Qualstar RLS-8350/8500 Series

SCSI behavior differences from RLS
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The Qualstar RLS-8350/85000 series libraries are designed to be very compatible with the older RLS series (RLS-81xx, RLS-82xx, and RLS-84xx). This document summarizes the differences in the SCSI interface command set.

The RLS-8350/8500 series use the tape drives' host interface to provide access to the medium changer device. The tape drives provide LUN 0 as an SSC type device to access the tape medium and LUN 1 as an SMC type device to access the medium changer. Each drive may provide access to the partition it is a member of (by default all drives are members of partition 1). Each drive slot may be configured to disable LUN1. Each partition returns a unique serial number (Inquiry command, Vital Product Data page 128).

Each tape drive slot may be configured to provide a Qualstar unique World Wide Port Name (WWPN) for its associated tape drive. This WWPN is based on the library serial number and any drive inserted into such a slot will be assigned that WWPN. By default, all drive slots are configured to use the WWPN provided by the tape drive's manufacturer.

The standard Inquiry data, Product ID field, returns "RLS-85   " .

The following commands are not supported:
    Log Sense
    Request Volume Element Address
    Rezero Unit
    Send Volume Tag
    Write Buffer

The Element and Third Party forms of the Reserve and Release commands are not supported.

The "LCD" (page 34) and "External Data" (page 62) mode pages are not supported.

The "Element Address Assignment" (page 29) mode page is not savable. The starting element addresses are 1001 (Data Transfer), 2001 (Import/Export), 3001 (Storage), and 4001 (Medium Transport). The maximum numbers of elements are 22 (Data Transfer), 32 (Import/Export), and 480 (Storage). There is always 1 Medium Transport element.

The Mode Select command is used only with the Qualstar vendor unique Named Value mode page (page 60). Since there are no changeable or savable mode pages, the SP bit of the Mode Select command must be clear.

The "DVCID" feature of the Read Element Status command is supported. Data Transfer elements return Code Set 2 (ASCII), Identifier Type 1 (T10 Vendor ID). This device identifier is

identical to the identifier provided by the tape drive on its Vital Product Data page 131. The Read Element Status command continues to support the older Qualstar drive serial number data on Data Transfer elements (this is returned when DVCID is clear) and is identical to the serial number provided by the tape drive on its Vital Product Data page 128.

When a magazine is unlocked, commands which require device readiness return Check Condition - Not Ready – Logical Unit Not Ready, Manual Intervention Required (Key 2, ASC 4, ASCQ 3).

When an I/O Port is unlatched, the ready state depends on a configuration value (Configuration\Library\I/O Port\Ready While Open). When the Ready While Open value is NO (the default value), commands that require device readiness return Check Condition – Not Ready – I/O Port Open (Key 2, ASC 4, ASCQ 82_h). When the Ready While Open value is YES, the library remains ready, however the I/O Port elements' status (as returned by the Read Element Status command) is ! ACCESS. When the I/O Port is closed, the individual elements transition to ACCESS as they are inventory scanned.