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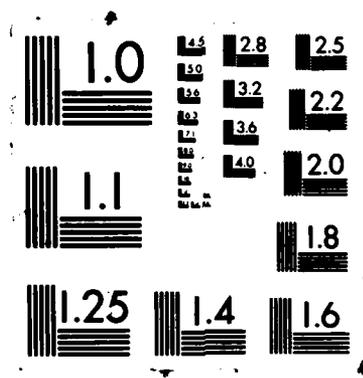
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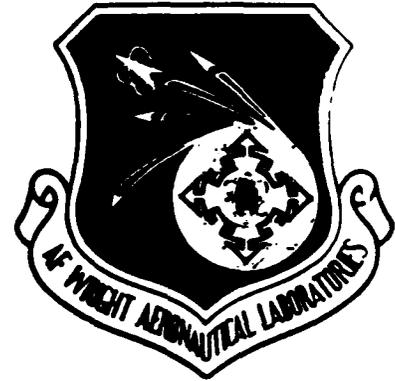
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AFWAL-TR-86-4006
Volume III
Part 13



INTEGRATED INFORMATION
SUPPORT SYSTEM (IISS)
Volume III - IISS Configuration Management
Part 13 - DM User's Manual

General Electric Company
Production Resources Consulting
One River Road
Schenectady, New York 12345

Final Report for Period 22 September 1980 - 31 July 1985
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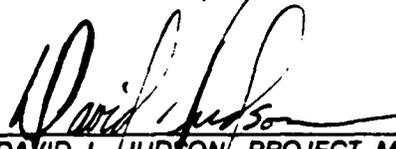
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This report has been reviewed by the Office of Public Affairs (ASD/PA) and is releasable to the National Technical Information Service (NTIS). At NTIS, it will be available to the general public, including foreign nations.

This technical report has been reviewed and is approved for publication.



DAVID L. JUDSON, PROJECT MANAGER
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FOR THE COMMANDER:



GERALD C. SHUMAKER, BRANCH CHIEF
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7 Aug 86
DATE

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This manual describes the Documentation Management (DM) functions that control changes made to IISS documentation. The IISS documents are stored in a protected environment controlled by the DM software.			
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The Integrated Information Support System is a test computing environment used to investigate and demonstrate and test the concepts of information management and information integration in the contexts of Aerospace Manufacturing. Specifically, IISS addresses the problems of integration of data resident on heterogeneous databases supported by heterogeneous computers, interconnected via a Local Area Network. A common Data Model is maintained and provides the mechanism required to integrate the data.

→ to 1473

PREFACE

This user's manual covers the work performed under Air Force Contract F33615-80-C-5155 (ICAM Project 6201). This contract is sponsored by the Materials Laboratory, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio. It was administered under the technical direction of Mr. Gerald C. Shumaker, ICAM Program Manager, Manufacturing Technology Division, through Project Manager, Mr. David Judson. The Prime Contractor was Production Resources Consulting of the General Electric Company, Schenectady, New York, under the direction of Mr. Alan Rubenstein. The General Electric Project Manager was Mr. Myron Hurlbut of Industrial Automation Systems Department, Albany, New York.

Certain work aimed at improving Test Bed Technology has been performed by other contracts with Project 6201 performing integrating functions. This work consisted of enhancements to Test Bed software and establishment and operation of Test Bed hardware and communications for developers and other users. Documentation relating to the Test Bed from all of these contractors and projects have been integrated under Project 6201 for publication and treatment as an integrated set of documents. The particular contributors to each document are noted on the Report Documentation Page (DD1473). A listing and description of the entire project documentation system and how they are related is contained in document FTR620100001, Project Overview.

The subcontractors and their contributing activities were as follows:

TASK 4.2

<u>Subcontractors</u>	<u>Role</u>
Boeing Military Aircraft Company (BMAC)	Reviewer
D. Appleton Company (DACOM)	Responsible for IDEF support, state-of-the-art literature search
General Dynamics/ Ft. Worth	Responsible for factory view function and information models

Subcontractors

Role

Illinois Institute of
Technology

Responsible for factory view
function research (IITRI)
and information models of
small and medium-size business

North American Rockwell

Reviewer

Northrop Corporation

Responsible for factory view
function and information
models

Pritsker and Associates

Responsible for IDEF2 support

SofTech

Responsible for IDEF0 support

TASKS 4.3 - 4.9 (TEST BED)

Subcontractors

Role

Boeing Military Aircraft
Company (BMAC)

Responsible for consultation on
applications of the technology
and on IBM computer technology.

