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ICMS Tools User Guide



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Table of Contents

Preface	1
Installing the ICMS Tools	2
Environment Management	3
<i>What is an Environment?</i>	3
Database Portion	3
Software Portion	3
System Library List.....	4
Environment Definition.....	5
<i>Defining the Database portion of the Environments</i>	5
<i>Defining the Software portion of the Environments</i>	8
Journal Environment (“ENVJRN”).....	11
<i>Journaling Considerations</i>	11
<i>What the Journal Environment tool is used for</i>	11
<i>How to Use the Journal Environment tool</i>	12
Environment Selection Tool (“ENVSEL”).....	14
<i>What the Environment Selection tool is used for</i>	14
<i>How to Use the Environment Selection tool</i>	14
Backup Environment (“ENVSAV”).....	16
<i>What the Backup Environment tool is used for</i>	16
<i>Considerations when using the Backup Environment tool</i>	16
<i>How to Use the Backup Environment tool</i>	17
Restore Environment (“ENVRST”).....	19
<i>What the Restore Environment tool is used for</i>	19
<i>Considerations when using the Restore Environment tool</i>	19
<i>How to Use the Restore Environment tool</i>	20
Feedback Notes	24
Update Request Form.....	25

Preface

The ICMS Tools were developed by the CC&B implementation technical support team to automate some of the implementation tasks they perform on project sites. The tools are designed to automate certain aspects of the ICMS database administration.

This document provides an overview and a guide to the operation of the technical tools. The document details the steps that must be performed to correctly install the ICMS Tools library and the instructions on how to use each tool.

Installing the ICMS Tools

The ICMS technical tools are in a library called ICMSTOOLS. In order to use the tools, you must have a copy of ICMSTOOLS loaded on your AS/400.

All the objects in ICMSTOOLS library are owned by the ICMS user profile. To avoid problems with authorities on restoring the library, create the ICMS user profile before you restore the library. Failure to do so will result in all the restored ICMSTOOLS objects being owned by the QDFTOWN User ID, and public usage will be set to *EXCLUDE.

*Note that you need *SECADM authority on your user profile to create the ICMS User Profile. Also, it is recommended that the user profile which will be using these tools should have *ALLOBJ authority. If, for security reasons, this is not possible, then add the user profile in the authorization list with *ALL object authority.*

To create the ICMS user profile, enter the following command on the AS/400 command line:

```
CRTUSRPRF USRPRF(ICMS) TEXT('User Profile for ICMS Ownership')
STATUS(*DISABLED) PASSWORD(*NONE)
```

Once the ICMS user profile has been created, simply restore the library using the RSTLIB command. Ensure that you have the correct backup media required for the install. The following is an example of using the RSTLIB command with the backup media in device TAP01 and with the library being restored to ASP01:

```
RSTLIB SAVLIB(ICMSTOOLS) DEV(TAP01) ENDOPT(*LEAVE) MBROPT(*ALL)
RSTASP(01)
```

The ICMSTOOLS library can be restored under another library name, or renamed at any stage. Where this has been done, you need to change the data area for the tools' library. The data area TTOPTIONS contains the name of the library of the ICMS Tools. To enable the tools to work correctly when the library containing the tools is renamed, the content of TTOPTIONS data area should be updated to reflect the new library name.

Environment Management

ICMS Environments are used for all aspects of work done with in the ICMS application. In any typical installation of ICMS, there is a requirement for development environments, test environments, training environments and a production environment.

What is an Environment?

An environment in simple terms is the user portion of the library list a user is signed on to.

The user portion of an ICMS environment's library list is broken down into two portions, the database portion, and the software portion. The database portion determines the environment you are working in. The database portion will have all its files at a particular release level and the software portion matches the file level of the data portion.

Database Portion

- The database portion is made up of the following libraries:
 - **<eprefix>PRDA**
 - **<eprefix>PRDB**
 - **<eprefix>PRDC**
 - **<eprefix>PRDD**
 - **<eprefix>MISC**
 - **<eprefix>CALL**
 - **<eprefix>LOCL**
- The Environment Management tools make extensive use of <eprefix> to work with different environments. Most prompt screens require an environment prefix.

