



iSecurity FileScop Tools

An Assortment of Utility Programs
designed for the iSeries Programmer using
FileScope™ or another file editor

User Manual

Version 4

ABOUT THIS GUIDE

Who should use this guide

What you should know

Using FileScope Tools is very simple and requires no special technical background. You only need to know the basics of display station operation. Help is only a keystroke away.

How this guide is organized

This guide is divided into chapters, beginning with an introduction to FileScope Tool's capabilities and followed by detailed descriptions of the functions available in the product. Subsequent chapters cover

Appendices cover installation instructions and other technical aspects. Before using FileScope Tools, you may find it helpful to follow along with the examples that begin in Chapter 1.

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Welcome to FileScope Tools

What is FileScope Tools?

FileScope Tools is a set of enhancement tools which:

- Provides ease of use in several aspects for programmers.
- Provides better support for partial and non-existing support in operating systems.

FileScope Tools Highlights.

With FileScope Tools it is possible to:

- Work with Journal contents.
- Retrieve deleted records.
- Undelete Records.
- Edit data areas.
- Quick review of all previous commands.
- Work within File information – display/edit file with any editor of your choice.

How FileScope Tools Can Help You

- Extended Functionality
- Create analysis reports, sub-files, etc.
- Provide missing commands such as Edit Data Areas
- Enabling options that are not available from the operating system, for example: retrieve/undelete records when the journal has not been defined.
- Increase productivity, support, development and testing.

Getting Started

Installation

Installation on an AS/400 computer from TAPE/CD

- Be sure that no one is working on the products you want to install (use the WRKOBJLCK command on library SMZ2 of the product - like WRKOBJLCK SMZ2 *LIB).
- If you are upgrading from CISC to Power PC (RISC) processor, first save the product libraries SMZ2, SMZ2DTA, restore them on the RISC machine, and proceed with the rest of these instructions.
- Sign on as QSECOFR or a user with equal authority.
- Load the tape and enter the LODRUN TAPxx (where TAPxx is the tape drive name) or LODRUN OPTxx (where OPTxx is the Optical Drive name)
- After some minutes, an INSTALLATION MENU will be displayed.
- Choose the products you need to install by typing 1 under the OPT field.
- Key in the Authority Code(s) (if necessary) in the authority code column.

Remark: the Product Authority Code can also be keyed after the installation see Chapter “ Entering the Product Authority Code”).

- The products will be installed one after the other.
- At end, press F3 to exit.

Entering the Product Authority Code

The "Authorization Code" is a character string that releases FileScope Tools for operation on your AS/400. There are two types of authorization codes: a "demonstration" code for a predetermined evaluation period, or a "permanent" code for normal use. During the product evaluation period, FileScope Tools can be installed on multiple machines by using the "demonstration" code.

- From your AS/400, type the command STRFST to obtain the Product Menu
- Choose Option 81 (Configuration)
- Press F22, then enter the Authority Code
- Press F3 to exit to the product menu.

Obtaining the CPU Serial Number

To obtain a permanent Authorization Code, you must determine the computer serial and model number. To do this enter the following command:

DSPSYSVAL

QSRLNBR

The Machine type model. The System serial number and the product release is entered on the License Agreements when ordering your product.

The Main Menu

FileScope Tools is simple to use. If you have ever worked with a spread-sheet, and do not mind pressing the HELP key every once in a while then you can get started right away. However, you may want to read through this User Guide before actually working with FileScope Tools.

If you have not already done so, you must install your FileScope Tools CD or Tape and enter your authorization code.

Quick Start

This quick start section has been designed to help you to start using FileScope Tools as quickly and efficiently as possible.

You will see the product in action when using the sample file that is shipped together with the product. This process assumes that you have already installed FileScope Tools and keyed in a valid authorization code. If you have not yet installed the product, refer to the separate Installation chapter in this document.

Displaying the FileScope Tools menu

In order to start using FileScope Tools, issue the STRFST command. You will subsequently see the FileScope Tools main menu.

```
FSTMENU                      FileScope/Tools Menu                      System:  S44K124
Select one of the following:

File information              Journal
  1. Work with file information  ° 51. Work with Journal Contents
PC file format
 ° 11. Copy from PC format(CPYFSFRMPC)
Deleted records              Programming
 ° 21. Undelete records *WIZARD*      61. All previous commands (RTV)
*DTAQ                        Related products
 ° 31. Display Data Queue (DSPFSDTAQ)  71. File editor
 ° 32. Edit Data Queue (EDTFSDTAQ)
*DTAARA, *USRSPC            Maintenance
 41. Edit Data Area (EDTFSDTAAR)      81. System Configuration
 42. Display User Space (DSPFSUSSPC)  82. Maintenance Menu
 43. Edit User Space (EDTFSUSSPC)
 °=with field level support

Selection or command
===> _

F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel
F13=Information Assistant   F16=AS/400 main menu
```

Chapter 1. File Information

1.1 Working with File Information Full Screen Display

Selecting option 1 from the FileScope Tools main menu to bring up the multi-file screen.

```
FS/Tools                Work with File Information                S44K124
File . . . . . *ALL_____ *ALL, Generic*, name
Library . . . . . SMZ1_____ Position to . . . . . _____

Type options, press Enter.
 1=Display  2=Edit      J=Journal contents  A=Attributes  M=Members
 0=Formats  R=Relations  S=Select/Omit  K=Keys  F=Fields

Opt File      Type Keyed Text
-  CHGDFNPF   PF  Y  ViewPoint definition
-  CHGJRNP    PF  Y  Log of file changes
-  CHGRESF    PF  Y  FileScope restriction file
-  DEMODATE   PF  Y  Demo file emphasize on date formats
-  DEMOPF     PF  Y  Demo file
-  DEMOPFOLD  PF  Y  Demo file
-  FSKEYP     PF  FS-key representation
-  FSOUTF     PF  FS-Outfile template
-  FSOUTS     PF  FS-Outfile template not add specal
-  FSPARM     PF  Y  FileScope parms
-  FSPDP      PF  Y  FS Pull Down logic physical file

F3=Exit      F5=Refresh      F12=Cancel      F17=Subset      F18=Change Defaults
              F21=System command      F23=More options
```

Select the file you wish to work with by entering the following information on the screen.

