

# How to Broadcast BEx Workbooks using BW Pre-calculation Server and through Process Chains



## Applies to:

SAP BI/BW 3.5 and above. For more information, visit the [EDW homepage](#)

## Summary

The document will demonstrate step by step solution to set up Pre-calculation in Process chains and schedule broadcasts of BEx workbooks.

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**Created on:** 6<sup>th</sup> May 2011

## Author Bio



Umesh is working as a SAP BI/ BW Analyst in Howdens Joinery co and has an techno-functional experience of over 7 years in designing, developing and implementing/upgrading SAP BW-BI solutions across various Industries in India and in the UK.

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## Overview

Purpose of this document is to demonstrate a step by step solution that will help understand the mechanism involved in broadcasting the BEx workbooks through Process chains and using the BW Pre-calculation servers. It focuses on one of the Primary distribution channels of broadcasting i.e. emails.

This document, however, does not cover the processes involved in BW pre-calculation setup (this have been already covered elsewhere in SCN). The document also does not cover the processes related to creation of BEx workbooks and associated Roles.

The entire set of activities involved is performed on the BW systems.

## Assumptions

The document assumes that the target audience is aware of the processes that involve

- Creating BEx workbooks
- Creating BW Roles
- Associating BEx Workbooks with Roles
- Setting up BW pre-calculation server

Associated references to the above have been provided in the 'Related Content' section of this document.

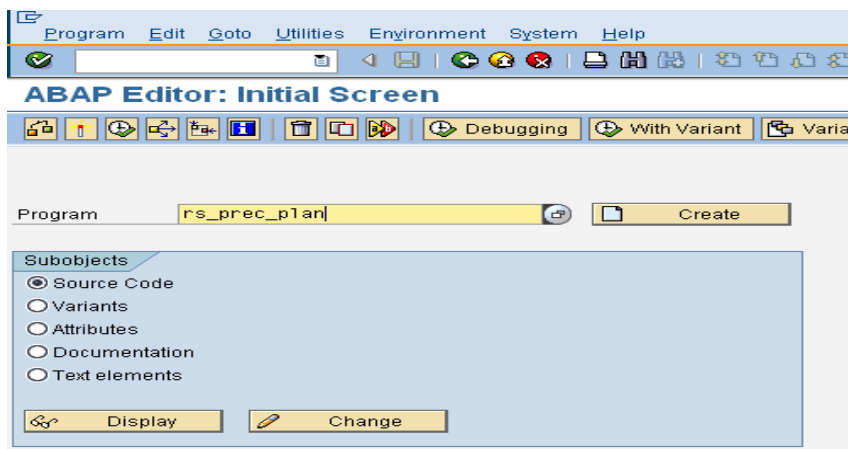
## Step by Step Solution

The steps involved in the broadcasting process cover

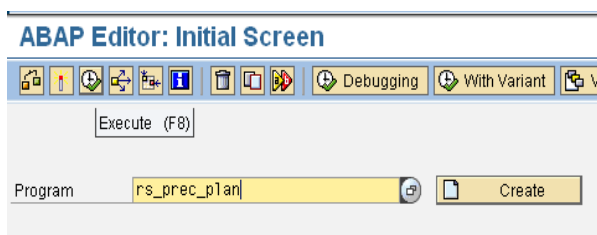
- Creating a Variant for the Workbook, Pre-calculation server and the list of email id's to which the work book is to be broadcasted
- Creating a Process chain that would broadcast the report by using the above Variant.

## Create Variant for the Broadcast with Selection of Workbook, Pre-calculation and Emails

Go to Transaction SE38 and type program name RS\_PREC\_PLAN



Select 'Execute' to run the program



The system now prompts the screen which would enable creating variants that will be used in the Process chains for broadcasting the workbooks.

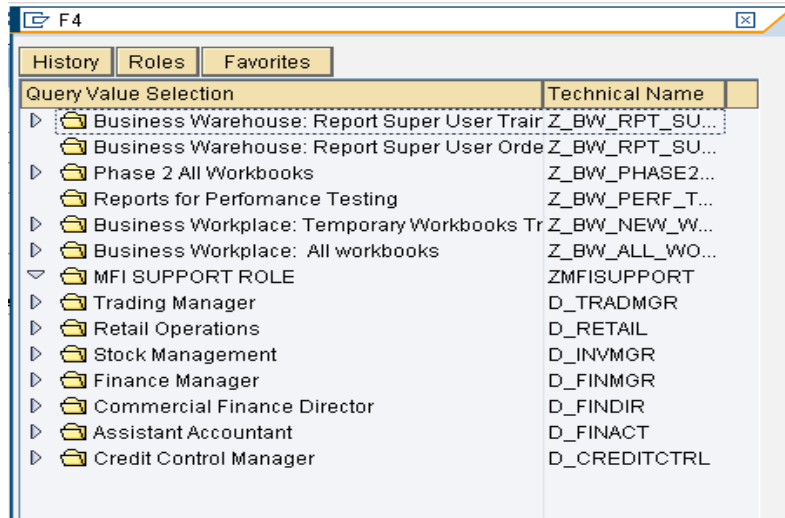
At the Workbook prompt , select 'F4' to display BEx Menu

Query Value Selection	Technical Name

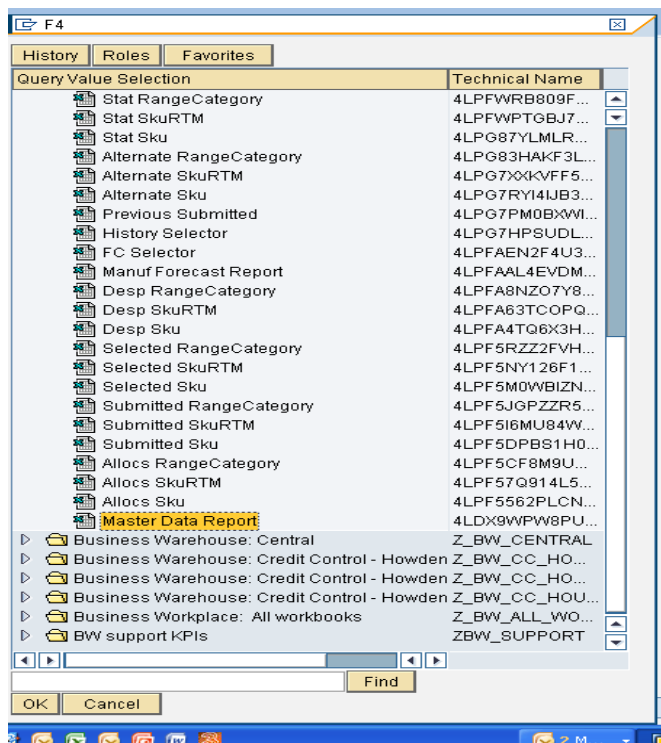
Depending upon the Location wherein your workbooks are located , you can selected any of the Options viz. History, Roles, Favorites available.

As workbooks are always associated with Roles, I have stored all my workbooks in the Roles and will pick the desired workbook from the 'Roles'.

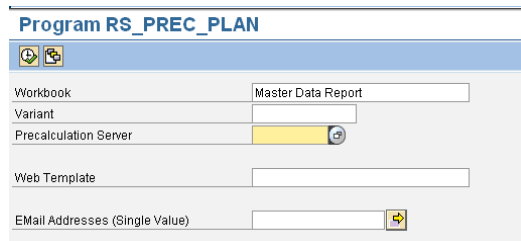
List of Roles are displayed



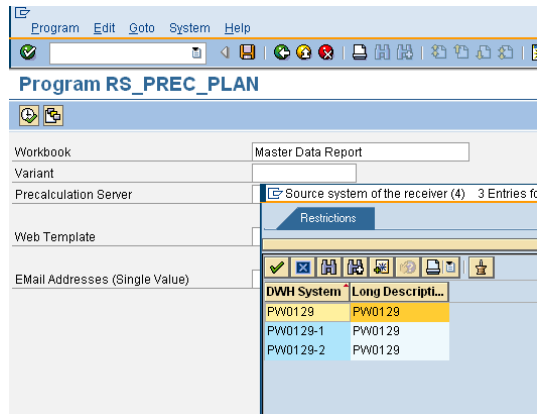
Select the desired workbook from the drop down list available and press 'OK'.



