

Leveraging the Extended Events UI



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What This Module Covers



Steps to create an event session in the UI

How to view data – live and saved – and
customize the viewer

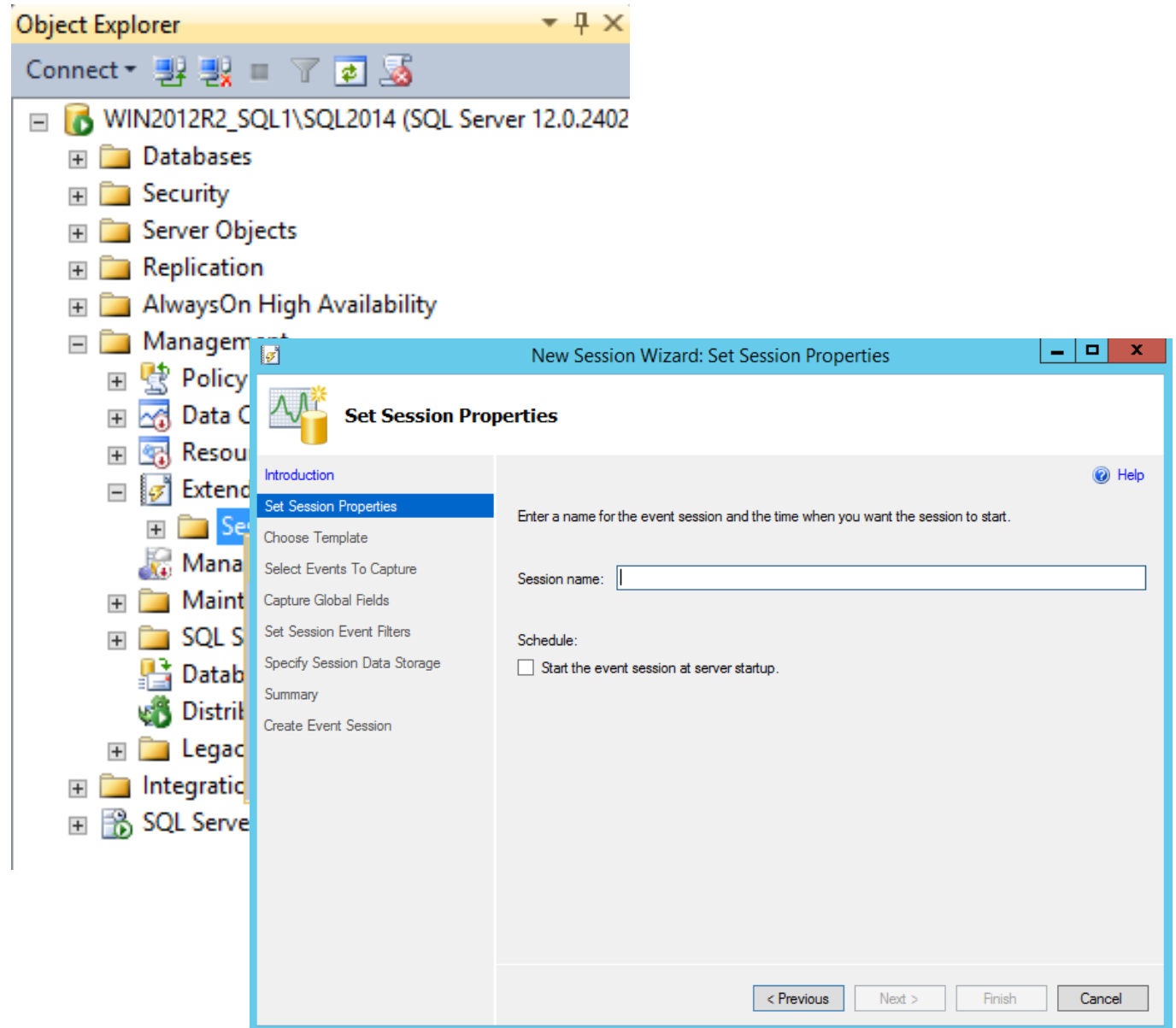
How to analyze data in the UI



Everything we used to
do with T-SQL, you
can now do in the UI
(and more!)

