determination: Allevo uses the value of the highest available level of detail.

Note: In the example on the planning year, the following sequence applies:
 (1) FD_PLANYEAR, (2) PLANYEAR, (3) via FD_COLDEF, (4) via COLDEF.
 The first constant found in this sequence defines the main planning year. If all constants are missing, entries in accordance with the selection screen will be used (upon call in the dialog).

Reading the year via a mapping from the satellite offers several advantages, such as:

- Postings can be performed for multiple years without using separate schemes.
- In the standard case, processing data in the Excel master will be simplified; e.g. only one column must be addressed with the allocation type, which will then be relevant for all years.
- If the planning year is dragged via the column definitions, also the changeover to a different year will be simplified. Changes must then only be made centrally in the Allevo column definition and Flexible Planning will adapt automatically.

Note: The described determination logics are realized for the following characteristics of an Allevo column definition: Planning year, plan version, period from, period to, delta planning and currency type.

If Flexible Planning is executed in the dialog (not in the background of Allevo), also the appropriate layout must be known when searching via a column definition. In this case, Flexible Planning reads the “Value of” in the constant ALLEVO_ACTIVE and possibly uses the first entry here (otherwise the *-layout for the current object type will be used).



3.3 General Constants

Flexible Planning provides a number of constants that can be used regardless of individual posting procedures. The following table will give you a brief overview. Detailed information is provided by the respective F1 documentation.

Note:	<p>Some constants can be both stored in the scheme and provided via a field mapping. In the standard case, both constants carry the same name; the “FD_“ share of the name is written in brackets in the following table (and the tables below).</p> <p>The entry (FD_)ALLOC_TYPE for example means:</p> <ul style="list-style-type: none"> ▪ that there is a constant ALLOC_TYPE to store the allocation type in the scheme and ▪ that there is additionally a constant FD_ALLOC_TYPE to adopt the allocation type from the satellite via field mapping <p>The constants (FD_)ALLOC_TYPE (= allocation type), (FD_)OBJECT_TYPE (= object type) and FD_RECEIVER (= receiver object) are mandatory fields required in every scheme.</p>
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Constant	Meaning
ALLEVO_ACTIVE	Activates “Flexible Planning“ for the automatic call from the Allevo main module by indicating the relevant Allevo layout.
(FD_)ALLOC_TYPE	<p>Allocation Type (mandatory field):</p> <p>The entry determines the posting function that shall be executed in the planning mode (e.g. posting primary costs via the allocation type PC).</p> <p>If data of a satellite are to be processed using different schemes (e.g. for deviating allocation types respectively), different columns per allocation type are to be used in the satellite (with the corresponding mapping per scheme).</p> <p>The allocation type “NN“ is ignored during reading.</p> <p>Special function for the selection of satellite data: if constants FD_ALLOC_TYPE and ALLOC_TYPE are entered simultaneously in the mapping, only data records whose allocation type in the field FD_ALLOC_TYPE corresponds to the entry in ALLOC_TYPE will be processed.</p>
(FD_)OBJECT_TYPE	Object type (mandatory field)
FD_RECEIVER	<p>Receiver object (mandatory field):</p> <p>The object that costs are posted for (e.g. the ID of a cost center) must be provided by the corresponding satellite field.</p> <p>Regarding its content, the receiver is equivalent to the start object of a standard Allevo planning transaction. By contrast, the sender object is usually found in the field COBJECT of the satellite (exemptions are described below).</p> <p>In the dialog mode of FP, the field in FD_RECEIVER can further serve as characteristic of the selection of satellite data (see notes in chapter 4).</p>
FD_SENDER	<p>Sender object:</p> <p>Normally, the planer of a cost center records own activities that shall be performed for other objects (e.g. other cost centers) and that cause costs for the receiver (see</p>



Constant	Meaning
	<p>FD_RECEIVER). The sending cost center is therefore usually provided by the field COBJECT in the satellite.</p> <p>Activities of a different cost center can optionally be planned as sender via the starting cost center; this requires an assignment to a different field in the satellite (see for example section 3.5.6).</p> <p>Data selection in the satellite is in most cases performed via FD_SENDER (characteristic "Start Object/Sender" in the start screen of the dialog transaction).</p>
CURRENCY_TYPE FD_CURRENCY	Currency of planning: controlling area currency, object currency or transaction currency (see also section 3.5.4)
NO_ZERO_DELTA	Determines that only modified plan data shall be saved.
(FD_)COLDEF	Reference for column definition to determine one of the following parameters: planning year, plan version, period from, period to, delta planning and currency type (see also 3.2).
(FD_)PLANKOKRS	The plan controlling area is by default specified by the selection screen of Flexible Planning (or as parameter upon calling from Allevo). In exceptional cases, an individual control via constant may be useful: FD_PLANKOKRS allows postings that are spreading over several controlling areas (see F1 documentation on the constant).
(FD_)PLANYEAR	Main planning year (can also be determined via the Allevo column definition)
(FD_)PLANVERSN	Plan version (can also be determined via the Allevo column definition)
PLANPERIOD FD_PLANPERIODFROM FD_PLANPERIODTO	<p>Period frame for the restriction of annual values, e.g. for quarterly values (parameters can also be determined via the Allevo column definition). Plan values beyond the period frame keep their original value.</p> <p>Alternatively, you can use monthly planning to define individual periods for planning (see constant MONTH_ACTIVE and section 3.5.3).</p>
FD_QNTY_FIXY FD_QNTY_VARY FD_VALUE_FIXY FD_VALUE_VARY COLDEFY YEARY VERSIONY	Parameters for multiple years planning and for planning via multiple cost elements (with entry into a single row). See section 3.5.
(FD_)DIST_KEY_FIX (FD_)DIST_KEY_VAR	<p>Keys for the distribution of annual values to periods; constants are usefully applicable only in annual planning. An entry can be made as fixed value or via a satellite field.</p> <p>If no distribution key is set via the constants, the posting function will search for a suitable entry for the KL object (table COKL); if no entry is available, the default key "2" will be used for an equal distribution, as in direct planning via Allevo.</p> <p>Available values are provided for example by the F4 value list when planning via KP26 or by the detailed F1 documentation.</p>



Constant	Meaning
SIGN_MINUS	The sign of a quantity can be reversed prior to planning by „X“ for SIGN_MINUS. This is useful when planning the receiver debit from the sender perspective; as credit there with inverse sign.
FD_SIGN	As an alternative to SIGN_MINUS, the sign can be read via a satellite: if the first sign in the belonging satellite field is “-“, all quantities/values will be multiplied by -1.
(FD_)FACTOR	Here, you may enter a factor with up to 3 decimals. The factor will be included for all quantity/value fields.
SAVE_LOG	Allows to write (error) messages into the SAP Application Log. Entries are displayed via the SAP transaction SLG1 with selection parameters /KERN/ALLEVO as object and Flexible Planning as sub-object. The log function must be activated explicitly via the constant. Upon calling from Allevo, controlling is performed via the Allevo constant MESSAGE_LEVEL.