Computer Technology
Associates (CTA)

Assisted in the areas of
communications systems, system
design and integration
methodology, and design of the
Network Transaction Manager.

Control Data Corporation
(CDC)

Responsible for the Common Data
Model (CDM) implementation and
part of the CDM design (shared
with DACOM).

D. Appleton Company
(DACOM)

Responsible for the overall CDM
Subsystem design integration and
test plan, as well as part of
the design of the CDM (shared
with CDC). DACOM also
developed the Integration
Methodology and did the schema
mappings for the Application
Subsystems.

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Subcontractors

Role

Digital Equipment Corporation (DEC)

Consulting and support of the performance testing and on DEC software and computer systems operation.

McDonnell Douglas Automation Company (McAuto)

Responsible for the support and enhancements to the Network Transaction Manager Subsystem during 1984/1985 period.

On-Line Software International (OSI)

Responsible for programming the Communications Subsystem on the IBM and for consulting on the IBM.

Rath and Strong Systems Products (RSSP) (In 1985 became McCormack & Dodge)

Responsible for assistance in the implementation and use of the MRP II package (PIOS) that they supplied.

SofTech, Inc.

Responsible for the design and implementation of the Network Transaction Manager (NTM) in 1981/1984 period.

Software Performance Engineering (SPE)

Responsible for directing the work on performance evaluation and analysis.

Structural Dynamics Research Corporation (SDRC)

Responsible for the User Interface and Virtual Terminal Interface Subsystems.

Other prime contractors under other projects who have contributed to Test Bed Technology, their contributing activities and responsible projects are as follows:

<u>Contractors</u>	<u>ICAM Project</u>	<u>Contributing Activities</u>
Boeing Military Aircraft Company (BMAC)	1701, 2201, 2202	Enhancements for IBM node use. Technology Transfer to Integrated Sheet Metal Center (ISMC)

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<u>Contractors</u>	<u>ICAM Project</u>	<u>Contributing Activities</u>
Control Data Corporation (CDC)	1502, 1701	IISS enhancements to Common Data Model Processor (CDMP)
D. Appleton Company (DACOM)	1502	IISS enhancements to Integration Methodology
General Electric	1502	Operation of the Test Bed and communications equipment.
Hughes Aircraft Company (HAC)	1701	Test Bed enhancements
Structural Dynamics Research Corporation (SDRC)	1502, 1701, 1703	IISS enhancements to User Interface/Virtual Terminal Interface (UI/VTI)
Systran	1502	Test Bed enhancements. Operation of Test Bed.

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SECTION 1

INTRODUCTION

DM (Documentation Management) is a system for controlling changes made to IISS documentation. The IISS documents are stored in a protected environment controlled by this DM software. All changes to documentation and the overview files which describe where documents reside are made by using the DM functions in conjunction with WPS-Plus word processing software. The word-processing is used for the actual viewing and editing of documents.

A description of each DM function is given first and then complete examples are given later. No knowledge of WPS-Plus is needed to view documents but is required to edit documents. A rudimentary knowledge of WPS-Plus is recommended to avoid confusion. A user must be authorized as both a WPS-Plus user and a DM user for the system to work.

1.1 DM Filing System

The Documentation Management system files documents away under five subsystems, which will be asked for whenever referring to a file. They are:

- 1) SYS (documents which have system-wide relevancy)
- 2) CDM (documents about the Common Data Model Processorsubsystem)
- 3) NTM (documents about the Network Transaction Manager)
- 4) COMM (documents about the Communications subsystem)
- 5) UI (documents about the User Interface)

The two-to-four letter designator is the correct response to these questions.

Every subsystem will contain a document entitled "OVERVIEW.DOC". It will contain directory and content information about each and every document filed away under that particular subsystem. To print or view it, follow example #1 on p. 5; to alter it, CHECK OUT and RETURN it as shown in example #2 on p. 8.

