






SM-SE 7.1 Background Processing Job Scheduling System

Test Catalogue Version 0012 – 2014-06-05

TABLE OF CONTENTS

1	OVERVIEW.....	4
2	GLOSSARY	4
3	STRUCTURE OF THE TEST PLAN	4
4	ACCESS EXTERNAL SCHEDULER.....	4
4.1.1	PART I – Login	5
4.1.2	PART II – Redirect.....	5
5	SCHEDULE JOB DIRECTLY BY SMSE.....	6
5.1.1	PART I – Schedule Job from Scratch	6
5.1.2	PART II – Change/Reschedule Job.....	7
5.1.3	PART III – Schedule Copied Job.....	7
5.1.4	PART IV – Cancel Job	8
5.1.5	PART V – Miscellaneous	8
6	SCHEDULE JOB FROM JOB DOCUMENTATION BY SMSE.....	8
6.1.1	PART I – Create Job Doc.....	8
6.1.2	PART II – Schedule Job from Job Doc.....	9
6.1.3	PART III – Miscellaneous.....	10
6.1.4	PART IV – Check Scheduling Result.....	11
7	EXCHANGE INFO BETWEEN SM AND EXTERNAL SCHEDULER.....	11
7.1.1	PART I – Search Jobs in External Scheduler	11
7.1.2	PART II – Search Jobs in SM.....	11
7.1.3	PART III – Actions in Job Scheduling Page.....	12
8	AUTO PUSH MONITORING DATA TO SM	12
8.1.1	PART I – Create Monitoring Object	12
8.1.2	PART II – Retrieve Alert from BPMon	15
8.1.3	PART III – Trouble Shooting	15

Symbols

Symbol	Meaning
	Warning
	Example
	Tip
	Recommendation
	Syntax

1 OVERVIEW






Solution Manager Scheduling Enabler (SMSE), also known as Business Automation Enabler (BAE), is an interface between SAP applications and external schedulers such as SAP Central Process Scheduling by Redwood, for scheduling jobs and job chains and integrating of business and infrastructure events.

2 GLOSSARY

- SM - SAP Solution Manager
- JSM - Job Scheduling Management in SAP Solution Manager
- SMSE - Solution Manager Scheduling Enabler
- SM Work Center - Standalone web dynpro application that constitute the entire Solution Manager, please check [here](#) for more information.
- Job Documentation - It's a kind of document defined in SM scope, for more information please check [\[SAP Help\] Job Documentation](#)
- Ad-hoc Jobs - Jobs which will be run only once
- Periodical Job - Jobs which will be run multiple times
- SM36 - T-code for program 'Define Background Job'
- SM37 - T-code for program 'Simple Job Selection'
- BPMon - Business Process Monitoring in SAP Solution Manager, please check [here](#) for more information.
- Monitoring Object - One of concept in BPMon, can be assigned to business process steps and therefore alerts could be retrieved automatically in SM
- POWL - The Personal Object Work List, please check [here](#) for more information

3 STRUCTURE OF THE TEST PLAN

The test catalogue is structured as follows:

 Chapter 4	Access External Scheduler
 Chapter 5	Schedule Job Directly by SMSE
 Chapter 6	Schedule Job from Job Documentation by SMSE
 Chapter 7	Exchange Information between SM and External Scheduler
 Chapter 8	Auto Push Monitoring Data to SM

4 ACCESS EXTERNAL SCHEDULER

Description

Login to SMSE should be available from JSM work center.

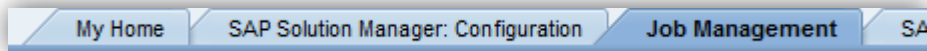
Prerequisites

- Basic knowledge of JSM and the external scheduler
- The test user can access JSM work center in SM system
- The test user can access the external scheduler which connect with his/her SM system

