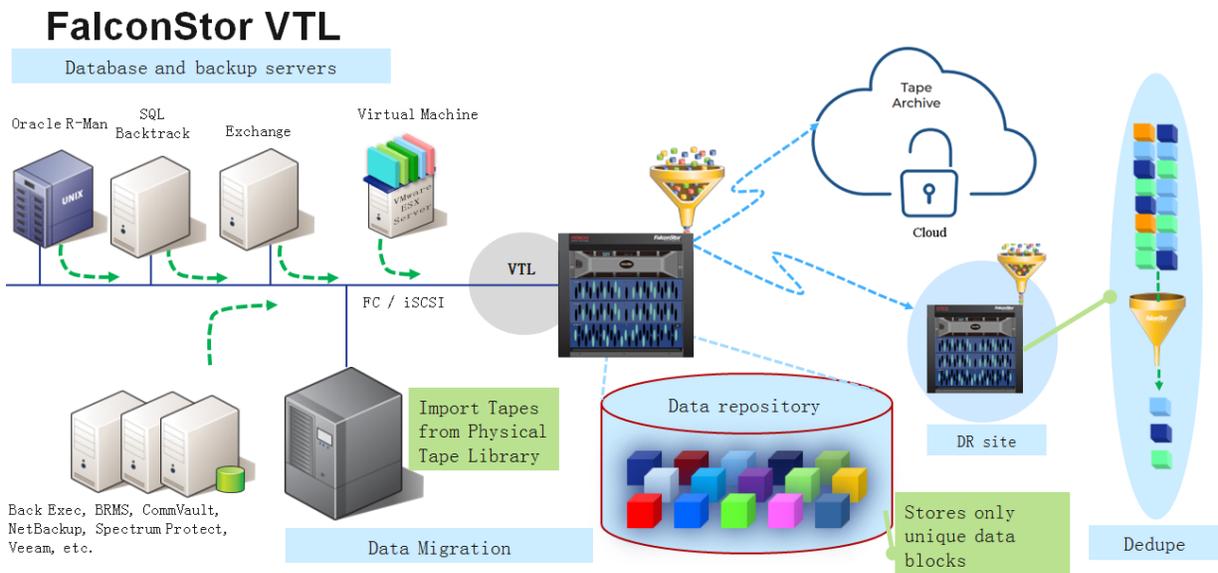


Import Tapes from Physical Tape Library To FalconStor VTL

PURPOSE:

FalconStor’s VTL’s import function allows an administrator to copy the data from a physical tape to a virtual tape. Doing so, then enables global data deduplication, enterprise wide replication and tape export to cloud storage without requiring changes to the existing environment.



ENVIRONMENT:

The FalconStor VTL server is configured for production, any of the 50+ supported physical tape library with tape drives and tapes is available. For a complete list of all supported physical libraries, tape drives visit our certification matrix at: <https://www.falconstor.com/certification-matrix/tape-devices>

PRE-OPERATION CHECKLIST:

A maintenance window is needed if the physical tape library has not been added to the VTL server from the VTL console.

DETAILED INSTRUCTIONS:

1. Configure the fibre channel ("FC") zones between the VTL server and physical tape library, as well as the VTL server and physical tape drives.

Note: It is recommended to use 2-member soft FC zones (one initiator and one target).

Example:

VTL FC port 100's initiator WWPN: 21:00:00:24:ff:42:1d:79

Physical tape library's WWPN: 21:00:00:0d:77:3a:f2:a6

Physical tape drive 1's WWPN: 21:00:00:0d:77:3a:f2:a7

Switch: Brocade FC switch with active configuration named Production

```
alicreate VTL_100i, 21:00:00:24:ff:42:1d:79
```

```
alicreate PTL, 21:00:00:0d:77:3a:f2:a6
```

```
alicreate PTD_1, 21:00:00:0d:77:3a:f2:a7
```

```
zonecreate VTL_100i_PTL, VTL_100i
```

```
zoneadd VTL_100i_PTL, PTL
```

```
zonecreate VTL_100i_PTD_1, VTL_100i
```

```
zoneadd VTL_100i_PTD_1, PTD_1
```

