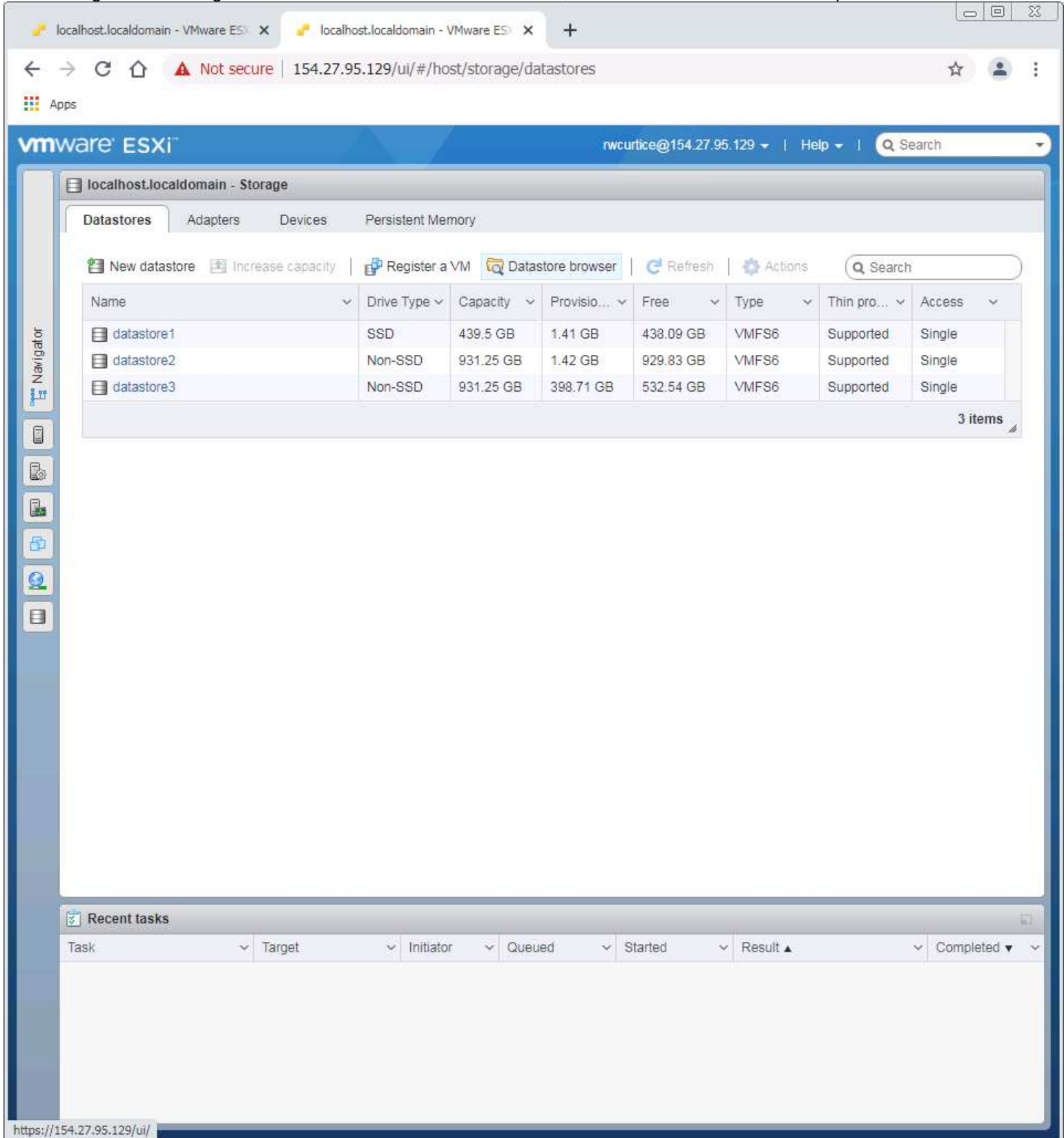


VM Server Setup & Installation

The first step is to get a copy of the Windows server template drive file from the prior server. This is done by logging into the world or website server using RDP. In it open Chrome to the prior Server VMWare control. Open the Data store using the left navigation bar disk stack icon at the bottom, then the Datastore browser option.



The screenshot shows the VMware ESXi web interface. The browser address bar displays 'localhost.localdomain - VMware ESXi' and the URL '154.27.95.129/ui/#/host/storage/datastores'. The page title is 'localhost.localdomain - Storage'. The 'Datastores' tab is selected, showing a table of three datastores: datastore1 (SSD, 439.5 GB), datastore2 (Non-SSD, 931.25 GB), and datastore3 (Non-SSD, 931.25 GB). The 'Datastore browser' button is highlighted. The 'Recent tasks' section is visible at the bottom.

Name	Drive Type	Capacity	Provisio...	Free	Type	Thin pro...	Access
datastore1	SSD	439.5 GB	1.41 GB	438.09 GB	VMFS6	Supported	Single
datastore2	Non-SSD	931.25 GB	1.42 GB	929.83 GB	VMFS6	Supported	Single
datastore3	Non-SSD	931.25 GB	398.71 GB	532.54 GB	VMFS6	Supported	Single

