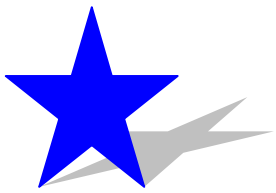
STAR-1100

SYSTEM FOR TAPE ADMINISTRATION AND REPORTING

STAR-1100 Level 7R3
Release Announcement
Software Version: 7R3



December 2006

Formula Consultants Inc.

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Software Version: 7R3

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STAR-1100 Level 7R3 Release Announcement

General

Formula Consultants is pleased to announce that Level 7R3 of our System for Tape Administration and Reporting (STAR-1100) is now available for limited distribution. As a normal FCI policy, this release will be provided at no additional cost to all STAR-1100 users with current maintenance contracts, as well as users still within the initial warranty period.

Release Description

Feature and Enhancement Release

STAR-1100 level 7R3 is a feature and enhancement release.

New Features

STAR Virtual Tape Recognition and Processing

The STAR-1100 level 7R3 Product has been enhanced to recognize three (3) different virtual tape solutions. The three virtual solutions are: Unisys Virtual Tape Handler (VTH), StorageTek Virtual Storage Manager (VSM) and Bus-Tech Mainframe Appliance for Storage (MAS). The STAR scratch process has been updated to identify and perform the correct scratch processing for each of these solutions.

STAR Conversion Utilities

The STAR-1100 level 7R3 product now includes conversion utilities to help sites convert from TMS-2200 to STAR-1100. These utilities are optionally installed.

Installation of STAR-1100 interfaces

The STAR-1100 level 7R3 product now installs some of the required relocatables and objects into the secondary installation file (SYSLIB*STAR-2). These can be used by other products, such as Biller-1100.

Product Enhancements

New Product Installation Modes

The STAR-1100 product now has six possible installation modes (see table below). Installation mode A is still the standard generated default installation mode. The default installation mode can now be configured with the new STAR generation parameter DEFINSMODE. The CONVERT Installation mode is optional and is available for sites converting from the TMS-2200 product to STAR-1100.

Mode	Run IVP Process	Install Parameter File	Comments
A	Yes	No	Default mode.
B	No	No	Useful for first time install in security environment to enable site to set STAR subsystem security.
C	Yes	Yes	Parameter file is installed so that it will be saved on LIBSAVE tapes. Old parameter elements are copied forward to new parameter file cycle. STAR IVP process is run.
D	No	Yes	Useful for first time install in security environment to enable site to set STAR subsystem security.
UTILITIES	N/A	N/A	Installs the STAR-1100 Utilities Subsystem
CONVERT	N/A	N/A	Installs the STAR-1100 Conversion Utilities to convert from TMS-2200

New Physical Media Recognition and Reporting

All programs and processors have been updated to recognize and report the different cartridge media types HIS9840C, HIS9940B, LTO1, LTO2, LTO3, LTO4 and DVDTP. The newer media types will be reported with DENCOD values of CC, CB, L1, L2, L3, L4 and DV respectively. The RPTDEF generation and runtime parameters will also enable report page-breaking on the new density types. The following table reflects the new values:

RPTDEF	DENCOD	Media Type
E	CC	HIS9840C
B	CB	HIS9940B
L	CD	DLT7000 Cartridge
T	DV	DVD
N	L1	LTO1
O	L2	LTO2
P	L3	LTO3
Q	L4	LTO4
A	CS	HIS9840 (A/B) Cartridge
D	CM	36-Track Cartridge
C	C	18-Track Cartridge
S	9S	9-track 6250 BPI tape
V	9V	9-track 1600 BPI Tape
	9H	9-track 800 BPI
U	7H	7-track
U	7M	7-track

New Virtual Media Recognition and Reporting

All programs and processors have been updated to recognize and report the different virtual media types for the Unisys Virtual Tape Handler, StorageTek Virtual Storage Manager and the Bus-Tech Mainframe Appliance for Storage. The new virtual media types will be reported with DENCOD values of VT, VV and VM respectively. The RPTDEF generation and runtime parameters will also enable report page-breaking on the new density types. The following table reflects the new values:

RPTDEF	DENCOD	Media Type
H	VT	Unisys Virtual Tape Handler
F	VV	StorageTek Virtual Storage Manager
G	VM	Bus-Tech Mainframe Appliance for Storage

New Scratch and Clean Parameters

Scratch and Clean parameters for enhanced processing

The STAR-1100 Scratch and Clean Process has been enhanced to allow the identification of virtual tape types and the additional special processing that is associated with each virtual tape type. The Scratch and Clean process has also been enhanced to provide automated TMS-2200 expiration code conversion and reporting as well as the new option to expire tapes on the last day of the expiration period instead of on the day after the end of the expiration period. The new Scratch and Clean parameters are:

RANGE=volume-volume,POOL=ctl_pool_name,VSM=YES

RANGE=volume-volume,MAS=YES

The range parameter is used to identify the VSM and MAS virtual media types. The range parameter can be specified with or without a pool identifier.

