



WRDC-TR-90-8007
Volume III
Part 14



INTEGRATED INFORMATION SUPPORT SYSTEM (IISS)
Volume III - Configuration Management
Part 14 - FAD Administrator's Manual

D. Wagner, M. Foster

Control Data Corporation
Integration Technology Services
2970 Presidential Drive
Fairborn, OH 45324-6209

DTIC
ELECTE
MAY 07 1992
S D D.

September 1990

Final Report for Period 1 April 1987 - 31 December 1990

Approved for Public Release; Distribution is Unlimited

MANUFACTURING TECHNOLOGY DIRECTORATE
WRIGHT RESEARCH AND DEVELOPMENT CENTER
AIR FORCE SYSTEMS COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6533

92 5 0 144

92-12183

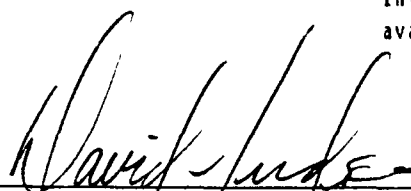


NOTICE

When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever, regardless whether or not the government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data. It should not, therefore, be construed or implied by any person, persons, or organization that the Government is licensing or conveying any rights or permission to manufacture, use, or market any patented invention that may in any way be related thereto.

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

This report is releasable to the National Technical Information Service (NTIS). At NTIS, it will be available to the general public, including foreign nations.

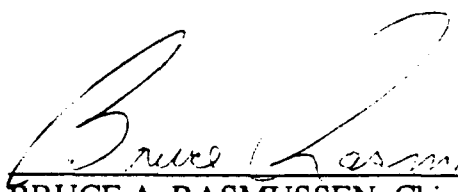


DAVID L. JUDSON, Project Manager
WRDC/MTI
Wright-Patterson AFB, OH 45433-6533

25 July 91

DATE

FOR THE COMMANDER:



BRUCE A. RASMUSSEN, Chief
WRDC/MTI
Wright-Patterson AFB, OH 45433-6533

25 July 91

DATE

If your address has changed, if you wish to be removed from our mailing list, or if the addressee is no longer employed by your organization please notify WRDC/MTI, Wright-Patterson Air Force Base, OH 45433-6533 to help us maintain a current mailing list.

Copies of this report should not be returned unless return is required by security considerations, contractual obligations, or notice on a specific document.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE				
1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for Public Release; Distribution is Unlimited.		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE				
4. PERFORMING ORGANIZATION REPORT NUMBER(S) SUM620325000		5. MONITORING ORGANIZATION REPORT NUMBER(S) WRDC-TR-90-8007 Vol. III, Part 14		
6a. NAME OF PERFORMING ORGANIZATION Control Data Corporation; Integration Technology Services		6b. OFFICE SYMBOL (if applicable)		7a. NAME OF MONITORING ORGANIZATION WRDC/MTI
6c. ADDRESS (City, State, and ZIP Code) 2970 Presidential Drive Fairborn, OH 45324-6209		7b. ADDRESS (City, State, and ZIP Code) WPAFB, OH 45433-6533		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION Wright Research and Development Center, Air Force Systems Command, USAF		8b. OFFICE SYMBOL (if applicable) WRDC/MTI		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUM. F33600-87-C-0464
8c. ADDRESS (City, State, and ZIP Code) Wright-Patterson AFB, Ohio 45433-6533		10. SOURCE OF FUNDING NOS.		
11. TITLE (Include Security Classification) See Block 19		PROGRAM ELEMENT NO. 78011F	PROJECT NO. 595600	TASK NO. F95600 WORK UNIT NO. 20950607
12. PERSONAL AUTHOR(S) Control Data Corporation: Wagner, Doster, M.				
13a. TYPE OF REPORT Final Report	13b. TIME COVERED 4/1/87-12/31/90	14. DATE OF REPORT (Yr., Mo., Day) 1990 September 30		15. PAGE COUNT 7
16. SUPPLEMENTARY NOTATION WRDC/MTI Project Priority 6203				
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify block no.)		
FIELD	GROUP	SUB GR.		
1308	0905			
19. ABSTRACT (Continue on reverse if necessary and identify block number) This manual provides specific instructions for using the Fully Automated Documentation (FAD) computer program. The FAD program is used as a tool to produce text content for inclusion in Program Specification documents. Block 11 - INTEGRATED INFORMATION SUPPORT SYSTEM (IISS) Vol III - Configuration Management Part 14 - FAD Administrator's Manual				
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED x SAME AS RPT. DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL David L. Judson		22b. TELEPHONE NO. (Include Area Code) (513) 255-7371		22c. OFFICE SYMBOL WRDC/MTI

EDITION OF 1 JAN 73 IS OBSOLETE

DD FORM 1473, 83 APR

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE

FOREWORD

This technical report covers work performed under Air Force Contract F33600-87-C-0464, DAPro Project. This contract is sponsored by the Manufacturing Technology Directorate, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio. It was administered under the technical direction of Mr. Bruce A. Rasmussen, Branch Chief, Integration Technology Division, Manufacturing Technology Directorate, through Mr. David L. Judson, Project Manager. The Prime Contractor was Integration Technology Services, Software Programs Division, of the Control Data Corporation, Dayton, Ohio, under the direction of Mr. W. A. Osborne. The DAPro Project Manager for Control Data Corporation was Mr. Jimmy P. Maxwell.

The DAPro project was created to continue the development, test, and demonstration of the Integrated Information Support System (IISS). The IISS technology work comprises enhancements to IISS software and the establishment and operation of IISS test bed hardware and communications for developers and users.

