

How to Setup and Execute Data Manager Package on Behalf of another User



Applies to:

SAP Business Planning and Consolidation 7.5 version for NetWeaver, SP04 and higher

Summary

Currently BPC NW only supports running a package on behalf of the users who start them.

In this business scenario for integration purposes the business wants to execute script logics to pull or push data from one application into another. Normally end-users who execute this kind of script logic must have access to both the source and the target applications. However, on daily basis the users work only with one of the applications and do not need to have read or write access to another application.

For this purpose it might be worthwhile to run integration script logic on behalf of special user who has sufficient rights to the applications in order to read from the source application and write to the target.

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Company: SAP

Created on: 1 December 2011

Author Bio



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Background Information

This how-to guide will demonstrate a procedure how to configure a process chain, data manager package and scrip logic files to achieve the goal of executing the data manager package on behalf of another user (integration user).

The concept of the approach is the following:

1. End-user starts the configured data manager package
2. The package triggers a custom process chain.
3. The process chain executes a script logic file
 - The script logic file runs a BAdI which temporary changes the end-user id to the devoted integration user id.
 - Then it runs the main script which reads and writes data.
 - Then it changes the integration user id back to the end-user id via the BAdI.

Please read carefully the following note before implementing this how-to guide.

- Due to the script logic will be executed on behalf of an integration user, relative operations such as read and write back will be executed by this user.

Prerequisites

Required/recommended expertise or prior knowledge

- SAP BusinessObjects Planning and Consolidation 7.0, version for SAP NetWeaver, SP09 and higher
- SAP BusinessObjects Planning and Consolidation 7.5, version for SAP NetWeaver, SP04 and higher
- ABAP programming skills
- Access to SAP NetWeaver transaction codes: SE18, SE19, SE80, RSPC
- Developer key for NetWeaver user.

Additional Documentation

- RKT Online Knowledge Product <http://service.sap.com/rkt> On the left hand side, navigate to SAP Ramp-Up Knowledge Transfer -> SAP BusinessObjects EPM Solutions -> SAP BO PC 7.5, version for SAP NetWeaver
- HTG explains how to make a process chain <http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/20f4252d-98ca-2b10-e689-f85085ae2d12?QuickLink=index&overridelayout=true>
- Script Logic for SAP BusinessObjects Planning and Consolidation for NetWeaver <http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/e025fa8d-1c22-2e10-cd9f-c488c7eeadd4?QuickLink=index&overridelayout=true>

Other EPM How-To Guides

- <http://wiki.sdn.sap.com/wiki/display/BPX/Enterprise+Performance+Management+%28EPM%29+How-to+Guides>

SAP Help Library – Business Add Ins

- http://help.sap.com/saphelp_nw70/helpdata/en/8f/f2e540f8648431e1000000a1550b0/frameset.htm

Step-by-Step Procedure

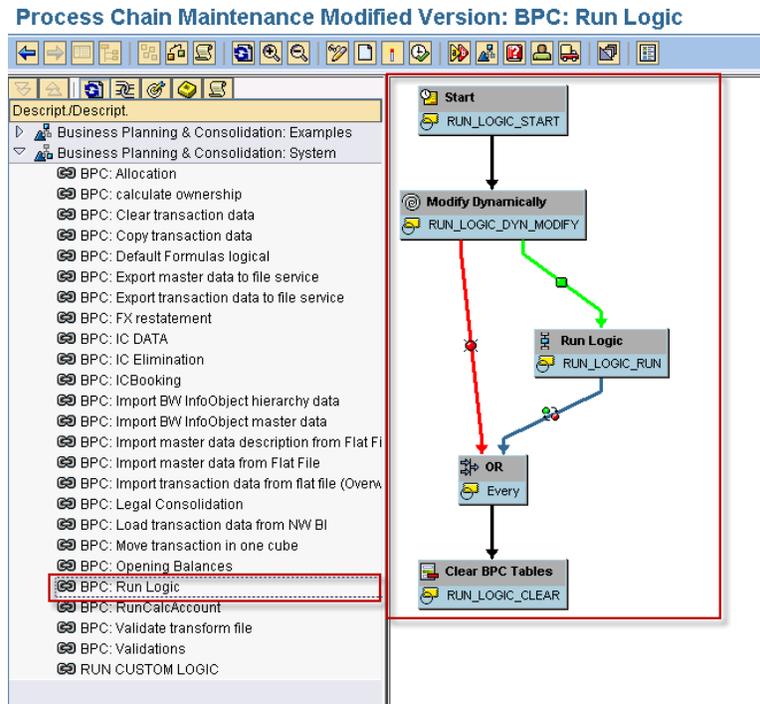
The following steps describe how to implement the desired functionality.

Create Process Chain

Please refer to the following HTG and create a simple process chain to run a custom script logic.

<http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/20f4252d-98ca-2b10-e689-f85085ae2d12?QuickLink=index&overridelayout=true>

The process chain should look similar to the following



Please notice that in this example I used RUN_LOGIC_RUN name for Run Logic step, hence the definition of a data manager package in appendix is for the name RUN_LOGIC_RUN. If you've used different name you will need to adjust the code in appendix.

Create a BAdI Implementation

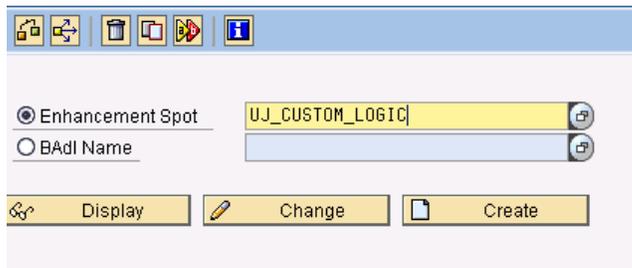
A BAdI implementation is the term used in the Enhancement Framework for an enhancement implementation element. A BAdI implementation consists of a BAdI implementation class that implements the BAdI interface. The BAdI implementation also contains a filter condition which is specified in the BAdI definition. This filter condition can be used to execute the BAdI implementation at runtime.

1. Log on to NetWeaver and enter SE18 transaction

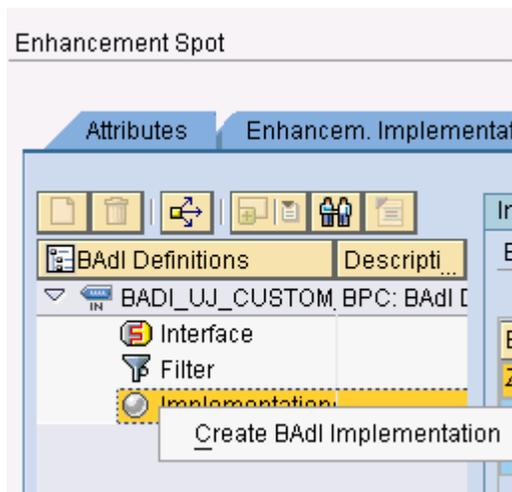


2. Select UJ_CUSTOM_LOGIC and click Display

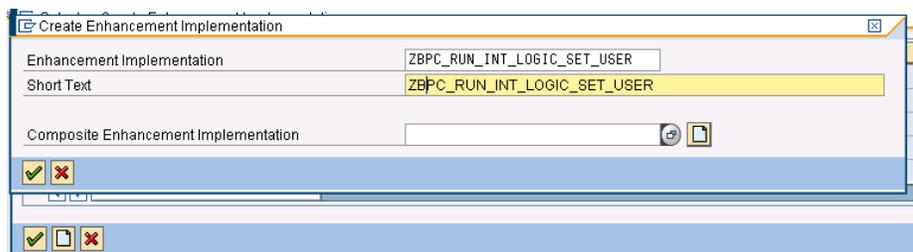
BAdI Builder: Initial Screen for Definitions



