



ABAP ENHANCEMENT SAP

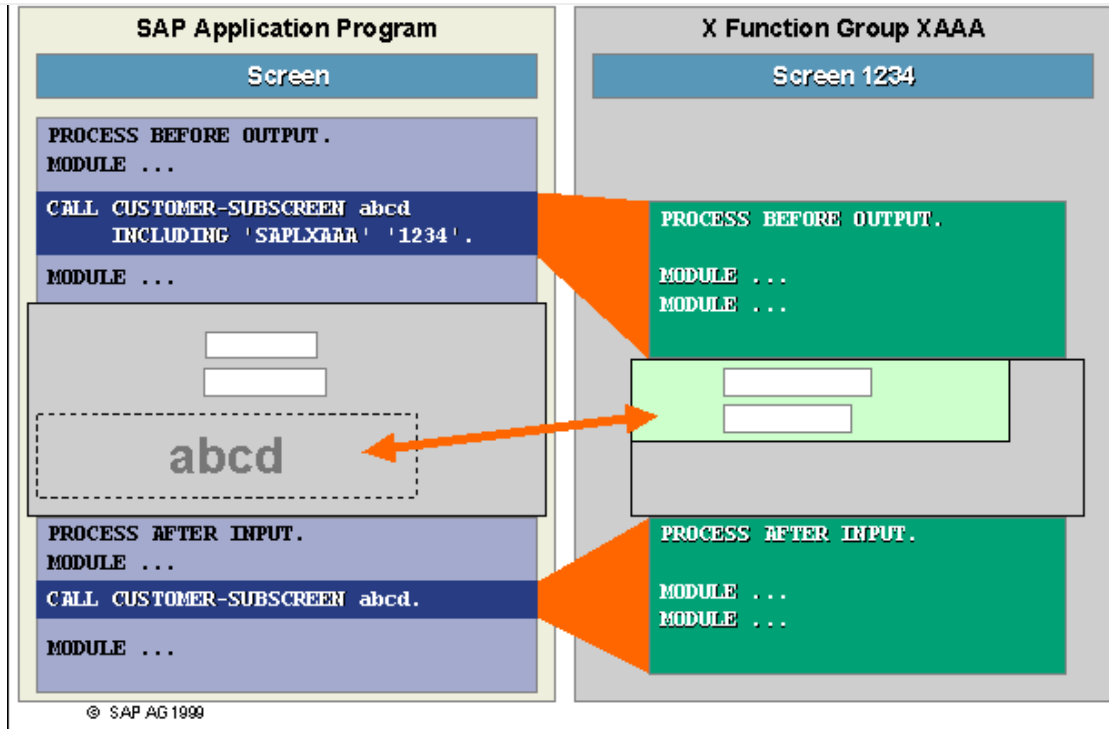
Tutorial on how to work with the SCREEN EXIT