The following list names the Control Data Corporation subcontractors and their contributing activities:

<u>SUBCONTRACTOR</u>	<u>ROLE</u>
Control Data Corporation	Responsible for the overall Common Data Model design development and implementation, IISS integration and test, and technology transfer of IISS.
D. Appleton Company	Responsible for providing software information services for the Common Data Model and IDEF1X integration methodology.
ONTEK	Responsible for defining and testing a representative integrated system base in Artificial Intelligence techniques to establish fitness for use.
Simpact Corporation	Responsible for Communication development.
Structural Dynamics Research Corporation	Responsible for User Interfaces, Virtual Terminal Interface, and Network Transaction Manager design, development, implementation, and support.
Arizona State University	Responsible for test bed operations and support.

TABLE OF CONTENTS

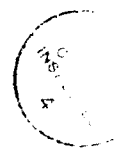
	<u>Page</u>
SECTION 1. INTRODUCTION	1-1
SECTION 2. HOW TO RUN THE FULLY AUTOMATED DOCUMENTATION SYSTEM	2-1
2.1 Necessary Preparations	2-1
2.2 How to Run	2-1
SECTION 3. HOW FAD SYSTEM WORKS	3-1
3.1 Input Files	3-1
3.2 Listing Files	3-1
3.3 Strippers and Their Output	3-1
3.4 Dofad Program	3-1

SECTION 1

INTRODUCTION

The purpose of this document is to describe the purpose and use of the Fully Automated Documentation System as it is used with the IISS family of software.

Accession For	
NTIS CRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	



SECTION 2

HOW TO RUN THE FULLY AUTOMATED DOCUMENTATION SYSTEM

2.1 Necessary Preparations

You must be in an account that has space available for all the listing files. If you delete them from here you will have to recompile any files you do not have. A sub-directory named [.FJUNK] will be temporarily created also.

In our special directory, known as IISS_FAD:[FADIISS.FAD], the following will reside:

- 1) DSTRIP.COM - procedure to run strippers automatically
- 2) DGROUP.EXE - program to retrieve doc groups from CI.DAT
- 3) COBDESC.EXE - program to strip descriptions from COBOL programs
- 4) FORDESC.EXE - program to strip descriptions from FORTRAN programs
- 5) CEEDESC.EXE - program to strip descriptions from 'C' strip data
- 6) COBINC.EXE - program to strip include data from COBOL listings
- 7) CEEINC.EXE - program to strip include data from 'C' strip data
- 8) DOFAD.EXE - program that creates the five reports of the final document

2.2 How To Run

We must execute all of the following with our default directory set to IISS_FAD:[FADIISS.FAD].

To guarantee that you are set up correctly within the Common Data Dictionary, the following CDD command must be executed, however, it will also be done by the DSTRIP.COM command file, so it need not actually be typed in by hand. After that, the command file program which does all of our selecting and compiling can be started up. Remember to have a current version of CI.DAT indexed file within the [FADDIISS.FAD] directory. What you have to type in is shown below in CAPITAL letters while commentary is in square brackets.

```
$ DELETE *.LIS;*      [to save space]
$ DELETE *.OBJ;*      [to save space]
```

```
[done by dstrip]:
$ DEFINE CDD$DEFAULT CDD$TOP.FAD      [need only be done once]
```

```
$ @DSTRIP
Want to Create New Strip Files [Y/N] : Y  [always answered Yes]
Want to Compile All Programs [Y/N] :  Y  [always Yes unless this
                                           is second time through]
Enter Documentation Group:  [enter names of groups; hit return
                             when finished]
```

[It will then go off and strip all data from correct files]

```
Exit
Time-of-Day
$ RUN DOFAD
```

[It will then produce all FULLY AUTOMATED DOCUMENTATION reports]

```
$ @CLEAN
Name of File for final Fad output:  [enter name of file for data
                                     to end up in]
```

```
$ CHART
args:  [hit return]
```

```
Input filename:  CHARTIN.DAT  [always this name!]
Invert tree (y or n): N
Edit top level of tree (y or n): N
Divide chart into pages (y or n): Y
Page breaks for multiply referenced nodes (y or n): N
Page Width: 63
Page Depth: 47
Output filename: sys.CHT  [the name you provided in @CLEAN with
                           a .CHT after it]
```

\$

That is it! You will want to note that there is often a considerable amount of time between each step.

Your final output is in the file you requested. It is able to be placed into WPS or can be printed out.

SECTION 3

HOW FAD SYSTEM WORKS

3.1 Input Files

The CI.DAT file contains the name, extension, subdirectory, and documentation group of each and every file in our IISS software set. Certain files are grouped together under a common banner, called a documentation group. When we specify this group name, each file within this group is individually selected and a copy is placed in our subdirectory [.FJUNK] (don't worry, we will delete this when we are finished). I do this so that we will have all the files we wish to work with in one place.

3.2 Listing Files

For each COBOL and FORTRAN file, as we look at them, we must first compile them. We then place the listing file in our directory from where we are running. This is why the objects and listing files should be deleted before we start so that we don't run out of room eventually. These are to be run over by the FAD strippers in order to pick up various pieces of information. Programs written in "C" need not be compiled because we do our stripping right from the source file.

3.3 Strippers and their Output

There are strippers written specifically for each language. Because DSTRIP.COM looks at the extension of each file as we go along, we use the correct one on the listing or source files. The strippers place their output in a file called MODULE.DOC which will later be read by the Dofad program. There are also strippers which pull off 'include' file information as well as program descriptions which are written directly inside the software code itself. These stripper programs are also language specific, yet write to common description files, such as DESC.DOC and INCPURP.DAT, the file for include purposes.

3.4 Dofad Program

The Dofad program produces a series of output files whose first letter is 'F' which will be found in our directory. The CLEAN.COM command files merges all these files along with title pages to form a coherent document.