How to define a substitution in FI with an example.

1. What is the substitution?

The substitution function can be used to substitute a value to some fields which is included in line item table BSEG or header table BKPF. And the substitutions are valid for both the manual entry of documents and the automatic created entry of documents (for example, payment program).

2. How to define a substitution?

You can define a substitution via call points (0001 is for substitution in document header level; 0002 is for substitution in document line item level; 0003 is a substitution for a complete document) in Tcode OBBH, and via the prerequisite, you can know when the substitution works. For example, if call up point = '0002', and prerequisite is user name = 'XXXX', substitute 'AAAA' into BSEG-SGTXT field. Then the 'AAAA' will be substituted into SGTXT field when FI document is posted by user "XXXX". For the detail please refer to IMS activities.

The following example for explaining how to define a substitution by using constant value.

Example: substitute a constant value "AAAA" into BSEG-SGTXT(Text) field in company code Z013 by user I028612.

(1) In Tcode OBBH, create a entry in call point 2, then double click this entry.

(2) Press Substitution button, enter the substitution name in substitution field, press enter, then the 'TEST' is listed under node 'line items' in the left Substitutions area as follow:

(3) Press step button or (CTRL+SHIFT+F5), then tick the field into which you want to substitute a value (for this example is BSEG- SGTXT).
(4) Press enter, then select the radio button of "Constant value" if you want to substitute a value into a field, or select the radio button of "EXIT" if you want to substitute a value by a User Exit.

How would you like to substitute field BSEG-SGTXT?

With:
- Constant value
- Exit
- Field - Field assignment

(5) Press enter, the following screen is displayed.

(6) Press "Prerequisite" in the left side under 'TEST' for defining when this substitution works.
For this example I define a substitution will work when user name = 'I028612' and company code = 'Z013').

A: Double click the Structure SYST( because user name field is in this table):

B: The find the SYST-UNAME field, and double click it:

C: Press '=' in the status part (there are others like '<>', 'And', 'Or' ext.):
D: Press constant button, then enter the value of SYST-UNAME. For this example, user ID = 'I028612':

E: Then the one prerequisite is defined as follow successfully:

F: Press the go back button (the arrow button in below screen):

G: Then you can continually define other prerequisite, in this case using the same steps described above from A to E to define BKPF-BUKRS = 'Z013' as well, after this definition, the whole prerequisite for this example is defined completely as below:
(7) Press ‘Substitution’ in the left side under substitution ‘TEST’, define a constant value as “AAAA” in text field (BSEG-SGTXT), then save it:

(8) Activate this substitution in Tcode OBBH with value ‘1’ (‘0’ means Inactive; ‘1’ means Active; ‘2’ means Batch input processing):

(9) Go to Tcode FB01 to create a line item in company code Z013 by this user to check whether the substitution works.
Before press Enter: Text field is black.

After press enter-> substitution works, Text field is substituted as "AAAA".
You can also use the same way to define a substitution in call point 1 and call point 3.

Addition, you can define your own substitution exit in the program that you defined in Tcode GCX2->application area GBLS from Tcode SE38, then select Exit in step (4) and assign this exit to EXIT field as below:

In case you define a substitution correctly, but it still doesn’t work, please try to regenerate the program by using report RGUGBR02 in Tcode SE38.

Moreover, from my experience to view, I think this function is more flexible, because we can realize the substitution NOT ONLY via SAP standard substitution function, BUT ALSO via writing source codes in an EXIT according to customer own specific business requirements if SAP standard substitution function can not fulfill customers’ requirements.

But please pay attention to that the substitution can not be defined for any field, Especially for some important fields. For example: PRCTR, it can make some inconsistency between FI and CO-PCA if substitution is defined for PRCTR. There is explanation in note 42615.

And in NEW G/L, the PRCTR in vendor/customer lines are populated from the offsetting account. But if PRCTR is substituted to the vendor/customer line items in the entry view, it can lead to inconsistency between entry view and New G/L view.

For example:

you post the following document, in the entry view the following document is created:

```
PRCTR by substitution
31 vendor 1000  PRCTR3 /40 expense 1 400  PRCTR1
40 expense 2 600  PRCTR2
```

But in the NEW G/L view, the following document is created:

```
PRCTR by document splitting  PRCTR
```
<table>
<thead>
<tr>
<th>Date</th>
<th>Vendor</th>
<th>Amount</th>
<th>Account</th>
<th>Description</th>
<th>Account Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>1000</td>
<td>400</td>
<td>/40</td>
<td>expense 1</td>
<td>400 PRCTR1</td>
</tr>
<tr>
<td>31</td>
<td>1000</td>
<td>600</td>
<td></td>
<td>expense 2</td>
<td>600 PRCTR2</td>
</tr>
</tbody>
</table>

The result is in the entry view "there is PRCTR3 in PRCTR field", but in the new G/L view is "there are PRCTR1 and PRCTR2 in PRCTR field", that is inconsistency.

Addition, there is another limitation that the substitution works for "complete document" and posting a document, but NOT for parked document (like park document in FBV1).