VTHAUTOADD={NO,YES}

The VTHAUTOADD parameter determines if the VIPER utility will be automatically executed immediately after the execution of Scratch and Clean to add the scratched VTH tapes back into the EXEC's VTH scratch pool.

VTHDELOLD={NO,YES}

The VTHDELOLD parameter determines if the old VTH volume container files will be deleted when the volume scratches. The old VTH container file must be deleted for the EXEC to use the volume on a mount blank request.

VTHREPORT={NO,YES}

The VTHREPORT parameter determines if VTH volumes will be reported in their own report section when they scratch.

MASAUTOADD={NO,YES}

The MASAUTOLADD parameter determines if the STARMASUTIL scratch synchronization utility will be executed immediately after the execution of Scratch and Clean to add the scratched MAS virtual volumes back into the MAS virtual tape pool.

MASDELETE={NO,YES}

The MASDELETE parameter determines if the MAS virtual volume should be deleted when a MAS virtual volume expires.

MASERASE={NO,YES}

The MASERASE parameter determines if the MAS virtual volumes should be erased when a MAS virtual volume expires.

MASREPORT={NO,YES}

The MASREPORT parameter determines if MAS virtual volumes will be reported in their own report section when they scratch.

TMSCONVERT={NO,YES}

The TMSCONVERT parameter determines if the Scratch and Clean process should automatically convert any old TMS-2200 specific expiration codes to STAR-1100 expiration codes.

TMSREPORT={NO,YES}

The TMSREPORT parameter determines if TMS-2200 Conversion messages will be reported.

EXPIREONDAY={NO,YES}

The EXPIREONDAY parameter determines if a volume will scratch on the day of its expiration date or the day after. STAR-1100 has traditionally considered the expiration date as the day a volume is good through, meaning that the day of expiration the tape is still valid. By specifying YES on this statement, any given volume will expire on the day of the expiration date.

Vault Management Subsystem Enhancements

VMS support for file name masking

VMS has been enhanced to allow the masking of part of or all of the filename on the QFN vault statement. An asterisk (*) wild card character may be used to terminate the file name, in order to select any file name that matches before reaching the asterisk (*).

VMS exclusion of virtual tapes and new VMS parameter

VMS has been enhanced to exclude all virtual tapes from VMS processing by default. The new parameter VIRTUAL=YES will override the VMS default and allow virtual tapes to be processed by VMS.

New STARINFO Utility

STAR-1100 future support for software license keys

The STAR-1100 product has been enhanced to provide the STARINFO utility which will be used to obtain a software license key that will be required in future levels of STAR-1100.

STAR-1100 Security Script Enhancements

Security Script Update and name Changes

The STAR-1100 Security Scripts have been updated and renamed to use the SECMGR. The security scripts are still usable with SIMAN, but will use SECMGR by default. Additionally the scripts for security option 1 and 2 (S1-2) have been separated into separate security scripts for each security option (S1 and S2). The primary difference of the security option 2 scripts is the references of compartment security.

Unlike the standard UNISYS security scripts in SYS$*RUN$, the STAR Security Option 1 and 2 scripts are in separate scripts with the names of S1 and S2, and the security option 3 scripts use a security option name of C2. The STAR-1100 security scripts are also like the UNISYS scripts in that they must be read and then updated to contain the correct security administrator userid. The scripts are named by the function, security option, and the amount of security provided:

```
function-secopt-amount/SECMGR-SCRIPT
```

where:

function	=	INS (install)
	=	UPD (update)
secopt	=	S1 (security option 1)
	=	S2 (security option 2)
	=	C2 (security option 3)
amount	=	MIN (minimum)
	=	MOD (moderate)
	=	MAX (maximum)

An additional script is provided with the name of RPT-STAR-SEC/SECMGR-SCRIPT will report the current security attributes.

Media Manager

You should contact Unisys to obtain the most recent EMU level of the MMGR, as well as the portion of PLE 15744081 applicable to your Exec level. Note that this PLE is continually updated to include any new Exec PCRs for the Exec interface to the MMGR.

