Efficient Monitoring Techniques – Do You Want Something Better than RSPCM?

Applies to:

SAP BW 3.x & SAP BI Net Weaver 2004s. For more information, visit the Business Intelligence homepage.

Summary

The objective of this article is to share and explore the efficient monitoring techniques.

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Introduction

What is BI?

BI applications provide historical, current, and predictive views transactional operations shown below. It is a 5-step process to run your business with more intelligence.

These steps include:

Registering the right data properly.

Collect these data from multiple sources.

Transform.

Combine and store it in a data warehouse or a data mart.

Report on the data and use it for further analysis.

Importance of BI

BI gives the correct information to the right set of people at appropriate time. It also gives managers and executives the ability to report on critical data for business while monitoring important operational endeavors of performance of business.

What are process chains?

Process chains are sequence of processes that control the BI processes. In an operating BI system there are a multitude of processes that occur regularly. If you use process chains, you can:

Automate the complex schedules in BW with the help of the event-controlled processing,

Visualize the processes by using network graphics, and

Centrally control and monitor the processes.

Traditional Process Chain Transactions in the BI System

Below mentioned are a few transactions to monitor a given BI system.

Monitoring of Daily Process Chains (Transaction RSPCM)

Use this transaction to regularly check the status of the current runs for selected process chains. You can navigate to the detailed log view for a process chain run from here.

Log view for runs of a process chain in process chain maintenance (transaction RSPC)

Use this transaction to display one or more runs for a process chain in the log view.

Process Chain Maintenance for a Given Process Chain Run (Transaction RSPC1)

Use this transaction to call the log view for this run by specifying the log ID of a concrete process chain run.

The Non-Traditional Monitoring Technique

We have all been used to using RSPCM as the transaction for monitoring the process chains.

But have we ever used yet another program provided by SAP with even better monitoring methods. This article will talk about the same.

Advantages over RSPCM way of monitoring

Traditional Monitoring	Non Traditional Monitoring
In the scenario where new process chains have been added to the system, they need to be added manually to the TCODE.	There is no explicit need to add any process chains manually. Chains are available automatically.
This displays only one run of the process chain.	All the runs of the process chain are displayed depending on the selection.
More the number of process chains, more is the time taken to refresh the screen.	Refresh time is minimal.

Apart from the above mentioned advantages, there are multiple advantages. We will try to have a look at those advantages gradually as we proceed with this article.

Usage Scenarios

Below listed are a few usage scenarios of this new method of monitoring:

Day to Day Monitoring

System Performance Analysis

Average Run time of the loads

Analysis on slow performance of a particular load

How to get into the monitor screen?

There are two ways how we can get into the new monitoring screen.

Method 1:

Go to TCODE ST13

Enter the tool name as ‘BW-TOOLS’

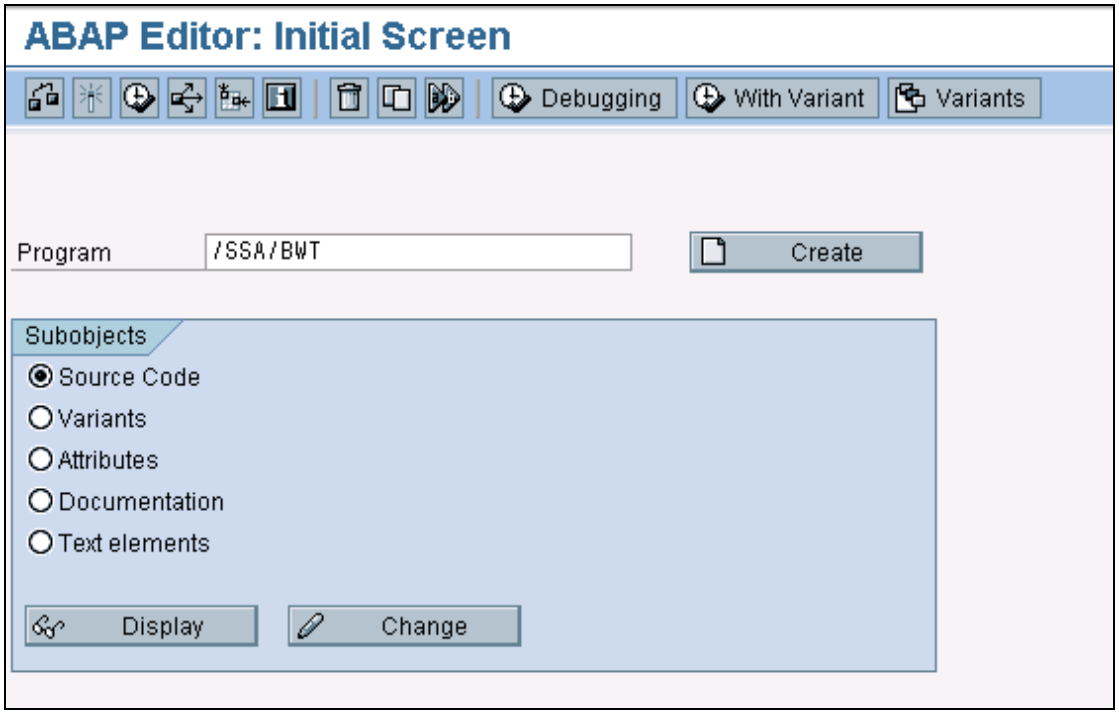
Execute

Select the radio button Process Chain Analysis and Execute

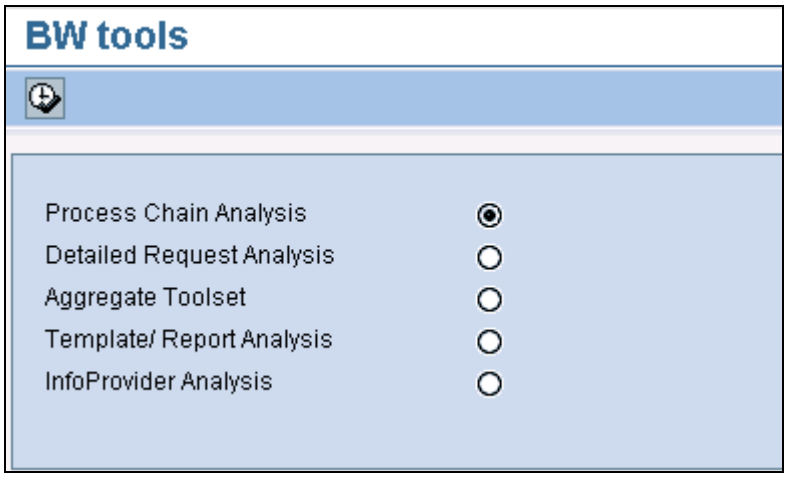
Method 2:

Go to TCODE SE38

Enter the program name as ‘/SSA/BWT’



