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INTEGRATED INFORMATION SUPPORT SYSTEM (IISS)
Volume III - Configuration Management
Part 16 - Software Availability Bulletin

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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

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FOR THE COMMANDER:

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This bulletin reports the new features and enhancements to IISS and lists all IISS publications.

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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, 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. J. 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:

SUBCONTRACTOR	ROLE
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.

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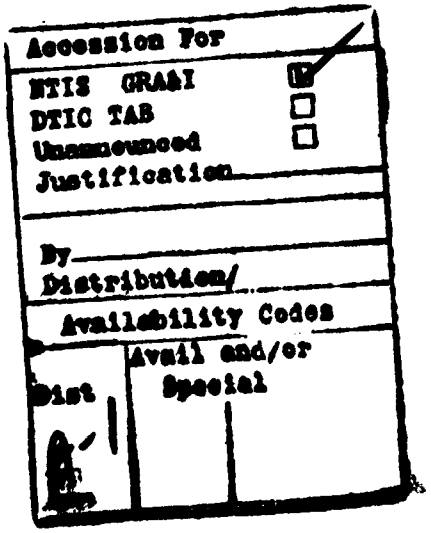

SECTION 1

INTEGRATED INFORMATION SUPPORT SYSTEM

RELEASE 3.0

The Integrated Information Support System (IISS) has been updated to Release 3.0. This IISS release supports the VAX using VMS and an IBM using MVS. It has been tested with ORACLE and VAX-11.

This bulletin reports on what new features and enhancements have been added and are available, and lists and describes all of the available IISS publications.

1.1 An IISS Overview

IISS provides a single data base, single terminal, single computer view of the corporate data resource. In achieving this function, IISS has been developed as four subsystems having these basic responsibilities: common data modeling and processing, user interface, network transaction management, and communication. It is the role of the first subsystem, called the Common Data Model, or CDM, to provide the single data base view. The User Interface, or UI, allows the application development environment to be managed with a consistent set of tools which provide an easy and controlled access to systems, give rapid assistance to the adding of new applications, and present meaningful output.

The UI also includes a virtual terminal interface which provides a neutral view of interactive devices.

The Network Transaction Manager, or NTM, provides process message management and connectionless communications for IISS in a distributed network operating environment.

The Communication subsystem, or COMM, is designed to provide reliable point to point data communication between computers. Together, the NTM and COMM subsystems provide for a single, logical computer view.

This unifying concept of an organization's corporate data resource, or enterprise, allows related or varied portions to be gathered from its multiple - and possibly dissimilar - computers and databases and delivered as one report to the inquiring source (i.e., application program or terminal operator) using a single request and without awareness of the data location.

1.2 New Features and Enhancements

The following list presents the IISS products containing new and enhanced features for this release.

Common Data Model (CDM)

- CDMR
- NDDL Processor
- NDML Precompiler
- Query Process Generator
- Distributed Request Processor
- CS/ES Transformer
- CDM Maintenance Utilities

User Interface (UI)

- Rapid Application Generator
- Text Editor
- Report Writer
- Form Definition Language Compiler
- Forms Driven Form Editor
- User Interface Services (UIS)
- Forms Processor
- Virtual Terminal Interface
- Application Interface

Network Transaction Manager (NTM)

- Monitor
- Message Processing Unit
- NTM Services
- File I/O Primitives

1.3 Important Release Information

Each of these additions and enhancements have been tested, and of the problems that were detected not all, unfortunately, have been corrected prior to the issuance of this release. These remaining problems are stated and explained in the Software Release Bulletin, Publication No. SRB620326000. If the availability of a new feature or enhancement is delayed because of one or more of these problems, you are informed here in this document as well as in the Software Release Bulletin. Problems associated with but not affecting the availability of a feature are announced only in the Software Release Bulletin.

1.4 Product Delivery Media

The IISS Release 3.0 software is available in both object and source code and delivered on magnetic tape media. The tapes are 2400' reels and the IISS release code is inscribed at 1600 bpi. Instructions for installing IISS from magnetic tape onto either a VAX VMS or IBM MVS system is contained in the VAX or IBM Installation Guides. Please refer to Publications, Section 3, for the installation guide publication numbers.

SECTION 2

DESCRIPTION OF RELEASE UPDATES

These descriptions are of all new additions and enhancements to the IISS product for this release. The descriptions are brief and in the form of what functions they add or enhance; for a complete description of these improvements, please refer to the appropriate manual or guide listed under Publications, 3.3. These descriptions, for your convenience, are preceded by a list by subsystem of the new or enhanced features.

2.1 Common Data Model

- CDM Runtime (CDMR) Architecture
- NDDL Processor
- NDML Precompiler
- Query Process Generator
- Distributed Request Processor
- Aggregator
- CS/ES Transformer
- CDM Maintenance Utilities

CDM REPORTS

Eight reports have been developed to report the contents of the CDM.

