



**SQL SATURDAY RICHMOND - 2020**

# **SQL ALERTS DASHBOARD**

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**[HTTPS://GITHUB.COM/GWALKEY](https://github.com/gwalkey)**

# AGENDA

- SQL Alerts for all my Servers in a Glass Pane
- Build it yourself Mentality/Methodology
- Setup
  - SQL Agent Alerts - Turn on for all Monitored Servers
  - SQL Agent Job - Copy Alerts to Central Database
  - Central Database holds Alerts for Reporting
  - SSRS or PowerBI Reports

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# PROJECT WORKFLOW

- SQL Agent detects an Alert
- The Alert Response calls a SQL Agent Job, passing the Alert details via Agent Tokens to a Powershell Script with parameters
- The Powershell Script logs the Token values to the Centralized SQL database
- SSRS Reports show the Alerts for all Servers

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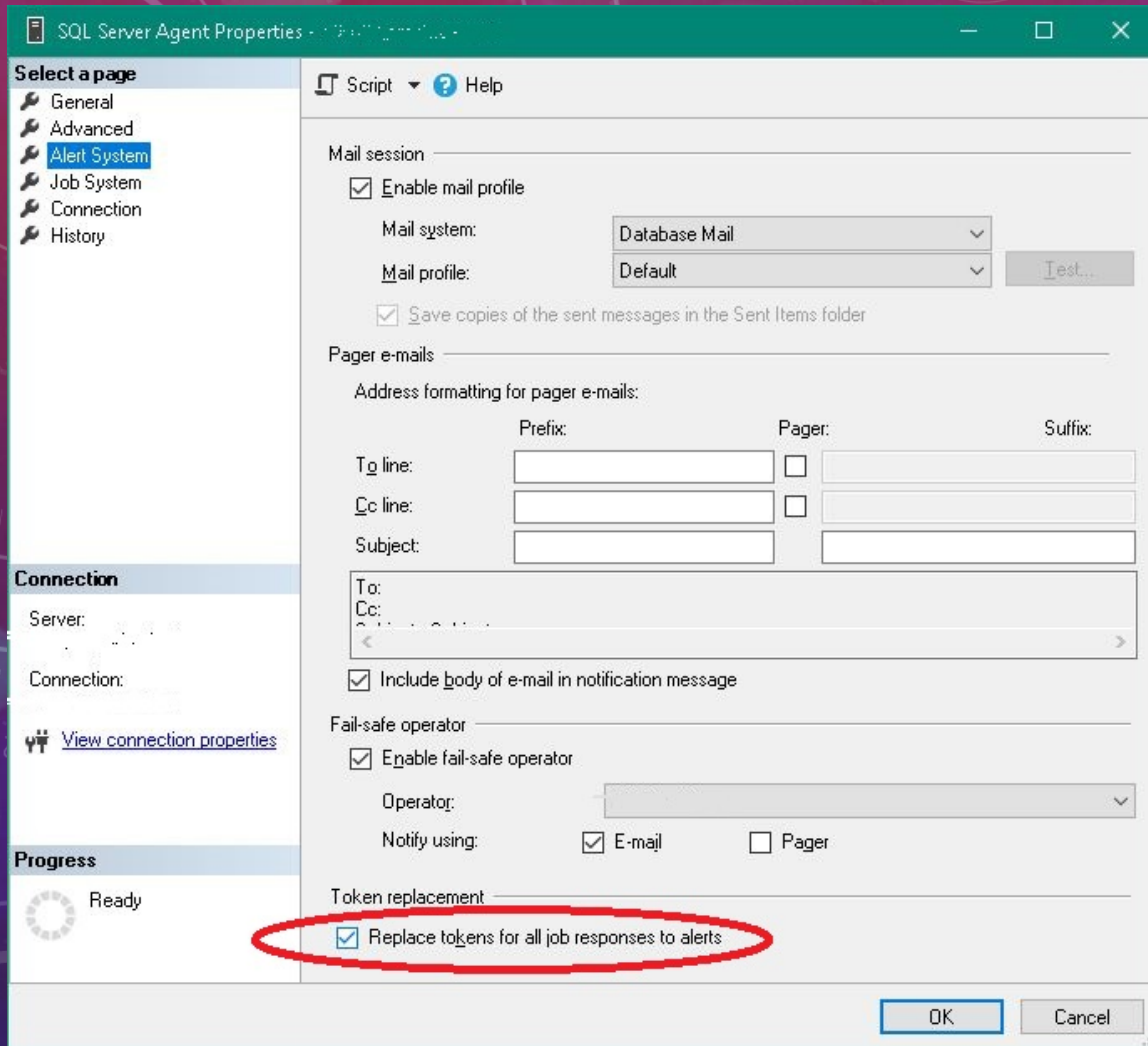
# THE AGENT TOKENS

- A-DBN – Database Name
- A-SVR – Server Name
- A-ERR – Error Number
- A-SEV – Severity Level
- A-MSG – Message Text
- <https://docs.microsoft.com/en-us/sql/ssms/agent/use-tokens-in-job-steps?view=sql-server-ver15>

