

Software Release Notice
for
File Management Utilities

Version 03.16.00

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(001246)



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1.0 Release Abstract

A large number of utility programs are provided to extend the support which the VS Operating System provides for the VS programming and application development environment. This software release notice describes the utilities in the VS File Management and Application Development Utilities package, Release Version 3.16.00.

This software release notice contains specific information on the contents of and instructions for installing the VS File Management and Application Development utilities on your VS system.

2.0 Prerequisites and Dependencies

2.1 Hardware Prerequisites

None.

2.2 Software Prerequisites

The utilities in this release of the VS File Management and Application Development utilities have been revised to insure Year 2000 support on Operating Systems 7.52.00 and greater as well as remain compatible with Operating System baselines currently supported released prior to 7.52.00.

The following list shows software requirements for this release of the VS File Management and Application Development Utilities:

- VS Operating System Release 7.21 baseline starting with 7.21.09 as well as the all baselines released after 7.40.00.

2.3 Utilities Software

The following list shows additional restrictions or dependencies required to support each utility in this software package when they apply.

CONTROL

To take advantage of new file information and new field types provided in CONTROL, Release 5.00 or greater of DATENTRY and REPORT must reside in the system library. When you use an earlier release of DATENTRY or REPORT to manipulate a Release 5 or greater control file, unexpected results may occur.

DEBUGGER

INFO

Release 1.12.15 or greater (for HELP command).

LINKER

Execution of object files obtaining type 3 origin records for static sections larger than 1 megabyte requires VS OS 7.21 or greater.

3.0 Restrictions and Special Considerations

This chapter describes the special conditions that you may encounter when you are using Release 3.16.00 of the VS File Management and Application Developments Utilities. It is strongly recommended that you read this chapter before you install this release.

FILEOWNER version 07.52.02

Condition: There is a limit of 24 individually selected user IDs when the LISTTYPE = SELECT option is chosen.

Resolution: Be aware of this condition.

Condition: There is a limit of 128 locally mounted volumes that may be scanned for files. Remote volumes and volume sets cannot be processed.

Resolution: You may have to dismount some volumes that have names early in the alphabet in order to process those volumes that are not displayed.

4.0 Enhancements

4.1 Enhancements in Release 3.16

CONTROL version 7.53.00 and DATENTRY version 7.53.00 now support 3 new 4-digit year date stamps. They are 7-DAY (YYYYDDD), 8-DATE (MMDDYYYY), AND 9-DATE (YYYYMMDD). The next figure shows the new FIELD SPECIFICATION SCREEN.

FIELD SPECIFICATION SCREEN

```
Field name : *****
Start loc  : 0077      (Starting location within the data record)
Int. format : C       (P-packed, B-binary, C-character, Z-zoned, U-unsigned)
Int. length : ***     (Maximum values: P-8, B-4, C-132, Z-15, U-15)
Ext. length : ***     (only if not calculated from internal length)
Decimal pos : 0       (0-9, specify for numeric fields only)
Occurrences : 01      (number of times this field is repeated)
Report code : 0       (0-report on this field, 1-no reporting allowed)
Update code : 0       (0-modifiable, 1-nonmodifiable, no DATENTRY processing)
Display code: 0       (0-blank field, 1-display last value, 2-display only)
0-suppress  : 0       (0-no zero suppress, 1-zero suppress, 2-* protect)
Sign control: 0       (0-no sign, 1-trailing minus, 2-CR on -, 3- DB on -)
Dollar/comma: 0      (0-none 1-comma, 2-dollar, 3-comma and dollar)
Binary edit : 0       (0-hex, 1-decimal, Binary format only)
Stamp Field : 0       (0-no, 1-Date(MMDDYY), 2-Date(YMMDD), 3-Day(YDDD), 4-Time
                    5-Date & Time created, 6-Date & Time last modified
                    7-Day(YYYYDDD), 8-Date(MMDDYYYY), 9-Date(YYYYMMDD)
Cum. field  : ***** (cumulative field name)
Field alias : ***** (alternate name used by INQUIRY)
```

(ENTER) Supply all information and continue Or (16) Return to Central Menu

The stamp field text has been shifted to the left to make room for the (YDDD) format shown for the Day type 3 date stamp. All error messages have been changed to indicate which date stamp type is in error. For example: "Internal length for character or unsigned day stamp type 3 must be 5" would be for 3-Day, while "Internal length for character or unsigned day stamp type 7 must be 7" would be for 7-Day. Other than having 4 digit years the date stamps are edited just like their counterparts in DATENTRY. The acceptable range for the century is from 19 to 99. Other than supporting the new date stamps provided by CONTROL there is no obvious change to DATENTRY.

This next figure shows the List Control File Fields Screen which demonstrates the new date stamp identifiers for the new type stamp types DAY7, DATE8, and DATE9.

