top *flow*

Adding Descriptive Texts

Beginning with **version 3.2D** of SE16XXL a new functionality for enhancing the result list is available: **descriptive texts** may be added to selected columns of the list, making it more easily understandable for non-technically minded users.
A result list that up to now would have been displayed as follows:

may now be enhanced with additional descriptive texts as exemplified below:

There is no need for the user to perform joins with the involved text tables - one operation (under menu *Extras* ➔ *Add text columns*) does it all. The user only has to mark the columns to be enhanced and call the function (or just call the function without marking any columns, in which case all enhanceable columns will be proposed).

Before going through an example to show how the operation is to be carried out, it may be interesting to discuss the various types of descriptive texts and their association with database table fields.
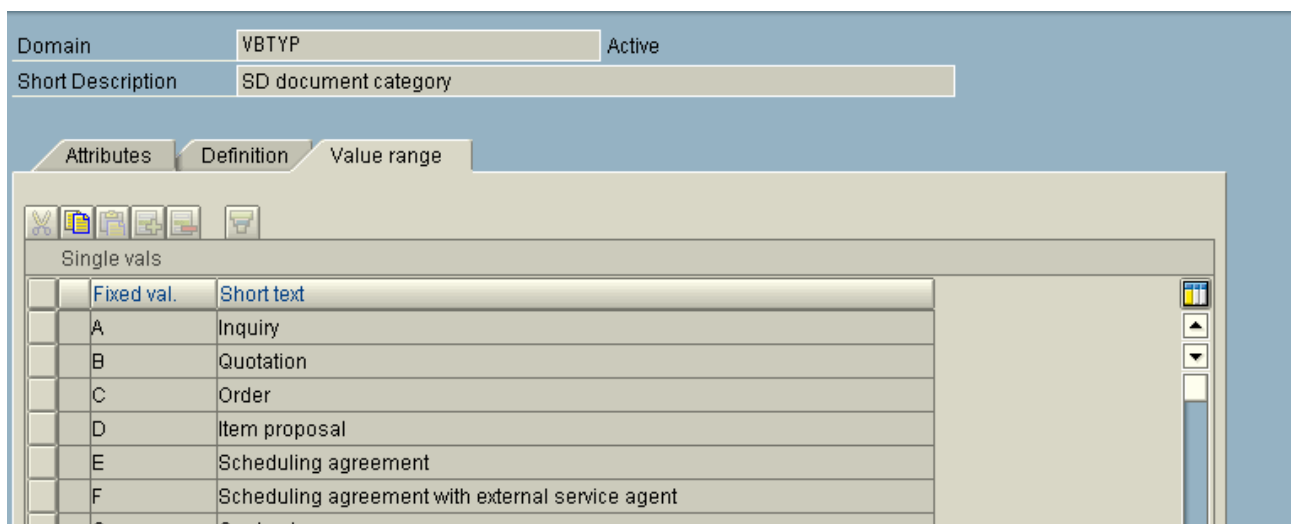
Technical Aspects

Not every database table field has an associated descriptive text. Most numeric fields, dates, etc. do not have any. In regard to the implementation of the operation being discussed there are four different types of descriptive texts:

1)   Texts associated with domain fixed values;

2)   Texts associated with text table assignments;

3)   Hard coded text table assignments;

4)   Explicitly defined Special Texts.

Each kind will now be briefly examined.

Texts associated with domain fixed values

In SAP parlance a "domain" is the description of a field with its type (e.g. CHAR), length (e.g. 10 characters) and possibly other attributes. This description may also include a series of "fixed values" with associated texts. A typical example is domain **VBTYP** (SD document category) which can take the following values:

The fixed values of a domain are easily found and have the highest priority in the determination of descriptive texts. If a result list field is associated with such a domain, the involved texts are taken and no further processing is needed.

Texts associated with text table assignments

This kind of text relationship is the most common in the SAP system. A large number of database master tables are associated by means of "Foreign Keys" to a "Text Table" which contains language-dependent descriptive texts. The interested user will find the appropriate definitions in the Data Dictionary.
Let's consider for example table **TVKO**, which is the master table for sales organizations:

By using the menu function **Goto → Text Table** we are carried to table TVKOT:

This is the text table associated with TVKO. The exact definition may be inspected by setting the cursor on the key field VKORG and pressing the ⟨button⟩ button situated above the list of fields. The details of the foreign key relationship may be seen on the following page:

However, the search for the descriptive texts ends here only if the field being processed is the key of a **master** table. In all other cases the field being considered only refers to a master table either by means of foreign keys or through the data element or domain definition, which possibly point to a master table.
Thus the text determination proceeds first from the current table field to its master table and from there to the corresponding text table. For example:

VBAK-VKORG → TVKO-VKORG → TVKOT-VKORG → TVKOT-VTEXT

The text determination is quite straightforward if only **one key field** is involved. Otherwise the foreign key relationships may be complicated by generic or external assignments which in some cases frustrate the procedure. This means that sometimes no descriptive text is found, even if a superficial analysis seems to indicate otherwise.

Hard coded text table assignments

If we bother to analyze the relationship between table **DD02L**, which describes the tables defined in the Data Dictionary, and its assumed text table **DD02T**, we will be surprised to discover that **no such text relationship exists**. And this is not the only case. **DD06L** and **DD06T** for example exhibit the same lack of relationship.

Ignoring this situation would mean that no descriptive texts would be available for most DDIC entities – not a very elegant solution.

Therefore it has been decided to "hard code" such missing links. The following relationships are hard coded:

1) Most Data Dictionary entities like TABNAME etc.
    Example: DD02L-TABNAME →
                    DD02T-TABNAME →DD02T-DDTEXT.