File – Enter the name of the file or to see all files type *ALL or to see all files with a specific letter type Generic*

Library – Enter the name of the library

Position – Enter the letter to start viewing files from in the library.

1.2 File Options

Display – Display and records in either single or split mode.

Edit – Make changes to records in either single or split mode.

Journal contents – Display Journal Contents

Attributes – Display File attributes

Members – Display Member Information

Formats – Display File Formats

Relations – Display Database Relations

Select/Omit - Select or Omit fields

Keys – Display File Keys

Fields – Display Field List

1.3 Display File with editor of your choice

Selecting option 1 to display the selected file or if you wish to change the file you may do so from the SHWFC (if using FileScope as your file editor) screen.

```

                                Show file contents (SHWFC)

Type choices, press Enter.

File Name . . . . . > DEMOPF      Name, *PRV, *SELECT, *S
  Library . . . . . > SMZ1        Name, *LIBL
Member name . . . . . *FIRST      Name, *FIRST, *SELECT, *S
Show by Key Sequence . . . . . *YES *YES, *NO
ViewPoint name . . . . . *DFT      Name, *DFT, *NEW, *SELECT, *S
Run ViewPoint Sort/Subset . . . . *YES *YES, *NO
Allow new file/vpt selection . . . *YES *YES, *NO
Auto run function in batch . . . . *NO  *PRINT, *REPORT, *NO...

                                                                    Botto
F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
F13=How to use this display   F24=More keys
```

To keep the default settings press the Enter Key, to change the information type your changes in the supplied fields.

File Name – Enter the name of the file you wish to use

***PRV** – Automatically will retrieve the previous file

***Select** – Display the file/member/viewpoint selection screen

***S** – Short cut for *Select

Library – Enter the name of the Library where the file is stored

***LIBL** – Search the library list to locate the file

Member name – Enter the name of the file member

***FIRST** – Start with the first member in the file

***SELECT** – Display the file/member/viewpoint selection screen

***S** – Shortcut for *SELECT

Show by Key Sequence – Define the sequence in which keyed fields will be displayed.

***YES** – Keyed files are accessed in their key sequence.

***NO** – File is accessed in its physical sequence.

ViewPoint name – Enter the name of the defined viewpoint

***DFT** – If a viewpoint with an identical name to the current file name exists is used. Otherwise the DDS of the file is used.

***NEW** – The DDS of the file is used.

***SELECT** – Display the file/member/viewpoint selection screen

***S** – Short cut for *SELECT

Run ViewPoint – Runs the selected viewpoint

***YES** – If viewpoint has been selected, but it will run the Viewpoint

***NO** – A viewpoint has been selected, but it will not run.

Allow new file/vpt selection - Specifies whether the use may select a different file to use with the selected Viewpoint.

***YES** – The use may select a different file to use with the Viewpoint when exiting the product.

***NO** – The user may not select a different file when exiting the product.

Auto run function in batch – Specifies if and what functions have to be performed in a batch run.

***NO** – batch run is not required. SHWFC runs online.

***PRINT** – runs the “print multiple records”.

***REPORT** – runs the report generator option.

***PRNTONE** – runs the “print single record” option.

Pressing F10 will bring up the following options

Allow save of VPT – Specifies whether Viewpoint modifications can be saved.

***ALL** – Enables update of all viewpoints (including “PERMANENT” Viewpoints)

***YES** – ViewPoint modifications can be saved

***NO** – ViewPoint modifications cannot be saved

Save modified VPT as default – Specifies whether modified Viewpoints should be saved by default.

***YES** – The modifications to the ViewPoint are saved by default when exiting the product.

***NO** – The modified ViewPoints are not saved when exiting the Product.

System - Specifies whether the file is on the local system or on the remote system

***LCL** – The file is on the local system

***RMT** – The file is on the remote system

***ALL** – The file is on both local and remote systems.

Initialization subset – Define a subset for report generation

***YES** – You will be able to define the subset

***NO** – You will be able to define the subset.

Note: The example used shows results when using FileScope as your file editor. Using another editor will not bring up the SHWFC screen.

Your display screen will show you the first 12 records of your file as shown in the picture below.

| File | Control | Layout | Mode | Subset | Print | Window | Special | |
|----------|----------------|--------------|-------|---|----------|--------|---------------|---|
| | 14 records | | | Show file SMZ1/DEMOPF contents | | | mbr: DEMOPF | |
| Control. | | | | (T=Top B=Bottom N=Nxt P=Prv +/-nnn K=Key) | | | Fmt: ITEMAS | |
| 1st.Fld. | 1 | | | (n Name 0 /n F4) | | | Vpt: *NEW | |
| Scan . . | | | | Test: Value: | | | | |
| Relative | ITEM # | DESCRIPTION | ITEM | QTY | QTY | ITEM | PRICE | P |
| Record | | (TRUNCATED) | VEND# | ON HAND | ON ORDER | PRICE | DATE | C |
| Number | | | | | | | | I |
| *RRN | ITEMNO | SDESCR | VEND# | QTYOH | QTYOO | PRICE | PRCDAT | P |
| 73. | F2101 | FILE FOLDER | 5. | 113. | 417. | 58.64 | 931215. | |
| 7. | HP0003 | 3 HOLE PUNCH | 25. | 717. | 25. | 97.00- | 950119. | |
| 12. | L0002B | LETTER OPEN. | 15. | 107. | 540. | 25.97 | 881005. | 1 |
| 2. | MP0001 | MARK PEN,BLK | 5. | 568. | 29. | 3.00 | 211231. | 1 |
| 3. | MP0002 | MARK PEN,RED | 7. | 104. | 30. | 103.00 | 941216. | 2 |
| 1. | NP001F | NOTEPAD-A4,L | 9. | 54. | 27. | 101.00 | 991231. | 1 |
| 13. | P0100X | PENCILS #2 | 25. | 143. | 238. | 50.66 | 960106. | |
| 14. | P01033 | PENCILS #3 | 23. | 118. | 419. | 30.44 | 941233. | |
| 15. | Q93750 | MICRO@-CASSE | 23. | 10.- | 237. | 86.93 | 950346. | 1 |
| 16. | Q93751 | MICRO@-CASSE | 12. | 55. | 649. | 86.93 | 920314. | 1 |
| 4. | RB0001 | 3 RING BINDR | 10. | 780. | 129. | 306.00 | 0. | 1 |
| 17. | S0200B | STAPLER,H@-D | 40. | 797. | 340. | 60.48 | 940319. | 1 |
| F3=Exit | F11=Single-rcd | F13=Service | | F14=Reorder | | | F24=More keys | |

The display screen has two parts. The top part shows a pull down menu, and the bottom is where you can enter your view information.

