

# PowerShell-Active Directory Management

---

Active Directory (AD) management using PowerShell is a powerful and efficient way to manage AD objects, groups, users, computers, and other resources. Here's a summary of the administration tasks you can perform using PowerShell, along with examples:

## 1. Creating and Managing Users

- Create a new user: `New-ADUser -Name "John Doe" -Enabled $true -AccountPassword (ConvertTo-SecureString "password123" -AsPlainText -Force)`
- Get all users: `Get-ADUser`
- Update a user's property: `Set-ADUser -Identity "John Doe" -Department "IT"`
- Delete a user: `Remove-ADUser -Identity "John Doe"`

## 2. Managing Groups

- Create a new group: `New-ADGroup -Name "IT Staff" -GroupScope Global`
- Get all groups: `Get-ADGroup`
- Add users to a group: `Add-ADGroupMember -Identity "IT Staff" -Members "John Doe", "Jane Doe"`
- Remove a user from a group: `Remove-ADGroupMember -Identity "IT Staff" -Members "John Doe"`

## 3. Managing Computers

- Create a new computer object: `New-ADComputer -Name "WIN10-01" -Enabled $true`
- Get all computers: `Get-ADComputer`
- Update a computer's property: `Set-ADComputer -Identity "WIN10-01" -OperatingSystem windows 10`
- Delete a computer: `Remove-ADComputer -Identity "WIN10-01"`

## 4. Managing OUs

- Create a new OU: `New-ADOrganizationalUnit -Name "IT Staff" -Path "OU=Staff,DC=example,DC=com"`
- Get all OUs: `Get-ADOrganizationalUnit`
- Move an object to an OU: `Move-ADObject -Identity "John Doe" -TargetPath "OU=IT Staff,DC=example,DC=com"`

## 5. Managing Passwords

- Set a user's password: `Set-ADAccountPassword -Identity "John Doe" -Reset -NewPassword (ConvertTo-SecureString "newpassword123" -AsPlainText -Force)`
- Unlock a locked-out account: `Unlock-ADAccount -Identity "John Doe"`

## 6. Managing Group Policy

- Get all group policy objects: `Get-GPObject`
- Link a GPO to an OU: `New-GPLink -Name "IT Staff" -Target "OU=Staff,DC=example,DC=com"`
- Remove a GPO link: `Remove-GPLink -Identity "IT Staff"`

## 7. Managing AD Replication

- Get all AD replication errors: `Get-ADReplicationError`
- Fix an AD replication error: `Repair-ADReplication`

These are just some of the administration tasks you can perform using PowerShell for Active Directory management. You can use various cmdlets to manage AD objects, groups, users, computers, and other resources.

Note:

- Make sure you have the necessary permissions and access rights to perform these actions.
- Be cautious when modifying or deleting AD objects, as this can cause unintended consequences.
- Use `Get-Help` to get more information about each cmdlet and its parameters.