Shuttle

ALLEVO

User manual

Valid from Allevo 4.3

Satellite upload and download

Separate editing of Allevo satellites with standard SAP or Allevo transactions has the following limitations:

1.   Only annual values can be exported, for which the automatic row indices of the data for the export file that are necessary for re-importing are not assigned.

2.   The download function via transactions as SE16 can be read out for all years, however it does not provide a direct upload option, and is also not available to all users.

3.   For the basic entries of a table, it was not yet possible to use an Excel template based on the existing append structure.

The idea: Download, edit, upload!

Content

Table of contents

1 Allevo Shuttle

1.1 Function overview

Allevo Shuttle functions were originally created for processing data in a satellite (the associated transaction /ALLEVO/SHUTTLE). With Allevo version 4.1, so-called SunTables are also available, whose data is to be maintained via a separate Shuttle transaction (Tx /ALLEVO/SUN_SHUTTLE).

Note:	The description here in the manual refers primarily to the functions of the original Shuttle for maintaining satellite data: we have summarized the deviating functions in the transaction for SunTables in a separate section.

Basic functions in the Shuttle:

■ Download the data of a satellite, optionally as text or Excel file

■ Editing the data by the user

■ Transfer of the changed data in the tables to the satellite (with overwriting of existing data records, if necessary)

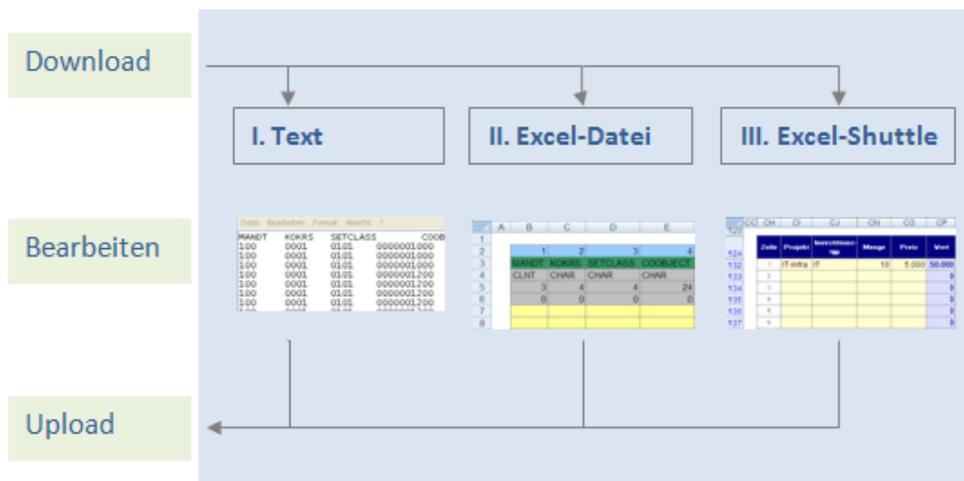The Figure 1.1 schematic shows these functions.

Figure 1.1: The three different backup options

The editing functions in Shuttle are often used for cross-object updating of satellite data.

The Up-and Download functions can also be used for backups. Additionally, other functions in the Standard Allevo Package are available for the backup and restoration of satellite tables (see the Allevo SAP manual).

Note:	In the further course of the manual we speak of "satellites", but we always mean the associated database tables in the SAP system. These are usually satellite tables with customer-specific appends or Ground tables: the latter are normally delivered by the Kern AG with all relevant fields in order to be able to map use cases, for example.

1.2   Call, basic functions and selection parameters

Shuttle is integrated into Allevo as follows:

- Direct calling can be done via transaction /ALLEVO/SHUTTLE

- Shuttle and the satellite backup/restore programs can be started from the Allevo-Cockpit.

- The initial screen of each Allevo planning transaction has a button labelled "Satellites"; as of Allevo 3.3, the shuttle call has been stored there. From here, however, only data for the current object type and the satellites of the current layout can be edited.

Please refer to the following note when starting directly via a transaction.

Note:	If the transaction of a reserved name range such as /ALLEVO is directly entered in the SAP command field, the user must enter **/n** in front.
	This is a technical framework requirement, which is not Allevo-specific, but is required by the SAP parameters for name ranges. It should be entered as follows: "/n/ALLEVO/SHUTTLE".

As a first step, the Shuttle selection screen requires entries for controlling area and object type (see <mark>Error! Reference source not found.</mark>)
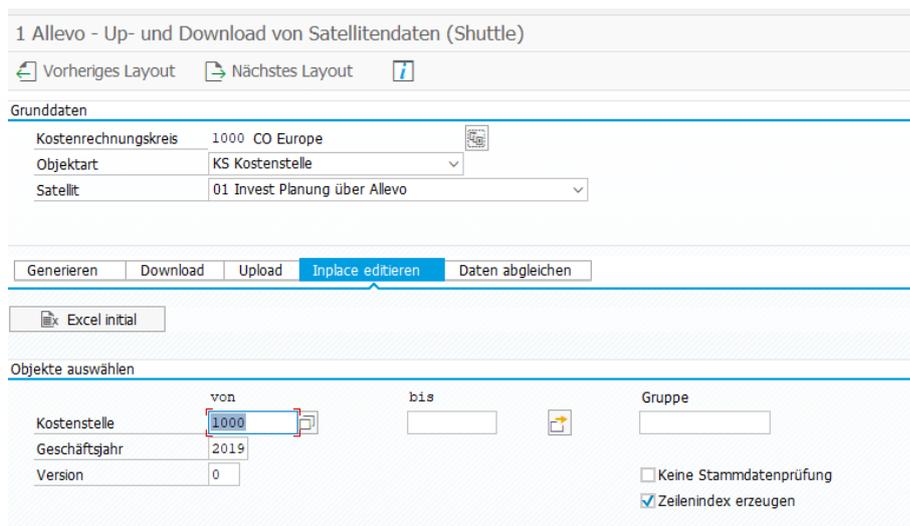

Figure 1.2: Program call

Whether or not the contents of a Satellite can be edited depends on the authorization level of the registered user (see next section). The layouts to which the user has access via Allevo planning trans-actions are relevant in this case: only the satellite that are active in this context will be available as selectable options in Shuttle.

The above mentioned basic functions can be accessed via the sub-tabs. Depending on the selected function and the selected object type, further selection parameters may need to be entered.

The selection of objects can be made singly, via multiple selection or via a group: changes will only be made for the selected objects when uploading.

In the standard case, Shuttle checks whether the selected objects are saved in the master record of the system. This function can be turned off with the flag "No master record check"

By entering * in the field "from", Shuttle opens with all objects in the satellite, which is done without checking the master record.

With the object type PR for project/WBS elements, other options are available (see section 1.10).

Note:	When editing satellite data via Shuttle, it should be made sure that the selected objects are not being simultaneously edited via other Allevo planning transactions.
	When Shuttle is started, it checks whether the selected satellite has been called by such a planning transaction, and if necessary, a warning is given. This check is carried out regardless of the selected CO-object!

1.3 Key field handling

In principle, satellite data that has been saved as a text or Excel file can be freely modified. However, the following rules must be observed:

- Allevo satellites have 7 fields in the main index, which are normally not changed.