August 10, 2017

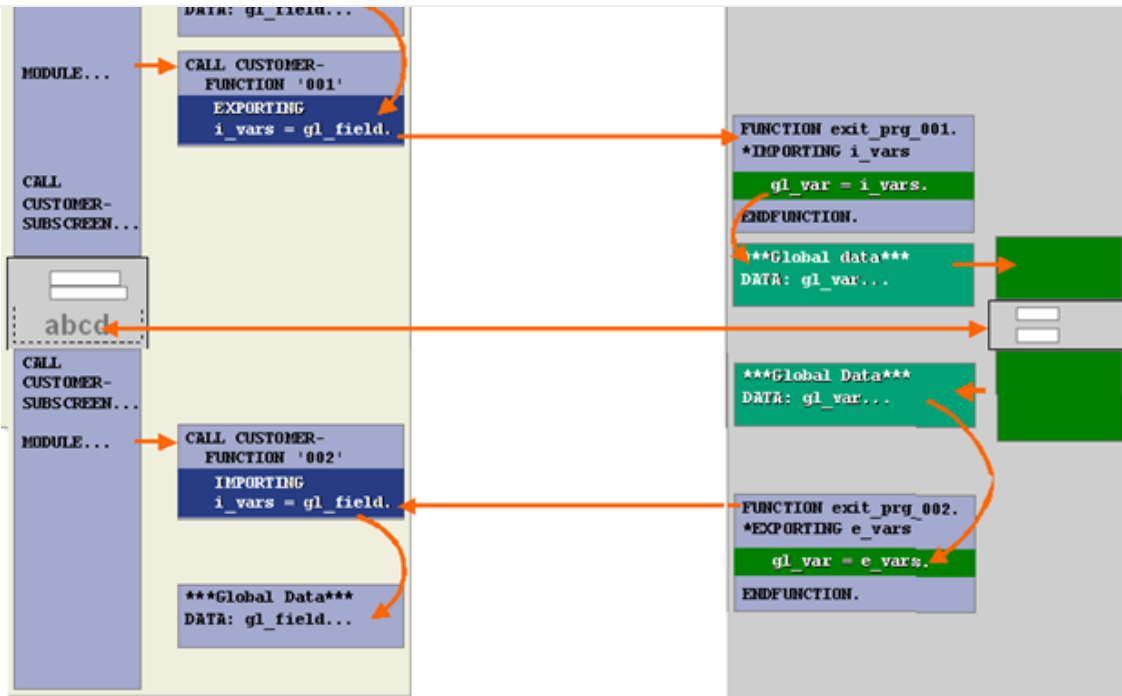


Before we start with this article of how to create a screen EXIT have a look into the below image.





- Whenever the statement `CALL CUSTOMER-SUBSCREEN <area> INCLUDING <X-function-pool> <screen_number>` occurs at PBO in the flow control of a screen, a subscreen is included in the subscreen area defined by SAP application programmers. At this point, all modules called during the PBO event of the subscreen are also processed.
- The PAI event of a subscreen is processed when the calling screen calls the subscreen during its PAI event using the statement `CALL CUSTOMER-SUBSCREEN <area>.`



- The global data of the calling program is not known to the X function group that contains your subscreen; SAP application programmers use function module exits to explicitly provide this data to subscreens.
- In order to facilitate data transport, modules are called in the flow control of the calling program that contain function module exits for transferring data via interface parameters.
- Function modules belonging to these kinds of function module exits can be found in the same function groups as their corresponding subscreens.
- Data must be transported in the other direction as well, since global data from the X function group that contains your subscreen is not known to the calling program either. For this reason, SAP application programmers use function module exits to return any data to the calling program that was changed in the subscreen.
- This is done by calling a module during the main screen's PAI event that contains a function module exit for returning customer data via interface parameters.

So In simple words Screen exit also require Two function module exits to make it to stand properly.

Starting with the Practical:

Below is ME22N screen, Now the requirement is to modify it with few extra fields into item level data.



The screenshot shows the SAP MRP PO header and item details. The header includes fields for PO Number (4500188555), Vendor (81119 OSG NORWICH PHARMACEUTICALS), and Document Date (14.04.2010). The item details table shows a single item with Material MS512002YDP, Short Text PROZAC LIQUID 20MG/5ML 120ML X1, PO Quantity 79.127.149 EA, and Net Price 569.00 USD. The item is in a 'Finished Product' status. Below the table, there are tabs for Material Data, Quantities/Weights, Delivery Schedule, Delivery, Invoice, Conditions, Account Assignment, Texts, Delivery Address, Confirmations, and Condition Control. The 'Conditions' tab is active, showing 'Print Price' and 'Estimated Price' options. A watermark image of a man in a suit is visible on the right side of the screen.

S.	Item	A	I	Material	Short Text	PO Quantity	OU	C	Deliv. Date	Net Price	Cumen.	Per	QPU	Matl Group
1	F	L		MS512002YDP	PROZAC LIQUID 20MG/5ML 120ML X1	79.127.149	EA		14.04.2010	569.00 USD	1		EA	Finished Product

Step 1: CMOD is the transaction code using which we can use this components

Go to Transaction code CMOD -> Enter the Project name As ZDEPO (you can give any name).