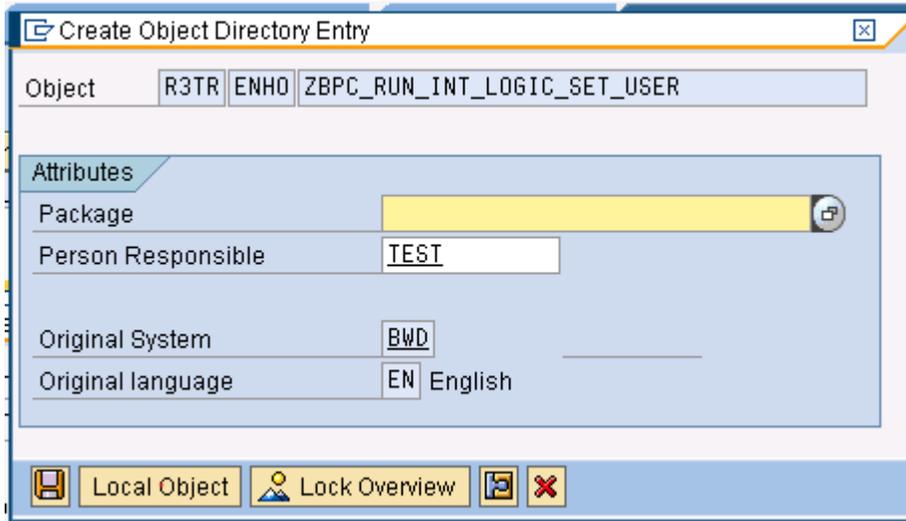
- Expand BADI_UJ_CUSTOM_LOGIC and right-click on Implementation, select Create BAdI Implementation



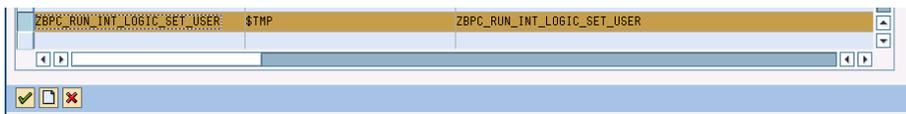
- Click New and provide name and description
 ZBPC_RUN_INT_LOGIC_SET_USER
 ZBPC_RUN_INT_LOGIC_SET_USER



- Click OK. Click Local Object

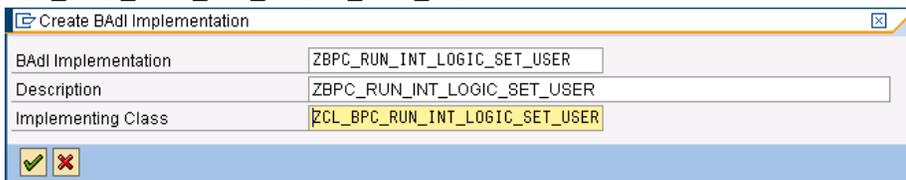


6. Select the created object and click ok.

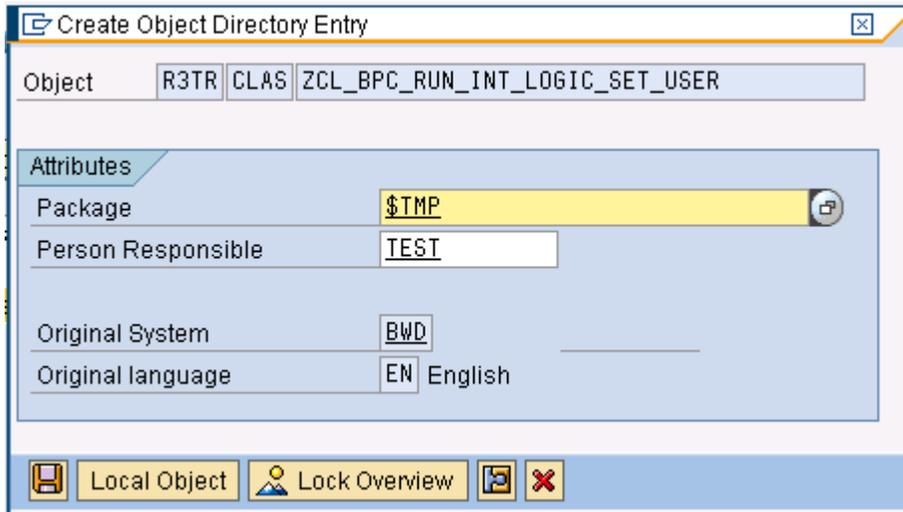


7. Provide the following BAdI implementation name, description and class name.

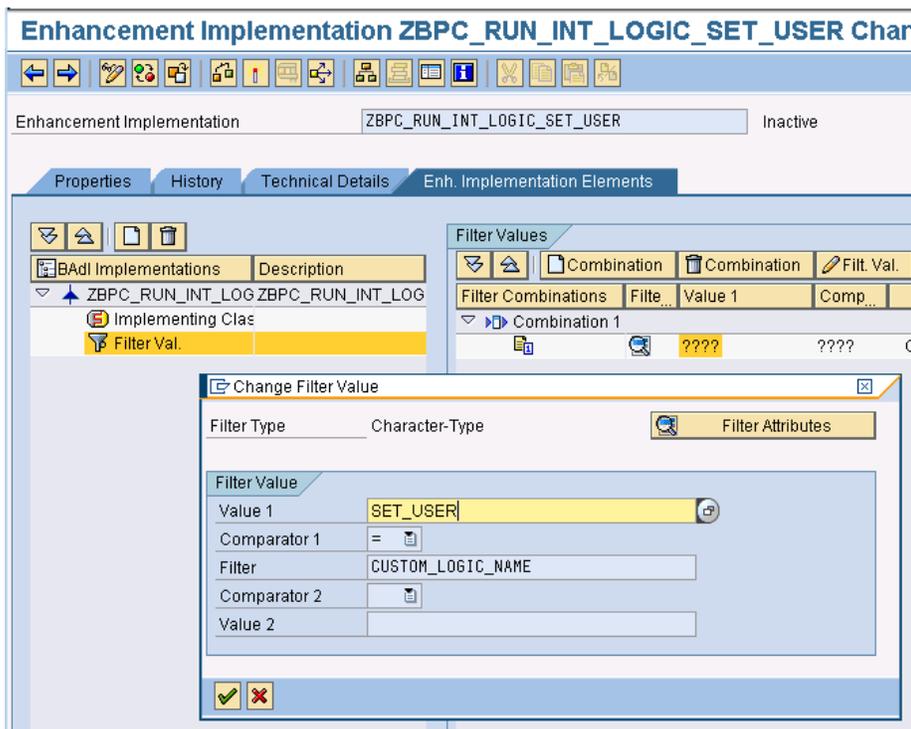
ZBPC_RUN_INT_LOGIC_SET_USER
 ZBPC_RUN_INT_LOGIC_SET_USER
 ZCL_BPC_RUN_INT_LOGIC_SET_USER