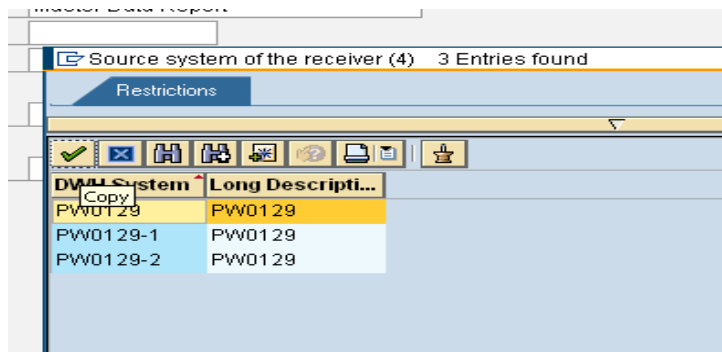
You now see that we have selected the workbook 'Master Data Report' from the list.



At the Pre-calculation Server prompt, Press F4 to obtain the list of pre-calculation servers available on your BW system.



Select any one of the servers.



## How does Pre-calculation work?

Each pre-calculation server can only run 1 workbook at a time, so if 20 workbooks are in the queue on a particular server, they will run serially on this individual server. When you specify the load balancing option, jobs will only start running on a secondary pre-calculation server if the first pre-calculation server queue has reached its specified capacity.

Pre-calculation jobs do not automatically utilize any and all open servers. In other words, if you have 3 pre-calculation servers and schedule 3 jobs, then one job will not run on each of the servers. Instead, jobs do not start running on the subsequent servers until the 1st server has reached capacity that was set.

## Create Variant for the Broadcast with Selection of Workbook, Pre-calculation and Emails.... Continued

**Program RS\_PREC\_PLAN**

Workbook: Master Data Report

Variant:

Pre-calculation Server: PW0129

Web Template:

Email Addresses (Single Value):

At the Email Addresses (Single value) , you could either enter a single or multiple email id's to whom the workbook is to be broadcasted.

Program RS\_PREC\_PLAN

Workbook: Master Data Report

Variant:

Pre-calculation Server: PW0129

Web Template:

Email Addresses (Single Value): nekar@howdens.com

Multiple selection

Enter desired email addresses and 'Copy' the selections made.

**Program RS\_PREC\_PLAN**

Multiple Selection for EMail Addresses (Single Value)

Select Single Values (1) | Select Ranges | Exclude Single Values

Single value

- urnesh.pednekar@howdens.com
- upednekar@gmail.com

Copy (F8)

We are back to the initial screen on Pre-calculation

**Program RS\_PREC\_PLAN**

Workbook: Master Data Report

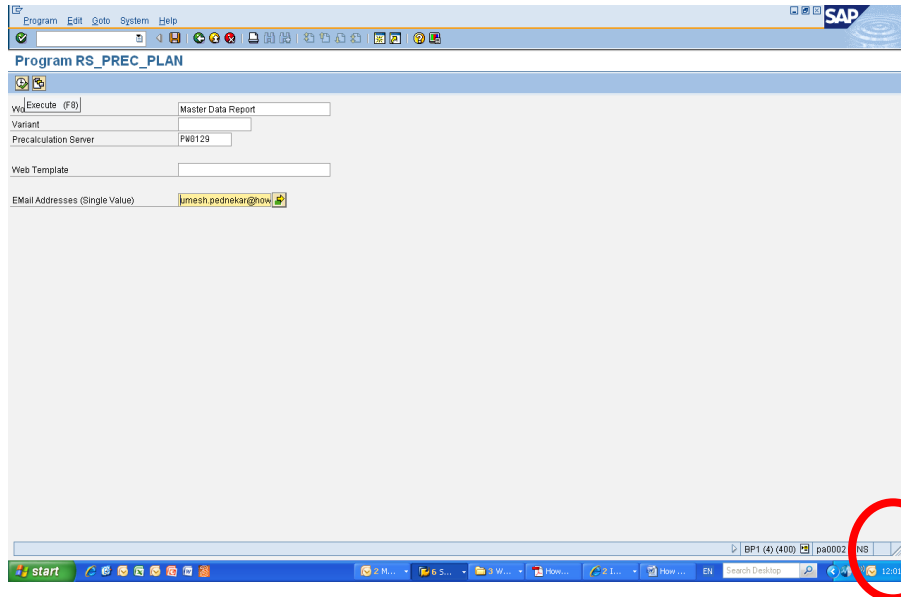
Variant:

Pre-calculation Server: PW0129

Web Template:

Email Addresses (Single Value): urnesh.pednekar@how

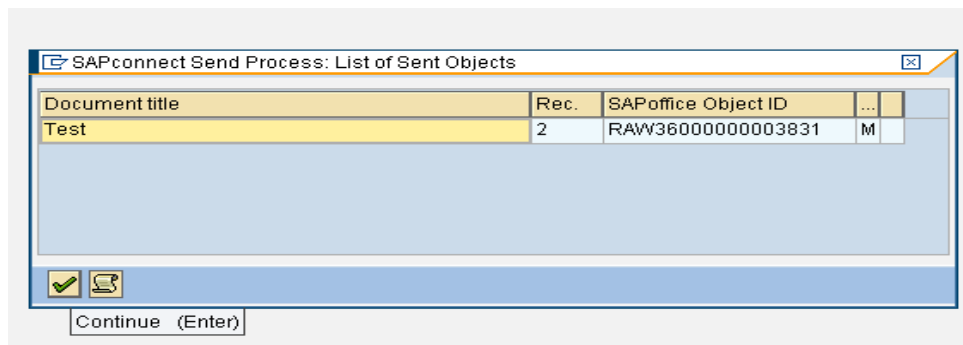
You can now test the broadcast of the work book. 'Execute' the selection. The execution took place @ 12:01 Hrs



Confirmation of the broadcast is displayed by the system through the message as displayed below

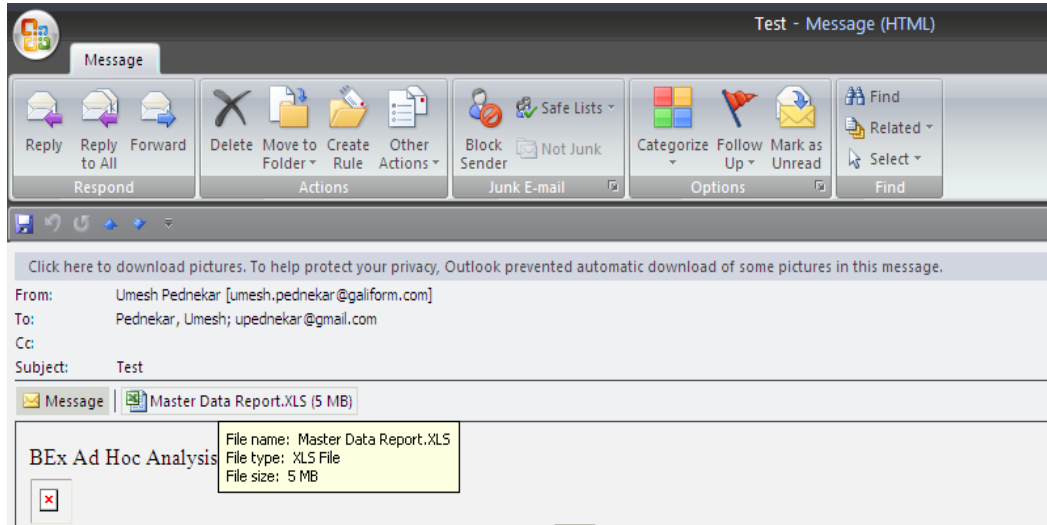
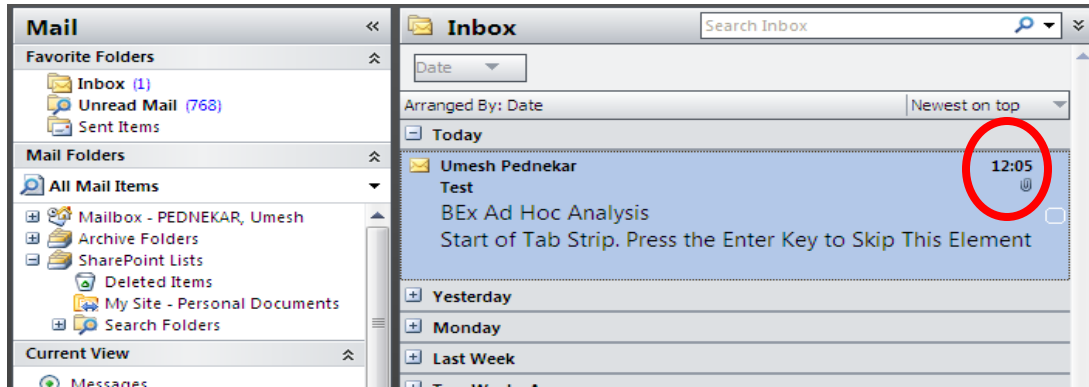
Document title	Rec.	SAPoffice Object ID	...	
Test	2	RAW36000000003831	M	