SECTION 2

HOW TO USE DM

The DM user functions are displayed in a menu format once the user has successfully entered the DM program. To invoke DM, simply type DM at the VMS prompt, as shown:

\$ DM

Your authority for being in DM is then checked and the menu is displayed. Please remember that at any time during the use of the DM program, you may enter a question-mark in response to any question and HELP will appear to guide and assist you. However, you may have to start your sequence of answers again.

The main menu looks like this:

DOCUMENTATION MANAGEMENT

- 1) DIRECTORY of documents
 - 2) RETRIEVE a document for viewing only
 - 3) CHECK OUT a document for possible editing
 - 4) RETURN a checked out document
 - 5) Enter a NEW DOCUMENT for the first time
 - 6) View a list of WHAT YOU have Checked Out
 - 7) See WHO HAS a particular Document Checked Out
-
- 0) EXIT (a <RETURN> also exits)
 - ?) You may enter a '?' at any time for HELP

What would you like to do [0-7] :

SECTION 3

OVERVIEW OF USER FUNCTIONS

All user functions except CHECKOUT(#3) and RETURN(#4) are available for use by anybody who is authorized to enter DM. Checkout and Returns can only be done by users authorized to do so within a particular subsystem or set of subsystems.

The functions are:

1) DIRECTORY of documents:

This will display the contents of the documentation directory for a particular subsystem. Use this to determine the exact name of the document you are looking for and to see the date when it was last returned into DM. [Note: If you do not know which document you are looking for at all, view the OVERVIEW document using the RETRIEVE function and WPS-Plus (see example #1).]

2) RETRIEVE a document:

Use RETRIEVE to move a copy of the current document to your directory so that, through WPS-Plus, you can view or print out the document. (See example #1.)

3) CHECK OUT a document:

Use CHECKOUT to move a copy of the current document to your directory for the purpose of making permanent changes to it with the WPS-Plus editor. Once you have checked out a document to edit it, no one else can check it out until you RETURN it. (See example #2.)

4) RETURN a checked out document:

Use RETURN to return the edited version of your checked out document to the DM document database. Your new document will replace the previous version of the document and will clear its "checked out" status so that others could then check it out. (See example #2.)

5) Enter a NEW DOCUMENT:

Use NEW DOCUMENT to add a document to the IISS DM database. Your new document must have a unique name and should be mentioned in the OVERVIEW document for that subsystem. (See Example #2.)

6) View a list of what you have Checked Out.

7) See WHO HAS a particular document Checked Out.

Note: To DELETE a document, notify the DM administrator as there are no user procedures for this function.

3.1 Examples of How to Use the Documentation Management Facility

The document we are using in our example is called DOCMAN and belongs under the "SYS" subsystem.

EXAMPLE #1: TO VIEW A DOCUMENT AND/OR PRINT A DOCUMENT:

If you have no idea where to look for a particular document, this procedure should be followed for the "OVERVIEW.DOC" document which sits under the "SYS" subsystem. If the subsystem is known but not the document, the "OVERVIEW.DOC" document under the particular subsystem should be reviewed. If the name of the document is known, then follow these procedures using that document's name and subsystem.

\$ DM (Enter "DM" at the prompt to start Documentation Management Facility)

(Your authority to be in DM is checked at this point)

DOCUMENTATION MANAGEMENT

- 1) DIRECTORY of documents
- 2) RETRIEVE a document for viewing only
- 3) CHECK OUT a document for possible editing
- 4) RETURN a checked out document
- 5) Enter a NEW DOCUMENT for the first time
- 6) View a list of what you have CHECKED OUT
- 7) See WHO HAS particular documents CHECKED OUT

- 0) EXIT (a <RETURN> also exits)

?) You may enter a '?' at any time for HELP

What would you like to do [0-7] : 2

RETRIEVE A DOCUMENT

If you are unsure of the document's name or sub-system, use Function 1.

Enter the Sub-System : SYS (We wish to retrieve a document about the SYS)

There are two types of documents which are stored under DM:

- 1) Files with a .DOC file extension in its filename are stored in standard ASCII format and can be read or typed directly from your directory once retrieved from DM.
- 2) Files with a .WPL file extension in its filename are stored in WPS-Plus internal format and, once retrieved, must be read into your WPS-Plus index so that you can edit and hence read the file.