Execute

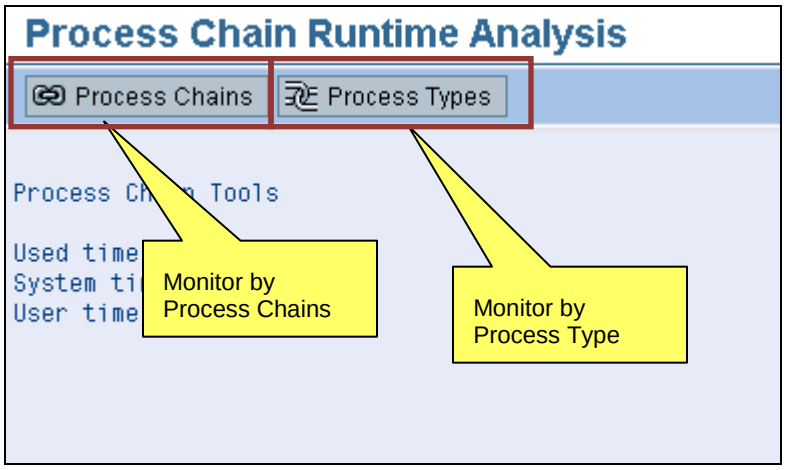


Select the radio button Process Chain Analysis and Execute

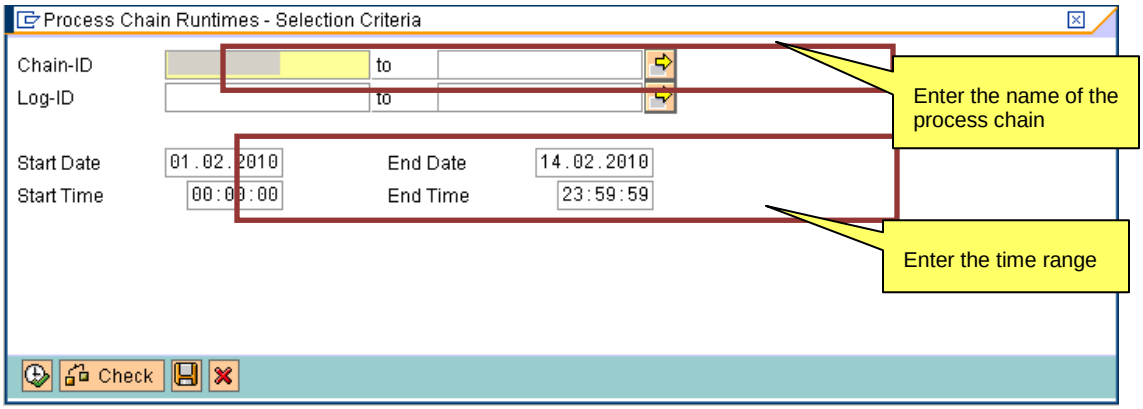
Exploring the Process Chain Run Time Analysis Tool

Various Options available

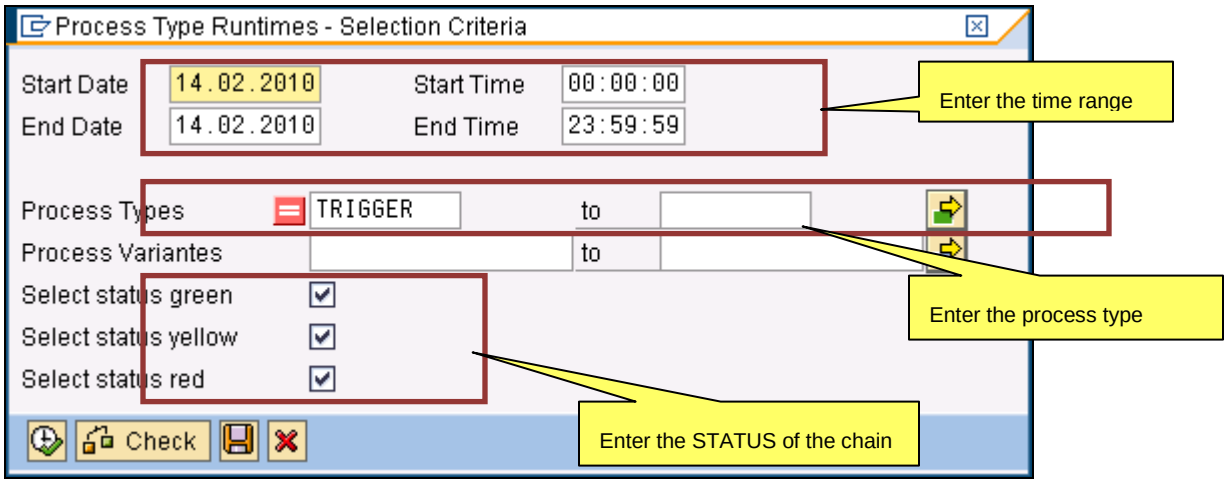
Process chain monitoring can be done via one of the below mentioned two methods:



By Process Chains: This will help us monitor the loads of multiple process chains at the time.



By Process Type: This would help us analyze the process chains based on any one particular step in the process chain.

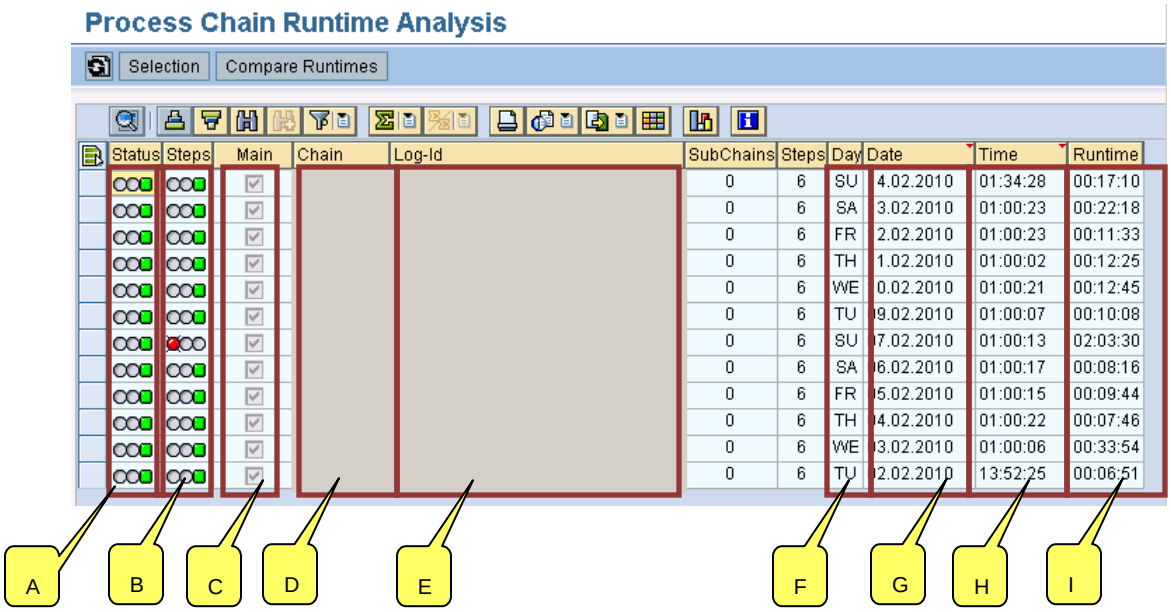


Now we will explore the monitoring by Process Chains.

Basic Level Monitoring

We first enter the process chain and/or the time range for which the process needs to be analyzed.

On executing the same we get the below information.



Below is an insight into what information is available from the above:

A → Status: This gives the overall status of the process chain.

B → Steps: This gives the status of the steps. E.g. If any one step in the process chain has failed, this will show as failed status.

C → Main: A check in the main box signifies that this is a main chain and not a local chain within a Meta chain. The Sub Chains gives the number of the local chains in a Meta chain.

D → Chain: The chain field gives the chain name with a hyperlink to navigate to the steps.

E → Log-Id: This gives the log id of the instance of the chain which had run. This has a hyperlink which directly takes us to the logs of the screen.