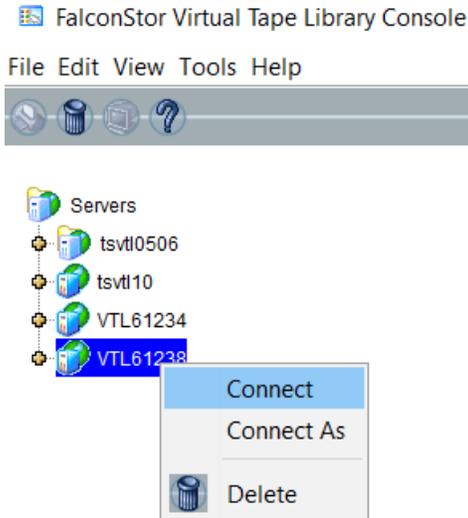
```
cfgadd Production, VTL_100i_PTL
```

```
cfgadd Production, VTL_100i_PTD_1
```

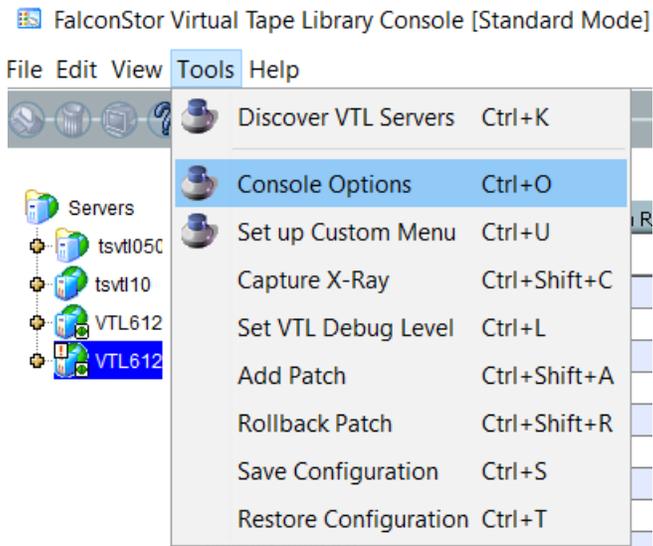
```
cfgsave
```

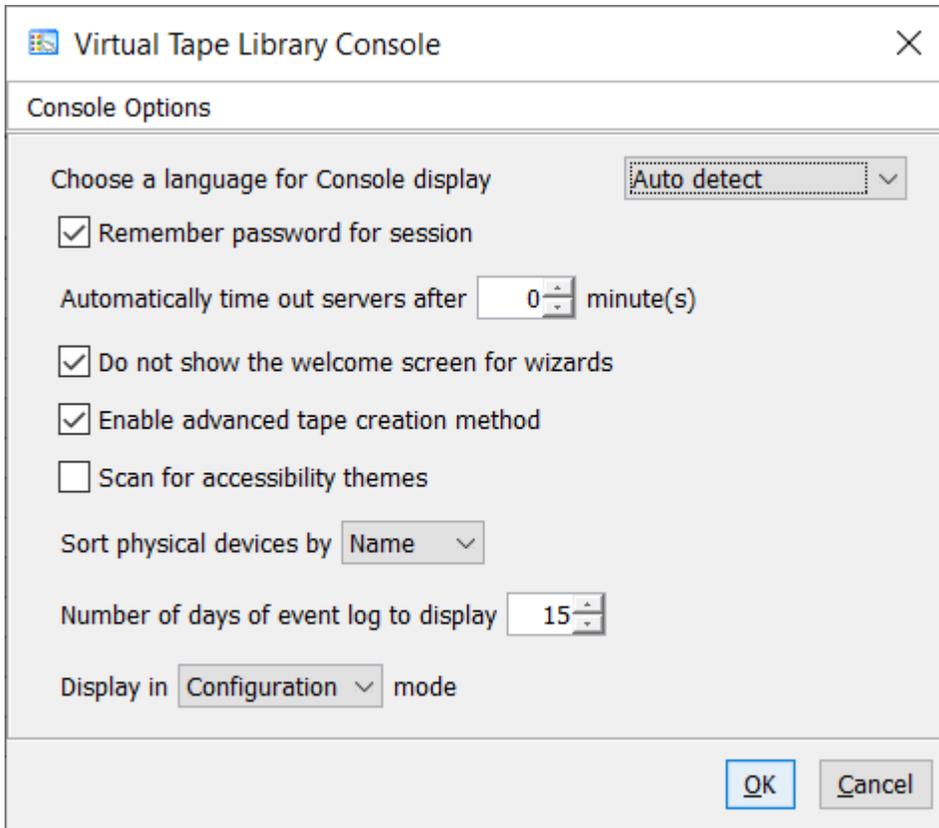
```
cfgenable Production
```

2. Provision the physical tape library and physical tape drives to the VTL server.
3. From the VTL console, connect to the VTL server.