The screenshot shows the 'Project Management of SAP Enhancements' window. The 'Project' field is set to 'ZDEPO'. The 'Subobjects' list includes 'Attributes', 'Enhancement Assignment', 'Components', and 'Documentation'. The 'Enhancement Assignment' option is selected. The 'Display' and 'Change' buttons are visible at the bottom.

Step 2:

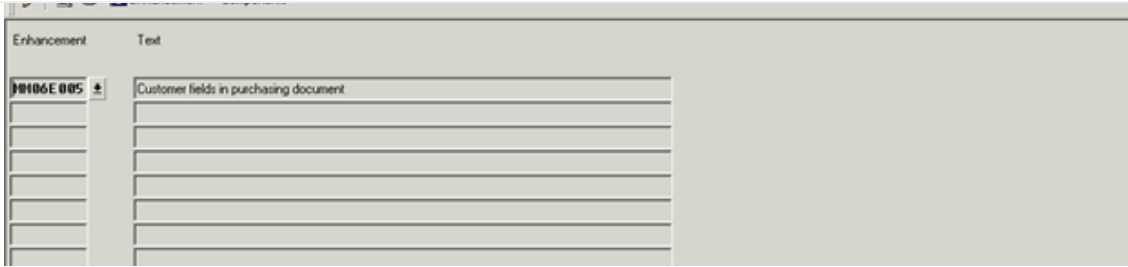
Click on the button Enhancement Assignment

Include this Enhancement **MM06E005** (Transaction code SMOD is used to find the proper enhancement needs to be used)

Read article [Enhancement in SAP](#) to know how to find out appropriate enhancement.

We have already discussed how to find the respective component for your change.





Step 3:

Click on Components Button.

You can see the below components into your Project:

It is having Function EXITs, Screen EXITs and few includes for the table.

As we have discussed you want to Display Extra fields into ME22N screen.

Double click on the CI_EKPODB it will take you to SE11 screen.

Project			ZDEPO Depolabo User Exit
Enhancement	Inpl	Exp	005 Customer fields in purchasing document
Function exit	✓	✓	EXIT_SAP006_006 EXIT_SAP006_007 EXIT_SAP006_008 EXIT_SAP006_009 EXIT_SAP006_012 EXIT_SAP006_013 EXIT_SAP006_014 EXIT_SAP006_016 EXIT_SAP006_017 EXIT_SAP006_018
Screen exit	✓	✓	SAP006 0101 CUSTSCR1 SAPLX06 0101 SAP006 0111 CUSTSCR1 SAPLX06 0111 SAP006 0201 CUSTSCR1 SAPLX06 0201 SAP006 0211 CUSTSCR1 SAPLX06 0211 SAP006 0301 CUSTSCR1 SAPLX06 0301 SAP006 0311 CUSTSCR1 SAPLX06 0311
Include tables	✓	✓	CI_EKPODB CI_EKPODB

Step 4:

Include the field which you want to Show or enhance.

Here we have used field ZZPOTYP which is of type Char4. Save it and activate it.

(Note: it may take long time to activate as this field will be inserted into EKPO table.)



Structure	CI_EKP0DB	Active
Short Description	enhancement for EKPO	
Attributes	Components	Entry help/check
	Currency/quantity fields	
Predefined Type		
1 / 1		
Component	RType	Component type
ZZPOTYP	<input type="checkbox"/>	CHAR4
		CHAR
		4
		0
Not More Closely Defined Area, Possibly Used for Patchlevels		

Step 5:

Click on the BACK button and go back to the below screen. Now you can design visual part of your work.

Double click on the Screen EXIT 0111.It will take to you to Screen painter Se51.