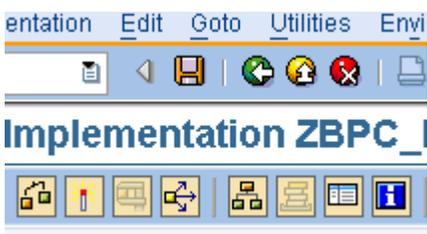
8. Click Local Object if asked



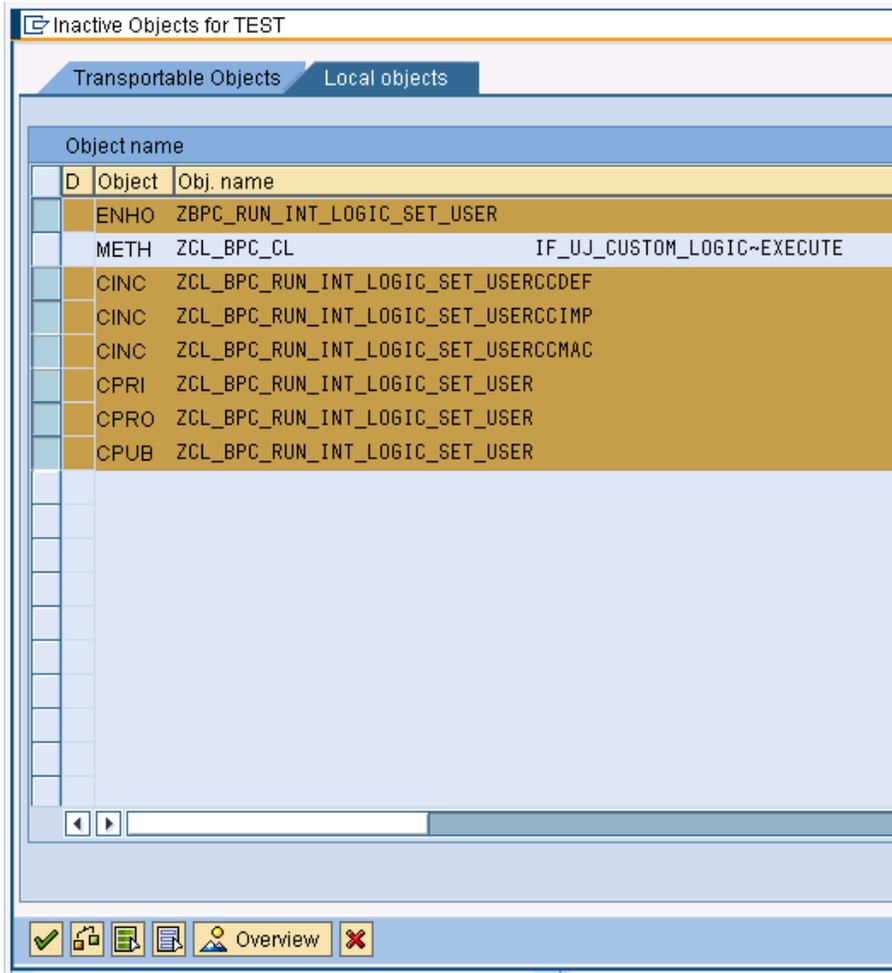
- Expand ZBPC_RUN_INT_LOGIC_SET_USER and double click on Filter Val. Click on Modify, Combination, double click on ??? under Value 1, provide Value 1 as SET_USER.



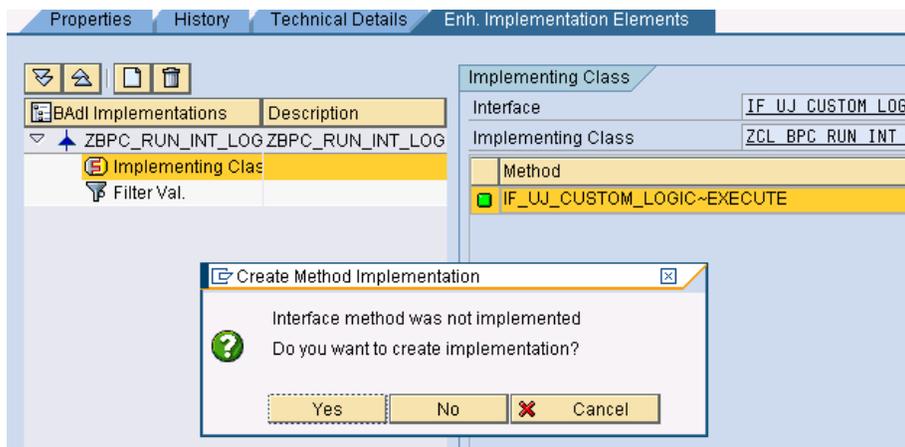
- Click OK, save and activate.

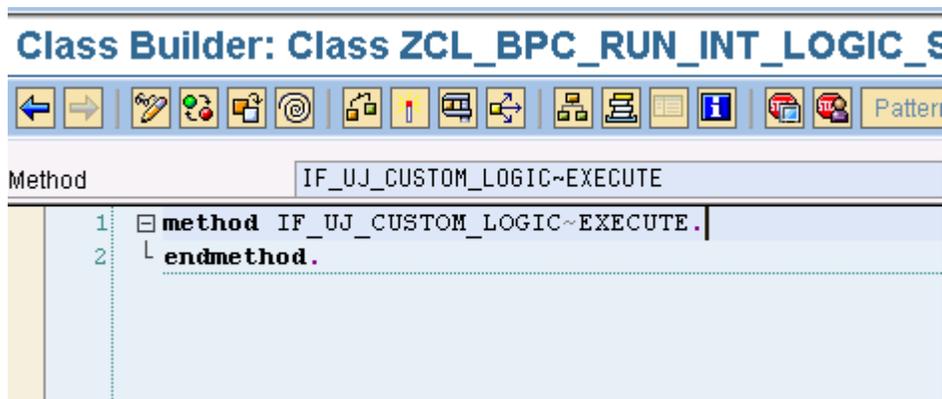


11. When activating select the objects and click ok

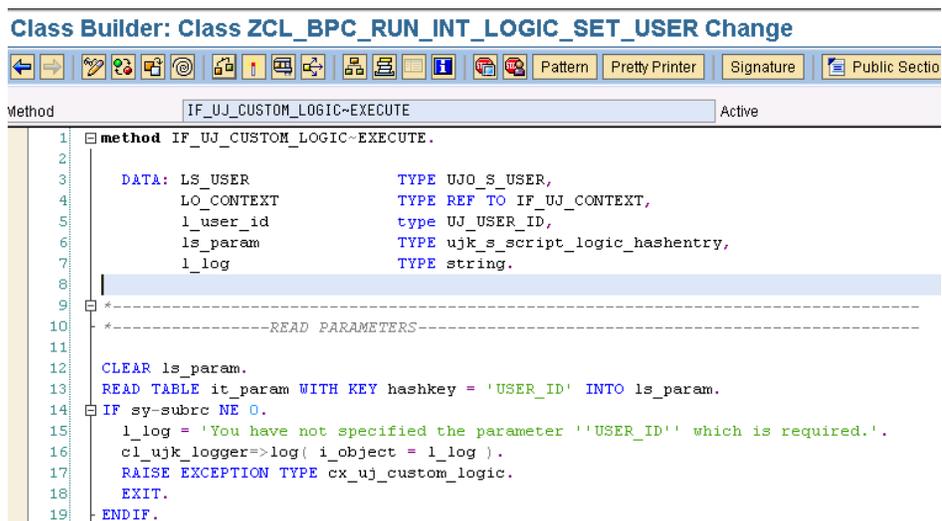


12. Double click on Implementing Class, and then on IF_UJ_CUSTOM_LOGIC~EXECUTE method. Click Yes.





13. Click Edit, copy and paste the code from the Appendix 1 and activate the object.



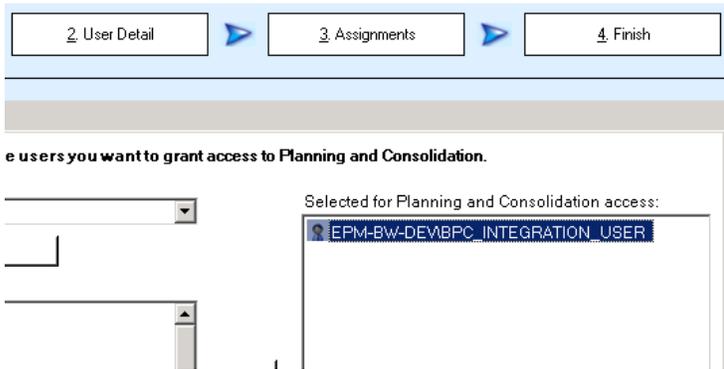
Create Script Logic files and set up the integration user.

