# Configure Azure Dashboards to Monitor Azure Synapse Workload

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Create a new blank dashboard

A picture containing text

Description automatically generated

Name the dashboard. An example naming schema is shown, but you can name it whatever you want.

Click ‘Done customizing’

Click ‘save’ on the next popup

Graphical user interface, application

Description automatically generated

# Configure Metrics Charts:

Navigate to your Azure Synapse instance by searching in the top Azure Portal bar for ‘Azure Synapse’ then selecting the database you would like to configure.

From the landing page, navigate to the ‘metrics’ tab:

Graphical user interface, application, chat or text message

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## Create the Resource Utilization chart:

In the metric bar along the top of the chart, select ‘DWU percentage’ for metric and set Aggregation to ‘Max’

Graphical user interface, text, application, email

Description automatically generated

Now select ‘Add metric’, then select CPU Percentage and set Aggregation to ‘Max’

Graphical user interface, chart

Description automatically generated



Once again hit ‘Add Metric’ and add ‘Data IO Percentage’ and set Aggregation to ‘max’

Your chart should now look like this, note that CPU percentage and DWU percentage overlap a lot of the time, so you may only see one of them:

Graphical user interface, chart

Description automatically generated

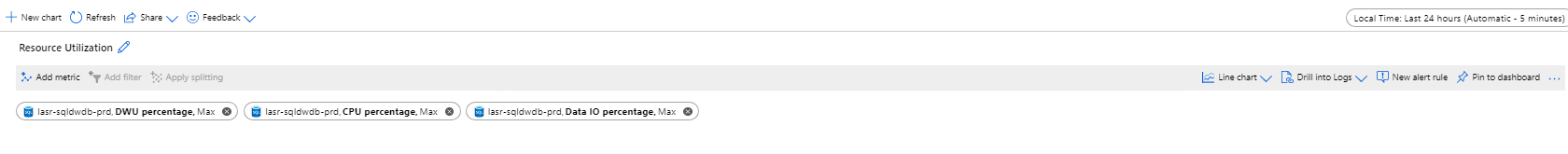


Click the pencil icon at the top of the chart to name the chart. We will name this one ‘Resource Utilization’

Graphical user interface, text, application, email

Description automatically generated

Next we will click ‘Pin to dashboard’ and in the popup select the dashboard we previously created and click ‘pin’



We can now delete this chart from this view by clicking the three dots on the top right and clicking ‘Delete’

A picture containing graphical user interface

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Use the same method to create the rest of the charts.

Click New chart

Graphical user interface, text, application

Description automatically generated

Add metric ‘local tempdb percentage’

Set aggregation to ‘max’

Set name to ‘TempDB Utilizaton’

Pin to dashboard

Delete chart

Click New Chart

Add metric ‘Active Queries

Set aggregation to ‘SUM’

Add metric ‘Queued Queries’

Select the chart type and change it to Bar chart:

A picture containing table

Description automatically generated



Set name to ‘Active and Queued Queries’

Pin to dashboard

Delete chart

Click new Chart

Add metric ‘Workload Group allocation by system percentage’

Set aggregation to ‘MAX’

Select the chart type and change it to a bar chart

Click ‘Apply Splitting’, Set Values to ‘Workload Group’, Set ‘limit’ to 20:

A picture containing implement, pencil, sitting, colorful

Description automatically generated



Name the chart “Workload Group Allocation”

Pin to dashboard.

Navigate back to your dashboard and you should see the 4 charts

Click Edit

Graphical user interface, text, application

Description automatically generated

Resize the charts so that they all 4 fit on one screen like below. Note that the left pane will push them off to the right, so you may have to exist edit mode to make sure you sized correctly:

Each chart should be 5 grids tall and 13 grids wide. Any of this is just for appearance and can be changed later.

The metrics portion of your dashboard should now be configured:

Graphical user interface, chart, application

Description automatically generated

# Configure Log Analytics Charts

Navigate to the Log Analytics workspace you configured to receive Synapse diagnostic data.

Click on ‘logs’ from the log analytics workspace homepage

Graphical user interface, text, application

Description automatically generated

Close out the ‘example queries’ popup

In the query editor window – past in the text from ‘LongestRunnignQueriesByExecutionType’

The following step can be skipped if you do a string replace to all of the query text files to replace <database\_name> with your database name.

If needed, replace the database name with your database name.

Text

Description automatically generated

If desired – save this query for future use, choose a name that corresponds to the query goal, like LongRunningQueries:

Graphical user interface, text, application, email

Description automatically generated

Press ctrl-A to select ALL of the data in the window – including the commented out portions on the bottom. Then Press Run to Execute Query.

Graphical user interface, text, application, email

Description automatically generated

Select ‘Pin to dashboard’ then in the popup choose the dashboard we are working on and click ‘pin’

Graphical user interface, text

Description automatically generated

Now Navigate to your dashboard and find the new chart - click the pencil icon to rename the chart to “20 Longest Queries by Execution time (Completed Queries - Excluding batches)”

Table

Description automatically generated

In the popup at the top of the window click ‘save’ – you will want to do this each time you make a change.



Navigate back to the log analytics workspace

In the query window, insert the query text for ‘MostRowsMovedByQueryStep’

Save the query if desired

Select ALL data in the query window – press run

Pin to dashboard

Without leaving the query window, Press the ‘Chart’ button

The output will switch to a chart view. Set the 3 parameters as seen in the screenshot below – note that you will need to set ‘OperationType\_s’ first to be able to set the first parameter to RequestID\_s

Chart

Description automatically generated

Navigate back to the dashboard. Rename the first chart to “Rows Processed By Query Step”

Rename the second chart to “Rows Processed by request ID”

Graphical user interface, application

Description automatically generated

Click Save at the top of the dashboard