Software Portion

- The software portion of the user library list usually contains the following libraries.
 - **ICMSMODPTF** - Fixes to Site-Specific Modification programs
 - **ICMSMOD** - Site Specific Modifications to ICMS programs
 - **ICMSPTF51** - Fixes to base ICMS software (I5.1) programs
 - **ICMSSW51** - The base ICMS software (I5.1) as shipped by IBM
 - **ICMSTOOLS** – Tools to support ICMS operations
 - **QGPL**- The default AS/400 general purpose library
 - **QTEMP** - The AS/400 temporary library.

Environment Management (continuation)

System Library List

- In addition to the user library list, the system library list should also be setup for ICMS access, and under most circumstances, should not be change. The following is the minimum system library list required to run ICMS. These libraries are to be added to the existing system library list:
 - **ICMSSYS** – Contains ICMS (5.1) configuration objects
 - **XMUNLIC** – Only required if not using XM licensed software
 - **ICMSMNU51** – ICMS Menu library (5.1)

Environment Definition

Defining the Database portion of the Environments

For the majority of the ICMS Tools to function correctly, a record must exist in file ICMSTOOLS/NVMIDB. This file contains which environments exist, and attributes of each environment, such as the release level.

Updates to the file ICMSTOOLS/NVMIDB can be done using the NVMI40CLU program. Follow the instructions below, for details on how to update and maintain the NVMIDB file.

Step	Action
1	Add the ICMSTOOLS library to your library list. On the command line, enter <pre style="text-align: center;">ADDLIB LIB(ICMSTOOLS) ADDLIB LIB(ICMSSW51)</pre>
2	Enter CALL NVMI40CLU on the command line. The following screen will be displayed: <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre> NVMI40 Environment Database Definition Maintenance 5/09/00 10:45:48 01 JFERNAN Type options, press Enter 2=Change 4=Delete 5=Display System *PRDA Release Opt Name Lib. Name Description Id (No records to display) F3=Exit F6=Add F12=Previous </pre> </div>

Continued on next page

Step	Action
3	<p data-bbox="451 279 1206 338">Press F6 to Add/Define a new database environment. The following screen will be displayed:</p> <div data-bbox="440 352 1282 772" style="border: 1px solid black; padding: 5px;"> <pre data-bbox="456 369 1154 758"> NVMI41 Environment Database Definition Maintenance 5/09/00 16:30:26 Add 02 JFERNAN Type choices, press F6 to Add Machine Id *PRDA Library Name Release Id Auto File Update (Y/N) . . Journal All Files (Y/N) . . Environment Description : F3=Exit F5=Refresh F6=Add F12=Previous </pre> </div> <ul data-bbox="451 789 1271 1283" style="list-style-type: none"> • Machine Id - The name of the AS/400 machine that the environment resides in. • *PRDA Library Name - The environment prefix concatenated with PRDA. • Release Id - An entry in this field determines the software level of the environment. The value entered here is used to setup the software portion of the environment. • Auto File Update (Y/N) - A 'Y' in this field makes the environment eligible for update on ICMS PTF posting. • Journal All Files (Y/N) – Enter 'Y' in this field to journal all files in *PRDA, *PRDB, *PRDC and *PRDD libraries. • Environment Description - A description of the environment. This description is displayed by the Environment Selection tool and will aid users in selecting the appropriate environment to work on.
4	<p data-bbox="451 1297 943 1329">Fill-up the parameter fields as shown below.</p> <div data-bbox="440 1344 1282 1759" style="border: 1px solid black; padding: 5px;"> <pre data-bbox="456 1360 1154 1745"> NVMI41 Environment Database Definition Maintenance 6/09/00 11:36:04 Add 02 JFERNAN Type choices, press F6 to Add Machine Id NZICMS01 *PRDA Library Name X51MPRDA Release Id I5.1 Auto File Update (Y/N) . . Y Journal All Files (Y/N) . . Y Environment Description : INTERNATIONAL DEMONSTRATION DATABASE (I5.1) F3=Exit F5=Refresh F6=Add F12=Previous </pre> </div>

