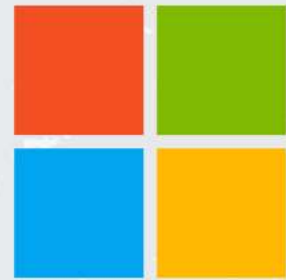




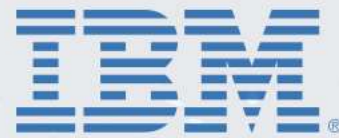


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jibo



Tell SQL Server Profiler to Take a Hike

Jes Borland, Concurrency



Jes Borland,
Senior SQL Engineer



Real Microsoft expertise. Real business value.™

Yes!

- Slides and demos available at <http://blogs.lessthandot.com/?p=4277>

1998



Google



Why are you still using Profiler?

I can do everything I need to do in it. Why learn a new tool?

I know Profiler is a separate program I open. How do I open Extended Events?

I can save data to a table automatically.

The XE interface isn't exactly the same.

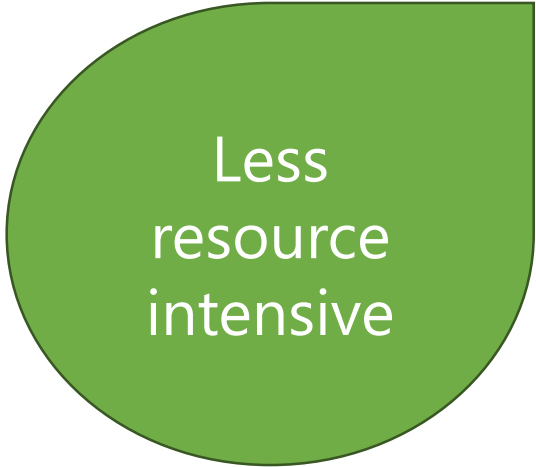


Credit: Lance Fisher

Why use Extended Events?