IMPACT ANALYSIS

- Complete support for IDEF1X
- Problem corrections

NDDL PROCESSOR

The following enhancements have been added to the Neutral Data Definition Language (NDDL) processor feature:

- Complete support for IDEF1X
- DROP LOGICAL UNIT OF WORK (LUW) command
- Problem corrections

NDML

The following new items or enhancements have been added to the Neutral Data Manipulation Language (NDML):

- Complete support for IDEF1X
- NDML embedded in C programs
- Request Processor programs in C and Fortran
- Embedded SQL in Cobol, C, and Fortran programs

- o Generated Domain Verification logic moved in line instead of seperate module
- o Enhanced referential integrity error reporting
- o Problem corrections

2.2 User Interface

The following new items or enhancements have been added to the User Interface (UI) subsystem:

- o Rapid Application Generator and Report Writer
  - Empty Condition
  - Multiple ON conditions
  - Boolean logic conditions
  - Report Writer conditions
  - Parameter forms
  - Program calls
- o Form Definition Language Compiler
- o Forms Driven Form Editor
- o User Interface Services
- o Forms Processor
- o Virtual Terminal Interface
- o Application Interface
- o Layout Optimization System
- o Electronic Documentation System
- o Reverse VTI for IMS/DC
- o DB2 Interface
- o System Generation

RAPID APPLICATION GENERATOR

EMPTY Select Condition

An "empty" condition now occurs whenever a database select action did not return any rows. If a database select resulted in no data being retrieved, the application now can take a responsive action. This enhancement also informs the application what integrity test failed, as well.

Multiple ON Conditions

Multiple ON conditions are allowed to execute whenever an associated user-function key is activated. In effect, if a parent condition is true and any of its offspring, or nested, conditions are true, they are executed. Nested conditions are executed in the order listed in the source file. Top level conditions continue to have one condition executed with each user-function key activation.

An additional Multiple ON conditions enhancement allows the next or following action to be executed after its preceding action is interrupted by a condition, such as, data reads

overflowing a form. The semantics of the use of the universal quantifications subscript (star) was extended to cover nested conditions.

Boolean Expressions

Boolean logical expressions are allowed in an ON condition, as well as arithmetic and string operators and parenthetical logic. Also, special functions such as application startup and cursor position sensing were added.

Report Writer Conditions

Rapid Application Generator conditions have been incorporated into the Report Writer. The applications programmer now has a degree of flow control based upon user input on report parameter forms.

Parameterization of Reports

The Report Writer now prompts the application programmer for parameter field entries at startup of the Report program. This allows information, such as Select criterion, to be definable at runtime. After the parameter form is presented and the programmer enters the fields on the parameter form, the parameters are made available to the Report program for use as Select criterion, etc. This enhancement voids the need to write a different program for each Select criterion.

Program Calls

The Rapid Application Generator now supports program calls to the NTM. This enhancement allows calls to the NTM to be embedded in generated applications which will provide these programs the ability to start up other application programs and communicate with them.

The program call action also allows routines written in any traditional language to be executed within the Application Definition Language (ADL). This makes it possible to pull special routines, such as algorithms, etc., into the ADL.

Miscellaneous Rapid Application Generator Enhancements and Adds

Display, Redisplay, and "Noselect" options have been added to the Present action. The Present action is used to display and begin reading data from Select options. The Display option allows forms stacking in a window. The Redisplay option is used to replace stacked forms in a window. The "Nodisplay" option is used to suppress the reading of data from Select actions.

Embedded C code has been added as an action. Now C code can be used as an action of a condition and also can be included as global program definitions.

Global keypad definitions now are allowed. This new feature can be used to define function keys such that they can be used during an entire application's run. Previously, function keys were defined on forms only and were active only while that form was displayed.

The Signal action now is enabled to use Boolean flags. This enhancement allows for the coordination of several independent events, such as, a multi-column report with several Selects; in effect, its service is similar to that of a macro facility.

Open-ended and fixed-size arrays now can be used interchangeably. Previously, open-ended arrays could be used with the Select action only; now, any action or condition can reference open-ended arrays.

Select statements now can be used to reference multi-dimensional arrays as well as single-dimensional arrays. Select statements also may be nested to any depth rather than just a level of ten, and any action, including other Selects, may be nested under a Select statement. Also, multiple Selects may target the same item on a form; this allows forms to be raised by Selects which differ only in their Where clauses.

Expressions also can be included within the Set action. The Set action which is used to assign a value to an item has been revised to include on its right-hand side an expression as well as an integer or string constant.

Syntax error reports now include an error's line number, the token causing the error, and tokens that were expected to be scanned by the parser at the point of the error.

BUSINESS GRAPHICS

The UIS now has the capability to display graphics data in 2-dimensional format as x-y plots, bar charts, or pie charts. The UIS uses the graphics field which contains a single graph of predefined type and structure; however, the associated graphics picture is dynamic. In the case of x-y plots and bar charts, more than one dataset may be plotted in a single graphic to yield multiple curves or bars. An x-y plot or bar chart may contain both additive and absolute dependent datasets for any given dependent dataset. Additive datasets are associated with the specified dependent dataset whenever absolute and dependent data are present.

Graphics picture size and location values are stated in terms of the default terminal character sizes and positions. Scaling is not done automatically; the Business Graphics user must ensure that graphic information is of the size proper to fit in the available space. Those parts of a picture that do not fit within the displayed space are clipped, not wrapped. The UIS will attempt to adjust pictures appropriately based on the aspect ratio of the displaying terminal.

Optional graphics attributes have default values set to allow a graph to be included within a display with minimal effort at time of specification. Attributes not supported by a terminal type, for example, color on a monochrome monitor, will default to appropriate values.

Line styles (solid, dashed, dotted, dashed-dotted) and line width (varying thicknesses) are now available on graphics-supporting terminals. Line styles and thickness, as well as choice of background colors, color for the curve and the area under the curve are new capabilities available on graphics-supporting, color terminals. Additional choices available are text size and font styles in axis labels, tick mark labels, legend entries, lower and upper limits of an axis, the linear and logarithmic scales of each axis, grid or no grid, axis locations and lengths, shading patterns below a curve, and symbols to appear at data points. Another option is available for graphs having multiple curves, the choice of displaying dependent data as measured on the axis as additive or absolute.