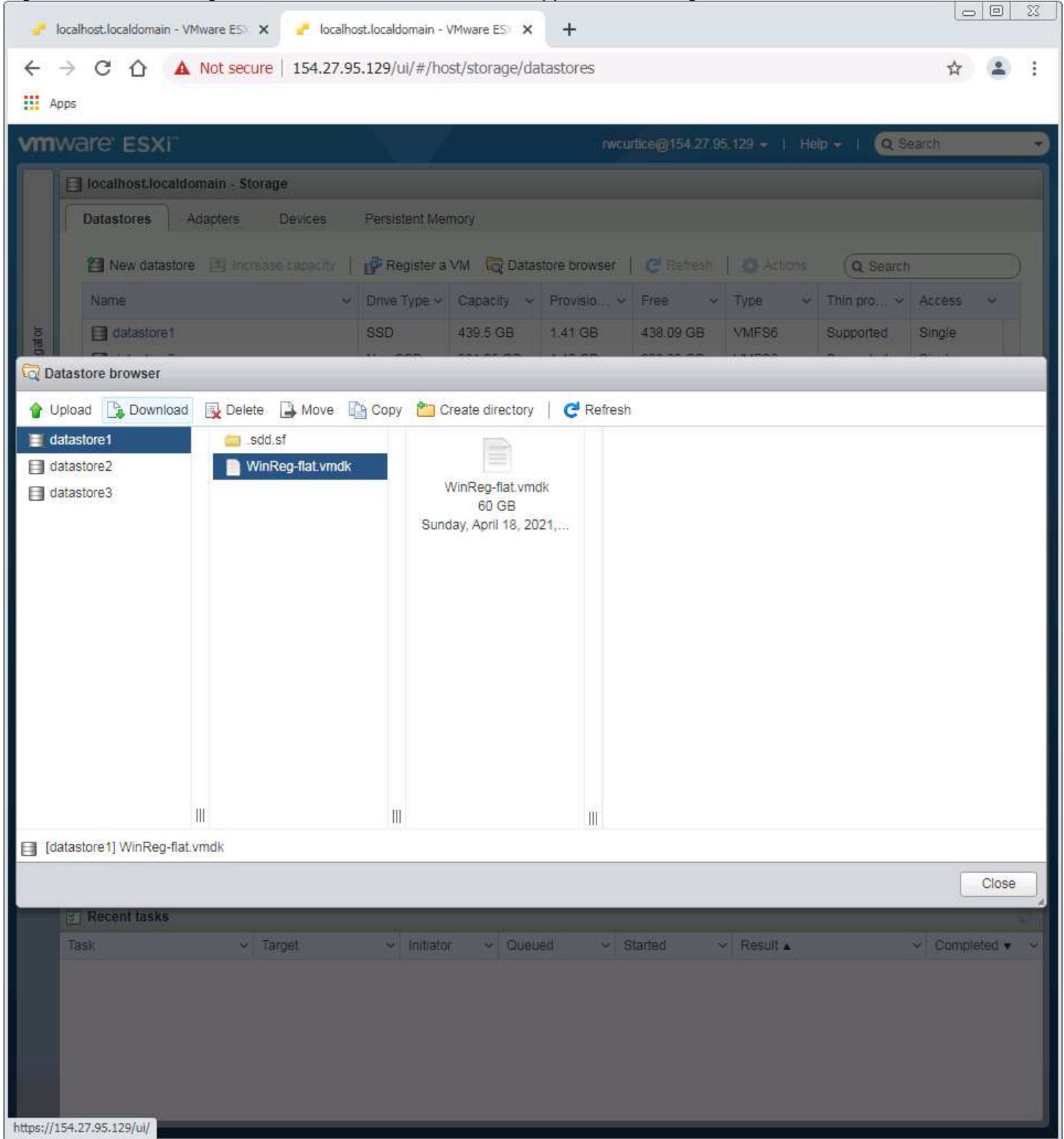
3 items

Recent tasks

Task	Target	Initiator	Queued	Started	Result	Completed
------	--------	-----------	--------	---------	--------	-----------

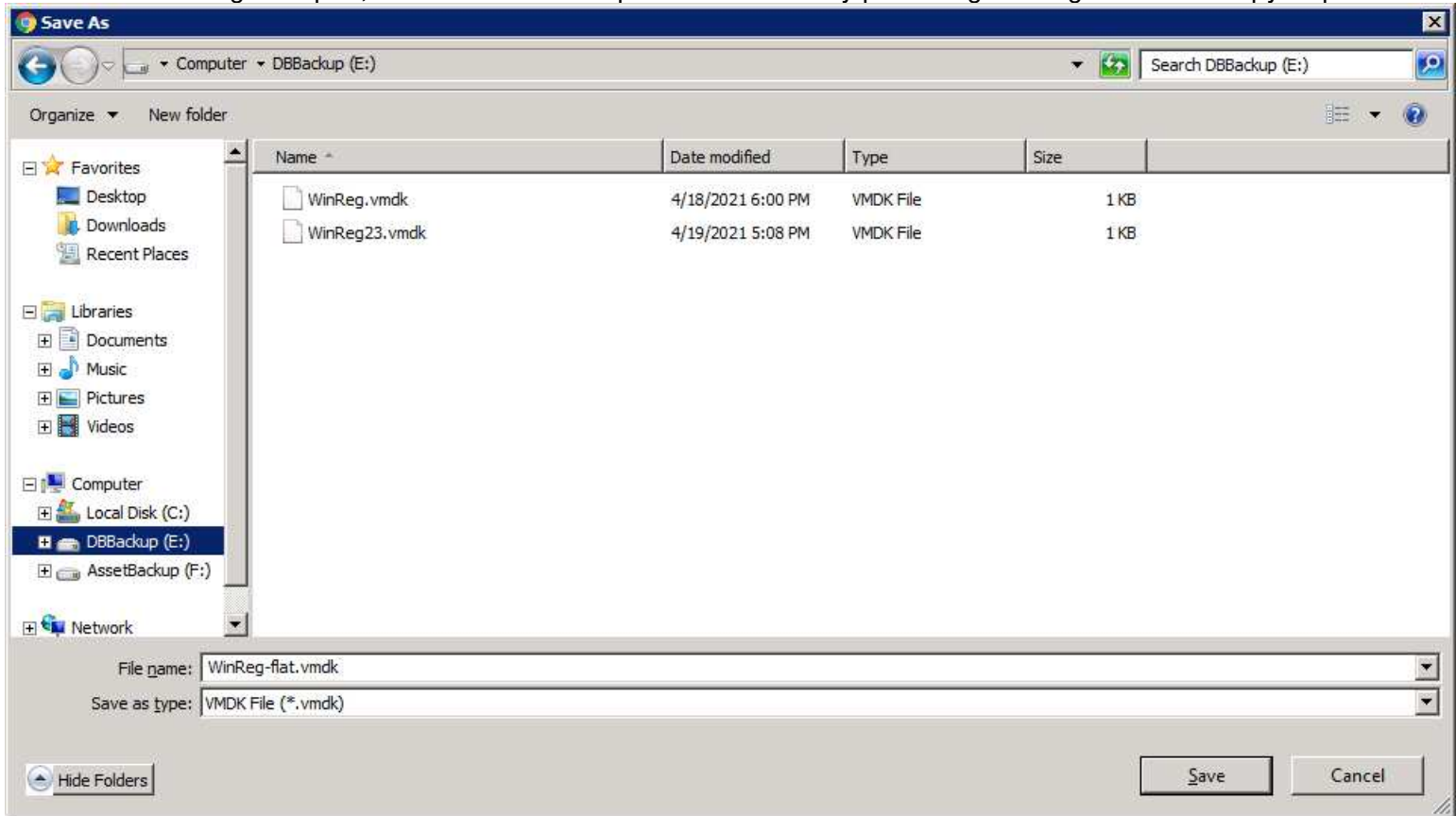
https://154.27.95.129/ui/

Locate the WinReg.flat.vmdk file. If not where shown, it will be in one of the drives listed under WinRegTM folder. This file has two parts required to work together. This is the actual portion that contains the installed Windows OS set up for region simulator hosting. If it has the control file on it, it will appear as WinReg.vmdk. More about that later.