2) Internal Class Numbers (CLINT).
    KLAH-CLINT → SWOR-CLINT → SWOR- KSCHL.

    It must be observed that field KLAH-CLASS has not been chosen for this kind of processing because it is ambiguous, since it depends also on the value of KLAH-KLART.

3) Domains PROGRAMM, PROGNAME and PROGRAM_ID.
    TRDIR-NAME → TRDIRT-NAME → TRDIRT-TEXT.

More hard coding might be carried out for similar situations in future versions.

Explicitly defined Special Texts

After exhausting all other means there still remain fields for which no descriptive text can be determined. For example **BUKRS**, the company code, or **EKORG**, the purchasing organization. For some reason these fields do not have a language-dependent text. However they do have a language-independent one – these texts are to be found in the master tables themselves, **T001** and **T024E** respectively.

The problem with this kind of text relationship is that it is not clear which fields are affected, and which related fields contain the desired description. This holds especially true for fields like KUNNR (customer number), whose master table KNA1 contains dozens of character-type fields. Which one can be used as descriptive text?

The only viable solution is to define these relationships explicitly. To this end a definition dialog has been provided (Special Texts Definitions) for the administrator:
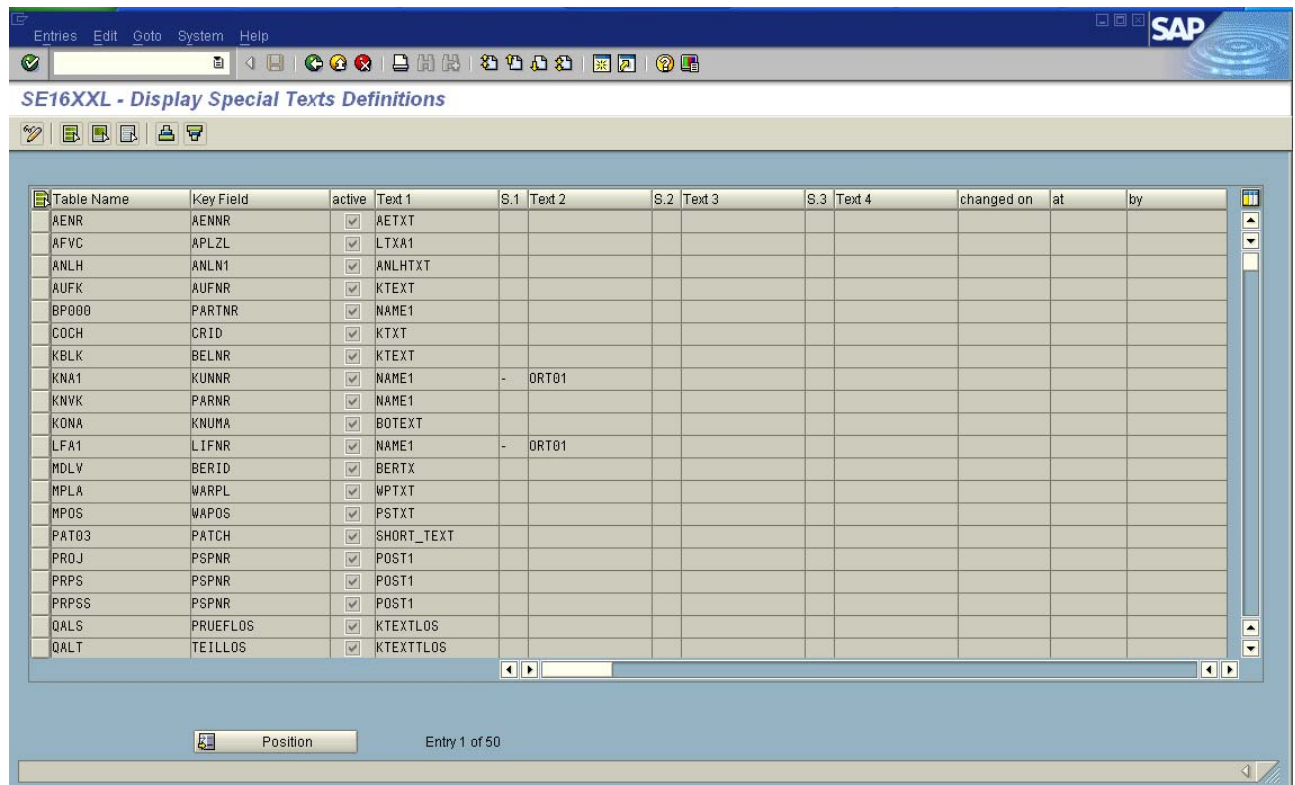
SE16XXL - Display Special Texts Definitions

Table Name	Key Field	active	Text 1	S.1	Text 2	S.2	Text 3	S.3	Text 4	changed on	at	by
AENR	AENNR	✓	AETXT									
AFVC	APLZL	✓	LTXA1									
ANLH	ANLN1	✓	ANLHTXT									
AUFK	AUFNR	✓	KTEXT									
BP000	PARTNR	✓	NAME1									
COCH	CRID	✓	KTXT									
KBLK	BELNR	✓	KTEXT									
KNA1	KUNNR	✓	NAME1	-	ORT01							
KNVK	PARNR	✓	NAME1									
KONA	KNUMA	✓	BOTEXT									
LFA1	LIFNR	✓	NAME1	-	ORT01							
MDLV	BERID	✓	BERTX									
MPLA	WARPL	✓	WPTXT									
MPOS	WAPOS	✓	PSTXT									
PAT03	PATCH	✓	SHORT_TEXT									
PROJ	PSPNR	✓	POST1									
PRPS	PSPNR	✓	POST1									
PRPSS	PSPNR	✓	POST1									
QALS	PRUEFLOS	✓	KTEXTLOS									
QALT	TEILLOS	✓	KTEXTTLOS									

Position   Entry 1 of 50

A series of default definitions are provided, which can be modified or deactivated, if considered inappropriate. The administrator may also define new relationships.