3.4 Field Mapping per Posting Procedure

The following sections explain, which contents (columns or fields) a satellite must contain in order to be able to serve the corresponding planning fields. These fields must then be assigned to the respective constants.

The columns “Cost center”, “Order” and “WBS element” specify the object types that can be addressed to receive the posting via Flexible Planning. Rows contain contents that must be included in the corresponding satellite columns.

- Entries shown in quotes (“...“) indicate that exactly this entry is expected for the field (column) in the satellite.
- Other entries, such as cost center, refer to the entry of the corresponding SAP cost center etc. in the satellite column.
- The program uses the value “2” as default distribution key.

A detailed description on each constant and its setting parameters is included in the F1 documentation.

Note:	The following sections describe the used constants depending on the respective posting procedure. The meaning of a constant can depend on the selected receiver object and therefore on the object type such as KS, OR and PR. Currently, only these object types are explicitly mentioned. From Flexible Planning version 3.1 onward, posting for business processes (object type BP = Business Process) as receiver is additionally possible (except for budget and total costs planning).
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3.4.1 Activities, Capacities and Activity Prices (AT)

Activities of a cost center with capacity and/or activity prices

Constants	Cost Center
(FD_)ALLOC_TYPE	“AT“
(FD_)OBJECT_TYPE	“KS“



Constants	Cost Center
FD_RECEIVER	Cost center
(FD_)RCV_ACT_TYPE	Activity type
FD_QNTY_FIX	Activity quantity
(FD_)DIST_KEY_FIX	Distribution key: activity (with regard to FD_QNTY_FIX) (must however be included also if only activity prices are being planned)
FD_QNTY_VAR	Capacity
(FD_)DIST_KEY_VAR	Distribution key: capacity (with regard to FD_QNTY_FIX)
FD_PRICE_FIX	Activity price fixed
(FD_)DK_PRICE_FIX	Distribution key: activity price fixed (with regard to FD_PRICE_FIX)
FD_PRICE_VAR	Activity price variable
(FD_)DK_PRICE_VAR	Distribution key: activity price variable (with regard to FD_PRICE_VAR)
FD_PRICE_UNIT	Price unit (valuation: 1, 10, 100, 1000, 10000).
(FD_)SWITCH_LAYOUT	Switching scheme cost component splitting
(FD_)PLANYEAR	Main planning year
(FD_)PLANVERSN	Plan version
(FD_)EQUI_NO	Equivalence number

Note:	In the case of multiple years planning, prices are only planned for the first year.
	It is not necessary to include all components for activity planning (quantity, capacity, prices, distribution keys etc.) in the satellite. If one of these figures is missing, the entry available in SAP will be used.
	If no entry is available for the distribution key in SAP or if the key is "0", posting will be performed using the distribution key "2". (BAPI does not allow the distribution key "0").
	Constant SIGN_MINUS can be used.

3.4.2 Primary Costs (PC)

This feature is available only for planning on an annual basis. It supports the allocation type PC (primary costs).

Constants	Cost center	Order	WBS element
(FD_)ALLOC_TYPE	"PC"		
(FD_)OBJECT_TYPE	"KS"	"OR"	"PR"
FD_RECEIVER	ID cost center	Order	WBS element
(FD_)RCV_ACT_TYPE	Activity type for activity-dependent planning		
(FD_)RCV_CCODE	Company code for activity-dependent planning		



Constants	Cost center	Order	WBS element
(FD_)RCV_RESOURCE	Indication of the resource when planning quantities. The related cost element must be included (activity type is only relevant on the receiver side). The price for calculating planned costs (fixed and variable) is found via the resource (see also transaction KPR2 = resource master record and KPR6 = price determination per resource)		
FD_KSTAR	Cost element		
FD_VALUE_FIX	Amount (fixed)		
(FD_)DIST_KEY_FIX	Distribution key (fixed)		
FD_VALUE_VAR	Variable amount, only for activity-dependent planning		
(FD_)DIST_KEY_VAR	Variable distribution key, only for activity-dependent planning		
(FD_)PLANYEAR	Main planning year		
(FD_)PLANVERSN	Plan version		
(FD_)PLANKOKRS	Plan controlling area		

Note:	For posting primary costs over multiple years, the cost element included in the data record of the satellite is used (parameter FD_KSTAR).
	If a cost element is available in the “Value to” column for the parameter FD_VALUE_FIXy (y from 0 to 9), however, this cost element is used for posting.
	The parameters FD_VALUE_FIXy and YEARy (y from 0 to 9) therefore always form a unit that must be maintained in the constants.
	Other special features for primary cost posting when planning over multiple years are described in section 3.5.1
	Constant SIGN_MINUS can be used.

3.4.3 Direct Activity Allocation (DA)

Activity inputs of cost centers, orders and WBS elements

Constants	Cost center	Order	WBS element
(FD_)ALLOC_TYPE	„DA“		
FD_SENDER	ID Cost center Mapping can be performed with the standard field COBJECT in the satellite or alternatively with a custom field in the append of the table (see section 3.5.6).		
(FD_)SND_ACT_TYPE	Activity type of sending cost center		
(FD_)OBJECT_TYPE	“KS“	“OR“	“PR“
FD_RECEIVER	ID cost center	Order	WBS element
(FD_)RCV_ACT_TYPE	Activity type for activity-dependent planning		



Constants	Cost center	Order	WBS element
FD_KSTAR	Cost element (only relevant for the reading mode)		
FD_QNTY_FIX	Quantity (fixed)		
(FD_)DIST_KEY_FIX	Distribution key (fixed)		
FD_QNTY_VAR	Variable quantity, only for activity-dependent planning		
(FD_)DIST_KEY_VAR	Variable distribution key, only for activity-dependent planning		
(FD_)PLANYEAR	Main planning year		
(FD_)PLANVERSN	Plan version		
(FD_)PLANKOKRS	Plan controlling area		

If activity planning is performed for a sending cost center (field FD_SENDER) different from the start object and if Flexible Planning is actively integrated in Allevo, the constant DUPLICATE_INCL should be activated (see F1 documentation).