Click on it to highlight it then on Download option.

The Save As dialog will open, select the DBBackup Drive. Its the only place large enough to do the copy required.



The file copy will take up to 20 minutes to do. Here you see two copies of the control files. The one for the WinReg-flat.vmdk is the WinReg.vmdk file. It is a copy here that was for editing in case its needed. It is a simple descriptor text file to let VMWare know what is in and how to handle the flat file contents as a drive for a VM.

Here is the file after it has been copied to DBBackup:

The screenshot shows a Windows File Explorer window titled "E:\". The address bar indicates the current location is "Computer > DBBackup (E:)", and the search bar contains "Search DBBackup (E:)". The left sidebar shows the navigation pane with "Favorites", "Libraries", "Computer", and "Network" sections. Under "Computer", "DBBackup (E:)" is selected. The main pane displays a table of files:

Name ^	Date modified	Type	Size
WinReg.vmdk	4/18/2021 6:00 PM	VMDK File	1 KB
WinReg23.vmdk	4/19/2021 5:08 PM	VMDK File	1 KB
WinReg-flat.vmdk	5/3/2021 3:55 PM	VMDK File	62,914,560...

The file "WinReg-flat.vmdk" is highlighted in blue. At the bottom of the window, a status bar provides details for the selected file:

WinReg-flat.vmdk Date modified: 5/3/2021 3:55 PM Date created: 5/3/2021 3:37 PM
VMDK File Size: 60.0 GB

Once the file has copied successfully, log out of this server.

The screenshot shows the VMware ESXi Storage management interface. A dropdown menu is open over the 'Log out' button, showing the following options: Auto-refresh, Change password, Settings, and Log out. The main content area displays a table of datastores:

Name	Drive Type	Capacity	Provisio...	Free	Type	Thin pro...	Access
datastore1	SSD	439.5 GB	1.41 GB	438.09 GB	VMFS6	Supported	Single
datastore2	Non-SSD	931.25 GB	1.42 GB	929.83 GB	VMFS6	Supported	Single
datastore3	Non-SSD	931.25 GB	398.71 GB	532.54 GB	VMFS6	Supported	Single

Below the table, there are 3 items. At the bottom of the interface, the 'Recent tasks' section shows two successful tasks:

Task	Target	Initiator	Queued	Started	Result	Completed
Find By Inventory Path	None	rwcurtice	05/03/2021 11:35:12	05/03/2021 11:35:12	Completed successfully	05/03/2021 11:35:12
Find By Inventory Path	None	rwcurtice	05/03/2021 11:32:42	05/03/2021 11:32:42	Completed successfully	05/03/2021 11:32:42

The bottom of the browser window shows a file named 'WinReg-flat.vmdk' and a 'Show all' button.

Logon to the new server VMWare control in Chrome browser. Select Storage in the left side navigation, then the Datastore Browser.

localhost.localdomain - VMware ESXi x +

← → ↻ 🏠 ⚠ Not secure | 154.27.95.139/ui/#/host/storage/datastores ☆ 👤 ⋮

Apps

vmware ESXi™ nrcurtice@154.27.95.139 | Help | 🔍 Search

Navigator

- Host
 - Manage
 - Monitor
- Virtual Machines 0
- Storage 3**
- Networking 2

localhost.localdomain - Storage

Datastores | Adapters | Devices | Persistent Memory

New datastore | Increase capacity | Register a VM | **Datastore browser** | Refresh

Actions 🔍 Search

Name	Drive...	Cap...	Provi...	Free	Type	Thin ...	Access
datastore1	SSD	439.5 ...	1.41 GB	438.09...	VMFS6	Suppo...	Single
datastore2	Non-S...	931.25...	1.42 GB	929.83...	VMFS6	Suppo...	Single
datastore3	Non-S...	931.25...	1.42 GB	929.83...	VMFS6	Suppo...	Single

3 items

Recent tasks

Task	Target	Initiator	Queued	Started	Result	Comple...
------	--------	-----------	--------	---------	--------	-----------