Display ZDEPO			
Project Edit Goto Environment System Help			
Enhancement assignments Enhancement			
Project		ZDEPO Depolabo User Exit	
Enhancement	Inpl	Exp: H006E005 Customer fields in purchasing document	
Function exit	✓		EXIT_SAP0H06E_006
	✓		EXIT_SAP0H06E_007
	✓		EXIT_SAP0H06E_008
	✓		EXIT_SAP0H06E_009
	✓		EXIT_SAP0H06E_012
	✓		EXIT_SAP0H06E_013
	✓		EXIT_SAP0H06E_014
	✓		EXIT_SAP0H06E_016
	✓		EXIT_SAP0H06E_017
	✓		EXIT_SAP0H06E_018
Screen exit	✓		SAP0H06E 0101 CUSTSCR1 SAPLX06 0101
	✓		SAP0H06E 0111 CUSTSCR1 SAPLX06 0111
	✓		SAP0H06E 0201 CUSTSCR1 SAPLX06 0201
	✓		SAP0H06E 0211 CUSTSCR1 SAPLX06 0211
	✓		SAP0H06E 0301 CUSTSCR1 SAPLX06 0301
	✓		SAP0H06E 0311 CUSTSCR1 SAPLX06 0311
Include tables	✓		CI_EKK0DB
			CI_EKP0DB

Step 6:

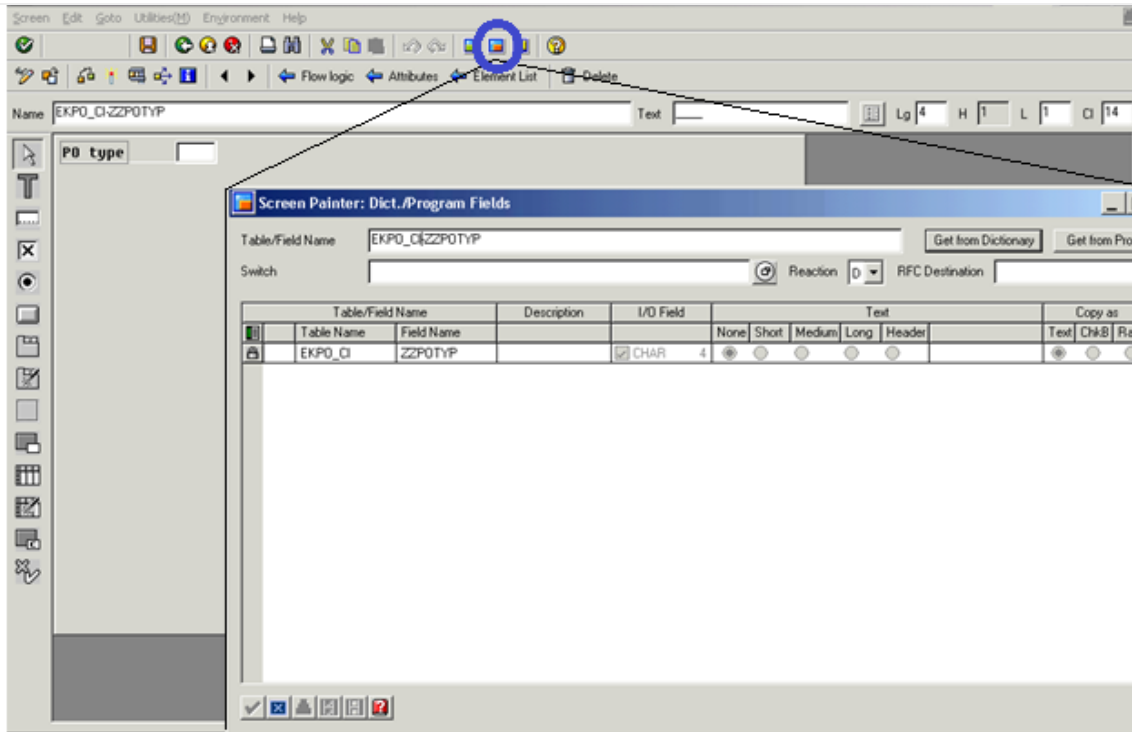
Click on the layout button in the screen. And create label and text field.

Here we are going to insert our created field ZZPOTYP.

Click on the button Dict./Program fields.

Enter the Table/Field name as: EKPO_CI-ZZPOTYP and click Get from Dictionary button.

Select that field and insert it into the screen.



Step 7: Again go back to the below screen using back button.

Till now we have created a SCREEN. (First image of this article: Calling customer subscreen).

Now we need to implement Two Function EXIT to transfer data to the sub screen and to read the data from the subscreen .