Continued on next page

Step	Action
<p>5</p>	<p>Press F6 to update the NVMIDB file. The following screen will be displayed:</p> <pre data-bbox="440 323 1284 762"> NVMI40 Environment Database Definition Maintenance 6/09/00 11:39:04 01 JFERNAN Position to . . . Type options, press Enter 2=Change 4=Delete 5=Display System *PRDA Opt Name Lib. Name Description Release NZICMS01 X51MPRDA INTERNATIONAL DEMONSTRATION DA I5.1 Bottom F3=Exit F6=Add F12=Previous X51MPRDA record updated </pre>
<p>6</p>	<p>Repeat Steps 3 to 5 until you've entered all the database definitions on the NVMIDB file.</p> <pre data-bbox="440 905 1284 1344"> NVMI40 Environment Database Definition Maintenance 6/09/00 11:44:29 01 JFERNAN Position to . . . Type options, press Enter 2=Change 4=Delete 5=Display System *PRDA Opt Name Lib. Name Description Release NZICMS01 IP51PRDA INITIALIZED PARAMETER DATABASE I5.1 NZICMS01 M51PRDA TEST MASTER DATABASE FOR I5.1 I5.1 NZICMS01 X51MPRDA INTERNATIONAL DEMONSTRATION DA I5.1 Bottom F3=Exit F6=Add F12=Previous M51PRDA record updated </pre>
<p>7</p>	<p>You may use option 2 to modify the parameter fields of an existing database definition or option 5 to display the parameter fields. Otherwise, press F3 to exit.</p>

Continued on next page

Environment Definition (continuation)

Defining the Software portion of the Environments

In file NVMI45 definition, the parameter field 'Release Id' contains a link to file ICMSTOOLS/NVMILL. This file identifies the libraries on the software portion of the environment library list.

Updates to the file ICMSTOOLS/NVMILL can be done using the NVMI45CLU program. Follow the instructions below, for details on how to update and maintain the NVMILL file.

Step	Action
1	Add the ICMSTOOLS library to your library list. On the command line, enter <p style="text-align: center;">ADDLIB LIB(ICMSTOOLS)</p>
2	Enter CALL NVMI45CLU on the command line. The following screen will be displayed: <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre> NVMI45 Environment Software Definition Maintenance 5/09/00 17:48:57 01 JFERNAN Type options, press Enter 2=Change 4=Delete 5=Display Release Sequence Library Process Opt Id Number Name DDS (No records to display) F3=Exit F6=Add F12=Previous </pre> </div>

Continued on next page

Step	Action
<p>3</p>	<p>Press F6 to Add/Define the software libraries of an ICMS environment. The following screen will be displayed:</p> <div data-bbox="440 352 1284 789" style="border: 1px solid black; padding: 5px;"> <pre> NVMI46 Environment Software Definition Maintenance 5/09/00 17:49:37 Add 02 JFERNAN Type choices, press F6 to Add Release Id Sequence Number Library Name Update DDS (Y/N) F3=Exit F5=Refresh F6=Add F12=Previous </pre> </div> <ul style="list-style-type: none"> • Release Id - Enter the value that relates to the 'Release Id' field in the environment definition file NVMIDB. • Sequence Number - This is used to control the order of software libraries in the library list. • Library Name - The software library to be added in the library list. • Update DDS (Y/N) - A 'Y' in this field makes the software library eligible for update during ICMS PTF posting. This tool is designed to make changes to the data portion of an environment, in line with software changes to the environment's software libraries. An 'N' should be entered here for base software library and signed-off customer-mods library since ICMS PTF posting should not modify these libraries.
<p>4</p>	<p>Fill-up the parameter fields as shown below.</p> <div data-bbox="440 1276 1284 1713" style="border: 1px solid black; padding: 5px;"> <pre> NVMI46 Environment Software Definition Maintenance 6/09/00 10:22:49 Add 02 JFERNAN Type choices, press F6 to Add Release Id I5.1 Sequence Number 1 Library Name ICMSPTF51 Update DDS (Y/N) Y F3=Exit F5=Refresh F6=Add F12=Previous </pre> </div>