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# THE AGENT TOKENS - ENABLE



SQL Server Agent Properties - [Server Name] - [Instance Name]

Select a page

- General
- Advanced
- Alert System**
- Job System
- Connection
- History

Script Help

Mail session

- ☒ Enable mail profile
- Mail system: Database Mail
- Mail profile: Default
- Test...
- ☒ Save copies of the sent messages in the Sent Items folder

Pager e-mails

Address formatting for pager e-mails:

	Prefix:	Pager:	Suffix:
To line:		<input type="checkbox"/>	
Cc line:		<input type="checkbox"/>	
Subject:			

To:  
Cc:

☒ Include body of e-mail in notification message

Fail-safe operator

- ☒ Enable fail-safe operator
- Operator: [Operator Name]
- Notify using: ☒ E-mail ☐ Pager

Token replacement

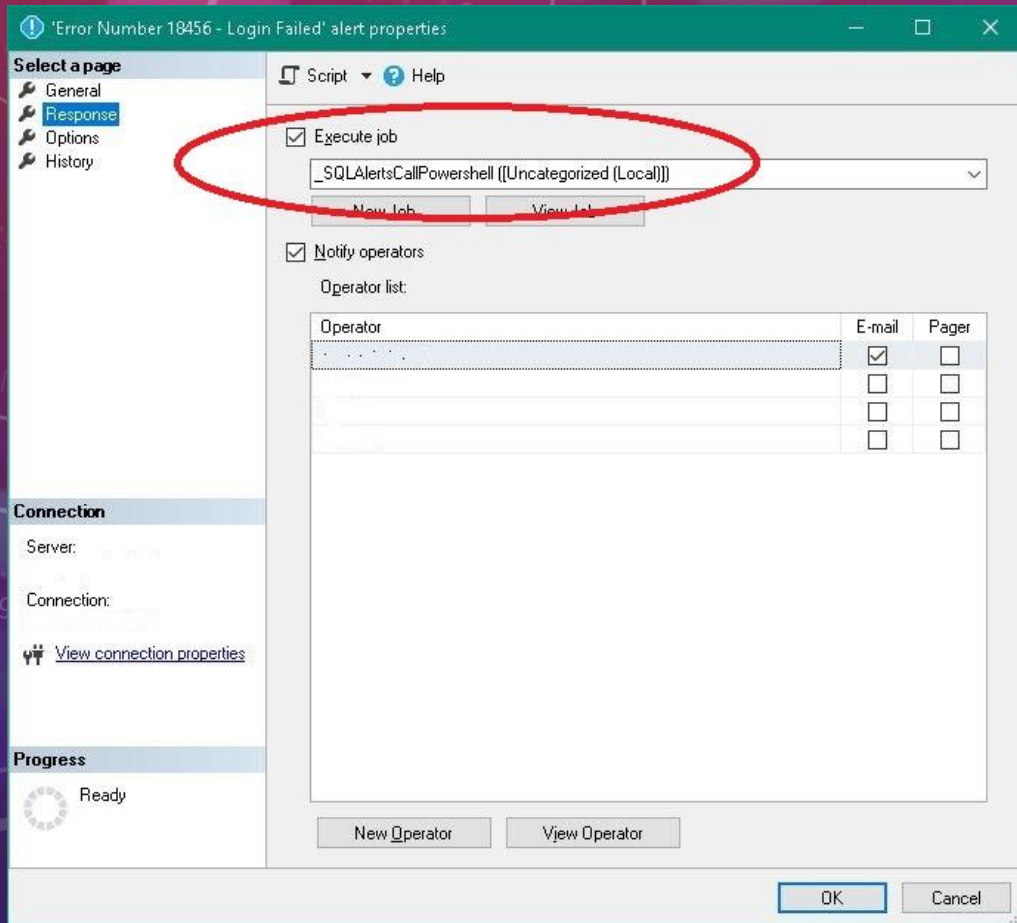
- ☒ Replace tokens for all job responses to alerts

OK Cancel

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# THE ALERT RESPONSE

- The Response Calls a SQL Agent Job



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# THE SQL AGENT JOB

- Has No Schedule: called from the Alert Response
- Passes the Alert Tokens to the Powershell script
- Job Step Type is Operating System
- Command Line:
  - powershell.exe c:\psscripts\logsqlalert.ps1
  - '\$(ESCAPE\_SQUOTE(A-SVR))'
  - '\$(ESCAPE\_SQUOTE(A-DBN))'
  - '\$(ESCAPE\_SQUOTE(A-ERR))'
  - '\$(ESCAPE\_SQUOTE(A-SEV))'
  - '\$(ESCAPE\_SQUOTE(A-MSG))'

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# THE POWERSHELL SCRIPT

- Short and Quick
- Adds the passed-in Tokens via SQL INSERT

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# THE REPORTS

- Visual Summary with Charts
- Detail Report with Search Parameters
- Security-Only Digest Sent to Security Officer Daily

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# DEMO



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# THE CODE AND THE THANKS

<https://github.com/gwalkey/SQL-Agent-Repo>

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