**Installing PowerShell, Modules & Connecting to vCenter/ESXi Hosts**

**Install PowerShell 7**

iex "& { $(irm https://aka.ms/install-powershell.ps1) } -UseMSI"

**Install VMware PowerCLI**

Install-Module -Name VMware.PowerCLI -Scope CurrentUser

**Install Import-Excel\***

Install-Module -Name ImportExcel -Scope CurrentUser

Import-Module -Name ImportExcel

\* Excel needs to be installed on the machine you reference the Import-Excel/Export-Excel Module.

**Connect to your vCenter server**

Connect-VIServer -Server "vcsa-01.ucslab.local"

**Disconnect from vCenter**

Disconnect-VIServer

**Excel XLOOKUP syntax (matching new folder ID to folders)**

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This is demonstrated in the vSphere 8 video.

**Excel Cell References (Relative, Absolute & Mixed)**

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**Re-creating vCenter folders, notes and moving VMs to folders**

I would recommend importing these into something like Visual Studio Code and installing the latest version of PowerShell.

There is a PowerShell extension for VSCode that makes it easier to read the scripts. It also has a terminal window below the code section:

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**01 - Get Folders & Notes & VM Folders - to excel (READ)**

**Spreadsheet** C:\Users\ucs-admin\Desktop\vc-Folders.xlsx

**Function** List VM's & Folder Info

**Worksheet (Tab)** Folder-Info

**Info** Folder Name, Folder ID, Full Folder Path, Folder Type

**Worksheet (Tab)** VM-Info

**Info** VM name, VM Folder ID, VM Folder Name, VM Resource Pool ID, VM Resource Pool Name

**Worksheet (Tab)** VM-Info-All

**Info** As VM-Info, except all available info

**Function** List VM Notes

**Worksheet (Tab)** VM-Notes

**Info** VM Name, VM Notes

**Function** List VMs and Folder Paths

**Worksheet (Tab)** VM-Folders

**Info** VM Name, VM Folder ID, VM Full Folder Path

**Function** List vCenter Folder Paths

**Worksheet (Tab)** Folder-List

**Info** Folder Name, Folder Full Path

This script gathers info from your vCenter and commits it to an Excel Spreadsheet (different tabs)

This should be copied and renamed so it can be kept as the original source for notes, folder names and paths.

**02 - CreateFolders-AddNotes (WRITE)**

**Spreadsheet** C:\Users\ucs-admin\Desktop\vc-Folders.xlsx

**Function** Add Folders to vCenter (from Excel Sheet)

**Worksheet (Tab)** Folder-List

**Function** Add Notes to VMs (from Excel Sheet)

**Worksheet (Tab)** VM-Notes

This script used info from the vc-Folders.xlsx (Folder-List & VM-Notes Tabs) to create folders and add notes to VMs.

Each folder created will have a new FolderID (different to the FolderID of the original folder) which means when using the Move VMs script, you will need to match the new folder IDs to the original folder IDs.

**03 - Move VMs to folders (MOVE)**

**Spreadsheet** C:\Users\ucs-admin\Desktop\vc-Folders.xlsx

**Function** Move VMs to Folders (listed in Excel Sheet)

**Worksheet (Tab)** VM-Folders

This script moves VMs to folders in vCenter. Before this can be run, the new folder ID for the folders you created must be matched up with the paths/folder IDs of the original folders. A new ‘Get Folders & Notes..” excel sheet should be captured after folders have been re-created. xLookup can be used to match the original folder paths/IDs with the new ones (Demo’d in vSphere 8 video.)

The path and filename for the Excel Worksheet is set at the top of each script, and the specific sheet (within the Worksheet) is referenced throughout the scripts:

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