Select Continue



The broadcast has been delivered in the respective In-box of the email id's selected. Email received @ 12:05 is the broadcast of the workbook.





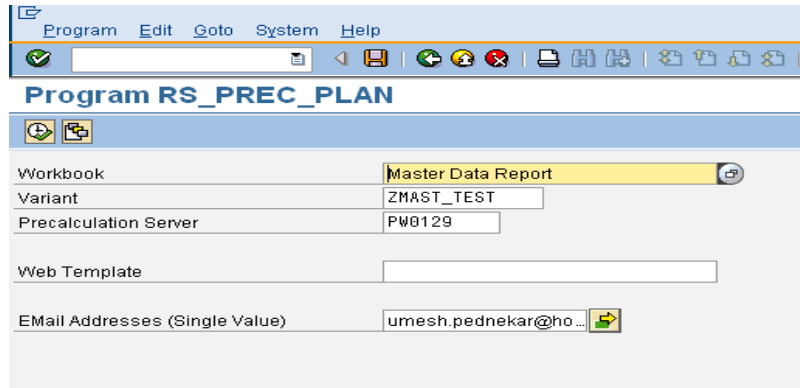
However, our aim is to automate the broadcasting through the Process Chains. For this we need to save our selection as a Variant.

At the variant prompt, enter a variant name for the selections you have made

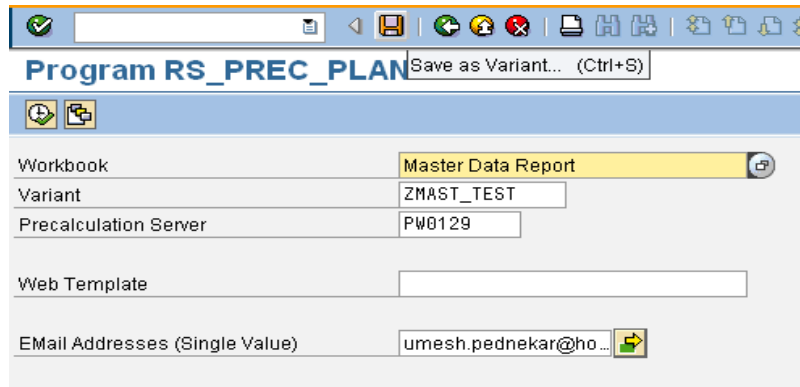
**Program RS\_PREC\_PLAN**

Workbook	Master Data Report
Variant	
Precalculation Server	PW0129
Web Template	
E-Mail Addresses (Single Value)	umesh.pednekar@how

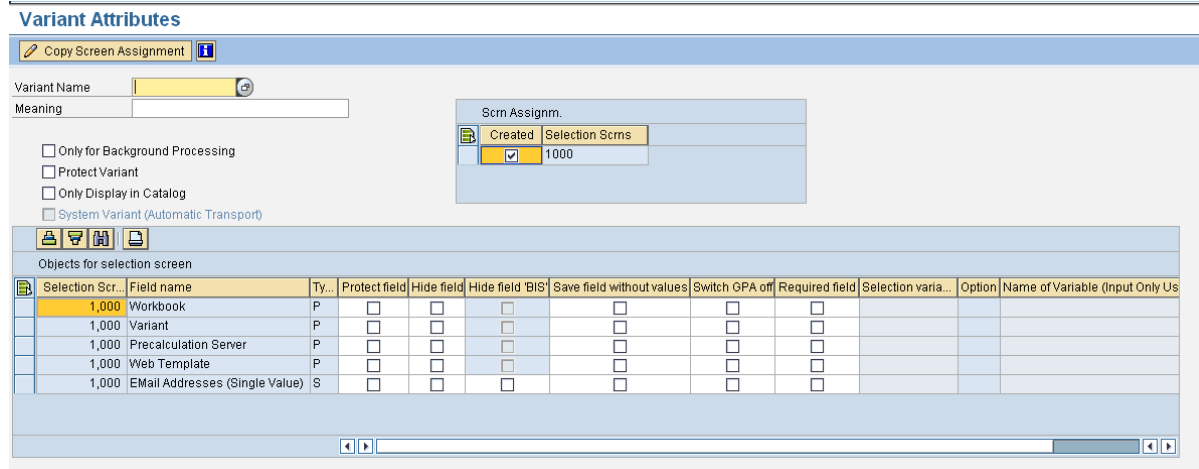
We chose the variant name ZMAST\_TEST



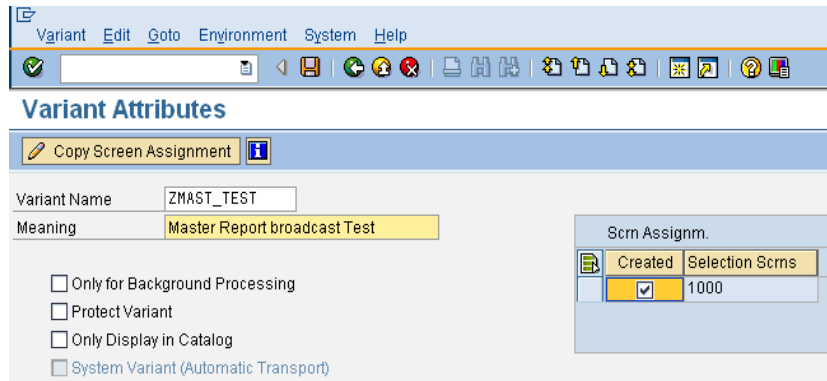
Now 'SAVE' the variant



The variant settings can be further enhanced in the next screen prompt



At the Variant name Enter the name you entered in the previous screen i.e. ZMAST\_TEST.

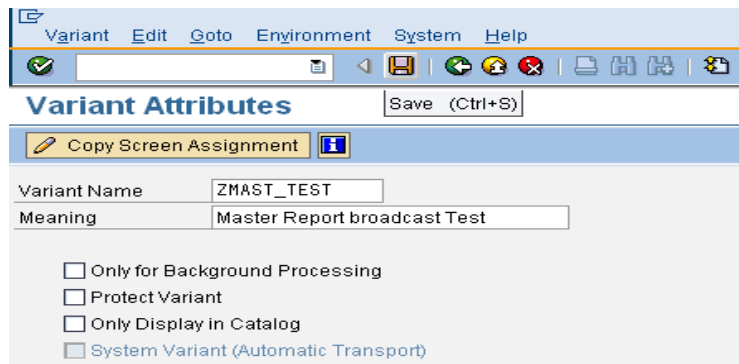


The selections that you have made for this variant can be protected i.e. By default, the execution of this variant through the process chain will ensure that the Pre-calculation server utilized is the one in the initial selection and the system would wait for this server to be released for the processing, the email id's get protected ensuring that the broadcasts are emailed to this specified id's.