List Control File Fields

Field Name	Start Posn	Int Fmt	Int Len	Ext Len	Dec Pos	Occur Count	Report/ Update	Upd Seq	Stamp	Cum Field	Table/ Range
* DATE1	1	C	6	6	0	1	R/U	2	Date1		
* DATE2	7	C	6	6	0	1	R/U	1	Date2		
* DAY3	13	C	5	5	0	1	R/U	3	Day3		
* TIME	18	C	8	8	0	1	R/U	4	Time		
* DANDT5	26	C	14	14	0	1	R/U	5	D&T5		
* DANDT6	40	C	14	14	0	1	R/U	6	D&T6		
* DAY7	54	C	7	7	0	1	R/U	7	Day7		
* DATE8	61	C	8	8	0	1	R/U	8	Date8		
* DATE9	69	C	8	8	0	1	R/U	9	Date9		
-Not used-	77		4								

(ENTER) Continue to modification after positioning the cursor

(1) Redisplay header (2) First (3) Last (4) Previous (5) Next (16) Return

4.1 Enhancements in release 3.15

LINKER version 7.52.05 and greater

The following compilers have been enhanced to provide in the lengths block the compilation time for object form 0 output. LINKER versions 7.52.05 and greater can now use the compilation time in object form 0 in determining the DATSEL option selection when duplicate compilation dates are encountered. Object form 1 output has always worked in this manner since the date and time has always been available in the linkage block of the object code and therefore available to the LINKER.

- BASIC Version 7.52.04
- COBOL74 Version 7.52.07
- COBOL85 Version 3.01.04
- RPGII Version 7.52.05

4.2 Enhancements in release 3.13

All utilities in release 3.13 and greater have been created using all year 2000 compliant compilers and utilities.

FORMS Files

Some compilers such as COBOL have their forms files built in. Others such as RPGII use the external forms files. The setting on the OPTIONS screen were not always consistant between the internal compiler forms and those released with the compiler or the EDITOR. Versions 7.52.02 and 7.52.04 of the EDITOR corrected the problem where some options (see section 5.0) were being forced to a specific value, regardless

of the values in the external forms file. Section 10 demonstrates the forms files as they will now be released. Changes to the setting will be noted. If the new forms are installed, SETOPTS should be used to modify these forms to be consistent with the previous setting which had been used. (See the installation instructions as well as review the screens in the Installation Procedure).

INSTALLATION Procedure

The installation procedure has been updated to provide more flexibility in the FMU installation options. Unlike the previous installation procedure, the FMU package can now be installed in its entirety or in pieces. MANAGER is now contained in a separate library for installation (See enhancement below for explanation). Also, forms files can be copied or replaced on an individual basis so as not to replace forms which have been modified through SETOPTS by the user without it being explicitly requested.

COMPARE version 7.54.00 and greater

COMPARE version 4.00.00 which was previously released with FMU 3.03.00 has been enhanced to be year 2000 compliant. This version offers enhanced comparison capabilities and other new features as listed below:

- COMPARE now allows the comparison of multiple fields from the two files instead of a single field in DISPLAY and SUMMARY nodes.
- COMPARE also allows the comparison to start at a specific record number (or key) in each of the two files to proceed for a specific number of records in DISPLAY or SUMMARY modes.
- COMPARE now has the ability to print a report of any differences on a record basis in summary mode.
- The FILE INFO screen has been modified to display the full creation, modification, and expiration date.
- In DISPLAY mode the file, library, and volume names are displayed (i.e. File1: FILEONE in FILELIB on FILVOL). Some error messages have been modified to a shorter version to allow for this information to be displayed on the screen.
- In SUMMARY mode the upper and lower case print file classes can be specified and are now available on operating systems which support this feature.
- All comparison listings now display the full year 2000 compliant date.

MANAGER version 7.52.07 and greater

MANAGER now supports full 4 digit years when displaying and modifying the expiration, modification, and creation dates. Full 4 digit years are also supported on these dates within the file filter function. Because these features may have been proceduralized, MANAGER can now be installed independently to allow testing of new procedures to be performed prior to installation into the system library.

SELPRINT version 7.52.03 and greater

SELPRINT now allows both upper and lower case print classes.

4.3 Enhancements prior to this release

COBGEN version 7.52.01 and greater

The COBOL Source Code Creation Utility screen now shows the full date such as 04/01/1996. The COBOL source code now generates the full date under DATE-WRITTEN such as 04/01/1996.

COMPARE version 7.52.02

The comparison listings now display the date such as 04/01/1996.

COMPILE version 7.52.01 and greater

The heading on the Statistics listing now displays the date such as Monday April 1, 1996.

CONTROL version 7.52.01 and greater

Control File Utility listing now displays the date and time in such as Date: 04/01/1996
Time: 10:00.

FILEDISP version 7.52.01 and greater

FILEDISP now allows the user to distinguish on which volume types the search will be made. The search can be on all volumes local and remote, local only, or remote only. This new flexibility can greatly enhance the search speed as well as restrict unwanted information.

FILEOWNR version 7.52.01 and greater

FILEOWNR now excludes any volume that is part of a volume set as well as remotely mounted volumes from the VOLUMES getparm (these volumes cannot be processed by the READVTOC VSSUB which is used to obtain the information for the report). Also, FILEOWNR now allows up to 128 volumes to be selected from. If more than 40 acceptable volumes are available, PFkey 4 (first) and PFkey 5 (next) are made available to the user to allow paging through the volume list. In addition, PFkey 16 (to exit FILEOWNR) is now available from all FILEOWNR screens, eliminating the necessity to go back to the Options screen to exit.

