

SharePoint & PowerShell Like Peanut Butter & Chocolate!



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Agenda

- STSADM Commands To Know
 - PreUpgradeCheck Command...
 - SetListProperties
- PowerShell Scripting
 - Overview
 - Export Solution Packages
 - Finding Orphaned Content
 - Addressing Orphaned Users
 - Reporting on Large Lists
 - Force Version Trimming



PreUpgradeCheck Command

- Added in SP2 of WSS (& MOSS)
- Prepares a report for how your environment will handle an upgrade to SharePoint 2010
- The report can give you a lot insight into your installation including:
 - Custom Site Definition Use
 - Custom Feature Use
 - Large Lists/Libraries
 - Customized List Views (through SPD)
 - Content Corruption (orphaned sites, etc...)

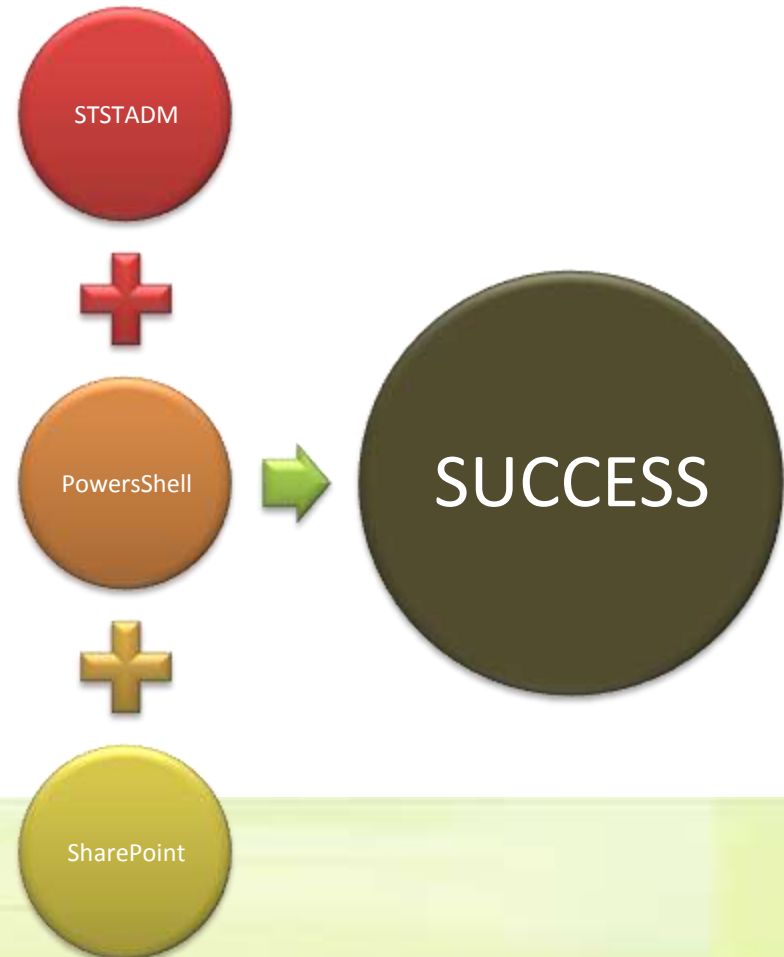


Example Report



STSAdm, PowerShell & SharePoint

- STSAdm is the extensible console command shipped with SharePoint for administration tasks
- PowerShell is an extremely powerful shell scripting environment
- PowerShell can invoke methods form the SharePoint Server Side API