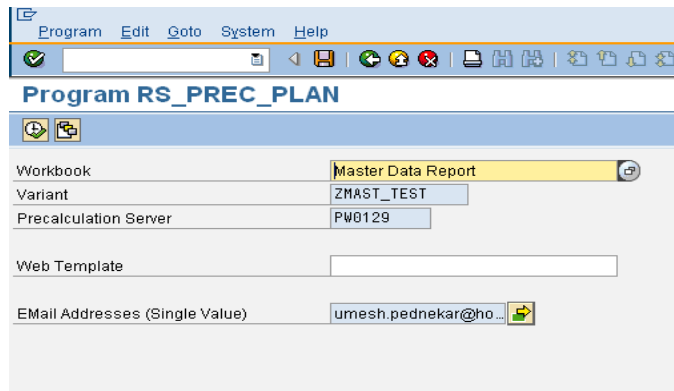
Objects for selection screen

Selection Scr...	Field name	Ty...	Protect field	Hide field	Hide field 'BIS'	Save field without values	Switch GPA off	Required field	Selection varia...	Option	Name of Variable (Input Only Us
1,000	Workbook	P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
1,000	Variant	P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
1,000	Precalculation Server	P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
1,000	Web Template	P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
1,000	E-Mail Addresses (Single Value)	S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

### Save the Variant



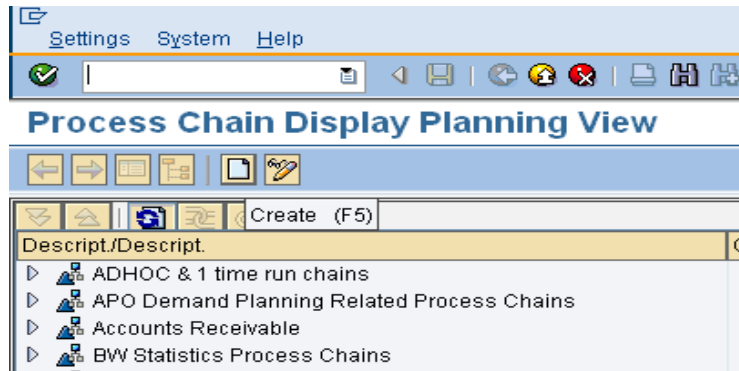
You can now see that the protected values cannot be changed



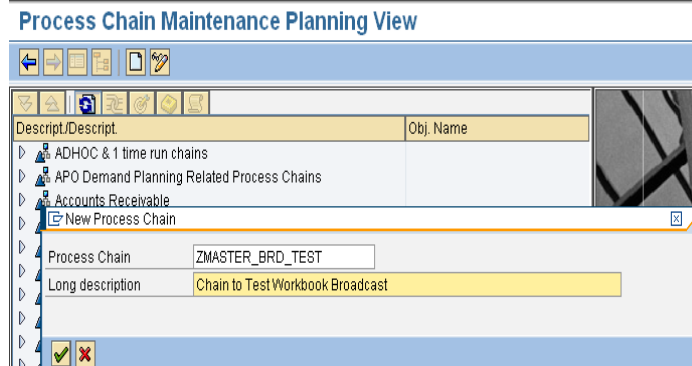
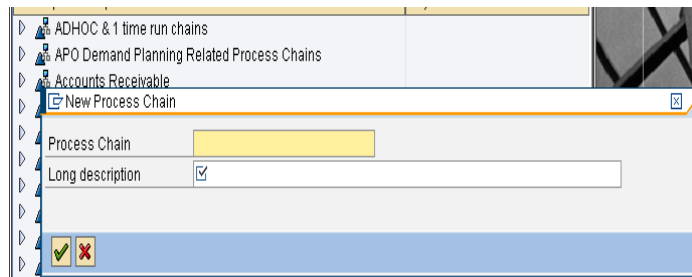
## Setting the Pre-calculations and Broadcasts through the Process Chains

We will now create a process chain and using the variant ZMASTER\_TEST created for Program RS\_PREC\_PLAN schedule the broadcast of the work book.

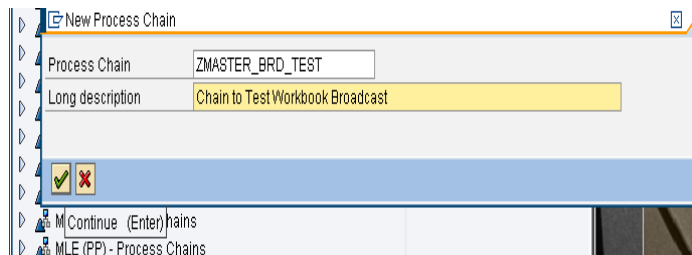
Go to transaction RSPC and 'Create' a new Process chain



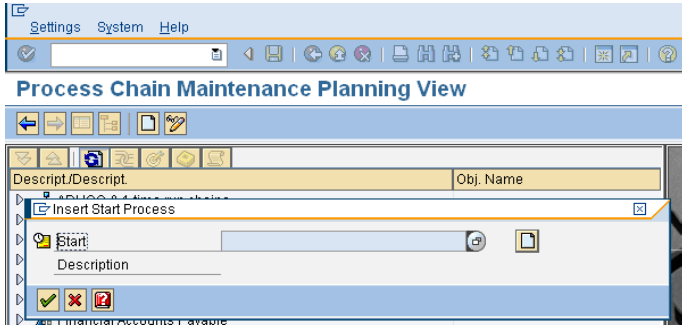
At the 'New Process Chain' prompt, enter a Technical name and description for the chain.



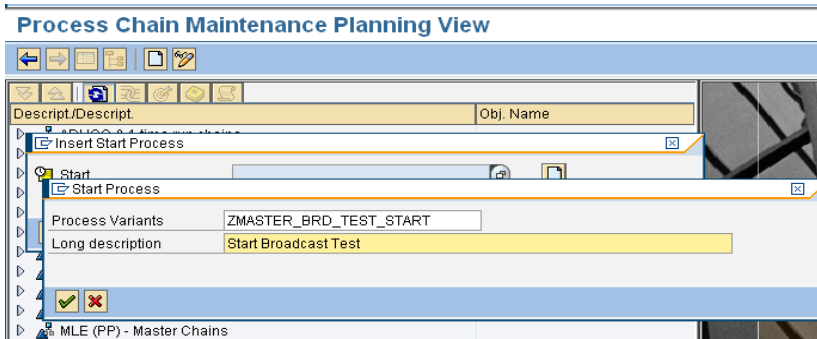
Select 'Continue'



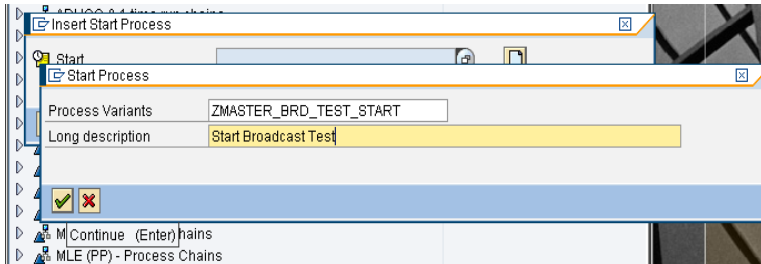
At the next screen , create a 'Start' variant by Selecting 'Create'



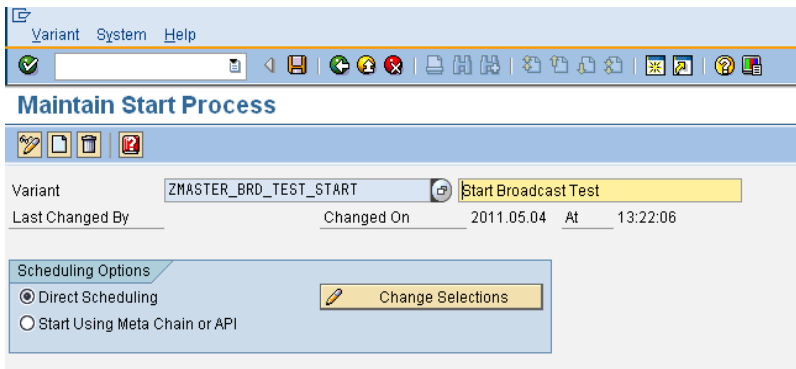
Enter a Technical Name and description for the Start variant