Note	Constant SIGN_MINUS can be used.
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3.4.4 Secondary Order Settlement (OS)

Indirect activity input through order settlement costs of cost centers, specifying the settlement cost element, the sending cost center and the sending activity type.

Constants	Cost center	Order	WBS element
(FD_)ALLOC_TYPE	"OS"		
FD_SENDER	ID cost center The constant can be mapped with the standard field COBJECT in the satellite or alternatively with a custom field in the append (see section 3.5.6).		
(FD_)SND_ACT_TYPE	Activity type of sending cost center		
(FD_)OBJECT_TYPE	"KS"	"OR"	"PR"
FD_RECEIVER	ID cost center	Order	WBS element
(FD_)RCV_ACT_TYPE	Activity type for activity-dependent planning		
FD_KSTAR	Cost element (Type 21)		
FD_QNTY_FIX	Quantity (fixed)		
(FD_)DIST_KEY_FIX	Distribution key (fixed)		
FD_QNTY_VAR	Variable quantity, only for activity-dependent planning		
(FD_)DIST_KEY_VAR	Variable distribution key, only for activity-dependent planning		
(FD_)PLANYEAR	Main planning year		
(FD_)PLANVERSN	Plan version		



Constants	Cost center	Order	WBS element
(FD_)PLANKOKRS	Plan controlling area		

If activity planning is performed for a sending cost center (field FD_SENDER) different from the start object and if Flexible Planning is actively integrated in Allevo, the constant DUPLICATE_INCL should be activated (see F1 documentation).

Note:	Constant SIGN_MINUS can be used.
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3.4.5 Statistical Key Figures (SK, KF)

Constants	Cost center	Order	WBS element
(FD_)ALLOC_TYPE	Either "SK" or "KF" (same meaning)		
(FD_)OBJECT_TYPE	"KS"	"OR"	"PR"
FD_RECEIVER	ID cost center	Order	WBS element
(FD_)RCV_ACT_TYPE	Activity type for activity-dependent planning		
(FD_)STAGR	Statistical key figure		
FD_QNTY_FIX	Quantity		
(FD_)DIST_KEY_FIX	Distribution key		
FD_QNTY_VAR	Maximum quantity		
(FD_)DIST_KEY_VAR	Distribution key		
(FD_)PLANYEAR	Main planning year		
(FD_)PLANVERSN	Plan version		

3.4.6 Budget and Total Costs Planning (BP, BD)

This feature allows budgeting and planning total costs independently of cost elements for orders, projects and investment programs. For projects, planning of total revenues independently of cost elements is additionally transferred. Equivalent SAP transactions:

- CJ40 / KO12 for cost planning (PR/OR)
- CJ30 / KO22 for planning the original budget (PR/OR)
- IM35 Posting plan values for items in the investment program

The following table shows the relevant constants.

Constants	Order	WBS element
(FD_)ALLOC_TYPE	"BP" or "BD" with the following meaning: <ul style="list-style-type: none"> ▪ Both entries are equivalent for object type OR and PR 	



Constants	Order	WBS element
	<ul style="list-style-type: none"> For object type IP, "BP" is relevant for value type PLAN (= plan data) and "BD" for value type BUDG (= budget). 	
(FD_)OBJECT_TYPE	<p>"OR" (internal orders) or "PR" (WBS element) or "IP" (investment planning)</p>	
FD_RECEIVER	<p>For OBJECT_TYPE = OR: Order with one of the following order categories:</p> <ul style="list-style-type: none"> 01 Internal order 02 Results-analysis order For budget values plus 30 (service and maintenance order) <p>For OBJECT_TYPE = PR:</p> <ul style="list-style-type: none"> WBS element (PSPNR or POSID) <p>For OBJECT_TYPE = IP</p> <ul style="list-style-type: none"> Position in the invest program (see also constant IP_PROGRAM) 	
BUDGET_ACTIVITY	<p>"Value from" describes the activity (relevant object type in brackets):</p> <ul style="list-style-type: none"> KBUD = Original budget (OR,PR), KBNO = Supplement (OR,PR), KBRO = Return (OR,PR), KBFR = Release for projects (PR), KSTP = Total costs planning (OR,PR), KSTR = Income for projects (PR). <p>Additionally with PR:</p> <ul style="list-style-type: none"> Entry "X" for "Value from" activates scrolling upwards in project hierarchy. 	
PLANYEAR	<ul style="list-style-type: none"> "Value from" = planning year (with IP, entry „0000“, causes a total value to be written instead of changes for a certain business year). "Value to" = X means total budget 	
ACTIVATE_AVAIL	X means (for projects): Background activation of availability control	
CHECK_PLAN_DATA	<p>An availability control is usually carried out if plan values are being transferred. Especially for total planning (activity KSTP and KSTR), a consistency check may additionally be performed:</p> <p>"Value from" in constant = X (replaces the former constant NO_DATA_CHECK).</p>	



Constants	Order	WBS element
(FD_)IP_PROGRAM	Name of the investment program: only relevant for OBJECT_TYPE = IP; a transfer from the satellite is possible only from Allevo 3.5, before, one investment program per FP scheme	
(FD_)IP_APPROVALYEAR	Year of approval is only relevant for OBJECT_TYPE = IP; a transfer from the satellite is possible only from Allevo 3.5, before, one year per FP scheme	

The following features are to be observed for **budget planning**:

- If the value in the field FD_VALUE_FIX shall contain a total budget (instead of an annual budget), "X" must be entered for the constant PLANYEAR (before: YEAR_INITIAL) in the column "Value to".
- The parameters FD_VALUE_FIXy, YEARY and VERSIONy (y from 0 to 9) for additional annual budgets must always be included as unit in the constants.
- Budget values are checked in two aspects: budget totals of sub-projects may not exceed the budget of the superior element; the sum of all annual budgets may not be higher than the total budget.
- Postings can only be made within the time frame defined for the relevant budget profile.
- Background activation of the availability control for budgeted projects via the parameter ACTIVATE_AVAIL requires the activation type "2" to be set in the used budget profile.
- Supplements and returns are always posted as delta values.