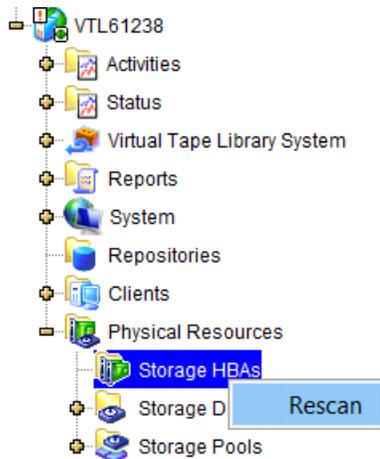


4. Go to Tools menu -> Console Options -> Change the Display Mode from Standard to Configuration.

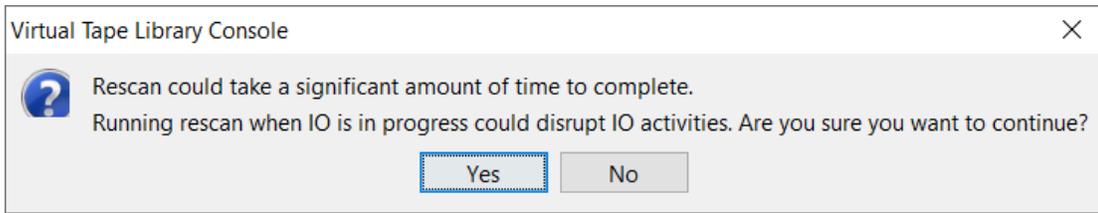




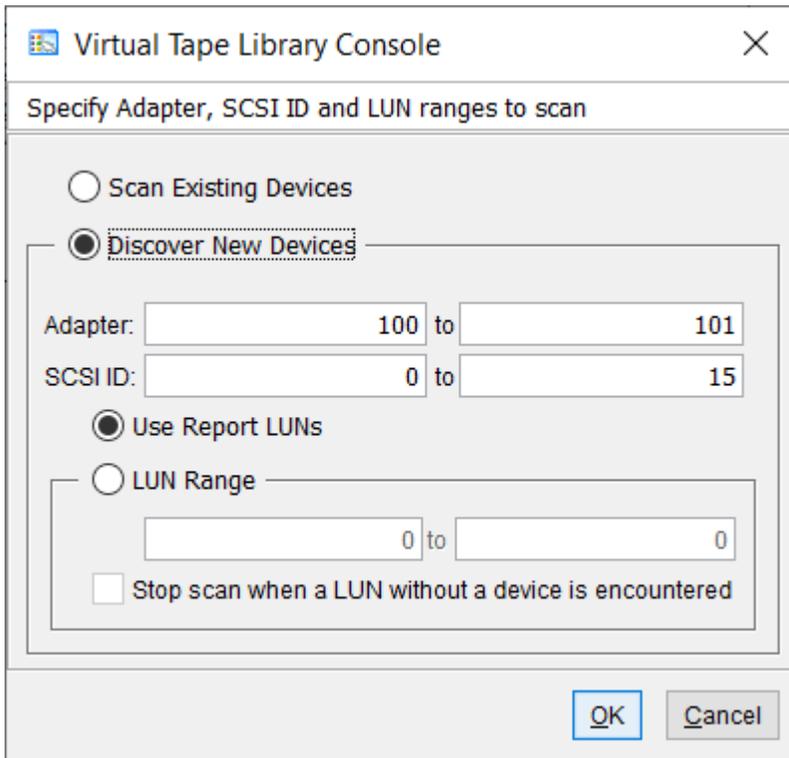
5. Go to the Physical Resources -> Storage HBAs -> Right click and select the Rescan option to pick up the new physical tape library and tape drives.



