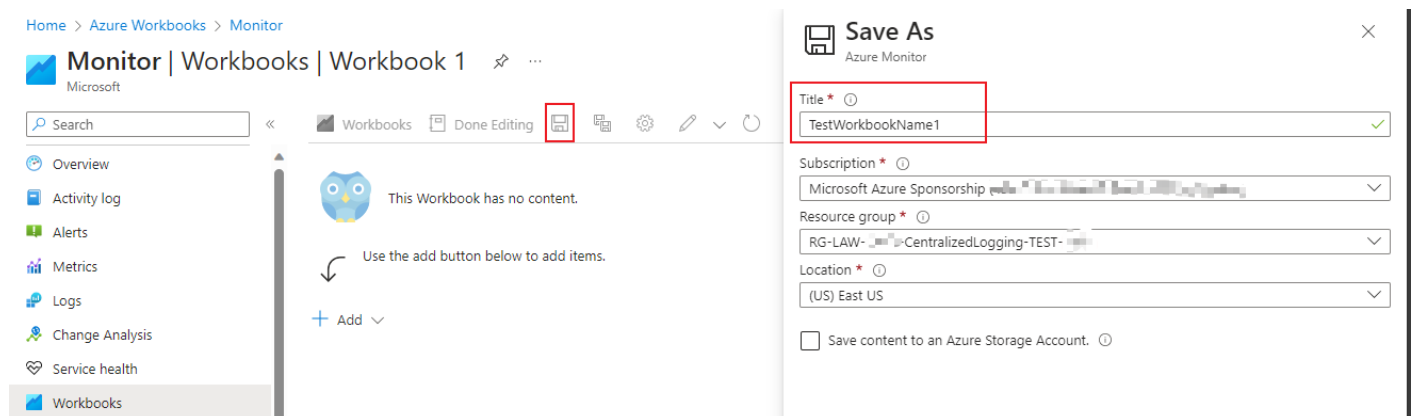


Use of variables & dynamic content in Azure Workbooks

Within large Azure workbooks (dashboards), we want to be dynamic and allow users to specify their own parameters. This enables a more precise evaluation based on e.g. time period, resources and much more.

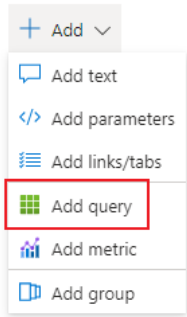
Create Azure Workbook

Search in Azure Portal for "Azure Workbooks" and create a new Workbook. It is recommended to save the workbook beforehand. For this step click on the save icon and set the name you want. Then choose the subscription and resource group parameters. in the end you have to specify a location.

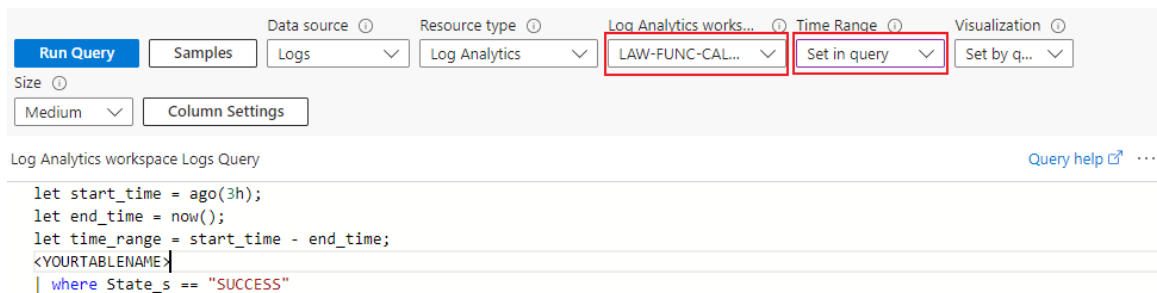


Create first data visualization

Inside the newly created we can start the first query. Click "Add" and choose "Add query".



Inside this query you have to specify the workspace as this is the source for the queries (your log analytics workspace or storage account of choice). Set the parameter "Time Range" to the value "Set in query" thus we will set this dynamically using Workbook parameters.

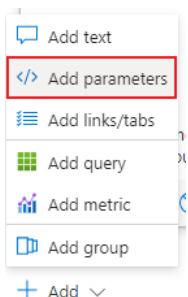


Write your log query in KQL so that the output meets your expectations. AI Chatbots can be a big help for writing queries.

Add dynamic parameters

To display charts and tables based on the parameters we set, we can use the so-called "Parameter" functionality of Azure Workbooks.

First we have to create a parameter set. Click "Add" and choose "Add parameters":



Click "Add Parameter":

2 Editing parameters item: parameters - 1

Settings Advanced Settings Style </> Advanced Editor

Style

Add Parameter Pills

Required? ☐ Parameter name Display name Parameter type

Fill out the form based on your needs:

New Parameter ×

Azure Monitor

Save Cancel ? Help

Settings Advanced Settings

Parameter name * ✓

Display name ✓

Parameter type ✓

Required? ☒

Explanation

Hide parameter in reading mode ☐

Available time ranges:

- ☒ Last 5 minutes
- ☐ Last 15 minutes
- ☐ Last 30 minutes
- ☐ Last hour
- ☒ Last 4 hours
- ☐ Last 12 hours
- ☒ Last 24 hours
- ☒ Last 48 hours
- ☐ Last 3 days
- ☒ Last 7 days
- ☐ Last 14 days
- ☐ Last 28 days
- ☒ Last 30 days
- ☐ Last 60 days
- ☐ Last 90 days
- ☐ Allow custom time range selection

Use of dynamic parameters

After we have created a dynamic parameter, we can use the values inside our KQL queries. The use is different based on the selected data type of the parameter.

Using the "Previews" pane on the editing page of the parameter we can select values and see their according value.

Previews

When editing, your parameter will look like this:

Time Range Selector:

When not editing, your parameter will look like this:

Time Range Selector: Last 4 hours

When replaced in a query or text item, {TimeRange} will become:

```
{TimeRange} ==> Last 4 hours
{TimeRange:label} ==> Last 4 hours
{TimeRange:value} ==> > ago(4h)
{TimeRange:query} ==> > ago(4h)
{TimeRange:start} ==> 12/19/2023 6:05 AM
{TimeRange:end} ==> 12/19/2023 10:05 AM
{TimeRange:startISO} ==> 2023-12-19T05:05:22.014Z
{TimeRange:endISO} ==> 2023-12-19T09:05:22.014Z
{TimeRange:startUnix} ==> 1702962322
{TimeRange:endUnix} ==> 1702976722
{TimeRange:grain} ==> 5m
{TimeRange:seconds} ==> 14400
```

So we can work with these variables inside our queries and update our query from before. This enables us to display the events based on the selected value of the parameter:

```
let start_time = {TimeRange:value};
let end_time = now();
let time_range = start_time - end_time;
<YOURTABLENAME>
| where State_s == "SUCCESS"
```

This will replace {TimeRange:value} with the value "ago(24h)" when the selection is the following:

Time Range: ⓘ

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