Continued on next page

Step	Action
<p>5</p>	<p>Press F6 to update the NVMILL file. The following screen will be displayed:</p> <pre data-bbox="440 323 1284 762"> NVM145 Environment Software Definition Maintenance 6/09/00 10:23:39 01 JFERNAN Position to . . . Type options, press Enter 2=Change 4=Delete 5=Display Release Sequence Library Process Opt Id Number Name DDS I5.1 001 ICMSPTF51 Y Bottom F3=Exit F6=Add F12=Previous I5.1 record updated </pre>
<p>6</p>	<p>Repeat Steps 3 to 5 until you've entered all the required environment software libraries on the NVMILL file.</p> <pre data-bbox="440 905 1284 1344"> NVM145 Environment Software Definition Maintenance 6/09/00 10:32:05 01 JFERNAN Position to . . . Type options, press Enter 2=Change 4=Delete 5=Display Release Sequence Library Process Opt Id Number Name DDS I5.1 001 ICMSPTF51 Y I5.1 002 ICMSW51 N Bottom F3=Exit F6=Add F12=Previous </pre>
<p>7</p>	<p>You may use option 2 to modify the parameter fields of an existing software definition or option 5 to display the parameter fields. Otherwise, press F3 to exit.</p>

Journal Environment (“ENVJRN”)

Journalling Considerations

Journalling is required on some ICMS files before ICMS can function properly. These are the files in *PRDA, *PRDB, *PRDC and *PRDD libraries and that are under commitment control used by the ICMS programs.

All AS/400 journals are attached to a journal receiver. It is the receiver that stores the actual changes, and increases in size as changes are made. It is advisable when setting up your AS/400 to have a separate ASP solely for journal receivers. This has two advantages. Firstly, the journal receiver and the file being journalled are always on two different disks, decreasing the amount of time it takes to update a file. Secondly, the usage of the ASP can be monitored and once it starts to reach its threshold the journal receivers can be detached from the journal, a new receiver attached, the old receiver backed up and then deleted. This exercise will free up needed space in this ASP.

The ICMS Tools use a strict naming convention and library placement for journalling. The benefit of such strict naming and placing of journals and receivers is that it makes management of journal and receiver objects much easier. The journal receiver name for an environment is of the format <eprefix><nnnnn>, where <eprefix> is the environment prefix and <nnnnn> is the receiver sequence number, which starts at 00001 and is incremented each time a new journal receiver is attached.

To further aid ASP usage, the ICMS Tools place all journal receivers in a library ASPJRNRCV. By performing a DSPLIB ASPJRNRCV it is easy to see which journal receivers are growing in size.

An AS/400 restriction on journalling is that the journal must exist in the same ASP as the files that are being journalled. As a result the ICMS Tools create all journals in a special library in each ASP of the format ASP<nn>JRN, where nn is the ASP number. The journal itself is of the format <eprefix>JRN where <eprefix> is the environment prefix.

What the Journal Environment tool is used for

Journalling of environments is required when an environment is not restored using the standard environment restore tool. This is primarily the case when an environment is restored from another machine, such as production or development.

Journal Environment (“ENVJRN”) (continuation)

How to Use the Journal Environment tool

Follow the instructions below to run the Environment Journal tool.

Step	Action
1	Add the ICMSTOOLS library to your library list. On the command line, enter ADDLIB LIB(ICMSTOOLS) ADDLIB LIB(ICMSSW51)
2	On the command line, enter ENVJRN The “JOURNAL An ENVIRONMENT” prompt screen will be displayed. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <pre> X51M Database I.C.M.S. - I5.0 5/09/00 15:18:34 DB9030CL ICMS Technical Tools - NZICMS01 JFERNAN JOURNAL AN ENVIRONMENT Run Instructions: This program will start journalling files for an environment. There are two journalling options; journal all files, which allows environment rollbacks, or journalling of only those files required for ICMS to function correctly. Environment Prefix (eg GSOLPRDA = GSOL CSMLPPRDA = CSMLP) Journal All Files Y (Y/N) Hold on Job Queue N (Y/N) F3=Exit F6=Submit F9=Work with Environment Locks </pre> </div>
3	Enter the prefix for the Environment you wish to journal.
4	Entering a ‘Y’ in Journal All Files will cause all data files in the PRDA, PRDB, PRDC & PRDD libraries and BLTOLC in the CALL library to be journalled.
5	If you wish to hold the job for later releasing or moving to a different jobq, change the Hold on Job Queue flag to ‘Y’. Otherwise the job will be started as soon as it is eligible to be started from the Job Queue entered below.