INQUIRY version 7.52.02 and greater

The RESULTS OF INQUIRY listing now displays the date as 04/01/1996.

INQUIRY version 7.52.03 and greater

Changes have been made to the INQUIRY Input screen. A new OPEN MODE of SPINP (special input) can now be specified for Indexed files. If this OPEN MODE is specified for Consecutive files the user does not receive an error message but the default is set to Consecutive-Shared. In addition a NEW keyword of FILEORG is provided to work in conjunction with the EXTRACT option of OPTION. This provides the ability for the user to define the File Organization of the output created from the EXTRACT. As is true with the new OPEN MODE, this only affects Indexed files. The value of SAME will set the output file organization the same as the input file. The value of DMS will set the file organization of the output file to Indexed whether the input is Indexed or Indexed-Plus. The value of XDMS will set the file organization of the output file to Indexed-Plus whether the input is Indexed or Indexed-Plus. Note the exceptions to the above rules.

The DMS option only works if the Operating System has not been generated to make all output files indexed-plus format. The user will not be warned that this will occur but should be aware of how the system has been generated. The XDMS option is only allowed when XDMS is installed and the user will not be allowed to make that selection.

MANAGER version 7.52.05

MANAGER now correctly calculates the expiration date when attempting to copy a file and the system is IPL'd in the year 2000.

MANAGER version 7.52.04 (not released separately)

MANAGER now allows lower case 'a-z' print classes as well as upper case print classes 'A-Z'.

MANAGER version 7.52.02 and greater

The headings on all listings now display the date such as 04/01/1996.

PROCGEN version 7.52.01 and greater

The introductory screen and procedure output now display the date such as 04/01/1996. The creation and modification dates now display in the same manner.

REPORT version 7.52.02

The REPORT output listings now display the date such as 04/01/1996.

RPTGEN version 7.52.01 and greater

The year under DATE-WRITTEN now reflects the date such as 04/01/1996.

5.0 Problems Corrected

5.1 Problems Corrected in release 3.16.00

COBGEN Version 7.52.05

E145533

When using a control file which has alternate keys to define a data file this utility no longer fails with a PC07 but creates proper code.

CREATE Version 7.52.04

E165286

The information screen has been modified to show 2040 as the maximum indexed and alternate indexed file length that can be defined by a user. CREATE now correctly handles the creation of indexed and alternate files greater than 2024 characters in length. The edits for indexed and alternate indexed plus files now accurately work.

@DEBUG@ Version 01.14.02

Internal

This version corrects an erroneous "Listing and object have different date/times" message which appeared when the program had been compiled after February 28, 2000. In addition, the message has now been enhanced and separated into two messages; one for a date mismatch and one for a time mismatch. The messages say "Listing/object file mismatch: Listing date = yymmdd, object date = yymmdd" and "Listing /object file mismatch: Listing time = Ohhmmss, Object time = Ohhmmss."

DATENTRY Version 07.52.04

Internal

When selecting the (12) Table/Range pfkey option against a field which has no table or range defined, the compiler no longer fails with a PC07 but provides the correct message 'WARNING: There are no range or table values to be displayed' is displayed.

PROCGEN Version 07.52.04

E149890

PROCGEN now properly creates a procedure using the SORT option as documented in the File Management Utilities manual.

REPORT Version 07.52.04

E152927

NEWFIELD addition and deletion is now handled correctly, eliminating problems encountered such as previously deleted fields still showing up when they should no longer exist as well as receiving a PC05 while trying to print a report.

5.2 Problems Corrected in release 3.15.00

LINKER Version 07.52.05

The duplicate sections portion of the linkage map now correctly displays compilation dates from the year 2000 as well as zeros in the time column in lieu of blanks when there is no time available to be shown.

5.3 Problems Corrected in release 3.14.00

LINKER Version 07.52.04

Problems with linking SSL Libraries have been resolved with this version.

When linking in object files with a creation date in the year 2000 the date on the linkage map appeared either as blanks or garbage. This problem has been resolved.

When linking in duplicate sections created in the year 1999 and the year 2000 the wrong section was selected. This problem has been corrected.

PRCFORM Version 10

An apparent problem in the creation of Version 9 of the Procedure Interpreter forms file PRCFORM used by the EDITOR was causing a procedure to be run after syntax checking when only syntax checking was selected. This appeared to be an EDITOR problem when in fact it was a problem with the object forms creation. The forms file has been recreated as version 10 to eliminate any confusion as to which form should be used. Since no change was made to the form the user also has the option to resolve this problem by going back to version 8 of PRCFORM.

Installation Procedure

Corrections have been made to the installation procedure. The BACKUP option is used in lieu of the RESTORE option. This will allow the installation to take place from any volume.

The installation procedure no longer overwrites the entry for the compiler LNKFORM.

5.4 Problems Corrected in release 3.13.00

EDITOR Version 07.52.04

Prior versions of the EDITOR automatically reset certain option field values depending upon language type. Further cases of this have been reported and corrected as well. The following shows the version of the EDITOR where these situations have been eliminated. Now the fields remain as defaulted in the forms file and must be changed through SETOPTS if desired.