As a prerequisite, please create a user which is going to be added to BPC and play a role of integration user. It is Windows Authentication used in this example. EPM-BW-DEV\BPC_INTEGRATION_USER was created.

1. Log on to BPC Admin Client to the appset you are going to work with.

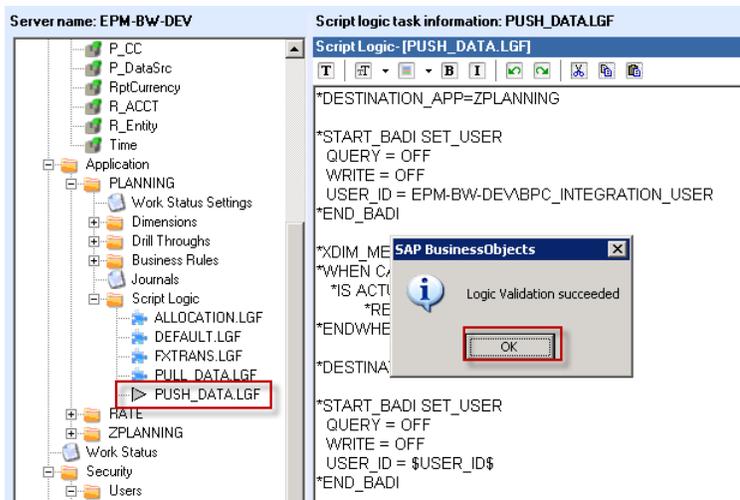


2. Add integration user and assign appropriate right to the user



In this example the user has read and write access to all applications.

3. Select the application the end-users are going to start packages from, select Script Logic and click Create New Logic. Provide PUSH_DATA.LFG name and click OK.
4. Copy and paste the script logic from Appendix 1, click Save and Validate.



The script in the example pushes all actual data to ZPLANNING application. The selection is narrowed down by the package's selection.

To create script logic which pulls data from ZPLANNING, please follow the same steps but copy the script logic from Appendix 2 (file name should be PULL_DATA.LGF).

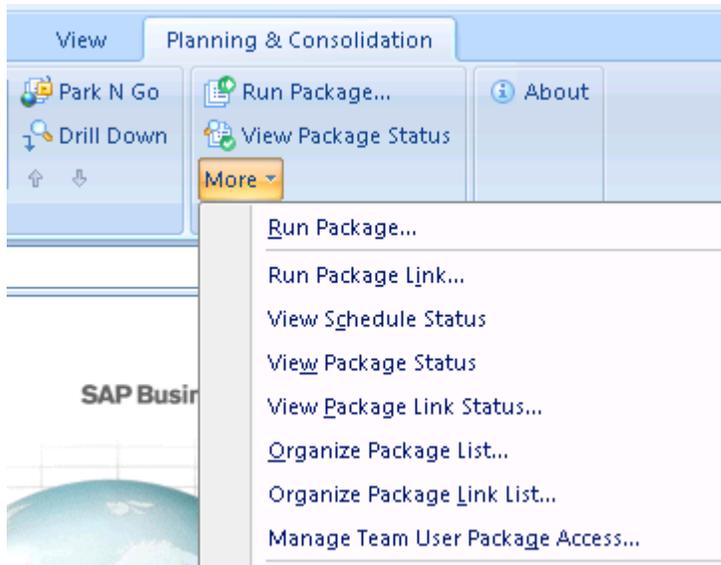
Create Data Manager Package

Now let's create the package the end-users will start from BPC Excel Client.

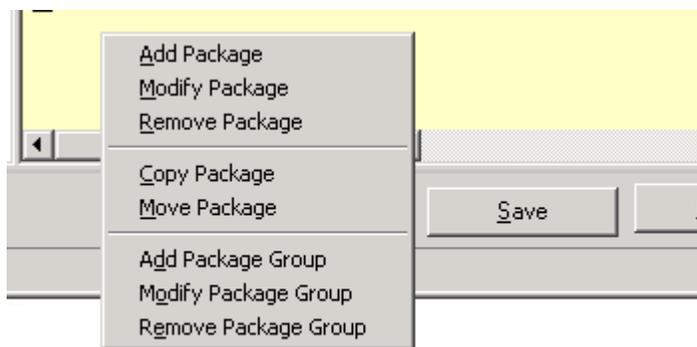
1. Log on to BPC Excel Client



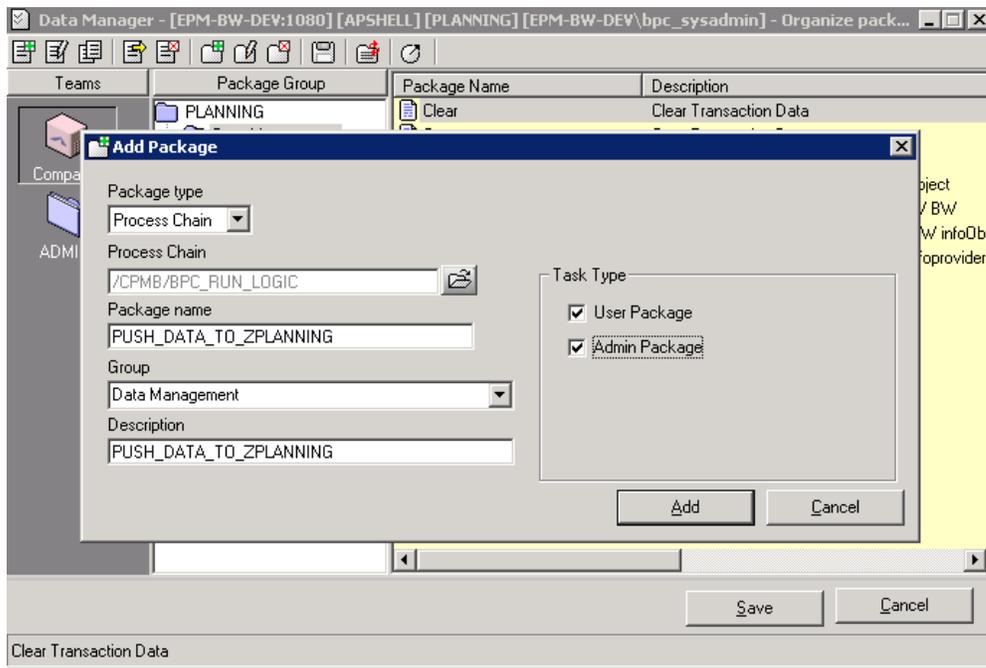
- Click on Planning and Consolidation on the ribbon. Select More and then Organize Package List...