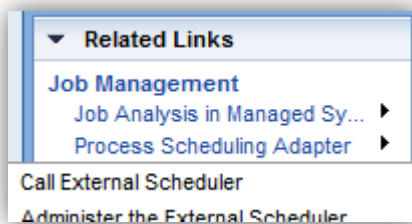
4.1.1 PART I – Login

Realization

1. Logon to SM system
2. Launch SM via transaction SM_WORCENTER
3. Navigate to tab “Job Management”



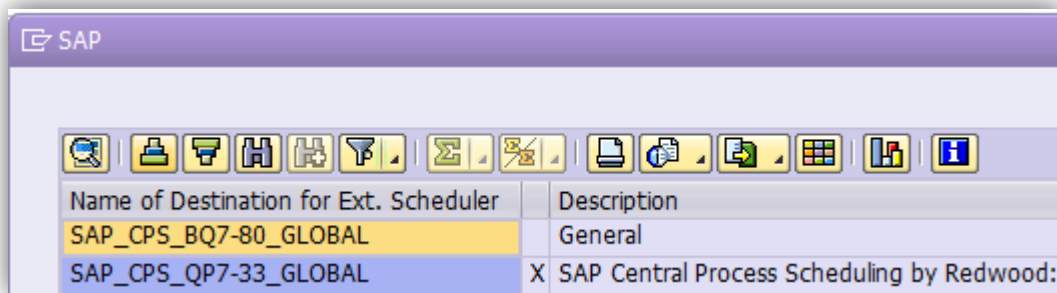
4. Refer to “Related Links” on left side
5. Click child link “Process Scheduling Adapter | Call External Scheduler”



6. In new pop-up SAPGUI window, choose the one you want to login
7. In SMSE logon page, enter valid credentials.

Verification

- 5: New pop-up shows the available external schedulers, for example:

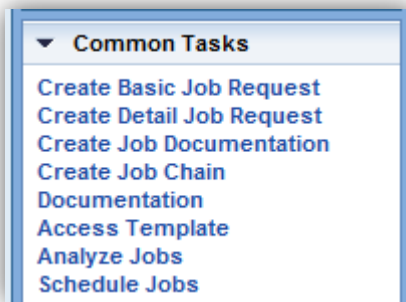


- 7: You will be navigated to external scheduler

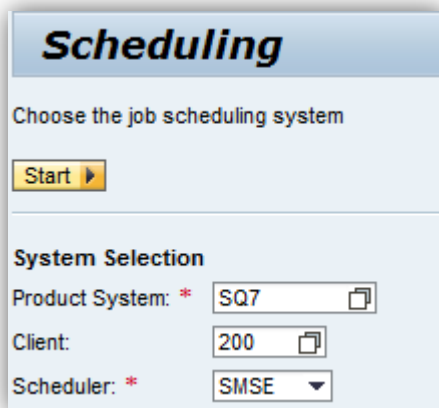
4.1.2 PART II – Redirect

Realization

8. In JSM work center, click the link ‘Schedule Jobs’ from ‘Common Tasks’ pane



9. In new displayed scheduling page, select SMSE as the scheduler, click 'Start'



10. Play within the external scheduler page

Verification

- 10: All settings/actions are work properly

5 SCHEDULE JOB DIRECTLY BY SMSE

Description

In SM, user is able to schedule job via SMSE without any job documentation created in advance.

Prerequisites

- Basic knowledge of JSM and the external scheduler
- The test user can access JSM work center in SM system
- The test user can access the external scheduler which connect with his/her SM system

5.1.1 PART I – Schedule Job from Scratch

Realization

1. Logon to SM system
2. Launch SM via transaction SM_WORCENTER
3. Navigate to tab “Job Management”
4. Click link “Schedule Jobs” from “Common Tasks” pane

5. In new displayed scheduling page, select the system, client via F4 search help, choose SMSE as the scheduler, click button 'Start'
6. In scheduling page, play with the F4 search help of individual fields
7. Play with the "Start Conditions"
8. Schedule the job by clicking button 'Schedule/Change Externally' on top of the page

Verification

- 4: The new pop-up page contains fields: system, client and scheduler.
- 5: The scheduling page contains the system information you have entered
- 6: F4 search help works properly
- 7: Both ad-hoc and periodical job can be selected and the start conditions can be set accordingly
- 8:
 - If the start time is earlier than current time, there will be warning message telling user cannot schedule the job successfully
 - Otherwise the job will be scheduled successfully and the external job id and status will be updated.
 - The scheduled job can be found in external scheduler

5.1.2 PART II – Change/Reschedule Job

Realization

9. If the job has been scheduled but hasn't been started, user can change the start conditions or the parameters, then click the button 'Schedule/Change Externally' again
10. Also, user can change the start conditions of the schedule condition and then click the button 'Reschedule' to reset the job to a new start time.