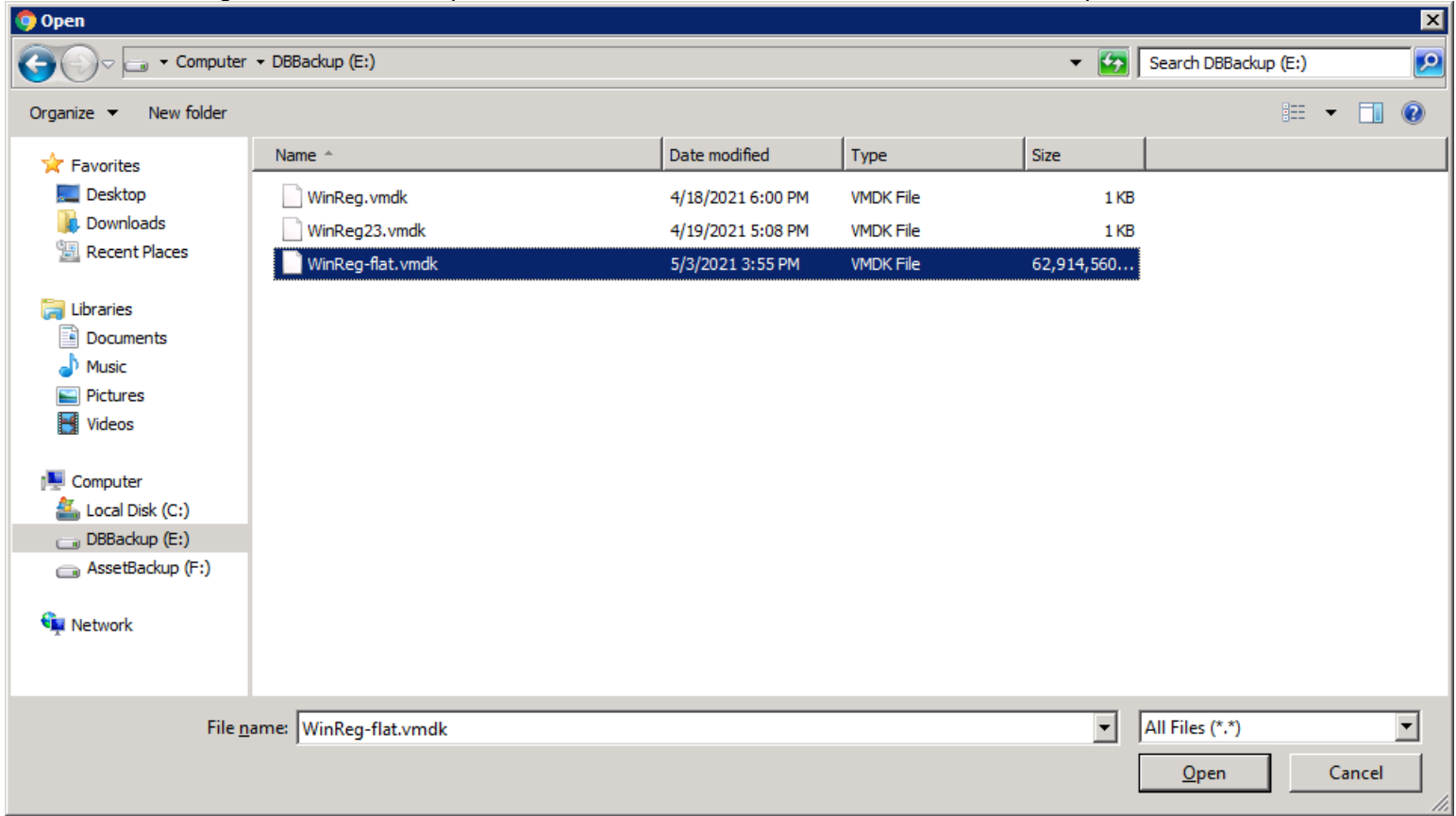
https://154.27.95.139/ui/

The window opens to the first drive in the list. This is the SSD and the fastest drive on the server. Save significant amount of time on the upload - about 16 minutes vs nearly 1.5 hours! Select the Upload option.

The screenshot shows the VMware ESXi interface. At the top, the browser address bar shows the URL `154.27.95.139/ui/#/host/storage/datastores`. The main interface displays the 'Storage' section with tabs for 'Datastores', 'Adapters', 'Devices', and 'Persistent Memory'. A 'Datastore browser' window is open, showing a list of datastores on the left and a file named `sdd.sf` in the main pane. The 'Upload' button is highlighted in green. Below the browser, a task log table is visible, showing several successful tasks.

Task	Target	Initiator	Queued	Started	Result	Completed
Update License	None	Administrator	05/03/2021 16:07...	05/03/2021 16:07...	Completed successfully	05/03/2021 16:07...
Decode License	None	Administrator	05/03/2021 16:07...	05/03/2021 16:07...	Completed successfully	05/03/2021 16:07...
Update Options	localhost.localdomain	Administrator	05/03/2021 16:04...	05/03/2021 16:04...	Completed successfully	05/03/2021 16:04...
Set Entity Permissions	None	Administrator	05/03/2021 16:02...	05/03/2021 16:02...	Completed successfully	05/03/2021 16:02...
Set Entity Permissions	None	Administrator	05/03/2021 15:57...	05/03/2021 15:57...	Completed successfully	05/03/2021 15:57...
Update Options	localhost.localdomain	rwcurtice	05/03/2021 15:48...	05/03/2021 15:48...	Completed successfully	05/03/2021 15:48...

Select the WinReg-flat.vmdx file to upload. Process will be about 16 - 20 minutes to complete.



File upload has completed and you will see this:

The screenshot shows the VMware ESXi interface with a 'Datastore browser' window open. The browser displays a file named 'WinReg-flat.vmdk' in the 'datastore1' folder. Below the browser, a task log table shows the upload operation completed successfully.

Task	Target	Initiator	Queued	Started	Result	Completed
Upload file to datastore	datastore1	rwcurrence	05/03/2021 16:14...	05/03/2021 16:14...	Completed successfully	05/03/2021 16:42...
Find By Inventory Path	None	rwcurrence	05/03/2021 16:14...	05/03/2021 16:14...	Completed successfully	05/03/2021 16:14...
Update License	None	Administrator	05/03/2021 16:07...	05/03/2021 16:07...	Completed successfully	05/03/2021 16:07...
Decode License	None	Administrator	05/03/2021 16:07...	05/03/2021 16:07...	Completed successfully	05/03/2021 16:07...
Update Options	localhost.localdomain	Administrator	05/03/2021 16:04...	05/03/2021 16:04...	Completed successfully	05/03/2021 16:04...
Set Entity Permissions	None	Administrator	05/03/2021 16:02...	05/03/2021 16:02...	Completed successfully	05/03/2021 16:02...

Reference your Spreadsheet documentation for the new server entry. You will need to create those server entries as folder names in VMWare. Example:

The screenshot shows a Google Spreadsheet with the following data:

Server Option:	External IP	Internal IP	vCPUs	Memory GB	System & SSD ds1 G
Enchanted World Grid Server Plan					
Net Mask	255.255.255.128	Base region cost		\$3.36	
Gateway IP	154.27.74.125				
E Sever 16 CPU Host #4					
WhipS03	<NO-IP>	10.0.0.8	2	4	
MySQLRDB03	<NO-IP>	10.0.0.13	2	4	
WinReg24	154.27.95.140	10.0.0.124	3	4	
WinReg25	154.27.95.141	10.0.0.125	3	4	
WinReg26	154.27.95.142	10.0.0.126	3	4	
WinReg27	154.27.95.143	10.0.0.127	3	4	
WinReg28	154.27.95.144	10.0.0.128	3	4	
WinReg29	154.27.95.145	10.0.0.129	3	4	
WinReg30	154.27.95.146	10.0.0.130	3	4	
WinReg31	154.27.95.147	10.0.0.131	3	4	
Ubuntu VM Template			Allowed 2	Allowed 3	
WinReg VM Template	154.27.95.138		Allowed 3	Allowed 4	
			=====	=====	=====
		Used Totals	28	40	
RESERVE SPACE FOR ADDED SERVERS					
VMWare ESXi Accounts	Password	Status	Note		
https://154.27.74.84/ui/#/host/vms	root	3F2%1Zo6#fyQ	Disabled		
https://154.27.74.101/ui/#/host/vms	root	jd!%kMs!hd%4	Disabled		
https://154.27.74.129/ui/#/host/vms	root	BUh1LzfIEAJ#	Disabled		

This example is for E Server 16 CPU Host #4. Use the entry you actually are setting up.

