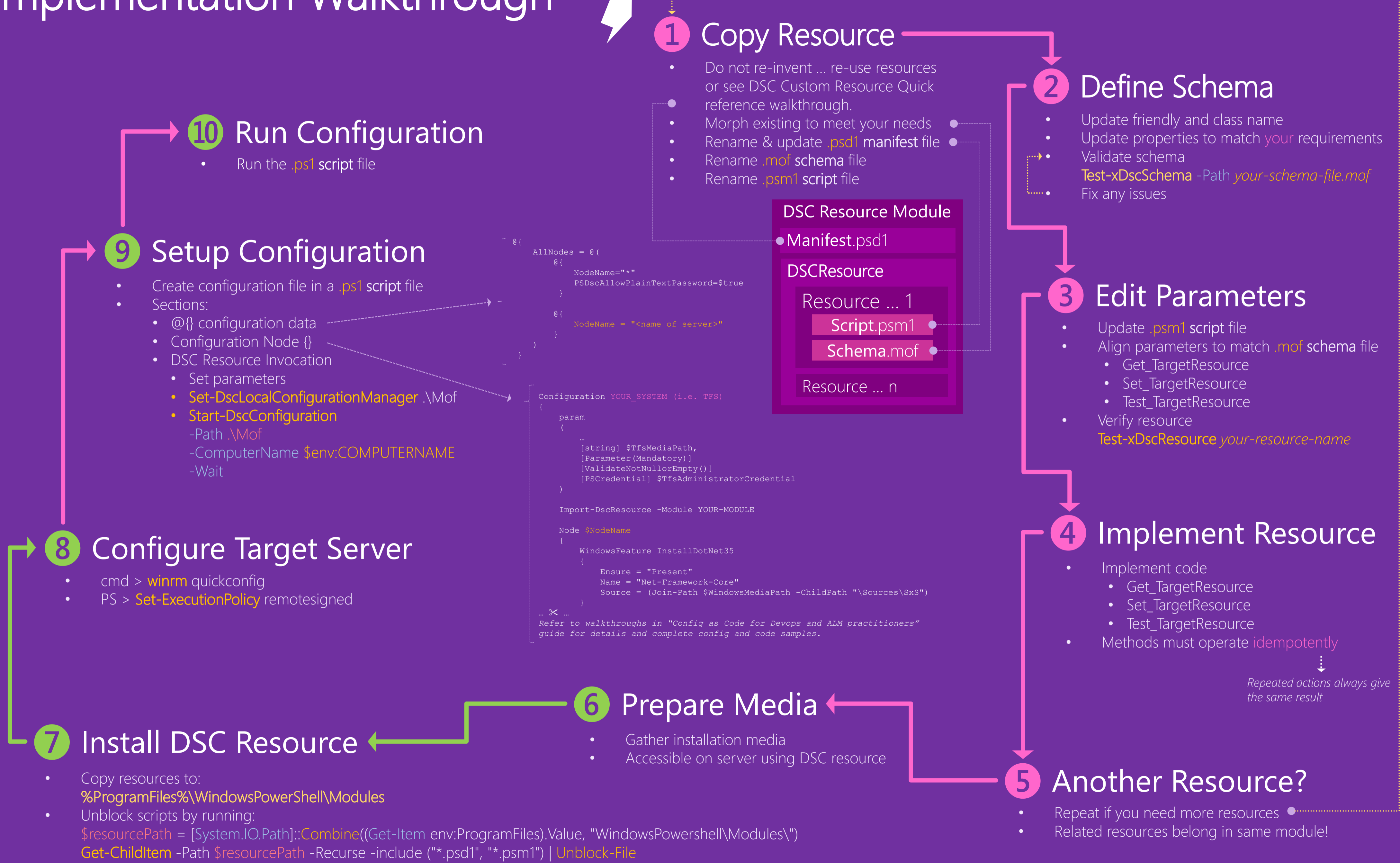


PowerShell Desired State Configuration (DSC) Implementation Walkthrough



1 Copy Resource

- Do not re-invent ... re-use resources or see DSC Custom Resource Quick reference walkthrough.
- Morph existing to meet your needs
- Rename & update `.psd1` manifest file
- Rename `.mof` schema file
- Rename `.psm1` script file

2 Define Schema

- Update friendly and class name
- Update properties to match *your* requirements
- Validate schema
`Test-xDscSchema -Path your-schema-file.mof`
- Fix any issues

3 Edit Parameters

- Update `.psm1` script file
- Align parameters to match `.mof` schema file
 - `Get-TargetResource`
 - `Set-TargetResource`
 - `Test-TargetResource`
- Verify resource
`Test-xDscResource your-resource-name`

4 Implement Resource

- Implement code
 - `Get-TargetResource`
 - `Set-TargetResource`
 - `Test-TargetResource`
- Methods must operate *idempotently*

Repeated actions always give the same result

5 Another Resource?

- Repeat if you need more resources
- Related resources belong in same module!

9 Setup Configuration

- Create configuration file in a `.ps1` script file
- Sections:
 - `@{}` configuration data
 - Configuration Node `{}`
 - DSC Resource Invocation
 - Set parameters
 - `Set-DscLocalConfigurationManager .\Mof`
 - `Start-DscConfiguration`
 - Path `.\Mof`
 - ComputerName `$env:COMPUTERNAME`
 - Wait

```
@{
    AllNodes = @(
        @{
            NodeName="*"
            PSDscAllowPlainTextPassword=$true
        }
        @{
            NodeName = "<name of server>"
        }
    )
}

Configuration YOUR_SYSTEM (i.e. TFS)
{
    param
    (
        ...
        [string] $TfsMediaPath,
        [Parameter(Mandatory)]
        [ValidateNotNullorEmpty()]
        [PSCredential] $TfsAdministratorCredential
    )

    Import-DscResource -Module YOUR-MODULE

    Node $NodeName
    {
        WindowsFeature InstallDotNet35
        {
            Ensure = "Present"
            Name = "Net-Framework-Core"
            Source = (Join-Path $WindowsMediaPath -ChildPath "\Sources\SxS")
        }
    }
}

Refer to walkthroughs in "Config as Code for Devops and ALM practitioners"
guide for details and complete config and code samples.
```

8 Configure Target Server

- cmd > `winrm quickconfig`
- PS > `Set-ExecutionPolicy remotesigned`

6 Prepare Media

- Gather installation media
- Accessible on server using DSC resource

7 Install DSC Resource

- Copy resources to:
 - `%ProgramFiles%\WindowsPowerShell\Modules`
- Unblock scripts by running:
 - `$resourcePath = [System.IO.Path]::Combine((Get-Item env:ProgramFiles).Value, "WindowsPowershell\Modules\")`
 - `Get-ChildItem -Path $resourcePath -Recurse -include ("*.psd1", "*.psm1") | Unblock-File`

10 Run Configuration

- Run the `.ps1` script file