The actual file, member, number of records and ViewPoint name are displayed as well.

1.4 Single Record Display

By press F11 you will be able to view an individual record. If you do not position the cursor on the record you wish to view the first record in the file will be viewed.

```

File   Control  Layout  Mode   Subset  Print  Window  Special
-----
      14 records          Show file SMZ1/DEMOPF contents      mbr: DEMOPF
Control. N          (T=Top B=Bottom N=Nxt P=Prv +/-nnn K=Key)  Fmt: ITEMAS
1st.Fld. 1          (n=Name 0 /n F4)                               Vpt: *NEW
Type choices, press Enter.
Field   Key  ....+....1....+....2....+....3.. TEXT
*RRN . . . . . 7. Relative record number
ITEMNO . . . . 1 HP0004 ITEM #
SDESCR . . . . HOLE PUNCH . . . . . DESCRIPTION (TRUNCATED)
VEND# . . . . 2 24. . . . . ITEM VEND#
QTYOH . . . . . 107. . . . . QTY ON HAND
QTYOO . . . . . 27. . . . . QTY ON ORDER
PRICE . . . . . 6.17 ITEM PRICE
PRCDAT . . . . 950119. . . . . PRICE DATE YY.MM
PRCCHG . . . . . . . . . . . PRICE CHANGE IN-%
SALES# . . . . 44. . . . . SALES MAN
DESCR . . . . HOLE PUNCHER - 3 HOLE . . . . . DESCRIPTION
CSLS01 . . . . 64.25 1ST QUARTER SALES
CSLS02 . . . . 46.03 2ND QUARTER SALES
CSLS03 . . . . 72.15 3RD QUARTER SALES
CSLS04 . . . . 111.79 4TH QUARTER SALES
F3=Exit F8=Fld/Pos/Atr F12=Cancel F13=Service F14=Reorder F21=No/Hex F22=Cmd
F6=Mode
  
```

1.5 Reorder Fields

The Reorder Fields option enables you to customize the screen display and report shape. This includes choosing which fields are displayed and the order in which they are displayed. This is accomplished through changing the number of spaces between fields, modifying titles, and column headings.

| Key | Order | Field | Spaces | Column heading | Attributes | Fr-To | Source |
|-----|--------------|--------|----------|--------------------|------------|-------|--------|
| | <u>1.00</u> | *RRN | <u>1</u> | <u>Relative</u> | S | 9, 0 | AU |
| 1 | <u>2.00</u> | ITEMNO | <u>1</u> | <u>ITEM #</u> | A | 6 | 1-6 |
| | <u>3.00</u> | SDESCR | <u>1</u> | <u>DESCRIPTION</u> | A | 12 | 7-18 |
| 2 | <u>4.00</u> | VEND# | <u>1</u> | <u>ITEM</u> | S | 4, 0 | 19-22 |
| | <u>5.00</u> | QTYOH | <u>1</u> | <u>QTY</u> | B | 5, 0 | 23-26 |
| | <u>6.00</u> | QTYOO | <u>2</u> | <u>QTY</u> | B | 3, 0 | 27-28 |
| | <u>7.00</u> | PRICE | <u>1</u> | <u>ITEM</u> | P | 5, 2 | 29-31 |
| | <u>8.00</u> | PRCDAT | <u>1</u> | <u>PRICE</u> | S | 6, 0 | 32-37 |
| | <u>9.00</u> | PRCCHG | <u>1</u> | <u>PRICE</u> | P | 5, 3 | 38-40 |
| | <u>10.00</u> | SALES# | <u>2</u> | <u>SALES</u> | P | 2, 0 | 41-42 |
| | <u>11.00</u> | DESCR | <u>1</u> | <u>DESCRIPTION</u> | A | 30 | 43-72 |
| | <u>12.00</u> | CSLS01 | <u>1</u> | <u>1ST QTR.</u> | P | 6, 2 | 73-76 |
| | <u>13.00</u> | CSLS02 | <u>1</u> | <u>2ND QTR.</u> | P | 6, 2 | 77-80 |
| | <u>14.00</u> | CSLS03 | <u>1</u> | <u>3RD QTR.</u> | P | 6, 2 | 81-84 |
| | <u>15.00</u> | CSLS04 | <u>1</u> | <u>4TH QTR.</u> | P | 6, 2 | 85-88 |

More..

F3=Exit F6=Un/Fold F9=Add-Fld F10=Chg-Fld F12=Cancel F16=Find
 F17=Top F18=Bottom F20=Renum F22=KeySeq F23=Ignore

New fields can be added to the list without changing the file definition and all FileScope Tools displays will reflect the newly defined order.

All changes made via the Reorder Screen including the addition of internal fields can be saved as a ViewPoint.

1.6 Internal and Calculated Fields

FileScope Tools combined with your existing file editor lets you define additional fields that can be used with the display, change and print functions of your editor. This can also help you query and maintain files that do not have external definitions. The fields can be defined for files that do not have external definitions (DDS), as well as for files with external definitions.

For files that contain large fields, you can break the fields into smaller ones enabling easier viewing and updating.

The modified layout can then be saved for future use when using your file editor.

Using the 'From Position' parameter you define the Internal Fields. By using this parameter you designate the starting position within the record.

Internal Fields, which do not cross field boundaries (i.e. Start and Finish within one external field) can be used in selection tests for a SUBSET.

Calculated Fields are defined using either formulas or functions.

Press F9 to define a new Internal or Calculated Field.

| Add an internal/calculated field | | | | |
|----------------------------------|-------------------|--------------------|----------------|-------------|
| Field name | _____ | Type _ | Length _____ | Decimals __ |
| Date/Time format . . | _____ | Separator _ | DDS name _____ | |
| From position | _____ | | | |
| -or- Formula/Function | _____ | | | |
| | _____ | | | |
| | _____ | | | |
| Column headings . . . | _____ | | | |
| | _____ | | | |
| Text | _____ | | | |
| F3=Exit | F4=Prompt(fields) | F7=Select function | F12=Cancel | |

Enter the name of the new field, type, starting position, length, decimal position formula and column headings or function and text

The ORDER number for each new field adds set at 1.00 and all other ORDER numbers are incremented accordingly.

