

Invoke-WsusMaintenancePowerShell Script

Description

Runs WSUS maintenance tasks by performing various optimization and cleanup tasks.

Use Case

Maintaining a clean, lean WSUS server and to improve overall performance.

Design

The solution consists of a powershell script and various other resources which are stored in the **Resources** folder.

```
Invoke-WsusMaintenance.ps1
```

Notes This is the main script and as with the whole solution needs to be ran from the WSUS server.

Prerequisites

The **Invoke-SQLcmd** commandlet is needed. In order to install it you need to run the command below. This module will be included in the final version.

```
Install-Module -Name 'SqlServer'
```

Parameters

-Task

Specifies maintenance task to run. Valid values are:

- **DisableDriverSync** Disables driver synchronization, major performance improvement.
- **OptimizeConfiguration** Optimizes WSUS configuration, by setting recommended values.
- **OptimizeDatabase** Optimizes WSUS database, by adding and rebuilding indexes, and applying a performance fix for delete updates.
- **DeclineExpiredUpdates** Declines expired updates.
- **DeclineSupersededUpdates** Declines superseded updates.
- **CleanupObsoleteUpdates** Cleans up obsolete updates.
- **CompressUpdates** Deletes unneeded update revisions.
- **CleanupObsoleteComputers** Cleans up obsolete computers that are no longer active.
- **CleanupUnneededContentFiles** Cleans up unneeded content files that are no longer referenced.

-ServerInstance

Specifies a character string or SQL Server Management Objects (SMO) object that specifies the name of an instance of the Database Engine. For default instances, only specify the computer name: **MyComputer**. For named instances, use the format **ComputerName\InstanceName**. By Default the SQL Server instance is autodetected.

-Database

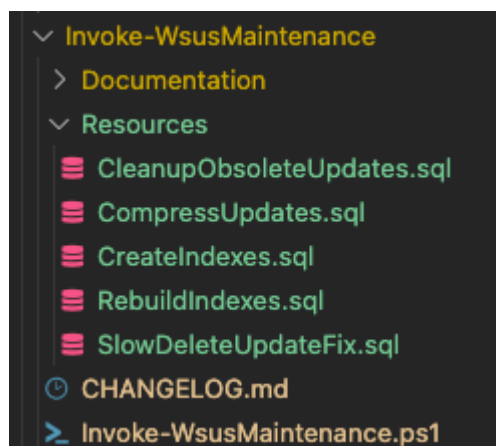
Specifies the name of a database. This cmdlet connects to this database in the instance that is specified in the **ServerInstance** parameter. **Default is: 'SUSDB'**

Notes All the tasks can be run by adding a semicolon , after each task.

Example

```
Invoke-WSUSMaintenance.ps1 -ServerInstance 'SQLSERVER.contoso.com' -  
Database 'SUSDB' -Task 'DisableDriverSync','OptimizeConfiguration',  
'OptimizeDatabase', 'DeclineExpiredUpdates', 'DeclineSupersededUpdates',  
'CleanupObsoleteUpdates', 'CompressUpdates', 'CleanupObsoleteComputers',  
'CleanupUnneededContentFiles'
```

Screenshots



Script Folder

```
Administrator: Windows PowerShell
PS D:\Temp\Invoke-WsusMaintenance> .\Invoke-WsusMaintenance.ps1 -Task 'DisableDriverSync', 'OptimizeConfiguration', 'OptimizeDatabase', 'DeclineExpiredUpdates', 'DeclineSupersededUpdates', 'CleanupObsoleteUpdates', 'CompressUpdates', 'CleanupObsoleteComputers'
VERBOSE: Script 'D:\Temp\Invoke-WsusMaintenance\Invoke-WsusMaintenance' started.
VERBOSE: Disable WSUS driver sync...
VERBOSE: Optimize WSUS configuration...

Name                               Value RecommendedValue IsRecommendedValue Operation
----                               -
QueueLength                        25000                25000                True Skipped
LoadBalancerCapabilities           TcpLevel              TcpLevel              True Skipped
CpuResetInterval                   15                    15                    True Skipped
RecyclingMemory                    0                      0                      True Skipped
RecyclingPrivateMemory             0                      0                      True Skipped
ClientMaxRequestLength             204800                204800                True Skipped
ClientExecutionTimeout             7200                  7200                  True Skipped

VERBOSE: Optimize WSUS database...
VERBOSE: Importing resource 'D:\Temp\Invoke-WsusMaintenance\Resources\CreateIndexes.sql'
VERBOSE: Creating 'IX_tbRevisionSupersedesUpdate' and 'IX_tbLocalizedPropertyForRevision' indexes...
VERBOSE: Importing resource 'D:\Temp\Invoke-WsusMaintenance\Resources\RebuildIndexes.sql'
VERBOSE: Rebuilding indexes, please wait...
VERBOSE: Importing resource 'D:\Temp\Invoke-WsusMaintenance\Resources\SlowDeleteUpdateFix.sql'
VERBOSE: Applying spDeleteUpdate performance fix...
VERBOSE: Declining expired updates. This may take a while...
VERBOSE: Declining superseded updates. This may take a while...
VERBOSE: Importing resource 'D:\Temp\Invoke-WsusMaintenance\Resources\CleanupObsoleteUpdates.sql'
VERBOSE: Deleting obsolete updates. This may take a while...
VERBOSE: Importing resource 'D:\Temp\Invoke-WsusMaintenance\Resources\CompressUpdates.sql'
VERBOSE: Deleting update revisions. This may take a while...
VERBOSE: Cleaning up obsolete computers. This make take a while...

VERBOSE: Script 'D:\Temp\Invoke-WsusMaintenance\Invoke-WsusMaintenance' completed.
Task                               Output Operation
----                               -
DisableDriverSync                  2 Successful
OptimizeConfiguration              Optimized Successful
OptimizeDatabase                   Optimized Successful
DeclineExpiredUpdates              0 Successful
DeclineSupersededUpdates           0 Successful
CleanupObsoleteUpdates             0 Successful
CompressUpdates                    0 Successful
CleanupObsoleteComputers           0 Successful

PS D:\Temp\Invoke-WsusMaintenance>
```

Script Result

```
Administrator: Windows PowerShell
PS D:\Temp\Invoke-WsusMaintenance> .\Invoke-WsusMaintenance.ps1 -Task 'DisableDriverSync', 'OptimizeConfiguration', 'OptimizeDatabase', 'DeclineExpiredUpdates', 'DeclineSupersededUpdates', 'CleanupObsoleteUpdates', 'CompressUpdates', 'CleanupObsoleteComputers'
```

Script Result - Animated