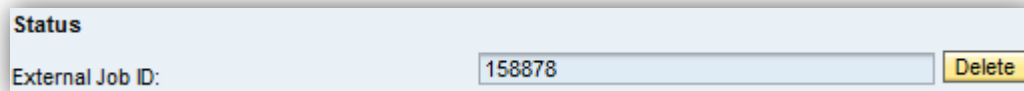
Verification

- 9/10: Job can be changed/rescheduled

5.1.3 PART III – Schedule Copied Job

Realization

11. In scheduling page, click the button 'Copy Job'
12. Search the job and copy from it
13. Click button 'Delete' to discard the connection between copied job and current job documentation



14. Schedule new job by clicking button 'Schedule/Change Externally' on top of the scheduling page

Verification

- 13: The external ID is cleared and the scheduling page changes to be enabled, where user can schedule new job again
- 14: Copied job can be scheduled

5.1.4 PART IV – Cancel Job

Realization

15. For non-completed jobs, click button 'Cancel Job' on top of the scheduling page to recall it

Verification

- 15:
 - Job cancel message should be displayed
 - For ad-hoc job, it will be cancelled
 - For periodical job, all child jobs will be cancelled

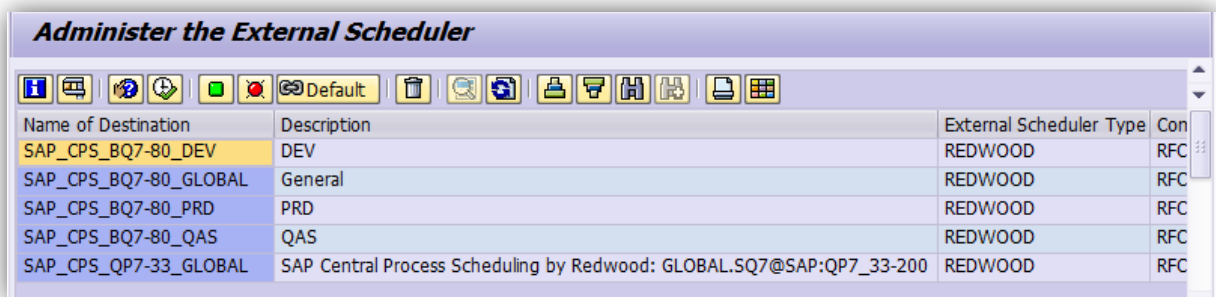
5.1.5 PART V – Miscellaneous

Realization

16. In scheduling page, click button "Scheduler Management"
 17. In scheduling page, click button "Job Selection"

Verification

- 16: You'll be navigated to the "Administrator the External Scheduler"



- 17: You'll be navigated to the interface of SM37 in the target system, where you can search for scheduled job details

6 SCHEDULE JOB FROM JOB DOCUMENTATION BY SMSE

Description

User is able to schedule job via SMSE from a job documentation that created in advance.

Prerequisites

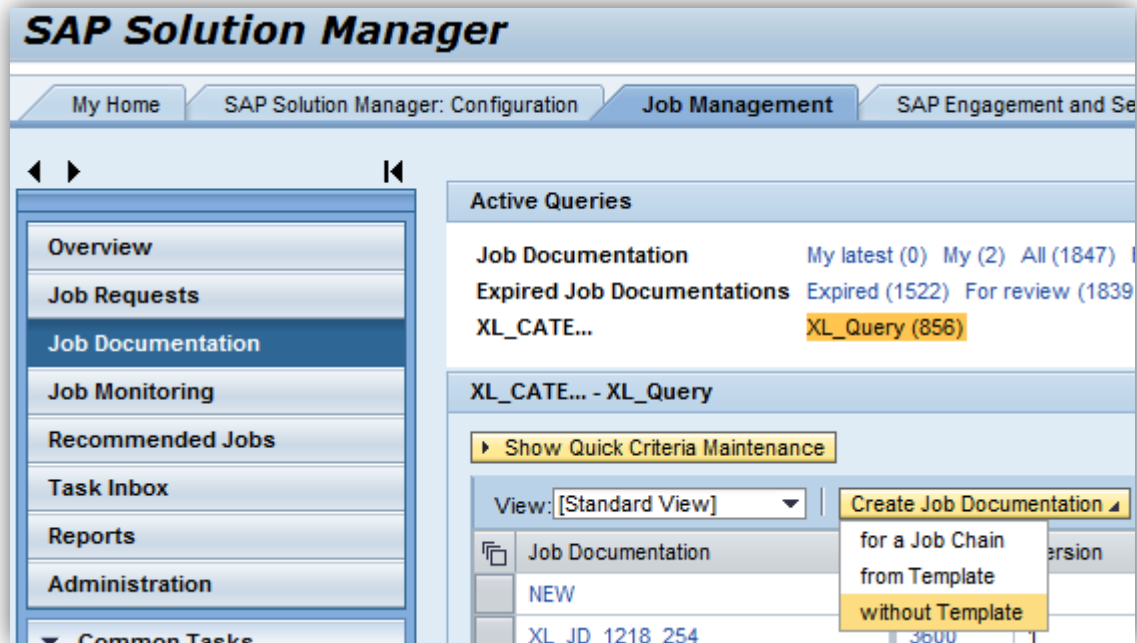
- Basic knowledge of JSM and the external scheduler
- The test user can access JSM work center in SM system
- The test user can access the external scheduler which connect with his/her SM system