As may be seen, up to four text fields can be specified for a given key field. These text fields are then concatenated to produce the final descriptive text. Thus a given customer may also be described using the name field NAME1 combined with the location field ORT01.

After this brief digression concerning the technicalities of text determination we can proceed with a description of the operation from the user's viewpoint.
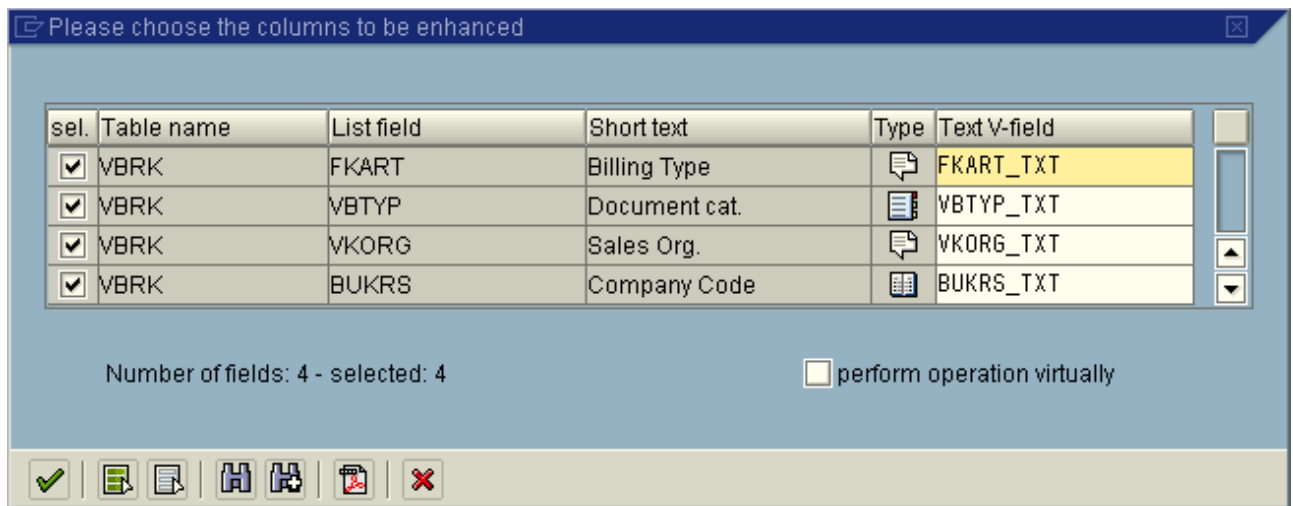
Operation "Add text columns"

A couple of examples will illustrate the way this operation is to be carried out.
Suppose we are dealing with a list of entries of table VBRK (Billing Document: Header Data):

VBELN	FKART	FKTYP	VBTYP	VKORG	VTWEG	BUKRS	KALSM	KNUMV	VSBED	KDGRP	ZTERM	LAND1
0090000763	B2	K	O	1000	10	1000	RVAA01	0000002800	02	02	ZB01	DE
0090005177	F2	L	M	1000	10	1000	RVAA01	0000012141	01	01	ZB00	DE
0090005182	S1	L	N	1000	10	1000	RVAA01	0000012226	01	01	ZB00	DE
0090005639	F2	L	M	R300	R6	R300	VKPUS3	0000013878	01		0005	US
0090005640	S1	L	N	R300	R6	R300	VKPUS3	0000013879	01		0005	US
0090005748	ZIVU	I	5	1000	12	1000	ZIV002	0000014239	02	04	ZB01	FR
0090005749	F2	L	M	2200	10	2200	RVAA01	0000014240	02	01	ZB01	FR
0090005767	FP	X	M	R300	R1	R300	POSUSJ	0000014317	01		ZB01	US
0090005784	F2	L	M	1020	22	1000	RVAA01	0000014440	02	06	ZB01	DE
0090007462	FL	L	U	1000	12	1000		0000016915	02			DE

Table VBRK - Billing Document: Header Data

We would like to add descriptive texts for the following columns: FKART, VBTYP, VKORG and BUKRS. We therefore mark the columns in question and choose from the menu: *Extras → Add text columns*.
The program reacts with the following dialog box:

Please choose the columns to be enhanced

sel.	Table name	List field	Short text	Type	Text V-field
✔	VBRK	FKART	Billing Type		FKART_TXT
✔	VBRK	VBTYP	Document cat.		VBTYP_TXT
✔	VBRK	VKORG	Sales Org.		VKORG_TXT
✔	VBRK	BUKRS	Company Code		BUKRS_TXT

Number of fields: 4 - selected: 4   ☐ perform operation virtually

For each column to be enhanced a unique name for the associated text column must be specified. The program automatically creates a proposal as may be seen above.
The icons at the left of the text field names indicate the kind of text relationship.

If the cursor is kept hovering for a while on such an icon the name of the involved table or domain will show up.

All that needs to be done now is to press ✅ (continue). The enhanced result list will then appear:

Notice that each of the enhanced columns is directly followed by a new column with the corresponding descriptive text.

Switch in the User Settings to "field label" and you will notice that the headings of the two columns are identical:

This is done to avoid having to define each heading separately.