Version 7.52.02 released in FMU 03.07.00 corrected the situation where the following languages caused the option to be changed as shown.

COBOL85	SOURCE	= YES
COBOL	SOURCE	= YES
	SEQ	= YES

Version 7.52.04 released in this FMU package corrects the additional situations where the following languages caused the option to be changed as shown.

CC	SYMB	= YES
COBOL	SYMB	= YES
COBOL85	SYMB	= YES
GLOSSARY	SYMB	= YES
ASSEMBLER	ERRLIST	= YES
BASIC	ERRLIST	= YES
PLI	OPT	= YES
RPGII	LIST	= YES

NOTE: Be sure that SETOPTS is used to insure that these setting are the default in the forms file if these results are to remain the same.

DEBUGGER

Problem Corrected in version 1.14.01

This version resolves the erroneous date being displayed on the VS Symbolic Debugger listing created when a background task goes into debug on systems IPL'd in the year 2000 and beyond. In addition, the SCAN command was corrected so a scan for a hexadecimal value was not processed according to the CASE setting, and a condition which could cause the debugger to be unable to position the listing to the correct code section was corrected.

5.5 *Problems corrected prior to this release.*

These are listed by product with product version number and FMU package number as a reference guide.

PRODUCT	VERSION	FMU PACKAGE
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<i>ACLDVR</i>	<i>1.00.01</i>	<i>03.05.00</i>
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Problem in linkage area in version 01.00.00 has been corrected in 01.00.01. This problem is apparent when a PC01 is received during the REPLACE process of the EDITOR. No other modules need be changed but the entire package has been released for convenience.

<i>COMPARE</i>	<i>7.52.02</i>	<i>03.06.00</i>
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An attempt to compare a file on a volume set resulted in a PCOA on a 7.53.00 operating system. Corrections to this problem have been incorporated into this version for Operating System 7.53.00.

<i>COMPILE</i>	<i>7.52.00</i>	<i>03.03.00</i>
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PTR Number	Description
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M410012576	COMPILE no longer returns the message 'Volume not mounted or incorrectly specified. Please Respecify.' when attempting to access a multi-volume set.
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<i>CREATE</i>	<i>7.52.02</i>	<i>03.06.00</i>
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Problem in creating a consecutive file smaller than the print file it comes from has been corrected. The buffer is now cleared prior to writing each new line providing correct results.

<i>CREATE</i>	<i>7.52.00</i>	<i>03.04.00</i>
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When creating print file output the buffer was not being cleared, causing material to be incorrectly carried from the previous line to the next. This situation has been corrected.

<i>DEBUGGER</i>	<i>1.14.00</i>	<i>03.07.00</i>
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This version resolves the erroneous 'Warning - listing and object have different time/date' message as well as other reported problems with dates (including a debugger crash when a background task terminated abnormally). In addition, this version correctly disassembles the XPAND and COMP instructions.

<i>EDITOR</i>	<i>7.52.02</i>	<i>03.07.00</i>
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Previous versions of the EDITOR automatically reset certain options. This restriction has been removed and the EDITOR now defaults these fields as they exist in the Forms file for the associated language. These field values can be modified through the use of the SETOPTS utility.

INQUIRY 7.52.02 03.06.00

PTR Number Description

M800027458 Problem in running a query using primary and alternate keys as part of the conditional statement now resolved providing correct results the first time the query is run.

LINKER 7.52.02 03.08.00

When running the LINKER 7.52.01 on a 7.21.09 Operating System it was discovered that the date information was not being returned correctly. It was determined that the problem was in the date facility being used internally by LINKER product designed for Year 2000 support which the 7.21.09 Operating System does not support. To insure that all FMU products are backward compatible to the 7.21.09 baseline, some products have been recreated using a corrected date facility. No other corrections have been made to this FMU package.

LNKFORM 000146 03.09.00

Corrections made in version 000145 caused some fields to have input required where in previous versions the defaults were acceptable. This restriction has been removed and the field input now works as in previous versions without undoing modifications made in version 000145.

LNKFORM 000145 03.07.00

Previous versions of the LNKFORM did not allow the SETOPTS program to modify various fields.

MANAGER 7.52.02 03.06.00

MANAGER had to be updated to insure remote volume set information access was still available and WI6VLST was updated to handle systems with more volumes and more data.

MANAGER 7.52.00 03.03.00

PTR Number Description

M410012150 MANAGER now correctly displays volume information for volumes that reside across the cluster in an RSP environment.

M410012444 MANAGER now correctly displays the number of allocated blocks for a file on a multi-volume set that resides across the cluster in an RSF environment.

M410012444 The grammatical error received when attempting to RENAME a file while lacking access rights has been corrected.

6.0 New Known Anomalies Since FMU 03.09.00

None.

7.0 Media Contents

7.1 Introduction

The information in this chapter helps customer installations concerned with space utilization make local decisions over which files to maintain on their system volumes.

Sections 7-2 through 7-6 list the files that constitute the VS File Management and Application Development utilities, along with their Release number and description.