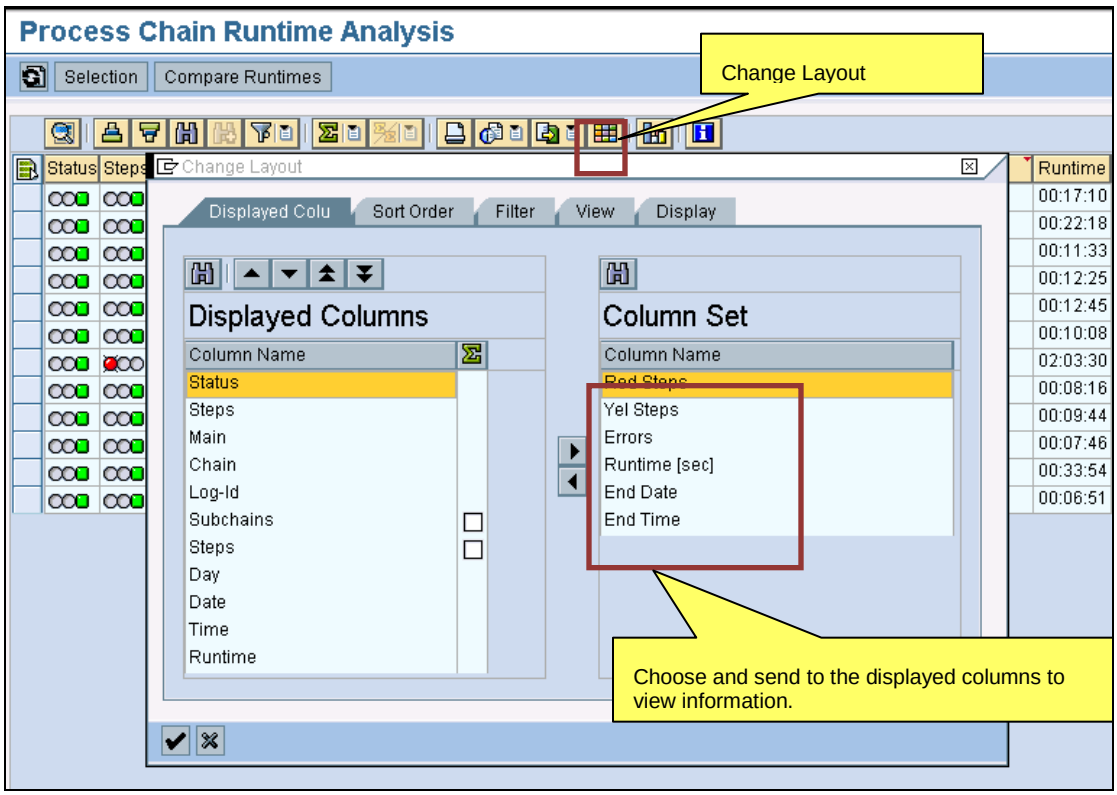
F –> Day: This gives the information of the day on which the instance of process chain had triggered.

G → Date: This gives the start date of the process chains.

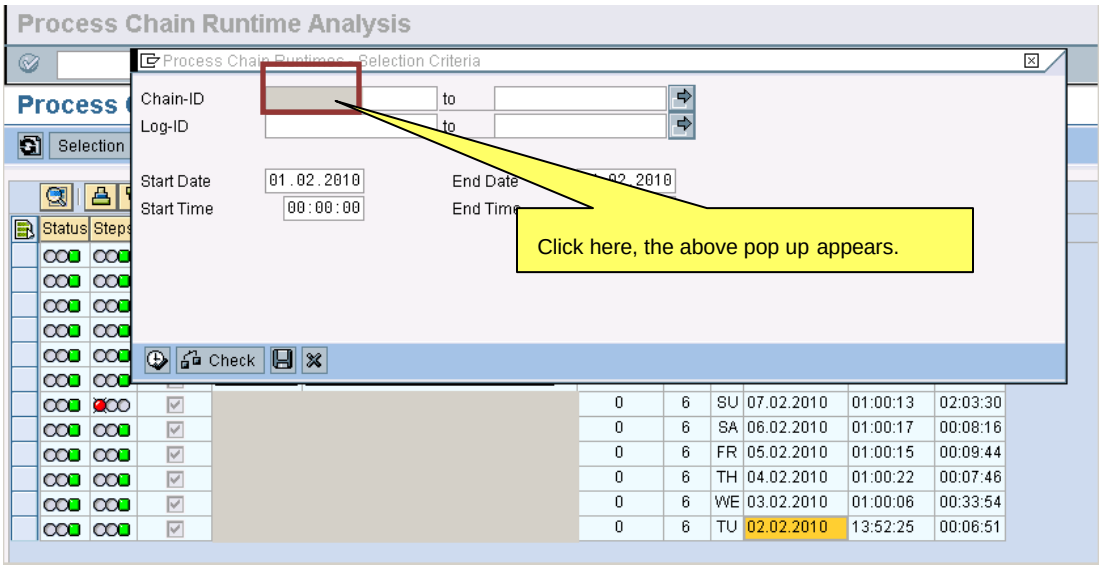
H → Time: This gives the start time of the process chains

I → Runtime: This gives the complete run time of the process chain.

In addition to the above , we have other useful information like, number of steps in the process chain in RED status, number of steps in the process chain still running , end date and end time.

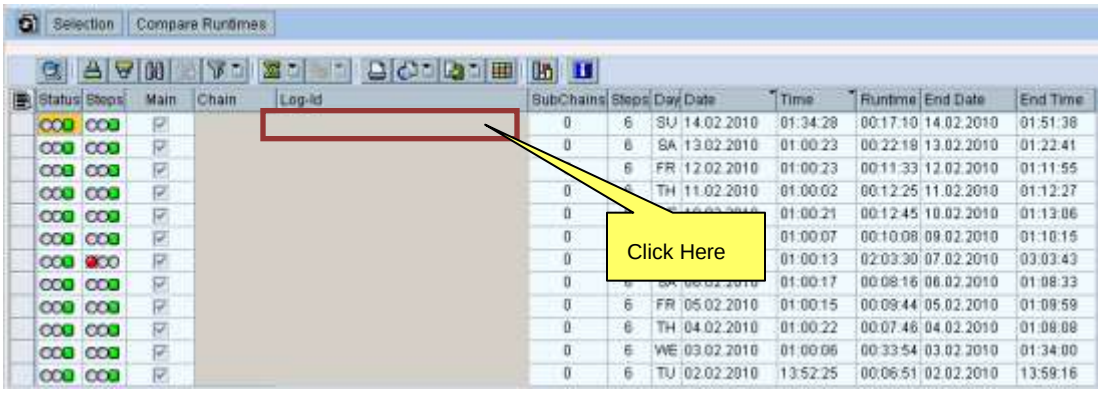


In order to change the selection for which we are monitoring click on the selection button on the top. A pop up appears, specify the details and execute.

