

# Collecting XEvents

Last updated by | Charlene Wang | Oct 14, 2020 at 8:37 PM PDT

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## Summary -

How to collect X-Events.

## Mitigation steps -

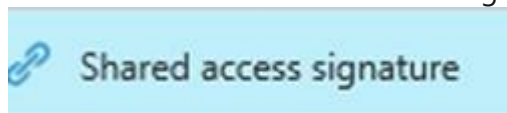
## General steps

- Create storage account and container:

Create an resource manager azure storage account in the same region as your SQL Database and BLOB container called XEvent.

See <https://docs.microsoft.com/en-us/azure/storage/common/storage-create-storage-account>

- Obtain shared access signature (SAS token):
  - Click on "Shared Access Signature"



- Choose start and expiry date/time
- Click on generate SAS

Signing key ⓘ

**Generate SAS**



- Copy the SAS token for later usage



**Note that when you copy the SAS token, it starts with question mark ?. You do NOT need this question mark (?). If you keep it, the credential you create next step will not work**

- Create database credential:  
--create master key

```
CREATE MASTER KEY ENCRYPTION BY PASSWORD='<EnterStrongPasswordHere>';
```

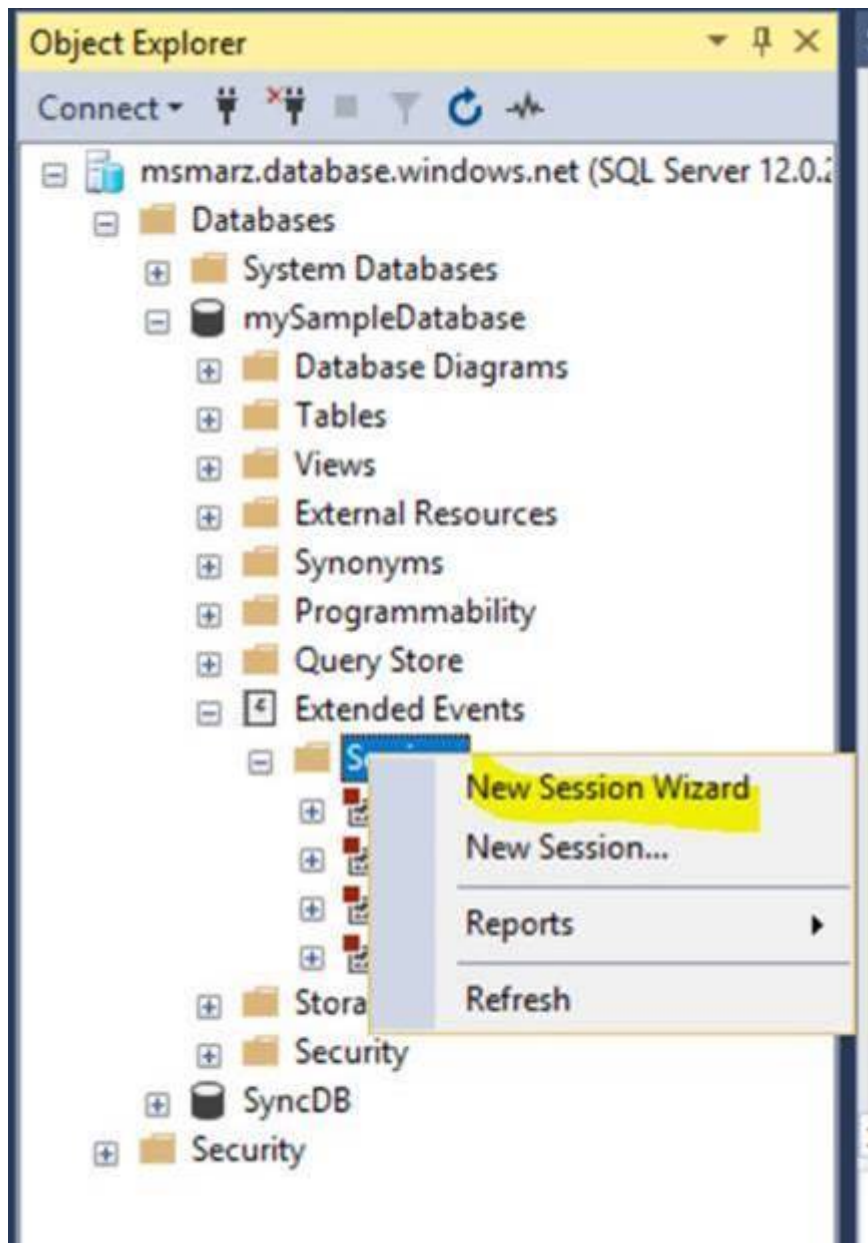
-- when you copy SAS, there is a ? in the beginning remove that

```
CREATE database scoped CREDENTIAL [https://<storageaccountname>.blob.core.windows.net/xevent]
```

```
WITH IDENTITY='SHARED ACCESS SIGNATURE'
```

```
, SECRET = 'sv=.....' --make sure you remove ? In the SAS token copied from previous step
```

- Create xEvent Session using wizard



Select rpc\_completed, sp\_statement\_completed, sql\_batch\_completed, sql\_statement\_completed, attention events

New Session Wizard: Select Events To Capture

## Select Events To Capture

Introduction

Set Session Properties

Choose Template

**Select Events To Capture**

Capture Global Fields

Set Session Event Filters

Specify Session Data Storage

Summary

Create Event Session

Select the events you want to capture from the event library.