Note:	<p>The function module BAPI_EXPENDITUREPROGTREE_CHVAL is used for the object type IP. Further notes regarding the application are stored here. This module performs postings via delta values: Allevo reads the available values in a previous step (as in the case of transaction IM36) and then posts deviations.</p> <p>There is currently no BAPI available for budget planning and planning of total costs regarding OR and PR. As a consequence, Allevo uses the SAP function modules KBPP_EXTERN_UPDATE_CO in accordance with SAP note 625613. The SAP note additionally contains information about e.g. updating row items, budget check, availability control.</p>
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Example for planning in the investment program (IP):

- OBJECT_TYPE is IP (Investment Planning); FD_ALLOC_TYPE is BP
- IP_PROGRAMM contains the name of the investment program, FD_RECEIVER with the relevant position in the program.
- The year of approval is permanently stored in the FP scheme via IP_APPROVALYEAR.
- Via FD_PLANYEAR, 0000 is transferred as business year in order to allow posting as total value. For planning (BP), a version should additionally be transferred (such as in FD_PLANVERSION).
- The total value of investment is stored in FD_VALUE_FIX.
- The constants FD_VALUE_FIX0 FD_VALUE_FIX2 contain plan values of the first three years. During program execution, all values stored here are being written. COLDEF0 to COLDEF2 should be set for the assignment of year and version via an Allevo column definition.



3.4.7 Profit Center Planning

Direct profit center planning may be performed both for the classical and the new general ledger depending on the setting of the Allevo constant PC_NGLA_PLANNING. Detailed explanations on profit center planning can be found in the Allevo manual "Profit Center".

In the following, only constants required for Flexible Planning will be described.

Constant (FD_)ALLOC_TYPE controls the characteristic of a posting:

- AC: Simple posting with account
- PP: Posting to account & partner profit center
- FA: Posting to account, partner profit center and functional area
- PT: Posting to account, partner profit center, functional area & company ID
- AA: Posting to a balance sheet account
- SK or KF: Posting to a statistical key figure

Constants	Profit Center
(FD_)ALLOC_TYPE	"AC", "PP", "FA", "PT", "AA", "SK" or "KF"
(FD_)OBJECT_TYPE	"PC"
FD_RECEIVER	Profit center
(FD_)RCV_CCODE	Company code
FD_KSTAR	Account
FD_SENDER	Sending profit center (usually in COBJECT)
(FD_)SND_CCODE	Company code of the partner profit center
FD_FUNCTIONAL_AREA	Functional area
FD_TRADING_PARTNER	Number of the trading partner
FD_QNTY_FIX FD_QNTY_VAR	Quantity fixed or variable: Sum if both fields have a mapping <i>Note on the compatibility with former versions: the content of FD_QNTY_VAR will be interpreted as value as long as FD_VALUE_FIX/FD_VALUE_VAR is without mapping</i>
FD_VALUE_FIX FD_VALUE_VAR	Value fixed or variable (the sum will be calculated if both fields have a mapping)
INVERSE_ACCOUNTING	With offsetting entry

For the new general ledger, Flexible Planning can adopt the ledger from the Allevo constant of the same name (standard is "0L"); for the classical general ledger, planning is always performed via "8A".

3.4.8 Allevo Objects (Allevo own object type KX)

Flexible Planning is able to use the Allevo object as start object in order to summarize e.g. different postings according to superior criteria in a common posting run.



Furthermore, postings can also be made for the Allevo object: all relevant plan data are stored in an Allevo own database table (/KERN/ACOSx). The relevant basic functions are described the “Allevo & SAP” manual.

The following allocation types are available to generate such postings via Flexible Planning:

- AP = Primary Costs
- AS = Secondary Costs
- AK = Statistical Key Figures

Other general constants are to be used in the same way as in the original SAP posting procedures (e.g. PC and SK/KF).

3.5 Other Program Settings

3.5.1 Multiple Years Planning (Entry into Single Row)

The constants (FD_)PLANYEAR, (FD_)PLANVERSION and (FD_)PLANKOKRS are available for all allocation types. Planning can thus be performed row by row over many years. However, multiple years planning is often desired and annual quantities and values shall be entered over multiple columns of a single excel row. The planning function can in this sense be extended to up to ten additional years.

This requires the satellite to provide additional fields for fixed and possibly variable quantities/values. The following parameters are available for constants (entry in column “Value from”):

Parameter	Field names allocated from the selected satellite
FD_QNTY_FIX0 bis FD_QNTY_FIX9 oder FD_VALUE_FIX0 bis FD_VALUE_FIX9	Compulsory parameter: Name of the fields showing the (fixed) quantities or values for the years 0-9.
FD_QNTY_VAR0 bis FD_QNTY_VAR9 oder FD_VALUE_VAR0 bis FD_VALUE_VAR9	Name of the fields showing the variable quantities or values for the years 0-9.
YEAR0 bis YEAR9	Year for which quantities are to be posted: either fixed as a four-digit number (e.g. “2015”) or relative to the main planning year (e.g. “+1”). The relation is recognized automatically by the sign (available from Allevo version 3.3.29).
VERSION0 bis VERSION9	Version for which quantities are to be posted.
COLDEF0 bis COLDEF9	Allevo column definitions for reading year and version. Important: multiple years planning always refers to complete years. Posting is therefore performed over periods 1-12, regardless of related entries in the column definition. These parameters allow referring to requirements in the Allevo layout. They will only be considered if year and version are not defined by the previously mentioned parameters.



The parameters FD_QNTY_FIXy or FD_VALUE_FIXy and YEARY (y from 0 to 9) must be maintained as a unit in the constants. Without any entry concerning the version (e.g. via the constant VERSIONy), the version of the main planning year will be used.

The feature is only available for planning on an annual basis. The allocation types DA, OS, PC and BP are supported. The reading mode is not available.

Note: Using the fields (FD_)PLANYEAR, (FD_)PLANVERSION and (FD_)PLANKORKS alternatively allows unlimited planning row by row over multiple years.