Here Function EXIT:

EXIT_SAPMM06E_016.-> use to transfer data to the subscreen.

EXIT_SAPMM06E_018.-> use to get the data back from the subscreen.

Double click in the First 016 exit it will take you to the function module, you will find one include

`INCLUDE ZXMM06U41.`

Double click on this include and create it. Put your code to initialize the variable EKPO-ZZPOTYP here.



Project			ZDEPD Depolabo User Exit
Enhancement	Inpl	Exp	W006E005 Customer fields in purchasing document
Function exit	✓	✓	EXIT_SAPMM06E_006 EXIT_SAPMM06E_007 EXIT_SAPMM06E_008 EXIT_SAPMM06E_009 EXIT_SAPMM06E_012 EXIT_SAPMM06E_013 EXIT_SAPMM06E_014 EXIT_SAPMM06E_016 EXIT_SAPMM06E_017 EXIT_SAPMM06E_018
Screen exit	✓	✓	SAPMM06E 0101 CUSTSCR1 SAPLX06 0101 SAPMM06E 0111 CUSTSCR1 SAPLX06 0111 SAPMM06E 0201 CUSTSCR1 SAPLX06 0201 SAPMM06E 0211 CUSTSCR1 SAPLX06 0211 SAPMM06E 0301 CUSTSCR1 SAPLX06 0301 SAPMM06E 0311 CUSTSCR1 SAPLX06 0311
Include tables	✓	✓	CI_EKK00B CI_EKP00B

*_016 & *_018 are used for data transfer

Step 8:

For learning purpose we have just use a single line of code to make it easy.

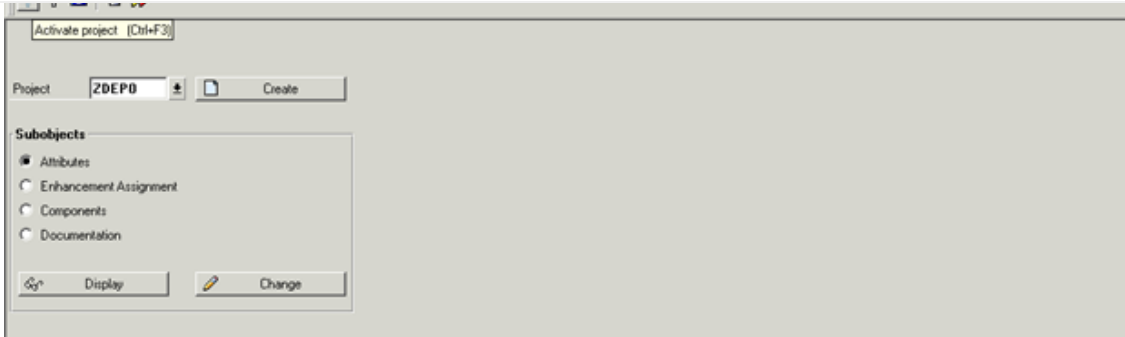
EKPO_CI-ZZPOTYP = 'ABCD'.

```
ABAP Editor: Display Include ZXMM06U41
Program Edit Goto Utilities Environment System Help
Include ZXMM06U41 Active
1 *-----*
2 * Include      ZXMM06U41
3 *-----*
4 EKPO_CI-ZZPOTYP = 'ABCD'.
```

Step 9:

Same way you can use the EXIT: EXIT_SAPMM06E_018. For reading the value if use modify it in screen.