STAR-1100 Notes Of Interest

STAR-1100 corrections described by Notes of Interest through number 135 are included in level 7R3.

Restrictions and Limitations

The non-flagging version of the ACOB compiler (Level 5 or above) is required to generate this release of STAR-1100.

The STAR background run, the SLS process, and any other STAR-1100 runs including LABELPRINT and LIBSYNCH must be terminated prior to installation of the STAR product or installation of the URTS product.

Compatibility

The STAR-1100 level 7R3 Release Tape must be registered and built with COMUS.

The STAR-1100 level 7R3 Generation requires the DBANK generation parameter to be set to at least 0140000.

The STAR-1100 level 7R3 COMUS Build process will no longer prompt for the CMSLIB filename. The SLS and SERVER process will default to the mode A CMS, but can be changed using the SET SLS COMM and SET SERVCOMM parameter statements. If your site previously used the mode TEST CMS library, you must put a SET SLSCOMM CMSTEST statement in the BGRPARM parameter element.

Release 7R3 is generated under CP OS 2200 10.1 and tested under CP OS 2200 11.1 configured with Security Option 1 and Security Option 2. It has also been previously tested with C2 security.

STAR-1100 Level 7R3 SLS is completely compatible with STAR-1100 level 7R2 SLS.

STAR-1100 Level 7R3 SLS is downwardly compatible with STAR-1100 level 7R1 and 7R1A SLS peers using DNS protocol and CMS only. In order to use SLS IP specification, all peers must be upgraded to STAR level 7R3.

STAR-1100 level 7R3 requires a new format for the SLS control file. The 7R3 SLS control file is not compatible with 7R1 processors, and the 7R1 SLS control file is not compatible with the 7R3 common bank. The SLS control file will be saved, verified, and converted during the Installation Verification Process (IVP).

Migration

The migration to STAR level 7R3 is performed automatically as part of the installation verification process and the first execution of the SANDCRUN. It is strongly suggested that when migrating from STAR level 7R1 or 7R1A, that STAR level 7R3 is initially installed with Mode A or C to ensure proper migrations.

Solar Installation and the IVP Process

When two of the new installation modes (C, D) are used, the STAR-1100 installation will copy the previous parameter file to the new parameter file that will be part of the LIBSAVE tape. When this occurs, the following message will appear:

```
COPYING OLD STAR PARAMETER FILE TO NEW PARAMETER FILE
```

When SLS is configured and Installation mode A or C is used, the following messages will appear:

```
SAVING SLS CONTROL FILE TO SYS$*OLDSLSCRL.
VERIFYING SLS CONTROL FILE FOR CONVERSION.
```

When the IVP process detects that a version 0 SLS control file exists, it converts it to version 1 and produces the following message:

```
** SYS$*SLSCRL CONVERTED TO VERSION 1 FORMAT **
```

The STAR Installation and IVP process will also convert the number of peers in the SLS control file when the SLS$MACID generation parameter is changed to increase or decrease the number of peers.

TIF

The First execution of the SANDCRUN on a host will cause the TIF to be analyzed and verified. If any obsolete or old TRTCH values for 18-track tapes or inconsistent settings exist between the TRTCH and FEATURES cells, the TIF will be updated. During this execution there may be many messages in the Scratch and Clean Error and Diagnostic report. The messages that may appear are:

```
OLD 18TRK TRTCH FOR CARTRIDGE, CORRECT TRTCH
DCONLZ1 CLEAR FOR DLT CARTRIDGE, SET DCONLZ1
*WARNING* MULTIPLE COMPRESSION FLAGS SET
DLTCART CLEAR FOR CARTRIDGE, SET DLTCART
HISCART CLEAR FOR CARTRIDGE, SET HISCART
WRONG DENCOD FOR HISCART, CHANGED DENCOD
MULTIPLE CART FLAGS SET, CLEAR HINCART
HIS99CART CLEAR FOR CARTRIDGE, SET HIS99CART
WRONG DENCOD FOR HIS99CART, CHANGED DENCOD
HIS98CCART CLEAR FOR CARTRIDGE, SET HIS98CCART
WRONG DENCOD FOR HIS98CCART, CHANGED DENCOD
HAD TMS-1100 EXPIRATION , CONVERTED TO STAR
VIRTUAL CLEAR, SET VIRTUAL AND VSM MSTYPE
VIRTUAL CLEAR, SET VIRTUAL AND MAS MSTYPE
VTHTAPE CLEAR, SET VTHTAPE PER RANGE
```

TIFMAP MAPPER Interface

If your site uses the STAR TIFMAP MAPPER interface, you must RETRIEVE the new TIFMAP-L MAPPER run from SYSLIB*STAR-2 into MAPPER. Please review TIFMAP Installation procedure in Section 5 of the *STAR-1100 Installation Guide*, FP-102.