More
thorough



Less
resource
intensive

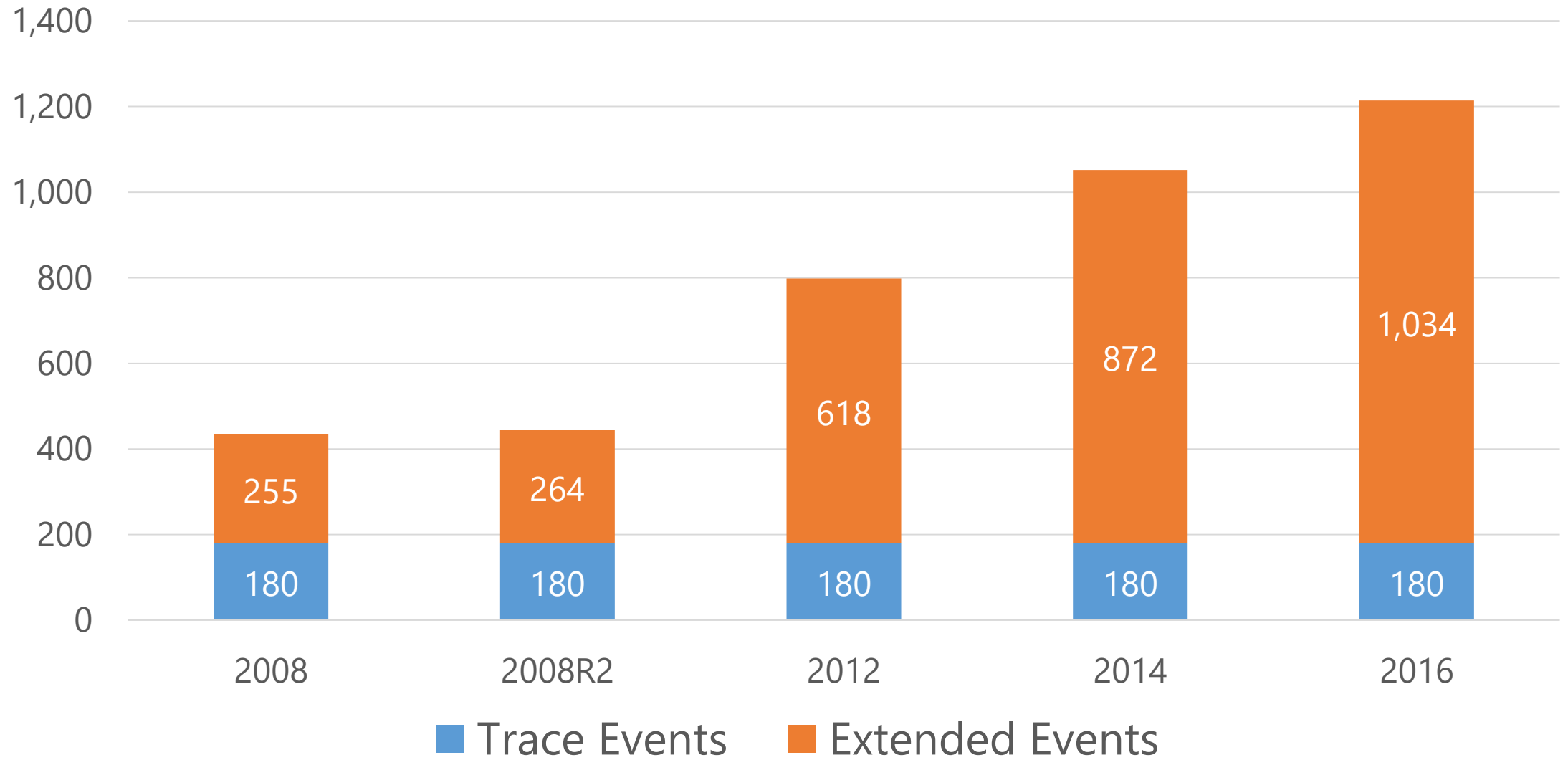


Covers new
features

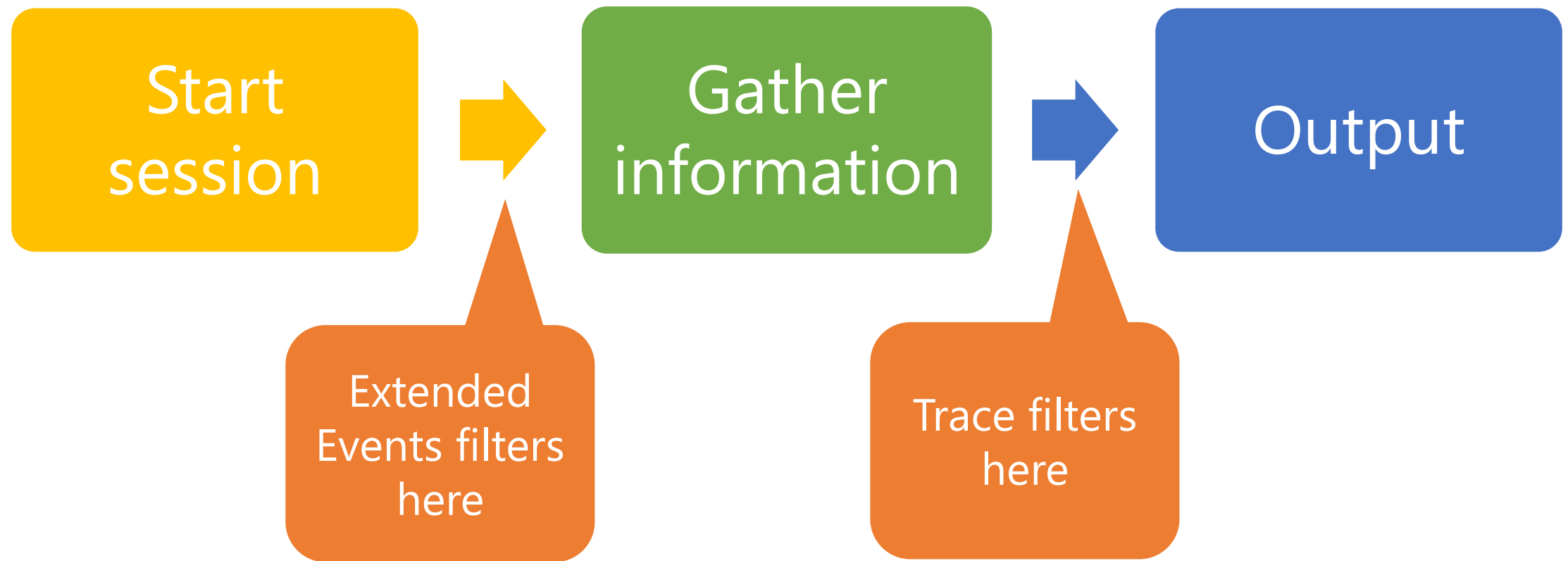


Azure

Number of Events



Post-processing vs Pre-processing



Extended Events in Real Life

Common uses of Profiler

- Capture all queries executed and their performance
- Capture deadlocks
- Capture errors and warnings as they're generated

Common uses of Extended Events

- Capture all queries executed and their performance
- Capture deadlocks
- Capture errors and warnings as they're generated