Approximately 8 MB of disk storage is required for all files listed in this chapter.

No files in this package are required for system operation. They are all installable at the user's option.

Please note that more than one module may be required to complete the installation of a given utility. A hyphen (-) preceding a file name indicates that the file is related to the file it follows. For example, -RESVFILE follows COBGEN in the listings and is related to COBGEN. Sections 7.3 through 7.5 list additional files that are part of the COMPARE, DEBUGGER, EDITOR and LINKER utilities.

7.2 Program Files

Library = @SYSTEM@

Module	Version	Description
COBGEN	07.52.05	COBGEN utility
-RESVFILE	n/a	COBOL Reserved Word File (used by COBGEN)
COMPARE	07.54.02	COMPARE utility
COMPILE	07.52.03	COMPILE utility
CONDENSE	07.52.03	Produces a single record data file from files with multiple record types
-WG5CREAT	07.52.02	CONDENSE - External file
CONTROL	07.53.00	CONTROL utility
CREATE	07.52.04	CREATE utility
DATENTRY	07.53.00	Utility that enables user to create data files
@DEBUG@	01.14.02	Debugger main module
-DBGNOTES	01.14.02	Notes on the differences between the "new" and "old" Debugger

-@DBGCMDS	n/a	Command file
-DEBSTART	01.14.02	Default startup file
EDITOR	07.52.04	Source Text Editor
-FORMXPND	01.00.04	Expands forms file
-SETOPTS	01.00.13	Editor Set Options Utility
-SETOPTSF	000037	Editor Set Options Form File
-WE1EDIT	07.52.02	EDITOR linker output module
EZFORMAT	07.52.03	Generates code to reproduce user-created screen displays for programs or menus
EZPRINT	07.52.02	EZPRINT utility
FILEDISP	07.52.03	FILEDISP utility
FILEOWNER	07.52.03	FILEOWNER utility
INQUIRY	07.52.04	Interrogates data files
LINKER	07.52.05	VS Linker Utility
-ACLDVR	N/A	VS Linker Program
PROCGEN	07.52.04	PROCGEN Utility
-WI8BKUP	05.04.01	Backup Routine
-WI8CREA	05.04.04	Create Routine
-WI8INQU	05.04.02	Inquiry Routine
-WI8SORT	05.04.02	Sort Routine
REPORT	07.52.04	Utility create, modify, print reports
-WG3PRINT	07.52.04	REPORT - print module
RPTGEN	07.52.03	RPTGEN utility
SELPRINT	07.52.03	SELPRINT utility
SORTINT	07.52.02	International SORT
-STABLEMT	01.00.00	Table Mount Program
-TABLEDIF	000027	Table Editor Forms File

TABLEDIT	07.5	Table Editor Program
-TABLEMNT	000019	International SORT FORMs file
TRANSL	07.52.02	Translates files from one character set to another
VOLFRAG	07.52.03	VOLFRAG Utility

7.3 *Manager files*

Library = @MANAGER

MANAGER	07.52.07	MANAGER Utility
-RUNMGR1	01.00.00	Sample driver procedure
-WI6DSMT	01.00.03	Sample user exit to dismount volumes
-WI6GETP	01.00.03	Dummy getparm for use in user exits
-WI6SHOW	01.00.05	Displays/prints EZFORMAT 'SAVE' screens
-WI6SUBM	01.00.00	Sample user exit to submit procedures
-WI6VLST	07.52.06	Lists volume statistics
-WI6VRFY	01.00.03	Sample user exit to verify indexed files
-WI6WPD	07.30.04	Modified DISPLAY utility to allow formatted display of WP documents
-WI6XFER	01.00.00	Sample user exit for file transfer selections

7.4 *INFO Documents and Help Text*

Library = @DOCLIB@

Module	Version	Description
DEBUGGER	01.14.02	On-line help text for the Debugger
LNKH	02.05.10	On-line help text for the Linker
WI5HELP	07.54.02	COMPARE Help Text

7.5 All Forms Files and Debugger help text

Library = @UTILFRM

Module	Version	Description
@FORMS@	N/A	Forms File list for SETOPTS
ASMFORM	000009	Assembler Form File
** BASFORM	000004	BASIC Form File
** C74FORM	000032	COBOL74 Form File
** C85FORM	000046	COBOL85 Form File
** CCFORM	000004	C Compiler Form
F77FORM	000002	FORTTRAN77 Form File
GLFORM	000005	GLOSSARY Form File
LINKFORM	000116	Linker Form File
LNKFORM	000150	Linker Form File used by compilers and editors
** PLIFORM	000002	PLI Form File
PRCFORM	000010	PROCEDURE INTERPRETER Form File
** RPGFORM	000018	RPG Form File
TRAINDBG	000059	Debugger Training Text
** New forms files (please review sections 4 and 10 prior to installation)		

7.6 Installation and Verification Programs

These items are used at installation only; they should be scratched thereafter.

Library = @UTILRUN

Module	Version	Description
FIM	01.03.00	Forms Index Manager
FORMRITE	01.00.01	Gives FORMXPND SA rights
INSTALL	03.16.00	Utilities Install Proc.

