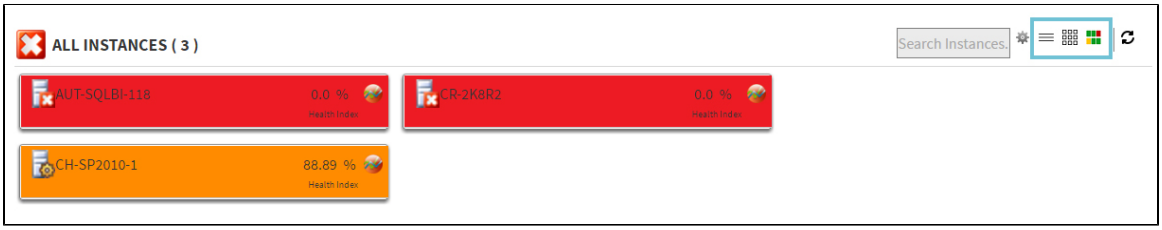
Use sub-views to identify and diagnose issues

The web console's main dashboard is comprised of three main sub-views:

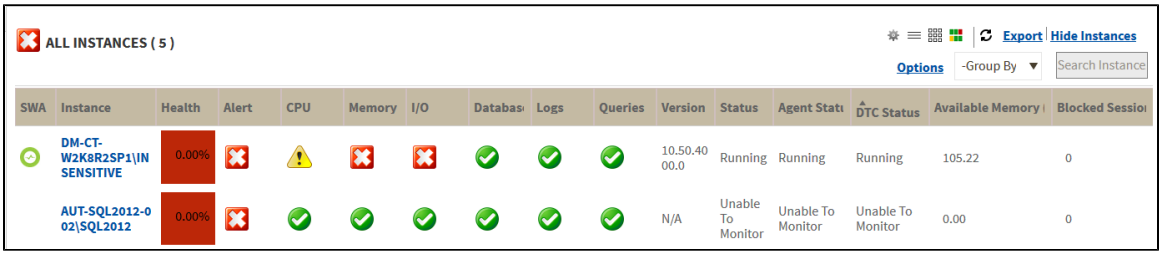
- List sub-view
- Thumbnail sub-view
- Heatmap sub-view

These sub-views display all data collected at the last refresh for all your monitored SQL Server instances. To access any sub-view, click the appropriate button in the upper-right corner of the dashboard as shown in the following image:



List sub-view

The list sub-view offers a means to quickly identify the status of instances, as well as the possibility to navigate to the single instance dashboard when clicking on a specific row.



The list sub-view provides you with the following SQL Server information:

SWA

Displays the SWA icon when the instance is registered in SQL Workload Analysis.

Health

Displays the health index in percentage in a red square.

CPU, Memory, I/O, Database, Logs, and Queries

Displays the overall health index icon for each option.

Instance Name

Displays the name of the monitored SQL Server instance.

SQL Server Version

Displays the edition and version of SQL Server software used in this instance.

SQL Server Status

Displays the status of the SQL Server service such as running, stopped, and paused.

SQL Agent Status

Displays the status of the SQL Server Agent service such as running or stopped.

DTC Status

Displays the status of the Distributed Transaction Coordinator service such as running or stopped.

Available Memory (MB)

Indicates how much available memory is allocated for SQL Server.

Blocked Sessions

Displays blocked process sessions information on the SQL Server instance.

CPU Activity

Displays the percentage of CPU consumed by your SQL Server, virtual machine, and host server.

Disk Queue Length

Displays the average number of system requests that are waiting for disk access on the computer hosting the SQL Server instance

Actions

Sort

Instances on the list sub-view are sorted by severity. To re-organize information, click a column header or select the option to group by severity, tags, or SQLdmRepo (**Group By**).

Search Instance

Type the name of the instance you are looking for.

Options

Choose the columns to display in the list view.