Graphs are output display only, but data points can be picked. The picture then can be altered to retain only the picked area.

Data defined as an input field can be altered so that the related graph will reflect the new value when it is redisplayed. In moving toward an object-oriented technology, a data source, because of its being separate from the graphics display mechanism, can have its data displayed as a tabular form, or a line graph, or bar chart, or pie chart without changing the application program. Only the form definitions need to be changed.

LAYOUT OPTIMIZATION SYSTEM

The Layout Optimization System is a new support tool for the application programmer to use during the modeling stage of application development: it is a tool for creating diagrams. It is an application callable system that uses features of the UIS to enable a developer to quickly define, create and obtain hardcopy output of various types of diagrams, such as IDEF, network, and hierarchy diagrams.

ELECTRONIC DOCUMENTATION SYSTEM

The Electronic Documentation System (EDS) is a new support tool that enables the application developer to quickly create documentation for each application program under development. It is a document authoring system based on the descriptive markup approach which uses the Standard Generalized Markup Language (SGML). SGML is the international standard specified by the CALS initiative to be used as the method for text delivery. The use of EDS increases the productivity of developers because they no longer have to be concerned with

document formatting issues, but can concentrate on document content. In effect, documentation standards of any type can be preset without a developer's involvement. Another major feature of EDS is that graphics, tables, and figures can be merged within the text without manually cutting and pasting.

The types of graphics EDS currently supports are User Interface Screen Dumps, MacPaint files, SDRC I-DEAS picture files, and any file that is Postscript EPSF (encapsulated postscript files) format.

REVERSE VTI for IMS/DC

Note: The Reverse VTI will not be available for this release.

The Reverse Virtual Terminal Interface, or Reverse VTI, will be added to support the integration into IISS of IMS/DC-based applications. The Reverse VTI captures the 3270 terminal commands from IMS/DC and translates them into Virtual Terminal Commands. It then translates the terminal user's responses from Virtual Terminal Commands into 3270 terminal commands. This allows IMS/DC-based applications to be accessed from any IISS terminal.

DB2 INTERFACE

The DB2 Interface has been added to provide access between IISS CDM Request Processor routines and the IBM DB2 product. Its essential responsiblity is to establish the initial connection between the IISS runtime environment and the DB2 Data Management System. Once the connection is made, the DB2 Interface monitors the status of the DB2 connection and maintains MVS operator communication. The DB2 Interface also provides the internal IISS facilities to open the database, issue SQL calls, and then close the database upon request from a CMD Request Processor or other DB2 applications.

FILE I/O PRIMITIVES

The File I/O Primitives (FIOP) were added to allow the Common Data Model Runtime (CDMR) and other IISS programs a generic transportable interface to access system specific files. Facilities are provided by the FIOP for Temporary File Name, Open files, Read records, Write records, Seek one record forward or backward, Close file and Sort/Merge files. These functions are available for sequential files of fixed-length records. The FIOP has been designed for use within the IBM and DEC operating environments and can be called by any IISS service needing to access user or system files and requiring portability between the two operating environments.

DYNAMIC FIELDS

The Dynamic Fields capability has been added to allow changing attributes of fields within forms and replacing forms with windows at runtime. Previously, this activity had to be defined prior to runtime using the Forms Definition Language (FDL) and then the Forms Language Compiler for compiling the change definitions. In effect, everything that could be done using the FDL now can be done at runtime using Dynamic Fields. Another benefit is the ability to add the "appears if" clause to the FDL. This means that application programmers can define fields on forms that will appear under certain conditions only and detected at runtime; for example, a programmer could define a "total" field to appear only when the sum of a column of figures is greater than zero.

SYSTEM GENERATION

The System Generation service has been added to provide four applications: SYSGEN, allows creation and modification of the UI Database; UDBEXP, allows dumping and moving the UI Database from system to system within an ordinary sequential file; UDBIMP, recreates the UI Database from a dump file; and UDBCNV, which dumps an old-style, Oracle UI Database.

2.3 Network Transaction Manager

Grandchild Support

A new NTM service was added to allow it the capability to track grandchild processes, that is, to have the last program initiated within a chain of programs point to the chain's originating program. The UIS has been modified to use this new NTM service. The UIS now has the ability to start, for example, the Menu program which in turn starts an application program, and then have the application program, able now to identify the originating process, send its user screens directly to the UIS.

2.4 Communications

The Communications (COMM) subsystem did not require updating for this release.

SECTION 3

PUBLICATIONS

3.1 IISS Release 3.0 Publications

The publications listed in this section contain the latest user information available at this release. Subsection 3.1 lists the special release publications that describe the release package and special release comments and instructions. Subsection 3.2 lists the end-user publications: operator manuals, programmer reference manuals, user guides, etc. Please refer to subsection 3.3 for a complete list of all IISS project documentation. Each subsection also indicates all new documents and documents that were rewritten or substantially updated for this release.

Requests for these publications can be made to the U. S. Air Force, Materials Laboratory, Air Force Wright Aeronautical Laboratories, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio 45433-6533. Please refer to Volume, Part Number, and title when ordering.