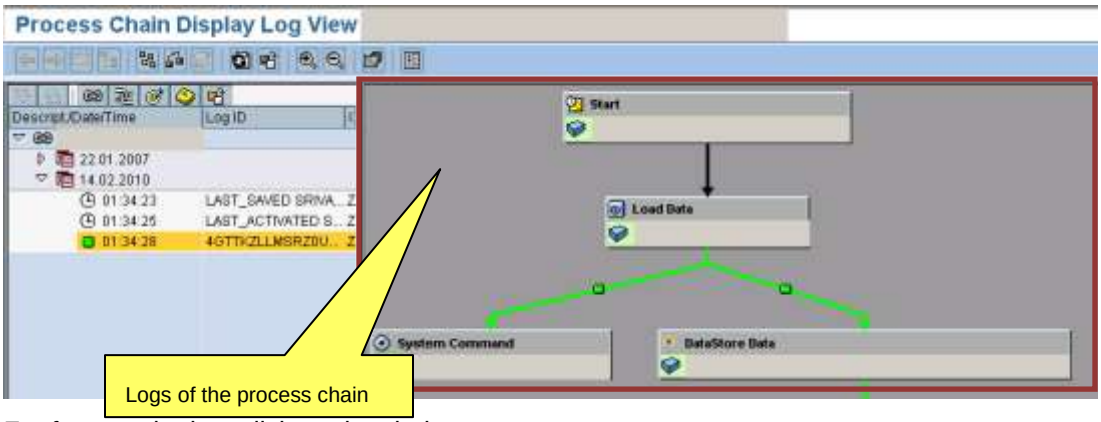


Getting into more details

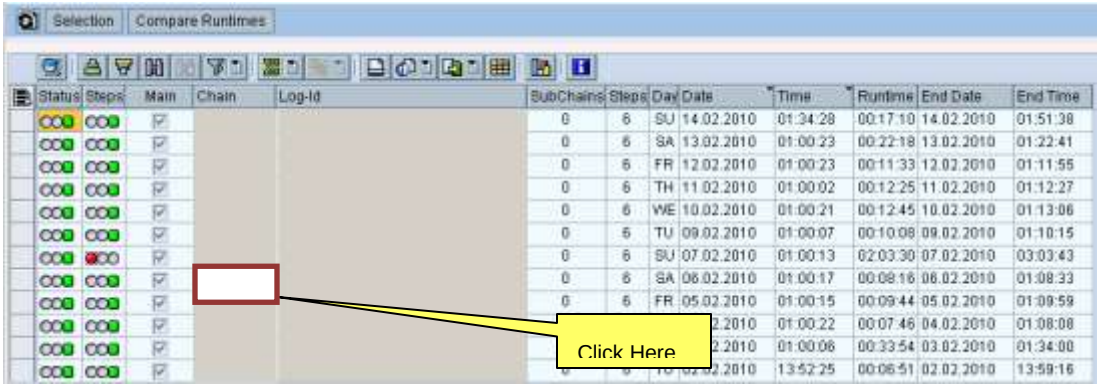
By clicking on the hyperlink of the Log Id , we can see the logs of the chains as shown below:



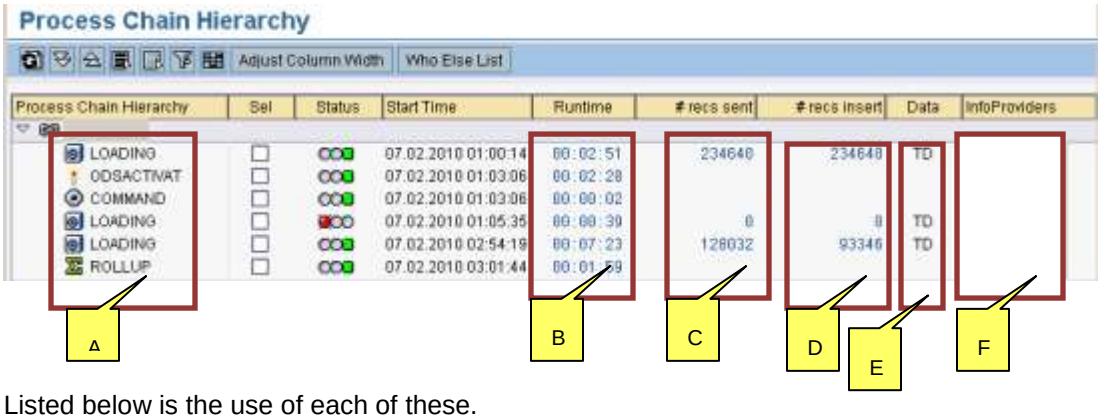
The below screen opens providing the details of the logs of the process chain. This is the same screen as the traditional way of the process chain logs.



For fast monitoring, click on the chain name.



The below screen pops up, which gives the summarized information of the process chain logs, which is more easy to understand and faster.



Listed below is the use of each of these.

A → Process Chain Hierarchy: It gives an insight into the various steps in the process chain.

B → Run Time: This field provides the run time of each step. This becomes quite useful at times when a process chain performance needs to be analyzed.

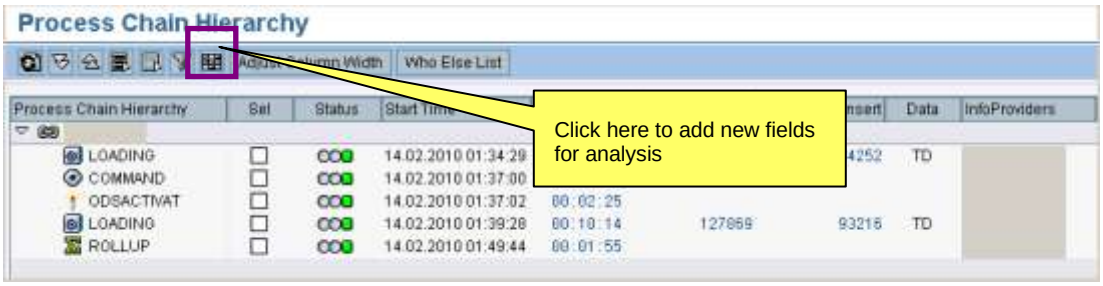
C → Records Sent: This gives the information on number of records transferred.

D → Records Insert: This gives the number of new records added to the data target.

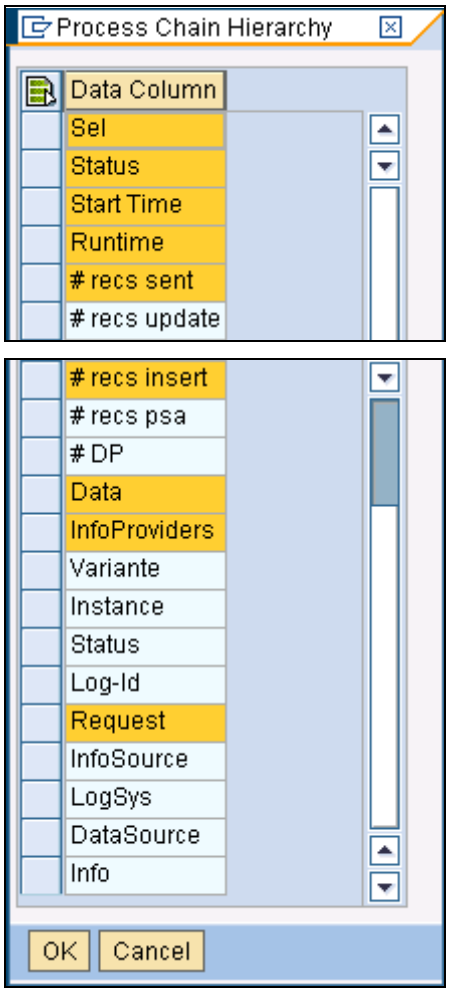
E → Data: This column gives the information as to if the data is a transaction data, text, hierarchy or master data attributes load.

F → Info Providers: This gives the information of the data targets to which data is flowing.

In addition to the above there are multiple other fields available which can be used for the analysis and monitoring of process chains.

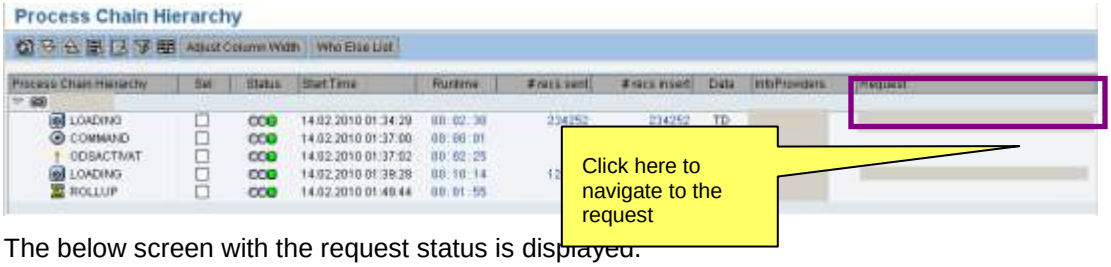


Please find the list below for the additional information which can be used. Most of the fields listed below are self explanatory.