6.1.1 PART I – Create Job Doc

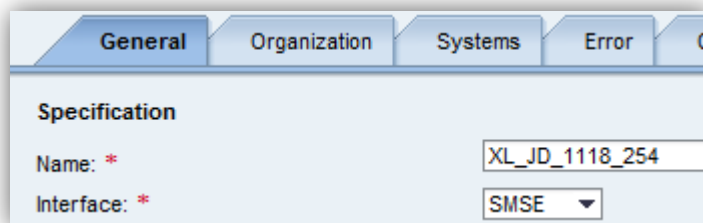
Realization

1. Logon to SM system
2. Launch SM via transaction SM_WORCENTER

3. Navigate to tab “Job Management”
4. Go to ‘Job Documentation’ view
5. Create a job documentation without template



6. In new job doc creation page, ‘General’ tab, give a job doc name and set its interface as SMSE, add step and save your changes by clicking the ‘Save’ button on top of the job doc creation page



7. Switch to ‘Systems’ tab, add solution for your job doc, save your changes

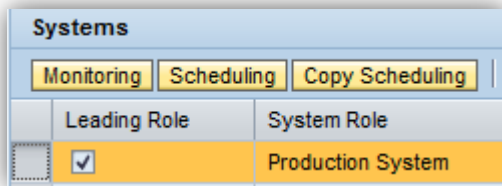
Verification

- 7: The solution/logical component can be assigned

6.1.2 PART II – Schedule Job from Job Doc

Realization

8. Select available system, and then click ‘Scheduling’ button



9. In new created scheduling page, click 'Edit' button
10. Do similar actions and checks as previous test case ([Schedule Job Directly by SMSE](#))