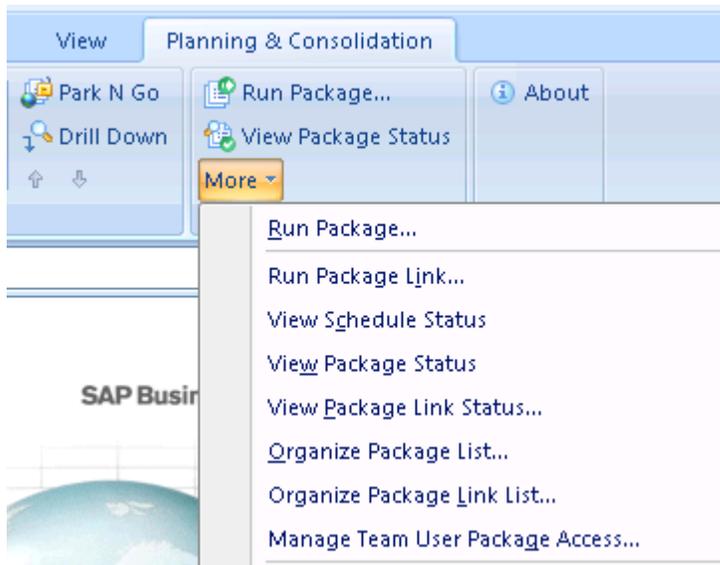
- Right click on the pane and select Add Package



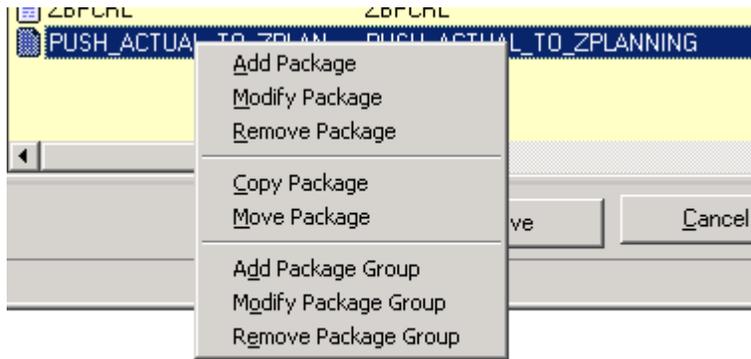
- Browse to the process chain you've created previously. In this example it is /CMPB/BPC_RUN_LOGIC.
- Provide name and description (PUSH_ACTUAL_TO_ZPLANNING in this example) and click Add and Save



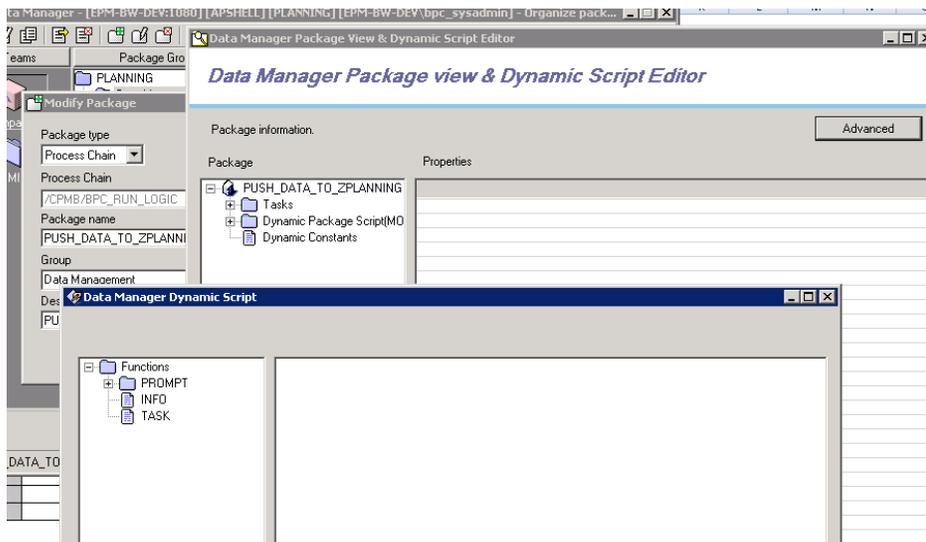
6. Select Organize Package list option again.



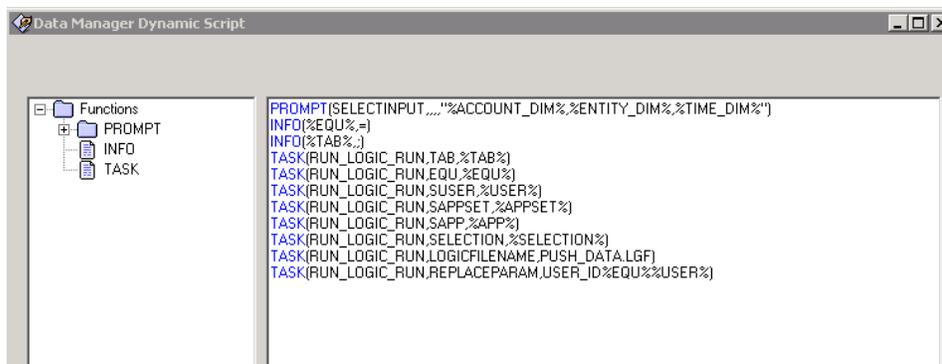
7. Right click on the package and select Modify Package



Select View Package, click Advanced.



8. Copy and paste the definition of the package. Click OK, Save, Save, Save and OK.



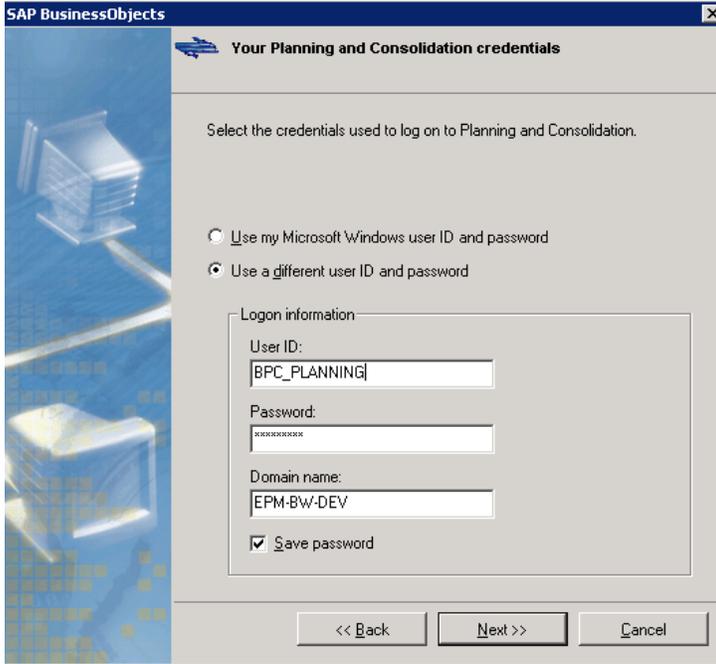
The data manager package we've created copies data to ZPLANNING application. To create a data manager package which pulls data from ZPLANNING application please use the same steps but provide definition of the package from Appendix 2.

Run the package

In this example the end-user has read and write access to PLANNING application and read-only access to ZPLANNING application. Please notice that read-only access to ZPLANNING application is given for the purpose to demonstrate the actual result of executing of the packages. In real situation the user will have no access to ZPLANNING and the result of execution will be the same.