The new field can be used with the CHGFC command to update a file. It can also be used like any other field for scanning.

Internal field definitions can be saved together with an associated ViewPoint. To remove an Internal field definition from a ViewPoint, change the ORDER number to a value greater than 900.00.

Changing Field Definition – To change the definition of a field, press F10 from the Reorder Screen. You are prompted for the name of the field to change. You will be shown a display of the current definition allowing you to make the changes.

RGB Input Specification Fields – Fields defined as RPG input specifications or as Data Structure can be imported automatically by using S/36 Files Support Option 31 on the service screen.

Formulas and Functions – Enter a formula or function in combination with fields. Constants can be used to define the calculated field. Fields in the record can be selected from a list using F4.

The functions supported by FileScope Tools are those that are supported by most file editors and include date/time conversion, field concatenation, character and string conversion and IF logic functions.

Pressing F7 will bring up the Function List window.

```

      14 records          Show file SMZ1/DEMOPF contents          mbr: DEMOPF
.....
:                               Add an internal/calculated field
:
: Field name
: Date/Time
: From posit
: -or- Formu
:
:
: Column hea
:
: Text . .
: F3=Exit
:
:.....
  14.00 C
  15.00 C

```

List of functions

Select function to be placed at the cursor position.
 1=Select 5=Help Position to . . _____

| Sel | Name | Type | Text |
|-----|---------|------|--------------------------------------|
| = | ADDDAT | *SYS | Getdate from base date + added #days |
| - | CAT | *SYS | Concatenate fields |
| - | CATP | *SYS | Concatenate fields + padding |
| - | CHR2NUM | *SYS | Convert char fields to numeric |
| - | CVTDAT | *SYS | Convert date |
| - | CVTLTR | *SYS | Convert letters (Case) |
| - | CVTSTR | *SYS | Convert String |
| - | CVTTIM | *SYS | Convert time |

+

F3=Exit F12=Cancel

```

More..
F3=Exit    F6=Un/Fold    F9=Add-Fld    F10=Chg-Fld    F12=Cancel    F16=Find
F17=Top    F18=Bottom    F20=Renum    F22=KeySeq    F23=Ignore

```

By putting a 5 next to a function on the List of Function will provide help on that function.

The available functions are:

| | |
|---------|---|
| ADDDAT | Get Date from base + added #days |
| CAT | Concatenate fields |
| CATP | Concatenate fields + padding |
| CVTDAT | Convert Date |
| CVTLTR | Convert Letters (Case) |
| CVTSTR | Convert String |
| CVTTIM | Convert Time |
| DAYWEEK | Find the weekday out of the date |
| FLIP | Reverse field data |
| IF | %IF-Function |
| IFAND | %IFAND Function code |
| IFOR | %IFOR Function code |
| MAP | Copy and map to field to new attributes |
| RANDOM | Fill file randomly |
| WEEK | Get the week/year for a date |

IF, IFAND and IFOR Functions

The IF, IFAND and IFOR functions can be used to return a value for a calculated field based on tests between one or two sets of values. The test operators(s) can be EQ, NE, GT, GE, LT or LE. If using File Scope as your file editor there is a full explanation of the usage of these functions in the manual. A brief description and example is provided below to demonstrate these functions.

The IF function allows a test to be made between two values, each value can be either a constant or a field. The result of the test (true or false) determines which of another two values (fields or constants) are returned by the calculation.

Format: %IF(&value1 &test &value2 &>true &>false)

Example: IF(&PRICE GE200 1 0)

The IFAND function returns a value based on the result of an AND relationship between two tests.

Format: %IFAND(&value1 &test1 &value2 &value3 &value3 &test2 &value4 &>true &>false)

Example: %IFAND(&PRICE GS200 &QTY LT 500 1 0)

The IFOR function returns a value based on the result of an OR relationship between two tests.

Format: %IFOR(&value1 &test1 &value2 &value3 &test2 &value4 &>true &>false)

Example: %IFOR(&VEND EQ 50 &VENDCLASS EQ T 'YES' 'NO')

1.6 Service Screen

By entering F13 from the data screen access is made to the service screen.

```
      14 records          Show file SMZ1/DEMOPF contents      Mbr: DEMOPF
                          DEMO ITEM MASTER FILE
Select one of the following:                                Fmt: ITEMAS
                                                            Vpt: *NEW
  1. SUBSET Structured style          31. S/36 files support
  2. SUBSET Advanced style
  3. SUBSET Free style                51. File information
  4. SORT key
  6. Deactivate SUBSET/SORT          61. Multi-session manager
  7. Remove SUBSET/SORT
  8. OPNQRYF Statistics              71. Multi-file manager (Join)
  9. EXPORT      (OPNQRYF statement)  81. Report Generator
                                       91. File Conversion (+Y2K,+EURO)

 21. Print multiple records
 22. Print single record
 25. Print Record Structure

Selection __
F3=Exit   F12=Cancel   F22=Command
```

The service screen offers access to services provided by the product including: Subset, Print, S/36 conversion, Report Generator, Join files etc.

Through this screen, it is possible to display more information about the file through the operating system commands.

The contents of this screen vary according to the command used. SHWC or CHGFC, the parameter setting of the command and the relevant FileScope (File Editor) you are working on. Refer to your specific file editor manual for the proper settings.