6. Make sure there are no I/O activities (no backup jobs, no export jobs). Then click the Yes button to continue.



7. Select the Discover New Devices option and then click on the Ok button.



8. Once the physical tape library and physical tape drives are pick up, it will be display under the Physical Resources -> Storage Devices -> Fibre Channel Devices Tree

The screenshot shows a storage management interface. On the left is a tree view with the following structure:

- VTL61238
 - Activities
 - Status
 - Virtual Tape Library System
 - Reports
 - Repositories
 - System
 - Clients
 - Hosted Backup Client
 - FC Clients
 - IBMi
 - Physical Resources
 - Storage HBAs
 - Storage Devices
 - Fibre Channel Devices (highlighted)
 - SCSI Devices

On the right, a table displays 8 devices with filtering off:

Device Name	Vendor ID/Product ID	SCSI Address
FALCON:IPSTOR DISK	FALCON:IPSTOR DISK	100:0:0:0
FALCON:IPSTOR DISK	FALCON:IPSTOR DISK	100:0:0:1
FALCON:IPSTOR DISK	FALCON:IPSTOR DISK	100:0:0:2
FALCON:IPSTOR DISK	FALCON:IPSTOR DISK	100:0:0:3
FALCON:IPSTOR DISK	FALCON:IPSTOR DISK	100:0:0:4
FALCON:IPSTOR DISK	FALCON:IPSTOR DISK	100:0:0:5
IBM:03584L32	IBM:03584L32	100:0:1:0
IBM:ULT3580-TD3	IBM:ULT3580-TD3	100:0:1:1

Below the table, a summary row shows "Total: 8".

9. Go to Virtual Tape Library System -> Physical Tape Libraries -> Right Click -> Assign

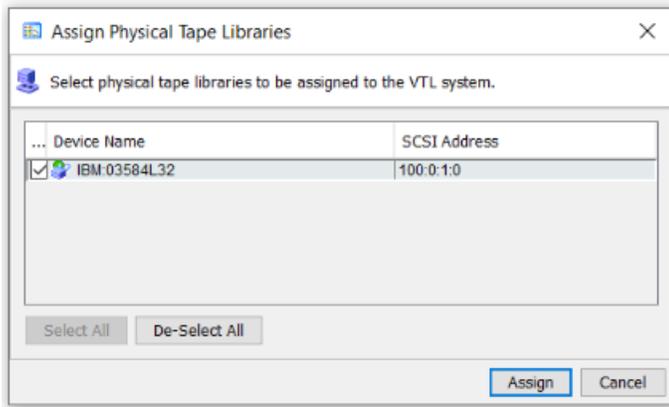
The screenshot shows the same storage management interface as in step 8. The tree view on the left is expanded to show the following structure:

- VTL61238
 - Activities
 - Status
 - Dashboard Summary
 - Virtual Tape Library System
 - Virtual Tape Libraries
 - Virtual Tape Drives [16 drives, 0 tapes]
 - Virtual Vault [1 tape]
 - Physical Tape Libraries (highlighted)
 - Physical Tape Drives
 - Replica Resources [0]
 - Physical Tape Databa
 - Deduplication Policies

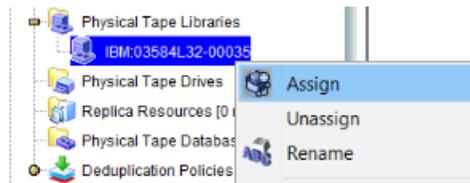
A context menu is open over the "Physical Tape Libraries" item, showing the following options:

- Assign
- Assign IBM 3494
- Add ACSLS/Library Station

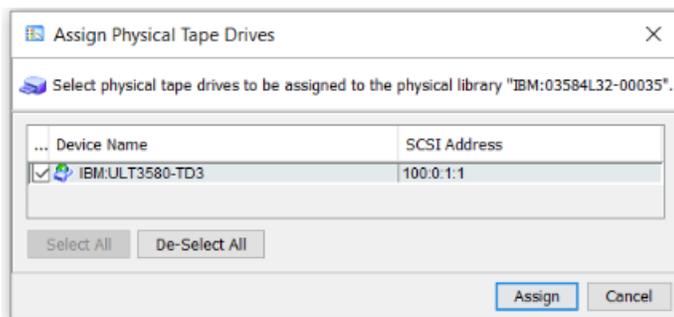
10. Select the Physical Tape Library and click the Assign button for adding it to the VTL server.



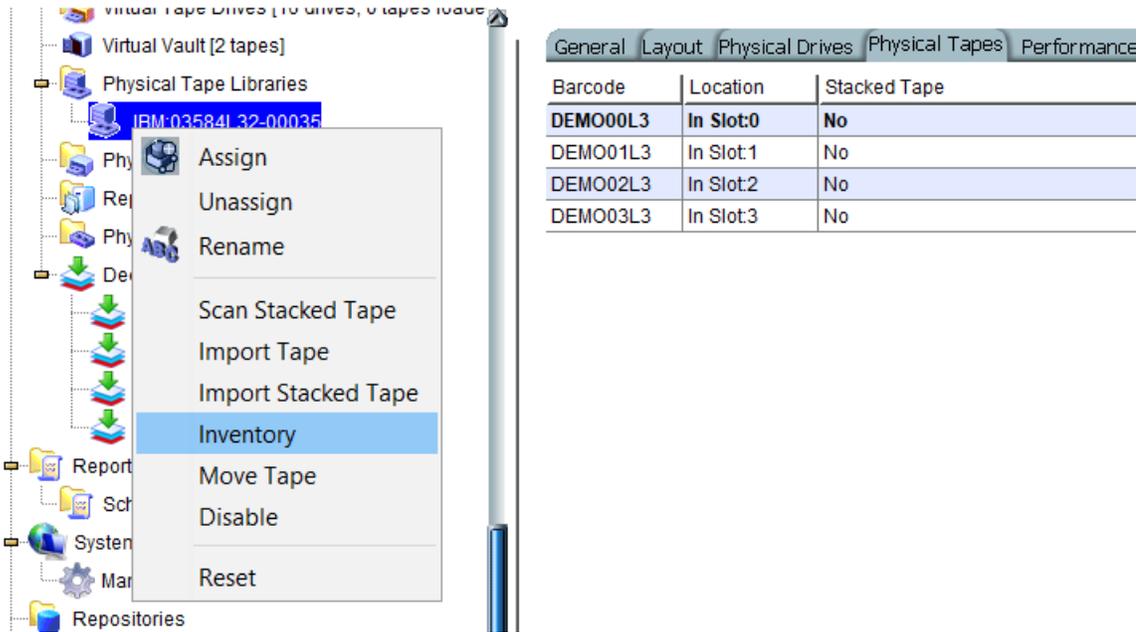
11. Right click the newly added physical tape library under Physical Tape Libraries -> Assign



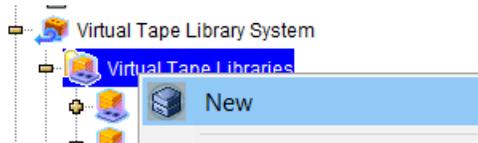
12. Select all the physical tape drives that belonging to the physical tape library and then click the Assign button.