Event library:

in Event names only

| Name ^                                    | Category v       | Channel ^ |
|---|------------------|-----------|
| adaptive_join_skipped                     | optimization     | Analytic  |
| alter_column_event                        | index            | Analytic  |
| alter_table_update_data                   | execution        | Analytic  |
| alwayson_ddl_executed                     | alwayson         | Analytic  |
| approximate_count_distinct_query_compiled | aqp              | Analytic  |
| automatic_tuning_advisor_settings_invalid | automatic_tun... | Analytic  |
| automatic_tuning_settings_changed         | automatic_tun... | Analytic  |
| batch_hash_join_separate_hash_column      | execution        | Analytic  |
| batch_hash_table_build_bailout            | errors           | Analytic  |
| begin_tran_completed                      | transactions     | Analytic  |
| begin_tran_starting                       | transactions     | Analytic  |
| bitmap_disabled_warning                   | errors           | Analytic  |
| blob_container_accessor_create_failure    | columnstore      | Analytic  |

Selected events:

Name

- rpc\_completed
- sp\_statement\_completed
- sql\_batch\_completed
- sql\_statement\_completed
- attention

Event Fields ^

Description

attention

Indicates that a cancel operation, client-interrupt request, or broken client connection has occurred. Be aware that cancel operations can also occur as the result of implementing data access driver time-outs.

Please select below Global Fields.

< Previous

Next >

Finish

Cancel

## Capture Global Fields

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[Set Session Properties](#)  
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**[Capture Global Fields](#)**  
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[Help](#)

You can capture global fields (also called actions), which are common to all events. Select the global fields you want to capture in this event session.

| Name  | Description  |
|---|--|
| <input type="checkbox"/> client_app_name            | Collect client application name  |
| <input type="checkbox"/> client_connection_id       | Collects the optional identifier provided at connection time by a client                               |
| <input type="checkbox"/> client_hostname            | Collect client hostname  |
| <input checked="" type="checkbox"/> client_pid      | Collect client process ID  |
| <input type="checkbox"/> compile_plan_guid          | Collect compiled plan guid. Use this to uniquely identify the compiled plan                            |
| <input type="checkbox"/> context_info               | Collect the same value as the CONTEXT_INFO() function  |
| <input checked="" type="checkbox"/> database_id     | Collect database ID  |
| <input checked="" type="checkbox"/> database_name   | Collect current database name  |
| <input type="checkbox"/> event_sequence             | Collect event sequence number  |
| <input type="checkbox"/> execution_plan_guid        | Collect execution plan guid. Use this to uniquely identify the execution plan                          |
| <input type="checkbox"/> num_response_rows          | Number of rows returned by statement   |
| <input checked="" type="checkbox"/> plan_handle     | Collect plan handle  |
| <input checked="" type="checkbox"/> query_hash      | Collect query hash. Use this to identify queries with similar logic. You can use the query hash to ... |
| <input type="checkbox"/> query_hash_signed          | Collect query hash. Use this to identify queries with similar logic. You can use the query hash to ... |
| <input checked="" type="checkbox"/> query_plan_hash | Collect query plan hash. Use this to identify similar query execution plans. You can use query pl...   |
| <input type="checkbox"/> query_plan_hash_signed     | Collect query plan hash. Use this to identify similar query execution plans. You can use query pl...   |
| <input checked="" type="checkbox"/> request_id      | Collect current request ID   |
| <input checked="" type="checkbox"/> session_id      | Collect session ID   |
| <input checked="" type="checkbox"/> sql_text        | Collect SQL text   |
| <input checked="" type="checkbox"/> transaction_id  | Collect transaction ID   |
| <input type="checkbox"/> transaction_sequence       | Collect current transaction sequence number  |
| <input type="checkbox"/> tsql_stack                 | Collect Transact-SQL stack   |
| <input type="checkbox"/> username                   | Collect username   |

Please specify the storage account and container created in previous steps in the following section to store the captured xEvent log.

&lt; Previous


Next &gt;

Finish

Cancel



New Session Wizard: Specify Session Data Storage



## Specify Session Data Storage

Introduction

Set Session Properties

Choose Template

Select Events To Capture

Capture Global Fields

Set Session Event Filters


**Specify Session Data Storage**

Summary

Create Event Session

Help

Specify how you want to collect the data for analysis.

 File name cannot be empty.

☐ Work with only the most recent data (ring\_buffer target).  
This is useful for smaller data sets or continuous data collection.

Number of events to keep (0 means unlimited):

Maximum buffer memory size (0 means unlimited):  MB

☐ Keep a specified number of events (per type) when the buffer is full.

Number of events to keep (per type):

☒ Save data to Windows Azure storage for later analysis.

Storage URL:

Maximum file size:  GB

The storage URL will be accessed using one of the stored SQL credentials. For directions to create appropriate credentials, click [here](#).

SQL credentials:

```
https://storagemar201.blob.core.windows.net/xeventlog
https://marzstorage.blob.core.windows.net/xeventlog01
https://marzstorage.blob.core.windows.net/xeventtest01
TestCred01
```



Also documented at:

<https://techcommunity.microsoft.com/t5/Azure-Database-Support-Blog/Extended-Events-Capture-Step-by-Step-Walkthrough/ba-p/369013>

Public Doc Reference :

Internal MSFT Reference:

[Keywords]

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Finish

Cancel

## Classification

Root cause path -

Workload performance/ User issue/error/DTU limit

**How good have you found this content?**

