



PowerShell Anwendergruppe
SysAdminDay
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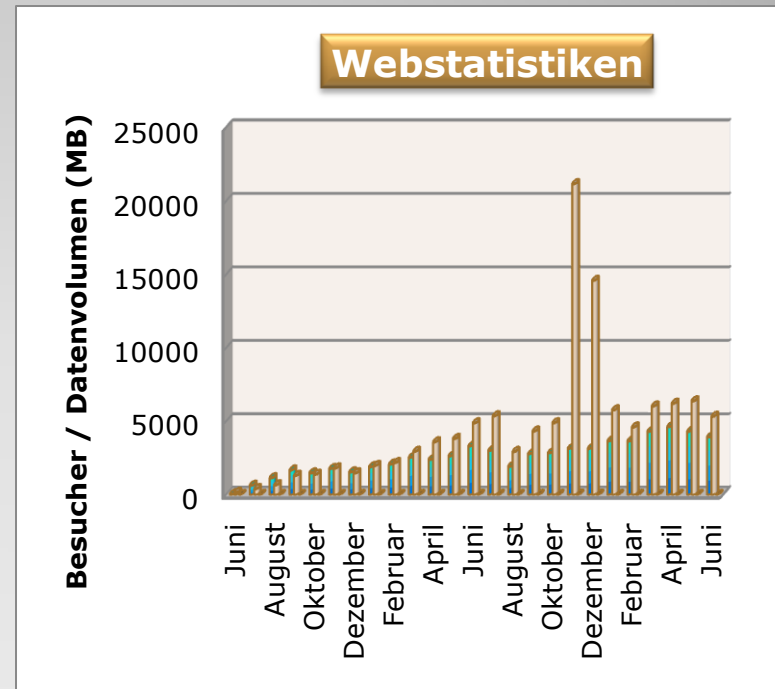
- Product Manager ABSC GmbH
<http://www.absc.de>
- Gründer der deutschsprachigen PowerShell Anwendergruppe
<http://www.PowerShell-AG.de>
- Culminis – EMEA – Treasurer
<http://www.culminis.com>
- MCT 2009, MCSE Messaging & MCTS Windows 7
- https://www.xing.com/profile/Rolf_Masuch





Entwicklung der Community – Zahlen, etc..

- Zahlen
 - gegr. 2007
 - über 1850 registrierte Nutzer
 - Downloadraten
 - > 6 GB pro Monat
 - Forumsaktivitäten
 - sehr erfreulich 😊😊😊





PowerShell v1 und Active Directory

➤ Erstellen einer OU

```
➤ $dom = [ADSI]"LDAP://dc=domain,dc=dom"  
  $ou = $dom.Create(„organizationalUnit“, „ou=HR“)  
  $ou.SetInfo()
```

➤ Erstellen eines Userobjekts

```
➤ $ou = [ADSI]"LDAP://ou=HR,dc=domain,dc=dom"  
  $user = $ou.Create(„user“, „cn=Meier“)  
  $user.Put(„sAMAccountName“, „meier“)  
  $user.SetInfo()  
  $user.PSBase.InvokeSet(„AccountDisabled“, $false)  
  $user.Setinfo()
```

➤ Greetings from VBS! ☹



PowerShell v2 und Active Directory



- Active Directory Team PowerShell Blog (am 18.2.2009 gestartet)
 - <http://blogs.msdn.com/adpowershell/>
- AD Powershell Modul verfügbar ab Windows Server 2008 R2
 - "To play with AD Powershell cmdlets, you must have at least one Windows Server 2008 R2 domain controller (DC) in your domain"
- AD Modul Quick Start Guide
 - <http://blogs.msdn.com/adpowershell/archive/2009/02/25/ad-powershell-quick-start-guide.aspx>
- Unter Windows 7 mit den RSAT Tools verfügbar
 - <http://www.microsoft.com/downloads/details.aspx?FamilyID=82516c35-c7dc-4652-b2ea-2df99ea83dbb&displaylang=en>
- Unter Windows Server 2008 R2
 - sobald die AD Rolle installiert wird (AD DS oder AD LDS)



PowerShell und Active Directory

AD Powershell Modul installieren

```
PS C:\> import-module servermanager
```

```
PS C:\> Add-WindowsFeature -Name "RSAT-AD-PowerShell" -IncludeAllSubFeature
```

