



STAR Library Manager 2R3 Release Announcement

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Formula Consultants Inc.

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STAR Library Manager, LIBMGR, is a proprietary product of Formula Consultants Incorporated. Library Manager is licensed for use in computer centers using Unisys OS 2200 and it enables those systems to use the resources of a virtual tape library (VTL).

The System for Tape Administration and Reporting, STAR-1100, is a proprietary product of Formula Consultants Incorporated. STAR-1100 satisfies the magnetic tape library management requirements of, and is licensed for use on, computer centers using Unisys OS 2200.

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Software Version: 2R3

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General

Formula Consultants Incorporated is pleased to announce that Level 2R3 of STAR Library Manager is now available for distribution. STAR Library Manager is FCI's library control software for the Dynamic Solutions International (DSI) virtual and physical tape libraries within the Unisys OS 2200 environment.

The STAR Library Manager level 2R3 product release can be obtained via the FCI Support Center.

Product Overview

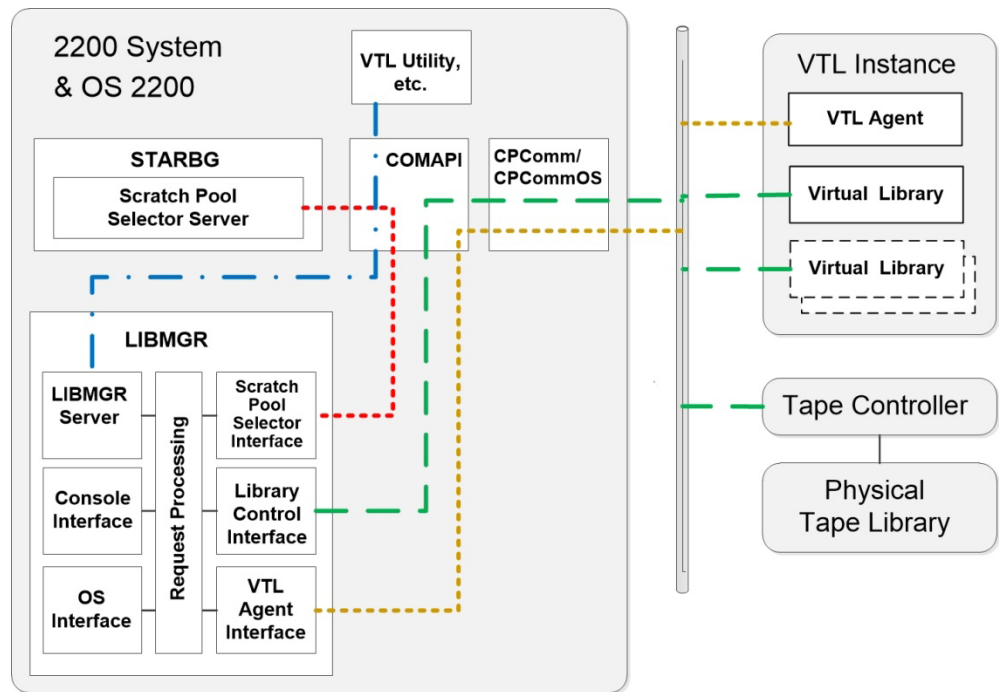


Figure 1. Overview of LIBMGR Components

STAR Library Manager (LIBMGR) is software that enables OS 2200 to use the tape automation services of DSI tape libraries, including the family of virtual tape libraries (VTLs) and the DSI Physical LTO Library (PTL).

The LIBMGR program executes in a batch background run.

LIBMGR registers with Unisys' CARTTAPELIB\$ service to be informed of tape requests which may be candidates for fulfillment in an external library. LIBMGR determines which of these should be fulfilled on DSI libraries and translates them into appropriate command sequences. LIBMGR passes tape

requests to the libraries via COMAPI, on a network controlled by CPcomm or CPCCommOS. The CARTTAPELIB\$ interface allows OS 2200 to communicate with up to four copies of LIBMGR, each using a different installation mode, from A through D. Each installation is independent and has its own background run.

Library Manager requires the prior installation of STAR-1100. LIBMGR is closely integrated with STAR, and uses the STAR Scratch Pool Selector Server to obtain volume ids for scratch mounts. Users can request scratch mounts from named scratch pools. Through its integration with LIBMGR, STAR-1100 extends protection to tape volumes in the DSI external libraries.

The Library Manager product includes library support programs. The VTL Report and PTL Report programs produce reports of the volumes in the VTL and PTL respectively. The VTL Utility program supports movement of virtual volumes between the VTL, the VTL vault, and a physical stack tape volume. The OS 2200 System Unstack program allows the restoration of a virtual volume from a stack tape volume without using the VTL. The ENCODECONFIG program creates configuration statements containing encrypted credentials.