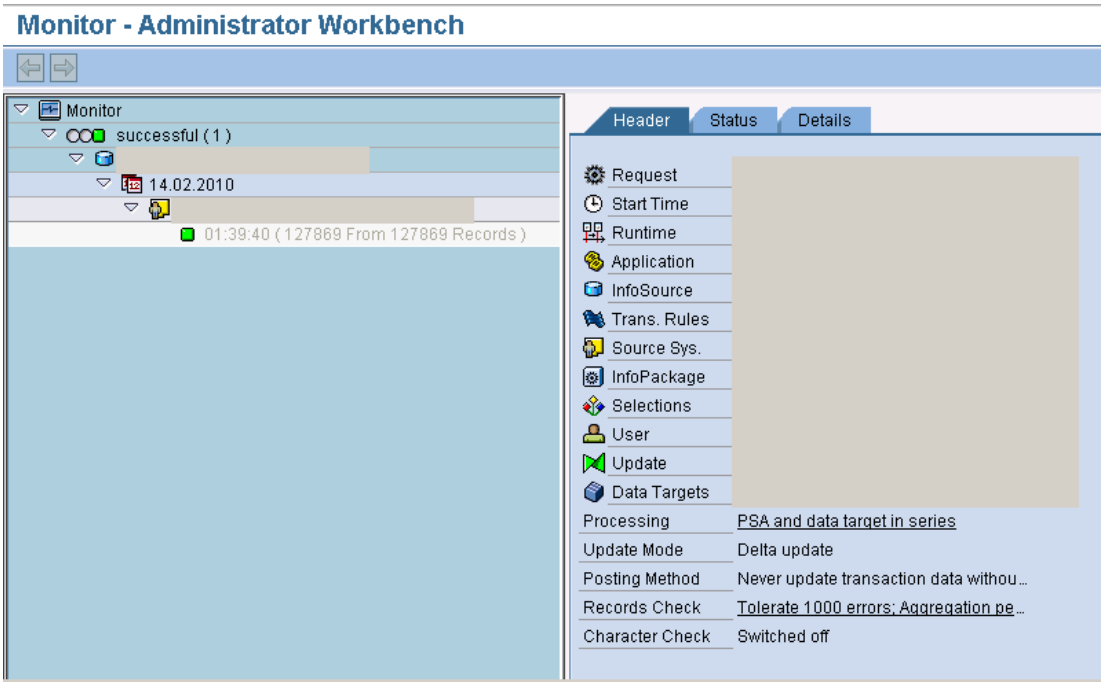


Other Navigations

Apart from the benefits detailed above, it is also possible to directly navigate to the request from the screen below.



The below screen with the request status is displayed.



Some More Additional Features

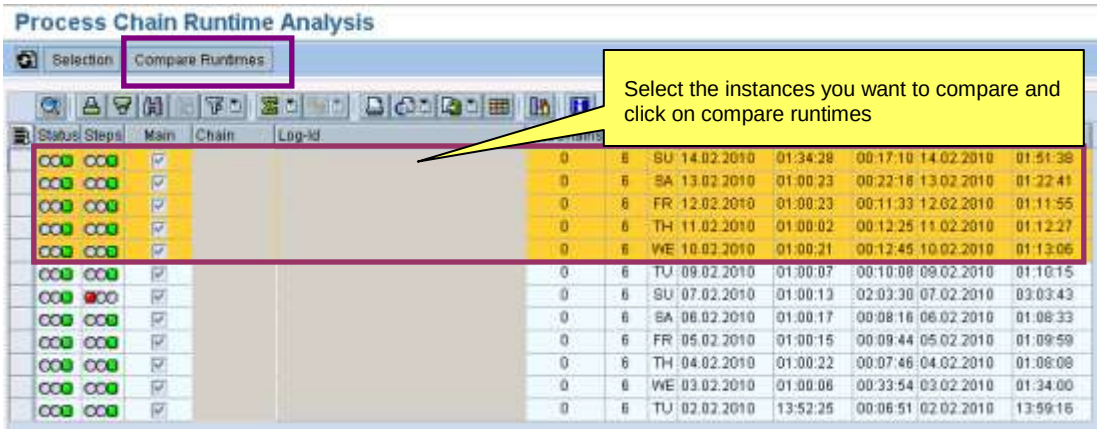
So let's get into exploring yet additional features like:

- Compare Runtimes
- Who Else List
- Request Analysis
- Parallel Process Info
- Batch Manager

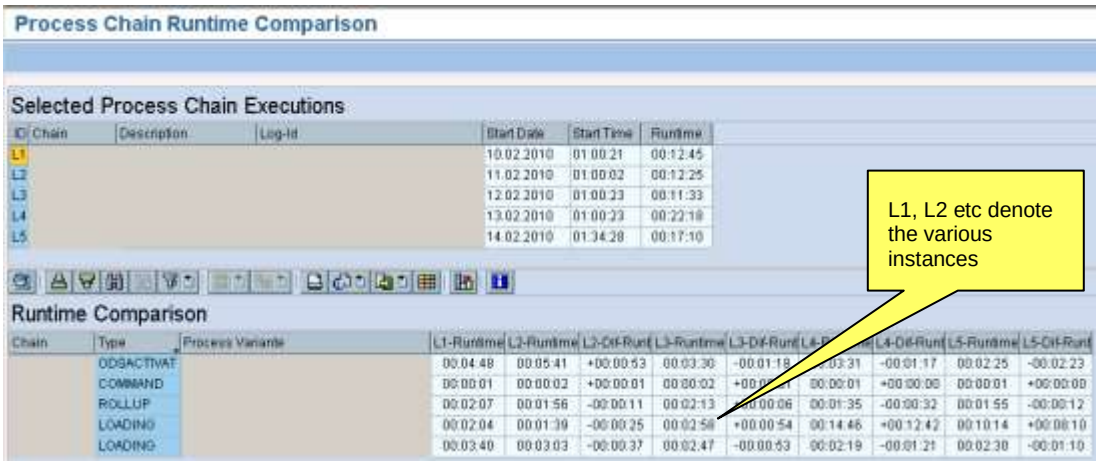
Compare Runtimes

This functionality becomes very useful and handy to compare multiple instances of the process chain.