- One of the key fields is the Setclass, e.g. "0101" for cost center entries. The usual abbreviations for the object type in Excel can also be entered here (i.e. KS, OR, PC and PR): when saving the sat-ellite data, Shuttle then automatically converts the entry into the corresponding Setclass.

1.4 Additional editing functions

In addition to the basic functions for up-and downloading satellite data mentioned already, Shuttle offers additional edit functions, that are often necessary during planning process. It is possible, for example, to copy satellite data between objects and years or versions, or directly edit satellite data, or to delete them.

 These additional functions are called via additional screen layouts are described in detail in chapter 4.4 described in detail.

Editing of any Allevo tables

In the broadest functionality, data can be edited in any tables of the /KERN/ namespace, for which Allevo provides the transaction /ALLEVO/TAB (e.g. as a replacement for SE16). The transaction is described in the Allevo SAP manual.

Since it is basically not a satellite-specific function, this transaction is now integrated in the Allevo Cockpit (no longer in the Shuttle as in previous Allevo versions).

Edit Allevo page comments

Allevo uses the so-called "sheet comments" to be able to save texts of any length per object and layout. A suitable evaluation can be called up via the Allevo Cockpit under the "Edit >> Comments" menu (in previous Allevo versions only accessible via Shuttle).

Editing Allevo planning comments

In the Allevo Master, any number of columns can be used to enter planning comments (e.g. for explanation at the level of cost elements). Shuttle allows to conveniently display these comments in the form of a list, edit them or copy them to other years / versions.

Change to other Allevo modules

Satellite data are often the basis for further processing via additional Allevo modules such as FP or the COPA interface. You can jump directly to these modules via the "Goto" menu (the transfer of appropriate selection parameters is also carried out).

Here you can also jump to the display of page comments, which can be entered in the Allevo master per object and layout.

1.5 Authorization checks and satellite selection list

Shuttle is a tool for general editing of satellite data. An authorization for the corresponding transaction /ALLEVO/SHUTTLE is therefore usually only given to the system administrator.

Within the transaction, the user is only able to select those satellites for which they have access via an associated Allevo layout. In this case, relevant layouts are those to which the user has access via Allevo planning transactions: only the satellites that are shown as active are selectable in Shuttle.

Note:	Access to satellites with personal data is only possible if the user could also access this data via the normal Allevo planning transaction.
	In individual cases, it may be useful to take additional safeguards to prevent the display of satellite data via general transactions such as SE16 (e.g., by assigning individual SAP authorization groups in SE54).

In some cases, an authorization check on the object level can also be useful (e.g., with restrictions on cost centers). For this function, the constant AUTHORIZATION_SHUTTLE must also be active in the Allevo * -Layout.

 The same checks are then performed as in the Allevo planning module (e.g. via authorization object K_CSKS_PLA); see Allevo SAP manual, chapter "Authorizations in SAP / Further authorization checks".

1.6 Locking of a satellite by other users

Satellites can be integrated into the Allevo planning process in different ways. In order to prevent mutual overwriting of data, changes should also only be made via the Shuttle if the data is not being edited by other users at the same time. For this reason, the Shuttle used the same locking functions that are stored in Allevo Planning.

For each open satellite, a lock object is created for SAP transaction SM12, where the table name is always "/KERN/IPPSAT00": the number of the actually processed satellite results from the lock object. With the start of the processing functions, the Shuttle checks both locks that result via other Shuttle users and calls that are made via Allevo Planning. The comparison is carried out independently of characteristics such as object number, year and version. If lock entries already exist, the Shuttle generates a suitable warning: the call itself is NOT blocked. The user must decide for himself whether he wants to continue working.

Note:	The warning also appears in the reverse case: so if Shuttle is launched first and other users then want to access data from the same satellite via the Allevo planning transactions.
	See also the description in the Allevo-SAP manual or F1 Help for the constant MO_LOCK_OFF.

1.7 Validity of the objects in the satellite

In the standard case, the Allevo Shuttle only transfers data records for objects for which a valid master record has also been created in the system (e.g. as a cost center): Invalid objects are skipped. The number of valid and then also transferred data records is displayed at the end.

However, there may also be the special case that satellites are filled with objects that are deliberately not created as master records in the respective system (e.g. if the satellites are stored in separate HR systems and are addressed via RFC). In order to be able to use the Shuttle in this case as well, the validity check can be switched off (switch "No master record check" on the respective selection screen).

The validity check applies to both read and write functions of the Shuttle. The check is automatically active again the next time the Shuttle is started.

For the object type PR, however, the master record check can NOT be switched off.

Background:	For project data, SAP distinguishes between the internal ID and the external representation, whereby the external representation is used as a selection parameter. Before the selection on the database level, this entry must be converted to the internal representation, and this conversion routine requires a master record for the WBS element or project.

1.8 Deposit Excel templates in the Shuttle

In most Shuttle use cases, a simple Excel file is used to edit the content of Allevo satellites across objects. For this, suitable templates must be stored in the system. Two variants are available:

- Use of a general template with the possibility to address any satellites, or

- as a specific template per satellite (to set up functions there specifically for the selected satellite, if necessary).

In the second variant, it used to be possible to use an Allevo master as a Shuttle template. However, as of 4.0, this function is no longer supported.

1.8.1   Set up a general Excel template

If the data of any satellite is to be processed via Excel, a corresponding Excel template must be stored in the SAP system: it contains the necessary VBA code for the interface to the SAP system and is included in the Allevo delivery package (file name "Shuttle_Blanko. xlsm").

As usual with Allevo, access takes place via a symbolic file name; in this case ZIPP_SAT_UPL. The template can be stored according to two procedures:

(A) Allevo file management or

(B) SAP Business Document Service (BDS).

The two procedures can be used alternatively. However, if templates for both procedures are stored, the Shuttle asks which file is to be used before each access.

(A) Store Excel template in Allevo file management

(B) Working with Allevo file management is explained in detail in the corresponding chapter of the Allevo SAP manual. The reference to the Excel template is made via the [File.Assistant] function, where the symbolic file name ZIPP_SAT_UPL must be entered.

Figure 1.3: Include Excel template; Step 1

A constant is not required.

(C) Store Excel template in BDS

Via transaction /ALLEVO/BDS_MNT (or alternatively OAOR) an Excel file is uploaded to the BDS (see Figure 1.4). Again, the Kern name range is the ordering criterion.