For a similar reason the additional text fields do not appear as independent columns when the layout is changed (⊞) – instead they are represented by a checkbox:

Only among the output fields do they attain independence:
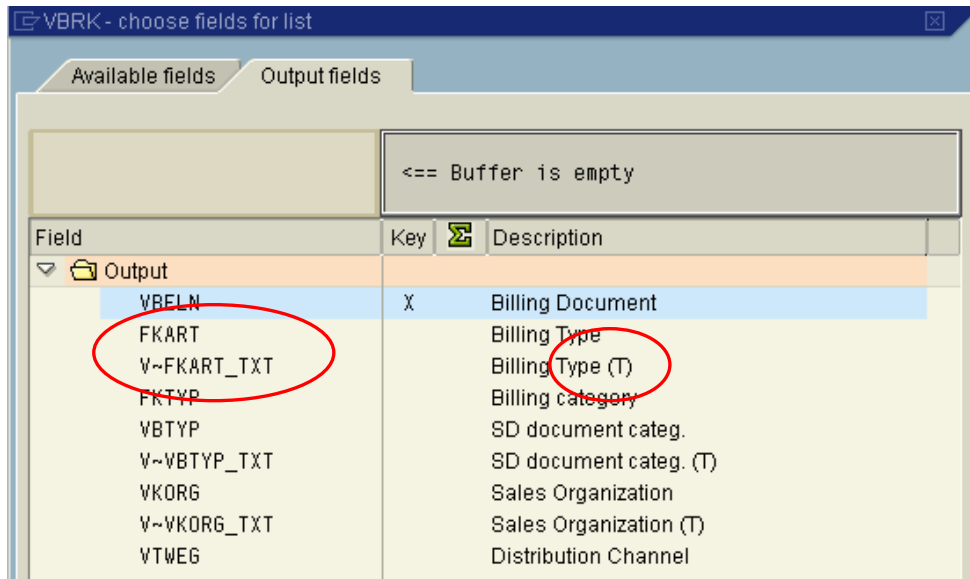
However, to change their position in the list is not advisable.

Notice also that the description of the text columns ends with a (T). This makes it easier to distinguish such columns from the original ones in case only the description is visible, a situation that occurs on some standard dialog boxes, like for example when sorting with ALV grid:
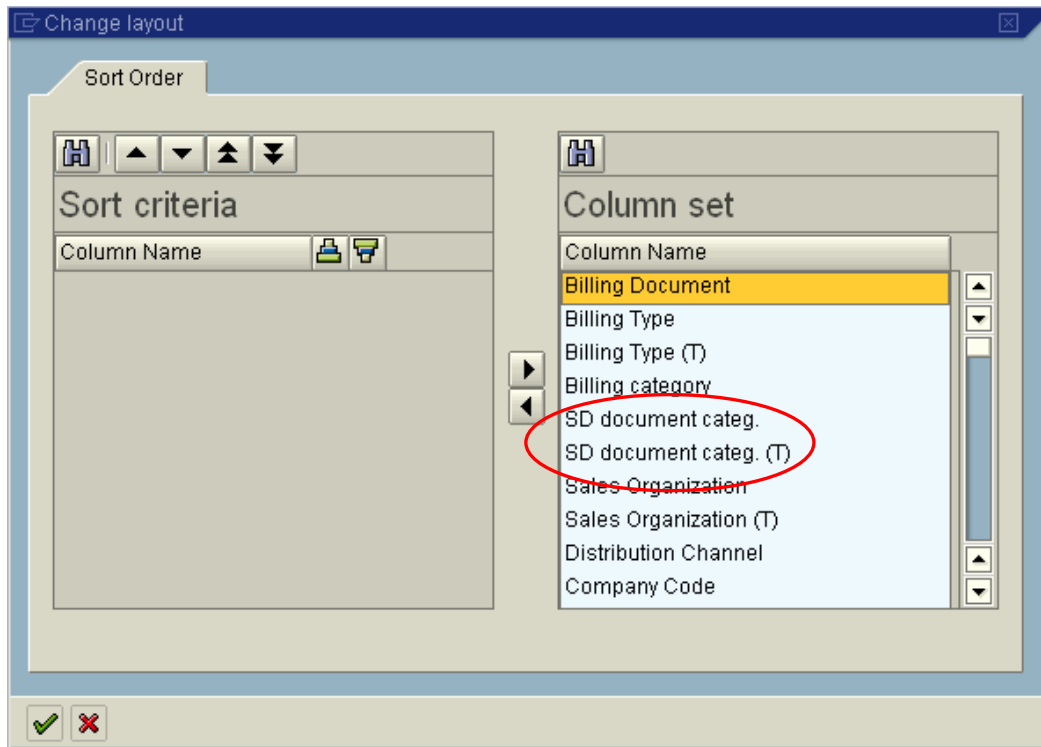
As the attentive reader may have noticed, the descriptive texts are implemented as V(aried) fields. V-fields are normally kept at the rightmost side of the result list. However, separating the descriptive text from its parent column would render the text completely useless. For this reason the two should always be kept side by side.

A similar behavior may be noticed in the detailed view of a result list entry:

Should the necessity arise of examining the row in detail without intermingled descriptive texts, a remedy is easily found: pressing the Merge/Demerge texts button banishes all descriptive texts to the bottom of the detail list:

NOTES:

- Since at most **256 V-fields** may be defined for a given result list, this is also the maximum number of descriptive texts possible.

- For a given list column **only one** descriptive text can be added.

