

Isolating batch job performance issues

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About the Jobs tab

The Jobs tab isolates performance issues associated with currently running or completed batch jobs in your SAP system.

Performance information displayed in this tab can be used to identify and analyze the cause of a performance problem on your SAP server and is a prime source of input for future tuning decisions.

The Jobs tab shows two views:

- **Completed Job Steps.** Displays performance information on batch jobs that have finished executing.
- **Running Jobs.** Displays defined SAP batch jobs with one or more active batch job steps or those that are in a scheduling state waiting to become active. For active batch jobs, activity is provided while executing within a SAP batch work process. This is the only information that Precise for SAP obtains directly from SAP using a real time API, instead of the PMDB. Information in the PMDB is collected by Collectors.

For example, this tab can help you identify the batch jobs that consumed the most resources during the last day, discover what led to their high consumption and find a solution to the problem.

The Jobs tab enables you to answer the following types of questions: "Which Job's Batch steps were executed yesterday from 8AM to 10AM?" or "For how long did job steps run yesterday and where was most of the time spent (in the Application Server or Database)?"



If the SAP Java connector is not installed on the Precise for SAP FocalPoint server, you will not be able to view running jobs in batches. The SAP Java connector can be downloaded from the SAP Web site. For more information, see the *Precise Installation Guide*.

Understanding the Jobs tab

The Jobs table displays performance attributes for batch jobs that are still currently running and for batch jobs that have completed their execution, in a table format.

Examining Jobs tab entities

The Jobs tab provides two different views in a table format:

- Completed job steps
- Running jobs

Viewing performance indicators for jobs that have completed running

The Completed Job Steps view displays performance indicators for jobs that have completed running. Clicking on the Details icon provides additional performance indicators for the selected job.

The following table describes the following information displayed in the Completed Job Steps table.

Table 1 Completed Job Steps table

Column	Description
	Click to open a dialog box that provides additional information on the selected program.
Job	Displays the name of the executed job.
Program	Displays the name of the executed ABAP (Advanced Business Application Programming) program.
User	Displays the name of the user executing the job.
Application Server	Displays the name of the application server that the job step was executed on.
Started	Indicates the 5-minute time slice the job was started in.
Completed	Indicates when the job was completed.

Step	Indicates step number that was executed.
Duration	This column displays the time that has elapsed since job began running, in HH:MM:SS format, or a stacked graph broken down into DB Time, Application Time and Queue Time components, when you click the column icon. Click the relevant icons to display the information in this column as a stacked graph or in a time format.

Displaying additional completed job details

Clicking on the icon in the Detail column opens a dialog box that provides additional performance statistics about the selected job.

The following information is displayed:

- **Details**
 - **Job.** Displays the name of the executed job.
 - **Program.** Displays the name of the executed ABAP (Advanced Business Application Programming) program.
 - **User.** Displays the name of the user executing the job.
 - **Application Server.** Displays the name of the application server that the job step was executed on.
 - **Started.** Indicates when the job was started.
- **Duration**
 - **Queue Time.** Displays the time spent waiting in the dispatcher for a work process, in seconds.
 - **Application Time.** Displays the total time spent in the application server, in seconds.
 - **DB Time.** Displays the total time spent in the database, in seconds.
- **Application Time**
 - **Load Time.** Total time spent loading from the database and generating objects such as ABAP source code, CUA and screen information.
 - **Enqueue Time.** Time spent waiting for a resource protected by a SAP lock.
 - **Process Time.** Total CPU time consumed by the work process.
- **DB Time**
 - **Sequential Reads.** Total time spent in the database for sequential reads.
 - **Direct Reads.** Total time spent in the database for direct reads.
 - **Updates.** Total time spent in the database for updates.
- **DB Operations**
 - **Sequential Reads.** Displays how many sequential reads were requested from the database.
 - **Direct Reads.** Displays how many direct reads were requested from the database.
 - **Updates.** Displays how many updates were requested from the database.
- **DB Requests Average Time**
 - **Sequential Reads.** Displays the response time, per request, for database requests associated with sequential reads.
 - **Direct Reads.** Displays the response time, per request, for database requests associated with direct reads.
 - **Updates.** Displays the response time, per request, for database requests associated with updates.
- **Application Server Buffers Ratio**
 - **Sequential Reads.** Number of actual calls to the database to satisfy a sequential read request.
 - **Direct Reads.** Number of actual calls to the database to satisfy a direct read request.
- **Memory Resources**
 - **Extended Memory.** Amount of SAP's extended (shared) memory attributed to the application.
 - **PrivMode Count.** Number of times a work process ran in private mode.

Running jobs

The Running Jobs view displays performance indicators for jobs that are still running. The following table describes the information displayed in the Running Jobs table.

Table 2 Running Jobs table

Column	Description
Job	Displays the name of the job that is being executed.
Program	Displays the name of the ABAP program that is being executed.
User	Displays the name of the user executing the job.
Application Server	Displays the name of the application server that the job step is executing on.
Status	Indicates the status of the running Job.
Started	Indicates the time the job started.
Elapsed Time	The time that has elapsed since batch job started running.

Identifying performance problems with the Jobs tab

You can identify a performance problem by doing one or more of the following:

- [Examining completed jobs performance](#)

- [Examining running jobs performance](#)

Examining completed jobs performance

Examining job runs over a selected time frame can help you pinpoint problematic time periods and view the general trend of job runs. In the Jobs tab you can observe how the job ran and compare the duration of a number of runs. You can sort the list of batch jobs according to duration, thereby detecting where the bottlenecks lie and investigating their causes. The duration of each job is broken down into application time, queue time and database time. This breakdown allows you to detect what is causing the performance problem.

For detailed statistics about a specific job, click on the Details icon. This information can help you detect where your performance problem is. For example, you may discover that bottlenecks are caused by many updates in the database.

Integration with Precise for SQL Server allows you to drill down further on a specific performance problem, helping to detect the root cause of the problem.

Examining running jobs performance

Examining currently running jobs can help you identify problematic jobs that cause your system to respond poorly. You can detect jobs that are waiting to be executed, or are executing for too long a period and affecting your system's performance.