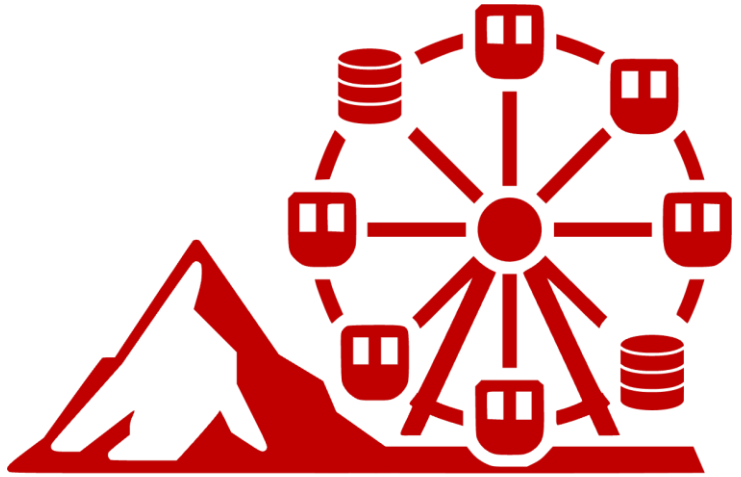
Baking Extended Events Recipes Without Breaking a Sweat

Gianluca Sartori



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Data Community Austria Day 2025

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Agenda

- Trace is dead
- XESmartTarget
- DEMO! Recipes!

Trace is Dead



Extended Events

Replacement for SQL Trace

- Introduced in 2008
- Feature parity from version >= 2012
- Rough start, many events missing, poor tooling

Lightweight event capture infrastructure

- Deep inside SQLOS
- Low performance overhead
- Allows capturing events not available otherwise

Extended Events

- It’s all about Extended Events now
  - SQLTrace is deprecated
  - All new events get added only to Extended Events
  - Azure SQL Database and Azure Managed Instance only work with Extended Events, using blob storage
  - Tooling has improved quite a lot

Extended Events - Targets

6 types of targets:

Name	Description
Ring buffer	Use to hold the event data in memory on a first-in first-out (FIFO) basis
Event file	Use to write event session output from complete memory buffers to disk.
Event pairing	Use to determine when a specified paired event does not occur in a matched set.
Event Tracing for Windows (ETW)	Use to correlate SQL Server events with Windows operating system or application event data.
Event counter	Counts all specified events that occur during an Extended Events session.
Histogram	Use to count the number of times that a specified event occurs

https://learn.microsoft.com/en-us/sql/relational-databases/extended-events/targets-for-extended-events-in-sql-server?view=sql-server-ver15

Introducing XESmartTarget

Introducing XESmartTarget

- Free and Open Source https://github.com/spaghettidba/XESmartTarget/
- Uses the streaming API to attach to XE sessions
- Extends the capabilities of built-in targets
- Allows to automate the response to the events
- Easy to configure with .json files – no coding required
- Offers different Response Types for performing different actions

Response Types

8 Response Types available

- CsvAppenderResponse
- TableAppenderResponse
- GroupedTableAppenderResponse
- ReplayResponse
- EmailResponse
- ExecuteTSQLResponse
- TelegrafAppenderReponse
- GelfTcpResponse

The documentation contains all the details

Baking Extended Events Recipes with XESmartTarget

Resources

- Detailed ~~blog posts~~ recipes on spaghettidba.com
  https://spaghettidba.com/tag/xesmarttarget/

- XESmartTarget documentation
  https://github.com/spaghettidba/XESmartTarget/wiki

Questions? Ask me!

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Thank you!