- If for the marked columns no descriptive text can be determined, or if they already have been added, the following message is issued:
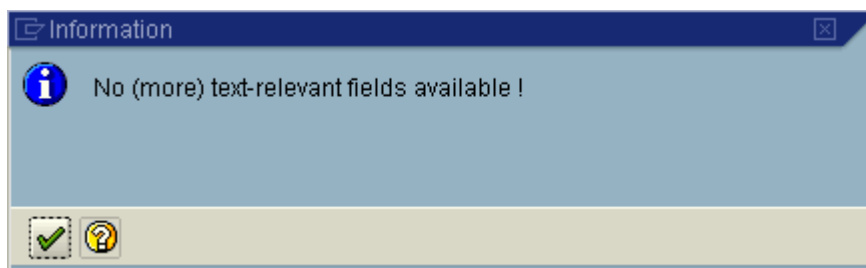
- Table and field permissions **play no role** in the text determination process.

- All descriptive text columns, regardless of their origin, are of type **STRING**. As a result the width of such columns is automatically optimized.

- The "Add text columns" operation also affects any list entries hidden by previous filter operations. When the filter is removed, i.e. the hidden entries are made visible again, their descriptive texts will also become visible.

- Descriptive texts may also be added for other kinds of V-fields, for example formula fields which have been fixed.
  But in this case only the V-field itself is taken into account for determining the text – texts depending on more than one field will thus not be found.
  Example: the text for EKKO-BSART also depends on EKKO-BSTYP.

- For formula fields no descriptive texts may be added. This is due to the fact that a formula may be performed more than once, whereas the adding of descriptive texts is a one-time operation. If descriptive texts are desired, the user must first convert the formula fields to V-fields (Fix Formula Fields).

Alternative way of performing the "Add text columns" operation.

It is not always easy to figure out which list columns could have a descriptive text and which not. Therefore, instead of marking the columns in question the inquisitive user may also perform the operation **without marking any column**. In this case the program reacts by analyzing all output columns of the list and presenting the result on a dialog box:

...
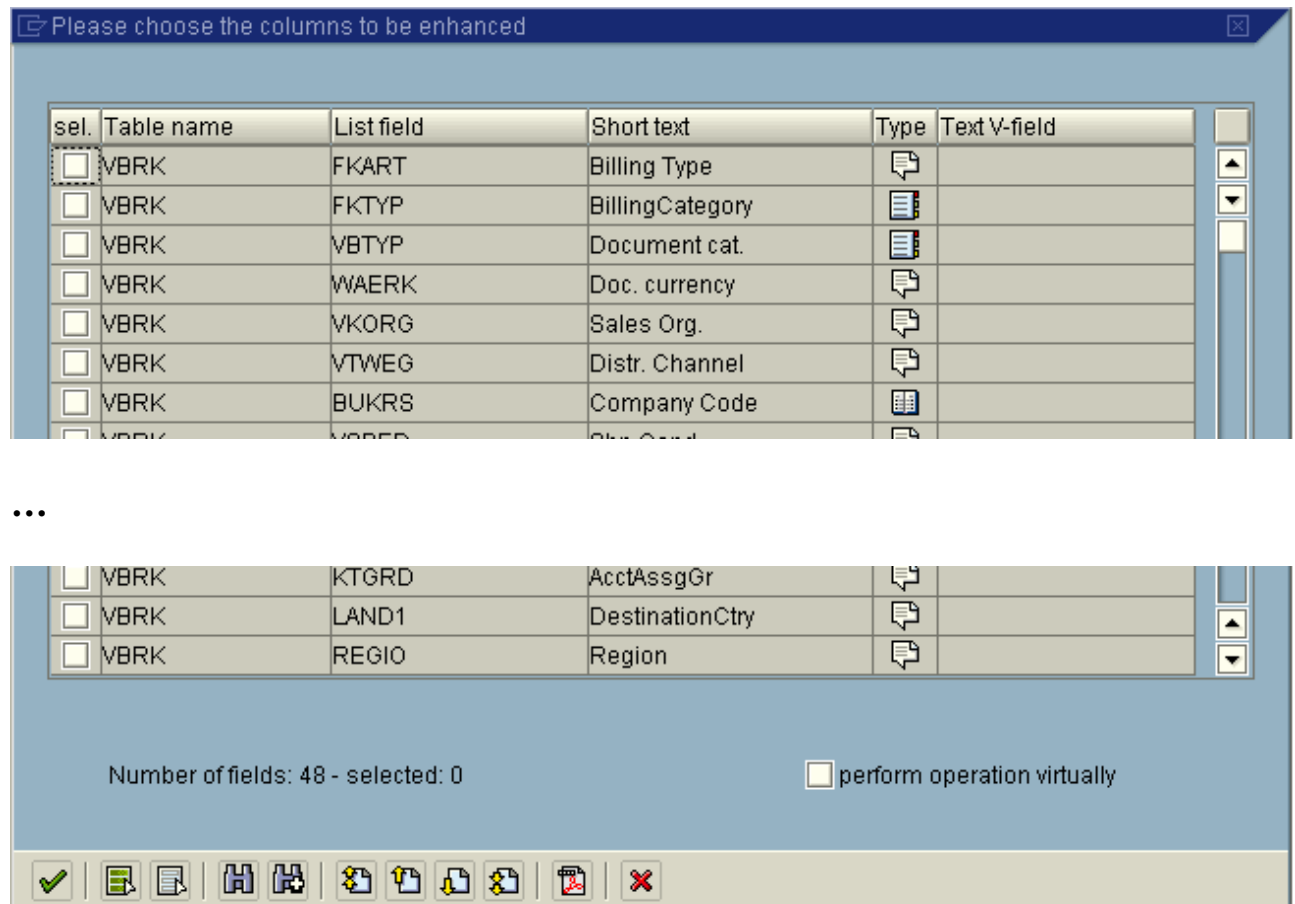
The user may now inspect the list and choose the appropriate columns. As soon as a field is selected a proposal for the V-field name is presented:
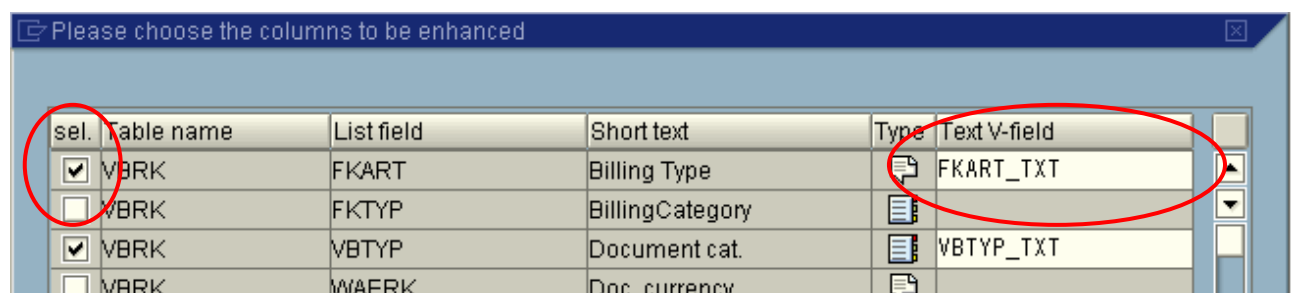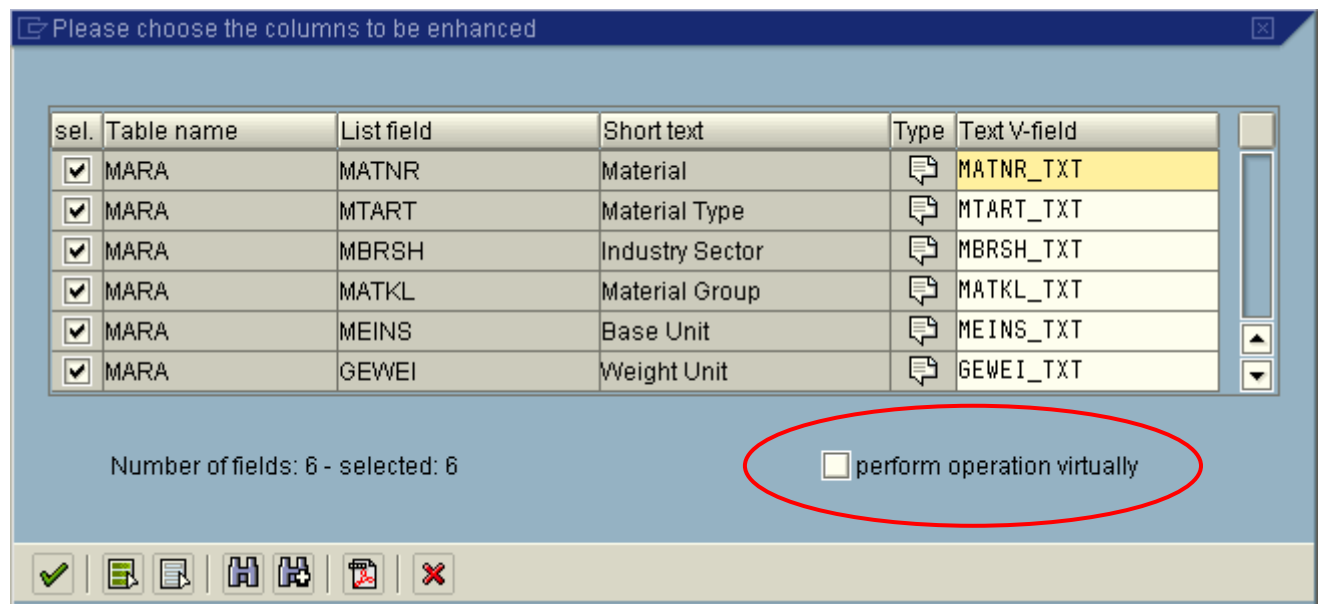
Option "perform operation virtually"

The attentive reader has probably noticed that on the dialog box connected with the "Add text columns" operation a special option is available, to the effect that the operation should be performed in a virtual manner:

This option is not relevant for domain fixed values. In all other cases the involved (text) tables are read independently of the original column values for which the descriptive texts are to be found. The join operation then takes place virtually in main memory.

For tables with a relatively small number of distinct values the performance is probably similar to the normal (i.e. without setting the option) case.
However, with tables involving hundreds of thousands of distinct entries, like for example material numbers, this option could result in a considerable increase in performance.

The inquisitive user should try out both cases and choose the better one.

Primary Text Language

The "Add text columns" operation uses the current logon language for the text determination (except for "special texts" which are language-independent).
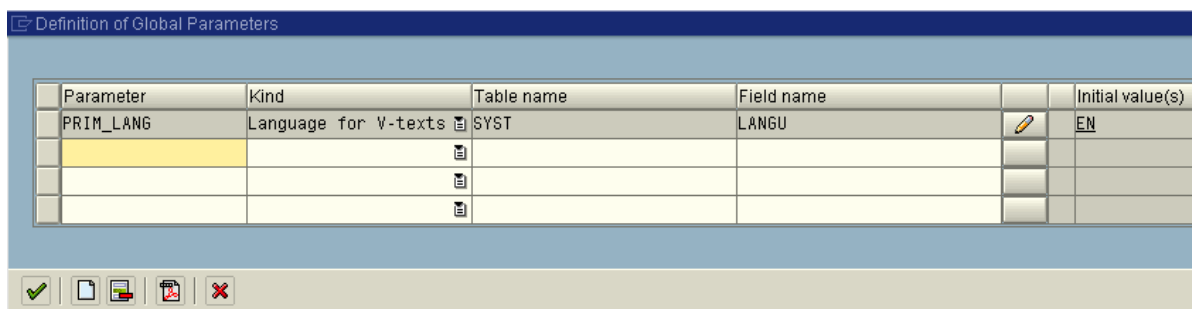This choice may be overridden by means of a global parameter:

Menu *Extras* → *Define global parameters* – the following dialog box appears:
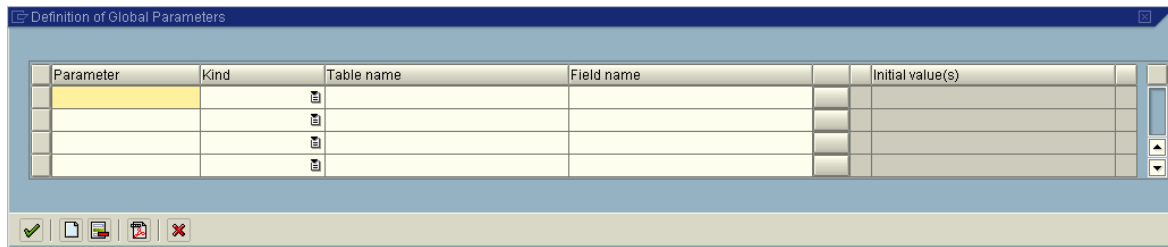
After specifying a parameter name and the kind (Language for V-texts) as follows:
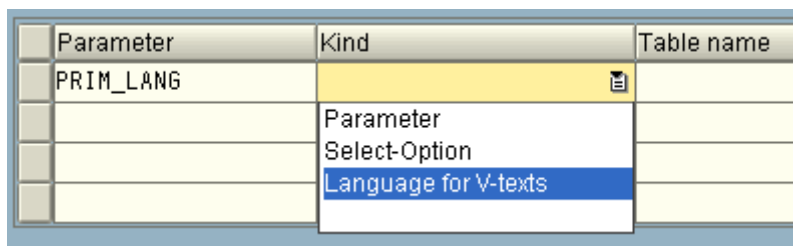
the rest is set up automatically by the program:

The initial value may then be changed by pressing the button at the right.

From now on the "Add text column" operations will make use of the specified primary language.

NOTE: if descriptive texts are inserted **before** the global parameter is defined, its value will be set to the current logon language and **will be inalterable**. The reason is that all descriptive texts of a session should belong to the same primary language.

As for all global parameters, this one also can be put at the disposal of the user by placing it on the **special selection screen** of the script in which it is defined.
The way of doing this will be briefly recapitulated.

- In the script catalog set the cursor on the desired script and press [icon] on the application toolbar.

- Then press [Choose blocks] on the ensuing definition screen.

- Select the "Global parameters" block:

- On the "Global parameters" tab possibly change the corresponding label:

- Press [icon] on the menu bar to save the special selection screen definition.

When the script is performed, the primary language will be available on the selection screen:

Secondary Text Language

Descriptive texts are not always available in all languages. And some texts might not be present for all values of the desired columns. When this happens the involved descriptive texts remain empty.

In order to mitigate these unpleasant effects, it is possible to specify a **secondary language**, to be used in case the primary one is unable to deliver a result.
The specification is carried out in the User Settings on the second tab:

Descriptive texts found by means of the secondary language are set between square brackets **[…]** to indicate this circumstance:

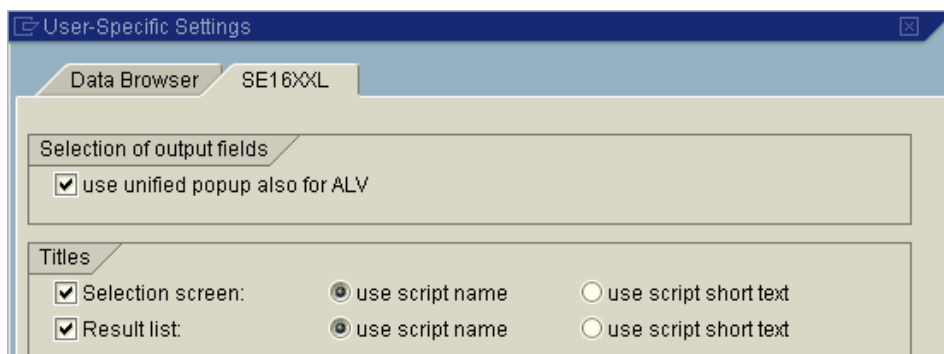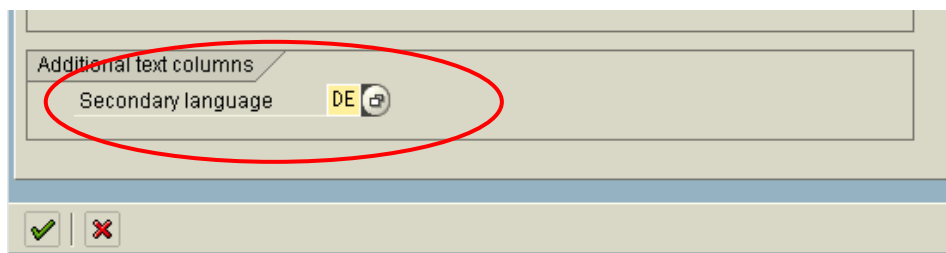|	Material	Material	Sales org.	Distr. Chl	DChain lvl	Matl stats	Rebate grp	Status
	FSB-0042	Cash Pooling	3020	30				
	FSB-0043	Foreign Currency Account	3020	30				
	FSB-0044	Fixed-term deposit	3020	30				
	FSB-0045	Overnight money	3020	30				
	FSC-CELSIUS W340	[CELSIUS W340-012DE]	9000	10				
	FSC-E5700-02DE	[ESPRIMO E5700-02DE]	9000	10				
	FSC-P32661-66DE	[SCENIC P32661-66DE]	9000	10				
	FSC-P5600-01DE	[ESPRIMO P5600-01DE]	9000	10				
	FSC-X102-11LXD	[SCENIC Edition X102-11LXD]	9000	10				
	FSL-M001	Car	3020	30				
	FSL-M002	PC	3020	30				