Figure 1.4: Include Excel template; Step 1

For the template to be imported, "Table template" must be selected as the document type. The usual file selection dialog follows (see Figure 1.5).
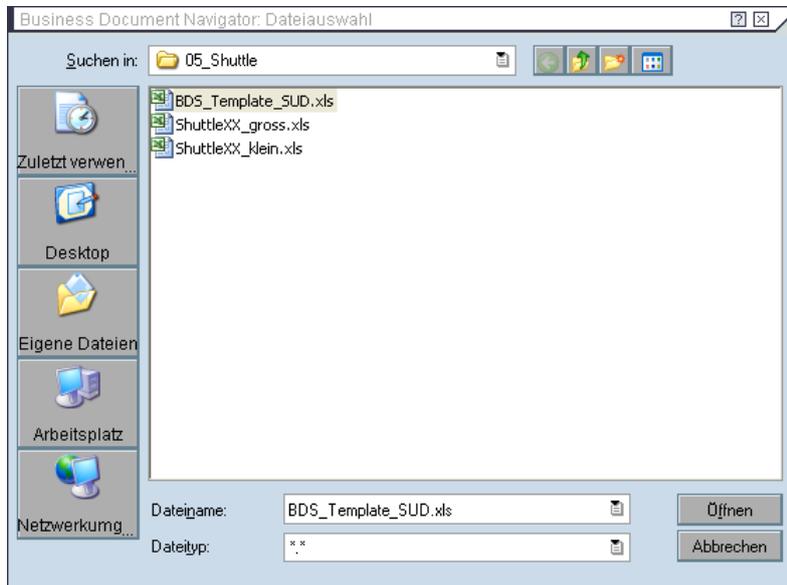

Figure 1.5: Include Excel template; Step 2

After selecting the file, an object ID must still be assigned, whereby the naming convention ZIPP_SAT_UPL applies here (see Figure 1.6).
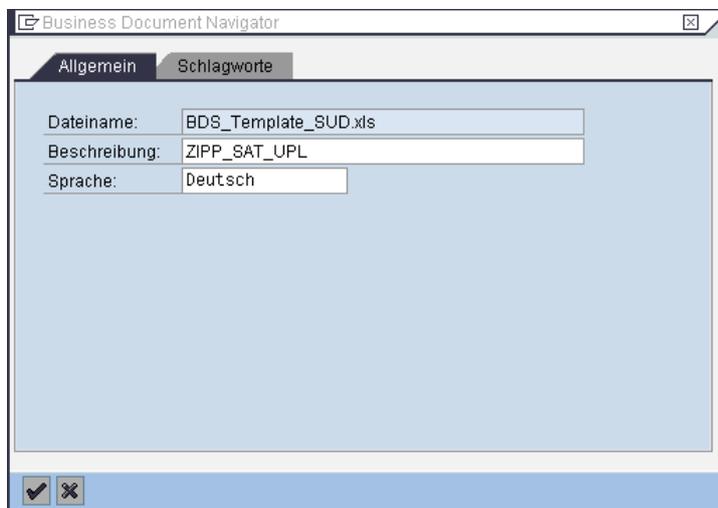
Figure 1.6: Include Excel template; Step 3

1.8.2 Include Excel template specific per satellite

An Excel template depending on the respective satellite can again be stored in the SAP system via both alternatives (Allevo file management or BDS). In both cases, the symbolic name must correspond to the following naming convention:

ZIPP_SAT_UPL_xx (with xx as the number of the satellite)

A description of the procedure for saving the template can be found in the last section.

> **Note:** It is also possible to provide multiple templates for a satellite (e.g. to get different column distribution for the "data reconciliation" function). In this case, all templates must start with the naming convention ZIPP_SAT_UPL_xx: e.g. ZIPP_SAT_UPL_01_A and ZIPP_SAT_UPL_01_B to store two templates for satellite 01. In the corresponding PopUP, an abbreviation identifies the source: BDS or AFM.
>
> In a mixed Excel environment, XLS and XLSM can also be used in parallel in this way (because the extension is always taken from the original file).

In the simplest case, you will use the program function |Excel initial (Template)| on the "Generate" tab to create a satellite-specific Excel template, adapt it according to your requirements and then store it under the symbolic name in OAOR or the Allevo file management.

Figure 1.7 shows the basic structure of a Shuttle template.

Figure 1.7: Structure of the Allevo Shuttle and associated areas

1.8.3 Multiple Excel templates specific per satellite

It is also possible to provide multiple templates for a satellite (e.g. to get different column splits for the "Data Match" function).

In this case all templates must start with the naming convention ZIPP_SAT_UPL_xx: e.g. ZIPP_SAT_UPL_01_A and ZIPP_SAT_UPL_01_B to store two templates for the satellite 01.

The Shuttle automatically recognizes such templates and, if necessary, asks via a Pop-Up which template is to be used. In this Pop-Up, an abbreviation identifies the source: BDS or AFM.

In a mixed Excel environment, XLS and XLSM can also be used in parallel in this way (because the extension is always taken from the original file).

1.8.4 Generate Excel file as template

A satellite basically consists of 7 fixed index fields and additional fields that are defined via appends in the satellite (customer-specific, or depending on the application).

Alternatively, the Satellite Cockpit can be used to store a Ground table for the satellite, which already contains all relevant fields in a predefined structure: the further explanations here then apply equivalently to the Ground table.

In certain cases, it may now be useful to automatically display the structure of a satellite in Excel. This file can be used later for the upload/download of data (so for the steps described below).

Such a file is generated in the Shuttle via the "Generate" tab with "Excel Initial (Template)". The file exported in this way contains all the fields of a satellite and can then be adapted to suit the requirements.

Note:	The list of satellite fields in Excel can also be useful, for example, if you simply want to check the field definitions of a satelliten table but do not have access to the SAP transaction SE11.

1.9   Conversion of field contents in the satellite append

If a field in the satellite append has been created with reference to a data element with a conversion routine, Shuttle takes this conversion into account when uploading and downloading satellite data. This is a different behaviour compared to working in the Allevo main planning via layouts (there elements are always saved without conversion), but can be useful in certain cases (e.g., to upload data in a reproducible state which should also be displayed in Allevo planning).

If no conversion is to take place, Allevo offers the following variants:

- A data type without conversion routine or a built-in data type in the satellite append can be used. However, special cases of Shuttle conversion remain open in this way (e.g. when storing negative values in fields without a defined sign).

- The global constant SHUTTLE_CONVERSION can be used to completely disable the conversion in the Shuttle (available from version 3.5, see F1 documentation).

- As of Allevo 4.0, control for conversion can be performed individually for each satellite via a new feature in the Satellite Cockpit. The conversion then applies centrally for all calls (also when called via Allevo layouts).

More backgrounds

The internal / external conversion can be advantageous, e.g. to display units of measure in the correct language. However, the conversion before display in Excel can also be problematic if the associated database field does not actually provide for such a conversion.

Example: if a WBS element is stored in the satellite append with an internal number (e.g. via data element PS_POSNR and associated ABWBS conversion), then 8 digits are internally provided for it. When reading data in the Shuttle with conversion to external format, a WBS number may contain far more than 8 characters and may also be alphanumeric. Consequence: transfer to Excel based on data element PS_POSNR would no longer be possible. Currently, therefore, fields with ABWBS conversion are considered as a basic exception and are not converted when read

See also additional note on WBS number as COOBECT in the next section.

1.10   Special features when working with WBS elements/projects

If projects or WBS elements are used as a planning object in the satellite (object type PR), then the corresponding internal number is stored in the index field COOBJECT.

