

# Metric sets

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## About Metric sets

Alerts agents, called InformPoints, sample information collected by Precise products for values of a set of metrics and send the sampled data to Alerts FocalPoint. Alerts FocalPoint processes the data, stores it in the FocalPoint database, and, if configured, performs a defined action.

Once a metric is sampled, the value of the metric is compared to a predefined set of values called thresholds. When the value of the metric exceeds one of the metric's threshold values, an alert is generated and the status of the metric is changed to near-critical or critical. You can see full information about the metric on the Metric Properties dialog box.

Metrics are grouped into metric sets. All Metric sets are Tier-dependent (except Status set, which is available for all Tiers and the Precise Status set, which is Cross-Tier dependent), meaning that each set is available for specific Tiers only. The status of the metric set is the overall status of its metrics. You can use the Alerts tab to monitor the status of metric sets and metrics.

The table below describes to which Tiers the metric sets are relevant.

**Table 1** Metric set dependency

Tier / Metrics Set	Status	Performance	Load	Service	Performance Trending	Load Trending
OS	✓	✓	✓	✗	✓	✓
Web Client	✓	✓	✓	✓	✓	✓
J2EE	✓	✓	✓	✓	✓	✓
DB2	✓	✓	✗	✗	✗	✗
WebSphere MQ	✓	✓	✓	✓	✗	✗
Tuxedo	✓	✓	✓	✓	✓	✓
Oracle	✓	✓	✓	✓	✓	✓
SQL Server	✓	✓	✓	✓	✓	✓
EMC Storage	✗	✓	✓	✗	✓	✓
SAP	✓	✓	✓	✓	✓	✓
Oracle Applications	✓	✓	✓	✓	✓	✓
Other	✓	✓	✓	✓	✗	✗
Microsoft .NET	✓	✓	✓	✓	✗	✗
Sybase Replication Server	✗	✓	✗	✗	✗	✗



The Performance Trending and Load Trending metric sets include metrics that are sampled by Report Manager, that is, each metric alerts to one or more Report Manager exception reports. For more information, see [Precise Report Manager](#). Maintenance metrics are available in the Service set.

## Status set

The Status set includes metrics that report the status of the instance and maintenance metrics. If the instance applies to several components, then several metrics may appear. If the instance has any other status indication, a relevant metric should also appear. For example, in Oracle Tier, the Oracle alert log indicates information relevant to the general activity of the instance.

The Maintenance metrics report on maintenance issues relevant to the specific instance type, for example, for an Oracle database, report on objects with a high number of extents. The Maintenance metrics are relevant to Oracle and SQL Server Tiers.

## Performance set

The Performance set helps find performance bottlenecks in your system. It includes the following metrics that measure the level of performance currently achieved by the system:

- **General Behavior.** Measures the resources consumption of the instance to detect times when the instance consumes a higher level of resources than is normal (according to definition), for example when the instance level memory usage is high.
- **Top Activities.** Reports on resource consumption of activities to allow the detection of activities that are high resource consumers, for example, Oracle programs using a high percentage of Oracle resources. The alert is generated on an activity level, that is, as a percentage of the resources the activity used out of the resources that the instance consumed. For example, when an SQL statement in the Oracle Tier is using 20% of the total resources consumed by the Oracle instance.
- **Top Activators.** Report on resource consumption of activators to allow the detection of activators that are high resource consumers, for example, Oracle users consuming a high percentage of Oracle resources. The alert is generated on an activator level (such as, Users, Locales, and IPs). The Top Activators are displayed as a percentage of the resources the activator consumed out of the resources that the Oracle instance consumed.
- **Long I/O waits.** Reports on I/O waits to allow the detection of objects that have a long access time and are causing activities to have a long I/O wait time while accessing them. The alert is generated on an I/O object level, that is, as a percentage of the I/O wait time the I/O file spent out of the total I/O wait time that the Oracle instance spent.
- **Internal performance metrics.** Reports on internal components and procedures of the instance. These metrics are Tier-specific, for example, for an Oracle database, a report on SGA utilization, on Oracle sessions that are waiting for a lock, and so on.

## Load set

The Load set helps to identify any increase of load on the system, which can cause a decrease in the performance. It includes the following metrics that measure the load on the system:

- **Frequent Activities.** Reports on activities that have a high number of executions compared to the total number of executions in the instance. This might help you point out abnormal activities, wrong use of the system, and so on.
- **Frequent Activators.** Reports on originators that have a high number of executions compared to the total number of executions in the instance. This might help you point out abnormal originators; for example, SAP users running many transactions.
- **High I/O activity.** Reports on I/O objects that have high access hits compared to the total number of accesses in the instance. This might help you point out objects that were accessed many times compared to all other objects in the system.
- **Internal load metrics.** Indicates the internal load. This might help you point out times when instance resources are exceeded. For example, when the number of logged-in users approaches, reaches, or transgresses the allowed maximum, and so on.

## Service set

The Service set includes SLA metrics. The SLA metrics indicates the actual service level compared to the predefined SLAs. These metrics help to identify a decrease in response time.



Alerts samples the data for the Service metrics from Insight and not from the "Precise for" products (except for SAP and Web Tiers, which retrieve their Service data from their "Precise for" products and not from Insight).

The following SLA metrics are included:

- **Overall SLA Compliance.** Reports on the total instance performance not conforming to the defined SLA.
- **SLA Breaching Activities.** Reports on activities that exceeded their defined SLA, for example, programs taking longer than defined.
- **SLA Breaching Activators.** Reports on activators that get bad response times, for example, users suffering from SLA breaches.

## Performance trending set

The Performance Trending set helps you point out problematic performance aspects that cannot be pinpointed in the short term. The performance trending set holds the following metrics that measure the performance of the instance over a longer period of time:

- **Instance Performance (Exceptions).** Based on daily and/or monthly Report Manager reports that compare the instance performance to a baseline.
- **Activity Performance (Exceptions).** Based on daily and/or monthly Report Manager reports for the different activities that:
  - Compare the average performance of each activity to its baseline.
  - Compare the average time of all the activities to a baseline.
- **Internal performance trending metrics.** Includes metrics based on daily and/or monthly Report Manager reports that compare the performance of internal instance components to their baseline.

The metrics in this set are sampled by Report Manager.

## Load trending set

The Load Trending set helps you identify a change in the load levels of the system that cannot be pinpointed in the short term.

It holds the following metrics that measure the load of the instance over a longer period of time.

- **Activity Volume (Exceptions).** Based on daily and/or monthly Report Manager reports that compare:
  - The number of executions of an activity in relation to its baseline.

- The percentage of executions of an activity to the total of executions of all the activities in relation to a baseline.
- **Activator Volume (Exceptions).** Based on daily and/or monthly Report Manager reports that compare:
  - The number of executions by each activator in relation to the relevant baseline.
  - The percentage of executions by activator to the total of executions by all activators in relation to a baseline.

The metrics in this set are sampled by Report Manager.

## Precise status set

The Precise status set is available in the Precise Status application for Cross-Tiers.



Metrics for the i3 Status application do not appear in the alerts report on screen, and are indicated by the action items defined in the metric properties only. See the [Precise Administration Guide](#) for details.

- **FocalPoints.** Indicates the FocalPoint agents' status.
- **Agents.** Indicates the agents' status, excluding FocalPoint agents.
- **Licenses.** Indicates the license status of Precise components.
- **Processes.** Indicates the status of PMDB processes.

## Customized set

The Customized set holds all user-defined metrics. You can create customized metrics to sample any system data. You can create customized metrics in AdminPoint. See the [Precise Administration Guide](#) for details.