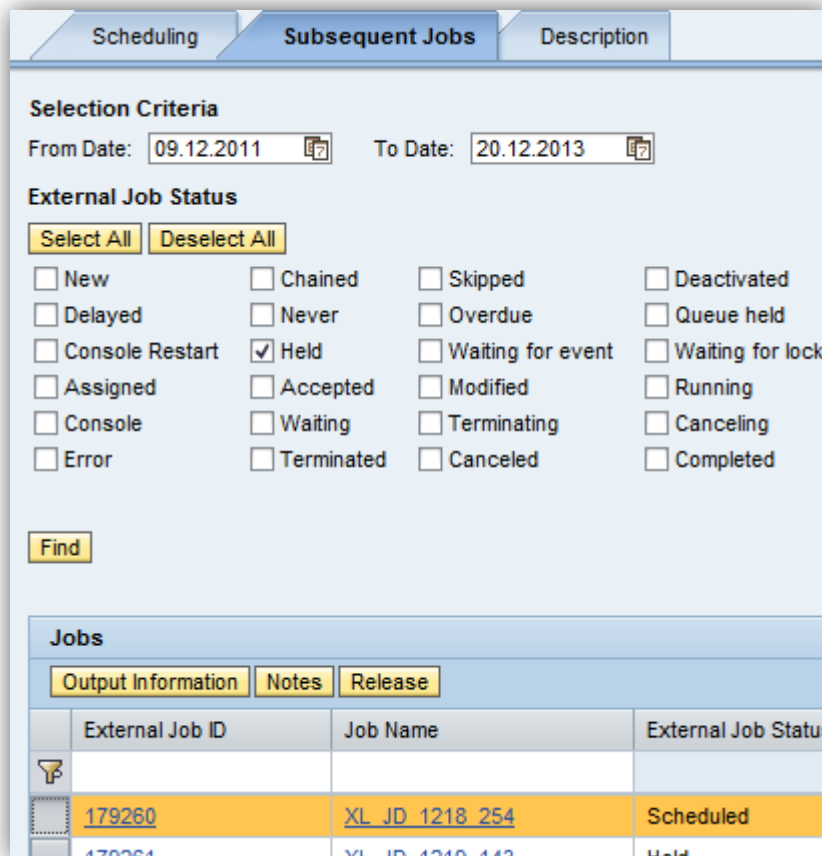
Verification

- 8: In scheduling page, the job information maintained in general tab (e.g. steps) is copied automatically

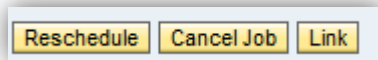
6.1.3 PART III – Miscellaneous

Realization

11. Go to its "Subsequent Jobs" tab, find jobs by selection criteria
12. For any selected job, play with the actions



13. Back to 'Scheduling' tab, copy a job into the job doc
14. Click 'Link' button on the top of the page



Verification

- 11: External jobs can be found according to your selection criteria
- 12:
 - Button 'Output Information': you'll see the output logs
 - Button 'Notes': you can add some notes to the job
 - Button 'Release': you can release a held job
- 14: This will create the connection between external job and current job doc in external scheduler

6.1.4 PART IV – Check Scheduling Result

Realization

15. In JSM work center, go to “External Scheduler Management” view, search for new created job by POWL query
16. Search for the new created job in external scheduler

Verification

- 15/16: the new created job can be searched out in both SM and external scheduler

7 EXCHANGE INFO BETWEEN SM AND EXTERNAL SCHEDULER

Description

The information on SM side must consistent with that in SMSE.

Prerequisites

- Basic knowledge of JSM and the external scheduler
- The test user can access JSM work center in SM system
- The test user can access the external scheduler which connect with his/her SM system
- [Chapter 6](#) need to be performed beforehand

7.1.1 PART I – Search Jobs in External Scheduler

Realization

1. Logon to external scheduler
2. Search the jobs in external scheduler

Verification

- 2: The filters can work properly

7.1.2 PART II – Search Jobs in SM

Realization

3. Logon to SM system
4. Launch SM via transaction SM_WORCENTER
5. Navigate to tab “Job Management”
6. Go to “Job Monitoring | External Job Scheduler (SMSE)” sub-view
7. Play with the search criteria in 'Quick Criteria Maintenance' area

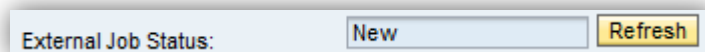
Verification

- 7: All criteria work properly

7.1.3 PART III – Actions in Job Scheduling Page

Realization

8. Go to ‘Job Documentation’ view
9. Open the job doc which scheduler is SMSE
10. Go to its ‘Systems | Scheduling’ sub-tab
11. Click button ‘External Note’ on the top of the embedded scheduling page
12. Click button ‘External Log’ on the top of the embedded scheduling page
13. Click button ‘Refresh’



Verification

- 11: The note for this job should be displayed in pop-up
- 12: The log of the job in SMSE should be shown
- 13: The job status should be updated

8 AUTO PUSH MONITORING DATA TO SM

Description

SMSE has the capability to push data into Business Process Monitoring in SM.

Prerequisites

- Basic knowledge of JSM and the external scheduler
- The test user can access JSM work center in SM system
- The test user can access the external scheduler which connect with his/her SM system
- Basic BPMon knowledge such as how to created monitoring object

8.1.1 PART I – Create Monitoring Object

Realization

1. Logon to SM system
2. Launch SM via transaction SM_WORCENTER
3. Navigate to tab “Job Management”
4. Go to “Job Documentation” view
5. Open the job created in [Chapter 6](#)
6. Schedule job from job documentation with ‘Status Message’ is checked

Schedule Stopped:
Status message:

- 7. In job documentation page, go to 'Systems | System Landscape' sub-tab
- 8. Select the solution and system then click 'Monitoring' button

