

SQL Server Script-Out

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Chicago To-Do List



“Kevin!”

About the Speaker

- ▶ Patient First - Urgent Care Centers in VA/MD/DC/PA/NJ
- ▶ Cross Globe - Transportation/Warehousing/EDI
- ▶ INSYNCA - Small Business Consultant
- ▶ Using SQL Server since 6.0
- ▶ From Richmond, VA
- ▶ Owned an original low-serial-number 5150



IBM 5150 – Circa 1981



Powershell and SQL Server

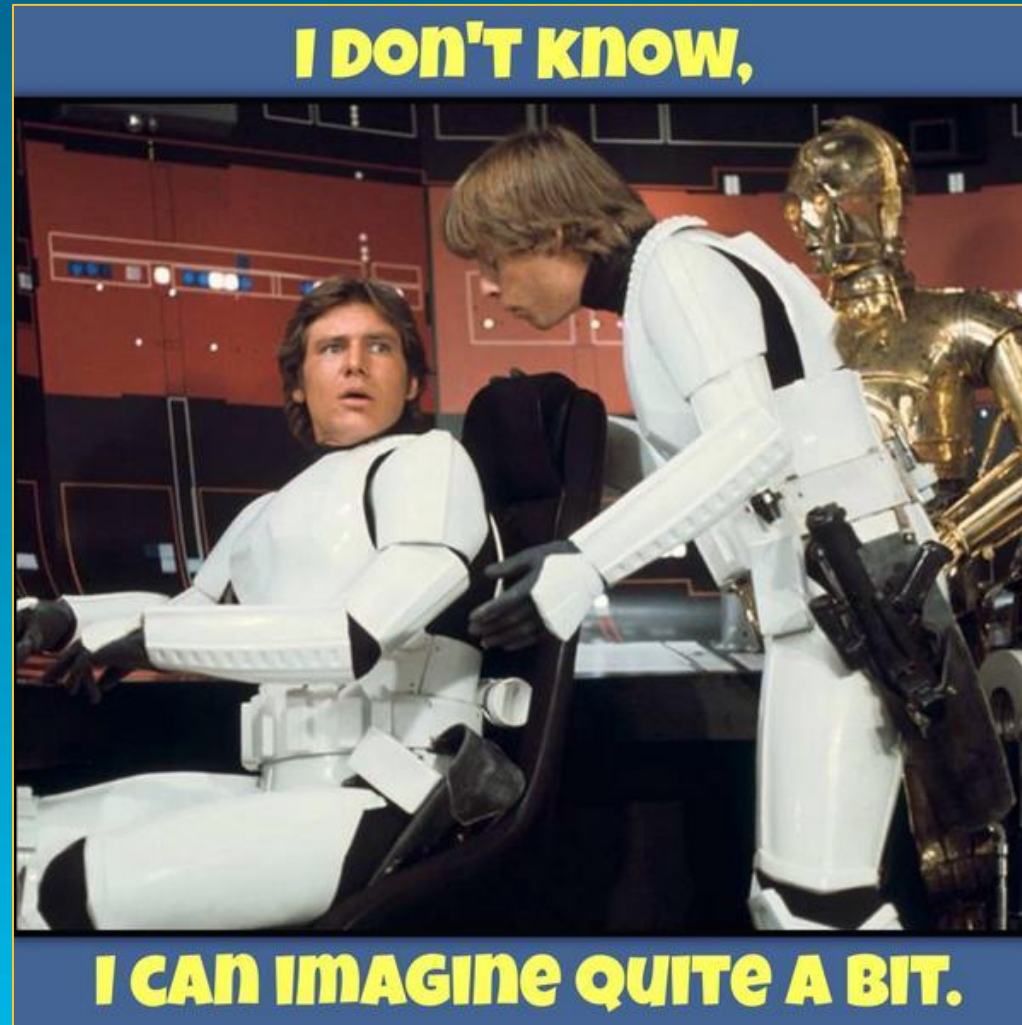


Why Script out your SQL Servers?

- ▶ Documentation - Wiki, SharePoint, Version Control
- ▶ Disaster Recovery - The Queen is Dead, Long Live...
- ▶ Server Migrations, Upgrades - Win 2003 is Retired
- ▶ Environmental Consistency - Same Alerts on all Servers
- ▶ Dev-Test-UAT-Stage-Prod - Granular object control
- ▶ Security Auditing - I can never get enough security
- ▶ To learn PowerShell
- ▶ Migrate Databases to Azure
- ▶ Impress the Boss, Pad the Resume

Documentation:

What is your Definition of Done?



My Definition of Done

- ▶ Server-Level Objects - AMAICF
- ▶ SSIS Objects
- ▶ SSAS Objects
- ▶ SSRS Objects
- ▶ SQL Security Infrastructure
- ▶ Output format: Easy to Check-In and Diff
- ▶ Works with vNext (SQL 2018 or Azure V14)
- ▶ Easy-to-use SQL Objects (Load up in SSMS, Press F5)

Documentation Tools Comparison

What I script out

Typical Documentation Software

- DBTriggers
- Filegroups
- FullTextCatalogs
- Schemas
- Sequences
- Settings
- StoredProcedures
- Synonyms
- Tables
- TableTriggers
- UserDefinedFunctions
- UserDefinedTableTypes
- Views

01 - Server Appliance	09 - SSIS_MSDB
01 - Server Credentials	09 - SSISDB
01 - Server Logins	10 - SSAS
01 - Server Resource Governor	12 - Security Audit
01 - Server Roles	13 - PKI
01 - Server Settings	14 - Service Broker
01 - Server Shares	15 - Extended Events
01 - Server Storage	16 - Audits
01 - Server Triggers	17 - Managed Backups
02 - Linked Servers	21 - DAC Packages
03 - NET Assemblies	22 - PBM
04 - Agent Alerts	23 - Database Diagrams
04 - Agent Jobs	24 - Plan Guides
04 - Agent Operators	30 - DataBase Objects
04 - Agent Proxies	31 - DataBase Table Data
04 - Agent Schedules	32 - DB Recovery Models
05 - DBMail Accounts	33 - VLF Count
05 - DBMail Profiles	34 - User Objects in Master DB
07 - Service Startup Creds	

Script-Out: Requirements

- ▶ Powershell 3.0+
- ▶ SQL CLR Types, SMO, PowerShell Tools, RSAT
- ▶ AKA: “Feature Pack” for 2012/2014
- ▶ Rocket’s Prosthetic Leg



Demo

- ▶ Reach for Live Demo and Open Can...



Code Breakdown

- ▶ Scripts are compatible with:
- ▶ SQL 2005-2016, Azure*
- ▶ Win/SQL Auth
- ▶ Named Instances
- ▶ SQL Express
- ▶ The Tech:
 - ▶ T-SQL
 - ▶ WMI
 - ▶ SMO

Demo

- ▶ 00_Run_All_Scripts.ps1
 - ▶ 21_Dac_Packages.ps1
 - ▶ 30_DataBase_Objects.ps1
 - ▶ 31_DataBase_Export_Table_Data.ps1
-
- ▶ I'm Still Working On:
 - ▶ Replication
 - ▶ Always On
 - ▶ Two Weeks in the Bahamas

Source Code

- ▶ <https://github.com/gwalkey>
- ▶ “SQLTranscriptase”



- ▶ Make out your Speaker Evaluations
- ▶ Visit the Vendor Tables
- ▶ Give me feedback – or else!
- ▶ Kidding, but let me know how these help!