STAR QLP Interface

If your site uses the STAR QLP Interface, you must run TIFSDFRUN to create a new TIFSDF file and use the new STAR-1100 schema that is installed. By using both the new TIFSDF and STAR-1100 schema, any field definition mismatches will be avoided for fields that have been added.

Migration and Fallback for 7R1/7R1A SLS Sites

SLS Control File Considerations

The size and format of the SLS control file has been changed and increased to support the specification of IP addresses. The SLS control file can be converted to and from the old format using the SLSINT processor. The V option converts it forward a version if needed, and the C option will convert

it backward to version 0 (7R1, 7R1A). The V option is used with the STAR Installation Verification Process.

```
** SYS$*SLSCRL CONVERTED TO VERSION 1 FORMAT **
** SYS$*SLSCRL CONVERTED TO VERSION 0 FORMAT **
```

SLS Communications

The migration of SLS communications from DNS protocol to TP0 protocol using IP specification and the migration to CPComm has to be performed in a specific order in accordance with the rules and requirements below.

Rules, Requirements, and Restrictions

1. In order to use CPComm on any one peer, STAR level 7R3 must be installed on all peers, and all peers must be converted to IP specification.
2. In order to use IP specification on any peer pair, STAR level 7R3 must be installed on both peers in the peer pair.
3. In order to use IP specification, the SLS TSAM process name and T-Selector must be the same on all peers.

Suggested Migration Sequence

1. Install STAR level 7R3 on a single peer and continue use of DNS protocol until satisfied with base product.
2. Install STAR level 7R3 on second peer and continue use of DNS protocol until satisfied with base product.
3. Down the SLS process and use SLSINT on the first two 7R3 peers and update the opposite peer id using the UP2 command to specify its IP addresses. Then UP the SLS process on the peer pair. Continue this configuration until satisfied. To revert back, use SLSINT and update the peers clearing the IP address.
4. Continue Steps 2 and 3 one peer at a time, until all peers are installed with STAR level 7R3 and all are using IP specification.
5. Switch any peers to use CPComm by following the Switching SLS Communications Sequence below.

Switching SLS Communications Sequence

<u>On the machine you want to switch:</u>

1. Down the SLS process
2. Issue "*STAR SET SLSCOMM product-mode" command where product-mode is (CPCOMMA, CPCOMMB, CPCOMMC, CPCOMMD, CMSA, or CMSTEST).
3. Up the SLS process.

<u>On the other peers:</u>

4. Down the SLS process.
5. Use the SLSINT UP2 command to update the IP address to reflect the product specified above
6. Up the SLS process

Fallback Procedure for 7R1/7R1A SLS sites

Should it be required to fallback to STAR level 7R1 or 7R1A, the SLS control file must be converted back to format 0. The following procedure should be used to convert backwards.

1. Terminate the STAR background run.
2. @SYSLIB*STAR.SLSINT,AC
3. Install or LIBLOAD STAR level, 7R1/7R1A
4. Start STARBGRUN

Please note that the second step must be performed while STAR level 7R3 is installed.

As a secondary and/or backup fallback procedure, the STAR 7R3 Installation Verification Process always catalogues a plus one of SYS$*OLDSLSCRL and copies the current SLS control file to it before attempting to convert it to format 1. The following procedure can be used as a secondary method by using a saved older version of the SLS control file and re-initializing it to point to the current audit cycles.

1. ST MMITLRUN
2. Terminate the STAR background run after SLS is up to date.
3. Install or LIBLOAD STAR level, 7R1/7R1A
4. Copy SYS$*OLDSLSCRL(1) to SYS$*SLSCRL
5. @SYSLIB*STAR.SLSINT,A then enter INIT command.
6. Start STARBGRUN

Previous Level Support

Prior levels of STAR-1100 currently supported include 7R2. STAR-1100 level 7R2 will be supported through December 1, 2007.