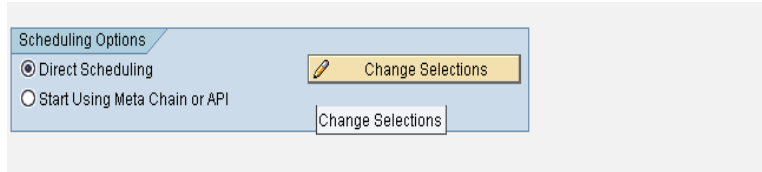
Confirm your settings by selecting 'Continue'



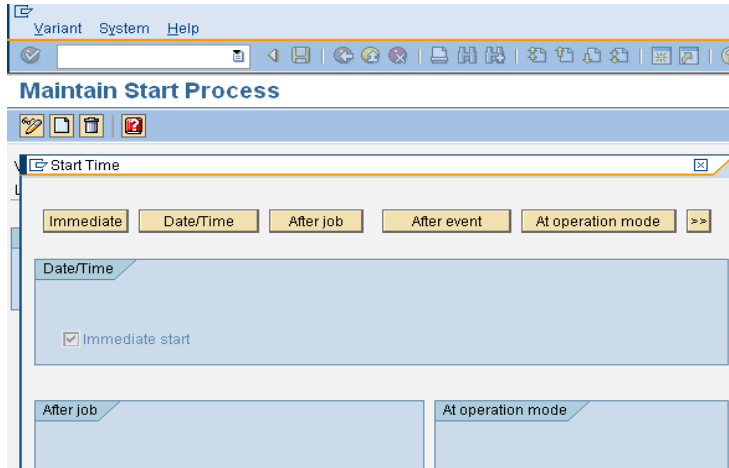
At the 'Maintain Start Process' screen, we can schedule the day/date/time or event for the chain to trigger.



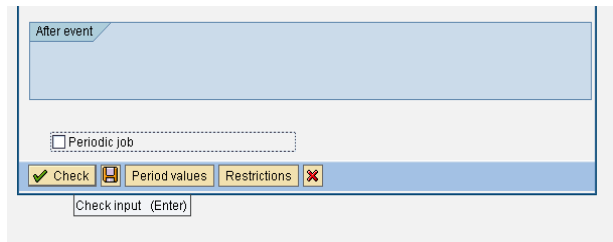
### Select 'Change Selections'



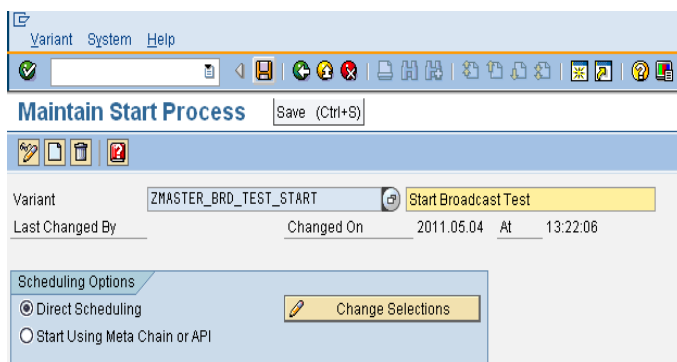
Specify the desired schedule. For the purpose of this document , I am selecting 'Immediate' schedule of the chain.



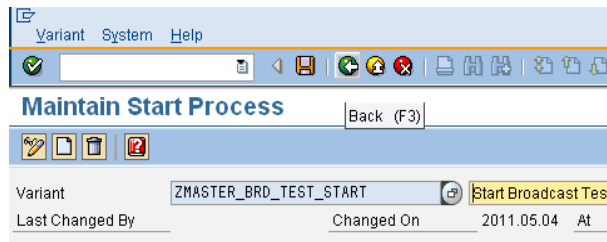
Check and Save the Selection.



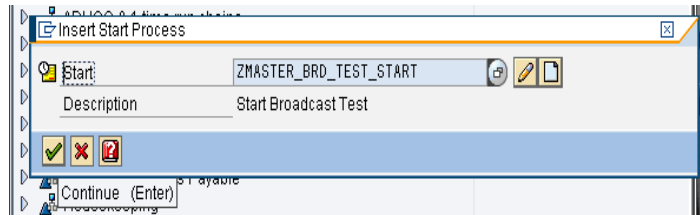
The system takes you to the 'Maintain Start Process' screen. 'Save' the settings.



Go Back

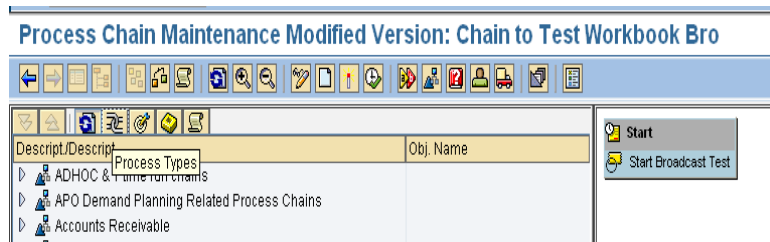


At the next prompt Confirm the creation of Start variant by Selecting 'Continue'.

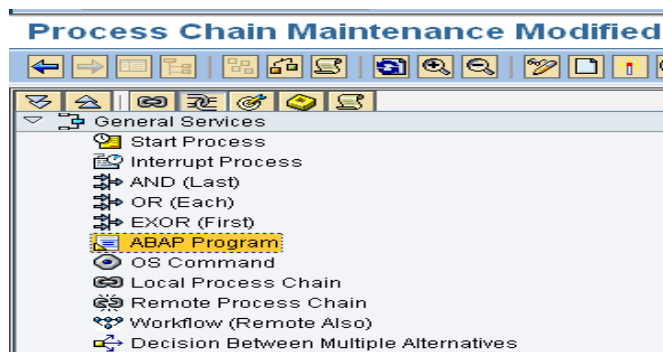


We now need to select the process to schedule the variant we created for the workbook and Pre-calculation server.

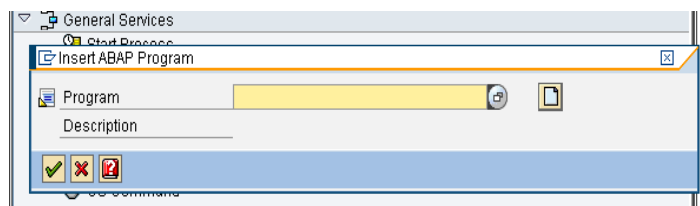
Select Process types from the legends



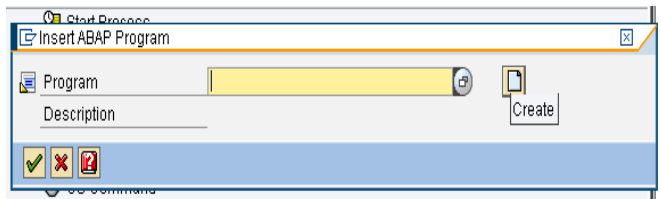
Expand 'General Services' and select 'ABAP Program'.



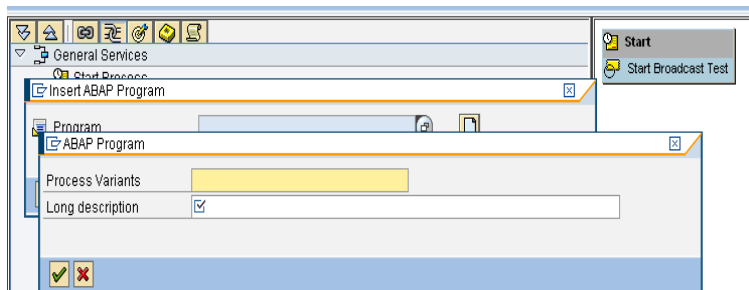
When you drag the selection to the Maintenance view of the Chain , the system prompts to Insert the desired ABAP program through it's variant (Here I am referring the process chain variant).