13. If there are any manual changes on the physical tape library like adding physical tapes, then update the changes on the VTL server by right-clicking the newly added physical tape library under the Physical Tape Libraries tree -> Inventory

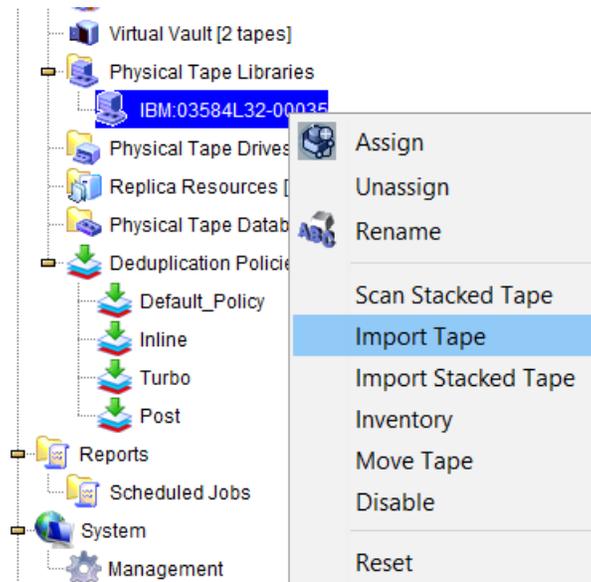


14. Create a new virtual tape library with same tape drive type technologies (IBM LTO, HP LTO, Quantum DLT etc)

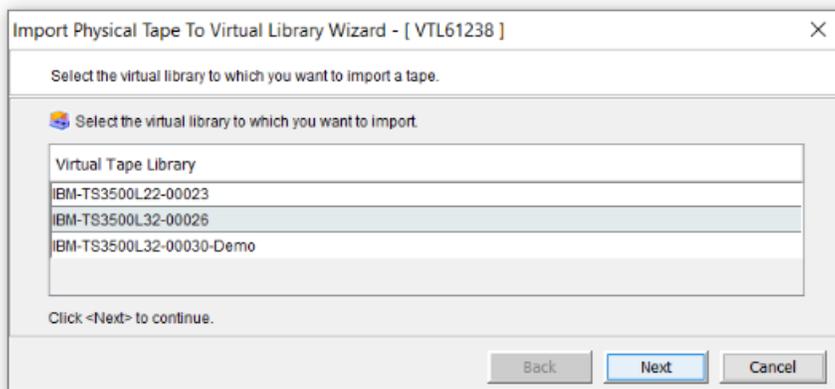


Note: VTL can import data from physical tape to virtual tape by using newer generation of the same tape drive type technologies. For example, the physical tape drive is IBM LTO3 and the virtual tape drive is IBM LTO7. However, please make sure the backup software's restore job is compatible with newer tape drive type. Otherwise, use the same or one generation newer drive type.

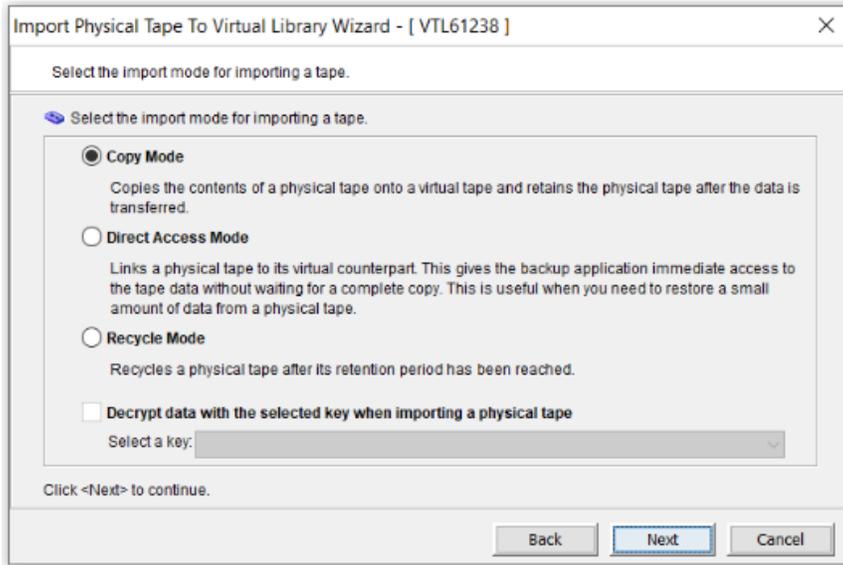
15. To import physical tapes to the VTL server, right click on the newly physical tape library -
> Import Tape