7.7 *Customer Software Release Notice*

The following is a copy of this document (print file format).

Library = CSRNLIB

Module	Version	Description
FMU316	03.16.00	CSRN print file

8.0 **Installation Instructions for VS File Management and Application Development Utilities**

The VS File Management and Application Development utilities, hence referred to as the FMU package, are released on tape as an inclusion with the OS or as a standalone product if requested. In either case the INSTALL procedure must be run to insure proper installation of all components of the FMU package.

CAUTION - Though steps have been taken to facilitate the process of installing the FMU package, installation is a Getronics Customer Engineering responsibility on all VS systems except the VS5, VS6, and VS5000. An attempt to install these utilities on any other VS system without the assistance of a Getronics analyst could result in the loss of data or improper system operation.

NOTE - Read this if you have already installed a previous FMU package.

The installation procedure copies all the form files to your @SYSFRM@ library that do not already exist. However, the existing form files may be outdated or erroneous. If you have trouble compiling from within the Editor, it could be due to a bad form file (a message such as "Screen missing in form file; cannot continue" indicates that the form file is bad). If you see one of these messages, be sure to reinstall the form using the installation procedure. The compilers are responsible for their individual form files. The EDITOR also releases these forms files to establish a baseline. The latest modifications to any forms file established on the release of a compiler will be released with the EDITOR on the next release of the FMU. This may mean that if the latest compiler is not installed on the system, the new forms file released with the EDITOR may not be compatible with the old version of the compiler and should not be installed. To prevent problems be sure to keep a copy of your forms library prior to installation.

Use the BACKUP utility to install these utilities. To install the utilities on your VS system, follow the instructions outlined in this section.

Installing the utilities from the installation media involves three steps.

Step #1

If installing as part of an OS this step should have already been accomplished with the BACKUP of the release media to the system disk. In this case go on to step 2. If this is a separate release of the FMU continue with the following:

Using BACKUP, place the contents of the release tape on either a work disk or the system disk. IF THE BACKUP IS TO THE SYSTEM DISK, DUPLICATE FILES CAN BE HANDLED DURING BACKUP. If the BACKUP is done to a work volume the opportunity will be provided to save most files during the installation procedure.

8.1 Step #1 - Backup instructions

The following instructions describe how to backup the installation media to the desired disk drive:

1. From the VS Command Processor, press PF1 (RUN Program or Procedure). The Program Parameters screen appears.
2. From the Program Parameters screen, type BACKUP in the Program field, then press ENTER. The BACKUP Function Selection screen appears.
3. Press ENTER to perform a normal DMS backup. The BACKUP Input Parameters screen appears.
4. Enter the volume name of the tape in the VOLUME field. You can find the volume name printed on the label on the tape.
5. Specify TAPE in the DEVICE field, RESTORE in the FUNCTION field, YES in the ERRDISP field, leave the FILESEQ field blank, and specify NO in both the MOREFILE and SELECT files.
6. Select PF 4 to mount the input volume.
7. Type in the Unit Device number for the desire tape drive. (You can select HELP, PF(11) OPERATOR MODE, PF(11) TAPES, to view available tape drives and their device numbers)
8. Once the tape is successfully mounted the OUTPUT screen will appear.
9. Enter the name of the volume where you want to store the software in the Volume field. Enter NO in the CLEAR field. Press ENTER.
10. The Options screen appears.
The DUPFILES field allows you to decide what is to be done with duplicate files. The following describes what each option does.
 1. **PROMPT:** If a duplicate file is encountered a screen will appear to request further action. If backing up to the system volume the user will undoubtedly encounter duplicate files (i.e. @SYSTEM@ files) and be prompted for each one. If backing up to a work volume and installing from the installation procedure the opportunity is given to save the old versions of the @SYSTEM@ and @SYSFRM@ files with a single key stroke.
 2. **NOCOPY:** This skips duplicate files. Obviously this is not the desirable choice.
 3. **SCRATCH:** This will scratch all duplicate files without retaining a saved copy.
 4. **UPDATE:** This copies only files with a later modification date. Because dates can be manipulated this option may cause files not to be copied which should be.

11. When the backup has completed and the Logfiles screen appears, you have the option of printing out the log file. When you do want a printout of the log file enter YES in both the OUTDEV and PRINT fields. When you do not want a printout of the log file enter NO in both the OUTDEV and PRINT fields. Press ENTER.
12. When the EOJ Screen appears, press ENTER or PF16 to end the BACKUP utility.

8.2 Step #2 - Running the INSTALL Procedure

Run the INSTALL procedure in @UTILRUN on the backup volume. The installation procedure can be used to install all or part of the FMU package and screens should be carefully read before making PFkey selections.

1. From the VS Command Processor, press PF1 (RUN program or procedure). The Program Parameters screen appears.
2. From the Program Parameters screen, type INSTALL in the Program field, @UTILRUN in the library field, and enter the name of the volume where you backed up the utilities files in the volume field. Press ENTER.
3. A screen appears that prompts you to enter the name of the volume where you backed up the utilities files. The field has the name of the volume from where you are running the installation procedure as its default. Specify a different volume name or accept the default, and press ENTER.
4. Follow the screens carefully. The FMU package can now be installed in pieces with save options for almost all of the files in the package. Once the installation is complete the installation procedure is scratched. If any part of the FMU package is left on the installation volume the installation procedure will not be automatically scratched.

