

Virtual And Physical Slots

The **Virtual Slot** allocation is a number of the slot based on sequential numbering of all slots from the zones allocated to a repository.

The **Physical Slot** allocation is a slot number showing the physical location of a slot in the storage rack that remains unaltered regardless of which repository or customer it is allocated to.

Examples

For this example we will use three LTO storage racks. Each of these racks with:

- a capacity of 100 tapes
- 10 storage shelves.
- 10 slots per shelf.

These racks will be assigned names of Rack_01, Rack_02 and Rack_03

Complete Rack And Slots Allocated To One Customer

If these three racks are completely assigned to one repository, there will be 300 virtual slots available for volume allocation.

- Slot 1 would be the first slot in Rack_01
- Slot 100 would be the last slot in Rack_01
- Slot 101 would be the first slot in Rack_02
- Slot 201 would be the first slot in Rack_03
- Slot 300 would be the last slot in Rack_03

Assigning volumes to slots

- volume AAAA.LTO.000001L5 to slot 1
- volume AAAA.LTO.000002L5 to slot 100
- volume AAAA.LTO.000003L5 to slot 101
- volume AAAA.LTO.000004L5 to slot 201
- volume AAAA.LTO.000005L5 to slot 300

Virtual slotting shows virtual slot numbers.

The screenshot shows a software interface with a navigation bar at the top containing 'Inventory', 'DR Strategies', 'Data Clusters', 'Simple Management', 'Uploaded Files', and 'Consignments'. Below this is a section titled 'Volumes' containing a table with the following columns: ID, Current Location, Target Location, Flags, Move Time, Due in, Container, and Next M. The table lists six volumes with their current locations being 'Offsite Vault [000001]', 'Offsite Vault [000100]', 'Offsite Vault [000101]', 'Offsite Vault [000201]', 'Offsite Vault [000300]', and 'Library'. The flags for these volumes are CNOZ, CGNOZ, CNOZ, CNOZ, CNO, and CEnN respectively.

ID	Current Location	Target Location	Flags	Move Time	Due in	Container	Next M
000001L5	Offsite Vault [000001]		CNOZ		Unspecified	Unassigned	Perma
000002L5	Offsite Vault [000100]		CGNOZ		Unspecified	Unassigned	Perma
000003L5	Offsite Vault [000101]		CNOZ		Unspecified	Unassigned	Perma
000004L5	Offsite Vault [000201]		CNOZ		Unspecified	Unassigned	Perma
000005L5	Offsite Vault [000300]		CNO		Unspecified	Unassigned	Perma
000006L5	Library		CEnN		Unspecified	Unassigned	Perma

Physical slotting show which rack, shelf and slot.

The screenshot shows the same software interface as above, but the 'Current Location' column now displays specific rack and slot information: 'Rack_01 [1.1]', 'Rack_01 [10.10]', 'Rack_02 [1.1]', 'Rack_03 [1.1]', 'Rack_03 [10.10]', and 'Library'. The other columns remain the same as in the previous screenshot.

ID	Current Location	Target Location	Flags	Move Time	Due in	Container	Next M
000001L5	Rack_01 [1.1]		CNOZ		Unspecified	Unassigned	Perma
000002L5	Rack_01 [10.10]		CGNOZ		Unspecified	Unassigned	Perma
000003L5	Rack_02 [1.1]		CNOZ		Unspecified	Unassigned	Perma
000004L5	Rack_03 [1.1]		CNOZ		Unspecified	Unassigned	Perma
000005L5	Rack_03 [10.10]		CNO		Unspecified	Unassigned	Perma
000006L5	Library		CEnN		Unspecified	Unassigned	Perma

Racks And Slots Assigned To Multiple Customers

If the first 50 slots in storage rack 1 were assigned to customer AAAA, and the rest of the racking, 250 slots, assigned to customer BBBB. For Customer AAAA

- Slot 1 would be the first slot in Rack_01
- Slot 50 would be the 50th slot in Rack_01

Assigning AAAA LTO volumes to slots

- volume AAAA.LTO.000001L5 to slot 1
- volume AAAA.LTO.000002L5 to slot 50

Virtual slotting shows virtual slot numbers.

ID	Current Location	Target Location	Flags	Move Time	Due in	Container	Next Move
000001L5	Offsite Vault [000001]		CNO		Unspecified	Unassigned	Permanent
000002L5	Offsite Vault [000050]		CGNO		Unspecified	Unassigned	Permanent
000003L5	Library		CnN		Unspecified	Unassigned	Permanent
000004L5	Library		CnN		Unspecified	Unassigned	Permanent
000005L5	Library		CnN		Unspecified	Unassigned	Permanent
000006L5	Library		CEnN		Unspecified	Unassigned	Permanent

Physical slotting show which rack, shelf and slot.

ID	Current Location	Target Location	Flags	Move Time	Due in	Container	Next Move
000001L5	Rack_01 [1.1]		CNO		Unspecified	Unassigned	Permanent
000002L5	Rack_01 [5.10]		CGNO		Unspecified	Unassigned	Permanent
000003L5	Library		CnN		Unspecified	Unassigned	Permanent
000004L5	Library		CnN		Unspecified	Unassigned	Permanent
000005L5	Library		CnN		Unspecified	Unassigned	Permanent
000006L5	Library		CEnN		Unspecified	Unassigned	Permanent

For Customer BBBB

- Slot 1 would be the 51st slot in Rack_01
- Slot 50 would be the 100th slot in Rack_01
- Slot 51 would be the 1st slot in Rack_02
- Slot 151 would be the 1st slot in Rack_03
- Slot 250 would be the 100th slot in Rack_03

Assigning BBBB LTO volumes to slots

- volume BBBB.LTO.000001L5 to slot 1
- volume BBBB.LTO.000002L5 to slot 50
- volume BBBB.LTO.000003L5 to slot 250

Virtual slotting shows virtual slot numbers.

ID	Current Location	Target Location	Flags	Move Time	Due in	Container	Next Move
000001L5	Offsite Vault [000001]		CNO		Unspecified	Unassigned	Perma
000002L5	Offsite Vault [000050]		CGNO		Unspecified	Unassigned	Perma
000003L5	Offsite Vault [000250]		CNO		Unspecified	Unassigned	Perma
000004L5	Library		CnN		Unspecified	Unassigned	Perma
000005L5	Library		CnN		Unspecified	Unassigned	Perma
000006L5	Library		CEnN		Unspecified	Unassigned	Perma

Physical slotting show which rack, shelf and slot.

ID	Current Location	Target Location	Flags	Move Time	Due in	Container	Next Move
000001L5	Rack_01 [6.1]		CNO		Unspecified	Unassigned	Permanent
000002L5	Rack_01 [10.10]		CGNO		Unspecified	Unassigned	Permanent
000003L5	Rack_03 [10.10]		CNO		Unspecified	Unassigned	Permanent
000004L5	Library		CnN		Unspecified	Unassigned	Permanent
000005L5	Library		CnN		Unspecified	Unassigned	Permanent
000006L5	Library		CEnN		Unspecified	Unassigned	Permanent

While the physical slot location does not change, virtual slotting is determined by where the slotting allocation for each repository starts and finishes with the zones and racks. As you can see in the above example a zone can be assigned to two, or more, customers and each customer has a virtual slot 1 but the physical slot locations are a unique location.

From: <https://rtfm.tapetrack.com/> - **TapeTrack Documentation**

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