Export

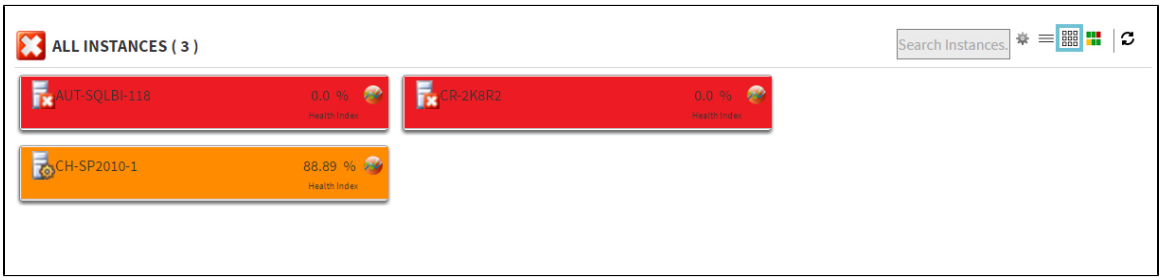
You can export instance information in PDF, XLS, or XML by clicking **EXPORT** at the top of the list sub-view.

Show/Hide instances

You can hide/show instances information by clicking **HIDE INSTANCES** at the top of the list sub-view.

Thumbnail sub-view

The thumbnail sub-view is the default view in the SQL Diagnostic Manager web console's dashboard and provides you with a graphical replication of your monitored SQL servers. Access additional details in the single instance dashboard by clicking on a thumbnail's instance name or easily spot categories that have active alerts as marked by a critical icon. Navigate to an instance's specific category view in case it has active alerts by clicking on the marked category icon. You can also launch the SQL Diagnostic Manager console directly from the thumbnail sub-view by clicking the SQL Diagnostic Manager icon .



The thumbnail sub-view displays basic statistics about your SQL Servers:

SQL Server version

Displays the edition and version of SQL Server software used in this instance.

Response Time

Refers to the time it takes for a query to go from the SQL Diagnostic Manager Console to the SQL Server instance and back.

User Sessions

Refers to the total number of SQL Server user sessions.

SQL CPU Usage

Refers to average percentage of SQL Server processor usage on the computer hosting the SQL Server instance.

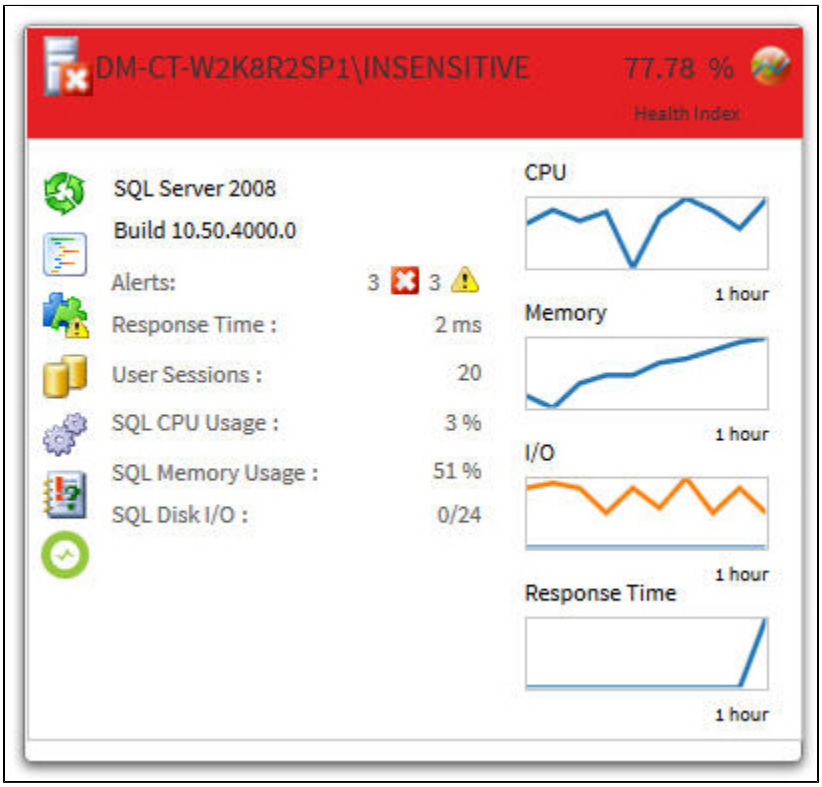
SQL Memory Usage

Refers to amount of memory in use by the monitored SQL Server instance.