9.0 Documentation Changes

9.1 Add or replace the following pages in the VS File Management and Application Development Utilities Manual (715-1715A):

```
*****
Wang VS GETPARM v 7                               Parameter Reference Name: INPUT
                                                    Message Id: 0001
                                                    Component: FLDISP
Information Required by ADE                          *
Active Subprogram is FILEDISP                       *

VS Filename Display Utility - Version 7.52.03 (c) Copr. Getronics Co., 2000

Please specify the desired file/library/volume mask values and press the
appropriate PF key to perform the search for the specified item:

FILE      = *****  LIBRARY = *****  VOLUME = *****
```

```
Select:
(ENTER) Remote and Local Volumes (1) Local Volumes Only (5) Remote Volumes Only
(13) Information Concerning Mask Options (16) Exit from FILEDISP
```

Figure 12-1: FILEDISP Mask Specification Screen

When you have entered specifications that will locate the file, library, and volume names you want, press the appropriate pfkey.

- ENTER - Will search both local and remote volumes.
- PF 1 - Will search only locally mounted volumes.
- PF 5 - Will search only remotely mounted volumes.
- PF 13 - Will display the mask information screen.
- PF 16 - Will terminate FILEDISP processing.

VS File Manager - Version 7.52.07 (c) Copr. Getronics Co., 2000

Please supply the following information and press ENTER to print file FILEWXYZ in library LIBRARYZ on volume VOLUME

Format for printed output? (AUTO / REPORT / RECORD / HEX)	FORMAT = AUTO**
Lines per page	LINES = 055 (16-255)
Print mode ('S'pool or 'H'old)	MODE = K (S / H / K)
Print class	CLASS = C (a-z) (A-Z)
Scratch file after printing?	SCRATCH = NO* (YES / NO)
Number of copies to be printed	COPIES = ****1 (1-32767)
Form number to be used	FORM = 000 (0-254)
Print left hand margin starting at	COLUMN = 00 (0-56)

Or Select:

(16) Return

Figure 14-11 Specify Print Parameters Screen

10.0 Forms File Changes

10.1 BASFORM

Press PF1 to return to the Special Command menu

Modify options as desired - Press ENTER to continue

Print source listing?	SOURCE = YES (YES/NO)
Print generated code?	PMPA = NO* (YES/NO)
Print cross-reference?	XREF = NO* (YES/NO)
Generate object code?	LOAD = YES (YES/NO)
Include symbolic debug data?	SYMB = YES (YES/NO)
Check subscripts at run-time?	SUBCHK = NO* (YES/NO)
Use decimal floating numerics?	DFLOAT = NO* (YES/NO)
Use Minimal ANSI Standard rules?	MINANS = NO* (YES/NO)
Print separate error listing?	ERRLIST = NO* (YES/NO)
Set error severity limit	FLAG = 00 (0-20)
Set code generation stop level	STOP = 08 (0-20)
Lines per page on listing	LINES = 60 (5-99)
Type of File Services Support	FILES = ANY* (DMS/XDMS/ANY)

(c) Copr GETRONICS 2000

Line and new setting	Previous old settings that have been changed
Print separate error listing = NO	Compiler was NO
	Editor forced YES

10.2 C74FORM

Press PF1 to return to the Special Command menu

Modify options as desired and press ENTER:

Print source	SOURCE = YES	Cross-reference	XREF = NO*
Generate object	LOAD = YES	Symbolic debug	SYMB = YES
Print code	PMAP = NO*	Data Division map	DMAP = NO*
Check sequence	SEQ = NO*	Check subscripts	SUBCHK = NO*
Truncate COMP to PIC	TRUNC = NO*	WISCII support	WISCII = NO*
Separate sign character	SEPSGN = YES	Lowercase D+R input	LOWER = NO*
Support Overlapping Move	OVERLAP = NO*	Specify COPY Paths	COPYLIBS = NO*
Lowest severity error printed	FLAG = 04	(00 - 20)	
Code generation stop level	STOP = 08	(00 - 20)	
Number of lines per page	LINES = 55	(02 - 99)	
Single or double spaced	SPACE = 1	(1 / 2)	
FIPS Flagger	FIPS = NO*	(NO/LOW/LI/HI/EXT)	
PACE HLI Preprocessing	PREP = NO*	(NO/YES/PACE Rev#)	
Fullwd BINARY and SYNCHRONIZED	SYNC = ON*	(OFF/ON)	
Type of File Services Support	FILES = ANY*	(DMS/XDMS/ANY)	

(c) Copr Getronics Co., 2000

Line and new setting	Previous old settings that have been changed
Print Source = YES	Compiler was NO Editor forced YES
Check sequence = NO	Compiler was NO Editor forced YES
Symbolic Debug = YES	Compiler was NO Editor forced YES

10.3 C85FORM

Press PF1 to return to the Special Command menu
 Specify options, press RETURN; (PF-13) Help (c) Copr Getronics Co., 2000