The Library Manager is released in absolute (zoom) form only, along with standard runstreams.

Deployment Options

The DSI products are deployed in "instances," where an instance can contain multiple libraries. A "VTL instance" here is either a VTL or a PTL (via its tape controller.) FCI licenses Library Manager based on the number of VTL instances connected to an installation of Library Manager. An installation of LIBMGR can support up to four (4) VTL instances and up to a maximum of 16 libraries, configured in any combination among the VTL instances.

OS 2200 partitions which are hosted on physical 2200 platforms typically connect with DSI virtual libraries hosted on hardware platforms. Or, LIBMGR on a physical 2200 partition can connect to a DSI Physical Tape Library (PTL).

Library Manager and STAR-1100 can also be accessed from the application stack within the ClearPath OS 2200 Software Series. In this setting, LIBMGR connects with the DSI Restore product, which can be deployed on the OS 2200 Software Series.

Contact FCI if you have any questions about how to deploy your Library Manager Software.

Release Description

Stability and Enhancement Release

STAR Library Manager 2R3 is a stability and enhancement release.

New Features

TCP/IP IPv6 Support

Library Manager now supports communications using TCP/IP IPv6.

This includes the following communications paths:

- communications between LIBMGR and the STAR Scratch Pool Selector Server,
- communications between LIBMGR and the VTL, and
- communications between LIBMGR and the VTL Agent.

DNS lookup for IPv6 addresses is also supported.

Product Enhancements

Core Functions

Remote (View-Only) VTL Information Access

A VTL can replicate volumes to a remote VTL. The COPY command in the VTL Utility also can create volume copies in a remote VTL.

Library Manager cannot mount or dismount volumes in a remote VTL. However, operators and administrators of local systems can benefit from information about volumes in remote VTLs.

Library Manager 2R3 introduces the capability to query remote VTLs and return information. To support accessing information in a remote VTL,

LIBMGR 2R3 implements the pseudo drive. Drives with a name of \$ are pseudo drives. Configuring a pseudo drive(s) defines a pseudo VTL or PTL, which can be queried for information by LibManager programs. These resources are identified as [VIEW-ONLY] in the Library Manager suite of programs.

Pseudo drives cannot be used for mounting or dismounting tapes. A volume in a remote VTL cannot be moved to a vault and a volume associated with a pseudo PTL cannot be ejected.

Operator and administrators can reference View-only volumes, libraries and VTLs in console commands and utility programs in the same manner as they reference local volumes, libraries and VTLs. View-only volumes also appear in Volume Reports and in responses to informational commands.

prog_Agent_Init_Fail, prog_Comm_Init_Fail and prog_Lib_Init_Fail

The INIT_FAIL configuration statements specify action to take when a component required for LibManager program operation cannot be initialized.

In Library Manager 2R3, the parameter fields are not changed but the times are now specified in minutes. The minimum wait time is 2 minutes. There is no maximum wait time.

PTLReport_Agent_Init_Fail

PTL Report uses the VTL Agent to retrieve volume information from PTLs attached to a local VTL. PTL report now accepts an Agent_Init_Fail configuration statement to specify the action if that initialization cannot be completed.

Console Commands

The STATUS DETAIL command precedes the count of the active connections with "ALL" if the number represents every expected connection.

Utility Functions

PTL Report by Volume Location

The PTL Report has been enhanced to generate a report showing volumes within the PTL in storage location order.

It is initiated by using the V options or condition word **x2xx**.

Reporting on Volumes in PTLs Attached to a VTL


The PTL (Physical Tape Library) can be attached directly to an OS 2200 system, or to a VTL (Virtual Tape Library) appliance.

Previous levels of Library Manager supported PTL volume reporting only where the PTL was attached to the OS 2200 hardware.

With Library Manager 2R3, you can also generate a PTL volume Report for a PTL attached to a VTL appliance.

Use the A option or condition word **x1xx**.

Volumes in PTLs attached to VTLs use the VTL name as the library name.

 **Note** *When you run the PTL Report for a PTL attached to a VTL, the volumes in that attached PTL will not be updated in the TIF with the U option.*

Improved Diagnostic Capability

Accounting for Differences in System Time

The difference in system time between the VTL and the 2200 system is computed, displayed and saved. This can reduce uncertainty when examining traces and other diagnostic sources.

Identifying the Userid in Traces of KEYIN Functions

For traces of keyin functions, the userid for the keyin is now included in the trace.

Making it Easier to Analyze the Dump Stack

In the event of an abnormal termination or LIBMGR, FCI uses the activity local stack as an important diagnostic tool.