1.7 Edit

Pressing (2) from the main display file information menu brings you to the edit screen.

| File | Control | Layout | Mode | Subset | Print | Window | Special | |
|--|---------|---|------------|--------------|--------------|-------------|------------|---------|
| 20 records | | Change file SMZ1/DEMOPF contents | | | | mbr: DEMOPF | | |
| Control. _____ | | (T=Top B=Bottom N=Nxt P=Prv +/-nnn K=Key) | | | | Fmt: ITEMAS | | |
| 1st.Fld. 1 _____ | | (n Name 0 /n F4) | | | | Vpt: *NEW | | |
| Scan . . _____ | | Test: _____ | | Value: _____ | | | | |
| Relative Record Number | ITEM # | DESCRIPTION (TRUNCATED) | ITEM VEND# | QTY ON HAND | QTY ON ORDER | ITEM PRICE | PRICE DATE | P C I P |
| *RRN | ITEMNO | SDESCR | VEND# | QTYOH | QTYOO | PRICE | PRCDAT | P |
| 5. | CDR010 | CD-RECORDABL | 26. | 721. | 16. | 102.00 | 930418. | 1 |
| 6. | CI999X | COPIR-INK | 778. | 719. | 207. | 432.58 | 950412. | 1 |
| 8. | C93757 | CASSETTES | 43. | 1001. | 718. | 39.96 | 950515. | 1 |
| 9. | D001 | DISK 8" D2 | 15. | 101. | 886. | 45.25 | 950305. | 1 |
| 10. | E3100 | ELC.SHARPEN. | 13.- | 138. | 518. | 44.55 | 941247. | |
| 11. | F2100 | FILE FOLDER | 0. | 110. | 417. | 57.64 | 931215. | |
| 73. | F2101 | FILE FOLDER | 5. | 110. | 417. | 57.64 | 931215. | |
| 7. | HP0003 | 3 HOLE PUNCH | 30. | 719. | 21. | 98.00- | 950119. | |
| 12. | L0002B | LETTER OPEN. | 15. | 107. | 539. | 24.97 | 881005. | 1 |
| 2. | MP0001 | MARK PEN, BLK | 5. | 568. | 28. | 2.00 | 211231. | 1 |
| 3. | MP0002 | MARK PEN, RED | 7. | 104. | 29. | 102.00 | 941216. | 2 |
| 1. | NP001F | NOTEPAD-A4,L | 9. | 54. | 26. | 100.00 | 991231. | 1 |
| F3=Exit F5=Refresh F6=Mode F10=Update F11=Single F13=Service F24=More keys | | | | | | | | |

To update data on the Multi record screen, press F10. The first record or the record where the cursor is located will appear. The Tab Key will move the cursor from field to field within the window. Change an input field or fields by typing over the displayed data. Press Enter to open a window on the next row. The cursor can also be moved up or down. This is in order that the user can be free to choose the next record on the screen to be changed. Enter will open the window on the chosen record

If the journaling system is active you should enter text describing the planned group of updates so that you are more easily able to identify other changes in case they need to be revoked. If the journaling system is not active a warning message will be displayed. Pressing enter will complete the update of the records and leave the update mode. After modifying the last displayed record, the process will be completed exactly like the F10 key.

Pressing F12 leaves the update mode without updating the records. A warning will appear. Press F12 again to exit without updating. To return to the update mode press Enter.

Chapter 2. Copy from PC Format

FileScope Tools is now capable of copying a stream file from the PC to the AS/400. The stream file needs to be either a Comma Separated File (.CSV) or a TAB created file.

You must have Client Access installed on your PC to view the file from a PC or another computer, the regular procedure is: Select, Network Neighbourhood, Select the AS/400, Select the \TMP directory to see the file. Clicking over the file usually turns on the MS-Excel, which works directly on the file.

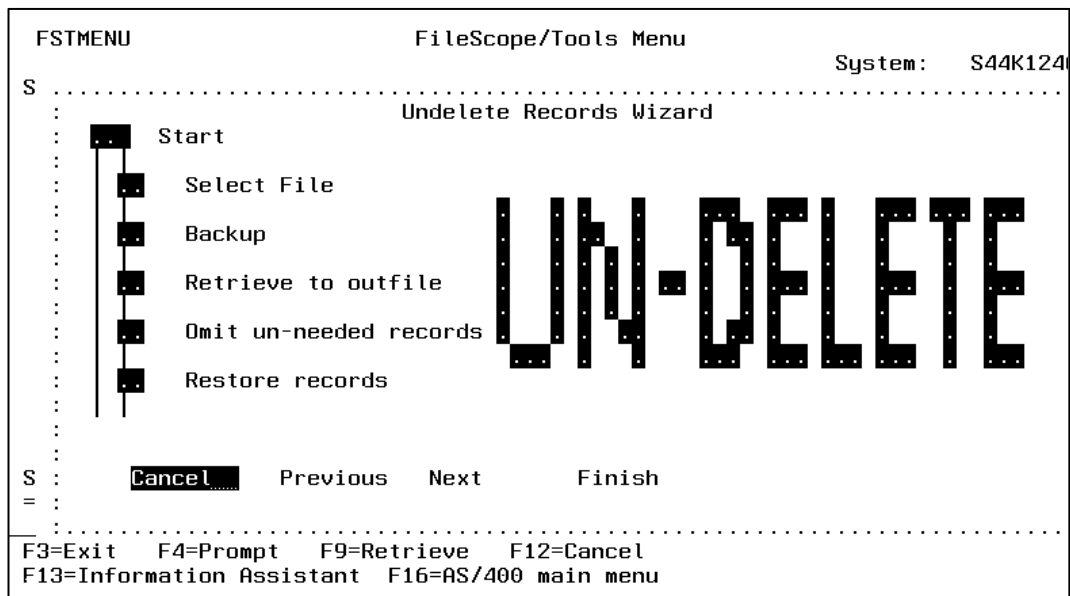
To perform this operation press option 11 from the FileScope Tools main menu.

Chapter 3. Deleted Records

There are two options to work with when you have records that are marked for deletion. The first option allows you to retrieve records and store them in a separate file. The second option allows you to retrieve and restore them back into their original file.

3.1 Retrieve Records

Selecting option 21 – Undelete Records Wizard



There are five steps involved in the Un-Delete process. You will need to follow all of the steps in order for the un-delete process to work.

Select File: Enter the name of the File, Library and Member. These are required fields.

Backup: After entering the file information you will need to specify your back up information

Retrieve to outfield: Enter the name of the file or one will be automatically created and assigned. To override a file that was already created before, press F4 and select from you list. Enter the name of the LIBRARY that you want the file to be set to.

Omit un-needed records: This screen requests that you delete the records that you don't want to be restored. This is done by your file editor.

Restore Records: This will restore all remaining records to the original file and put them back into their original place

After completing the required information and pressing enter you will see a **WARNING!** screen. If you press NO then the records will not be updated back to the RRN. Pressing 'Y' will reposition the records back in the RRN.