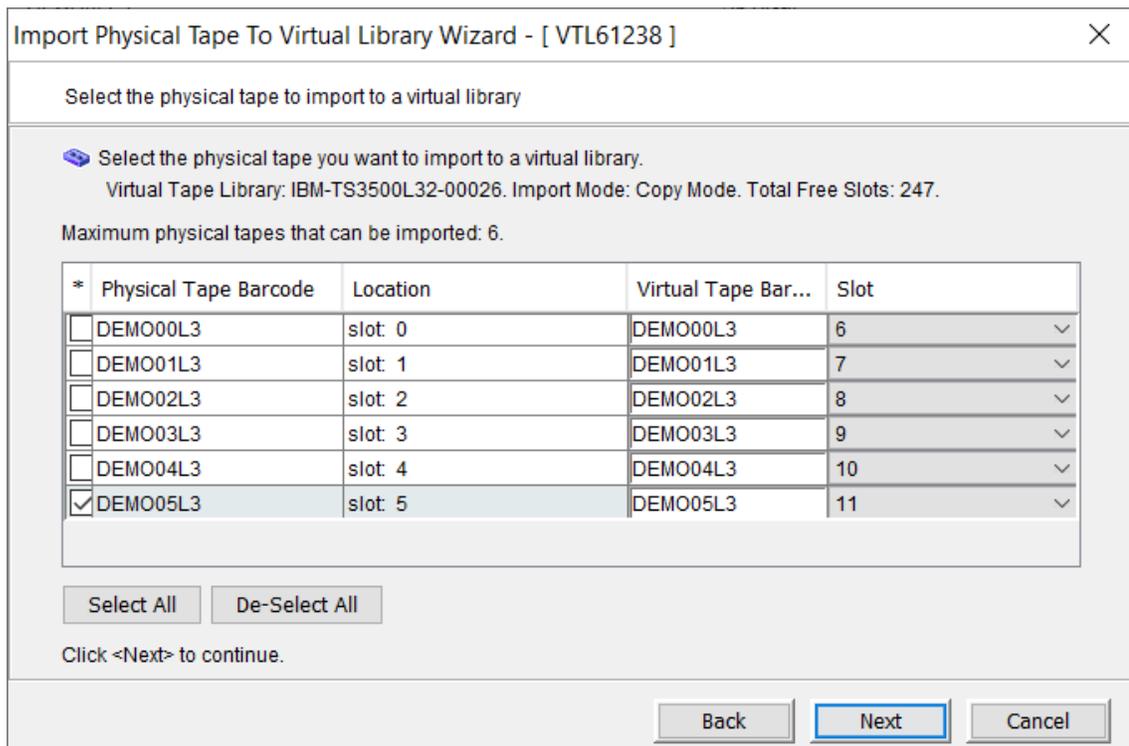
16. Pick the destination virtual tape library for placing the import tape. Then click Next button.



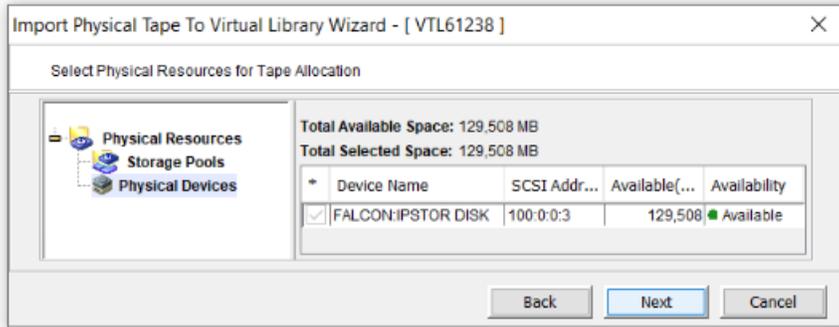
17. Select the Copy Mode for the import job.