3.5.2 Planning with multiple cost elements (Entry into Single Row)

Parameters of multiple years planning (FD_QNTY_FIX0 or FD_VALUE_FIX0...) can also be used for a different application as explained in the example in the following table.

Statistical order number	Text	Cost element 465000 Fuel	Cost element 466000 Tax	Cost element 467000 Toll
FR-SD_456	Service vehicle	4.500,00	460.00	500.00
FR-SE_348	Control vehicle	7,800.00	460.00	650.00

The table shows data of a fleet planning. Plan values are displayed in columns next to each other: each column is assigned to a certain cost element.

In order to use this feature, Flexible Planning must know the relevant cost element. This allocation is performed via "Value to" of constants FD_QNTY_FIX0 to FD_QNTY_FIX9 or FD_VALUE_FIX0 to FD_VALUE_FIX9: here you enter the cost element.

Parameters FD_QNTY_FIXy or FD_VALUE_FIXy and YEARY (y from 0 to 9) must be stored in the constant as a unit also in this application. Up to ten different cost elements may therefore be addressed, or for example five cost elements distributed to two years. Otherwise, notes as in the chapter on multiple years planning apply (see above).

Note: From version 3.1, this feature is in principle available for all allocation types (not only for primary costs as before).

If "Value to" is not specified, Flexible Planning will adopt the entry of the constant FD_KSTAR as in multiple years planning.

3.5.3 Monthly Planning

The constant MONTH_ACTIVE must be set to "X". Furthermore, instead of using the quantity/value fields defined in the annual planning (FD_QNTY_FIX and FD_QNTY_VAR or FD_VALUE_FIX and FD_VALUE_VAR), the constants FD_QNTY_MNTH_FIX and FD_QNTY_MNTH_VAR or FD_VALUE_MNTH_FIX and FD_VALUE_MNTH_VAR are to be used. The name of the periodic quantity/value fields in the satellite table must be stated without the last 2 figures (these represent periods 01 to 12).

Note: Not in all cases of applications, all 12 periods are actually used for the entry of plan data and possibly not all corresponding fields are created in the satellite. In this case, actually used



	periods must be entered in “Value to“ for MONTH_ACTIVE (separated by comma). Otherwise, Flexible Planning will adopt the fields for all 12 periods from the satellite.
	See also constant PLANPERIOD etc. for planning for a period frame based on annual values.
	Monthly planning can either be performed for a business year and combined with multiple years planning (in one row; see section 3.5.1) or expanded to multiple years by using the field parameter FD_PLANYEAR.

3.5.4 Currencies

The constant CURRENCY_TYPE defines the currency for planning:

- C: Controlling area currency (default)
- O: Object currency
- T: Transaction currency

In the latter case (T = transaction currency), the currency key must additionally be transferred as ISO code (3 digits); either:

- In the field “Value to“ of CURRENCY_TYPE or
- via FD_CURRENCY with mapping to a field in the satellite

Example:	Plan data shall be entered in different currencies for intercompany planning (e.g. debit in pounds, credits in euros). Posting must in this case be performed using the transaction currency of the mapping in FD_CURRENCY.
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3.5.5 Delta Planning

In the standard case, Flexible Planning interprets the entered plan value as total value. Optionally, you can use the constant DELTAPLANNING to plan delta values and quantities. An example of application would be the planning of transfer postings between cost centers.

Activation may also be performed via the corresponding setting in the Allevo column definitions.

Important:	Delta postings create the risk of posting multiple entries (e.g. by double posting of satellite data when executing Flexible Planning twice). Appropriate arrangements are to be made in the project flow. See detailed documentation on the constant.
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3.5.6 Flexible Sender Selection for Activity Allocation and Secondary Order Settlement

Normally, each cost center planning with Allevo enters its own activities that are performed e.g. for different cost centers. For the use of Flexible Planning, this means:

- The corresponding receiver is stored in a satellite field addressed via the constant FD_RECEIVER.
- The sending cost center is stored in the key satellite field COBJECT; usually the start object of Allevo planning. The sender can therefore not be modified by the planner either.

However, the planning process sometimes requires a planning cost center to specify a different cost center as sender of an activity type. In this case, plan data are recorded in the satellite as data record



of the planning cost center, but the allocation of activities is done for a different sender-recipient relation.

For this purpose, the satellite must provide another field specifying the new sender. The field name must be stored in the corresponding parameter in the constants (FD_SENDER). If a satellite data record now specifies a cost center in this field, it is used as the sender for posting. If the field is not available or empty, the sender defined in the key field *COBJECT* is used (provided that a cost center type object is available).

3.6 Cancellation of Rows Modified or Deleted in Excel

The functionality of Flexible Planning to address data records in the satellites allows high flexibility but also bears certain risks. What happens to data records in the satellite that are completely deleted or whose key data are modified after posting data in SAP? If the user adjusts data in Excel, he/she also expects full adjustment of the respective data in SAP. This means that not only the new data record must be posted but that adjusting the posting for the old data record may also be required. This functionality is implemented by a cancellation feature running in the background.

Note:	In order to activate the cancellation feature, the constant CANCEL_ACTIVE must be created or activated ("X" in <i>Value from</i>) in the relevant execution scheme.
	The cancellation feature is implemented for all allocation types including all posting options for profit center planning. All quantity and value fields for a posting record are set to zero for the corresponding allocation types and the distribution key is set to 2. Special features like multiple years planning (see section 3.5.1), planning over multiple cost elements (see section 3.5.2) and flexible selection of senders (see section 3.5.6) are taken into account as well.
	Cancellation features with integrated satellites are supported only from Allevo version 3.4 (see constant SATELLITE_INCL).
Important:	Modifications of the mapping/scheme may only be made if the complete cancellation list is processed. Otherwise, there would be a high risk of erroneous postings of data.

The cancellation is done in 2 steps:

1. Data records to be cancelled are written into a "cancellation list" (table /KERN/IPP_CANCEL). All key information on a posting is saved here.

Note:	This is only done for adjustments to the satellite made via the Allevo Master or in the Allevo Shuttle (layout 1), not if the satellite is manually edited via satellite upload or similar tools.
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2. Flexible Planning then cancels all data records in the "cancellation list", i.e. all available postings are set to "zero".

The cancellation can be done automatically while using Allevo or separately (and thus with a delay) via the Flexible Planning module (see section 4.3 on the constant ALLEVO_ACTIVE).