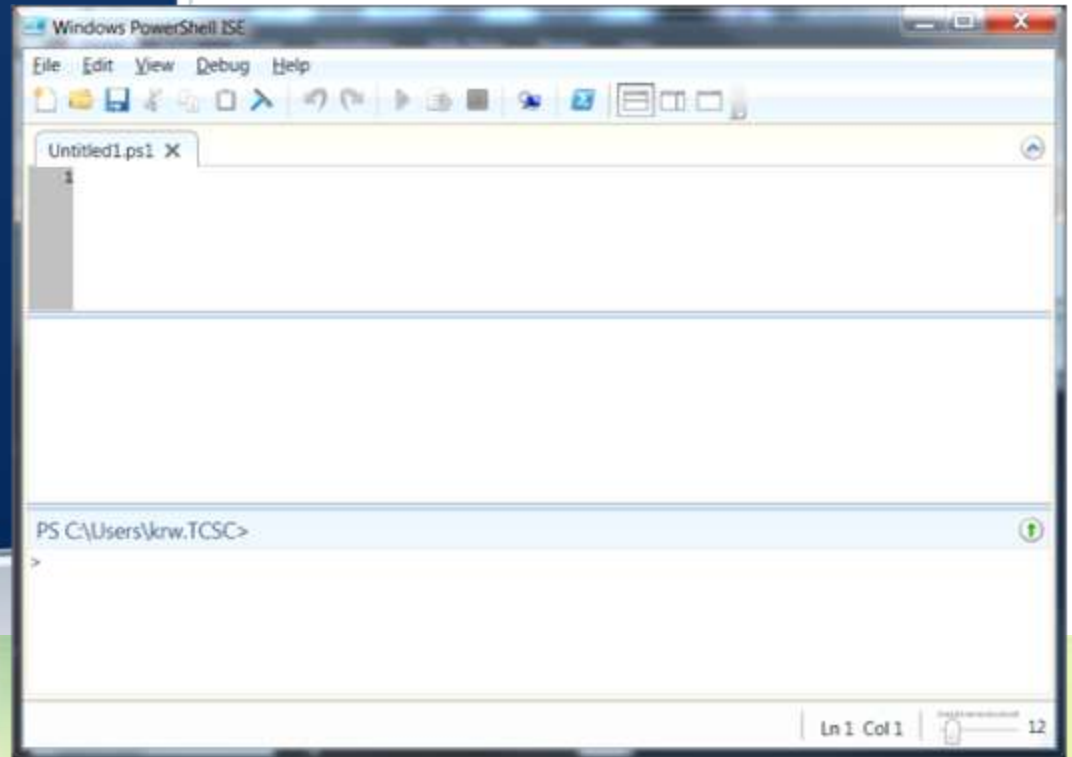
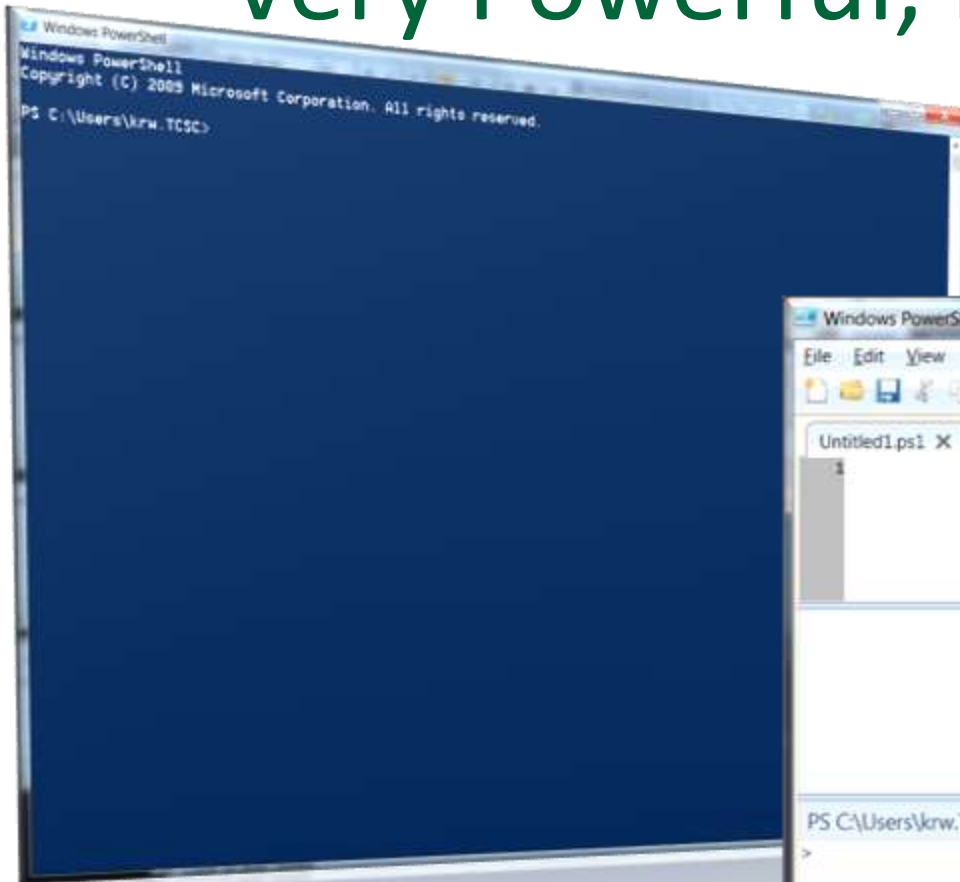