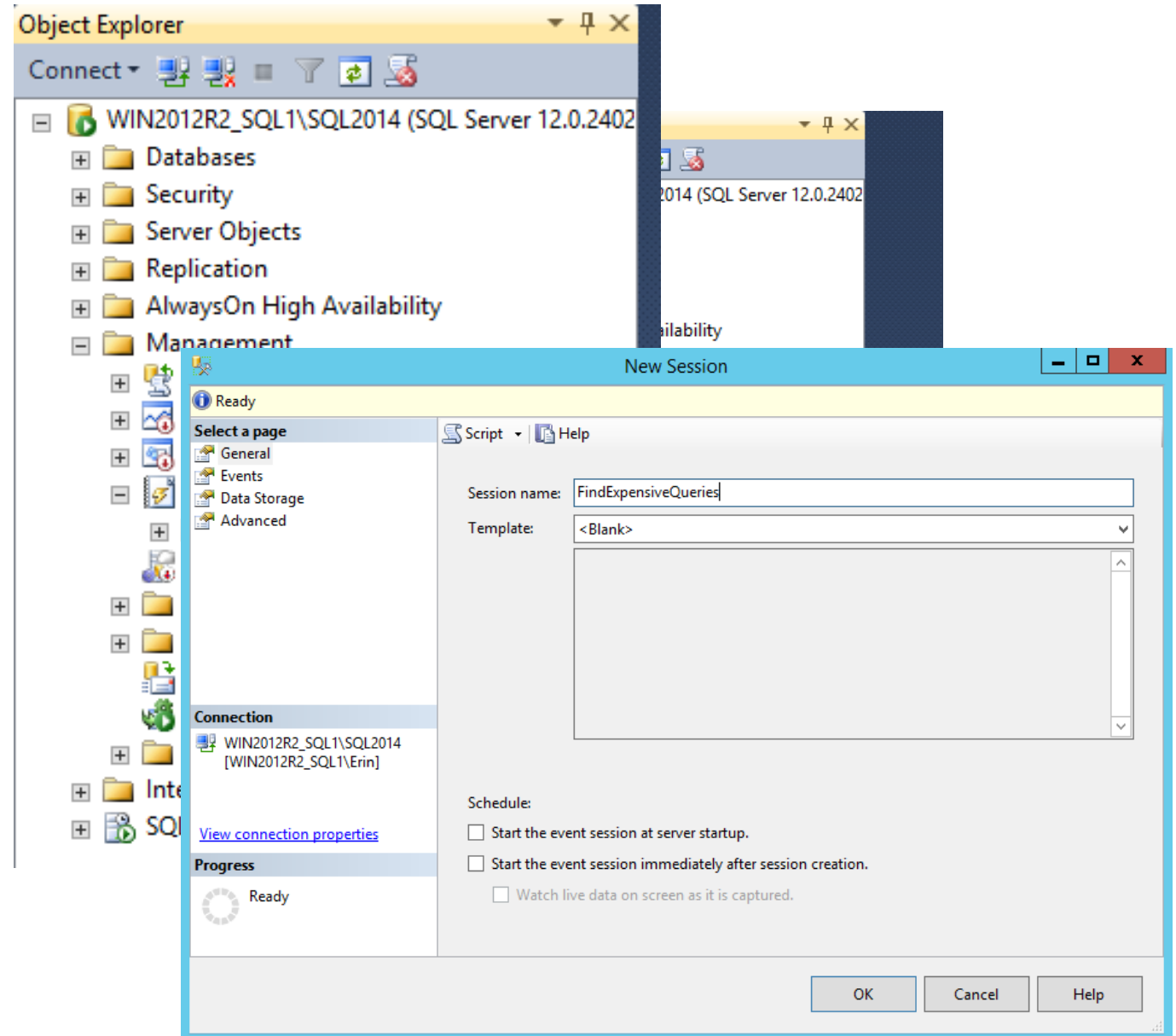


**New Session Wizard
allows quick creation
of a new session from
a template, or with a
minimal set of
configurable options**



New Session dialog
can be used for
advanced session
creation with all
available options and
targets

Existing sessions can
be modified through
the right-click menu
option



Templates

Templates are an easy way to automate setup of an Extended Events session

You can export an existing session to create a template

You can create a custom category for templates you create by editing the .xml file