AD Powershell Modul laden

```
PS C:\> import-module activedirectory
```

Default drive ist AD: Die Pfade sind im X.500 Format.

```
PS C:\> cd AD:
```

```
PS AD:\>
```

```
PS AD:\> dir
```

...

```
PS AD:\> cd "DC=fabrikam,DC=com"
```

```
PS AD:\DC=fabrikam,DC=com> md "OU=myNewOU"
```

...

```
PS AD:\DC=fabrikam,DC=com> del "OU=myNewOU"
```

Andere Domain/Forest Struktur oder für das "canonical path format":

```
PS C:\> New-PSDrive -PSProvider ActiveDirectory -Server "contoso.fabrikam.com" -  
Credential "Contoso\Administrator" -Root "" -Name Contoso -FormatType Canonical
```



GC, PDC Emulator & Schema Master

GC

```
PS C:\> New-PSDrive -PSProvider ActiveDirectory -Name GC -Root "" -Server "fabrikam.com:3268"
```

Name	Used (GB)	Free (GB)	Provider	Root
------	-----------	-----------	----------	------

GC			ActiveDire...	
----	--	--	---------------	--

```
PS D:\> cd GC:
```

```
PS GC:\>
```

PDC

```
PS D:\> New-PSDrive -PSProvider ActiveDirectory -Name PdcDrive -Root "" -Server (Get-ADDomainController -Discover -Service PrimaryDC).Name
```

Name	Used (GB)	Free (GB)	Provider	Root
------	-----------	-----------	----------	------

PdcDrive			ActiveDire...	
----------	--	--	---------------	--

SM

```
PS D:\> New-PSDrive -PSProvider ActiveDirectory -Name SchemaMasterDrive -Root "" -Server (Get-ADForest -Current LoggedOnUser).SchemaMaster
```

Name	Used (GB)	Free (GB)	Provider	Root
------	-----------	-----------	----------	------

SchemaM...			ActiveDire...	
------------	--	--	---------------	--



Tipps für das Verwalten

➤ Namensauflösung klappt nicht?

```
$entry = "172.16.0.201 nyc-dc1.woodgrovebank.com"
```

```
$entry | add-content -path "C:\Windows\System32\drivers\etc\hosts"
```

➤ Verbindung mit anderer Kennung aufbauen

- New-PSDrive mit Schalter -credential (get-credential) verwenden

➤ Bei Trust mit RunAs arbeiten

➤ WS03 oder WS08 aber kein WS08 R2...

- Active Directory Management Gateway Service
- RSAT & .NET Framework 3.5 SP1
- Hotfix 969429 erforderlich

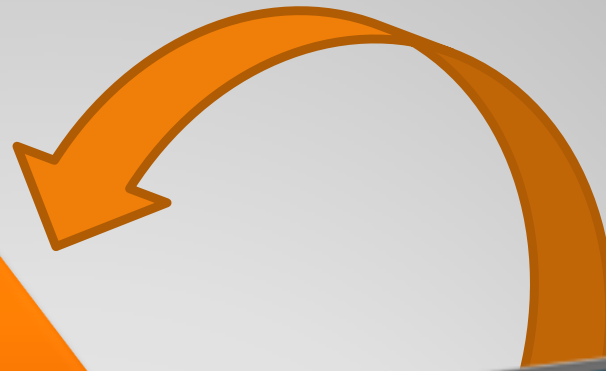


Ab in die Praxis :-D

DEMO!!!



Woodbrovebank.com



otherdomain.tld



Doch lieber ein GUI?

- Active Directory Administrative Center
Built on Windows PowerShell™ command-line interface technology, Active Directory Administrative Center provides network administrators with an enhanced Active Directory data management experience and a rich graphical user interface (GUI).
Administrators can use Active Directory Administrative Center to perform common Active Directory object management tasks through both data-driven navigation and task-oriented navigation.
- [http://technet.microsoft.com/en-us/library/dd560651\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd560651(WS.10).aspx)
- <http://blogs.msdn.com/adpowershell/>



ADAC in der Übersicht

Click to add nodes to the navigation pane or to connect to other domains

Navigation Pane

Breadcrumb Bar

Tasks Pane

Preview Pane

Management List

Name	Type	Description
Builtin	builtinDomain	
Computers	Container	Default container for upgrad...
Domain Controllers	Organizational Unit	Default container for domain...
ForeignSecurityPrincipals	Container	Default container for securit...
Infrastructure	infrastructureUpdate	
LostAndFound	lostAndFound	Default container for orphar...
Managed Service Accounts	Container	Default container for manag...
NTDS Quotas	msDS-QuotaContainer	Quota specifications contain...
Program Data	Container	Default location for storage...
System	Container	Builtin system settings
test1	Organizational Unit	
Users	Container	Default container for upgrad...