In order to keep the usual external representation in the target file, the flag "Convert WBS number" must be activated. Then, for example, the internal number 00000624 is displayed as the WBS element "T-20301" in Excel. The user therefore sees the usual display as in the project system. If the conversion was activated during the download and later an upload is to take place, the flag must also be activated there (otherwise it is not possible to save the data; in the worst case, invalid data records could occur in the satellite).
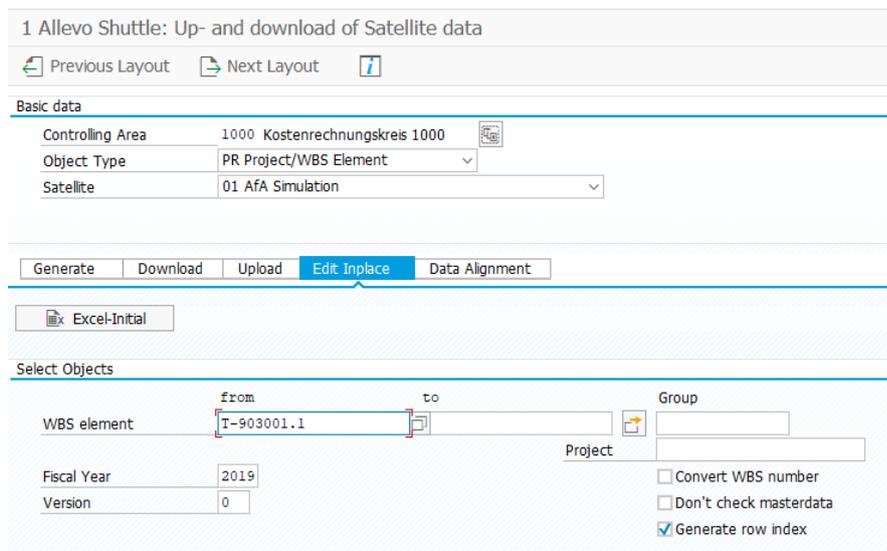

Figure 1.8: Satellite download with project data

The switch is only visible for object type PR on the selection screen (Figure 1.8).

Important: the switch refers ONLY to the index field COOBJECT. If other fields in the append refer to a corresponding data element (so for example, the conversion of the WBS representation from internal to external via domain PS_POSID) see notes in the last section.

As an alternative to selection using WBS elements or a group, Shuttle can also be started via a project number. Internally, Shuttle then works with the data for the representative WBS element as when calling the Allevo planning.

1.11 Long texts (LCHR)

Standard text fields in the ABAP Dictionary have a maximum length of 255 characters. SAP also knows long texts that are set up via data type LCHR, for example, and can contain more than 255 characters. In current versions, Allevo / Shuttle can also read and write these fields.

Important: such a field for long texts must be the last field in the table (with field for length).

2   Editing in the dialog (Edit Inplace)

2.1   Function overview and call

In addition to uploading and downloading files, the Shuttle offers a mode for direct data editing via Excel (via tab "Edit inplace", see Figure 2.1). In this case, the data is no longer cached in a local file, but opened directly in Excel for editing. The display in Excel corresponds to a simple list form.

Note: In previous Allevo versions, this display could also take place via so-called "Shuttle masters", in which you could work in a similar way to an Allevo master (e.g. via navigation). This function is no longer supported as of Allevo 4.0: instead, an Allevo layout with a matching master should be used.

The basis of the object selection is the specification of cost accounting and object type: only after that the list of relevant satellites is available.
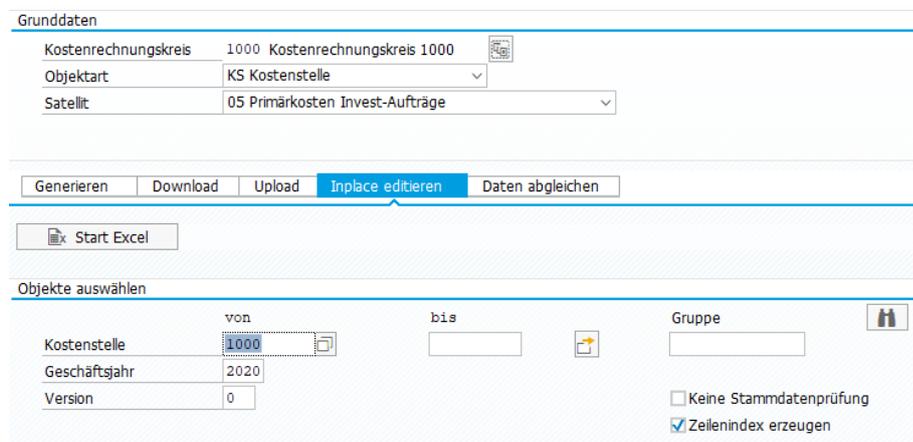

Figure 2.1: Selection for Excel inplace editing

The search function on the right side of the screen can be helpful for the selection of suitable objects: similar to a F4 selection the objects stored in the satellite so far are called. The list is built up depending on what selection parameters have already been specified, whereby controlling area, object type and satellite must always be defined. Search functions:

- Search by object: year is specified and all objects for this year are found.

- Search by year: the object is entered, then Allevo shows all the years in which this object exists.

- Object and year empty: all objects with matching object type/Setclass are found.

After entering the relevant selection data and starting via one of the buttons, the usual in-place display appears for direct adjustment of the data.

2.2   Edit data via "Start Excel

On the Excel side, there are two name ranges that tell the interface program which rows and columns are relevant.

Figure 2.2: Edit the Excel file

In our example (see Figure 2.2) with satellite 1, the area SAT01HR for "Header Row" can be seen, as well as SAT01RW for "Read/Write". The header area must carry the numbers of the relevant columns of the satellite in one row: a separate control for read and write columns is not supported in "Excel initial".

Special Notes:

- The Shuttle additionally places a so-called "structured table" with the name "KernTabelle" over the named areas. This means that these areas are automatically extended as soon as new rows are appended (function available from 3.3.). Values outside the ranges are ignored by the Shuttle.

- When adding new records, make sure that they differ from the other records with respect to the first seven columns (selection criteria) - for example, by changing the row number in index column 7 (column H in Figure 2.2). With the help of the upload option "Generate row index", however, an automatic recount can also be enabled

Three data checks are implemented for the data entered in Excel (call via the |Check data| button):

- Data type and length (e.g. text in the numeric field; number of decimal places).

- Key in selected area (e.g. controlling area not in selected area)

- Duplicates (more than one line with the same index)

If the data check was not successful, an error log appears with the row and column in question.

Figure 2.3: Message for the "Check data" function

The errors can then be corrected directly in the Excel spreadsheet. The |Save| button is used to finally transfer the data to Excel.

2.3   Edit data via the "Shuttle Master"

This function is no longer available as of Allevo 4.0: an Allevo layout with matching master should be used instead.

3   Download from satellite data

3.1   Function overview

Satellite data can be downloaded either as a text or Excel file:

- If a pure backup copy of a satellite is desired, a text backup is the fastest and safest option for this.

- The download as an Excel file via button |Excel initial| is particularly suitable for comprehensive editing of the table content, as the familiar column and row view is available here. Here Allevo uses a template that is the same for all satellites (with automatic column division according to definition in the satellite). This variant requires a generally valid Excel template, which must be stored in the system under the symbolic name ZIPP_SAT_UPL (see the following section).

3.2   Download via the General Excel Template ("Excel initial")

Downloading satellite data to an Excel file is particularly useful when extensive editing of the table contents is to be performed, as the usual column and row view is available here, with the columns on the Excel sheet being automatically created according to the structure of the satellite.