SQL Disk I/O

Refers to the number of physical reads and physical writes made by the SQL Server instance between refreshes.

In addition, the thumbnail sub-view includes CPU, Memory, I/O, and Response Time sparkline graphs for a 1 hour-view so that users can obtain an overview of key metrics quickly.



Category icons and actions

In the thumbnail sub-view, use your mouse cursor to hover on a category icon in the left of the thumbnail. If the category icon contains active alerts, you can click it to access the Alerts Detail screen.

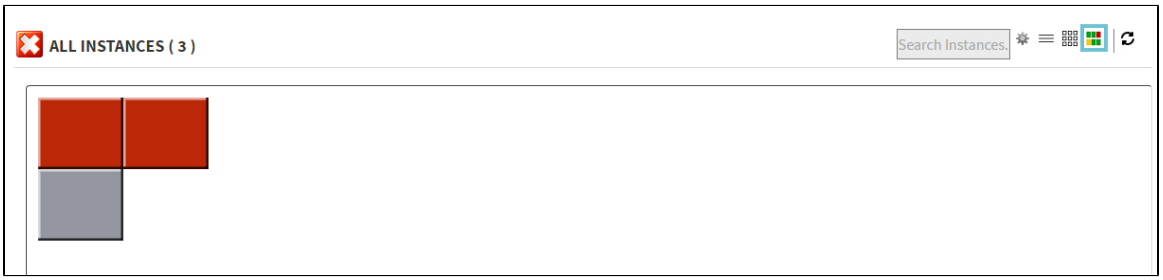
If there are no active alerts, you can click a category icon and you are directed to a specific category view in the single instance dashboard. The table below shows the relationship between the category icons and their corresponding views:

Icon	Category
	Sessions tab of the single instance dashboard
	Queries tab of the single instance dashboard
	Resources tab of the single instance dashboard
	Databases tab of the single instance dashboard
	Alerts Detail screen
	Overview tab of the single instance dashboard
	Launch SWA

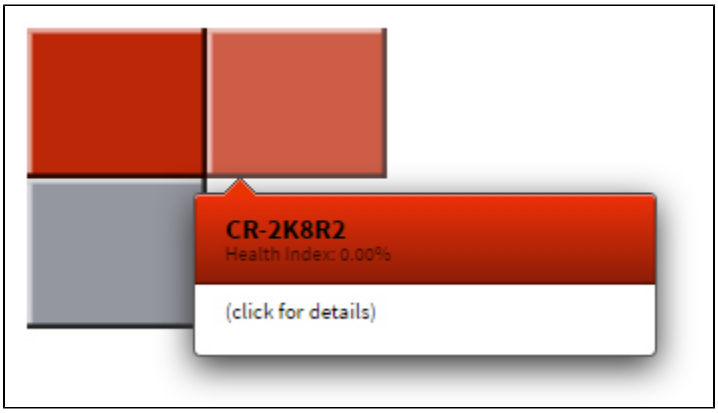
Instances in thumbnail sub-view display according to severity. This means that critical instances show up on the top of the dashboard.