Continued on next page

Step	Action
6	<p>Press F9 to work with any locks on the environment being journalled. If there is an object lock, end the job that locks the environment.</p> <pre> Work with Object Locks System: NZICMS01 Object: X51MPRDA Library: QSYS Type: *LIB Type options, press Enter. 4=End job 5=Work with job 8=Work with job locks Opt Job User Lock Status Scope Thread (There are no locks for the specified object) F3=Exit F5=Refresh F12=Cancel Bottom </pre>
7	<p>Press F3 to go back to the “JOURNAL An ENVIRONMENT” prompt screen.</p> <pre> X51M Database I.C.M.S. - I5.0 5/09/00 15:46:55 DB9030CL ICMS Technical Tools - NZICMS01 JFERNAN JOURNAL AN ENVIRONMENT Run Instructions: This program will start journalling files for an environment. There are two journalling options; journal all files, which allows environment rollbacks, or journalling of only those files required for ICMS to function correctly. Environment Prefix X51M (eg GSOLPRDA = GSOL CSMLPPRDA = CSMLP) Journal All Files Y (Y/N) Hold on Job Queue N (Y/N) F3=Exit F6=Submit F9=Work with Environment Locks </pre>
8	<p>Press F6 twice to submit the job ENV_JRN to the nominated job queue.</p>
9	<p>Press F3 to exit without any further processing.</p>

Environment Selection Tool (“ENVSEL”)

What the Environment Selection tool is used for

Environment Selection is used to setup an ICMS environment for use, by changing the user portion of your library list.

How to Use the Environment Selection tool

Follow the instructions below to run the Environment Selection tool.

Step	Action
1	Add the ICMSTOOLS library to your library list. On the command line, enter <p style="text-align: center;">ADDLIB LIB(ICMSTOOLS)</p>
2	On the command line, enter <p style="text-align: center;">ENVSEL</p> <p>This will cause the Environment Selection Program to display all the ICMS environments installed and defined on your system. A screen similar to the following will be displayed:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre> 5/09/00 13:59:57 NVM112 ICMS Technical Tools JFERNAN Database Selection 9=Change Library List Op Database Assigned To North/ X51MPRDA INTERNATIONAL DEMONSTRATION DATABASE (I5.1) South F3=Exit F6=Continue F9=Scroll Options </pre> </div>

Continued on next page

Step	Action																																																																								
<p>3</p>	<p>Enter option 9 against the environment you wish to work with and press F6. The program will then display your new library list.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">Edit Library List</p> <p>Type new/changed information, press Enter. To add a library, type name and desired sequence number. To remove a library, space over library name. To change position of a library, type new sequence number.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Sequence Number</th> <th style="text-align: left;">Library</th> <th style="text-align: left;">Sequence Number</th> <th style="text-align: left;">Library</th> <th style="text-align: left;">Sequence Number</th> <th style="text-align: left;">Library</th> </tr> </thead> <tbody> <tr><td>010</td><td></td><td>120</td><td>QGPL</td><td>230</td><td></td></tr> <tr><td>020</td><td>X51MPRDA</td><td>130</td><td>QTEMP</td><td>240</td><td></td></tr> <tr><td>030</td><td>X51MPRDB</td><td>140</td><td></td><td>250</td><td></td></tr> <tr><td>040</td><td>X51MPRDC</td><td>150</td><td></td><td></td><td></td></tr> <tr><td>050</td><td>X51MPRDD</td><td>160</td><td></td><td></td><td></td></tr> <tr><td>060</td><td>X51MMISC</td><td>170</td><td></td><td></td><td></td></tr> <tr><td>070</td><td>X51MCALL</td><td>180</td><td></td><td></td><td></td></tr> <tr><td>080</td><td>X51MLOCL</td><td>190</td><td></td><td></td><td></td></tr> <tr><td>090</td><td>ICMSPTF51</td><td>200</td><td></td><td></td><td></td></tr> <tr><td>100</td><td>ICMSSW51</td><td>210</td><td></td><td></td><td></td></tr> <tr><td>110</td><td>ICMSTOOLS</td><td>220</td><td></td><td></td><td></td></tr> </tbody> </table> <p>F3=Exit F5=Refresh F12=Cancel</p> </div>	Sequence Number	Library	Sequence Number	Library	Sequence Number	Library	010		120	QGPL	230		020	X51MPRDA	130	QTEMP	240		030	X51MPRDB	140		250		040	X51MPRDC	150				050	X51MPRDD	160				060	X51MMISC	170				070	X51MCALL	180				080	X51MLOCL	190				090	ICMSPTF51	200				100	ICMSSW51	210				110	ICMSTOOLS	220			
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<p>4</p>	<p>Press the Enter key to confirm changes to your library list. This will bring you back to your initial screen.</p>																																																																								
<p>5</p>	<p>Your library list is now setup to use the environment you've chosen. You may now call any ICMS Menu that you're authorized to used. For example, Menu TASMAN.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>X51M Database I.C.M.S - I5.0 5/09/00 14:17:53 TASMAN *** SYSTEM MAIN MENU *** JFERNAN Copyright: (C) COPYRIGHT IBM Corporation 1996</p> <p>Type option, press Enter.</p> <ol style="list-style-type: none"> 1. Parameter Menu 2. Service Orders Main Menu 3. Billing Main Menu 4. Exchange Plant Main Menu 5. Production Operator Main Menu 6. Customer Services Main Menu 7. Inventory Main Menu 8. Support Facilities Main Menu <p style="text-align: right;">90. Sign Off</p> <p>F3=Exit ICMS Selected Option: F15=Submitted Jobs F6=Display Messages F16=Spool Files F18=Send Message</p> </div>																																																																								