Chapter 4. Journal Contents

This command allows you to work with converted journal entries (contained in one or more receivers) into a form suitable for external representation. If the database file exists, records may either be replaced or added to the current data in the indicated file member. The system creates the specified database file member if they do not exist. Database files created by the system have a standard format. A WARNING message is sent and the records are truncated if any of the entries are longer than the specified maximum record length of the output files.

The contents of selected entries in the journal receivers may be converted for output. It is also possible to selectively limit the entries that are displayed. If no journal entries satisfy the selection or limitation criteria, an escape message is sent indicating that fact.

Gaps may exist in the sequence numbers of the converted entries. These occur because some of the journal entries represent internal system information. These entries will not be converted.

Restrictions – The file specified for the database output file must not be journaled to the same journal.

Note: Do not precede an entry with an asterisk unless the entry is a 'special value' that is shown (on the display or in the help information) with an asterisk.

```

Work with Journal Contents (WRKJRNC)

Type choices, press Enter.

File Name. . . . . _____ Name
  Library. . . . . *LIBL Name, *LIBL
Member name. . . . . *FIRST Name, *FIRST
Data layout . . . . . *FLD *FLD, *RCD
Journal . . . . . *CURRENT Name, *CURRENT
  Library . . . . . _____ Name, *LIBL, *CURLIB
Range of journal receivers:
  Starting journal receiver . . *CURRENT Name, *CURRENT, *CURCHAIN
    Library . . . . . _____ Name, *LIBL, *CURLIB
  Ending journal receiver . . . _____ Name, *CURRENT
    Library . . . . . _____ Name, *LIBL, *CURLIB
Starting date and time:
  Starting date . . . . . _____ Date
  Starting time . . . . . _____ Time

More...
F3=Exit F4=Prompt F5=Refresh F10=Additional parameters F12=Cancel
F13=How to use this display F24=More keys

```

File Name: Specify the name of the library of the physical database file whose journal entries are being converted.

Name: Specify the name of the physical journeyed filed

Library: Specify the library name where the file is located

*LIBL – All libraries in the job’s library list are searched until the first match is found.

Member Name: Specify the name of the file member whose entry is being converted for output.

*FIRST – Journal entries in the first member in the file are converted for output.

Data Layout: The way data is displayed

*FLD – Display the information in the field

*RCS – Display the information in record format

Journal: Specifies the journal from which the journal entries are retrieved for conversion and output. ***This is a required parameter.***

*CURRENT – Use current journal log

Library: Enter the library where the journal is located

*LIBL – All libraries in the job list are searched until the first match is found

*CURLIB – The current library for the job is used to locate the journal. If no library is specified as the current library for the job, QGPL is used.

Range of Journal Receivers: Specify a range of journals to start and end the output.

Starting Journal Receiver - Specify the name of the starting journal

*CURRENT – The current receiver that is currently attached when starting to convert journal entries is used.

*CURCHAIN - The journal receiver chain that includes the journal receiver that is currently attached when starting to convert journal entries is used. This receiver chain does not cross a break in the chain. If there is a break in the chain the receiver range is from the most recent break in the chain through the receiver that is attached when starting to convert the journal entries.

Library: The name where the journal receiver is located

*LIBL – All libraries in the job's library list are searched until the first match is found.

*CURLIB – The current library for the job is used to locate the journal receiver. If no library is specified as the current library for the job, QGPL is used.

Ending Journal Receiver: Specify the name of the last journal receiver whose entries are to be converted for output.

*CURRENT – The journal receiver that is currently attached when starting to convert journal entries is used.

Library: Library: The name where the journal receiver is located

*LIBL – All libraries in the job's library list are searched until the first match is found.

*CURLIB – The current library for the job is used to locate the journal receiver. If no library is specified as the current library for the job, QGPL is used.

Starting Date and Time: Specifies the date and time of the first journal entry being converted for external representation.

Starting Date (MM/DD/YYYY) – Specify the starting date of the first journal entry occurring at or after the specified starting date. This becomes the starting point for the range of entries to be converted for external representation.

Starting Time – Specify the starting time of the first journal entry occurring at or after the specified time of the first journal entry on or at that time. This becomes the starting point for the range of entries to be converted for external representation.

The time can be specified with or without a time separator.

Without a time separator, specify a string of 4 or 6 digits (hhmm or hhmmss) where hh=hours mm=minutes and ss =seconds

With a time separator specify a string of 8 digits where the time separator specified for your job is used to separate the hours, minutes and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If time separator other than the separator specified for your job is used, this command will fail.

```

Work with Journal Contents (WRKJRNC)

Type choices, press Enter.

Ending date and time:
Ending date . . . . . █          Date
Ending time . . . . .          Time
Number of journal entries . . . *ALL          Number, *ALL
Command to use . . . . . *EDIT      *EDIT, *DSP
Additional params for command . *NONE

-----
Prompt File Editor command . . . *NO          *YES, *NO
Journal codes:
Journal code value . . . . . *ALL          *ALL, A, C, F, J, L, M, O...
Journal code selection . . . . .          *ALLSLT
      + for more values
Job name . . . . . *ALL          Name, *ALL
User . . . . .          Name
Number . . . . .          000000-999999
More...
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys

```

Ending Date and Time: Specifies the creation date and time of the last journal entry being converted for external representation.

Ending-date (MM/DD/YYYY) – The ending date of the first journal entry occurring at or before the specified ending on the ending date. This becomes the ending point for the range of entries to be converted for external representation.

Ending Time – The ending time of the first journal entry. This time becomes the ending point for the range of entries to be converted for external representation.

The time can be specified with or without a time separator.

Without a time separator, specify a string of 4 or 6 digits (hum or hhmmss) where hh=hours mm=minutes and ss =seconds

With a time separator specify a string of f or 8 digits where the time separator specified for your job is used to separate the hours, minutes and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If time separator other than the separator specified for your job is used, this command will fail.

Number of Journal Entries: Enter the total number of journal entries that are being converted for output.

*ALL – All journal entries that meet the selection criteria values and that are in the specified journal receiver range are converted.

Number – Enter the maximum number of journal entries to be converted.

Command to use: You may edit or simply display the journal contents using the default file editor, as defined in the global parameters.

*EDIT – Edit journal

*DSP – Display journal

Additional params for command: Type any additional command parameters as required by your file editor.

Prompt File Editor: Option to use prompt file editor.