3.2 Special Purpose Release Publications

Two new publications that have a special purpose for both the IISS installer and its end-user have been added: the Software Availability Bulletin, or SAB, and the Software Release Bulletin, or SRB. The information contained in these documents are specific to the current release. The SAB is used to announce and describe new additions and enhancements, software and documentation availability and ordering information. The SRB is used to announce late-breaking release information and provide special installation requirements and instructions not covered in the new release publications, and list significant problems, notes and cautions.

Volume	Part	Publication No.	Title
III	15	SRB620326000	Software Release Bulletin
III	16	SAB620326000	Software Availability Bulletin

3.3 User Release Publications

The publications listed here are end-user documents. These type documents provide guidance, operational, and referential information for the system installer and manager, the system operator, and the application programmer.

Volume III IISS Configuration Management

Part	Publication No.	Title
1	QAP620320000	Quality Assurance Plan
2	SUM620320000	System Administrator's Guide
5	SUM620323000	System User Manual
6	CMU620324000	System Configuration Management User's Manual
7	CMA620324000	System Configuration Management Administrator's Manual
11	OM 620324001	VAX Installation Guide for Executable Code
12	OM 620324002	IBM Installation Guide
13	UM 620325000	DM User's Manual
14	SUM620325000	FAD Administrator's Manual
15	SRB620326000	Software Release Bulletin
16	SAB620326000	Software Availability Bulletin
17	OM 620324003	VAX Installation Guide for Source Code

Volume V Common Data Model Subsystem

Part	Publication No.	Title
1	UM 620341001	CDM Administrator's Manual
4	UM 620341002	Information Modeling Manual - IDEF1X
7	UM 620341100	NDDL User's Guide
8	PRM620341200	NDML Programmer's Reference Manual
32	UM 620341400	CDM Subsystem Database Build Instructions User Manual
33	UM 620341401	Define/Construct the NDDL Definition for the CDM Subsystem User Manual
34	UM 620341403	CDM Reports and Application User's Guide
37	UM 620341410	DDL to NDDL Translator User Manual
38	UM 620341411	DDL to NDDL Translator Build Instructions User Manual
41	UM 620341420	CDM Impact Analysis User Manual
42	UM 620341421	Impact Analysis Build Instructions User Manual
45	UM 620341430	CDM Compare Utility User's Manual
46	UM 620341431	CDM Compare Utility Build Instructions User's Manual
47	UM 620341440	SQL User's Manual
48	PRM620341440	SQL Reference Manual

Volume VI Network Transaction Manager Subsystem

Part	Publication No.	Title
2	PRM620342000	NTM Programmer's Guide
3	OM 620342000	NTM Operator's Manual
4	SUM620342000	NTM System Programmer's Manual

Volume VIII User Interface Subsystem

Part	Publication No.	Title
1	OM 620344000	Terminal Operator's Guide
6	UM 620344200	Form Processor User's Manual
13	UM 620344300	Virtual Terminal User's Manual
15	UM 620344400	Forms Editor User Manual
25	UM 620344501	Application Generator User Manual
31	UM 620344600	Text Editor User Manual
39	UM 620344900	Electronic Documentation System User Manual

3.4 IISS Release 3.0 Project Publications

These publications represent the entire development and all release phases of IISS.

Volume I

Part	Publication No.	Title
1	FTR620300001	Project Overview: Executive Summary
2	FTR620300002	Project Overview: Technical Summary

Volume III IISS Configuration Management

Part	Publication No.	Title
1	QAP620320000	Quality Assurance Plan
2	SUM620320000	System Administrator's Guide
3	TCD620321000	Technical Control Document
4	SCD620322000	Schedule Control Document
5	SUM620323000	System User Manual
6	CMU620324000	SCM User's Manual
7	CMA620324000	SCM Administrator's Manual
8	DS 620324000	SCM Development Specification
9	UM 620324000	Software Development Guidelines

10	SUM620324000	System Software Document
11	OM 620324001	VAX Installation Guide for Executable Code
12	OM 620324002	IBM Installation Guide
13	UM 620325000	DM User's Manual
14	SUM620325000	FAD Administrator's Manual
15	SRB620326000	Software Release Bulletin
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17	OM 620324003	VAX Installation Guide for Source Code

Volume IV IISS System

Part	Publication No.	Title
1	SRD620340000	System Requirements Document
2	SDS620340000	System Design Specification
3	STP620340000	System Test Plan
4	STP620340001	System Integration Test
5	STR620340000	System Test Report
6	EIF620350001	EIF Technical Report
7	EIF620350001	EIF Technical Report

Volume V Common Data Model Subsystem

Part	Publication No.	Title
1	UM 620341001	CDM Administrator's Manual
2	UTP620341000	CDMP Test Case Report
3	TBM620341000	CDMP: IDEF1 Model of the CDM-CDM Design Specification
4	UM 620341002	Information Modeling Manual-IDEF1X
5	DS 620341100	NDDL Processor Development Specification
6	PS 620341100	NDDL Processor Product Specification
7	UM 620341100	NDDL User's Guide
8	PRM620341200	NDML Programmer's Reference Manual
9	DS 620341200	NDML Precompiler Development Specification-CDMP Design Specification
10	PS 620341200	NDML Precompiler Control Module Product Specification
11	PS 620341211	NDML Precompiler Parse Application Program
12	PS 620341212	NDML Precompiler Parse Process Division Product Specification
13	PS 620341213	NDML Precompiler Parse NDML Product Specifications
14	PS 620341231	NDML Precompiler Transform NDML