Backup Environment (“ENVSAV”)

What the Backup Environment tool is used for

Backup Environment is primarily used to take a copy of a database before changes are made so that if required, the environment can be restored using the Restore Environment tool.

You can also use the savefile backup taken in Backup Environment to restore to different environments at some later stage without needing to worry about object locks.

Considerations when using the Backup Environment tool

The Backup Environment will create a savefile library in format <eprefix>SAVF, where <eprefix> is the Environment Prefix entered on the Backup Environment prompt screen. Within the savefile library, savefiles with the same name as the environment libraries will be created. For example, a save of the Environment CONV will create a library CONVSASF containing the following save files:

- CONVPRDA
- CONVPRDB
- CONVPRDC
- CONVPRDD
- CONVMISC
- CONVCALL
- CONVLOCL

There must be enough space in the ASP selected when using the tool to hold the contents of the SAVF library. The SAVF library will be a bit smaller than the size of the environment libraries. If you are simply replacing the contents of an existing SAVF library, then the space required will be the size of the environment libraries less the size of the existing SAVF library.

If you are moving the ASP of the SAVF library then space will be freed in the ASP that used to contain the SAVF library.

Before any environment is backed up, there can be no jobs on the AS/400 with locks on the environment. If locks exist and the backup is performed, the locked objects may not be saved. Any subsequent restore of the environment will not produce a working environment due to the missing files.

Backup Environment (“ENVSAV”) (continuation)

How to Use the Backup Environment tool

Follow the instructions below to run the Backup Environment tool.

Step	Action
1	Add the ICMSTOOLS library to your library list. On the command line, enter ADDLIB LIB(ICMSTOOLS)
2	On the command line, enter ENVSAV This will cause the Backup Environment prompt screen to be displayed. <div style="border: 1px solid black; padding: 5px;"> <pre> X51M Database I.C.M.S. - I5.0 5/09/00 16:35:48 NVM120CL ICMS Technical Tools - NZICMS01 JFERNAN BACKUP ENVIRONMENT Run Instructions: This program will save all data libraries of an environment to a SAVF library of the format <eprefix>SAVF, where <eprefix> is the Environment Prefix entered below. Save files with the same name as the environment libraries are then created in the SAVF library Environment Prefix . . (eg GSOLPRDA = GSOL CSMLPPRDA = CSMLP) ASP for SAVF Library: 04 Hold on Job Queue . . . N (Y/N) F3=Exit F6=Submit F9=Work with Environment Locks </pre> </div>
3	Enter the prefix of the environment you wish to save.
4	Enter the ASP where you wish to create the SAVF library. If the savefile library exists in a different ASP, it will be moved to the ASP entered here. If it does not exist it will be created in the ASP entered. There must be enough space in the ASP selected to hold the contents of the SAVF library.
5	If you wish to hold the job for later releasing or moving to a different jobq, change the Hold on Job Queue flag to ‘Y’. Otherwise the job will be started as soon as it is eligible to be started from the Job Queue entered below.