With Library Manager 2R3, the shortened name of significant LIBMGR functions is written in the first two words of its stack frame. This makes it easier to “walkback” the stack frame with the executing function.

Discontinued Functions

RSS Support Discontinued

The use of RSS to exchange information with FCI has been discontinued.

The RSS ECL and setup elements have been removed from the LIBMGR installation files.

VTL_PAIR Capability Discontinued

In previous levels of Library Manager, “VTL_PAIR” was used in place of “VTL” to designate architecturally related pairs of VTLs. LibMgr 2R3 queries

the VTL Agent to make this determination. The configuration term VTL_PAIR will still be accepted but the actual designation will be made internally.

STAR Library Manager Notes Of Interest

None.

Restrictions and Limitations

Library control programs, such as Library Manager, use the OS 2200 facility CARTTAPELIB to differentiate mount/dismount requests intended for the libraries they control. The EXEC supports a maximum number of four (4) concurrent library control programs interfacing with CARTTAPELIB\$. Therefore, each instance of OS 2200 can support up to four (4) installations of Library Manager.

Compatibility

Release 2R3 is generated under CP OS-2200 20.

Library Manager 2R3 requires STAR-1100 Level 8R2 or higher.

Migration

If you have previously generated STAR Library Manager 1R3 with a COMAPILIB Build parameter pointing to other than the Mode A ComAPI installation file of SY\$LIB\$*COMAPI\$LIB, then you will be required to update your configuration element to add the new parameter of COMAPI_MODE.

The rest of the STAR Library Manager release 2R3 will function correctly using a release 1R3 configuration. The configuration must be updated if you wish to access features introduced in release 2R3.



Warning: *If you use an installation mode of ComAPI other than Mode A (the default), the Library Manager configuration must be updated with an explicit COMAPI_MODE statement. Otherwise, Library Manager will fail to connect with the VTL.*

Previous Level Support

Prior levels of STAR Library Manager currently supported include 2R2.
FCI will support STAR Library Manager level 2R2 until June, 2025.

Documentation

Documents provided with release 2R3 include:

- *Library Manager 2R3 Release Announcement*
- *STAR Library Manager 2R3 Installation and Administrator Guide, FP-161-2R3*
- *Library Manager 2R3 Quick Start Notes*
- *OS 2200 Release Tape Recreation Instructions*

FCI Website

You may obtain general information about Formula Consultants, Inc. and its products at our website at www.formula.com. Once you register with the site and receive a userid and password, you can also download Notes of Interest. Product Software Release DVD and Software Object Module Updates and documentation in PDF format is also available (Adobe Acrobat Reader required).

OS 2200 EXEC Considerations

Unisys maintains OS 2200 EXEC Problem List Entries (PLEs) for Unisys maintains Problem List Entries (PLEs) to report problems and corrections to its products. You should review the following PLEs to see if any are appropriate for your build.

PLE #	Needed for
18925532	Prevent COMAPI level 8R1 and lower from causing LibManager to abort.

Corrections

Updates and corrections to STAR Library Manager 2R3 are obtained from the FCI Support Web Site. These are object module updates that are included in the COMUS build.

Ordering Instructions

To order your site's copy of STAR Library Manager 2R3, contact a sales representative at Formula Consultants Inc., at 714-778-0123

or complete the attached Product Order Form and fax it to 714-778-6364, or mail your order to:

Formula Consultants Incorporated

P.O. Box 544

Anaheim, CA 92815

Attn: Product Sales

or Order STAR Library Manager 2R3 electronically by addressing your e-mail to:

sales@formula.com

or Order STAR Library Manager 2R3 through the Formula Consultants website at:

www.formula.com

Product Order Form

PRODUCT: STAR LIBRARY MANAGER Level 2R3

CUSTOMER: _____

DELIVERY ADDRESS: _____

CITY,, STATE: _____

ZIP CODE: _____

CONTACT: _____

TELEPHONE NUMBER: _____

LAST STAR LIBRARY MANAGER LEVEL RECEIVED: _____

General Releases

The OS 2200 Software for STAR Library Manager is available electronically on DVD and can be downloaded from the FCI support web site.

The software is formatted in a Unisys OS 2200 DVD tape image. You can access the DVD as a simulated tape, or use it to recreate the release tape. Those options are explained, in more detail, in the OS 2200 Release Tape Recreation Instructions.

Media for General Release

FCI offers the following options for receiving the general release of STAR Library Manager 2R3:

- Support Website Download
- DVD

Media for Corrections

FCI offers the following options for receiving corrections to STAR Library Manager 2R3.

- Support Website download
- Email