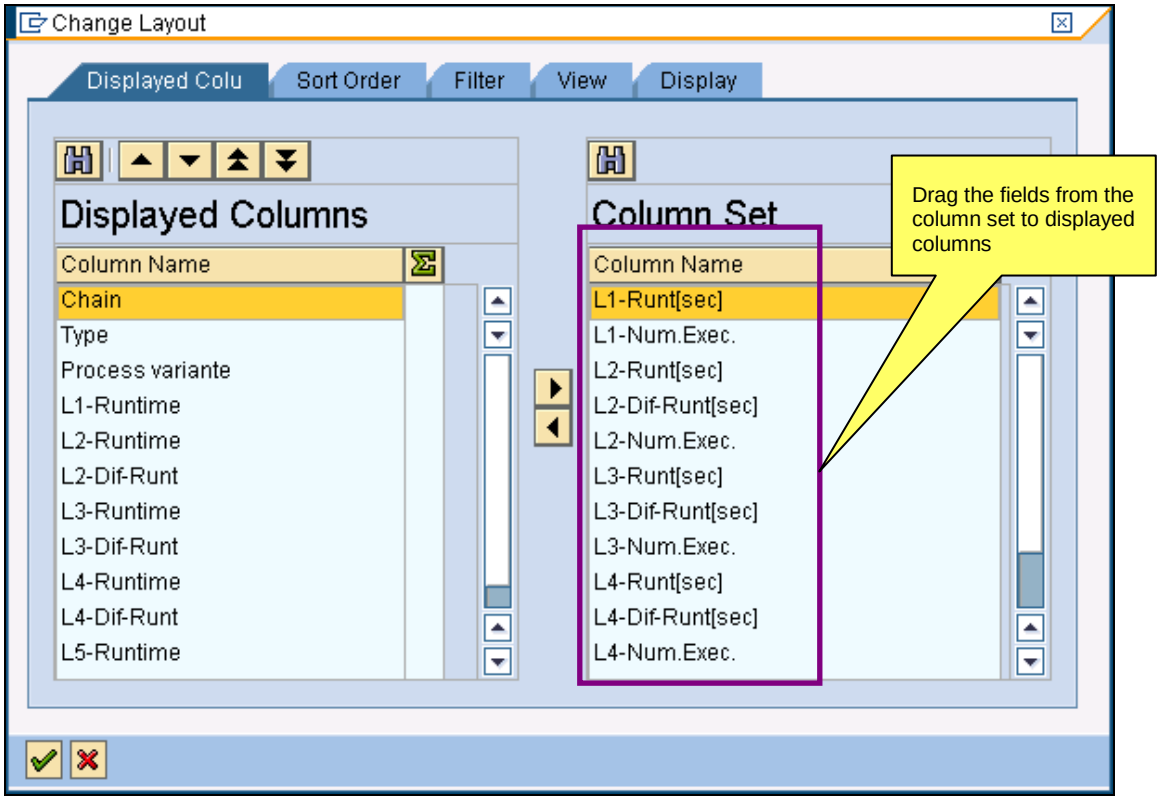
To compare the run times, we need to select the multiple instances which we want to compare and click on the button 'Compare Runtimes'. There can be a maximum of 5 instances that can be compared.



The below screen appears showing the comparison of each run with the level of detail to each step. This helps in understanding, what might have gone wrong on any particular day/run.



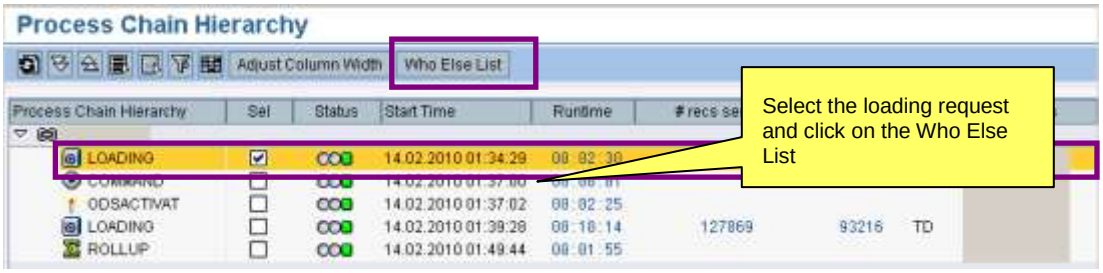
In addition to the fields displayed above, we can also investigate on the below.



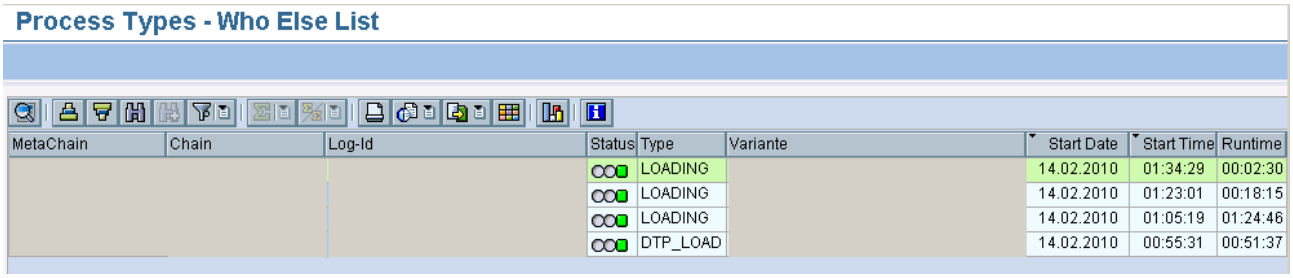
Who Else List

This feature helps is analyzing, which other process chain activities or process steps were active when a particular step was being executed.

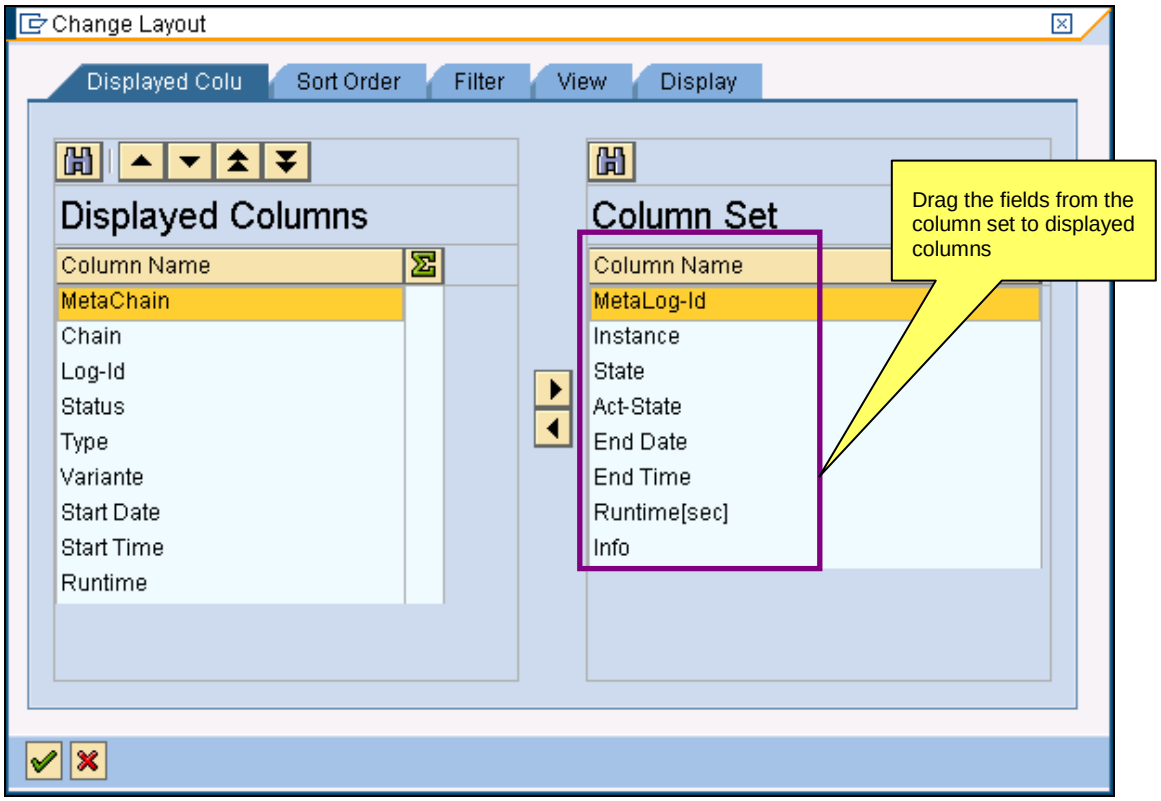
More that 1 step at any instant cannot be chosen for this analysis.



The below screen appears giving the information of which steps were being execute in parallel. This becomes very useful for identifying the load on the system at any particular instance.