Documentation

Documents provided with release 7R3 include:

- *STAR-1100 Installation Guide*, FP-102-R12
- *STAR-1100 Shared Library Subsystem User Guide*, FP-098-R6
- *STAR-1100 Programmer's Guide*, FP-104-R10
- *STAR-1100 Operations Guide*, FP-103-R12
- *STAR-1100 Expert Library Manager Subsystem User Guide*, FP-166-R1
- *STAR-1100 Utilities Subsystem User Guide*, FP-167-R2
- *STAR-1100 Conversion Utilities User Guide*, FP-168
- *STAR-1100 Virtual Tape Implementation Guide*, FP-169

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 PCRs and Notes of Interest. Product documentation in PDF format is also available (Adobe Acrobat™ Reader required).

FCI Support Center

Effective with the release of STAR-1100 7R1, the FCI Support Center (FCISC) is available for use. The FCISC is a 2200 host server software system that is accessible by using the standard UNISYS Remote Site Support (RSS) product. It allows you to send and receive data electronically to and from FCI. Refer to the *STAR-1100 Installation Guide* for more information.

Ordering Instructions

To order your site's copy of STAR-1100 Level 7R3, please 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 Support

Corrections

Corrections integrated with this release of STAR-1100 are contained in the COMUS change file, which is file 14 of the release tape.

File 18 of your release tape contains PCRs, if any, that have been generated against this release, as of the date your tape was created. Include any of these corrections applicable to your site with the first build from this tape. The PCRs are organized by STAR-1100 subsystem and processor type (basic mode or UCS) in elements that can be @ADDed following an @COMUS to enter the corrections into your local COMUS database. You should examine the file to determine the elements that should be added to your build.

The elements README, CHGNUM-ss/version, CHGNUM-ALL, STAR-NOIS, CSC-EMUS, and MMGR-EMUS are informational only and should not be @ADDed to your COMUS database.

The possible elements in File 18 are:

README	explanation and cutoff date/time
ADD/SGS	changes for the 'additional SGS' build prompt
ALS/*version*	Automated Library Subsystem
BASE/*version*	changes not associated with a subsystem
EXLM/*version*	Expert Library Manager Subsystem
LAB/*version*	Label Printing Subsystem
QLP/*version*	QLP Subsystem
SLS/*version*	Shared Library Subsystem
VMS/*version*	Vault Management Subsystem
UTL/*version*	Star-1100 Utilities Subsystem
CHGNUM-*ss/version*	list of change numbers by subsystem and version
CHGNUM-ALL	list of all change numbers

RELATED	compatibility related corrections
STAR-NOIS	all relevant Notes of Interest
MMGR-EMUS	all Media Manager EMU Release descriptions
CSC-EMUS	all CSC EMU Release descriptions

where:

version can be BASIC or UCS. The CHG numbers generated by COMUS must be entered at the "New Change number" build prompt. You can enter these numbers individually or @ADD the CHGNUM elements that apply to your build.

If you add UCS corrections, the UCOB and/or UC compilers must be installed. Another method of including UCS corrections is to copy updated object modules contained in this file. This is done by answering the build prompt, "Any replacement Object Modules to be included," and specifying the filename into which the modules were copied.

Beginning with STAR-1100 level 7R3, File 18 of your release tape also contains Notes of Interest in the element called STAR-NOIS. Notes of Interest are field bulletins which we recommend reading prior to generating or installing STAR. Also included are all Media Manager EMU Release descriptions in an element called MMGR-EMUS, and CSC EMU Release descriptions in an element called CSC-EMUS.

Product Order Form

PRODUCT: **STAR-1100 7R3**

CUSTOMER: _____

DELIVERY ADDRESS: _____

_____

CITY, STATE: _____

ZIP CODE: _____

CONTACT: _____

TELEPHONE NUMBER: _____

LAST STAR-1100 LEVEL RECEIVED: _____

General Releases

MEDIA - All tapes will be unlabeled.

Standard Media

☐ 18-track cartridge ☐ 36-track cartridge ☐ DVD

☐ Electronic via RSS and the FCI Support Center

Use SYSLIB*STAR-2.NEW-RELEASE/RSS-SCRIPT *to copy to local tape*.

Non-Standard Media

STAR-1100 can also be delivered on non-standard media (such as a 9840 A/B cartridge) supplied to FCI by the customer, provided FCI has compatible equipment. Please contact FCI to confirm such non-standard availability.

Corrections

Please indicate the media FCI should use when sending your site minor corrections. Indicating diskette will mean you have the capability of uploading ASCII files from a PC to the mainframe.

☐ Diskette ☐ CD ☐ E-mail

☐ Electronic via RSS and the FCI Support Center