Heatmap sub-view

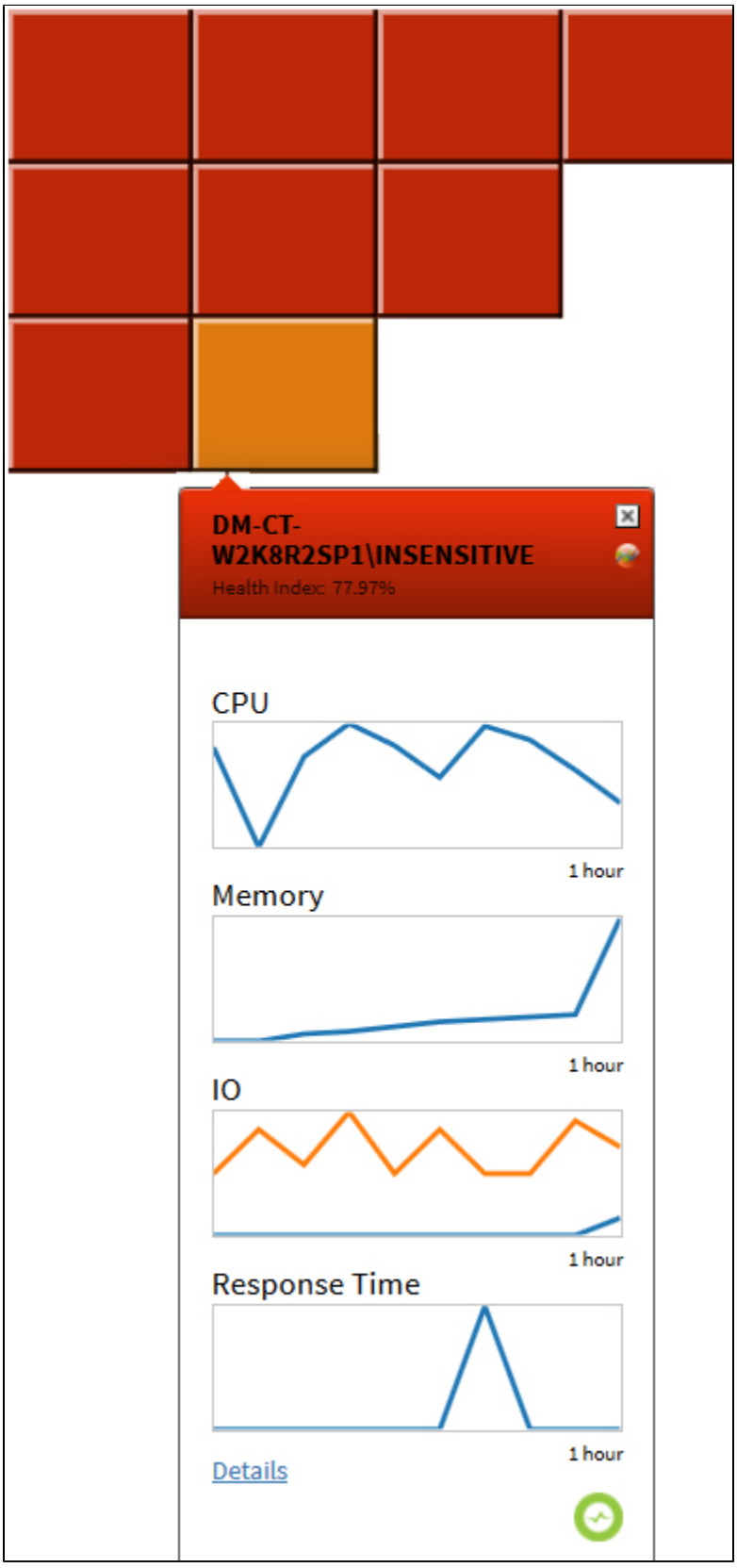
The heatmap sub-view provides you with a visual overall status of your SQL Server environment in the form of a grid of color coded squares that contain a health index. Through its color scheme and health index you can easily identify which of your monitored instances need the most attention. Each square in the heatmap sub-view represents a monitored instance. From each square, you can access basic statistics but also drill down for details.



To glance at instance health information just hover over a specific square to see its health index.



Upon clicking a specific square, the health index displays performance line charts for CPU, Memory, IO, and Response Time from the past hour.



Additionally, you can:

- Click **Details** to access the Overview tab of the single instance dashboard.
- Launch the SQL Diagnostic Manager console by clicking the SQL Diagnostic Manager icon .

- Launch SQL Workload Analysis by clicking the SWA icon .

How to interpret the health index in the heatmap sub-view?