15	PS 620341232	NDML Precompiler Decomposition Concept
16	PS 620341251	NDML Precompiler Select Internal Schema
17	PS 620341252	NDML Precompiler Transform Internal Schema
18	PS 620341253	NDML Precompiler Generate Conceptual Schema
19	PS 620341254	NDML Precompiler Generate Oracle Request
20	PS 620341255	NDML Precompiler Generate CODASYL
21	PS 620341256	NDML Precompiler Generate Total Request
22	PS 620341258	NDML Precompiler Build Calls/ Messages
23	PS 620341259	NDML Precompiler Build Source Code
24	PS 620341260	NDML Precompiler Generate Support
25	PS 620341261	NDML Precompiler Generate Request
26	DS 620341310	Distributed Request Supervisor Development Specification
27	PS 620341310	Distributed Request Supervisor Product Specification
28	DS 620341320	Data Aggregators Development Specification
29	PS 620341320	Data Aggregators Product Specification
30	DS 620341330	File Utilities Development Specification
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45	UM 620341430	CDM Compare Utility User's Manual
46	UM 620341431	CDM Compare Utility Build Instructions User's Manual
47	UM 620341440	SQL User's Manual
48	PRM620341440	SQL Reference Manual
49	IRD620341500	CDM IRDS Feature Evaluation Report

Volume VI Network Transaction Manager Subsystem

Part	Publication No.	Title
1	DS 620342000	Network Transaction Manager Development Specification
2	PRM620342000	NTM Programmer's Guide
3	OM 620342000	NTM Operator's Manual
4	SUM620342000	NTM System Programmer's Manual
5	PS 620342100	NTM Monitor Product Specification
6	PS 620342200	NTM MPU Product Specification
7	PS 620342300	NTM Services Product Specification

Volume VII Communications Subsystem

Part	Publication No.	Title
1	DS 620343000	COMM Development Specification
2	PS 620343100	Generic Comm Protocol Product Specification
3	PS 620343200	VAX IPC Product Specification
4	DS 620343300	IBM IHC and IPC Development Specification
5	PS 620343400	File I/O Primitives Product Specification
6	UTP620343400	File I/O Primitives Unit Test Plan

Volume VIII User Interface Subsystem

Part	Publication No.	Title
1	OM 620344000	Terminal Operator's Guide
2	DS 620344100	User Interface Services Development Specification-User Interface Management System Development Specification
3	PS 620344100	User Interface Services Product Specification
4	UTP620344100	User Interface Services Unit Test Plan
5	DS 620344200	Form Processor Development Specification
6	UM 620344200	Form Processor User's Manual
7	UTP620344200	Form Processor Unit Test Plan
8	PS 620344200	Form Processor Product Specification
9	UTP620344403	Graph Definition Language
10	UTP620344220	Graph Support System
11	DS 620344300	Virtual Terminal Development Specification
12	PS 620344300	Virtual Terminal Product Specification
13	UM 620344300	Virtual Terminal User's Manual
14	UTP620344300	Virtual Terminal Unit Test Plan
15	UM 620344400	Forms Editor User's Manual
16	DS 620344401	Forms Language Compiler Development Specification
17	PS 620344401	Forms Language Compiler Product Specification
18	UTP620344401	Forms Language Compiler Unit Test Plan
19	DS 620344402	Forms Driven Editor Development Specification
20	PS 620344402	Forms Driven Editor Product Specification
21	UTP620344402	Forms Driven Forms Editor Unit Test Plan
22	DS 620344403	Graph Language Development Specification
23	DS 620344501	Rapid Application Generator and Report Writer Development Specification
24	PS 620344501	Report Writer Product Specification
25	UM 620344501	Application Generator User Manual
26	UTP620344501	Report Writer Unit Test Plan
27	PS 620344502	Rapid Application Generator Product Specification

28	UTP620344502	Rapid Application Generator Unit Test Plan
29	DS 620344600	Text Editor Development Specification
30	PS 620344600	Text Editor Product Specification
31	UM 620344600	Text Editor User Manual
32	UTP620344600	Text Editor Unit Test Plan
33	DS 620344700	Application Interface Development Specification
34	PS 620344700	Application Interface Product Specification
35	UTP620344700	Application Interface Unit Test Plan
36	UTP620344800	Layout Optimization System Unit Test Plan
37	DS 620344800	Layout Optimization System Design Specification
38	DS 620344900	Electronic Documentation Development Specification
39	UM 620344900	Electronic Documentation System User Manual
40	UTP620344901	SGML Tagger Unit Test Plan
41	UTP620344902	EDS Parser Unit Test Plan
42	UTP620344903	EDS Document Type Definition Unit Test Plan
43	UTP620344904	EDS Layout Editor Unit Test Plan
44	UTP620344905	EDS Document Formatter Unit Test Plan
45	UTP620344906	EDS MacPaint to Postscript Unit Test Plan

SECTION 4

CONFIGURATION MANAGEMENT

The computer systems listed in this section were used to install and evaluate the IISS Release 3.0 software system.

Mainframe System	Operating System
VAX 8600	VMS

SECTION 5

SUPPORT INFORMATION

All IISS Release 3.0 support information is available through the Manufacturing Technology Directorate, Air Force Wright Research and Development Center, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio 45433-6533.

APPENDIX A

PUBLICATION DESCRIPTIONS

Volume I, Project Overview

Part 1, Executive Summary
This document is a general summary of IISS and the Release 3.0 enhancements. It is an easy-to-read guide intended for the reader whose organization is not familiar with IISS but has an interest in integrating their information environment.

