

IT Service Automation

Praxis einer internen IT

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BBRZ Gruppe

Berufliche Rehabilitation

Berufliche Integration

Berufliche Bildung





PSUG / Experts Live

www.expertslive.at – ExpertsLiveAT

- Xamarin Workshop mit Brandon Minnick (Microsoft) - 19. November 2019
- Meetings in Linz (Februar 2019)
- Meetings in Wien (Februar 2019)
- Xing, Meetup, Facebook
- @ExpertsLiveAT
- #ExpertsLiveAT

www.powershell.co.at – PowerShell Usergroup

- Wöchentliche Schnipseljagd
-  @pwahlmueller





Agenda

Zeitreise durch die IT Automatisierung

- Prozesse
- System Center Orchestrator
- PowerShell
- PowerShell Module
- PowerShell Klassen
- Cloud Automation





Versionen

System Center Service Manager 2016 UR5

System Center Orchestrator 2012R2

PowerShell 5.1 (PowerShell ISE + Steroids / VS Code)

SMLets 0.1

Windows Sever 2012R2

SQL Server 2012



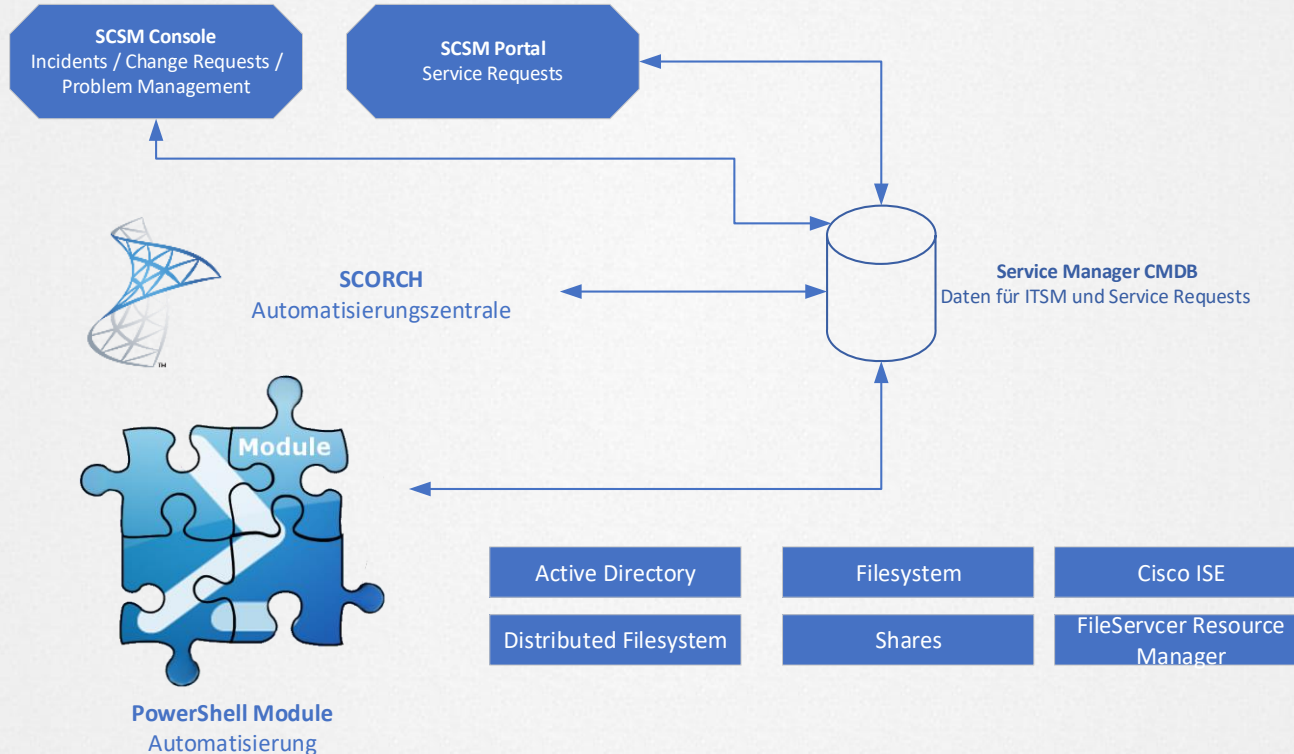


Service Manager

- Incidents
- Change Requests
- Problem Management
- ITSM – CMDB
 - Incidents
 - Service Requests



Architektur



Orchestrator - Demo

The screenshot displays the 'System Center 2012 Orchestrator Runbook Designer' application. The interface is divided into several sections:

- Left Pane (Connections):** A tree view showing the hierarchy of runbooks. The 'sv608' group is expanded, revealing sub-groups like '01 Release', '02 Test', '03 Development', '04 Basteln', and 'Computer Groups'. The 'Computer Groups' group is currently selected.
- Central Canvas:** A workspace for designing runbooks. It shows a simple flow: a 'Monitor Date/Time' activity (represented by a clock icon) followed by an arrow pointing to a 'Computer abgleichen' activity (represented by a document icon).
- Right Pane (Activities):** A list of available activities for the runbook. These include 'System', 'End Process', 'Get SNMP Variable', 'Monitor SNMP Trap', 'Query WMI', 'Restart System', 'Run .Net Script', 'Run Program', 'Run SSH Command', 'Save Event Log', 'Send SNMP Trap', 'Set SNMP Variable', and 'Start/Stop Service'. Below this list, there are tabs for 'Scheduling', 'Monitoring', 'File Management', 'Email', 'Notification', 'Utilities', 'Text File Management', 'Active Directory', 'SC 2012 Service Manager', 'Exchange Admin', 'Exchange User', and 'Runbook Control'.
- Bottom Pane (Log):** A section for viewing the execution history of the runbook. It shows a list of log entries with timestamps, such as '(Started: 05.11.2017 07:00:00)', '(Started: 15.10.2017 12:20:13)', '(Started: 15.10.2017 07:00:00)', and '(Started: 17.09.2017 07:00:00)'. Below the log list are tabs for 'Log', 'Log History', 'Audit History', and 'Events'.





PowerShell Module

- Konfigurationselemente
- IT Services
 - Gruppenlaufwerk
 - User
 - Computer
- Als Connectoren
 - Cisco ISE
 - SCCM





PowerShell User Module

New-BBRZUser

Get-BBRZUser

Add-BBRZUserEmailAddress

Disable-BBRZUser

Test-BBRZUser

Change-BBRZUserLastname





PowerShell Klassen - Beschreibung

```
Class Car {  
    .... [String] $name  
    .... static [int] $numberOfWheels = 4  
    .... [int] $numberOfDoors  
    .... [datetime] $year  
    .... [String] $model  
  
    .... Car ([String] $Name) {  
        .... $this.name = $Name  
    .... }  
  
    .... changewheel() {  
        .... write-host 'changed'  
    .... }  
}
```





PowerShell Klassen

```
class GroupdataTest
{
    [nullable[bool]] $ValidADGroups
    [nullable[bool]] $ValidADGroupMembers
    [nullable[bool]] $ValidFileSystemFolder
    [nullable[bool]] $ValidFileSystemFolderRights
    [nullable[bool]] $ValidShare
    [nullable[bool]] $ValidDFS
    [nullable[bool]] $ValidDFSRights
    [nullable[bool]] $ValidQuota
    [nullable[bool]] $ValidCMDB
    [nullable[bool]] $ValidCompleteSystem # Sys
    [nullable[bool]] $ValidCreate
}
```





PowerShell Klassen

```
[GroupdataTest]      $test = [GroupdataTest]::new()  
$test.TestCreate($GroupDataInfo)  
$test.GetCreateProtokoll()
```

```
$test.
```

- ValidFileSystemFolderRights
- ValidQuota
- ValidShare
- Equals
- GetCreateProtokoll

System.Object gruppenlaufwerkIN





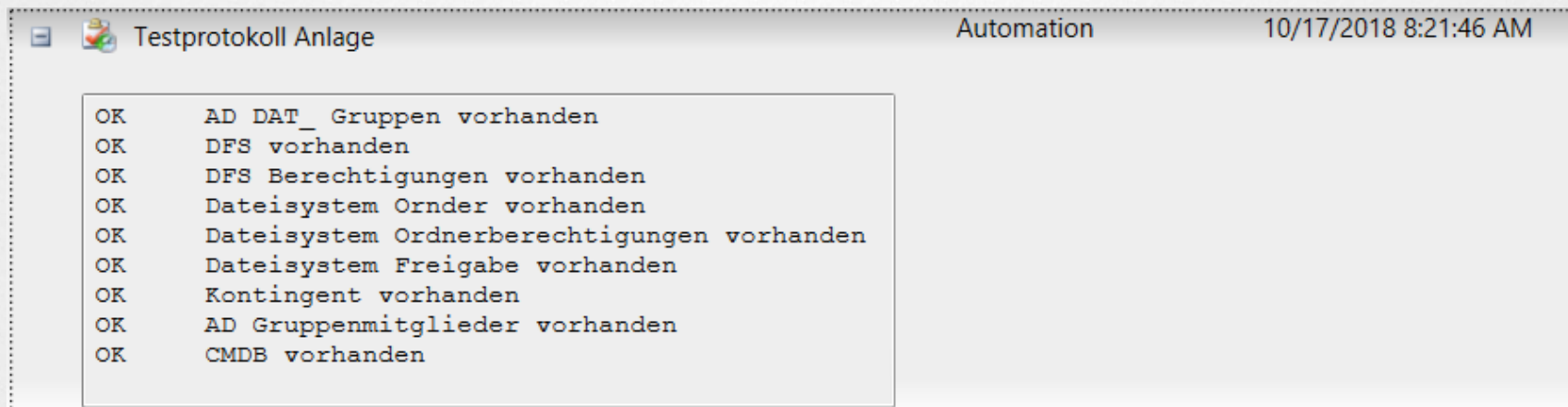
PowerShell Test aufrufen

```
[GroupdataTest]      $test  = [GroupdataTest]::new()  
$test.TestCreate($GroupDataInfo)  
$test|.GetCreateProtokoll()
```





Test – Service Manager





Azure Automation

- Azure Serverless Functions
- Azure Logic Apps
- Azure Automation





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