Capturing all queries



Trace Properties



General | Events Selection

Trace name: Capture All Queries

Trace provider name: LENOVT440P

Trace provider type: Microsoft SQL Server "2014" version: 12.0.2269

Use the template: Blank

☒ Save to file: D:\Trace\Capture All Queries.trc

Set maximum file size (MB): 50

☒ Enable file rollover

☐ Server processes trace data

☐ Save to table:

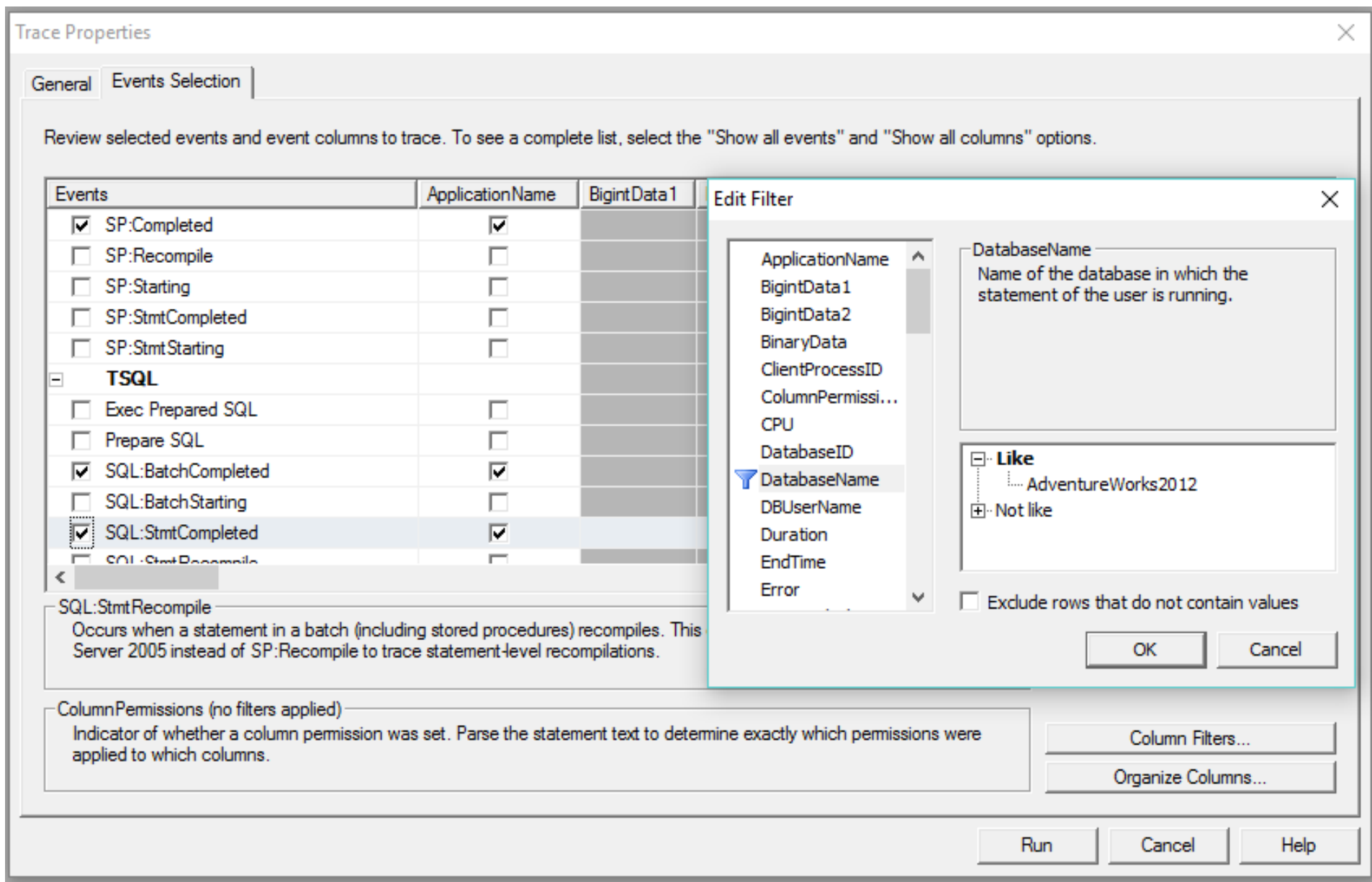
☐ Set maximum rows (in thousands): 1

☐ Enable trace stop time: 7/18/2016 1:42:00 PM

Run

Cancel

Help



SQL Server Profiler - [Capture All Queries (LENOVOT440P)]

File Edit View Replay Tools Window Help

EventClass	ApplicationName	BinaryData	ClientProcessID	DatabaseID	DatabaseName	Duration
Trace start						
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:BatchCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:BatchCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
SQL:StmtCompleted	Microsoft SQ...		7992	5	Adventure...	0
< <div></div>						
exec uspGetBillofMaterials 505, '1/1/2009'						

SQL Server Profiler - [Capture All Queries (LENOVOT440P)]

File Edit View Replay Tools Window Help

New Trace... Ctrl+N

Open >

Close Ctrl+F4

Save Ctrl+S

Save As >

Properties...