The download can only be executed if a corresponding Excel template is stored in the SAP system (see notes in section 1.8.1 section above).

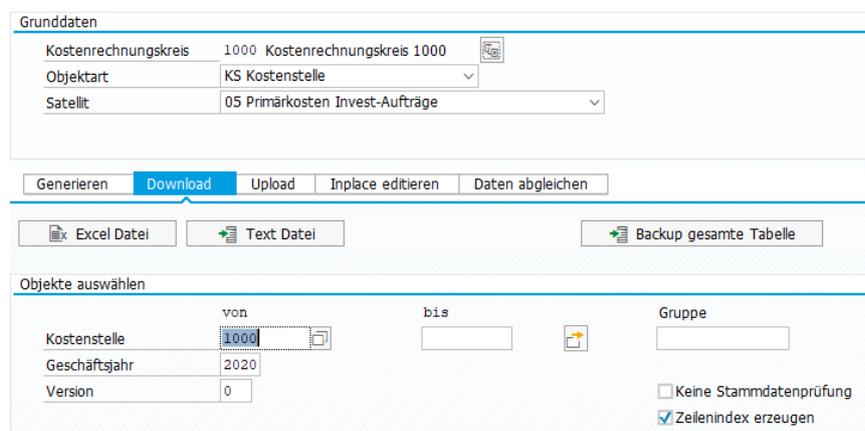The download function is accessed via the tab of the same name in the Shuttle.

Figure 3.1: Download as Excel file

After clicking the |Excel File| button, a dialog appears in which the destination folder and the name of the Excel file are specified. The default setting for the name of the Excel file is:

ALLEVO_SAT<satellite number>_<object type>_<year>_<version>_<calendar week>.xls

(Example: ALLEVO_SAT01_KS_2013_000_42.xlsm)

The extension of the Excel file is taken directly from the saved template (normally XLSM). Also when saving, the suffix of the template must always be used.

> **Note:** An already existing Excel file with the same name will be overwritten (in contrast to the download as text file, because there new data will be appended).

An example of the generated Excel file is shown below in Figure 3.2.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
		MANDT	KOKRS	SETCLASS	COOBJECT	PJAHR	VERSION	ZEILE	KATEGORIE	BUKRS	ANLN1	ANLN2	DATAB	DATBI	TXT50	CAUFN	PROZS	NDJ
		CLNT	CHAR	CHAR	CHAR	NUMC	CHAR	NUMC	CHAR	CHAR	CHAR	CHAR	DATS	DATS	CHAR	CHAR	DEC	DEC
		3	4	4	24	4	3	10	12	4	12	4	8	8	50	12	5	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
		100	1000	0101	0000001000	2010	000	000000										
		100	1000	0101	0000001000	2010	000	000000									12,3	
		100	1000	0101	0000001000	2010	000	000000									10,0	
		100	1000	0101	0000001000	2010	000	000000										
		100	1000	0101	0000001000	2010	000	000000										

Figure 3.2: Example of an Excel file from the download

The Excel table contains several header rows with the details of the individual fields in the satellite. They correspond to the definitions in the SAP Dictionary (with field name, type and length).

> **Note:** It is also possible to create an Excel file that contains only the basic entries (headers) for a particular satellite, but no data. This function is available on the first Shuttle tab "Generate": After selecting the satellite and pressing the |Excel initial (template)| button, a blank sheet with the correct column structure is saved locally.

The data in the Excel spreadsheet can be edited offline and then uploaded again (see the following chapter 4).

3.3 Download via the "Shuttle-Master" to an Excel file

This function is no longer available as of Allevo 4.0: if more complex functions are required on the Excel side (e.g. formula value or control via navigation), then an Allevo layout with a suitable master should be set up for this if necessary.

3.4 Download to a text file

The created text file contains all relevant data records of the satellite according to its append structure. There is the possibility of a complete backup across all versions, years and objects (e.g. cost centers) as well as a backup limited to objects or object groups, versions and years.

> **Note:** As an alternative to this "complete backup", there is a built-in backup function included in current Allevo versions specifically for satellites, whereby data is not exported to a local file, but from a satellite to a backup satellite. For more details, see the "Tools" chapter in the Allevo SAP manual.
>
> The backups via Shuttle described here can serve as a supplement; in addition, they offer the possibility of changing data offline and then uploading it again.

The following variants are available for download:

- Complete download for backup of all data in the current controlling area and for the current object type (but independent of year and version, see button |Backup complete table|)

- Restricted download (with selection via features)

The contents of the text files can be changed if necessary and then read in again (see the following section).

The data in the text file are separated via tabulator, so they can be easily transferred back into Excel if required.

3.4.1   Full download

After the program call, the controlling area, object type and the table name have to be defined here (see Figure 3.3).

Figure 3.3: Full backup as a text file

After pressing the button |Backup entire table| all data for the selected controlling area and the current object type will be copied into a text file. A query follows in which the destination folder and the name of the text file are defined. The default setting for the name of the text file is:

ALLEVO_SAT<satellite number>_<object type>_<calendar week>.LOG

 (Beispiel: ALLEVO_SAT05_KS_2011_000_42.LOG)

The created text file contains all relevant records of the satellite according to its fields and a header with the names of the columns (see Figure 3.4).

Figure 3.4: Example of the backup as text file

At the end of the header are the date and time of the download.

3.4.2   Restricted download

A partial download based on text basically works in the same way as a complete backup. Here, however, object(s), fiscal year and version must additionally be specified as selection parameters (see section "Selecting objects" in Figure 3.3). The download is started via the button |Text file|.

For the file name, the naming convention is supplemented by the version and year information; thus, the following scheme applies:

ALLEVO_SAT<Satellitennummer>_<Objektart>_<Jahr>_<Version>_<Kalenderwoche>.LOG

 (Beispiel: ALLEVO_SAT05_KS_2010_000_42.LOG)

The structure of the text file is identical to that for the full download.

Note:	"Updating" is possible for both complete and partial downloads as text files. If the function is executed multiple times with the same target file, Allevo asks whether the rows should be added. If necessary, a new area with data is appended in the existing file. This new section is introduced by its own header, which also contains the date and time of the last download: this makes it easy to distinguish between the different versions (the last download version in each case is at the end of the file).

4 Upload satellite data

4.1 Function overview

Uploading data usually works in the same way as downloading it (see previous chapter). Two procedures are available here:

- The functions on the "Upload from" tab overwrite the data in the target table (depending on the chosen selection).

- The functions on the "Data Matching" tab update only those data that actually exist in the Excel file.

As always, access is via the selection of the controlling area, the object type and the number of the satellite.

The Shuttle can import data directly from a text file, or take it from Excel files.

Note:	Integration with Allevo FP (Cancellation)
	When uploading, the Shuttle checks whether the selected satellite has been set up for the application in FP and whether the cancellation function is active there (there must be at least one FP schema with the CANCEL_ACTIVE constant active). If changed data is to be saved in such a case, the Shuttle also updates the FP cancellation table on request (this function is run through in the Shuttle layout 1 when uploading data and during in-place processing).
	Please note: cancelling the FP values is not useful in all cases (e.g. when deleting data in the satellite that is simply no longer needed). Therefore, please make an intentional decision whether filling the FP cancellation table makes sense when asked by the Shuttle.
	For the cancellation procedure, see the instructions in the Allevo Flexible Planning manual.