Current User: PROSEWARE\Administrator



Vielen Dank !!!



SampleCode

- # Nur mit RSAT für Windows 7 RC
- # als Windows Feature aktivieren...

- # was gibt es für Module
- Get-Module -ListAvailable

- # importiere alle verfügbaren Module
- Get-Module -ListAvailable | Import-Module

- # überprüfe die geladenen Module
- Get-Module

- # ActiveDirectory Module ansehen
- Get-Module ActiveDirectory | format-list
- # :(wenig übersichtlich
- # immer noch nicht wirklich übersichtlich
- Get-Module ActiveDirectory | fl ExportedCmdlets

- # aber jetzt!
- (Get-Module ActiveDirectory).ExportedCommands

- # noch besser
- (Get-Module ActiveDirectory).ExportedCommands | format-table -AutoSize

- #wie viele sind es denn überhaupt?
- ((Get-Module ActiveDirectory).ExportedCommands).count

SampleCode

- # Nur mit RSAT für Windows 7 RC
- #Verbindung zum AD über ein Laufwerk herstellen
- # woodgrovebank\administrator Pa\$\$w0rd
- \$cred = Get-Credential
- New-PSDrive -PSProvider ActiveDirectory -Name AD -Root "" -Server "woodgrovebank.com" -Credential \$cred
- #zum GC
- #New-PSDrive -PSProvider ActiveDirectory -Name GC -Root "" -Server "woodgrovebank.com:3268" -Credential \$cred
- #oder so zum PDC Emulator
- #New-PSDrive -PSProvider ActiveDirectory -Name PdcDrive -Root "" -Server (Get-ADDomainController -Discover -Service PrimaryDC).Name -Credential \$cred
- #New-PSDrive -PSProvider ActiveDirectory -Name PdcDrive -Root "" -Server (Get-ADDomainController -Discover -Service PrimaryDC -domain "woodgrovebank.com").Name -Credential \$cred
- # oder so zum Schema Master
- #Get-ADForest woodgrovebank.com -credential \$cred
- #New-PSDrive -PSProvider ActiveDirectory -Name SchemaMasterDrive -Root "" -Server (Get-ADForest woodgrovebank.com -credential \$cred).SchemaMaster -Credential \$cred
- #alle AD Laufwerke anzeigen lassen
- Get-PSDrive -PSProvider ActiveDirectory

SampleCode

- # Nur mit RSAT für Windows 7 RC
- # jetzt ab ins AD
- cd ad:
- dir
- cd "DC=WoodgroveBank,DC=com"
- # Neue OU
- New-ADOrganizationalUnit -Name HR -Path "DC=woodgrovebank,DC=COM"

- # Neuen User in dieser OU
- New-ADUser -Name "HansDampf" -SamAccountName "HansDampf" -GivenName "Hans" -Surname "Dampf" -DisplayName "Hans Dampf" -Path 'ou=HR,DC=woodgrovebank,DC=com' -OtherAttributes @{'msDS-PhoneticDisplayName'="DampfHans"}

- # Neue Gruppe in dieser OU
- New-ADGroup -Name "SampleGroup" -SamAccountName SampleGroup -GroupCategory Security -GroupScope Global -DisplayName "SampleGroup" -Path "ou=HR,DC=woodgrovebank,DC=com" -Description "Members of this group are Sample Users"

- # User in neue Gruppe
- Add-ADGroupMember SampleGroup HansDampf

SampleCode

- # Finden von Objekten
- Get-ADUser HansDampf
- Get-ADUser HansDampf -Properties *

- # Inhalt einer OU an andere Cmdlets schicken
- dir "ou=hr" | Get-Member

- # Löschen von Objekten
- Remove-ADUser -Identity HansDampf #Rückfrage -force fehlt
- Get-ADUser HansDampf | Remove-ADUser #Rückfrage -force fehlt

- # aber so !
- Get-ADUser HansDampf | %{Remove-Item \$_ -force}
- #oder so...
- Remove-Item "AD:\cn=HansDampf,OU=hr,DC=woodgrovebank,DC=com" -force