Enter the Document Name : DOCMAN.WPL (a WPS-Plus format file)

Document was Found.

I am now copying the file into the sub-directory you are now in.

ALL DONE.

(DM menu is printed out again.)

What would you like to do [0-7] : (Press Return or a "0" to exit.)

Exit

30-MAY-1985 12:15:45

(To check to see if the document is in the VMS directory)

\$ DIR DOCMAN.*

Directory IISS_DEVICE:[YOURDIR]

DOCMAN.WPL;1

1 File Found.

\$

(The document has been placed into our VMS directory.)

\$ WPS (Enter "WPS" to bring up WPS-Plus by typing WPS at the \$ prompt and pressing Return)

At this point, the menu for WPS-Plus will come up. To bring your file into your word-processing folder, enter DT, hit Return, and the Document Transfer Menu appears; enter RV (read from VMS) plus Return. Enter the name of your file (including directory heading which is the first four letters of your account name) Note: Keypad "0" is the EXIT SCREEN key.

Filename: [YOURDIR]DOCMAN.WPL

A "Creating from VMS File" form appears. Designate the name of the folder and the title of the document you wish for the VMS file under WPS. For example, enter "DOCMAN" for document name. Use up arrow to position to folder name if you want to change this, e.g., enter "IISS DOCS." WPS will tell you when the file is successfully copied into your WPS-Plus folder. You may then:

- 1) Print the RETRIEVED document by hitting "P." The Printing Document Form will appear. It should have the following:

Document Destination: LPA0 (for Air Force VAX)
Printer Type: LP11
Number of Copies: 1 (or another number)

"Preparing Document" will appear at the bottom of the screen; press "Return" again and "Formatting Document" will appear. Wait and WPS will tell you when the document is printed and return you to the Main Menu.

Or

- 2) View the document in WPS by pressing "E" (for Edit) plus Return. The top of the document appears. To go forward in the document, you may use:
 - o The down arrow
 - o Advance Paragraph (0) (5) on the keypad

- o Advance Page (0) (PF2)
- o Advance Line (0) (2)

Or

- o Gold Search (keypad "PF1" plus "." on the key board) - if you know of a specific phrase in the document that you want to locate. Type in the exact phrase you wish to find, press ENTER on the keypad. Press "Gold ." (Gold period) to continue search.

To go backward in the document:

- o Press Backup (1) on the keypad and the correct distance you want to go, i.e., Paragraph (5), Line (2), or Page (PF2).

Press GOLD F once you are done viewing the RETRIEVED document. The document will be filed, and the Main Menu will appear.

Or

3) Send to VMS for reading as follows.

To send back to VMS so that you have an ascii copy of the document, enter "DT" at the Main Menu and then "SV" (Send to VMS) at the next menu. Enter the name of your file including directory heading):

Filename: [YOURDIR]DOCMAN.DOC

It will tell you when the file is successfully copied into your VMS directory. You may then exit WPS-Plus by entering "EX".

\$ TYPE DOCMAN.DOC (To see without editing)

Please note at this point that documents that were stored and retrieved from DM which had ".DOC" as their filename extension could have been typed under VMS directly without going through all this work which is required for ".WPL" files.

Documents should be deleted from WPS when you are finished reading them to save storage space. Use the following procedure.

Enter WPS-Plus if in VMS. Be sure the document you wish to delete is in the upper right hand box. If not, enter SEL and press Return to get the Selecting Current Document Form and fill it in with folder and the document names. Return to the Main Menu.

Press "D" (for "Delete"). WPS will ask, "Do you really want to delete this document? (Y/N)?" Type "Y" and the document will be placed the the wastebasket. Enter "FC" (for "Filing Cabinet") and a second menu will appear. Enter "EW" and you will be asked, "Do you really want to delete all documents in the WASTEBASKET (Y/N)?" Enter "Y" and the wastebasket will be emptied. Hit keypad "0" to return to the Main Menu.