Continued on next page

Step	Action
<p>6</p>	<p>Before any environment is backed up, there can be no jobs on the AS/400 with locks on the environment. If locks exist and the backup is performed, the locked objects will not be saved. Any subsequent restore of the environment will not produce a working environment due to the missing files. Press F9 to work with any locks on the environment. If there is an object lock, end the job that locks the environment.</p> <pre data-bbox="440 558 1284 995"> Work with Object Locks System: NZICMS01 Object: X51MPRDA Library: QSYS Type: *LIB Type options, press Enter. 4=End job 5=Work with job 8=Work with job locks Opt Job User Lock Status Scope Thread (There are no locks for the specified object) F3=Exit F5=Refresh F12=Cancel Bottom </pre>
<p>7</p>	<p>Once all locks have been removed, press F3 to go back to the Backup Environment prompt screen.</p> <pre data-bbox="440 1142 1284 1562"> X51M Database I.C.M.S. - I5.0 5/09/00 16:35:48 NVM120CL ICMS Technical Tools - NZICMS01 JFERNAN BACKUP ENVIRONMENT Run Instructions: This program will save all data libraries of an environment to a SAVF library of the format <eprefix>SAVF, where <eprefix> is the Environment Prefix entered below. Save files with the same name as the environment libraries are then created in the SAVF library Environment Prefix . . X51M (eg GSOLPRDA = GSOL CSMLPPRDA = CSMLP) ASP for SAVF Library: 04 Hold on Job Queue . . N (Y/N) F3=Exit F6=Submit F9=Work with Environment Locks </pre>
<p>8</p>	<p>Press F6 twice to submit the job ENV_SAV to the nominated job queue.</p>
<p>9</p>	<p>Press F3 to exit.</p>

Restore Environment (“ENVRST”)

What the Restore Environment tool is used for

Restore Environment is primarily used to take a copy of an environment, or restore a previous save of an environment through use of the Backup Environment tool described above, and restore it to another environment.

For example, in the case of training environments, there is usually a master environment that is kept up to date with changes. This environment is then copied to other training environments for use in training courses. At the end of the course the environment is once again refreshed from the master environment.

Considerations when using the Restore Environment tool

The most important consideration when using the Restore Environment tool is to ensure there is enough space in the selected ASPs for the restore and for any save files created. Different environments have different sizes. If you are replacing an existing environment, then the space required will be equal to the size of the existing environment being overridden less the size of the environment being restored from. If the restore to environment library already exists, but in a different ASP, then the libraries will be moved to the ASP entered on the prompt. If the libraries do not exist they will be created in the ASP entered.

If you request to create savefiles of the source environment, the Restore Environment tool will create a savefile library in format <eprefix>SAVF, where <eprefix> is the Restore From prefix entered on the Restore Environment prompt screen. Within the save file library, save files with the same name as the environment libraries will be created. For example, a save of the Environment CONV will create a library CONVSAVF containing the following save files:

- CONVPRDA
- CONVPRDB
- CONVPRDC
- CONVPRDD
- CONVMISC
- CONVCALL
- CONVLOCL

If you are creating save files, there can be no jobs on the AS/400 with locks on the environment. If locks exist and the backup is performed, the locked objects may not be saved. Any subsequent restore of the environment will not produce a working environment due to the missing files.

Restore Environment (“ENVRST”) (continuation)

How to Use the Restore Environment tool

Follow the instructions below to run the Restore Environment tool.

Step	Action
1	Add the ICMSTOOLS library to your library list. On the command line, enter ADDLIB LIB(ICMSTOOLS)
2	On the command line, enter ENVRST This will cause the Restore Environment prompt screen to be displayed. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <pre> X51M Database I.C.M.S. - I5.0 5/09/00 17:03:33 NVM120CL ICMS Technical Tools - NZICMS01 JFERNAN RESTORE ENVIRONMENT Run Instructions: This program will restore an environment from another environment. The environment must have been saved to SAVF, using the save database, or saved using the restore flag Restore to Prefix (eg GDEVPRDA = GDEV) Restore To ASP 04 Restore From Prefix (eg GSOLPRDA = GSOL) Replace Savefiles N (Y/N) ASP For Savefile Library . . . 04 Journal All Files Y (Y/N) Hold on Job Queue N (Y/N) F3=Exit F6=Submit F8=Work with Restore To Locks F9=Work with Restore From Locks </pre> </div>
3	Enter the prefix of the environment you wish to restore to.
4	Enter the ASP you wish to restore the environment into. There should be enough space in the ASP for the restore. Note that if you are replacing an existing environment then the space required is the size of the existing environment being overridden, less the size of the environment being restored from. If the restore to environment library already exist, but in a different ASP, then the libraries will be moved to the ASP entered on the prompt. If the libraries do not exist they will be created in the ASP entered.
5	Enter the prefix of the environment you wish to restore from.