4.2 Entrance and selection options

The appropriate selection criteria must also be entered first during the upload. The Shuttle needs this information to delete any data records in the satellite. If the uploaded file also contains data outside the selection range, these data records are ignored.

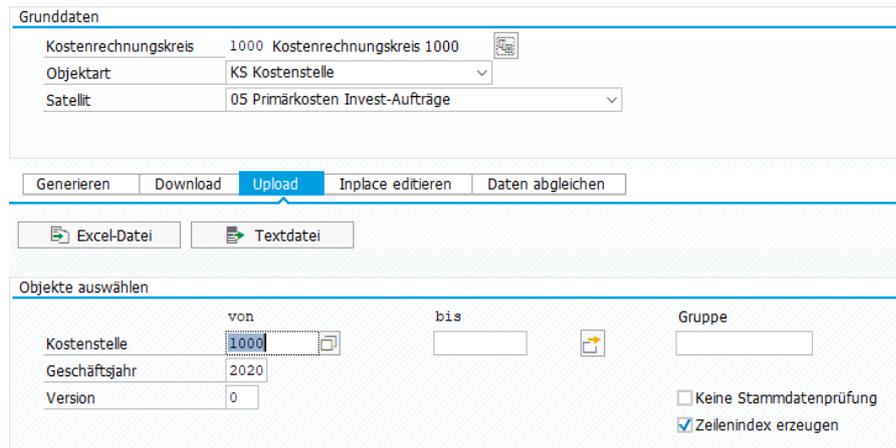The upload is started via the button |Excel file| (see Figure 6.1).

Figure 4.1: Upload of text and Excel files

After selecting the file, the program first deletes the existing entries that have the same data set key. Then it transfers the relevant content of the file into the table of the satellite.

Note:	Usually, one will want to import a backup or changed data sets via the upload function: possibly, data sets have also been deleted in the dataset of the respective file. In this case, the corresponding rows in the tables for the satellite will also be removed (as far as they are in the selected selection range).
	If records are added instead, care must be taken to ensure that the index fields are unique. The upload option "Generate row index" can be used to force an automatic recount in index column 7 for this purpose.

Also, by default, only the data that has a valid master record in the system is imported during the upload (see section 3.4)

For object type PR, additional attention should be paid to how to proceed with the project or WBS number in the COOBJECT field of the text or Excel file: If a conversion to the external, formatted representation was carried out during the download, the "Convert WBS number" switch must also be activated during the upload; otherwise, invalid data records may result in the table for the satellite (see also section 1.10).

4.3   Upload function via an Excel file

4.3.1   Upload of an Excel file

When importing Excel files, in contrast to the text files, no preparatory work is necessary. However, the following also applies here: if changes are made to the row structure, the "Generate row index" checkbox should be activated during the upload.

After entering the selection data and starting via the button |Excel file| the usual file selection dialog appears and then the Excel inplace view (including checking the data).

Note:	The transfer from an Excel file uses functions of the SAP Desktop Integration (so Excel is opened in the background).
	The Excel upload aborts with an error message if the relevant Excel file is already open.
	The error description does not apply to imports from text files. Nevertheless, it is also recommended here to save and close before backing up

With the help of the |Save| button, the data is transferred to the database table for the satellite according to the selection conditions.

Note:	As always when uploading satellite data, all relevant columns must be marked with the corresponding column number in the header of the satellite range. If a column is not mentioned there, it will be deleted from all relevant records in the satellite!
	If this data is to be retained in the table for the satellite instead, it is recommended that you use the "Data synchronization" function (see section 0).

4.3.2   Special case: Recognition of date format for Excel upload

Allevo tries to automatically recognize the format of a cell containing date information when uploading. For technical reasons, this recognition cannot always work. There is therefore a risk that, for example, the information for the day and month will be swapped, resulting in an incorrect date being stored in the satellite.

To avoid this case, the date format used on the Excel page can be specified explicitly (see menu "Shuttle >> Set Date Format").
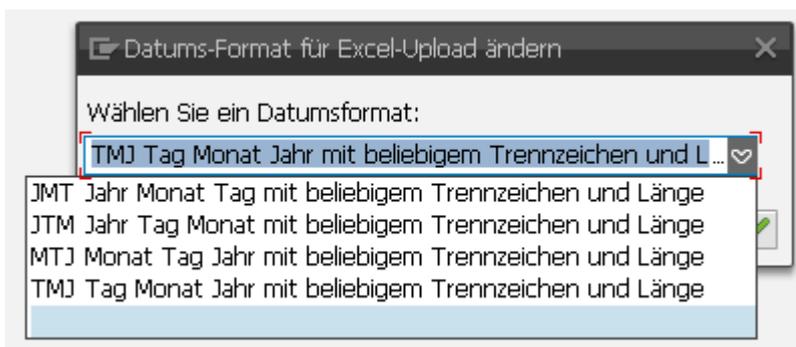

Figure 4.2: Date format for the Excel upload

The options define the order of day, month and year in the date field. Separators are automatically recognized and ignored.

4.3.3   Special case: Field with time during Excel upload
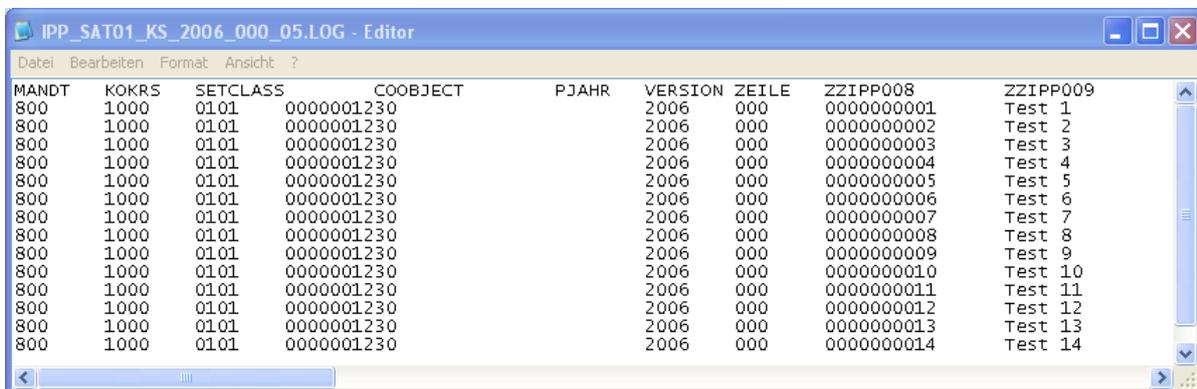
In principle, Allevo can also handle fields in the satellite that are based on an SAP data element for the date. In this case, too, the display on the Excel side is country-dependent (or dependent on the Windows settings for the region). For data exchange please use the last version of Blanko-Master.

4.4 Upload function via text file

4.4.1 Edit text file

When changes need to be made in text files, whether full or partial backups, the following points should be considered:

- The headers have only an informative value. They must be removed for an upload. Changes to these headers have no effect on the actual records.