Yes/No

Journal Code Value: Specifies the journal codes for which journal entries are converted for output.

*ALL – The conversion of journal entries is not limited to entries with a particular journal code.

A – System Accounting Entry

C – Commitment Control Operation

F – Database File Member Operation

J – Journal or Receiver Operation

L – License Management

M – TCP/IP and Network Management Data

O – Object Oriented Entry

Journal Code Selection: Specify which journal code you wish to have converted for output.

*ALLSLT – The journal with the specified journal codes are converted for output only if all other selection parameters are satisfied.

Job Name: Specifies that the journal entries being converted for external representation are limited to the journal entries for a specified job. Only journal entries for the specified job are converted for external representation.

Name – Specify the name of the job

*ALL – The conversion of journal entries for external representation is not limited to entries for a specified job.

User: Specifies the user of the job

Name –

Number – Specify the system assigned job number

Program: Specifies that the journal entries being converted for external representation are limited to the journal entries created by a specified program.

*ALL – The conversion of journal entries is not limited to entries created by a particular program

Name – Specify the name of the program whose journal entries are being converted for external representation.

User Profile: Specifies that the journal entries being considered for conversion for external representation are limited to the journal entries created for the specified user profile name. The user name identifies the user profile under which the job was run that deposited the journal entries.

*ALL – Specify the name of the program whose journal entries are being converted for external representation.

Name – Specify the name of the user profile whose journal entries are being converted for external representation.

```

Work with Journal Contents (WRKJRNC)

Type choices, press Enter.

Dependent entries . . . . . *NONE          *ALL, *NONE
Outfile format . . . . . *TYPE3          *TYPE3
Entry data length:
  Field data format . . . . . *OUTFILFMT    Number, *OUTFILFMT, *CALC...
  Variable length field length _____ Number, *CALC
  Allocated length . . . . . _____    Number, *FLDLEN

Bottom
F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
F13=How to use this display   F24=More keys

```

Dependent Entries: Specify whether the journal entries to be converted for output include the journal entries recording actions that occur as a result of a trigger program and actions on records that are part of a referential constraint.

- *ALL – The journal entries relating to activate programs and referential constraints are converted.
- *NONE – The journal entries relating to the activate programs and referential constraints are not converted.
- Outfield format – Specifies the format of the journal entries written to the output file.
- *TYPE3 – Converted journal entries are formatted to include the minimum information that can be specified.

Field Data Format: Specify the format of the output file

- Number – Numeric length of the field
- *OUTFILFMT – The field length of the entry specific data field in the output file is determined by the value specified on the out file format prompt.
- *CALC – The system calculates the maximum length of the entry specific data field to accommodate the longest entry specific data of all journal entries in the specified receiver range.

Allocated Length: Specify the length of the field.

- Number – Specify a character number between the ranges 1 to 8000.
- *FLDLEN – The allocated length is the same as the maximum length of the field. if *CALC is specified for the maximum field length and the maximum length calculated by the system is smaller than the allocated length you specify, the allocated length is set to the maximum field length.

Chapter 5. Data Area/User Space/and Data Queue

5.1 Edit Data Area

To enter the Edit Data Area Screen - press 41 from the FS/Tools main menu screen

```
                                Edit Data Area (EDTDTAARA)

Type choices, press Enter.

Data area . . . . . *ALL_____ Name, generic*, *LDA, *GDA...
Library . . . . . *LIBL_____ Name, *LIBL, *CURLIB

                                                                    Bottom
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
```

Data Area: Specify the name and library of the data area whose value you wish to edit.

*ALL – Edit the entire data area

generic – Data that starts with the first letter specified.

*LDA – Local Data Area that is associated with your job can be edited. The length of this data area is 1024 bytes.

*GDA – Group data area associated with your job can be edited. The length of this data area is 412 bytes.

Library: The library where the data area you wish to work with is located.

*LIBL – All libraries in the job’s library list are searched until the first match is found.

*CURLIB – The current library for the job is used to locate the data area.

Name – Specify the name of the library where the data area is located.

5.2 Edit User Space

To edit the User Space - select option 42 from the main menu

```

                                Edit User Space (EDTUSRSPC)

Type choices, press Enter.

User space . . . . . *ALL_____ Name, generic*, *ALL
Library . . . . . *LIBL_____ Name, *LIBL, *CURLIB
Format . . . . . *CHAR_____ *CHAR

                                                                    Botto
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

User Space: Select the user space to edit

*ALL – All user spaces will be edited

Name – Enter the name of the user space to edit

generic* - Select from a list, by assigning the first letter of the user space name.

Library: Select the location of the user list that you wish to edit.

LIBL – All libraries in the job's library are searched until the first match is found.

*CURLIB – The current library for the job is used to locate the user space

Name – Enter the name of the library where the user space is located

Format: Specify the format of the space to edit

*CHAR – Character

5.3 Display User Space

To display a user space – select option 43 from the main menu

```
Display User Space (DSPUSRSPC)

Type choices, press Enter.

User space . . . . . *ALL      Name, generic*, *ALL
Library . . . . . *LIBL      Name, *LIBL, *CURLIB
Format . . . . . *CHAR      *CHAR

F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

User Space: Select the user space to display

*ALL – All user spaces will be displayed

Name – Enter the name of the user space to display

generic* - Select from a list, by assigning the first letter of the user space name.

Library: Select the location of the user list that you wish to display.

LIBL – All libraries in the job's library are searched until the first match is found.

*CURLIB – The current library for the job is used to locate the user space

Name – Enter the name of the library where the user space is located

Format: Specify the format of the space to display.

*CHAR – Character

After selecting your criteria press Enter. If you did not enter a name you will be given a list of user spaces to choose from.

```

Display User Space (DSPUSRSPC)

Type choices, press Enter.

User space . . . . . *ALL_____ Name, generic*, *ALL
Library . . . . . qtemp_____ Name, *LIBL, *CURLIB
Format

User Space in QTEMP/*ALL

Type option, press Enter.
1=Select

Opt Name      Text
_  FSFLDLST   FS
=  FSRCDLST   FS

F3=Exit      F24=Mor
F3=Exit      F12=Cancel
Bottom

```

To choose the user space place a 1 next to the item you wish to view, and press Enter.

```

Display User Spac
System: 44K124

User Space. . . . . : FSRCDLST
Library . . . . . : QTEMP
Type . . . . . : *USRSPACE
Length. . . . . : 3584
Text . . . . . : FS

Value
Offset *...+...1...+...2...+...3...+...4...+...5
0 .....
50 .....00100RCDL0200QUSLRCD 1000720120
100 525C H t | / o i i
150 .....FSRCDLST
200 QTEMP RCDL0200DEMOPF SMZ1 0
250 DEMOPF SMZ1 PF Demo file
300 .....0990901154
350 133 ITEMAS 4D49CDACFA68F A
400 DEMO_ITEM_MASTER_FILE

Press Enter to continue.
F3=Exit F12=Cancel
More..