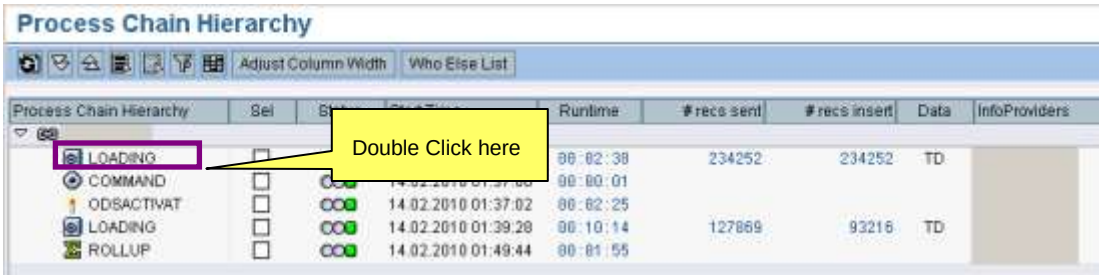
Also here as well additional columns can be chosen for further analysis.



Request Analysis

This feature helps in doing a detailed analysis of a particular request.

We need to double click on a loading step via info package to get to the request analysis screen.

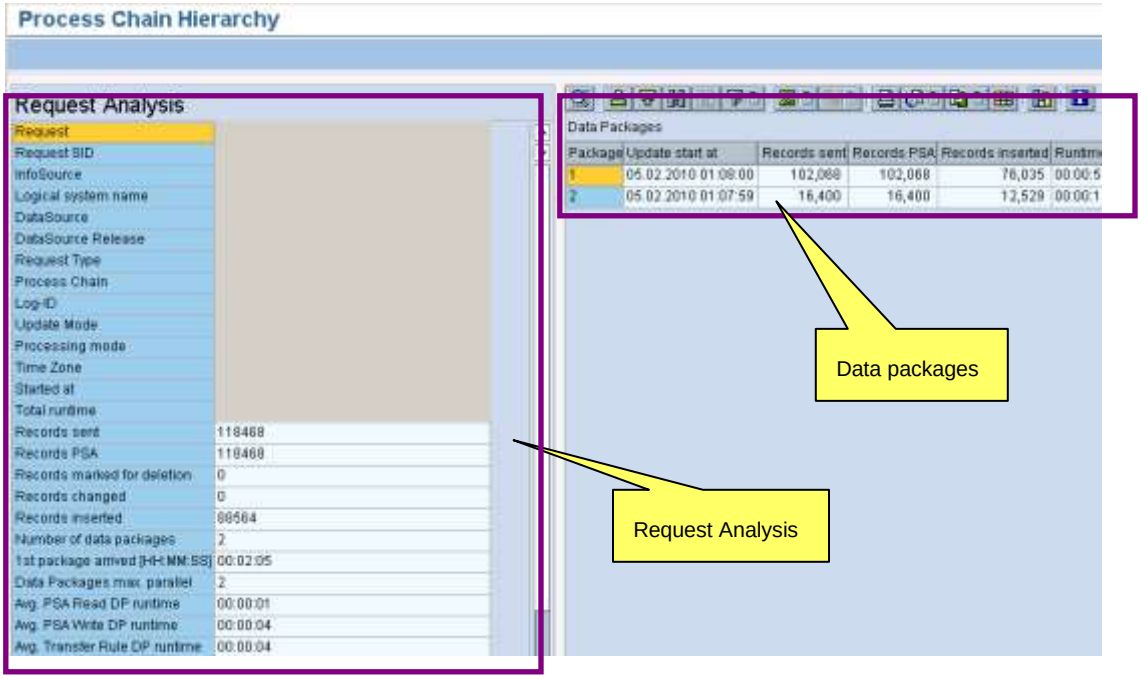


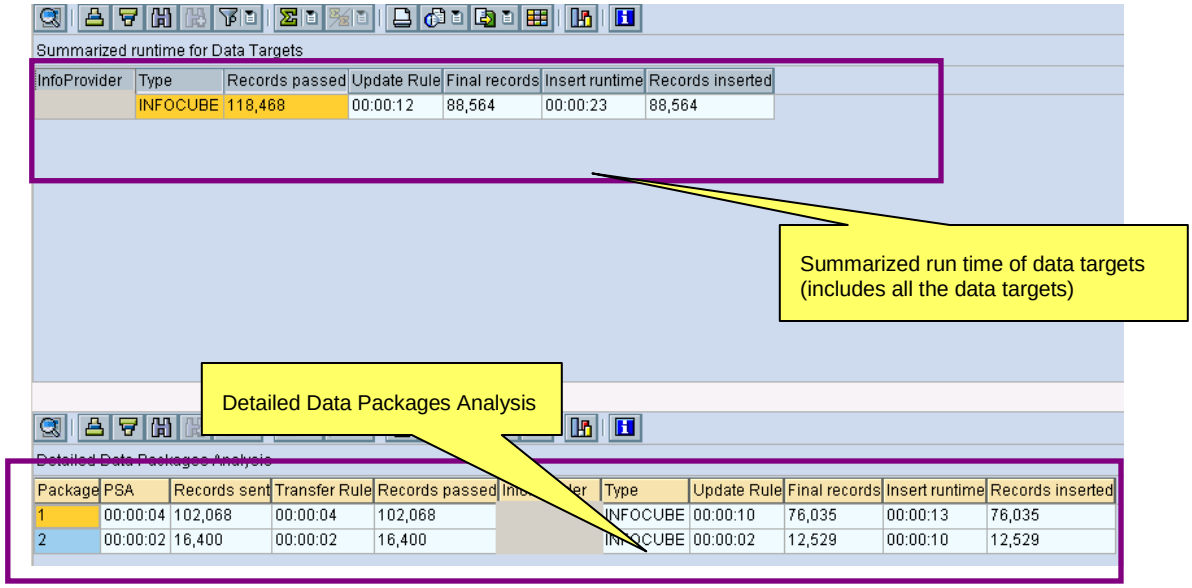
The below request analysis screen appears with all the required details of a particular request for further detailed analysis.

It is divided into the below sub sections:

- Request Analysis
- Data Packages
- Summarized runtime of Data Targets
- Detailed Data Packages Analysis

Each of the above is shown in the screen shots below:



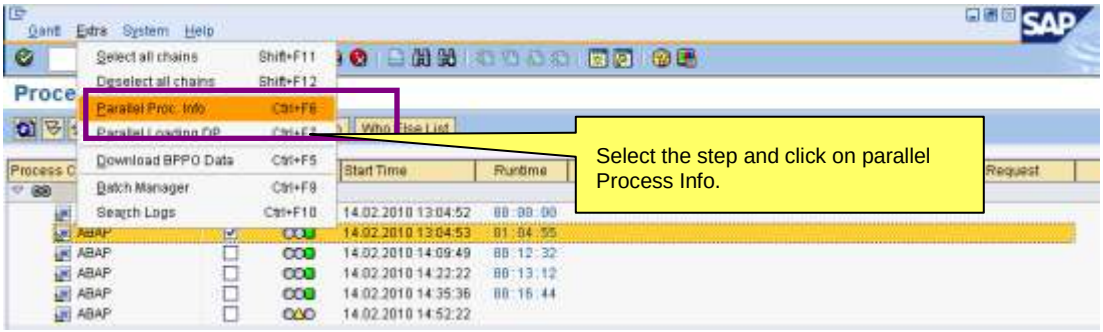


Parallel Process Information

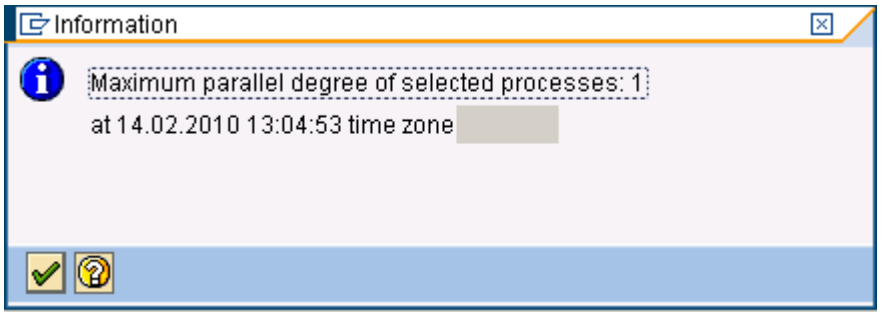
This also provides the information on number of parallel processes used for a particular step.