Print source	SOURCE = YES	Symbolic debug	SYMB = YES
Cross-reference	XREF = NO*	Data Division map	DMAP = NO*
Truncate COMP to PIC	TRUNC = NO*	Native Mode Binary	FBIN = YES
Any program cancelable	CANCEL = NO*	Separate sign char	SEPSGN = YES
Check subscripts	SUBCHK = NO*	Lowercase D+R input	LOWER = NO*
Generate object	LOAD = YES	Object format	OBJFORM = 1
Print generated code	PMAP = NO***	R-margin (72/80)	RMARGIN = 72
Specify copy libraries	COPYLIBS = NO*	Print copy files	PRTCOPY = YES
Flag obsolete elements	OBS = NO*	FIPS flagger	FIPS = NO*
Optimize object code	OPT = NO*	Maximum error count	MAXERRS = 100
Severity error printed	FLAG = 04	Stop object level	STOP = 08
High VS 74 compatibility	COMPAT74 = NO*	Lines per page	LINES = 55
PACE HLI Preprocessing	PREP = NO*		
File Services Support	FILES = DMS*	Static runtime library	
Default buffer size	BUFSIZE = 2	LINKFILE = @CBLRTF@	
Default buffer pool	BUFPOOL = 4**	LINKLIB = @CBLRTM@	
		LINKVOL = SYSVM*	
		MORE = NO*	

Line and new setting	Previous	old settings	that have been changed
Print Source = YES	Compiler was	NO	
	Editor forced	YES	
Symbolic Debug = YES	Compiler was	NO	
	Editor forced	YES	

10.4 CCFORM

Press PF1 to return to the Special Command menu

Please specify compilation options and press ENTER

Symbolic debug	SYMB = YES	Static linking:	
Line numbers	SEQNUM = YES	Link file	LINKFILE = *****
Code generation	CODE = YES	Link library	LINKLIB = @CCRTM@
Optimize output	OPT = NO*	Link volume	LINKVOL = SYSTEM
Error level	FLAG = 01	More libraries	MORE = NO*
Supply #defines	DEFINE = NO*		
Use short float	SFLBIN = YES	Compilation listing:	
Speed over size	FASTCALL = NO*	Source file	SOURCE = YES
Code Format	OBJFORM = 1	Data map	DMAP = YES
		Include files	PRTINCL = YES
		Generated code	PMAP = NO***

Press PF10 for quick syntax checking
 Press PF16 to exit if compiling from CC compiler version 7.53 or greater

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Line and new setting	Previous	old settings	that have been changed
Symbolic Debug = YES	Compiler was	NO	
	Editor forced	YES	

10.5 PLIFORM

Press PF1 to return to the Special Command menu

Specify options.

Symbolic debug	SYMB	= YES	Preprocessor	PREP	= *****
Error flag level	FLAG	= 01			
No code at level	STOP	= 03	Static linking:		
Optimize output	OPT	= NO*	Link file	LINKFILE	= *****
Use short bin	SFLBIN	= YES	Link library	LINKLIB	= @PLIRTM@
Float decimal	FLDEC	= YES	Link volume	LINKVOL	= SYSTEM
Code Format	OBJFORM	= 1	More libraries	MORE	= NO*
Subpool Search	SRCHBACK	= YES			
			Compilation listing:		
			Source file	SOURCE	= YES
			Data map	DMAP	= NO*
			Cross reference	XREF	= NO**
			Generated code	PMAP	= NO***

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Line and new setting		Previous old settings that have been changed	
Symbolic Debug	= YES	Compiler was	NO
		Editor forced	YES
Optimize Output	= NO	Compiler was	NO
		Editor forced	YES
Data Map	= NO	Compiler was	YES
		Old form	YES

10.6 RPGFORM

Press PF1 to return to the Special Command menu

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MODIFY OPTIONS AS DESIRED - PRESS ENTER TO CONTINUE

PRINT SOURCE LISTING ?	LIST	= YES	(NO / YES)
GENERATE OBJECT CODE ?	LOAD	= YES	(NO / YES)
INCLUDE SYMBOLIC DEBUG DATA ?	SYMB	= YES	(NO / YES)
PRINT CROSS-REFERENCE LISTING ?	XREF	= NO*	(NO / YES)
TYPE OF FILE SERVICES SUPPORT ?	FILES	= ANY*	(ANY / DMS / XDMS)
ALLOW DEBUG STATEMENTS ?	DEBUG	= NO*	(NO / YES)
LARGE PROGRAM ?	LARGE	= NO*	(NO / YES)
USE CONVERSION SEMANTICS ?	CONVERSN	= NO*	(NO / YES)
PACE HLI PREPROCESSING ?	PREP	= NO*	(NO / PACE REV #)
LINES PER PAGE ON COMPILE LISTING	LINES	= 55	(5 - 99)
LINES PER PAGE ON OUTPUT LISTINGS	LENGTH	= 66	(1 - 99)

Line and new setting	Previous old settings that have been changed
Print Source Listing = YES	Compiler was NO Editor forced YES
Symbolic Debug = YES	Compiler was NO Editor forced YES