The user will start the package which will run PUSH_DATA.LGF script logic

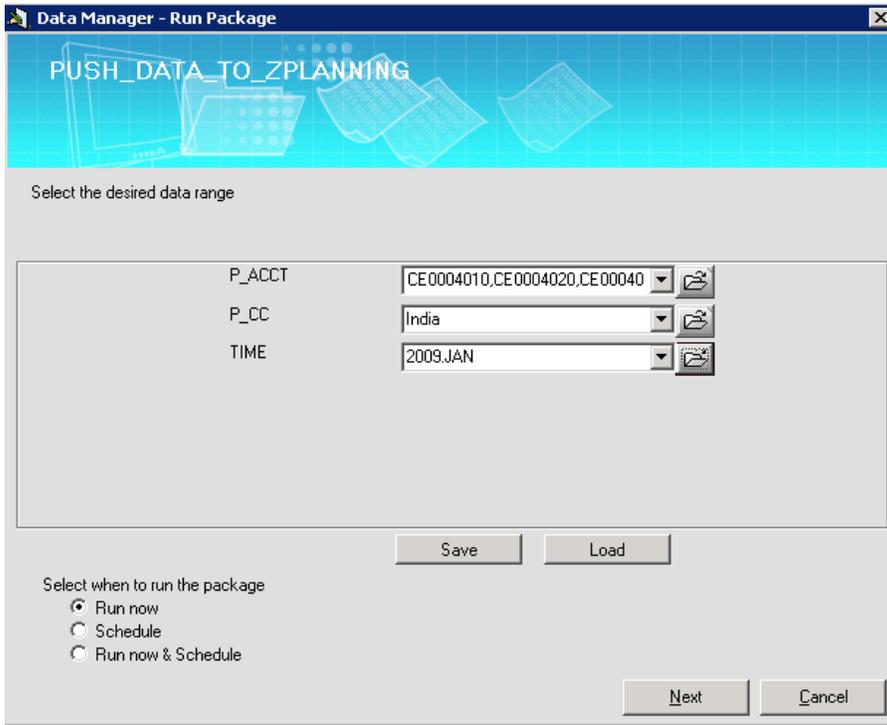
1. Log on with the user who has access to the Planning application (in this example it is EPM-BW-DEV\BPC_PLANNING user)



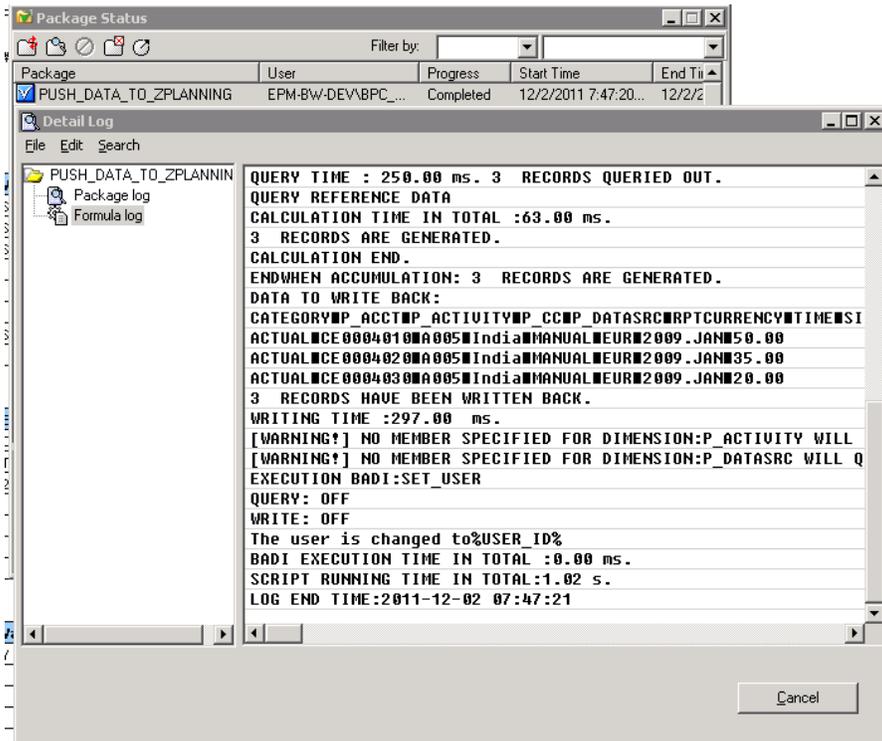
2. For visualization in this example a simple report is created for the same scope but 2 applications (PLANNING and ZPLANNING). 3 values are posted to PLANNING application.

App: PLANNING Planning Application			App: ZPLANNING COPY OF PLANNING APPLIC.		
CATEGORY	ACTUAL	ACTUAL	CATEGORY	ACTUAL	ACTUAL
P_ACC	CE0001000	Total Costs	P_ACCT	CE0001000	Total Costs
P_ACTI	A005	No activity	P_ACTIVITY	A005	No activity
P_CC	India	India	P_CC	India	India
P_DAT	MANUAL	Manual Planning	P_DATASRC	MANUAL	Manual Planning
RPTCUI	EUR	EURO	RPTCURRENCY	EUR	EURO
TIME	2005,JAN	2005,JAN	TIME	2005,JAN	2005,JAN
MEASU	PERIODIC	Periodic	MEASURES	PERIODIC	Periodic
2009.JAN 2009.FEB			2009.JAN 2009.FEB		
2009.JAN 2009.FEB			2009.JAN 2009.FEB		
CE0004010	Bonus Expense	50.00	CE0004010	Bonus Expense	
CE0004020	Wages and Salaries	35.00	CE0004020	Wages and Salaries	
CE0004030	Social Contributions	20.00	CE0004030	Social Contributions	
CE0004210	Internet Expenses		CE0004210	Internet Expenses	
CE0004220	TV & Radio		CE0004220	TV & Radio	
CE0004230	Magazines		CE0004230	Magazines	
CE0004510	Cooling (Water) Costs		CE0004510	Cooling (Water) Costs	

3. Start the package PUSH_DATA_TO_ZPLANNING and provide the selection



4. The result is SUCCESS



5. Refresh the report to see the values in ZPLANNING

App: PLANNING Planning Application			App: ZPLANNING COPY OF PLANNING APPLICATION		
CATEGORY	ACTUAL	ACTUAL	CATEGORY	ACTUAL	ACTUAL
P_ACCT	CE0001000	Total Costs	P_ACCT	CE0001000	Total Costs
P_ACTIVIT	A005	No activity	P_ACTIVITY	A005	No activity
P_CC	India	India	P_CC	India	India
P_DATASR	MANUAL	Manual Planning	P_DATASRC	MANUAL	Manual Planning
RPTCURRE	EUR	EURO	RPTCURRENCY	EUR	EURO
TIME	2005.TOTAL	2005.TOTAL	TIME	2005.TOTAL	2005.TOTAL
MEASURE	PERIODIC	Periodic	MEASURES	PERIODIC	Periodic

	2009.JAN	2009.FEB		2009.JAN	2009.FEB
CE0004010 Bonus Expense	50.00		CE0004010 Bonus Expense	50.00	
CE0004020 Wages and Salaries	35.00		CE0004020 Wages and Salaries	35.00	
CE0004030 Social Contributions	20.00		CE0004030 Social Contributions	20.00	
CE0004210 Internet Expenses			CE0004210 Internet Expenses		
CE0004220 TV & Radio			CE0004220 TV & Radio		

A demonstration of pulling data from ZPLANNING.