Templates >

Run Trace

Pause Trace

Stop Trace

Export >

Import Performance Data...

Exit

Script Trace Definition >

Extract SQL Server Events >

Extract SQL Server Analysis Services Events >

For SQL Server 2005 - 2014...

For SQL Trace Collection Set...

For Analysis Services 2005 - 2014...

Name	BinaryData	ClientProcessID	DatabaseID	DatabaseName	Duration	EndTime
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	76	2016-07-
SQL...		7992	5	Adventure...	77	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-
SQL...		7992	5	Adventure...	0	2016-07-


```

6
7 -- Create a Queue
8 declare @rc int
9 declare @TraceID int
10 declare @maxfilesize bigint
11 set @maxfilesize = 50
12
13 -- Please replace the text InsertFileNameHere, with an appropriate
14 -- filename prefixed by a path, e.g., c:\MyFolder\MyTrace. The .trc extension
15 -- will be appended to the filename automatically. If you are writing from
16 -- remote server to local drive, please use UNC path and make sure server has
17 -- write access to your network share
18
19 exec @rc = sp_trace_create @TraceID output, 0, N'InsertFileNameHere', @maxfiles
20 if (@rc != 0) goto error
21
22 -- Client side File and Table cannot be scripted
23
24 -- Set the events
25 declare @on bit
26 set @on = 1
27 exec sp_trace_setevent @TraceID, 43, 1, @on
28 exec sp_trace_setevent @TraceID, 43, 9, @on
29 exec sp_trace_setevent @TraceID, 43, 2, @on
30 exec sp_trace_setevent @TraceID, 43, 66, @on
31 exec sp_trace_setevent @TraceID, 43, 3, @on
32 exec sp_trace_setevent @TraceID, 43, 4, @on
33 exec sp_trace_setevent @TraceID, 43, 5, @on
34 exec sp_trace_setevent @TraceID, 43, 6, @on

```

Now let's see that in
Extended Events

Of note

- Use the New Session option, not New Session Wizard
- Use the event search box
- Script the session out and review

You can still

- Filter
- Save to a file & open the file later
- Create templates

Do I need sa?

Profiler/Trace	Extended Events 2008/2008R2	Extended Events 2012 +
ALTER TRACE	CONTROL SERVER	ALTER ANY EVENT SESSION

Start and stop trace at specific time

- Create Agent Jobs
 - ALTER EVENT SESSION [SessionName] ON SERVER
STATE = START;
 - ALTER EVENT SESSION [SessionName] ON SERVER
STATE = STOP;
- Schedule

That's great, but...
what about my existing traces?

Find XE equivalents to trace events

Demo

Find XE equivalents to Trace Event Classes

Convert existing trace to XE session

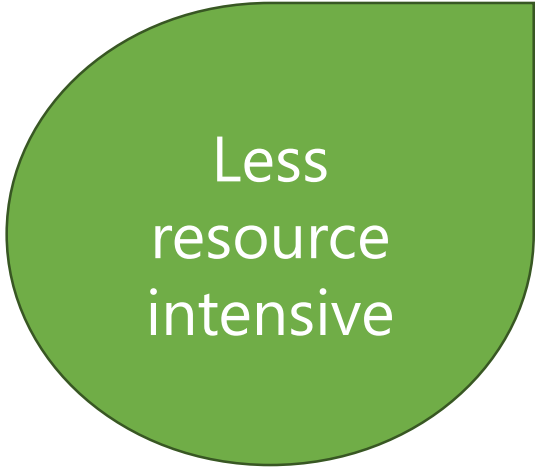
Demo

Convert existing trace to XE session

Extended Events is great because:



More
thorough



Less
resource
intensive



Covers new
features



Azure

Action Items

- Identify your top uses for Profiler/traces
- In existing traces, determine which XE events can replace the trace events
- Convert traces to XE sessions

Start
small



Real Microsoft expertise. Real business value.™

Use my GitHub repo

- <https://github.com/grrlgeek/extended-events>
- Scripts for common XE sessions
- Please contribute!

Questions?

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@grrl_geek

linkedin.com/in/jesborland

Slides and demos available at <http://blogs.lessthandot.com/?p=4277>



SEE YOU NEXT YEAR!

AUGUST 7 - 9, 2017