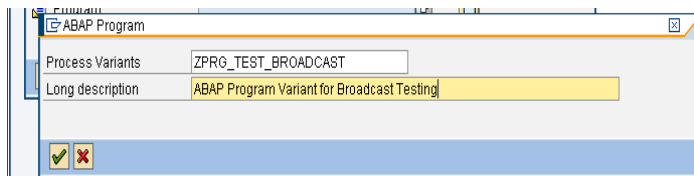
Select 'Create'.



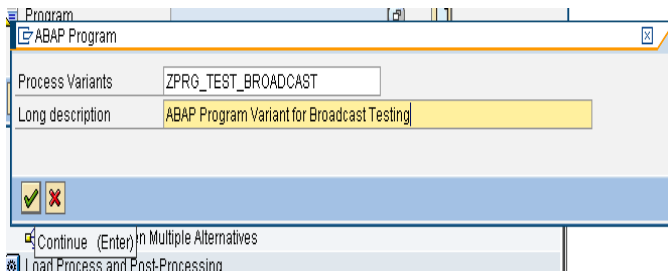
The system wants you to enter a technical name and description for the process chain variant of the ABAP program.



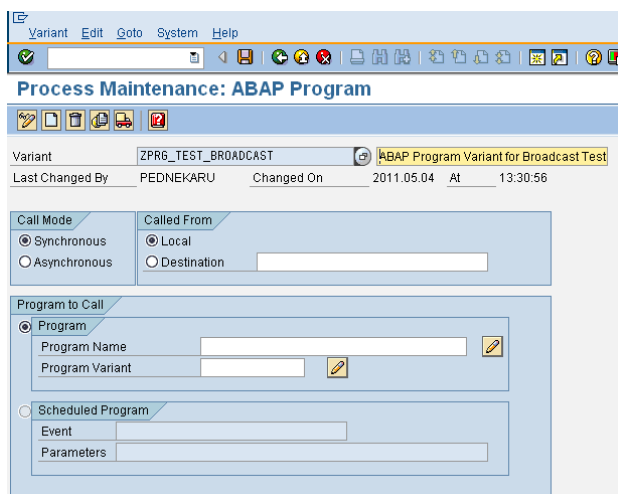
Enter a technical name and description for the Process chain variant for the ABAP program.



Select 'Continue'.



We now need to select the desired ABAP program and the Variant at the next screen.





At the Program Name prompt Enter 'RS\_PREC\_PLAN'.

At the Program Variant, you can select the variant from the drop down available (or enter the Variant name that you created for the workbook – pre-calculation server i.e. ZMAST\_TEST)

If you want to select from the drop down list , then select 'Change'

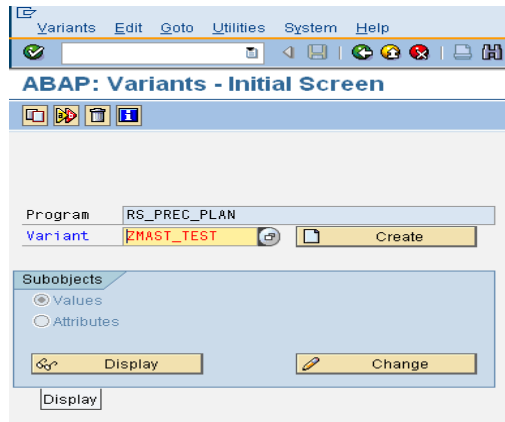
At the next prompt, press 'F4' at Variant to obtain the list of variants associated with the program RS\_PREC\_PLAN.

Variant name	Short description
BROAD_TEST1	Broadcast Test Step 1
BROAD_TEST2	Broadcast Test Step 2
BROAD_TEST3	Broadcast Test Step 3
BROAD_TEST4	Broadcast Test Step 4
BROAD_TEST5	Broadcast Test Step 5
ZALLOC_CATR...	Allocations Forecast - CAT/Ran
ZALLOC_SKU...	Allocations Forecast - SKU
ZALLOC_SKUR...	Alloc Forecast - SKU / RTM

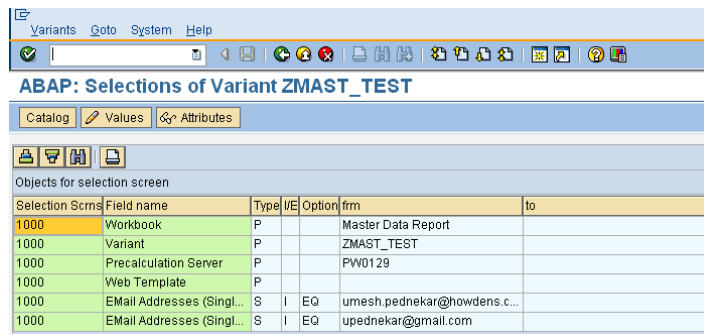
You will find the variant ZMAST\_TEST that we created earlier. Choose this variant.

Variant name	Short description
ZFC_SEL	FC Selector
ZHIS_SEL	History Selector
ZMASTER_DATA	Master Data
ZMAST_TEST	Master Report broadcast Test
ZMN_FOR	Manuf Forecast Report
ZPRECTEST_1	Precalculation Test 1
ZPRECTEST_2	Precalculation Test 1
ZPRECTEST_3	Precalculation Test 1

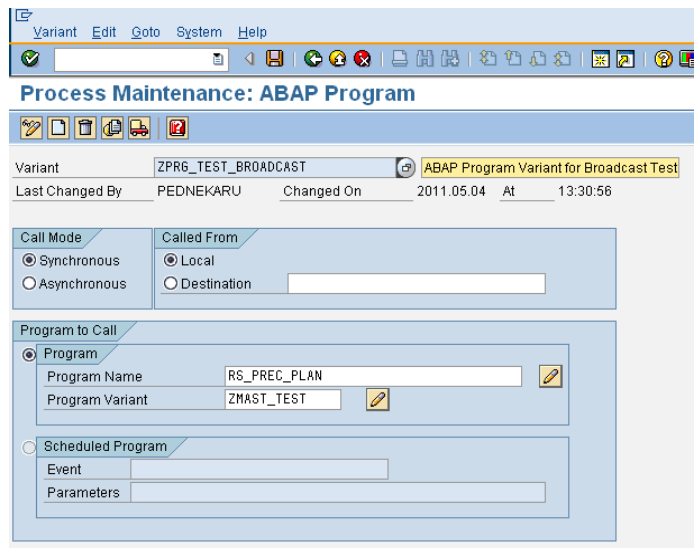
You can view the variant attributes by selecting 'Display' at the next screen.



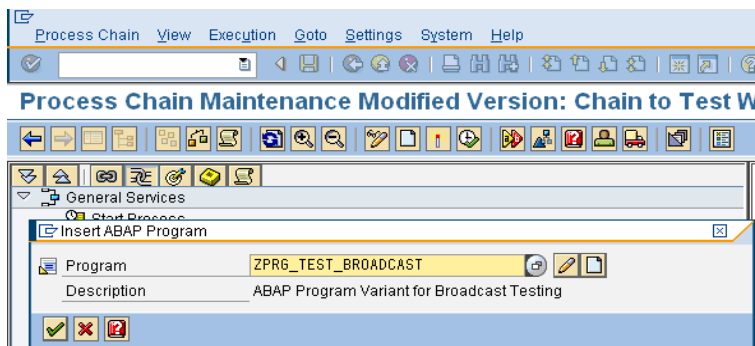
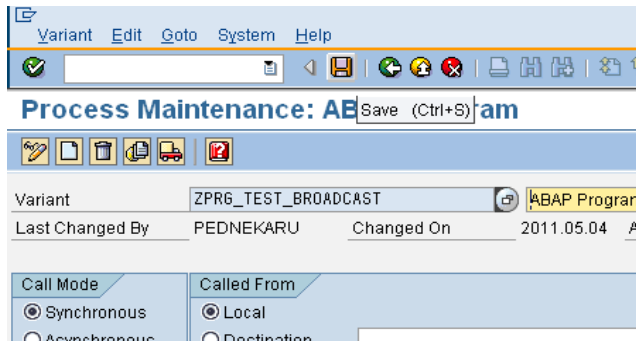
Aren't these the attributes we selected for our variant earlier ?



