Job Management Suite and Job Scheduling Management

Those that follow the topic of Job Management closely might have already read several blogs on SDN describing different features and functions available with either SAP Solution Manager and/or SAP Central Process Scheduling by Redwood. But still many customers have problems to grasp and understand the whole offering of SAP in the area of Job Management. This blog shall help and provide a comprehensive overview about what the integrated solution of the two tools SAP Solution Manager and SAP Central Process Scheduling by Redwood really means and why this solution is so unique in the market.

You can also learn more on this topic overall in sessions at TechEd 2009 in Phoenix and Vienna. Please find some corresponding session abstract at the end of this blog.

Job Management comprises far more than just scheduling a job or even job chain. Job Management means Lifecycle Management for a background job or job chain. In the following sections we will explain which steps are comprised in this Lifecycle and how the respective step is support tool-wise either by SAP Solution Manager or SAP Central Process Scheduling by Redwood.

First there is a requirement that a certain activity should be performed in background. This requirement normally comes either from a project team dealing with an implementation or upgrade project or the requirement comes form the business department during daily operations.

Now the first step is to articulate this requirement with the help of a job request form. Many customers created their own custom-specific forms for this (e.g. based on MS Word, MS Excel or custom-written web-applications). Since support package 15 the SAP Solution Manager provides the first standardized job request form which was solely developed for this purpose only based on Best Practices. This form is web-enabled and provides a basic view for business end-users and a detailed view for project team members. One of several features is a configurable naming convention for background jobs within the job request.

The job request was now filled-out by the business department or the project team but the scheduling is actually done by the IT. So how does IT learn from the job request? In the past many customers just send their form via email. Within SAP Solution Manager the job request form is integrated with the SAP Service Desk. So sending a filled-out job request results in a Service Desk message to which the job request is attached. For this only a basic Service Desk configuration is needed which is described in SAP note 1111310 - "Job Scheduling Management: Extended Configuration".

A crucial part of a Job Management process is the documentation of a background job. The majority of SAP customers have documented their jobs in a simple MS Excel spreadsheet. The SAP Solution Manager provides the first standardized, central job documentation since support package 15. This job documentation is based on Best Practices and provides not only documentation possibilities for technical parameters and contact persons but also error handling procedures, business requirements, scheduling restrictions and monitoring information.

The documentation contains also a Validity Date, so that a standard query within the Job Management Work Center in SAP Solution Manager can easily identify which job documents are outdated. This should help solving the common problem of "forgetting" jobs that should actually discontinued in the backend systems. Last but not least the job documentation is tightly integrated with the job request. Out of the created Service Desk message (with the job request attached) a job document can be created which automatically contains all maintained information from the job request. Hence no tedious double-maintenance efforts and no error-prone copy & paste operations!

As part of the job document all important scheduling information can be maintained. There are different scheduling views available out of which the SAP CPS view is the most interesting one. Here you can maintain scheduling information in the same format as you would maintain if you created a job directly in the SAP Central Process Scheduling by Redwood, e.g. queues, time-windows or submit-frames defined in a connected SAP CPS can be chosen via F4-value help. Once the scheduling information is maintained the job and its scheduling information can be transferred to the connected SAP CPS. SAP CPS also receives the respective job document ID so that the job document (web-enabled) can be directly called out of the scheduler.

For utilizing the tight integration between SAP Solution Manager and SAP CPS you have to download a dedicated adapter which is described in
Within SAP Central Process Scheduling by Redwood you can then benefit from all the advantages of a central scheduling tool in comparison to a local scheduling tool like transaction SM36. You can centrally schedule on different connected backend systems. You are no longer bound to static time-driven scheduling but can utilize more flexible event-driven scheduling which can even contain complex rule-sets which a realized via job chains. SAP CPS also provides more enhanced workload balancing than the standard SM36. More information on SAP CPS can be found under https://www.sdn.sap.com/irj/sdn/nw-scheduling.