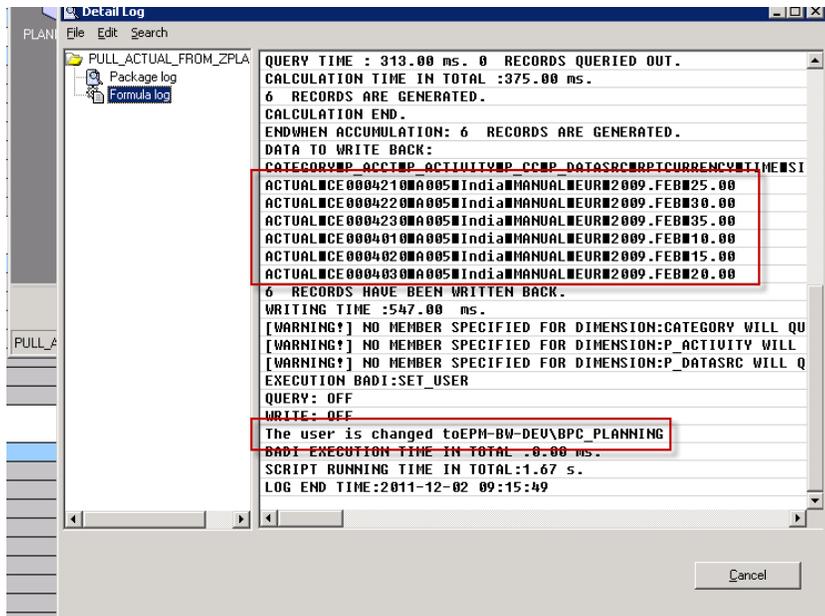
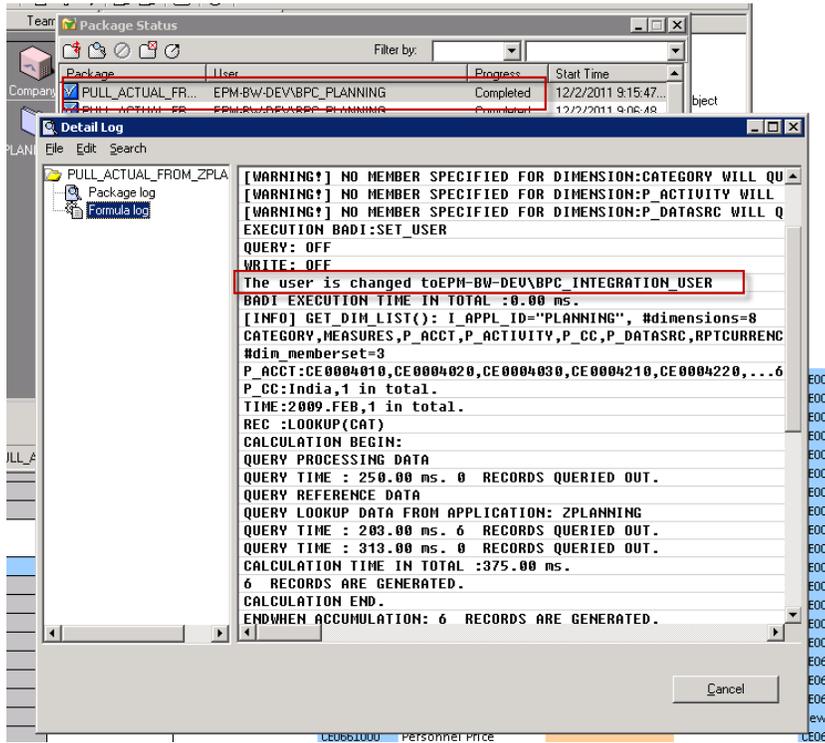
1. For the purpose of demonstration some values were posted to ZPLANNING application.

App: PLANNING Planning Application			App: ZPLANNING COPY OF PLANNING APPLICATION		
CATEGORY	ACTUAL	ACTUAL	CATEGORY	ACTUAL	ACTUAL
P_ACCT	CE0001000	Total Costs	P_ACCT	CE0001000	Total Costs
P_ACTIVIT	A005	No activity	P_ACTIVITY	A005	No activity
P_CC	India	India	P_CC	India	India
P_DATASR	MANUAL	Manual Planning	P_DATASRC	MANUAL	Manual Planning
RPTCURRE	EUR	EURO	RPTCURRENCY	EUR	EURO
TIME	2005.TOTAL	2005.TOTAL	TIME	2005.TOTAL	2005.TOTAL
MEASURE	PERIODIC	Periodic	MEASURES	PERIODIC	Periodic

	2009.JAN	2009.FEB		2009.JAN	2009.FEB
CE0004010 Bonus Expense	50.00		CE0004010 Bonus Expense	50.00	10.00
CE0004020 Wages and Salaries	35.00		CE0004020 Wages and Salaries	35.00	15.00
CE0004030 Social Contributions	20.00		CE0004030 Social Contributions	20.00	20.00
CE0004210 Internet Expenses			CE0004210 Internet Expenses		25.00
CE0004220 TV & Radio			CE0004220 TV & Radio		30.00
CE0004230 Magazines			CE0004230 Magazines		35.00
CE0004510 Cooling (Water) Costs			CE0004510 Cooling (Water) Costs		40.00
CE0004520 Heating (Steam) Costs			CE0004520 Heating (Steam) Costs		45.00
CE0004530 Machine Repair			CE0004530 Machine Repair		50.00
CE0004540 Electricity			CE0004540 Electricity		55.00
CE0004610 Operating Supplies			CE0004610 Operating Supplies		60.00
CE0004620 Maintenance Supplies			CE0004620 Maintenance Supplies		65.00
CE0004810 Depreciations			CE0004810 Depreciations		70.00
CE0004820 Building Costs			CE0004820 Building Costs		75.00
CE0004830 Consulting Costs			CE0004830 Consulting Costs		80.00
CE0651000 Machine Hours			CE0651000 Machine Hours		85.00
CE0652000 Labour Hours			CE0652000 Labour Hours		90.00
CE0653000 Maintenance Hours			CE0653000 Maintenance Hours		95.00
newmemver aaa			newmemver aaa		100.00
CE0661000 Personnel Price			CE0661000 Personnel Price		0.17
CE0662000 Maintenance Price			CE0662000 Maintenance Price		50.68
VALIDATION Account			VALIDATION Account		115.00
ererye			ererye		120.00

2. Run the package PULL_ACTUAL_FROM_ZPLANNING. Please notice that section on P_ACCT is not full, therefore only part of the accounts' data will be copied.

Result is the following:



App	PLANNING	Planning Application	App	ZPLANNING	COPY OF PLANNING APPLICATION
CATEGORY	ACTUAL	ACTUAL	CATEGORY	ACTUAL	ACTUAL
P_ACCT	CE0001000	Total Costs	P_ACCT	CE0001000	Total Costs
P_ACTIVITY	A005	No activity	P_ACTIVITY	A005	No activity
P_CC	India	India	P_CC	India	India
P_DATASR	MANUAL	Manual Planning	P_DATASR	MANUAL	Manual Planning
RPTCURRENCY	EUR	EURO	RPTCURRENCY	EUR	EURO
TIME	2005.JAN	2005.JAN	TIME	2005.JAN	2005.JAN
MEASURE	PERIODIC	Periodic	MEASURES	PERIODIC	Periodic