EXAMPLE #2: DM CHECKOUT/RETURN

If you wish to edit a document and then return it into Documentation Management, the file must first be checked out according to the following procedure:

\$ DM (enter "DM" at the prompt in VMS to start Documentation Management Facility)

(Your authority to be in DM is checked at this point)

DOCUMENTATION MANAGEMENT

- 1) DIRECTORY of documents
 - 2) RETRIEVE a document for viewing only
 - 3) CHECK OUT a document for possible editing
 - 4) RETURN a checked out document
 - 5) Enter a NEW DOCUMENT for the first time
 - 6) View a list of what you have CHECKED OUT
 - 7) See WHO HAS particular documents CHECKED OUT
- 0) EXIT (a RETURN also exits)
?) You may enter a '?' at any time for HELP

What would you like to do [0-7] : 3

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CHECK OUT A DOCUMENT

If you are unsure of the document's name or subsystem, use Function 1.

Enter the Subsystem : SYS (We wish to retrieve a document about the SYS)

Enter Document Filename including extension.

Enter the Document Name : DOCMAN.WPL

Document was Found.

I am now copying the file into the sub-directory you are now in.

ALL DONE.

Please return document within a reasonable amount of time.

(Main DM menu comes up again)
(Exit DM here by pressing 0 or Return)

\$ WPS (Enter "WPS" to bring up WPS-Plus)

At this point, the menu for WPS-Plus will come up. To bring your file into your word-processing folder, enter DT, Return, and then RV (read from VMS). Enter the name of your file (including directory heading):

Filename: [YOURDIR]DOCMAN.WPL

Give your document a file name under WPS, hit Return. It will tell you when the file is successfully copied into your WPS-Plus folder. You may then edit it by hitting "E". Hit a GOLD-F (file & exit) or GOLD-K (quit without filing) to finish editing. When finished, send the final copy to VMS so that it can be refiled under DM. To do this, from the main menu, enter "SV" (send to VMS). Enter the name of your file (including directory heading):

Filename: [YOURDIR]DOCMAN.WPL (.WPL keeps file in WPS-Plus internal format)

Note: In using the "SV" command a WPS-Plus file will be sent the if the filename extension is .WPL and an ascii file will

be sent if the file extension is .DOC, as in Example #1.

It will tell you when the file is successfully copied into your VMS directory. You may then exit WPS-Plus by entering "EX".

\$ DIR DOCMAN.* (Check whether new version of file is there)

Directory IISS_DEVICE:[YOURDIR]

DOCMAN.WPL;2 DOCMAN.WPL;1

2 Files Found.

The file can then be RETURNED to the DM by entering the Documentation Management Facility as follows.

RETURN A CHECKED OUT DOCUMENT

\$ DM (enter "DM" at the prompt to start Documentation Management Facility)

DOCUMENTATION MANAGEMENT

- 1) DIRECTORY of documents
- 2) RETRIEVE a document for viewing only
- 3) CHECK OUT a document for possible editing
- 4) RETURN a checked out document
- 5) Enter a NEW DOCUMENT for the first time
- 6) View a list of what you have CHECKED OUT
- 7) See WHO HAS particular documents CHECKED OUT

0) EXIT (a RETURN also exits)

? You may enter a '?' at any time for HELP

What would you like to do [0-7] : 4

Enter the Subsystem : SYS (We wish to return document about the
SYS subsystem)

Enter Document Filename including extension.

Enter the Document Name : DOCMAN

OK. Document was found sitting in your directory.

I am now copying the file from the sub-directory you are now in.

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Document Returned. Thank you.

(Menu prints up again; hit Return to exit)

Please note that the copy of your document in your VMS directory will have been deleted, but the copy of your document in your WPS-Plus folder will still be around. At some point, your WPS-Plus document should be deleted and your "WASTEBASKET" cleaned up. Please see WPS-Plus manuals for more details on document deletion. (See Example #1 for sample procedure.)

To enter a NEW DOCUMENT for the first time, follow the same procedure for transferring a document from WPS, to VMS, and then to the DM as you did for RETURNING a document except hit #5 at the DM Menu and answer the appropriate questions. Use (6) and (7) at the DM Menu for additional information about where CHECKED OUT documents are located.

END

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