Common PowerShell Solutions

- Automating Backup/Log Cleanup
- Performing Mass Updates to SharePoint Sites
- Reporting on SharePoint Content
- Automating Common Policy/Rule Settings
- Scheduled Data Import/Export
- Creating Lists, Libraries, Webs & Sites
- Trimming Data
- Managing Server Configurations
- Managing File Server Folders
- Managing Users



Very Powerful, Not Too Slick UI



Core Components

- Alias
 - cd = set-location
 - Dir = get-childitem
- Function
 - Block of script
- Script
 - A file with a series of functions, etc... (*.ps1)
- Cmdlet
 - Re-usable command for working with a particular system/set of data
- Snapin
 - Group of PowerShell functionality



Conditions and Flow Control

- Variables
 - `$foo = "bar"` #implicitly typed as string
 - `$ary = 4,2,5,2` #typed as `object[]`
- Some Operators
 - `-eq`
 - `-lt / -gt`
 - `-le / -ge`
 - `-like / -notlike`
 - `-match / -imatch`
- Control
 - `If`
 - `switch`
- `help about_comparison_operators`



The Pipeline

- The most unique feature of PowerShell
- Since everything in PowerShell is a .NET type, it can be passed as an argument
- Similar to JQuery
- C#:
 - Alpha = Class.Method();
 - Beta = OtherClass.Method(Beta);
 - Gamma = OtherOtherClass.Method(Gamma);
- PowerShell:
 - Class.Method() | OtherClass.Method() | OtherOtherClass.Method()



Pipeline Commands

- **Foreach/Foreach-object**
 - `dir | foreach-object { $_.Name }`
- **Where-object**
 - `dir | where-object { $_.Length -gt 10 }`
- **Select-object**
 - `dir | select-object -first 5`



SharePoint & PowerShell Basics

- Referencing SharePoint Assemblies
`[System.Reflection.Assembly]::LoadWithPartialName("Microsoft.SharePoint")`
- Connecting to A Site Collection
`$siteurl = "http://demo.mosslab.local"`
`$thesite=new-object Microsoft.SharePoint.SPSite($siteurl)`
- Connecting to A Web Application
`$myWebApp = $thesite.WebApplication`



Exporting Solution Packages

- SharePoint Solution Packages (wsp files) are special installation packages that are used to deploy customizations to a SharePoint environment
- Their use is very pervasive and most sample applications, 3rd party solutions and Microsoft extension leverage this framework.
- The problem is that you can easily misplace or delete solution files
- PowerShell can export these packages from your configuration database cache



Finding Orphaned Content

- We don't need to migrate abandoned or outdated content.
- To make identifying this content easier we will use PowerShell to generate reports on SharePoint content age
 - SubWeb Age Report
 - Library/List Age Report



Addressing Orphaned Users

- Often we have users who have left our organization who are still very visible in SharePoint
- Using PowerShell we can detect these users and if desired we can remove their accounts from SharePoint.
- Side Note: Discuss proper user access change policies before running this.



gl-SetListProperties

- Command that is include with Gary Lapointe's STSAdm extensions
- Useful for setting various list properties
- This can include turn on versioning, version trimming & etc...
- When combined with PowerShell can give you a good option for putting your content on a diet! 😊



Enabling Automatic Version Trimming

- Take stsadm command extension
- Wrap it in powershell script to execute
- Target to specific web or site collection



Resources

- Get PowerShell 2.0 from MSFT
- Get Sample SharePoint Scripts From CodePlex:
<http://sharepointpsscripts.codeplex.com/>
- Get Sample Scripts & PPTs From today's Presentation:
<http://www.tcsc.com>
- Read up on PowerShell on TechNet:
<http://technet.microsoft.com/en-us/library/ee692944.aspx>