	2009.JAN	2009.FEB		2009.JAN	2009.FEB		
CE0004010	Bonus Expense	50.00	10.00	CE0004010	Bonus Expense	50.00	10.00
CE0004020	Wages and Salaries	35.00	15.00	CE0004020	Wages and Salaries	35.00	15.00
CE0004030	Social Contributions	20.00	20.00	CE0004030	Social Contributions	20.00	20.00
CE0004210	Internet Expenses		25.00	CE0004210	Internet Expenses		25.00
CE0004220	TV & Radio		30.00	CE0004220	TV & Radio		30.00
CE0004230	Magazines		35.00	CE0004230	Magazines		35.00
CE0004510	Cooling (Water) Costs		40.00	CE0004510	Cooling (Water) Costs		40.00
CE0004520	Heating (Steam) Costs		45.00	CE0004520	Heating (Steam) Costs		45.00
CE0004530	Machine Repair		50.00	CE0004530	Machine Repair		50.00
CE0004540	Electricity		55.00	CE0004540	Electricity		55.00
CE0004610	Operating Supplies		60.00	CE0004610	Operating Supplies		60.00
CE0004620	Maintenance Supplies		65.00	CE0004620	Maintenance Supplies		65.00
CE0004810	Depreciations		70.00	CE0004810	Depreciations		70.00
CE0004820	Building Costs		75.00	CE0004820	Building Costs		75.00
CE0004830	Consulting Costs		80.00	CE0004830	Consulting Costs		80.00
CE0651000	Machine Hours		85.00	CE0651000	Machine Hours		85.00
CE0652000	Labour Hours		90.00	CE0652000	Labour Hours		90.00
CE0653000	Maintenance Hours		95.00	CE0653000	Maintenance Hours		95.00
newmemver	aaa		100.00	newmemver	aaa		100.00
CE0661000	Personnel Price		0.17	CE0661000	Personnel Price		0.17
CE0662000	Maintenance Price		50.68	CE0662000	Maintenance Price		50.68
VALIDATION	Validation Account		115.00	VALIDATION	Validation Account		115.00
ererye	erye		120.00	ererye	erye		120.00

Appendix 1 – PUSH DATA TO ZPLANNING

BAdI's code

```
method IF_UJ_CUSTOM_LOGIC~EXECUTE.
```

```

DATA: LS_USER           TYPE UJ0_S_USER,
      LO_CONTEXT       TYPE REF TO IF_UJ_CONTEXT,
      l_user_id       TYPE UJ_USER_ID,
      ls_param        TYPE ujk_s_script_logic_hashentry,
      l_log           TYPE string.
```

```

*-----
*-----
*-----READ PARAMETERS-----
*-----
```

```

CLEAR ls_param.
READ TABLE it_param WITH KEY hashkey = 'USER_ID' INTO ls_param.
IF sy-subrc NE 0.
  l_log = 'You have not specified the parameter 'USER_ID' which is required.'.
  cl_ujk_logger=>log( i_object = l_log ).
  RAISE EXCEPTION TYPE cx_uj_custom_logic.
  EXIT.
ENDIF.
l_user_id = ls_param-hashvalue.
```

```

*-----STOP READING PARAMETERS-----
*-----
*-----
```

```

LO_CONTEXT = CL_UJ_CONTEXT=>GET_CUR_CONTEXT( ).
LS_USER = LO_CONTEXT->DS_USER.
LS_USER-USER_ID = l_user_id.
```

```

CALL METHOD CL_UJ_CONTEXT=>SET_CUR_CONTEXT
EXPORTING I_APPSET_ID   = I_APPSET_ID
          IS_USER       = LS_USER
          I_APPL_ID    = I_APPL_ID
*          I_MODULE_NAME = LO_CONTEXT-MODULE_NAME.
```

```

IF sy-subrc = 0.
  CONCATENATE 'The user is changed to ' LS_USER-USER_ID INTO l_log.
  cl_ujk_logger=>log( i_object = l_log ).
ENDIF.
```

```
endmethod.
```

Script logic files.

PUSH_DATA.LGF

```
*DESTINATION_APP=ZPLANNING
```

```

*START_BADI SET_USER
  QUERY = OFF
  WRITE = OFF
  USER_ID = EPM-BW-DEV\BPC_INTEGRATION_USER
*END_BADI

*XDIM_MEMBERSET CATEGORY=ACTUAL
*WHEN CATEGORY
  * IS ACTUAL
    *REC(EXPRESSION=%VALUE%)
*ENDWHEN
*DESTINATION_APP=PLANNING

*START_BADI SET_USER
  QUERY = OFF
  WRITE = OFF
  USER_ID = $USER_ID$
*END_BADI

```

Data Manager Package definition

PUSH_ACTUAL_TO_ZPLANNING

```

PROMPT(SELECTINPUT,,,"%ACCOUNT_DIM%,%ENTITY_DIM%,%TIME_DIM%")
INFO(%EQU%,=)
INFO(%TAB%,;)
TASK(RUN_LOGIC_RUN,TAB,%TAB%)
TASK(RUN_LOGIC_RUN,EQU,%EQU%)
TASK(RUN_LOGIC_RUN,SUSER,%USER%)
TASK(RUN_LOGIC_RUN,SAPPSET,%APPSET%)
TASK(RUN_LOGIC_RUN,SAPP,%APP%)
TASK(RUN_LOGIC_RUN,SELECTION,%SELECTION%)
TASK(RUN_LOGIC_RUN,LOGICFILENAME,PUSH_DATA.LGF)
TASK(RUN_LOGIC_RUN,REPLACEPARAM,USER_ID%EQU%%USER%)

```

Appendix 2 – PULL DATA FROM ZPLANNING

BAdI's code

The BAdI's code is the same as in Appendix 1.

Script logic files.

PULL_DATA.LGF

```

*START_BADI SET_USER
  QUERY = OFF
  WRITE = OFF
  USER_ID = EPM-BW-DEV\BPC_INTEGRATION_USER
*END_BADI
*LOOKUP ZPLANNING
*DIM CAT: CATEGORY= ACTUAL
*ENDLOOKUP
*WHEN_REF_DATA=MASTER_DATA
*WHEN CATEGORY
  * IS ACTUAL
    *REC(EXPRESSION=LOOKUP(CAT))
*ENDWHEN
*START_BADI SET_USER
  QUERY = OFF
  WRITE = OFF
  USER_ID = $USER_ID$
*END_BADI

```

Data Manager Package definition

PULL_ACTUAL_FROM_ZPLANNING

```

PROMPT(SELECTINPUT,,,"%ACCOUNT_DIM%,%ENTITY_DIM%,%TIME_DIM%")
INFO(%EQU%,=)
INFO(%TAB%,;)
TASK(RUN_LOGIC_RUN,TAB,%TAB%)
TASK(RUN_LOGIC_RUN,EQU,%EQU%)
TASK(RUN_LOGIC_RUN,SUSER,%USER%)
TASK(RUN_LOGIC_RUN,SAPPSET,%APPSET%)
TASK(RUN_LOGIC_RUN,SAPP,%APP%)
TASK(RUN_LOGIC_RUN,SELECTION,%SELECTION%)
TASK(RUN_LOGIC_RUN,LOGICFILENAME,PULL_DATA.LGF)
TASK(RUN_LOGIC_RUN,REPLACEPARAM,USER_ID%EQU%%USER%)

```

Related Content

- HTG explains how to make a process chain
<http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/20f4252d-98ca-2b10-e689-f85085ae2d12?QuickLink=index&overridelayout=true>
- Script Logic for SAP BusinessObjects Planning and Consolidation for NetWeaver
<http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/e025fa8d-1c22-2e10-cd9f-c488c7eeadd4?QuickLink=index&overridelayout=true>
- Other EPM How-To Guides
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- SAP Help Library – Business Add Ins
http://help.sap.com/saphelp_nw70/helpdata/en/8f/f2e540f8648431e1000000a1550b0/frameset.htm

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