The cancellation routine is completely executed in the background. No "success message" is displayed. Error messages reported by the BAPI, however, are shown on screen.



The actual cancellation in SAP (postings through BAPI with values and quantities set to zero) is done by the program Flexible Planning **before** the new data records are posted to the satellite. The crucial element of the cancellation process is the table /KERN/IPP_CANCEL.

A cancellation record is specified in this table if at least one of the key fields is modified in the satellite or if a complete row is deleted. In the case of multiple years planning, exactly one cancellation is done for each year.

As in the default behavior of Flexible Planning, the cancellation table is searched for data records to be cancelled via the start object (i.e. based on the fields Setclass and CO-Object) or via the receiving object (i.e. via Object_Type and Receiver) and of course also depending on the controlling area, satellite, schema, year and version.

The current processing status of the cancellation records in table /KERN/IPP_CANCEL is reported in the "Status field", which may contain the following values:

Value	Description
0	To be cancelled
1	Cancelled
2	Erroneous (could not be cancelled)
3	Deferred (no cancellation routine for this allocation type)
4	Deactivated (cancellation no longer activated)

Data are written in the table with status 0 first; after cancellation, the status is set to 1. Status 2 indicates that the BAPI transactions report an error during the cancellation in SAP (this error message is displayed during program execution). Status 4 stands for data records that have been entered in the cancellation table in a first step but that the user has deactivated before executing the second step. All data records showing status 0 are searched and cancelled during the cancellation.

Note:	The content of the cancellation table can be displayed using the <i>Cancellation list</i> button. You can use this list to manually change the status, for example, to start re-processing.
	If an error occurs during execution of the cancellation routine because stored data cannot be processed in SAP, Flexible Planning will ignore this cancellation record in all future calls (effective from version 3.0.6).



4 The Planning Mode

4.1 Execution Options

The dialog mode is started by Flexible Planning via transaction /ALLEVO/FP or the Allevo Cockpit (the direct call from an Allevo planning transaction will be described below).

Figure 4.1: Starting the planning mode

Enter the controlling area, satellite table and execution scheme as first selection characteristics. With an entry * in the field “Scheme“, all schemes will be executed in a single process (in the sequence of their item numbers). Exception: schemes with names carrying the component *READ* will not be executed by the program.

Note:	Observe the respective assignment of position in case that the sequence of execution is relevant.
	Remember: Execution schemes allow to save several different constant definitions for one satellite; scheme 1, for example, may have another field defined as recipient than scheme 2.

After having selected the table in the first step, you can now determine the contents that are to be processed:

- The parameters “business year” and “version” are selection criteria only with regard to the entries in the satellite. They do not define the planning year and version received by the posting: this is determined by relevant constants such as PLANYEAR and PLANVERSN or by the corresponding constants in the field mapping. Only in the case that both parameters are not defined via a constant, “business year” and “version” will be used as criteria for posting.
- The entry for the object type defines further selection fields, for example cost centers and cost center group for object type KS. Upon entry of a group or a From/To range, the included objects will be determined at a time defined by the business year in the start screen. This can be different from the main planning year (depending on the settings in the constants such as PLANYEAR).



- A further restriction when reading satellite data can result from combining the constants `FD_ALLOC_TYPE` and `ALLOC_TYPE` in the mapping: in this case, only data records with the allocation type in field `FD_ALLOC_TYPE` corresponding to the entry in `ALLOC_TYPE` will be processed.

Two further options allow to decide if data shall be processed from a sender or receiver perspective:

- “Start Object/Sender” defines that selection shall be performed via the field `COBJECT` in the satellite. This also applies if a different field was determined as sender information via the constant `FD_SENDER` (see section 3.5.6). To get started, also the Allevo own object type `KX` may be used in order to for example process different postings according to superior criteria in a common run.
- By selecting “receiver“, the table column assigned as receiver via the constant `FD_RECEIVER` will be used.

Note:	The latter option is available only in the dialog mode; upon automatic call from an Allevo planning transaction, selection is always performed via a sender object.
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4.2 Processing with automatic aggregation

Usually, satellite entries are much more detailed than necessary for posting in SAP. Flexible Planning therefore tries to aggregate data via the relevant key fields.

Example: The investment planning of a cost center plans 3 actions that later must be processed for 2 investment orders only. In this case, Flexible Planning aggregates the values/quantities of the two data records to be posted to the same investment order.

Flexible Planning can further merge data from two identical satellites, accumulate and process them together via the constant `SATELLITE_INCL`. This can be beneficial if for example depreciation data are maintained separately for existing assets and new orders. In this case, the sequence of saving the satellite in Allevo is to be observed (see also explanations on the constant).

4.3 Integration into Allevo Planning Transactions

It is often desired that postings are performed exactly at the time of executing the feature |Adopt plan data| in the Allevo main program. For this application, an automatic call must be installed. Allevo then directly transfers the required selection parameters (such as controlling area, plan year, version, cost center...) and starts Flexible Planning.

Two conditions must be met for the automatic call:

- On the side of Flexible Planning, the constant `ALLEVO_ACTIVE` must be active and the relevant Allevo layout must be entered in “Value to“. Various entries for the layout are possible (separated by comma): Flexible Planning will then be executed only for the layouts mentioned here.
- The constant `ACTIVE_FP` must be set in the Allevo main module. A combination of numbers in the column “Value from“ defines the satellites that data shall be posted for via Flexible Planning. The feature “Sat.Assistent“ is recommended for the entry.



T07(1)/800 Satellite Assistant									
No.	Description	Act	Subj...	R/W	FP	FPR	ROS	RFC	CED
1	Invest	<input checked="" type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Satellit 2	<input checked="" type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Satellit 7	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Satellit 18	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	MOD	<input checked="" type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	UC05 Lesen Einzelposten für Sparkshapes	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	ProCED OR	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	ProCED PR	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	COPA READ	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	COPA WRITE	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	COPA PHASING	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Stammdaten Kostenstellen	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Stammdaten Innenaufträge	<input type="checkbox"/>	L		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	VL2	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Stammdaten Maßnahmenanforderung	<input type="checkbox"/>	I		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Stammdaten Leistungsarten	<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Satellit 37	<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	Append für BANF	<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51	Marketing: Invest	<input type="checkbox"/>	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52	UC18 - Kostenartenstruktur mit Hierachiestufen	<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53	UC18 - Hierachiestruktur für ProCED	<input type="checkbox"/>	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63	REP UI5	<input type="checkbox"/>	T		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 4.2: Activation of the Allevo constants for Flexible Planning (here: satellite 6)

See the manual “Allevo & SAP” or the F1 documentation on the constant ACTIVE_FP for further details.