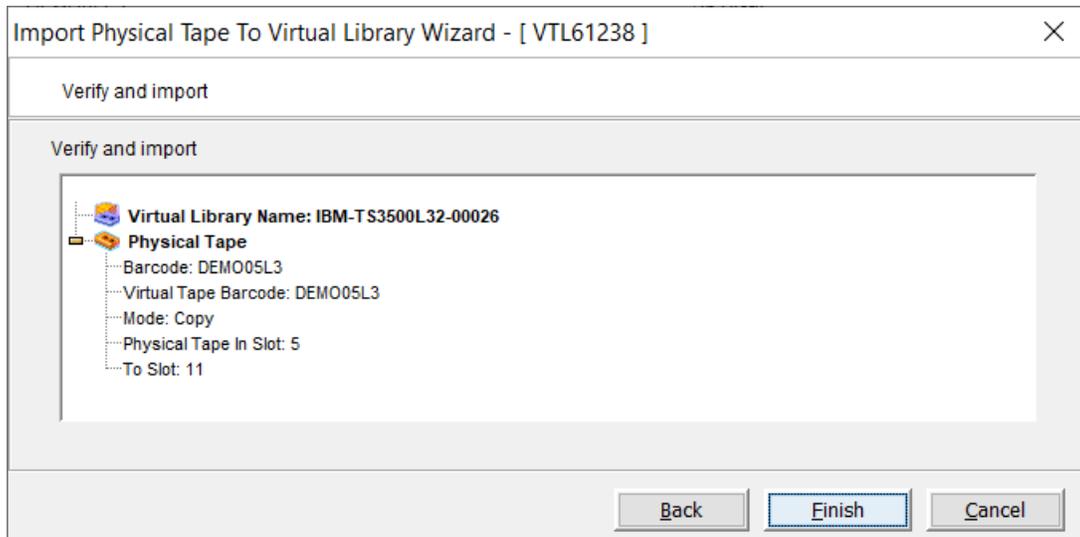
18. Select the physical tapes that will be imported and click the Next button.



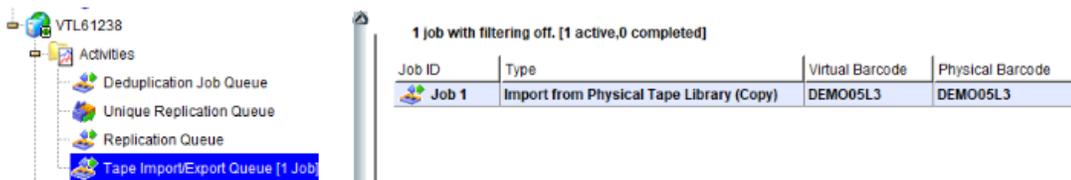
19. Select the storage LUN for saving the data and click Next button.



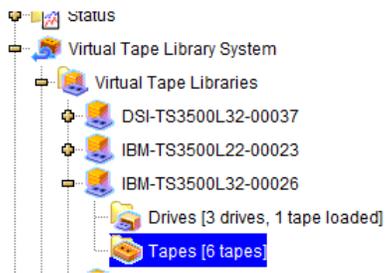
20. Review the import request and click Finish button to submit the import job(s).



21. An import job will be created for each selected physical tapes and display under the Activities -> Tape Import/Export Queue



22. Once the import job is completed, the corresponding virtual tape for each import job will be show up in the destination virtual tape library.



6 tapes with filtering off.

Name	Barcode	Size(MB)	Location
VirtualTape-TS3500L32-00004	001A00L5	46,080	In Drive:2
VirtualTape-TS3500L32-00005	001A01L5	25,600	In Slot:1
VirtualTape-TS3500L32-00006	001A02L5	0	In Slot:2
VirtualTape-TS3500L32-00007	001A03L5	0	In Slot:3
VirtualTape-TS3500L32-00008	001A04L5	0	In Slot:4
VirtualTape-00016	DEMO05L3	5,120	In Slot:5