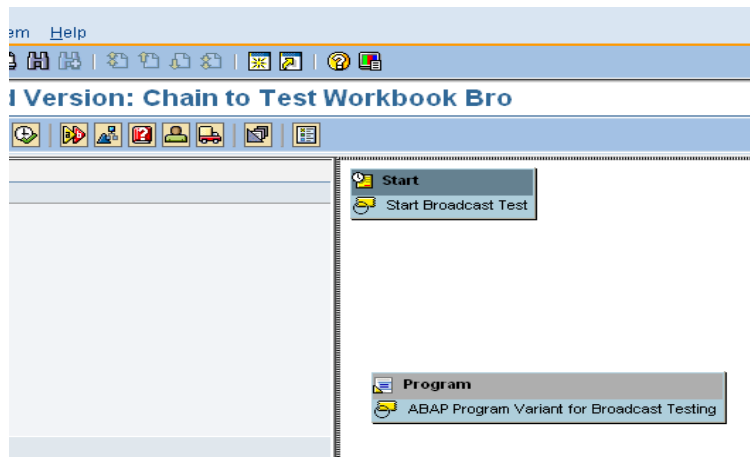
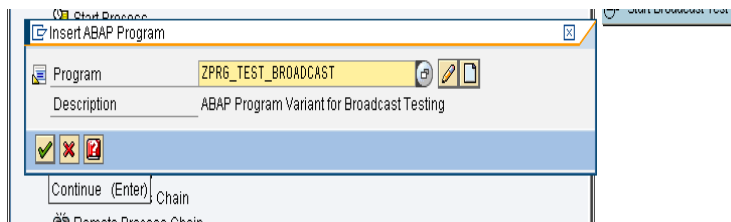
Go Back twice to arrive at the Process Maintenance : ABAP Program screen



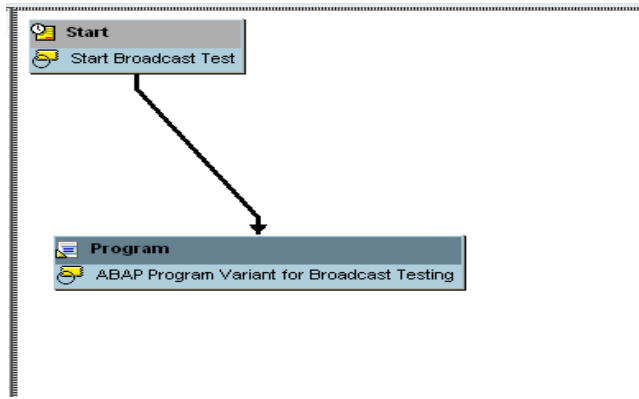
Save your selections and Go Back



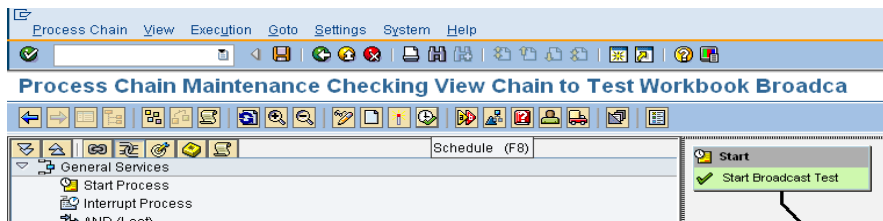
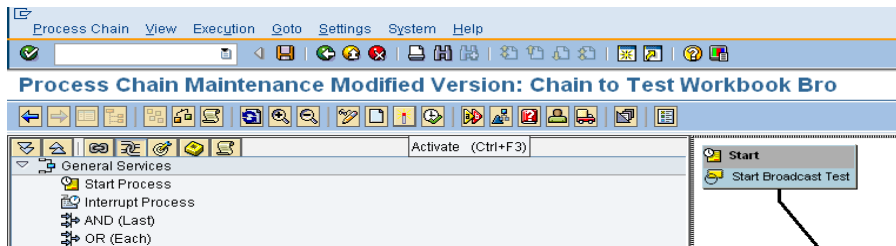
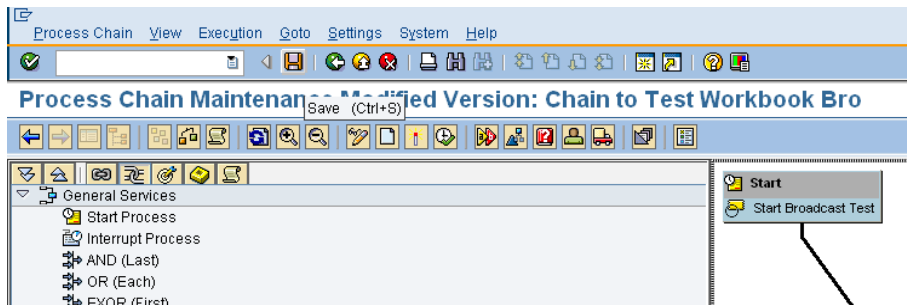
Confirm the process chain variant and selections by selecting 'Continue'.



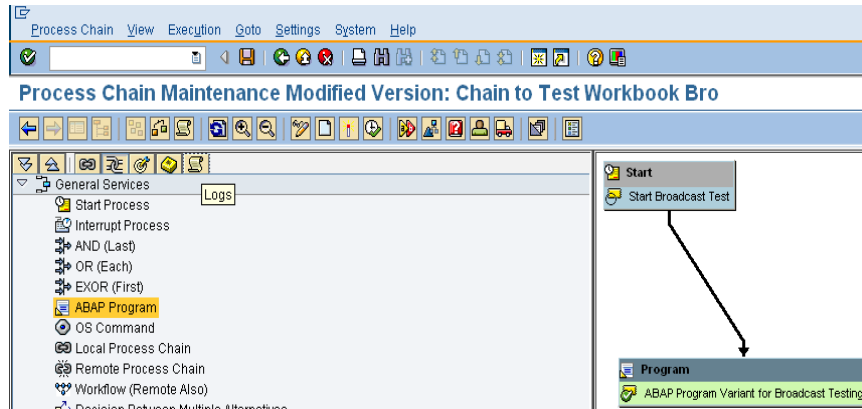
Create a link between the 'Start' process and the ABAP Program.



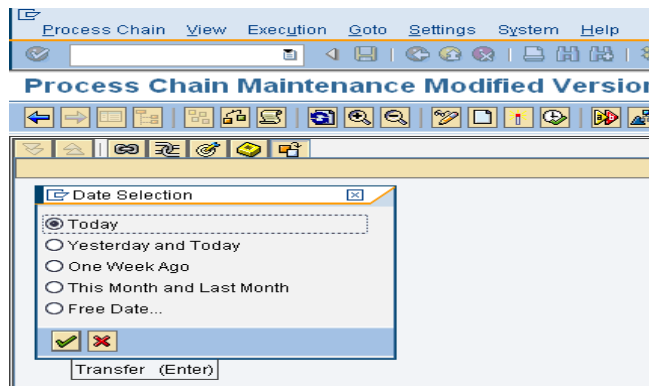
Save, Activate and Schedule your chain.