Part 2, Technical Summary
This document is an in-depth summary of IISS and the Release 3.0 enhancements. It is intended for the reader whose organization is familiar with IISS and requires a detailed report of its current status.

Volume III, IISS Configuration Management

Part 1, Quality Assurance Plan
This document discusses the major areas of quality assurance planning and provides guidelines for developing, testing and releasing IISS.

Part 2, System Administrator's Guide
This guide explains the System Administrator's responsibilities for maintaining IISS on the Test Bed. These responsibilities include adding new users, assigning privileges and quotas, and backup procedures.

Part 3, Technical Control Document
This document contains descriptions of features, functions, and tasks involved in the development of the IISS Project. In some cases the features and functions specified relate to requirements or functionality of given subsystems and enhancements to the IISS; in other cases, the specific tasks needed to carry out implementation are specified. This document has not been included in this release.

Part 4, Schedule Control Document
This document, is a working document that was developed early in the IISS project to schedule the first enhancements to the IISS system. It also presents the final status of the first IISS release. This document has not been included in this release.

Part 5, System User Manual
This document lists the hardware which comprises the Test Bed computer system. This document has been deleted from this release and its content function incorporated in the installation guides.

Part 6, System Configuration Management User Manual
This manual describes the Software Configuration Management (SCM) functions that are used by all developers of the IISS test bed software. The SCM functions control the maintenance storage of source code.

Part 7, System Configuration Management Administrator's Manual
This manual gives explicit instructions for creating VAX and IBM releases. General information for administering Software Configuration Management also is provided.

Part 8, System Configuration Management Development Specification
This document establishes the functional requirements of the IISS Software Configuration Management system which controls the storing and changing of IISS source code and software releases.

Part 9, Software Development Guidelines
This document identifies and explains guidelines and conventions to be followed throughout the various phases of IISS Software development.

Part 10, System Software Document
This document lists the software maintained and used on the IISS Test Bed during the development, compilation, and testing of the IISS Release 3.0. This document has been deleted from this release and its function has been incorporated in the installation guides.

Part 11, VAX Installation Guide for Executable Code
This installation guide provides step-by-step instructions for installing IISS Release 3.0 object code onto any VAX computer containing the prerequisite system hardware and software.

Part 12, IBM Installation Guide
This installation guide provides step-by-step instructions for installing IISS Release 3.0 object or source code from the release tape onto any IBM computer containing the prerequisite system hardware and software.

Part 13, Document Management User's Manual
This manual describes the Document Management (DM) functions that control changes made to IISS documentation. The IISS documents are stored in a protected environment controlled by the DM.

Part 14, FAD Administrator's Manual
This manual gives specific instructions for the use of the Fully Automated Documentation (FAD) tool which is used in the creation of product specifications for program subsets of the IISS subsystems.

Part 15, Software Release Bulletin
This document provides information specific to the current release. It is information that was not available at the time the user manuals and installation guides were prepared for release. It reports significant problems and provides notes and cautions regarding the installation process and each product feature as well as updates or changes to the user manuals and installation guides.

Part 16, Software Availability Bulletin
This document provides a general description of the current release, lists and describes the new features available, lists and describes the available IISS release publications, and lists the computer systems used to install and evaluate the IISS Release 3.0 software system. Its intended audience is the reader whose organization is considering integrating their information environment.

Part 17, VAX Installation Guide for Source Code
This installation guide provides step-by-step instructions for installing IISS Release 3.0 source code onto any VAx computer containing the prerequisite system hardware and software.

Volume IV, IISS System

Part 1, Systems Requirements Document
This document presents the IISS philosophy and the software and hardware requirements necessary to develop IISS.

Part 2, System Design Specification
This technical report discusses the system design and functional specifications for IISS. It defines and allocates the IISS functionality to its four subsystems: the Network Transaction Manager, Common Data Model, User Interface/Virtual Terminal Interface, and Communication.

Part 3, System Test Plan
This plan describes the quality assurance standards and criteria that the software must meet for system integration and testing. It also presents the system testing methodology to be used, the criteria for test completion and release, and provides the integration, testing, and documentation starting and ending schedules.

Part 4, IISS System Integration Test
This document defines and provides the procedure used to test and demonstrate the IISS functionality. All subsystems are exercised and tested by this procedure.

Part 5, System Test Report
The IISS Release 3.0 test results are summarized and reported in this document.

Part 6, EIF Technical Report
This document contains the final report from Northrop Corporation Aircraft Division of an enterprise integration preliminary strawman framework.

Part 7, EIF Technical Report
This document contains the final report from IBM Corporation of an enterprise integration preliminary strawman framework.

Volume V, Common Data Model Subsystem

Part 1, Common Data Model Administrator's Manual
This document discusses the Common Data Model (CDM) subsystem and the philosophy and practical objectives of the CDM Administrator, including its design and its role in the IISS environment. This document also describes the steps necessary for entering and maintaining data in the CDM .

Part 2, Common Data Model Processor Test Case Report
This document summarizes the results from the set of test cases used to test the Common Data Model subsystem.

Part 3, CDMP: IDEF1 Model of the CDM - CDM Design Specification
This publication describes the Common Data Model Processor, a mechanism by which application programs can retrieve and update data without knowing where or how the data are stored.

Part 4, Information Modeling Manual - IDEF1X
This document is a modeling guide and reference manual for an extended version of the ICAM definition language for information modeling, referred to as IDEF1X. It also describes the IDEF1X syntax, procedure, and documentation requirements for developing a logical model of the semantic characteristics of data.