Table MVKE - Sales Data for Material

List Headings

As the informed user knows, it is possible to change the headings of a result list either directly (Menu *Extras* → *Define headings etc*.) or for a script in the Script Catalog by pressing ▦ on the application toolbar. The corresponding tool has been enhanced in a way similar to the dialog box for selecting the list fields:
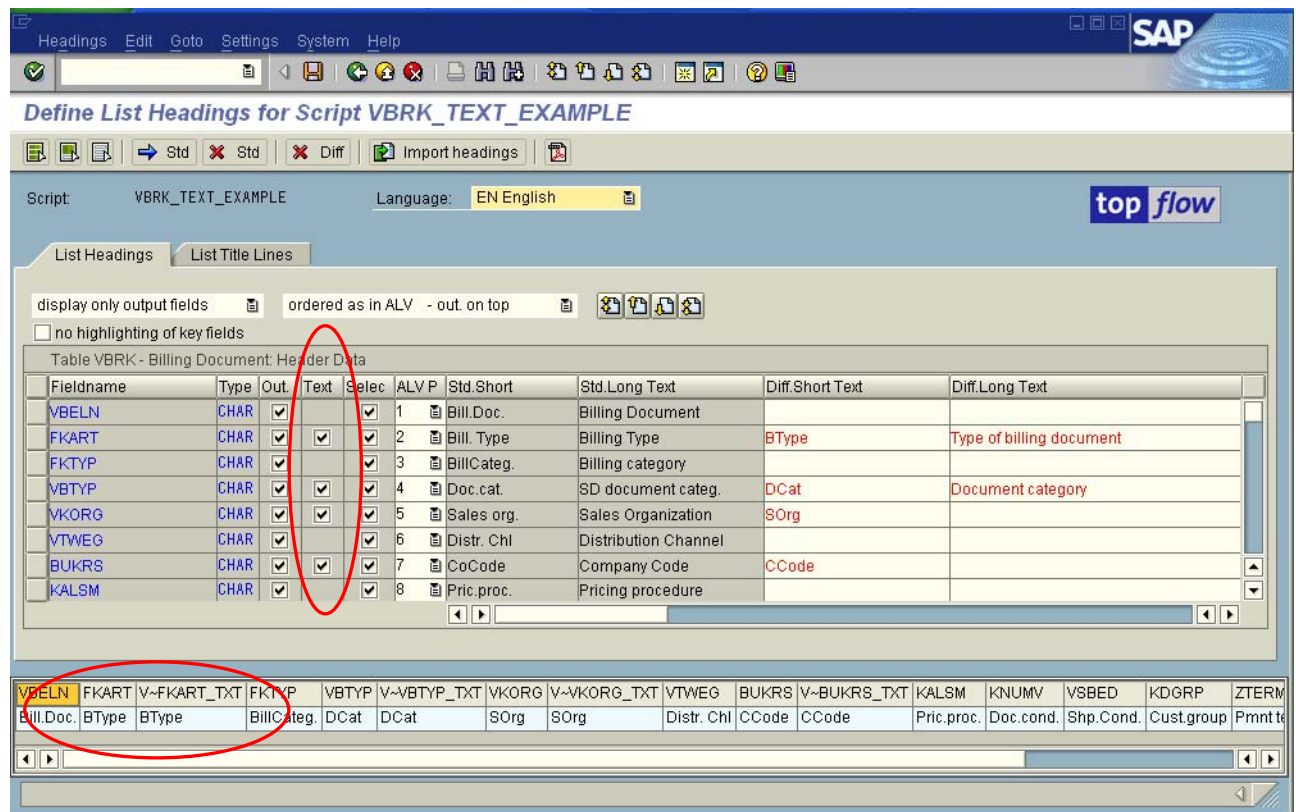
As may be seen in the above picture, a new column "**Text**" has been inserted, which carries a **checkbox** for each field that is provided with a descriptive text. Any differing headings (both short and long) are identical for the original field and its associated descriptive text. The long text of the additional texts is enhanced with a (T) at the end to distinguish it where necessary:

Background Processing

In order to make things easier for the end user the **primary and secondary language** may be specified explicitly when starting a script in background. The involved dialog boxes have been enhanced accordingly.

On the dialog box associated with the **main** SE16XXL selection screen these two languages are always available, since even if the script does not contain any "Add text columns" operations it could still be enhanced in this fashion at a later time. (It must be kept in mind that the script is "referenced", i.e. the newest version is the one used):

If the primary language is specified explicitly, it overrides the global parameter value which may be defined in the script or on the script selection screen.

Obviously these parameters have no effect if the script does not contain any descriptive text operation.

The background processing initiated from a script selection screen is slightly different. In this case the script is "**embedded**" (i.e. copied) into the background request and thus remains unchanged through all background runs (if it is periodical).

If the script does not contain any "Add text columns" operations, there is no need to specify the associated language parameters on the dialog box.

But if this kind of operation is present, the primary and secondary languages will be available on the dialog box:

The language specifications are saved with the background request and can be seen in the "Overview of Background Jobs / Requests":