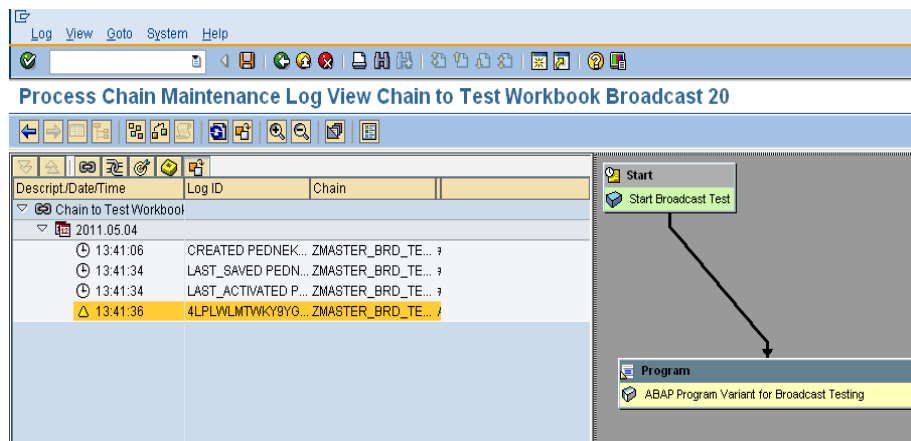
The Process Chain execution can be viewed through the Log



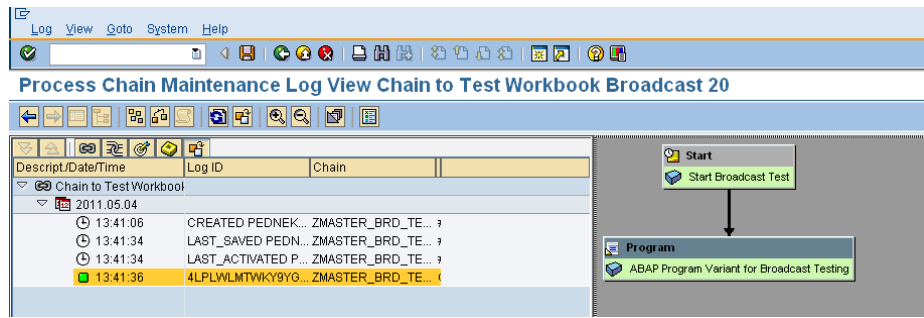
At the next option, Select 'Today'. You can select the desired period - depending on the duration your chain has been scheduled to run.



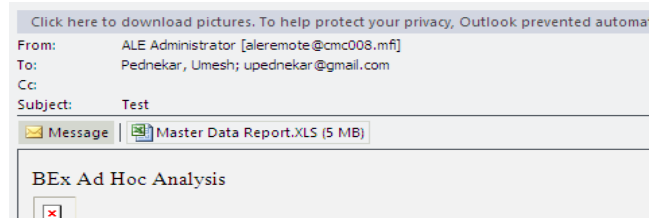
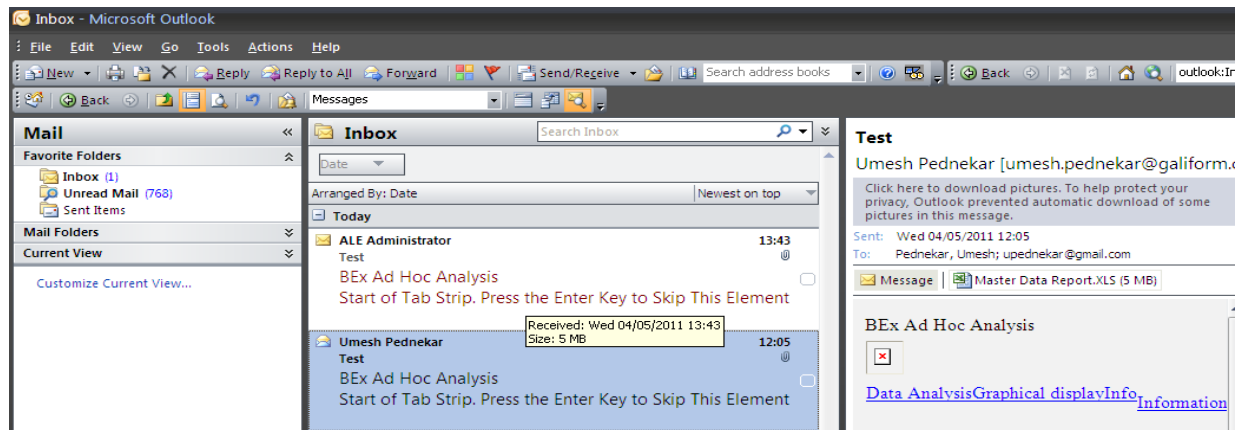
We can see that the chain is still running.



Chain completion status can be viewed by visiting the Logs or through transaction RSPCM

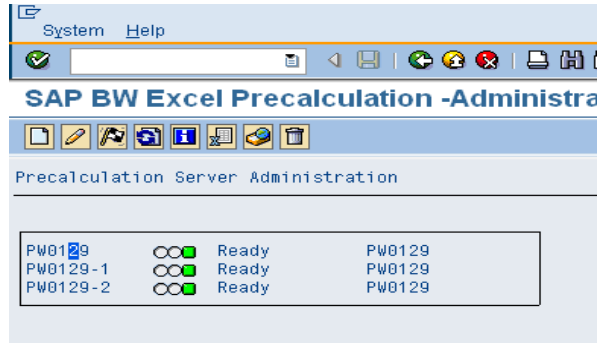


The workbook is broadcasted to the Inbox of the email specified in the Variant ZMAST\_TEST. The email received at 13:43 is the second broadcast which is scheduled through the Process chain.

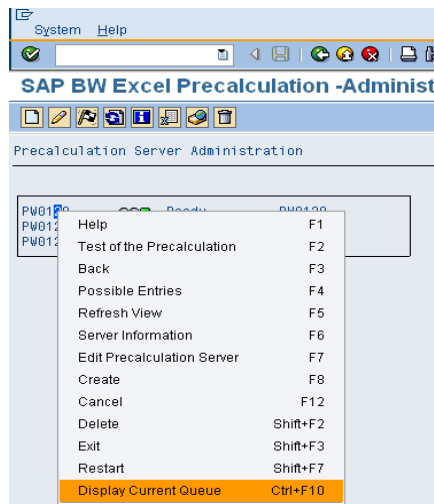


## Monitoring Workbooks

Go to Transaction RSPREADMIN. This provides you with the list of all pre-calculation servers.



To view the Queue, select the desired server – right click and select 'Display Current Queue'



The Queue will list of all jobs that are Open, Current and Completed.

**Display of Current Queue with Statistics**

Program RS\_PREC\_SHOW\_QUEUE

Queue Overview of Open Precalculations

DESTINAT	USERNAME	Workbook	TIME IN QUEUE (s)

Queue Overview of Current Precalculations

DESTINAT	USERNAME	Workbook	TIME IN QUEUE (s)
PW0129	COWANT	TC_DP_WORKBOOK	1,899,570

Queue Overview of Processed Error-Free Precalculations

DESTINAT	USERNAME	Workbook	DURATION	DATE
PW0129	ALEREMOTE	Master Data Report	99	2011.05.04
PW0129	PEDNEKARU	Master Data Report	116	2011.05.04
PW0129	WALLER6	Detailed daily Goods In	113	2011.05.04
PW0129	WALLER6	Summary Daily Goods In	115	2011.05.04
PW0129	TINKLERS	21 Day Report (New Version	22	2011.05.04
PW0129	TINKLERS	21 Day Report (New Version	32	2011.05.04
PW0129	TINKLERS	21 Day Report (New Version	30	2011.05.04
PW0129-1	TINKLERS	21 Day Report (New Version	33	2011.05.04
PW0129	HUGHESJ	4J4VKVUDD6DL3FH1GR8Y7EUK3	616	2011.05.04
PW0129	TINKLERS	21 Day Report (New Version	31	2011.05.04

Remember that you could broadcast as many workbooks as possible. The mechanism to broadcast them through Pre-calculation process chains would be as described in the document.

## **Related Content**

[Checking Precalculation Server Issues for BEx Analyzer Workbooks in BW 7.X](#)

[Precalculation Server – The New Administration Transaction](#)

[Network Blog: BW Bex 3.x Macros to create Formatted Workbooks - Part 1](#)

For more information, visit the [EDW homepage](#)



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