Note:	<p>If Flexible Planning has NOT been activated on Allevo side, monitoring for cancellations will still be done as soon as a scheme has been created for the satellite (i.e. cancellation list will be maintained).</p> <p>Accessing Allevo constants is often required also when calling from Flexible Planning in the dialog. Flexible Planning will in this case use the first layout entered for „ALLEVO_ACTIVE“.</p>
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Relevant data are selected via the field COBJECT in the satellite (thus after „Start Object“). The constant SEL_AS_RECEIVER optionally allows the selection via „receiver“ (from version 3.4.4).

4.4 Background Processing

Background processing of postings may be useful in the following cases:

- If a great number of postings are performed via Flexible Planning, this may have consequences on the performance (e.g. postings for profit center). In this case, it may be beneficial to execute Flexible Planning in the background.
- Depending on the application, a planer may not have all authorizations required for posting (e.g. when posting with activity output; here, the user needs the authorization to post to the receiving cost center). In these cases, you may want to execute the posting via an RFC call; here, only the user in the RFC destination must have the required authorization.

Running Flexible Planning in the background is useful in both cases: either via a scheduled job (e.g. per hour) or via the specific call from Allevo (Allevo will not wait for the execution of Flexible Planning to be finished in this case; see explanations on the constant ACTIVE_FP_PARAM).

If postings shall be managed in different satellites and processed subsequently, the sequence of processing may be relevant (e.g. if data integrated via the constant SATELLITE_INCL shall be saved



already before processing via the main satellite). Allevo usually saves in the sequence of satellite numbers; an individual sequence can be defined via the Allevo constant `ACTIVE_SAT_SORT`.

Note: From version 3.4, this sorting of satellites during background processing will be maintained.

The report `/KERN/IPPPF` belonging to Flexible Planning can be included for background processing as well (must be created via `SM36`). The setting should in this case be active, so that error messages will be written into the SAP Application Log (constant `SAVE_LOG`).

4.5 Status Management

In order to write plan data via Flexible Planning, the corresponding planning object must have a valid entry in the Allevo status management. This ensures that Allevo license terms will be complied with also when planning with Flexible Planning.

In the standard case, Flexible Planning itself creates the status entry “3” for the first posting to a new planning object (e.g. for the first posting to a cost center): the entry is made for the plan year and version indicated in the satellite. “FP” is always used as layout name and simultaneously “FP” as abbreviation for the version. Via the constant `STATUS_INFO`, a different abbreviation may be set for layout and version (see explanations on the constant). This procedure allows to recognize if status information originate from Flexible Planning or from Allevo.

Note: Layout “FP” and version “FP” do not obligatorily need to be created in the system. From Allevo 3.3, the status management will still display entries for this layout (as long as there are layouts available). Before, the status modified via Flexible Planning was preferably written into the same layout used also for starting Allevo; such a layout possibly had to be created also with a different object type.

With former program versions, it is recommended to create at least one additional Allevo layout for working with Flexible Planning (without parameters, constants ...) in order to recognize objects in the status management that had already been posted from there.

The Allevo license may be installed in the way that posting via Flexible Planning is possible also without the main license for Allevo.

4.6 Checks and Error Messages

When executing the program with the entered selection parameters, the following inspections are performed:

- The mapping of fields is checked for completeness; the execution of the scheme will be cancelled in case of errors.
- In case that the license for the current object type and controlling area is invalid, the relevant satellite rows will be excluded from planning (skipped).
- The Allevo planning status must be set with regard to the main planning year (same query as in the Allevo main module) for all posting objects.
- Incomplete satellite rows will be skipped and finally listed in the error log (e.g. in case of invalid entry of controlling area, allocation type or object type)

All messages are collected and will be displayed in the end of program execution or attached to the log upon call from Allevo. In the dialog mode, the specification for “Output level” or “Message level”



defines at which level/importance messages of the program shall be displayed (e.g. only errors, see also Figure 4.1).

Via the constant `SAVE_LOG`, you may additionally set per scheme, if and at which level messages shall be saved in the SAP Application Log (transaction SLG1).

Flexible Planning creates a status message about the number of read satellite and posting rows transferred to the respective SAP-BAPI for each successfully completed scheme.



5 Reading Mode

The reading mode represents features for selecting activity inputs planned already by the receiver. The goal is to display the “scheduled quantities“ with a breakdown of receiver information.

The reading mode is started via the transaction /ALLEVO/FPR or /KERN/IPPFPR.

From version 3.2, there is the additional possibility to select activity inputs planned by the receiver via the Allevo module ProCED. The ProCED alternative offers the advantage that all further planning features can be displayed easily via the Allevo standard. In new projects, an implementation via ProCED should therefore be checked first.

5.1 Constants for the Reading Mode

The reading mode requires additional constants. They define the planned postings that are to be read for direct activity allocation and order settlement (constants DA_TRANS_READ and OS_TRANS_READ). SAP procedures are listed for the respective constant; e.g. the operations

- RKP3 and RKP7 for direct activity allocation,
- RKPW and RKPX for secondary order settlement (automatically: KOAP).

Note:	Enter the operations in the field “Value from“. Multiple operations are to be separated by comma and without blank.
	Please note: Reading primary costs is not possible.

Maintenance of FP constants			
Import Export Check Add all constants Delete empty constants			
Controlling Area	1000	Satellite	1
Scheme	10		1
Invest to Orders			
Parameter in IPP activ. planni...	Value from	Value to	Text
ALLEVO_ACTIVE	X		Flag for direct call from Allevo
FD_ALLOC_TYPE	ALLOCTYPE2		Fieldname allocation type
FD_KSTAR	ACCOUNT		Fieldname cost element / account
FD_OBJECT_TYPE	OBJTYPE2		Fieldname object type
FD_QNTY_FIX	VALUE_INV		Fieldname total quantity fix
FD_RECEIVER	ORDER_INV		Fieldname receiver

Figure 5.1: Example of mapping in the reading mode

In the reading mode, the sending cost center always writes into the field COBJECT of the satellite. Since this field plays a crucial role in the general Allevo environment as central selection criterion, it may be useful to provide the sending cost center by a separate field (from Flexible Planning version 3.0.6, this is possible via the field FD_SENDER). Further, activity allocations of the sending cost center will be listed. These are usually displayed with a negative sign (from Flexible Planning version 3.0.6 possible by using the constant SIGN_MINUS).