System Landscape | Scheduling

Add Logical Components Directly or in a Business Process Step

Logical Components and Solutions

Log. Comp.	Solution	Project
Z_JSM_SQ7		
Z_JSM_SQ7	Vincent Test	

Details of Selected Logical Component

Systems

Leading Role	System Role
<input checked="" type="checkbox"/>	Production System

- 9. In new created monitoring page, tab 'Identification', input all mandatory fields and check the option 'SMSE Push'

Job Identification

Check Identification Data

Job Name: Job Step No.: *

ABAP Program: Variant:

External Program: External Parameters:

User: Parallel Jobs?: *

Start Procedure: *

Event ID: Event Parameter:

Preceding Job:

Job Rule:

Schedule

Schedule type: *

Days of the Week						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Data Collection

Critical?: SMSE Push:

10. In tab 'Alert Configuration', you can set all the key figures in flexible way, for example:

Identification | **Alert Configuration** | Notification | Analysis Tools | Monitoring Team | Monitoring Activities | Alert Reorganization and Others

Duration

Lower Threshold for Red [min]: Lower Threshold for Yellow [min]:
 Upper Threshold for Yellow [min]: Upper Threshold for Red [min]:
 Alert refers to Step:

Not Started on Time

Parameter Set ID	*Check Time	Rating

Alert refers to Step:

Out of Time Window

Start of Time Window: End of Time Window:
 Threshold for Yellow [min]: Threshold for Red [min]:
 Alert refers to Step:

Start Delay

Threshold for Yellow [min]: Threshold for Red [min]:
 Alert refers to Step:

Cancellation

Rating:
 Alert refers to Step:

Job Active

Threshold for Yellow [min]: Threshold for Red [min]:

11. Finish all other mandatory fields in tab 'Notification', 'Monitoring Activities'.

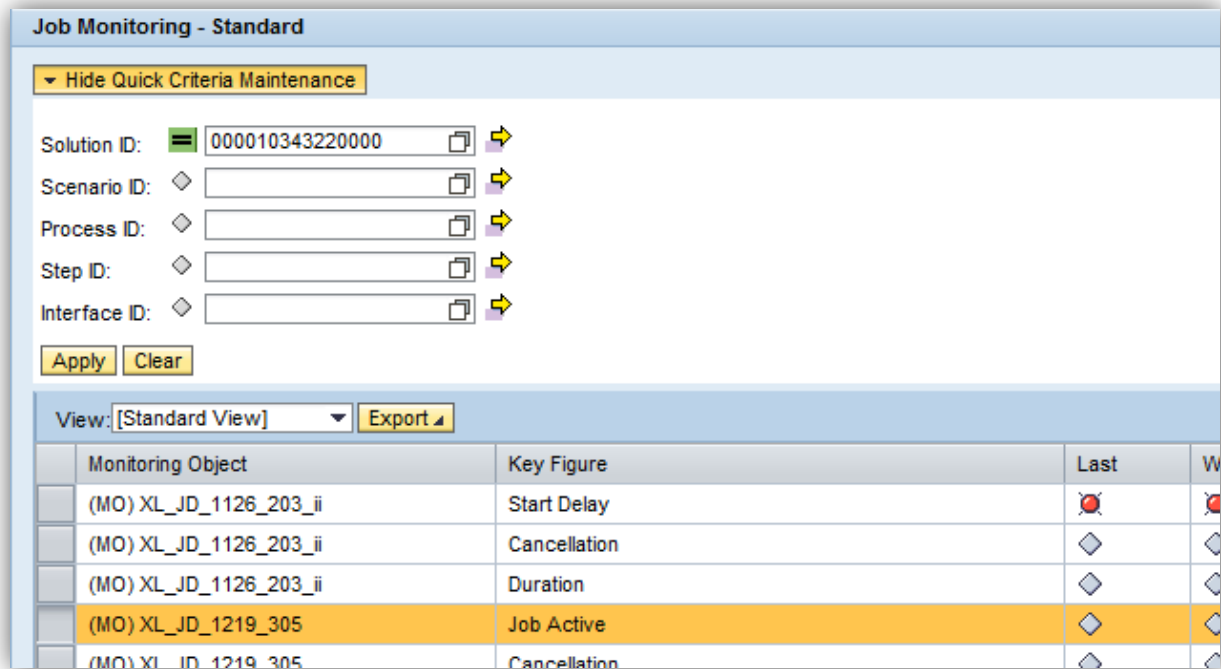
12. Generate and active the monitoring object by clicking the buttons above