Select datastore3 drive by clicking on the entry. Then use the Create directory option.

The screenshot shows the VMware ESXi interface. The browser is displaying the 'Datastore browser' for 'datastore3'. A 'New directory' dialog box is open, showing the directory name 'MySQLRDB03' and the message 'This directory will be created in [datastore3]/'. The 'Create directory' button is highlighted.

vmware ESXi
localhost.localdomain - Storage
Datastores Adapters Devices Persistent Memory
New datastore Increase capacity Register a VM Datastore browser Refresh Actions Search
Name Drive Type Capacity Provision Free Type Thin pro. Access
Datastore browser
Upload Download Delete Move Copy Create directory Refresh
datastore1
datastore2
datastore3
New directory
Directory name MySQLRDB03
This directory will be created in [datastore3]/
Create directory Cancel
[datastore3]
Close
Task Target Initiator Queued Started Result Completed
Upload file to datastore datastore1 reurice 05/03/2021 16:14... 05/03/2021 16:14... Completed successfully 05/03/2021 16:42...
Find By Inventory Path None reurice 05/03/2021 16:14... 05/03/2021 16:14... Completed successfully 05/03/2021 16:14...
Update Licenses None Administrator 05/03/2021 16:07... 05/03/2021 16:07... Completed successfully 05/03/2021 16:07...
Decode License None Administrator 05/03/2021 16:07... 05/03/2021 16:07... Completed successfully 05/03/2021 16:07...
Update Options localhost.localdomain Administrator 05/03/2021 16:04... 05/03/2021 16:04... Completed successfully 05/03/2021 16:04...
Set Entity Permissions None Administrator 05/03/2021 16:02... 05/03/2021 16:02... Completed successfully 05/03/2021 16:02...
WinReg-flat.vmdk Show all

All the folders for each of the VMs in the list have been created in datastore3.

The screenshot shows the VMware ESXi interface. At the top, a browser window displays the URL `154.27.95.139/ui/#/host/storage/datastores`. The main interface is titled "localhost.localdomain - Storage" and includes tabs for "Datastores", "Adapters", "Devices", and "Persistent Memory". A "Datastore browser" window is open, showing a list of folders in "datastore3":

- sdd.sf
- MySQLRDB03
- UbuntuTM
- WhipS03
- WinReg24
- WinReg25
- WinReg26
- WinReg27
- WinReg28
- WinReg29
- WinReg30
- WinReg31
- WinRegTM

Below the folder list, a task log table shows the following entries:

Task	Target	Initiator	Queued	Started	Result	Completed
Make Directory	None	rwcurtice	05/03/2021 17:05...	05/03/2021 17:05...	Completed successfully	05/03/2021 17:05...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...

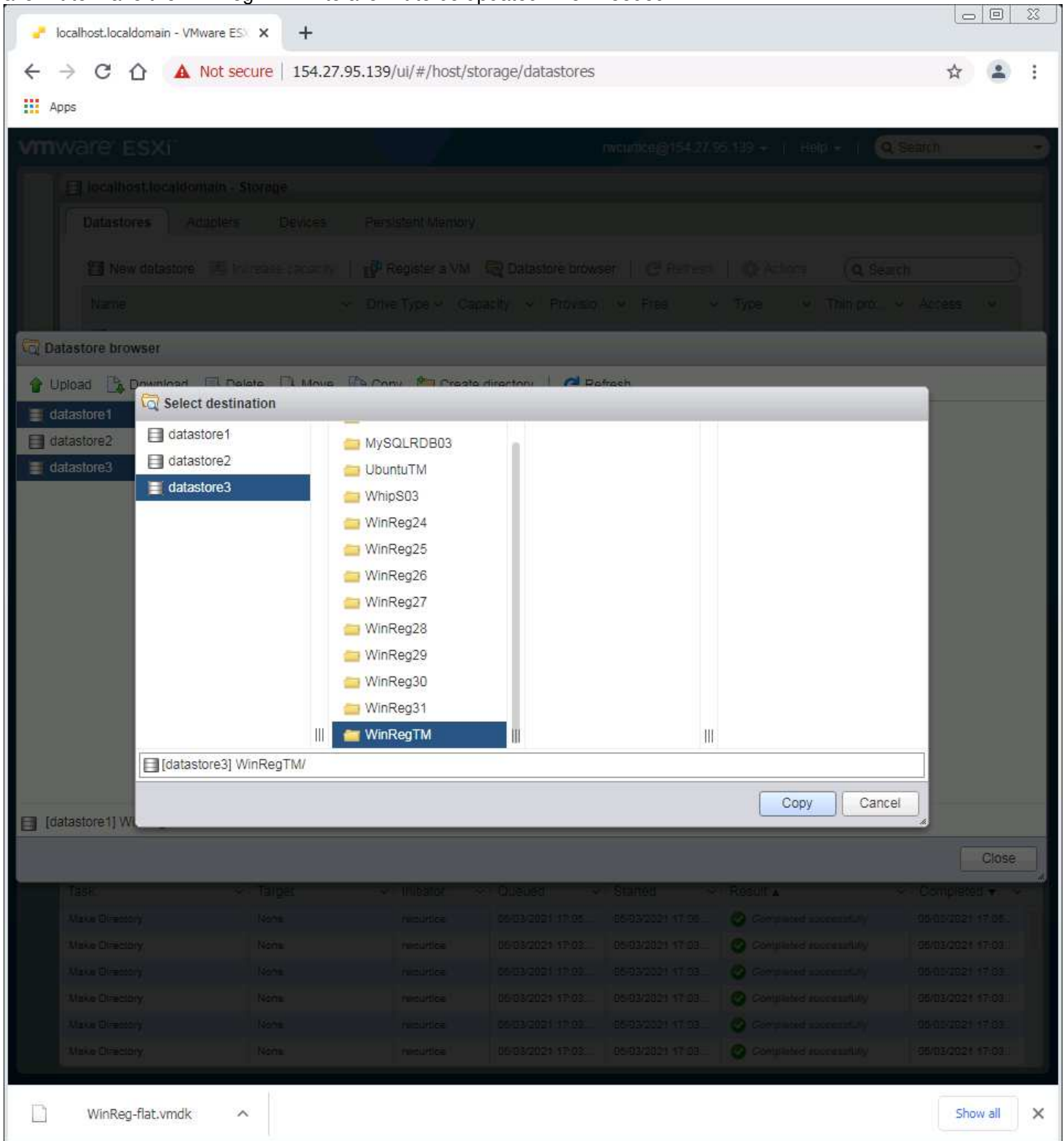
At the bottom of the interface, a file named "WinReg-flat.vmdk" is visible, and a "Show all" button is present.