The Allevo constant ACTIVE_FP must be set also for the reading mode. Satellites that are to be processed in the reading mode must be entered in “Value to“.



5.2 Starting the Reading Mode

Set the object type KL on the start screen (stored as default). Due to the variety of possibilities in SAP, a selection based on the receiver object is not intended here.

Figure 5.3: Starting Flexible Planning in the reading mode

An execution scheme *READ* must be created and started to use the reading mode. The planned quantities and receivers of the activities will then be read depending on cost element and activity type. If the receiver cannot be clearly identified due to program settings, the object type will be issued (e.g. OR for orders). Data are written in the satellite specified before.

Note:	Existing data may be overwritten in the reading mode.
	<p>You have no influence on the sequence by which data records are entered in the satellite. The level of detail is set by the posting in SAP.</p> <p>From a technical perspective, this is done by searching the COSS table for the sender in the partner object (for activity allocation) or in the object of origin (for order settlement). Here, the selected operations, the debit indicator S and the value type 1 are included in the planning. The field „Object“ in table COSS then contains the respective receiver of the activity.</p>

It is further possible to use multiple READ schemes per satellite (e.g. READ_Y, 1READ). With entry * in the field “scheme“, also all READ schemes of a satellite can be processed in the determined sequence. The respectively read information will not overwrite each other but will be transferred among each other to the satellite with a new row number.

Saving on monthly or annual basis is controlled via the constant MONTH_ACTIVE and the corresponding suitable FD_QNTY fields.



5.3 Reading Data on Monthly or Annual Basis

As in the planning mode, the constant MONTH_ACTIVE defines whether read plan data are stored monthly or as annual value. Correspondingly, the constants for quantity/value fields must be defined here as well: FD_QNTY_FIX and possibly FD_QNTY_VAR in annual planning and FD_QNTY_MNTH_FIX and possibly FD_QNTY_MNTH_VAR in active monthly planning. In the latter case, the names of the periodic quantity/value fields are to be indicated in the satellite without the last two digits (e.g. ZZIPP_MONTH, if the fields are named ZZIPP_MONTH01, ZZIPP_MONTH02 ...).

5.4 Reading Data from Following Years

From version 3.3., this feature of /ALLEVO/FPR and /KERN/IPPFPR is no longer available. Reading can be performed via ProCED if required.



6 Presettings for Append Field Definitions

The following conditions must be met when defining fields of the append in order to ensure a correct processing of data from the satellites. Further comments:

- Allevo partly offers own data types, especially for quantity and value fields in the satellite. These compensate for example for data types CURR and QUA and can be without reference currency or quantity units (which are usually of no importance when working with satellites anyway).
- Alternatively, fields in the satellite append are often created as „Integrated Type“ in SE11: this variant offers the advantage to enter an individual description for each field, improving also the understanding of the table content.

Field content	Corresponding parameter	constant	Data element (component type)	Or direct type (with length)
Allocation type	FD_ALLOC_TYPE		/KERN/IPPALLOC	CHAR (2)
Receiving object type	FD_OBJECT_TYPE		/KERN/IPPPF_OBART (statt J_OBART)	CHAR (2)
Receiving object	FD_RECEIVER		/KERN/IPPCOOBJECT	CHAR (24)
Receiving activity type	FD_RCV_ACT_TYPE		LSTAR	CHAR (6)
Resource	FD_RCV_RESOURCE		CO_RESSOURCE	CHAR (10)
Sending cost center	FD_SENDER		KOSTL	CHAR (10)
Sending activity type	FD_SND_ACT_TYPE		LSTAR	CHAR (6)
Cost element	FD_KSTAR		KSTAR	CHAR (10)
Statistical key figure	FD_STAGR		STAGR	CHAR (6)
Switching Scheme	FD_SWITCH_LAYOUT		CO_SWSMH	CHAR (3)
Currency	FD_CURRENCY		TWAER_ISO	CHAR (3)
Column definition	FD_COLDEF		/KERN/IPPCOLKEY	CHAR (6)
Plan controlling area	FD_PLANKOKRS		KOKRS	CHAR (4)
Plan version	FD_PLANVERSN		VERSN	CHAR (3)
Plan year	D_PLANYEAR		GJAHR	NUMC (4)
Plan period from/to	FD_PLANPERIODFROM/TO		PERBL	NUMC (3)
Distribution key, fixed and variable	FD_DIST_KEY_FIX FD_DIST_KEY_VAR FD_DK_PRICE_FIX FD_DK_PRICE_VAR		DK_WKF	CHAR (4)
Quantity fields for year and periods, fixed and variable	FD_QNTY_FIX FD_QNTY_VAR FD_QNTY_MNTH_FIX FD_QNTY_MNTH_VAR		/KERN/IPPSAT_QUANT	DEC 15,3 (min) (instead of CURR)



Field content	Corresponding parameter	constant	Data element (component type)	Or direct type (with length)
Value fields for year and periods, fixed and variable	FD_VALUE_FIX FD_VALUE_VAR FD_VALUE_MNTH_FIX FD_VALUE_MNTH_VAR		/KERN/IPP_SAT_VALUE	DEC 15,3 (min) (instead of QUAN)
Activity price	FD_PRICE_FIX FD_PRICE_VAR		/KERN/IPP_SAT_PRICE (instead of TKGXXX)	DEC 11,2 (instead of CURR)
Activity price unit	FD_PRICE_UNIT		TKEXXX	NUMC (5)
Equivalence number	FD_EQUI_NO		AEQXX	DEC (3, 0)
Company code	FD_RCV_CCODE		BUKRS	CHAR (4)
Partner company code	FD_SND_CCODE		BUKRS	CHAR (4)
Functional area	FD_FUNCTIONAL_AREA		FKBER	CHAR (16)
Trading partner	FD_TRADING_PARTNER		RASSC	CHAR (6)
Sign	FD_SIGN			CHAR (1)