Demo



Creating an event session and analyzing the output in the UI



**Live Data Viewer
reads a live stream of
event buffers from an
Extended Events
session on a server**

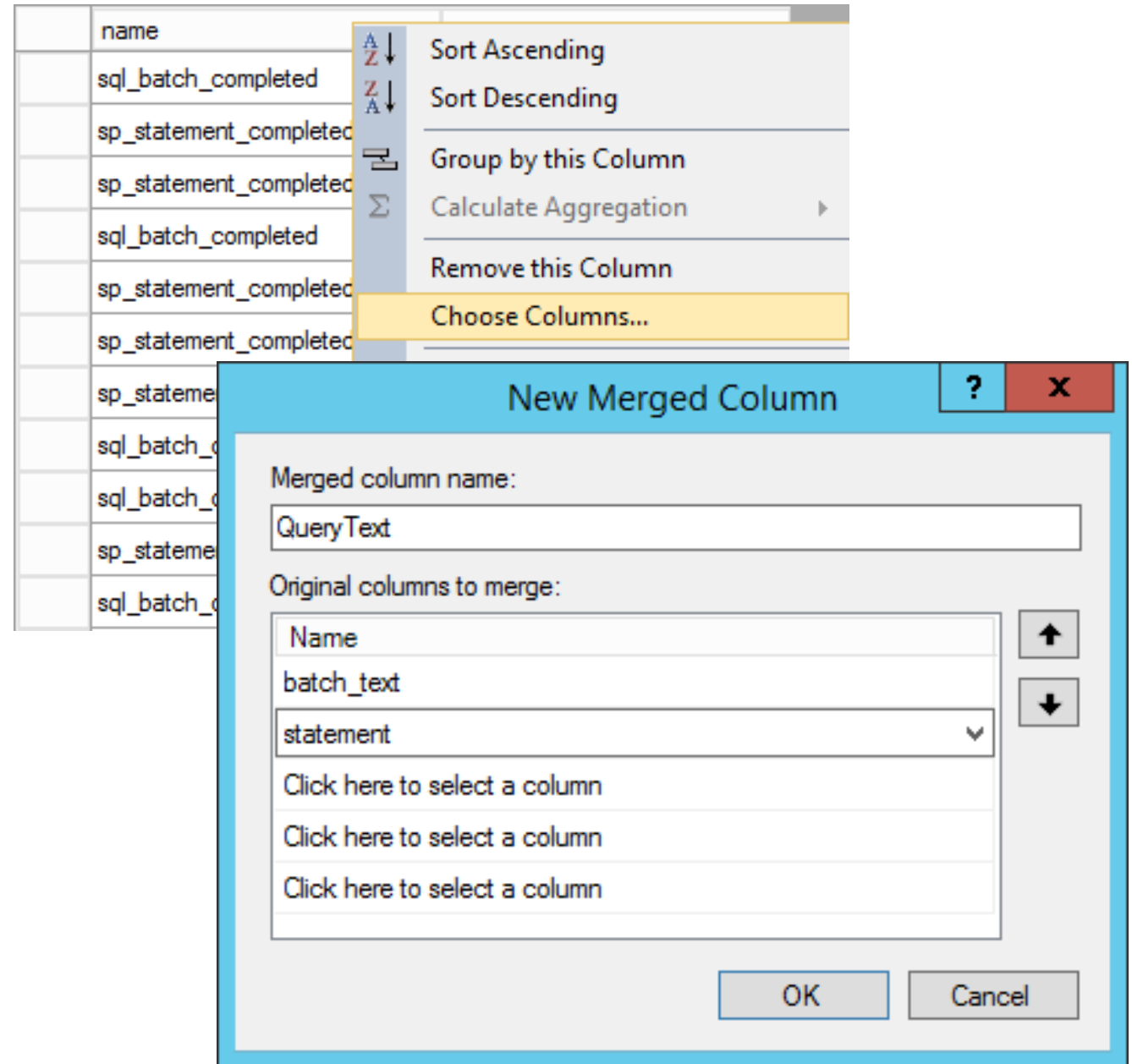
Displaying 9204 Events		
	name	timestamp
	rpc_completed	2014-08-24 15:20:51.7991295
	sp_statement_completed	2014-08-24 15:20:51.8001808
	rpc_completed	2014-08-24 15:20:51.8001953
	sp_statement_completed	2014-08-24 15:20:51.8011237
	rpc_completed	2014-08-24 15:20:51.8011381
	sp_statement_completed	2014-08-24 15:20:51.8031239
	rpc_completed	2014-08-24 15:20:51.8031391
	sp_statement_completed	2014-08-24 15:20:51.8038994

Event: rpc_completed (2014-08-24 15:20:51.8198301)

Details	
Field	Value
connection_reset_...	None
cpu_time	0
data_stream	0x
database_id	7
duration	730
logical_reads	935
object_name	usp_GetProductInfo
output_parameters	
physical_reads	0
result	OK
row_count	293



Within the data viewer you can customize what columns you see, and you can create merged columns



Within the UI data can be grouped by any of the available columns

Data can also be aggregated to display, for example, the minimum, maximum, or average value for a column

The image shows two overlapping dialog boxes from a data visualization tool. The 'Grouping' dialog is in the background, and the 'Aggregation' dialog is in the foreground.