Verification

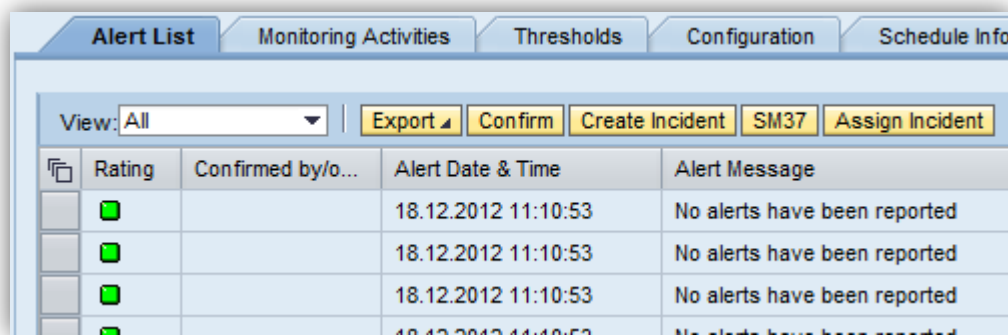
- 12: The monitoring object can be activated

8.1.2 PART II – Retrieve Alert from BPMon

- In JSM work center, go to “Job Monitoring | Alert Inbox” sub-view
- Search for the new created monitoring object, for example:



- Refresh the alert list table below after some monitoring period



Verification

- 14: The new created object monitoring can be found
- 15: The alert information of external job can be shown

8.1.3 PART III – Trouble Shooting

For trouble shooting purpose, you can activate / deactivate a logging of the (push monitoring related) communication between SAP Solution Manager and external scheduler by setting parameter CPSCALLBACKMON to value 'X' / <SPACE> in table AGS_JOB_CONFIG.

The logging information is stored in table AGSDBG_CPSCBACK1 (directly after getting called from external scheduler and AGSDBG_CPSCBACK2 (after reading additional information from external scheduler).

1) Table AGSDBG_CPSCBACK1.

Once you see data in table AGSDBG_CPSCBACK1, external scheduler sends basic information of the monitored job to SAP Solution Manager successfully. Please see example data in picture bellow.

Table AGSDBG_CPSCBACK1 Display

DEST	BQ7-80_GLOBAL
JOBID	179321
STATUS	C
START DELAY	275
EXEC TIME	0
ISOL GROUP	GLOBAL
SOLMAN USER	REDWOOD
SOLMAN DATE	2013-03-13
SOLMAN TIME	20:54:22
SOLMAN MANDT	200
SOLMAN BATCH	
SOLMAN MODE	

2) Table AGSDBG_CPSCBACK2.

After receiving the basic monitored job information, SAP Solution Manager will call external scheduler to read necessary detail, the information will be stored in this table. An example data:

Table AGSDBG_CPSCBACK2 Display

DEST	BQ7-80_GLOBAL
JOBID	179321
STATUS	C
START DELAY	275
EXEC TIME	0
JOBDOCUID	0050569438381EE2929BF06CC6068FDD
SID	SQ7
MANDT	200
JOBNAME	XI_JD_1219_246
JOB COUNT	07500103
SDLSTRDT	2013-03-09
SDLSTRTM	06:50:01
STRDATE	2013-03-09
STRTIME	06:50:01
ENDDATE	2013-03-09
ENDTIME	06:50:01
SOLMAN USER	REDWOOD
SOLMAN DATE	2013-03-13
SOLMAN TIME	15:34:22
SOLMAN MANDT	200
SOLMAN BATCH	
SOLMAN MODE	

Once you see data in table AGSDBG_CPSCBACK1 but not in table AGSDBG_CPSCBACK2, it can be assumed that you have to assign the SMSE authorization in external scheduler also to the user that performs the callback to SAP Solution Manager.

© 2014 SAP AG. All rights reserved.

SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP BusinessObjects Explorer, StreamWork, SAP HANA, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries.

Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects Software Ltd. Business Objects is an SAP company.

Sybase and Adaptive Server, iAnywhere, Sybase 365, SQL Anywhere, and other Sybase products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Sybase Inc. Sybase is an SAP company.

Crossgate, m@gic EDDY, B2B 360°, and B2B 360° Services are registered trademarks of Crossgate AG in Germany and other countries. Crossgate is an SAP company.

All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

These materials are subject to change without notice. These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