To get to this, select the particular step and navigate as below:

Extra → Parallel Process Info.



It gives the information of number of parallel process as shown below in a pop up window.

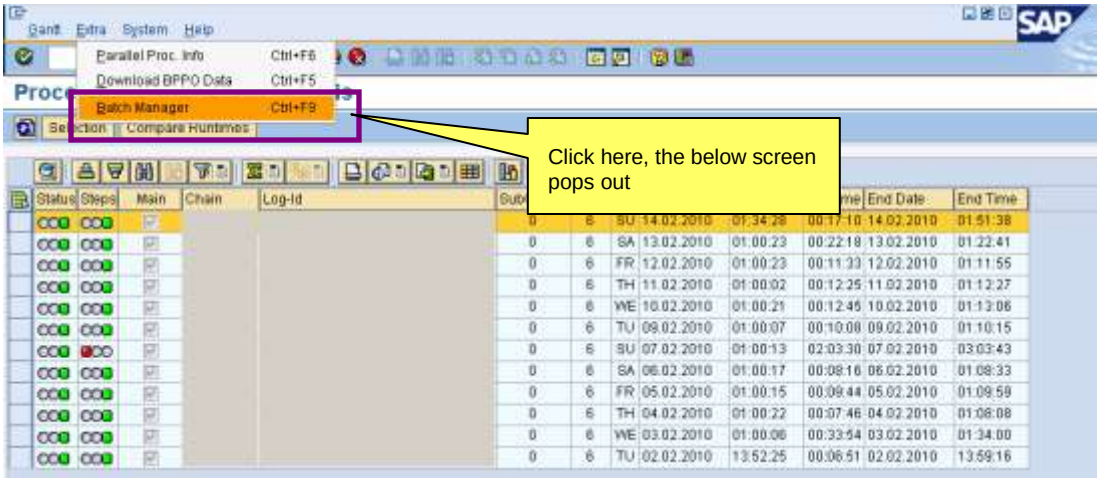


Batch Manager Information

The batch manager information of any process chain give the information of the work processes used mapped against time.

To get to these details, select the instance of the process chain which needs to be analyzed and navigate as below:

Extra → Batch Manager



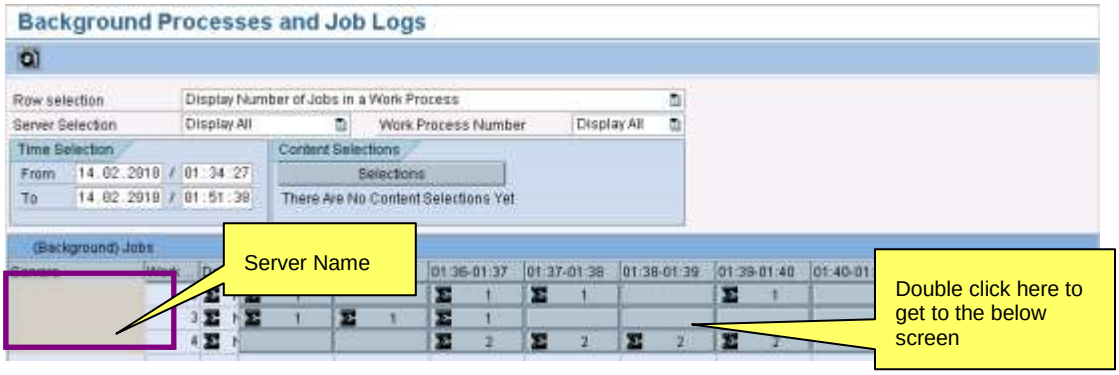
This gives the details of the background processed and the job logs.

It includes the below details:

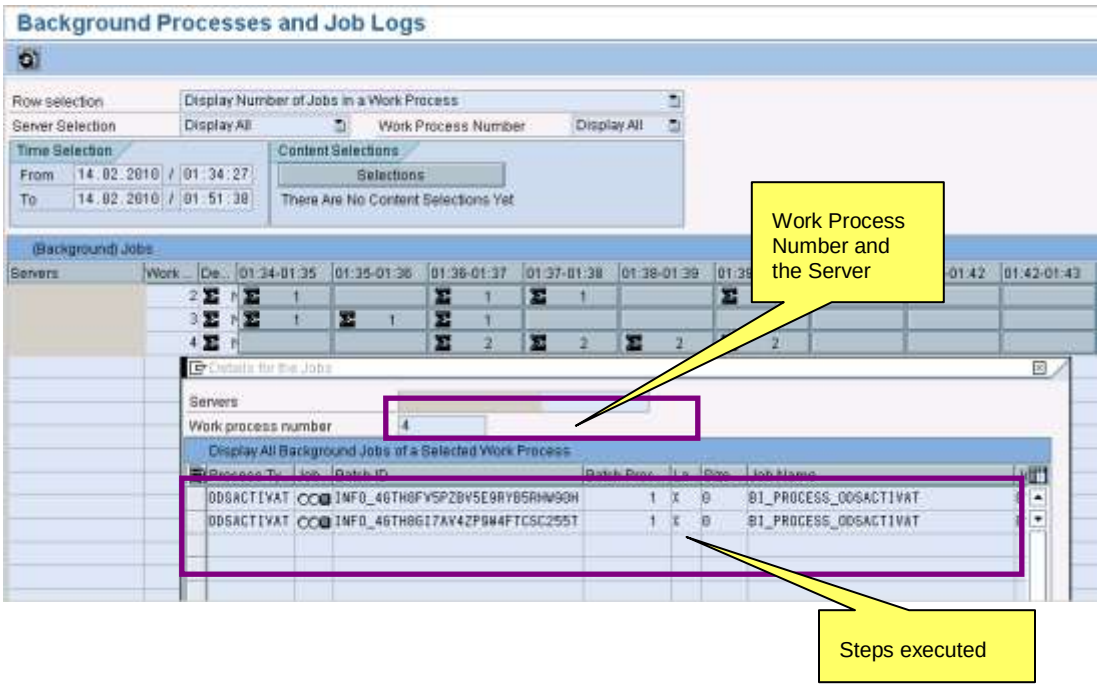
The server on which the various steps of the process chain were executed.

Number of steps that were executed.

Time mapping for the same etc.



Here we can see the details of the various steps that were executed.


Background Processes and Job Logs
Row selection
Display Number of Jobs in a Work Process
Server Selection
Display All
Work Process Number
Display All
Time Selection
From 14.02.2010 / 01:34:27
To 14.02.2010 / 01:51:38
Content Selections
Selections
There Are No Content Selections Yet
(Background) Jobs
Servers
Work process number
4
Display All Background Jobs of a Selected Work Process
ODSACTIVAT INFO_46TH8FY5PZBV5E9RYB5RHW9OH
ODSACTIVAT INFO_46TH8GI7AY4ZPBW4FTC5C255T
BI_PROCESS_ODSACTIVAT
BI_PROCESS_ODSACTIVAT
Work Process Number and the Server
Steps executed

Related Content

http://help.sap.com/saphelp_nw70/helpdata/EN/47/9e9290dac60985e10000000a42189c/frameset.htm

http://help.sap.com/saphelp_nw04/helpdata/EN/8f/c08b3baaa59649e10000000a11402f/frameset.htm

http://help.sap.com/saphelp_nw04/Helpdata/EN/6e/192756029db54192427cf6853c77a7/frameset.htm

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