Continued on next page

Step	Action
6	<p>There are two options for the Replace Save file field.</p> <p>If an 'N' is entered then no save files will be created. Instead an existing save file library previously generated by the Save or Restore Environment tool is used.</p> <p>If a 'Y' is entered, then save files will be created in the ASP nominated on the 'ASP For Savefile Library' field. Enter the ASP where you wish to create the SAVF library. If the save file library exists in a different ASP, it will be moved to the ASP specified here. If it does not exist it will be created in the ASP specified.</p>
7	<p>Enter a 'Y' in 'Journal All Files' field to journal all data files in the PRDA, PRDB, PRDC & PRDD libraries along with BLTOLC in the CALL library.</p>
8	<p>If you wish to hold the job for later releasing or moving to a different jobq, change the Hold on Job Queue flag to 'Y'. Otherwise the job will be started as soon as it is eligible to be started from the Job Queue entered below.</p>
9	<p>Press F8 to work with any locks on the environment being restored to. If the restore to environment does not exist, the Work with Object Locks screen will not display, but will generate a message stating that the restore to *PRDA library was not found in library *LIBL.</p>
10	<p>If you entered 'Y' in the 'Replace Savefiles' field, then press F9 to work with any locks on the environment being restored from. Before any environment is backed up, there can be no jobs on the AS/400 with locks on the environment. If locks exist and the backup is performed, the locked objects may not be saved. If there is an object lock, end the job that locks the environment.</p> <div data-bbox="440 1276 1286 1703" style="border: 1px solid black; padding: 10px;"> <pre> Work with Object Locks Object: X51MPRDA Library: QSYS System: NZICMS01 Type: *LIB Type options, press Enter. 4=End job 5=Work with job 8=Work with job locks Opt Job User Lock Status Scope Thread (There are no locks for the specified object) F3=Exit F5=Refresh F12=Cancel Bottom </pre> </div>

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Step	Action
<p>11</p>	<p>Once all locks have been removed, press F3 to go back to the Restore Environment prompt screen.</p> <pre data-bbox="440 401 1284 835"> I.C.M.S. - I5.0 5/09/00 17:33:19 NVMI20CL ICMS Technical Tools - NZICMS01 JFERNAN RESTORE ENVIRONMENT Run Instructions: This program will restore an environment from another environment. The environment must have been saved to SAVF, using the save database, or saved using the restore flag Restore to Prefix X51MB (eg GDEVPRDA = GDEV) Restore To ASP 04 Restore From Prefix X51M (eg GSOLPRDA = GSOL) Replace Savefiles N (Y/N) ASP For Savefile Library . . . 04 Journal All Files Y (Y/N) Hold on Job Queue N (Y/N) F3=Exit F6=Submit F8=Work with Restore To Locks F9=Work with Restore From Locks Object X51MBPRDA type *LIB was not found in library *LIBL. </pre>
<p>12</p>	<p>Press F6 twice to submit the job ENV_RST to the nominated job queue.</p>
<p>13</p>	<p>Press F3 to exit.</p>

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Feedback Notes

User Responsibility	The user of this manual is responsible for advising the document owner of any errors, omissions and changes needed to this manual.
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Procedure	Follow the steps below to advise of a required change to documentation, or to request new information to be included.
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Step	Action
1	Photocopy the Documentation Update Request Form at the back of the manual and complete it. Include only the chapters (i.e. record types) and page numbers that require changing, not a full description.
2	On a separate sheet outline the changes. Include the following information about each change: <ul style="list-style-type: none"> • the chapter name (i.e. record type) and page number • the reason the update is required, e.g., error, omission, new procedure • a description of change/addition required • any other relevant details, e.g., the process owner
3	Attach the Documentation Update Request form to the sheet(s) outlining the changes and fax them to 64 4 576 9878. Address the fax to CC&B Development Manager <u>Result:</u> The team leader or manager notes any comments then forwards the update requests to the Methods and Procedures team who arrange for the manual to be updated.

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