Grouping Dialog:

- Available columns:
 - name
 - timestamp
 - duration
 - logical_reads
 - cpu_time

Aggregation Dialog:

Calculate aggregation:

Column	Aggregation Type
name	<None>
timestamp	<None>
statement	<None>
duration	AVG
cpu_time	AVG
logical_reads	AVG
physical_reads	SUM

Sort aggregation by:

☒ A-Z In ascending order

☐ Z-A In descending order

OK Cancel

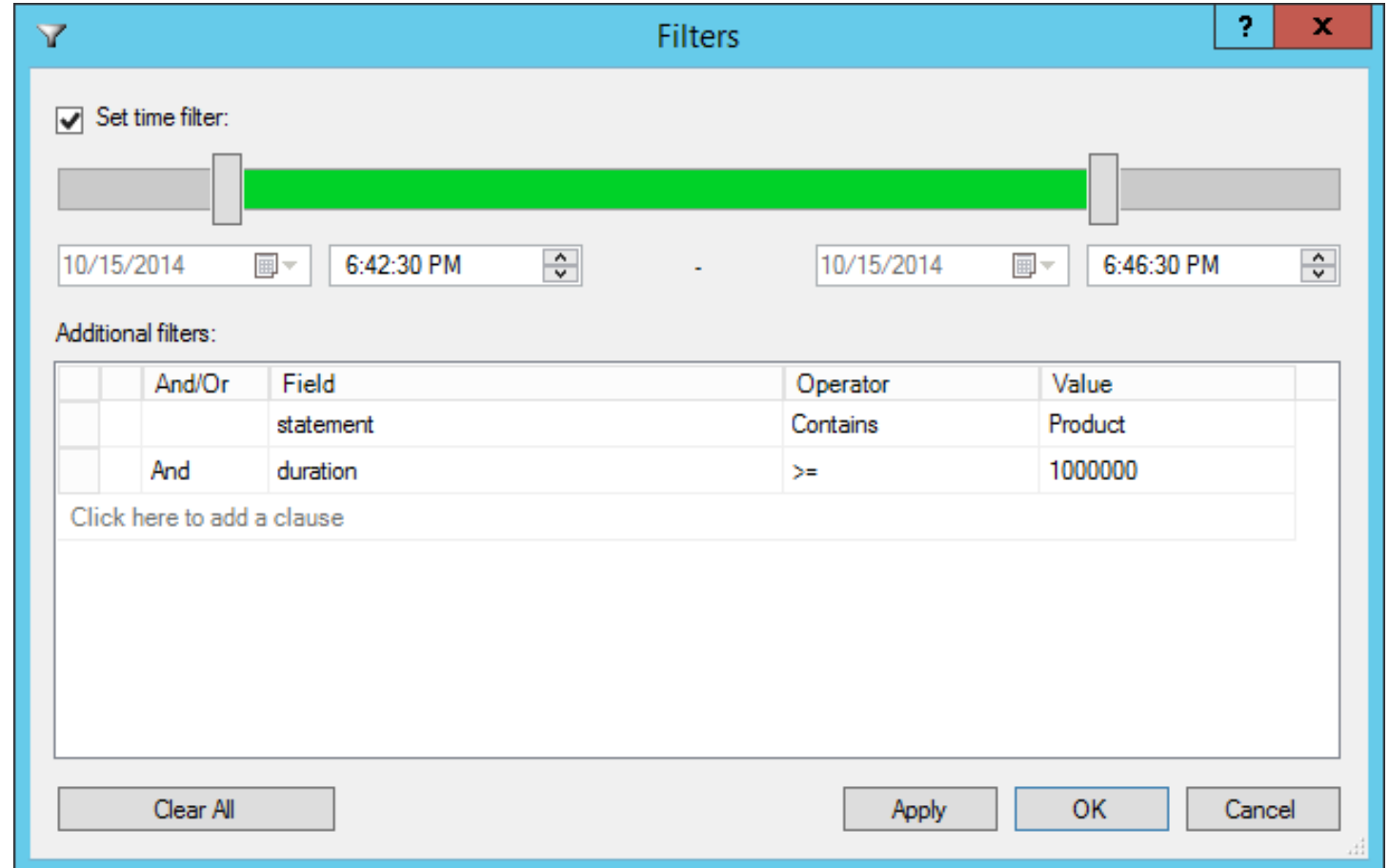


Expand a grouping to see data at a detail level

WIN2012R2_SQL1\SQ...Queries: Live Data								
Displaying 3368 Events								
	name	timestamp	query_hash	statement	duration	cpu_time	logical_reads	physical_reads
query_hash: 15568848644667196686 (87)								
					AVG: 148.632...	AVG: 356.321839...	AVG: 6.04597701149...	SUM: 0
query_hash: 9102392425152069755 (103)								
					AVG: 8631.56...	AVG: 2407.76699...	AVG: 821.262135922...	SUM: 0
query_hash: 0 (397)								
					AVG: 13017.0...	AVG: 8108.31234...	AVG: 168.105793450...	SUM: 6159
query_hash: 6744357441925578195 (90)								
					AVG: 1281.3	AVG: 0	AVG: 5	SUM: 296
	sp_statement_completed	2014-10-15 18:47:18.2690928	6744357441925578195	SELECT * FROM [Person].[Person] ...	4295	0	5	8