Select datastore1. Click on the WinReg-flat.vmdk file to highlight it. Click on the Copy option.

The screenshot shows the VMware ESXi interface. At the top, the browser address bar shows 'localhost.localdomain - VMware ESX' and the URL '154.27.95.139/ui/#/host/storage/datastores'. The main content area displays the 'Datastores' tab for 'localhost.localdomain - Storage'. A 'Datastore browser' window is open, showing a list of datastores: 'datastore1', 'datastore2', and 'datastore3'. 'datastore1' is selected. Inside the 'datastore1' view, a folder named '.sdd.sf' contains a file named 'WinReg-flat.vmdk'. The file is highlighted, and the 'Copy' button in the toolbar is active. The file details show 'WinReg-flat.vmdk' with a size of '60 GB' and a creation date of 'Monday, May 03, 2021, ...'. Below the datastore browser, a task list is visible, showing several 'Make Directory' tasks that have completed successfully. The bottom of the screen shows the file name 'WinReg-flat.vmdk' and a 'Show all' button.

Task	Target	Initiator	Queued	Started	Result	Completed
Make Directory	None	rwcurtice	05/03/2021 17:05...	05/03/2021 17:05...	Completed successfully	05/03/2021 17:05...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...

In the copy window select the datastore3 drive, then the WinRegTM folder and click copy. This will place the drive to allow it to make the WinRegTM VM to allow it to be updated when needed.



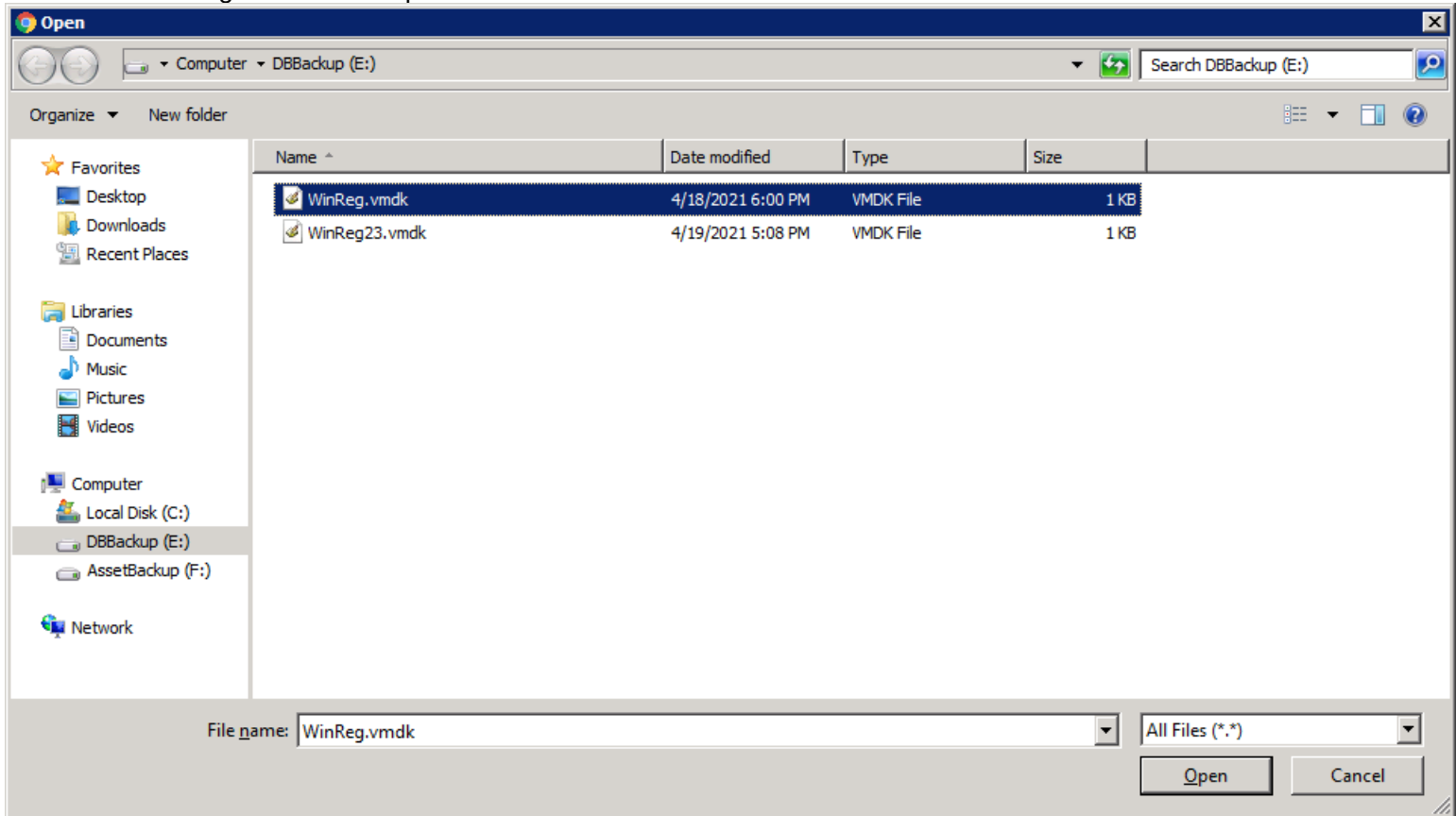
File copy time will be about 20-30 minutes. Platter drive is slower than the SSD.

Now We need to upload the WinReg.Vmdk control file to the same place. With datastore3 drive selected and the WinRegTM folder, click on the upload option:

The screenshot shows the VMware ESXi interface. The 'Datastore browser' window is open, displaying the contents of 'datastore3'. The 'WinRegTM' folder is selected, and the file 'WinReg-flat.vmdk' is visible in the main pane. The 'Upload' button is highlighted in the toolbar. Below the browser, a task log shows the progress of the upload operation.

Task	Target	Initiator	Queued	Started	Result	Completed
<Copy Datastore File	None	rwcurtice	05/03/2021 17:13...	05/03/2021 17:13...	<div style="width: 38%;"></div> Running... 38 %	
Make Directory	None	rwcurtice	05/03/2021 17:05...	05/03/2021 17:05...	Completed successfully	05/03/2021 17:05...
Make Directory	None	rwcurtice	05/03/2021 17:05...	05/03/2021 17:05...	Completed successfully	05/03/2021 17:05...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...
Make Directory	None	rwcurtice	05/03/2021 17:03...	05/03/2021 17:03...	Completed successfully	05/03/2021 17:03...