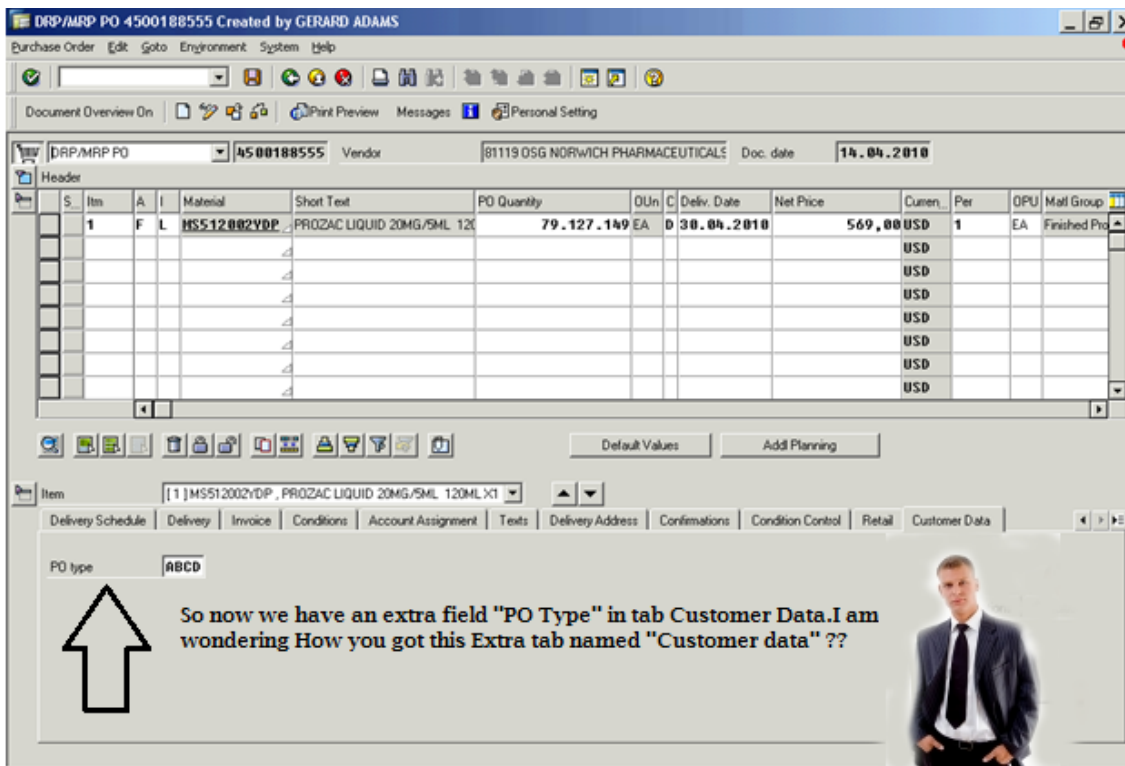
For time being ignore this step. And Go back Again to the CMOD screen and **Activate your project ZDEPO.**



Step 10:

Go to transaction code ME22N open any existing PO. You can see an extra tab is added into ITEM detail

Customer Data. Which will have your new field ZZPOTYP.



This Extra tab **Customer Data** is added by standard SAP code. Whenever it finds any active screen exit while execution, it will activate this tab. (Note: screen 0111 which we have used is defined under "Customer Data" tab.)

1 Comment





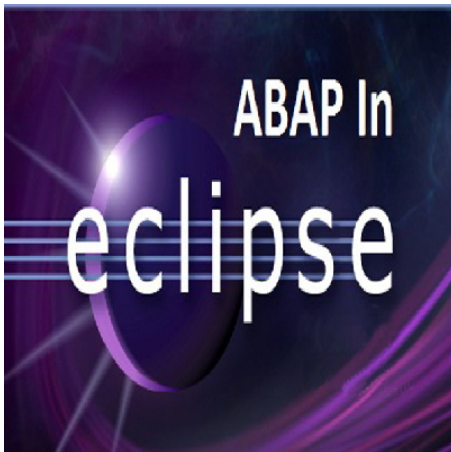
raju borda

Raju is working with Technical areas like SAP ABAP, PI, Web design, JAVA, PBT, robotics as architect also functional areas like SCM, QM, MM, insurance. When he is not doing above geeky things you might find him travelling, cooking, dancing or drinking with friends :-).

[Tutorial on How to work with Menu EXIT](#)

[Layer aware debugging in SAP ABAP video blog](#)

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1 COMMENT

MAINAK AICH

June 18, 2018 at 5:19 am

Hi Roy,

Thanks for sharing such a simple and self explanatory article. One point which I notice is misleading, In the 2nd screen shot, where you are showing the flow of execution, there the content of the F exit_prg_002 will be e_vars = g1_var. [⬆](#)

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