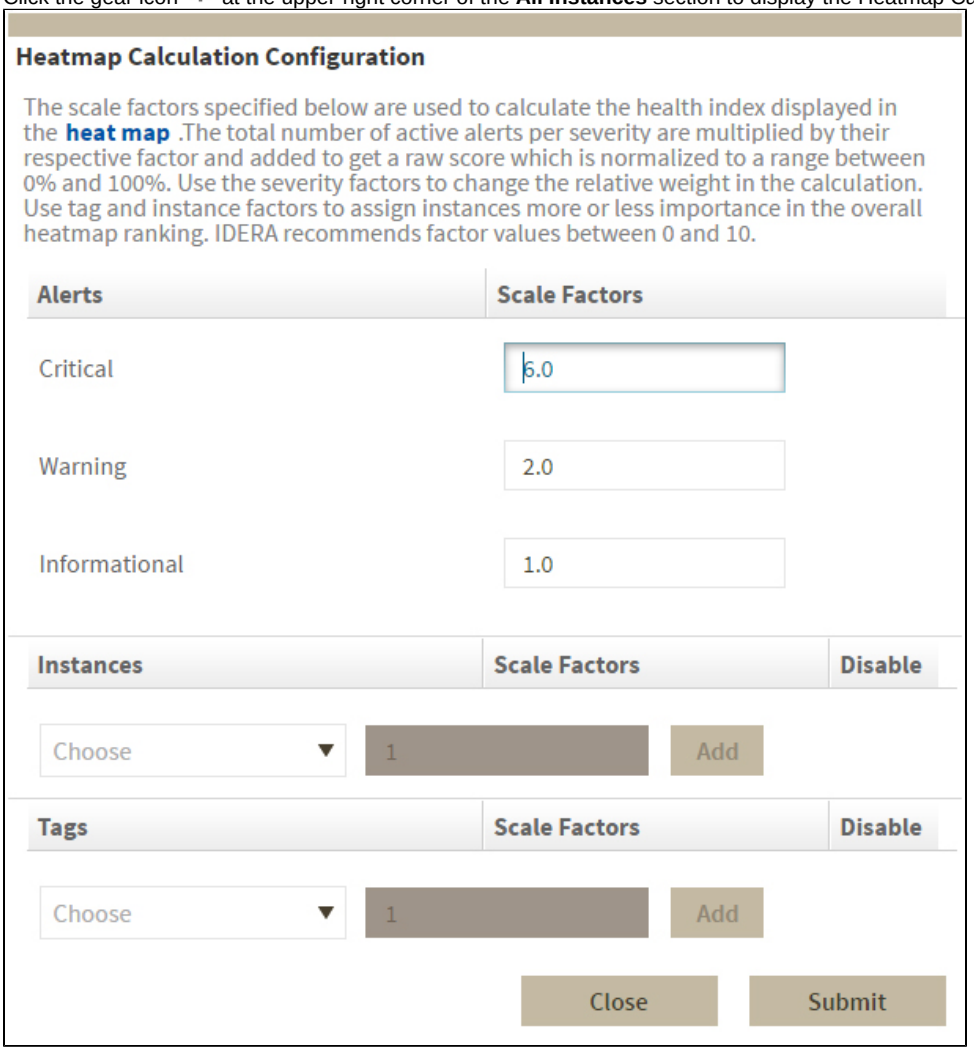
The health index is a percentage value that provides an estimate of the relative health of your monitored SQL Server. The health index is based on the following raw calculation:

Health Index Raw Calculation = Instance or Tag Scale Factor * (# Critical Alerts * Critical Scale Factor + # Warning Alerts * Warning Scale Factor + # Informational Alerts * Informational Scale Factor)

The raw score is normalized to a range between 100% and 0%. SQL Server is healthier the closer its health index is to 100%, and it is in critical state the closer its health index is to 0%. Use the severity factors to change the relative weight in the calculation. Use tag and instance factors to assign instances more or less importance in the overall heatmap ranking.

To configure the Health Index Calculations:

1. Click the gear icon at the upper-right corner of the **All Instances** section to display the Heatmap Calculation Configuration dialog.



2. Type the values that you want in the respective Alert Scale Factor field. IDERA recommends factor values between zero and ten.
3. Choose an instance from the registered instances and click **Add** to apply a distinctive scale factor.
4. Choose a tag from the available tags and click **Add** to apply a distinctive scale factor.
5. Click **Submit**.

The heatmap sub-view displays instances according to severity. The color of the square relates to the percentage of its health status and includes a range of colors not only restricted to green, yellow, and red.

SQL Diagnostic Manager for SQL Server **performance monitoring, alerting, and diagnostics for SQL Server.**

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