Select the WinReg.vmdk file to upload.

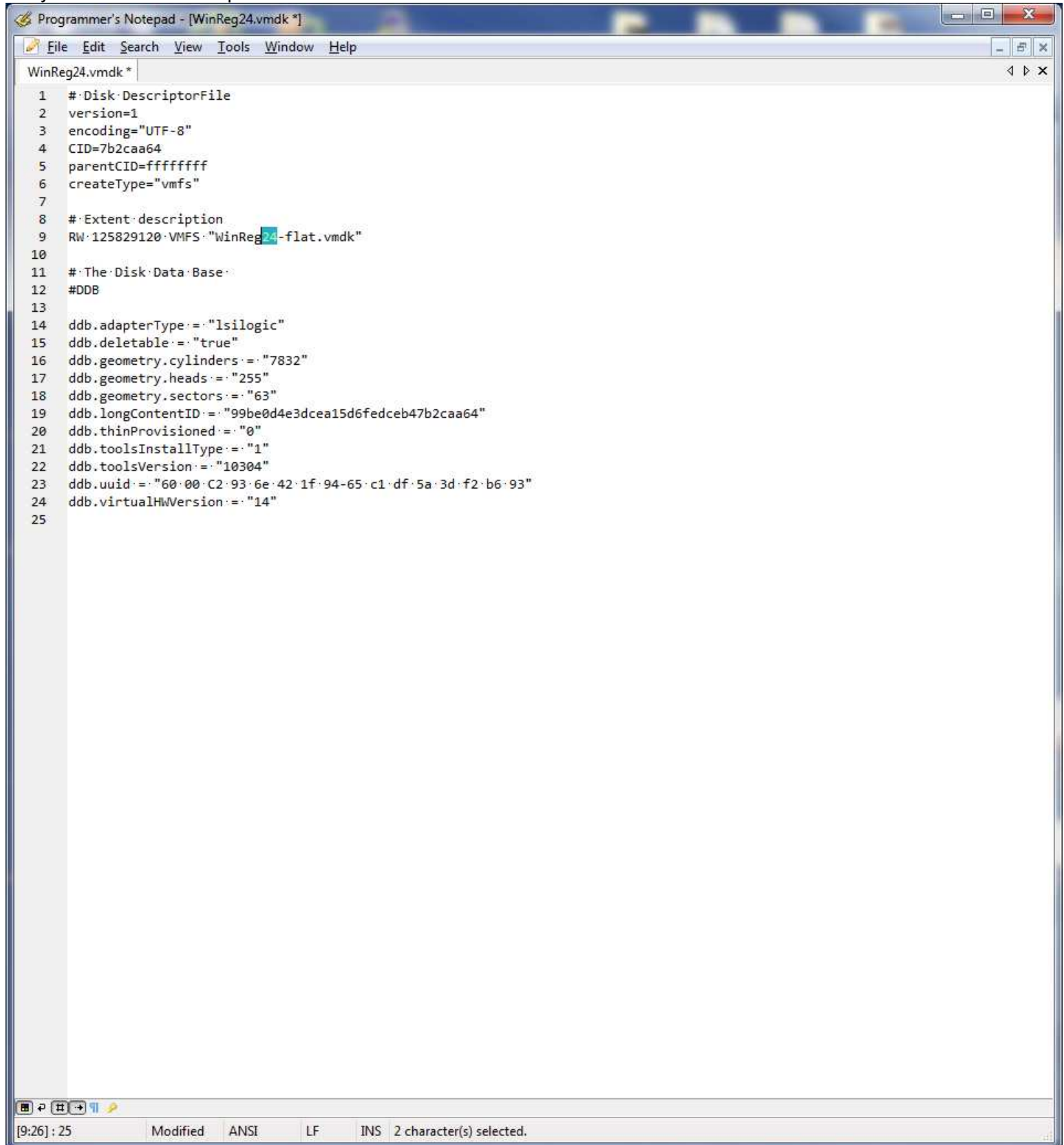


This will take about a second or two to upload.

There are some more steps to creating the other VM drives that will be covered in the "WinReg Virtual Machine Setup" chapter.

Processing and uploading the WinReg##.vmdk files for each VM in the list:

Now more about the WinReg.vmdk file. This text file needs to be changed where it is in the world or web server you are using. In the display of the drive shown in page 3 and was mentioned there for later reference. There was also a numbered version of that file as WinReg23.vmdk shown. Rename that file by Increment that files number for the next VM you are creating. Open the file by double clicking on it. Also update the number of the filename for the flat.vmdk entry as indicated in this picture. Save the file.



```
Programmer's Notepad - [WinReg24.vmdk *]
File Edit Search View Tools Window Help
WinReg24.vmdk *
1 # Disk DescriptorFile
2 version=1
3 encoding="UTF-8"
4 CID=7b2caa64
5 parentCID=ffffffff
6 createType="vmfs"
7
8 # Extent description
9 RW-125829120-VMFS-"WinReg24-flat.vmdk"
10
11 # The Disk Data Base
12 #DDB
13
14 ddb.adapterType = "lsilogic"
15 ddb.deletable = "true"
16 ddb.geometry.cylinders = "7832"
17 ddb.geometry.heads = "255"
18 ddb.geometry.sectors = "63"
19 ddb.longContentID = "99be0d4e3dcea15d6fedceb47b2caa64"
20 ddb.thinProvisioned = "0"
21 ddb.toolsInstallType = "1"
22 ddb.toolsVersion = "10304"
23 ddb.uuid = "60:00:C2:93:6e:42:1f:94-65:c1:df:5a:3d:f2:b6:93"
24 ddb.virtualHWVersion = "14"
25

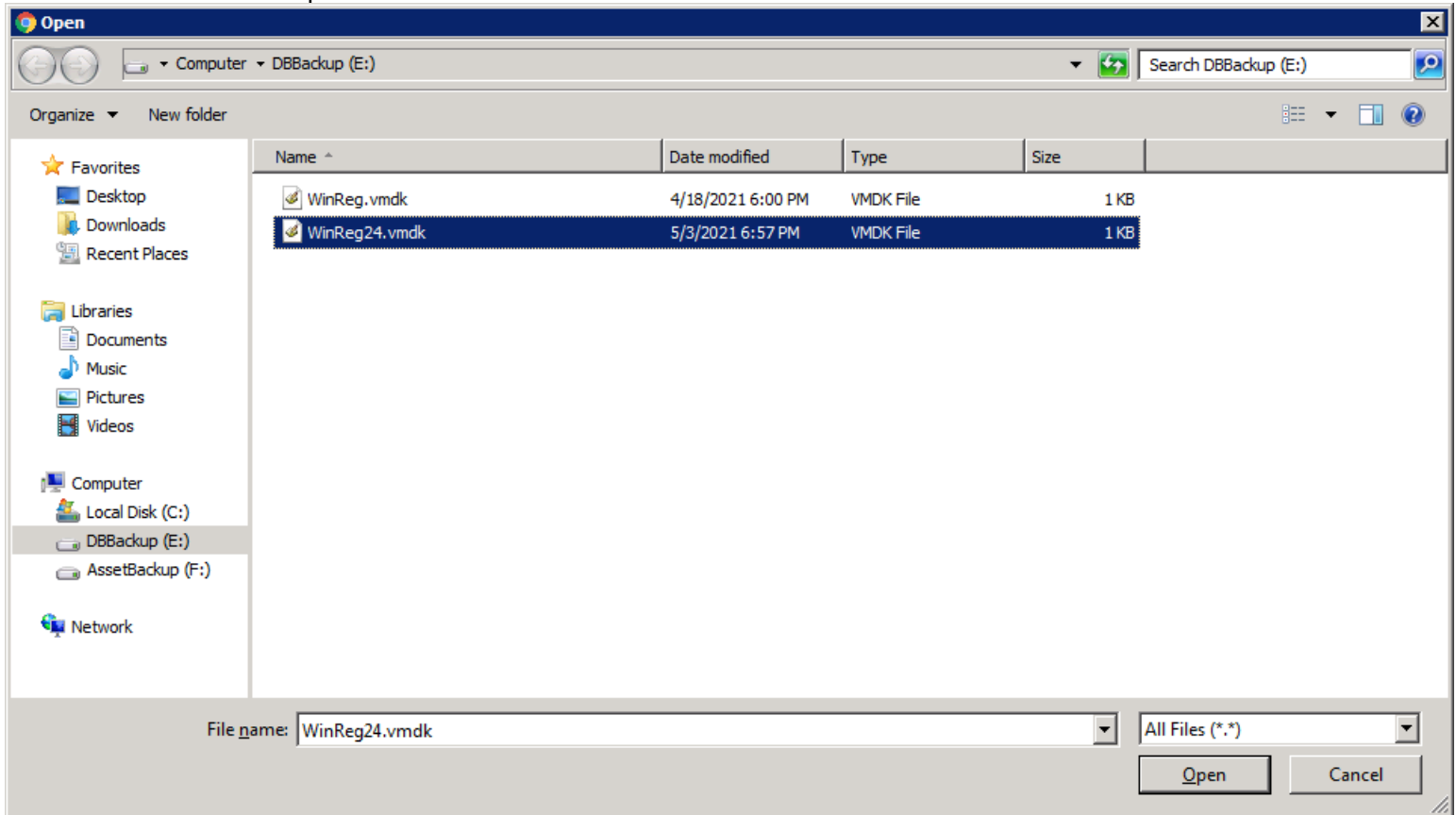
[9:26]: 25 Modified ANSI LF INS 2 character(s) selected.
```

Select the datastore3 drive and click on the first WinReg## (like WinReg24) folder that you have. Then select the upload option. Choose the WinReg## entry you edited. Upload it.

The screenshot shows the VMware ESXi interface. The main window is titled "Datastore browser" and displays a list of folders on "datastore3". The "WinReg24" folder is selected. The "Upload" button is visible in the top toolbar. Below the browser, a task log table shows several completed tasks.

Task	Target	Initiator	Queued	Started	Result	Completed
Delete Datastore File	None	rwcurtice	05/03/2021 18:51...	05/03/2021 18:51...	Completed successfully	05/03/2021 18:51...
Move Datastore File	None	rwcurtice	05/03/2021 18:51...	05/03/2021 18:51...	Completed successfully	05/03/2021 18:51...
Copy Datastore File	None	rwcurtice	05/03/2021 18:18...	05/03/2021 18:18...	Completed successfully	05/03/2021 18:43...
Delete Datastore File	None	rwcurtice	05/03/2021 18:18...	05/03/2021 18:18...	Completed successfully	05/03/2021 18:18...
Power Off VM	WinRegTM	rwcurtice	05/03/2021 18:18...	05/03/2021 18:18...	Completed successfully	05/03/2021 18:18...
Copy Datastore File	None	rwcurtice	05/03/2021 18:17...	05/03/2021 18:17...	Completed successfully	05/03/2021 18:17...

Select the edited file to upload:



File has been uploaded to the folder.

The screenshot shows the VMware ESXi interface. At the top, a browser window displays the URL `154.27.95.139/ui/#/host/storage/datastores`. The main interface shows the 'Datastores' tab selected, with a list of datastores. The 'Datastore browser' window is open, showing a list of folders under 'datastore3', with 'WinReg24' selected. Below the browser, a task list shows the following tasks:

Task	Target	Initiator	Queued	Started	Result	Completed
Copy Datastore File	None	rwcurtice	05/03/2021 18:54...	05/03/2021 18:54...	<div style="width: 26%;"></div> Running... 26 %	
Upload file to datastore	datastore3	rwcurtice	05/03/2021 18:59...	05/03/2021 18:59...	Completed successfully	05/03/2021 18:59...
Find By Inventory Path	None	rwcurtice	05/03/2021 18:59...	05/03/2021 18:59...	Completed successfully	05/03/2021 18:59...
Delete Datastore File	None	rwcurtice	05/03/2021 18:51...	05/03/2021 18:51...	Completed successfully	05/03/2021 18:51...
Move Datastore File	None	rwcurtice	05/03/2021 18:51...	05/03/2021 18:51...	Completed successfully	05/03/2021 18:51...
Copy Datastore File	None	rwcurtice	05/03/2021 18:18...	05/03/2021 18:18...	Completed successfully	05/03/2021 18:43...

At the bottom of the browser window, the file 'WinReg-flat.vmdk' is visible, and a 'Show all' button is present.

Repeat these steps for each of the WinReg## folders you have and upload to each matching folder.

Do not copy the WinReg-flat.vmdk file to the rest of the VM folders yet!

The next chapter will cover how to create the VMs and test the WinRegTM before creating all the rest of the VMs to reduce the time in setting them up should any Windows Updates need to be applied.

Next Chapter: Creating Virtual Machines.