Part 5, NDDL Processor Development Specification
This document describes functional requirements of the IISS Neutral Data Definition Language which is the primary tool used for maintaining the Common Data Model.

Part 6, NDDL Processor Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the "Neutral Data Definition Language Processor" (NDDL Processor).

Part 7, NDDL User's Guide
This document is a guide for using the Neutral Data Definition Language (NDDL). This manual also explains the syntax and semantics of each NDDL command.

Part 8, NDML Programmer's Reference Manual
This document is an applications programmer reference to using the Neutral Data Manipulation Language (NDML). This manual also explains the syntax and semantics of all required commands.

Part 9, NDML Precompiler Development Specification
This document describes the functions, performance, environment, interfaces, and design requirements of the NDML Precompiler.

Part 10, NDML Precompiler Control Module Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the NDML Precompiler.

Part 11, NDML Precompiler Parse Application Program Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Parse Application Program.

Part 12, NDML Precompiler Parse Process Division Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Parse Process Division.

Part 13, NDML Precompiler Parse NDML Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Parse NDML.

Part 14, NDML Precompiler Transform NDML Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Transform NDML.

Part 15, NDML Precompiler Decomposition Concept Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Decomposition Concept.

Part 16, NDML Precompiler Select Internal Schema Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Select Internal Schema.

Part 17, NDML Precompiler Transform Internal Schema Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Transform Internal Schema.

Part 18, NDML Precompiler Generate Conceptual Schema Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Generate Conceptual Schema.

Part 19, NDML Precompiler Generate Oracle Request Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Generate Oracle Request.

Part 20, NDML Precompiler Generate CODASYL Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Generate CODASYL.

Part 21, NDML Precompiler Generate Total Request Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Generate Total Request.

Part 22, NDML Precompiler Build Calls/ Messages Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Build Calls/Messages.

Part 23, NDML Precompiler Build Source Code Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Build Source Code.

Part 24, NDML Precompiler Generate Support Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Generate Support.

Part 25, NDML Precompiler Generate Request Product Specification
This specification establishes the development, test, and qualification requirements of the computer program identified as the NDML Precompiler Generate Request.

Part 26, Distributed Request Supervisor Development Specification
This specification describes the performance, development, test, and qualification requirements of a collection of computer programs that represent the distributed request supervisor.

Part 27, Distributed Request Supervisor Product Specification
This specification describes the development, test, and qualification requirements of a computer program identified as the Distributed Request Supervisor.

Part 28, Data Aggregators Development Specification
This document describes the design implementation of the IISS data aggregators which combine the various subresults of distributed data requests using the relation operators JOIN, UNION and DIFFERENCE.

Part 29, Data Aggregators Product Specification
This specification describes the development, test, and qualification requirements of a computer program identified as Data Aggregators.

Part 30, File Utilities Development Specification
This document describes the design implementation of the IISS file Utilities which provide file transfer, file delete, and unique file naming services to other IISS components.

Part 31, File Utilities Product Specification
This specification describes the development, test, and qualifcation requirements of a collection of computer programs identified as File Ultilities.

Part 32, CDM Subsystem Database Build Instructions User Manual
This document describes the procedures to use to construct the CDM subsystem database.

Part 33, Define/Construct the Neutral Data Definition for the Common Data Model (CDM) Subsystem User Manual
This document describes the requirements for the construction of the NDDL. Also presented are lists of 25 groups and the NDML routine contained in each group with an example of how a group is precompiled. Another example explores generating, compiling and insertion of a group into the object library of the NDDL Request Processor main program.

Part 34, CDM Reports and Application User's Guide
The CDM Reports and Applications are utilities that are useful towards examining the contents of the CDM. The utilities and the NDDL "copy" commands provide a comprehensive picture of the CDM contents to the Common Data Model Administrator and to NDDL users. This document is a guide for CDM Administrators and those who are responsible for maintaining the CDM.

Part 35, DDL to NDDL Translator Development Specification
This specification establishes the performance, development, test and qualification requirements of the DDL to NDDL Translator program.

Part 36, DDL to NDDL Translator Unit Test Plan
This plan establishes the methodology and procedures used to adequately test the capabilities of the DDL to NDDL Translator.

Part 37, DDL to NDDL Translator User Manual
This document is to be used by CDM Administrators who are responsible for making changes to the CDM and ensuring that it remains in a consistently reliable state.

Part 38, DDL to NDDL Translator Build Instruction User's Manual
This document describes how to construct the DDL to NDDL Translators. Also, listed are prerequisites of the DDL to NDDL Translators. Also included are step-by-step instructions for building the DB2 and Total Translators.

Part 39, CDM Impact Analysis Development Specification
This document establishes the performance, development, test, and qualification requirements of the CDM Impact Analysis program.

Part 40, CDM Impact Analysis Unit Test Plan
This plan establishes the methodology and procedures used to adequately test the capabilities of the CDM Impact Analysis program.

Part 41, CDM Impact Analysis User Manual
This document is to be used by CDM Administrators for making changes to the CDM and ensuring that it remains in a consistently functional state. The CDM Impact Analysis Utility identifies and reports which software modules and external schemas are affected by a change to the CDM.

Part 42, Impact Analysis Build Instruction User's Manual
This document describes the construction of the CDM Impact Tool which requires precompiling routines to find and report CDM impacts. Also described are the prerequisite of the impact environment, lists of the groups to be precompiled, and step-by-step instructions on building the CDM impact analysis.