- Instead of columns, tab stops are used in the text backup (Figure 4.3). If rows are inserted or changed here, these tab stops must be present at the end, otherwise the Shuttle program cannot recognize when a new column begins.

- Decimal values must always have the dot "." as decimal separator (and no other separators).

Figure 4.3: Edit the text file

When exporting, a file with the suffix ".LOG" is created. For import, the file with the (changed) data should have the suffix ".TXT" (this is the standard suggestion for the upload).

After the upload, Allevo indicates the number of rows with modified data; rows with the same content as in the satellite table are not mentioned.

4.4.2 Perform the upload

As described in section 4.2 the headers in the text files have a purely informative character and are mainly used to distinguish the respective backup data sets. For an upload, it is therefore necessary to delete both the headers and all unnecessary data sets from the text file.

Note:	If not all headers are removed, a "Conversion error during file transfer(upload)" is displayed.
	If the line structure is changed, it is recommended to check the "Generate line index" checkbox before uploading (see Figure 4.1): then all rows are assigned a new number and ambiguous row numbers are excluded. In this way, even several backup data sets can be completely re-imported into the table.

VSI Virus Scanner: the text upload uses the SAP function "GUI_UPLOAD". In current SAP versions a virus scan is performed if the corresponding functions are active in the customer system. The standard profile /SCET/GUI_UPLOAD applies (see also SAP documentation on the Virus Scanner Interface (VSI) and corresponding SAP notes).

5 Data matching (selectively update by columns)

5.1.1 Overview

Data matching is a special form of the upload function and combines two basic functions:

- Basically, all rows of an Excel file are read and transferred to the satellite. Therefore, the data comparison does not require any additional selection parameters except controlling area and object type.

- Only those columns/fields of the satellite are updated that are explicitly also entered in the Excel file. The values in all other fields of the satellite remain unchanged.
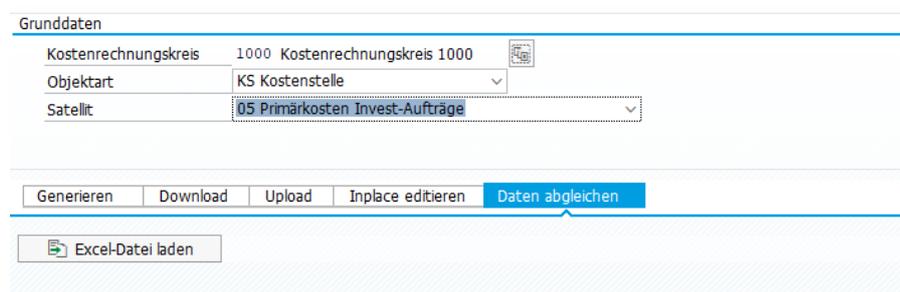
Figure 5.1: Data reconciliation via Excel files

5.1.2 Use case

Data reconciliation is thus suitable, for example, for use cases in which the data of a satellite are processed by different departments (so seperated by columns). Via the data reconciliation, the respective Excel tables can then be read in one after the other without one department overwriting the data of the other department.

Note:	In this context, it is also useful to store several templates for the current satellite in the BDS (analogous to the satellite download via the |Shuttle-Master|). Then a Pop-Up appears in advance to select the desired template in each case. The templates with the different column layouts could thus be saved here (department-related).

5.1.3 Call and takeover data

The data reconciliation does not know any further selection parameters on the corresponding tab (see Figure 5.1).

For object type PR only, additional care should be taken to ensure that the same setting is selected for the "WBS number conversion" function as for the download: otherwise, all data records in the Excel list will be recreated in the satellite (see also Section 1.10).

After starting via the button |Load Excel file| the usual file selection dialog appears and then the Excel inplace view).

With the help of the function |Save| the data is transferred back to the tables to the satellite.

Note:	When saving, the data is transferred from the Excel spreadsheet as usual using the column numbers in the header row and transferred to the SAP side.
	If a column number is missing or the entire column is not present on the Excel page, then on the SAP page the previous data is retained in the satellite table: so it is NOT deleted there.
	Also, the rows that were removed from the original (download) Excel spreadsheet will be preserved.

As a rule, data matching is used to edit the existing data of a satellite. The new creation can be seen as an exception here. For this reason, the function |Check data| also explicitly indicates again whether new data records have been inserted in the Excel spreadsheet (see Figure 5.2).

Figure 5.2: Data reconciliation via Excel files

6 Shuttle additional functions (layout 1 - 4)

6.1 Function overview

In addition to the standard satellite editing functions described in the previous sections, the /AL-LEVO/SHUTTLE transaction provides additional table editing functions that are accessed through additional screen layouts (see Previous Layout and Next Layout buttons in Figure 6.1 above).
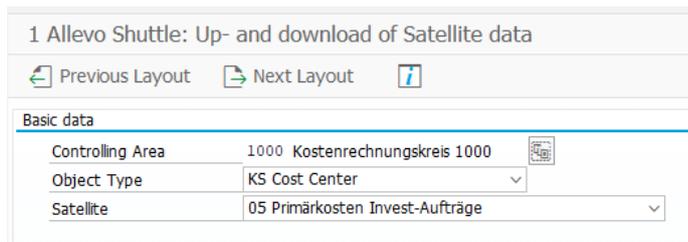
Figure 6.1: other Shuttle layouts

The following functions are available:

1. Shuttle satellite up-/download (as already described)

2. Copy satellite data between objects

3. Edit satellite data

4. Copy satellite data in year/version

5. Edit table (additional permissions required)

The first four functions refer to a combination of controlling area, object type and number of the satellite (consequently, these parameters always form the initial selection).

6.2 Copy satellite data between objects

In the "2 Allevo - Copy satellite data between objects" layout, the Shuttle offers the option of copying the data sets of a single object to another or several other objects.

For example, it is possible to fill the satellite data of one cost center with the satellite data of another cost center. This can be done for the target objects across all objects, so cost centers, orders, profit centers or WBS elements can be selected. In addition, object groups or projects can also be entered as target objects.

Figure 6.2: Satellite copy between objects

The copy process is started via the |Execute| button. For the purpose of data checking, the target data can be listed individually after the copy process. To do this, activate the "Display target data after copying" check.

Note:	In the target objects all previous data will be deleted.

6.3   Edit satellite data without calling Excel

In the case of very large data volumes, viewing or editing the satellite data via Excel can take up a lot of computer power. For this reason, several editing functions are available in the "3 Allevo - Edit satellite data" layout that can be called up independently of Excel.

The layout offers the following editing functions:

- Show source data

- Edit data

- Delete source data

Figure 6.3: Edit satellite data

Show source data

This function shows the records according to the selection.

Figure 6.4: Display source data

Edit data

With the help of this function, individual data records can be edited directly and then saved via the key combination Ctrl + S. In the process, the original data is completely overwritten (rows may also be deleted).

Note:	In earlier Shuttle versions, a distinction was still made between the functions "Edit data" and "Replace data", whereby only in the second case the original data was over-written.
	In the current version, the original data is now always replaced, so that the display on the monitor also always corresponds to the contents of the database (in this case, the program deletes the table in the entire selection area and writes back all records as displayed).