Of course SAP CPS provides monitoring capabilities for monitoring background jobs or even complete job chains. But especially when it comes to business critical jobs you might want to monitor these jobs in business process context. The only business process oriented monitoring for background jobs is provided by the Business Process Monitoring in SAP Solution Manager. This monitoring also provides more than just job runtime or job status monitoring which is self-understood. But you can also monitor for business related start or end delays, i.e. jobs did not start or end on time. Or you check for specific messages within the Job Log that could tell you that the job finished successfully from a technical perspective but failed from an application perspective.

The Business Process Monitoring can be configured stand-alone but it can also be configured directly within the job documentation. The later option also allows a direct integration between SAP CPS and Business Process Monitoring where SAP CPS acts as a data provider for BPMon. If the Enterprise version of SAP CPS is used for SAP and non-SAP scheduling this allows then an extension of BPMon also for non-SAP jobs.

More information on Business Process Monitoring can be found either under https://service.sap.com/bpmor within this [blog](https://weblogs.sdn.sap.com/pub/wlg/10856).

The Business Process Monitoring is shipped with an own BPMon infocube so that especially all the runtime measurements of background jobs can be extracted to SAP BW and standard dashboards provide corresponding trend analysis capabilities. Find more details in this [blog](https://weblogs.sdn.sap.com/pub/wlg/11931).

All the mentioned features above for documenting, scheduling, monitoring and reporting of jobs should then help to come to the final step within the lifecycle, i.e. optimizing single jobs or even the complete job schedule.

These optimization efforts will further be strengthened with EhP2 for SAP Solution Manager as it will then be possible to report on the entirety of job executions within any SAP backend-system. This will shed light on different aspects like job durations, job status et. al. This will be probably described in a future blog.

Also in another blog we will then explain how SAP will help to get finally control over all end-user scheduled jobs. One way is working with job interceptions (which is possible for years) and the help of SAP CPS. But soon it will be possible to re-direct end-users that try to access transaction SM36 into the SAP Solution Manager job request form and “force” them to follow a standard job request process.

Summary: If you take the combined and integrated offering of SAP Solution Manager and SAP Central Process Scheduling by Redwood and compare it to other offerings in the market you will see that actually there is no comparable offering. This combined offering is apparently the first and only Job Management Suite that offers tool-support for the complete Job Management Lifecycle for requesting, documenting, scheduling, monitoring and reporting on jobs. And that integrated way that makes copy & paste operations superfluous.

Although the offering described above is comprehensive and complete in its entirety, it is of course possible for every SAP customer to only utilize parts of the offering, e.g. only the job documentation or only SAP CPS scheduling or only Business Process Monitoring.

List of selected related SDN blogs:

| Job Scheduling Management with SAP Solution Manager |
| Central Job Scheduling with SAP Solution Manager |
| Process Scheduling Adapter for SAP Solution Manager for everybody |
| Monitoring Job Chains with SAP CPS by Redwood and SAP Solution Manager |
| Managing Standard Jobs centrally from SAP Solution Manager |

You can learn more on this topic overall in sessions at TechEd 2009 in Phoenix and Vienna.

| Session Title | Job Management with SAP Central Process Scheduling and SAP Solution Manager |
| Session Abstract | This session showcases the capabilities offered by SAP’s Central Process Scheduler by Redwood, to automate the background job processing in your landscape. Also showcased is the integration with SAP’s Solution Manager which provides end to end Lifecycle Management of your background jobs. The session will introduce submitting job requests through SAP Solution Manager and SAP CPS will be used by the administrator to intercept and schedule the jobs. Based on the job documentation created by SAP Solution Manager, the administrator can create Job Chains. SAP CPS allows administrators, to create and schedule Job Chains spanning across multiple systems using user defined jobs or jobs imported from the backend systems. Jobs can be monitored and the enhanced notification mechanism of SAP CPS allows administrators to be notified about failed jobs or job chains, in real time |

You can also find more information on this topic via the SAP Central Process Scheduling blog at [https://weblogs.sdn.sap.com/pub/wlg/10856](https://weblogs.sdn.sap.com/pub/wlg/10856).