	sp_statement_completed	2014-10-15 18:47:18.4084982	6744357441925578195	SELECT * FROM [Person].[Person] ...	75	0	5	0
	sp_statement_completed	2014-10-15 18:47:18.5528949	6744357441925578195	SELECT * FROM [Person].[Person] ...	4269	0	5	8
	sp_statement_completed	2014-10-15 18:47:18.6976039	6744357441925578195	SELECT * FROM [Person].[Person] ...	73	0	5	0
	sp_statement_completed	2014-10-15 18:47:18.8300076	6744357441925578195	SELECT * FROM [Person].[Person] ...	2757	0	5	8
	sp_statement_completed	2014-10-15 18:47:18.9642623	6744357441925578195	SELECT * FROM [Person].[Person] ...	1061	0	5	8
	sp_statement_completed	2014-10-15 18:47:19.0912515	6744357441925578195	SELECT * FROM [Person].[Person] ...	51	0	5	0



Data can be filtered
based on time, and/or
column values



The screenshot shows a 'Filters' dialog box with a blue title bar. It contains a 'Set time filter' section with a green range bar and two time pickers. Below is an 'Additional filters' section with a table of filter clauses. At the bottom are 'Clear All', 'Apply', 'OK', and 'Cancel' buttons.

☒ Set time filter:

10/15/2014 6:42:30 PM - 10/15/2014 6:46:30 PM

Additional filters:

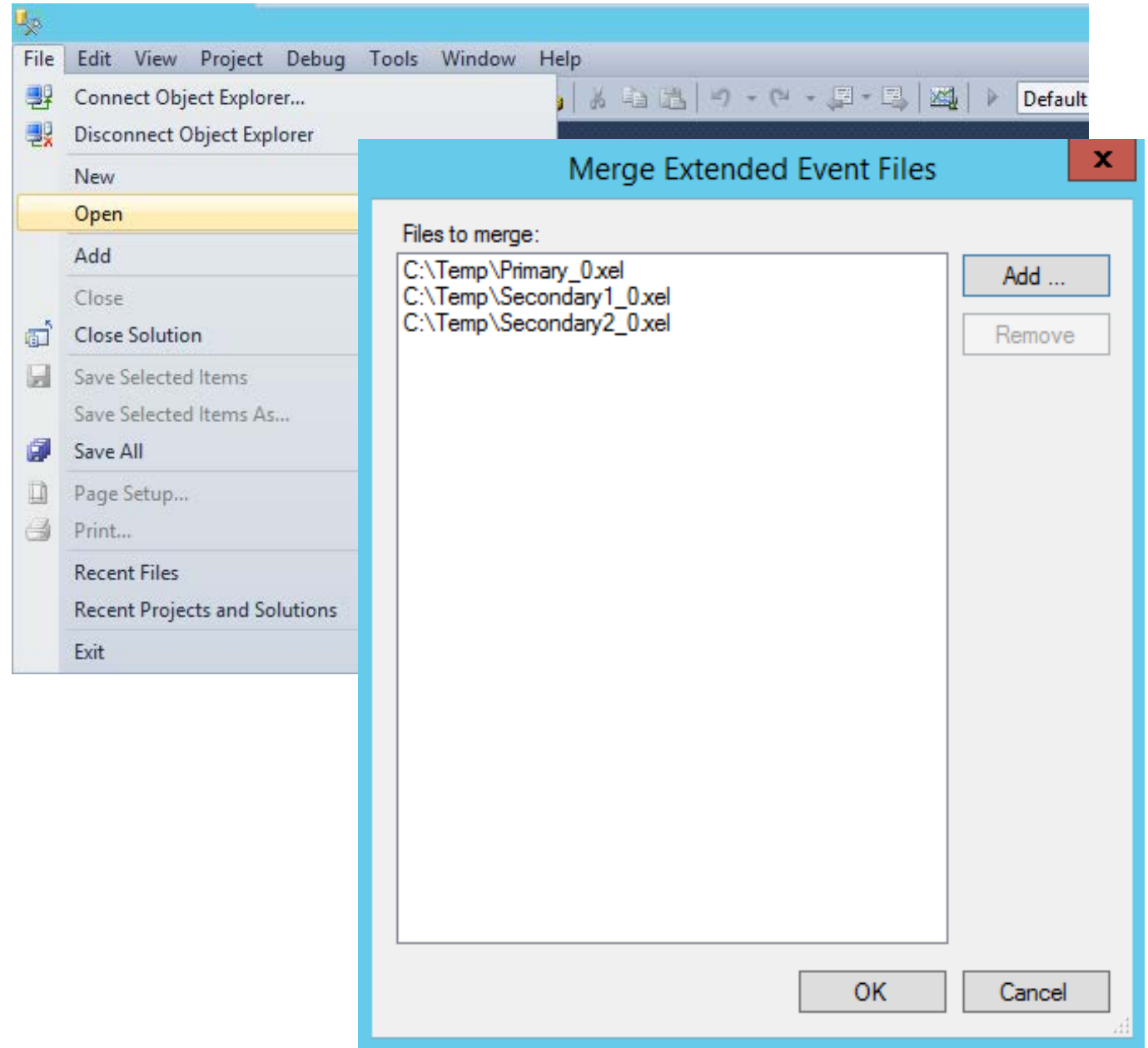
	And/Or	Field	Operator	Value
		statement	Contains	Product
	And	duration	>=	1000000

Click here to add a clause


Clear All Apply OK Cancel



Multiple files can be merged together in the UI to create one master file for analysis



Events can be bookmarked within the UI, making it easy to quickly find them again



WIN2012R2_SQL1\SQ...Queries: Live Data									
Displaying 3368 Events									
	name	timestamp	query_hash	statement	duration	cpu_time	logical_reads	physical_reads	
	sp_statement_completed	2014-10-15 18:47:25.0902961	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	525	0	716	0	
	sp_statement_completed	2014-10-15 18:47:25.0916415	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	101	0	101	0	
<input type="checkbox"/>	sp_statement_completed	2014-10-15 18:47:25.0937270	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	910	15000	1119	0	
	sp_statement_completed	2014-10-15 18:47:25.1019185	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	6742	0	9874	0	
	sp_statement_completed	2014-10-15 18:47:25.1035550	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	475	0	623	0	
	sp_statement_completed	2014-10-15 18:47:25.1060830	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	1521	0	2224	0	
	sp_statement_completed	2014-10-15 18:47:25.1077088	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	377	0	503	0	
	sp_statement_completed	2014-10-15 18:47:25.1097741	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	604	0	795	0	
	sp_statement_completed	2014-10-15 18:47:25.1116941	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	825	0	1164	0	
	sp_statement_completed	2014-10-15 18:47:25.1130817	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	271	0	318	0	
	sp_statement_completed	2014-10-15 18:47:25.1155538	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	1362	0	2037	0	
	sp_statement_completed	2014-10-15 18:47:25.1177587	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	1088	0	1569	0	
	sp_statement_completed	2014-10-15 18:47:25.1200188	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	905	0	1515	0	
	sp_statement_completed	2014-10-15 18:47:25.1213490	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	296	0	377	0	
<input type="checkbox"/>	sp_statement_completed	2014-10-15 18:47:25.1226552	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	280	0	374	0	
	sp_statement_completed	2014-10-15 18:47:25.1261257	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	2446	16000	2888	0	
	sp_statement_completed	2014-10-15 18:47:25.1282971	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	577	0	767	0	
	sp_statement_completed	2014-10-15 18:47:25.1320697	8653603942255886827	SELECT [ProductID], [OrderQty] FRO...	857	0	1203	0	



What This Module Covered



How to create an event session in the UI

How to view live data

Options for customizing the viewer

Methods for analyzing captured data in the UI including:

- Filtering
- Grouping
- Aggregating