```

Pressing F12 will return you to the main menu.

5.4 Display/Edit Data Queue

Options 31/32 allow for the displaying and editing Data Queues in either standard data queue format or where data is divided into fields based on a template file. It allows the user to use their current file editor to display or edit the data in the data queues. The screens below reflect the criteria input screens for displaying and editing the data queues.

```
Display Data Queue (DSPDTAQ)

Type choices, press Enter.

Data queue . . . . . ALL          Name, generic*, *ALL
  Library . . . . . *LIBL       Name, *LIBL, *CURLIB
Format file . . . . . *DTAQ     Name, *DTAQ, *NONE
  Library . . . . . *DTAQ     Name, *DTAQ
Maximum data length . . . . . *FMTFILE Number, *FMTFILE

Bottom
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

```
Edit Data Queue (EDTDTAQ)

Type choices, press Enter.

Data queue . . . . . ALL          Name, generic*, *ALL
  Library . . . . . *LIBL       Name, *LIBL, *CURLIB
Format file . . . . . *DTAQ     Name, *DTAQ, *NONE
  Library . . . . . *DTAQ     Name, *DTAQ
Lock data queue . . . . . *YES    *YES, *NO
Maximum data length . . . . . *FMTFILE Number, *FMTFILE

Bottom
F3=Exit  F4=Prompt  F5=Refresh  F12=Cancel  F13=How to use this display
F24=More keys
```

Chapter 6. Previous Commands (RTV), Related Products, and Maintenance

6.1 All Previous Commands

To work, view, and run previous commands without pressing the F9 key until you get to the command that you are looking for, pressing 61 will display all previous commands that have been entered.

```
Work with Previous Commands

Type options, press Enter.
  1=Run  2=Change
Opt Message
=  CHGFC FILE(*LIBL/DEMOPF)
-  chgfc demopf
-  dsplib qtemp
-  strfst
-  strgsnet

Botto

F3=Exit  F6=New  F12=Cancel
```

This screen will show the last ten AS/400 commands that were processed. This allows you to easily work through the menu and recall commands most commonly used. By pressing the PgDn key you will see the next ten commands that were run.

Pressing F6 will allow you to enter a new command and add it to the top of your page. When you enter the command it will be run automatically. Pressing F12 will return back to the 'All Commands Screen'.

Pressing F3 will return you back to the FS/Tools Main Menu.

To run a command, place a '1' next to the command that you wish to run.

To change a command, place a '2' next to the command you wish to edit the command.

6.2 FileScope – File Editor

Pressing '71' from the FS/Tools Main Menu switches you between FileScope or your current file editor and FileScope Tools. This allows for easy access between the two programs without the need to close either the program or re-type commands. If you are using a different file editor than FileScope then you will need to configure FileScope Tools for that editor. This can be done in the Maintenance area of FileScope Tools.

6.3 Maintenance

The maintenance area of FileScope Tools allows you to fine tune the way FileScope Tools will work for you.

```
Define FS/Tools global defaults    20/07/00  13:26:37

General
Enable accented letters . . . . . N          Y=Yes, N=No
Right to left system . . . . . N          Y=Yes, N=No
DBCS system . . . . . N          Y=Yes, N=No
Exit list on Enter . . . . . Y          Y=Yes, N=No

File Editor
File editor name & libraries. . . . . FileScope
Libraries to add . . . . . *NONE *NONE
Main Menu command . . . . . STRFS
Display command . . . . . SHWFC &L/&F
Edit command . . . . . CHGFC &L/&F
Work with Views command . . . . . WRKFSVPT &F &L

Release ID . . . . . 01.0 99/11/24 230
Authority Code . . . . . 100008348222 44K1246 S10 2118

F3=Exit          F12=Cancel    F22=Authority Code
```

General: Set the general defaults of how FS/Tools works with operating environment.

Enable accented letters – Allow for European characters (à é ì ó ü). Select 'Y' to accept these characters.

Right to left system – Allow for Hebrew (שלוט). Select 'Y' for Right to Left support.

DBCS System – Supports Double Byte Character Set, found in Japanese and Chinese programming code.

Exit lists on ENTER – Type 'Y' to specify that the user can exit lists panels with the ENTER key. 'N' to Specify that the user cannot exit lists panels with the ENTER key.

File Editor: Select the File Editor you wish to use

File Editor Name & libraries – Enter the name of the file editor

Libraries to add – Enter the libraries to add to your library lists. *NONE means that no libraries are added.

Main Menu – Enter the command used to call the File Editor Program.

Display Command – Enter the command used display your files.

Edit Command – Enter the command used to edit your files.

Work with Views command – Enter the command used for Working with Viewpoints.

Release ID – The current version of the product.

Authority Code – Press F22 to enter your authority code.

Appendix A. Backup

The product libraries should be regularly backed up.

Product libraries

As soon as the permanent Authorization Code has been entered, and at regular intervals, it is highly recommended that you make a fresh backup of the FileScope Tools library: SMZ2

For example, to backup the FileScope Tools libraries to diskette:

- Insert a backup diskette in the diskette drive.
- Enter: SAVLIB (SMZ2) VOL(*MOUNTED)DEV(DKT01)

Appendix B. Performance Tips

The resources used by FileScope Tools are similar to those of PDM (Programming Development Manager) by IBM®

Appendix C. Technical Description

| | |
|--------------------------------------|---|
| Libraries: | SMZ2, SMZXDTA. |
| Objects in QGPL: library to QGPL: | All commands are copied from the product library to QGPL: |
| Library list: | not changed during or after execution and should include QGPL. |

Appendix D. Product defaults

System wide defaults can be customized. To modify them, select option 81 from the main menu (accessed by STRFST).