The icon for |Check Input| in the ALV toolbar can be used to check the entered values before saving them: the stored data types of the respective columns are compared with the entered values.

This check is also performed automatically before saving to prevent data with incorrect formats from being transferred to the satellite table.

Note:	The check is a standard SAP functionality of the ALV display. It also determines whether the entry of lowercase letters is explicitly allowed for a character field. If not, newly entered or changed texts are converted to upper case. If this is not desired, the change of data must be done via the Excel interface.

Fields in the main index of a satellite (or comment table) cannot be changed. New rows can be created using the ALV standard function including entry in the index fields (if required, copy and paste existing rows).

Delete source data

This function deletes the entire content of a satellite in the specified selection range. A confirmation prompt with the number of relevant records appears beforehand.
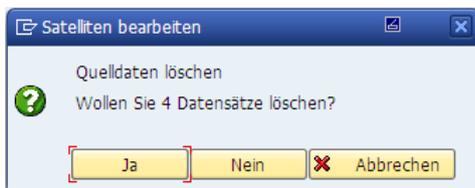

Figure 6.5: Security query when deleting

Note:	In earlier Allevo versions, the functions mentioned here could also be applied to Allevo planning comments (table /KERN/IPPCOMMENT). However, there are now independent transactions for this, which can be accessed via the Allevo Cockpit, for example (there menu "jumping >> comments").

6.4   Copy satellite data to other plan years/versions

In the layout "4 Allevo - Copy satellite data to year/version", the Shuttle offers the possibility to copy data from one or more objects to another plan year and/or plan version. For example, it is possible to fill the satellite of a cost center for a new forecast version.
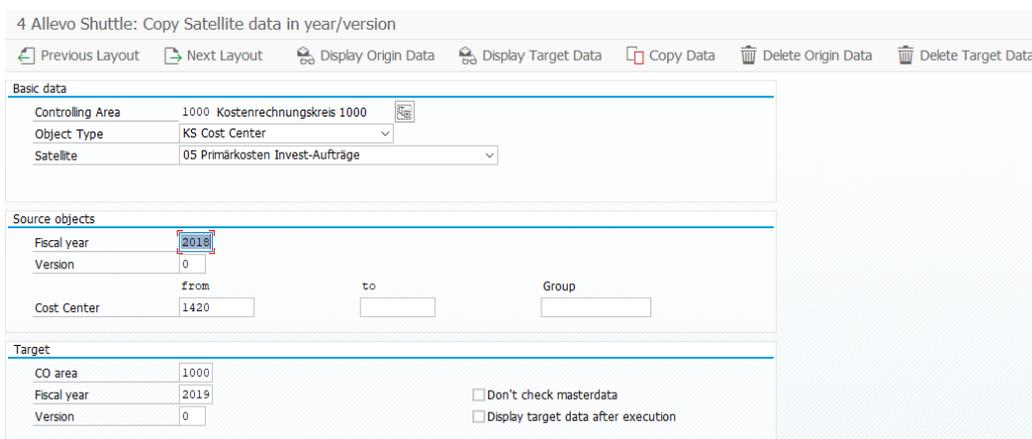

Figure 6.6: Copy satellite data to another plan version

Using the buttons |Display source data| or |Display target area| it is possible to display the contents of the source as well as the target objects before or after the copy operation (useful before starting the copy operation).

Via the button |Delete source data| or |Delete target area| the corresponding contents can be removed (with preceding safety query).

The copy process is started via the |Copy data| button. If the "Display target data after copying" check is activated in the process, the copied rows are explicitly listed after the copy process (as with the "Display target area" function).

Note:	In earlier versions of Allevo, the functions mentioned here could also be applied to Allevo planning comments (table /KERN/IPPCOMMENT). However, there are now independent transactions for this, which can be accessed via the Allevo Cockpit, for example (there menu "jumping >> comments").

6.5 Edit Allevo tables

In previous Allevo versions, a "5 Allevo - Edit Table" layout branched to the /ALLEVO/TAB transaction to display and, if necessary, edit the contents of any tables in the /KERN/ and /KERNC/ namespaces.

Since this is not a satellite-specific function, it can instead be called up today via the Allevo Cockpit ("Goto" menu) or directly via the transaction. Additional authorization for the change mode is still required there.

Specific to satellites, this transaction can also be called directly from the Satellite Cockpit.

For details see Allevo SAP manual.

7 SunTables and Shuttle

7.1 Function overview

Allevo Shuttle functions (as described so far) were originally created for processing data in a satellite. With Allevo version 4.1, so-called SunTables are also available, whose data is to be maintained via a separate Shuttle transaction (Tx /ALLEVO/SUN_SHUTTLE).

The previous sections of the manual primarily referred to the functions of the original Shuttle for maintaining satellite data. Below are the divergent functions to the Shuttle for SunTables. About the application of SunTables

Note:	For the use of SaunTables in the Allevo environment, see the Allevo SAP manual.

Due to the concept of SunTables (e.g. free definition of index fields in the associated table), certain basic functions from the satellite Shuttle are no longer available here: e.g. no copy functions between objects, years and/or versions.

The corresponding transaction /ALLEVO/SUN_SHUTTLE knows only one view with selection screen for the relevant table:
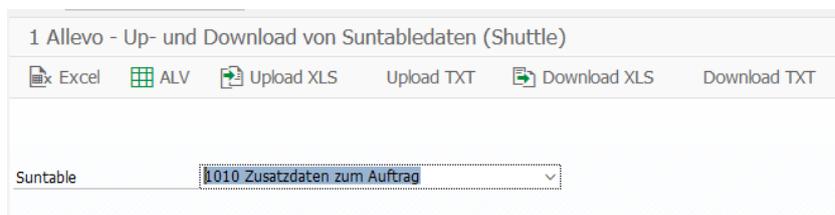

Figure 7-1: Initial screen Shuttle for SunTables

The basic functions in the button bar:

- [Excel] opens the usual Allevo Workplace for editing data in Excel.

- [ALV] shows the data via ALV (editing is also possible here).

- [Upload XLS] allows the upload of Excel files

- [Upload TXT] allows upload from text files with tab-delimited fields

- [Download XLS] creates an Excel file with the data of the SunTable

- [Download TXT] creates a text Excel file with the SunTable data (tab-delimited).

7.2 Initial screen and editing in dialog (Inplace)

The initial screen of the Shuttle contains only the option to select the relevant SunTable (see figure above).

Background:	In contrast to a satellite, SunTables do not have any fixed index fields (such as object, year, version) that could be used to select the data. Therefore, this Shuttle variant always processes all data of the respective SunTable.

An Excel template (with corner variant) must be stored under the symbolic ZIPP_SUN_UPL file name in the BDS or in the Allevo file management.

7.3 Other functions

As an alternative to editing via Excel, an ALV display with editing options is available.

The text up/download uses tab-delimited text files with header line to better match the respective columns.

The Excel Up/Download uses the same template (based on ZIPP_SUN_UPL) as the Inplace processing.

Even with the functions for uploading/downloading, all the data in the SunTable is always managed simultaneously: during the upload, rows that no longer exist are also deleted in the target table. Only in the case of a (possibly accidental) empty text or Excel file willAllevo leave the previous data in the SunTable.