Part 43, CDM Compare Utility Design Specification
This document describes the requirements for the performance, design, test, and qualification of the CDM Compare Utility.

Part 44, CDM Compare Utility Unit Test Plan
This document describes the methodology and procedure used to test the functionality of the CDM Compare Utility.

Part 45, CDM Compare User's Manual
This document is used by CDM administrators for making changes to the CDM and insuring it remains in a consistently functional state.

Part 46, CDM Compare Utility Build Instructions User's Manual
This manual discusses the Utility Build prerequisite for the CDM compare utility environment as well as providing step-by-step instructions for building the CDM compare utility executables.

Part 47, SQL User's Manual
This document is designed to help the application programmer write embedded SQL statements in host languages to access the heterogeneous distributed databases supported within the Common Data Model operating environment.

Part 48, SQL Reference Manual
This document is an application programmer's reference guide for using SQL. This manual explains the syntax and semantics of all required commands.

Part 49, CDM IRDS Feature Evaluation Report
This document provides a comparison between the Common Data Model (CDM) subsystem and the IRDS Standard, an ANSI and FIPS information resource standard.

Volume VI, Network Transaction Manager Subsystem

Part 1, Network Transaction Manager Development Specification
This document discusses philosophy, structure, and function of the Network Transaction Manager (NTM) subsystem. It also explains the data structures associated with the major NTM components along with a discussion of the NTM internal tables and those aspects of the NTM code that are host system dependent.

Part 2, NTM Programmer's Guide
This document describes services provided to IISS programmers by the Network Transaction Manager (NTM). These services are used by IISS application programs to send messages to and receive messages from other programs in the IISS.

Part 3, NTM Operator's Manual
This technical manual provides detailed instructions for operating and maintaining IISS. This includes instruction for bringing up and shutting down the NTM, a description of NTM error codes, and instructions for maintaining NTM tables.

Part 4, NTM System Programmer's Manual
This document provides an understanding of the internal structure of the Network Transaction Manager (NTM). It also provides an overview of the NTM architecture and the major components within that architecture along with a discussion of the NTM internal tables. Details of the modules within each of the major components and those aspects of the NTM code that are host system dependent also are provided.

Part 5, NTM Monitor Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the NTM Monitor.

Part 6, NTM MPU Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the NTM MPU.

Part 7, NTM Services Product Specification
This specification establishes the development, test, and qualification requirements of a collection of computer programs identified as NTM Services.

Volume VII, Communication Subsystem

Part 1, COMM Development Specification
This specification establishes the performance, development, test, and qualification requirements of the Communications Subsystem (COMM).

Part 2, Generic COMM Protocol Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the Generic COMM Protocol.

Part 3, VAX IPC Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the VAX IPC.

Part 4, IBM IHC and IPC Development Specification
This document explains the basic architecture, modules linked to COMM, NTM, and APS, Inter-Process Primitives, Process Control Primitives, PRC Support Routines, Environment Control Modules, Inter-Host Primitives, Interface to CICS Application, and CICS Interface Primitives.

Part 5, File I/O Primitives Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as File I/O Primitives.

Part 6, File I/O Primitives Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the File I/O Primitives (FIOPs) within the Communications subsystem.

Volume VIII, User Interface Subsystem

Part 1, Terminal Operator's Guide
This guide describes how to operate a terminal during an IISS application session. This manual also describes the IISS end user environment and those selective and predefined functions which comprise the User Interface Services (UIS).

Part 2, User Interface Services Development Specification
This specification provides the design of the form-based applications that represent the User Interface Services (UIS). The UIS is a collection of applications that use the Form Processor.

Part 3, User Interface Services Product Specification
This specification establishes the development, test, and qualification requirements of a collection of computer programs identified as the User Interface Services.

Part 4, User Interface Services Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the User Interface Services (UIS).

Part 5, Form Processor Development Specification
This specification describes the development, test and qualification requirements of the Form Processor (FP). The FP is used to permit an application to send/receive data on the formatted screen without having the application program know all the characteristics of the particular terminal being used. It is used in conjunction with the Virtual Terminal.

Part 6, Form Processor User's Manual
This manual describes the set of callable execution time routines available to an application program for form processing. It is intended for application programmers using the IISS. Also discussed in this manual are the concepts of display list, windows, and qualified names which must be understood in order to use the Form Processor routines.

Part 7, Forms Processor Unit Test Plan
This specification describes the design of the Form Processor (FP). The FP is a set of callable execution routines available to an application program for manipulating and displaying electronic forms. The FP routines allow programs and their users to communicate through predefined forms displayed on a terminal screen.

Part 8, Form Processor Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the Form Processor.

Part 9, Graph Definition Language Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Graph Definition Language program.

Part 10, Graph Support System Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Graph Support System.

Part 11, Virtual Terminal Development Specification
This specification describes the performance, development, test and qualification requirements of the Virtual Terminal (VT). The VT translates between VT commands and commands for other terminal types. Part of the VT handles sending and receiving messages across the NTM. Another part interfaces with the terminal specific device driver.

Part 12, Virtual Terminal Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the Virtual Terminal.

Part 13, Virtual Terminal User's Manual
This manual describes the program callable interface to the IISS Virtual Terminal, the Virtual Terminal commands, and provides terminal implementation information for programmers who wish to add new terminal types to the system.

Part 14, Virtual Terminal Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Virtual Terminal (VT). This document includes tests for the VT callable routines and the monitor which is the main controller of the VT.

Part 15, Forms Editor User's Manual
This manual explains how to define and maintain electronic forms using the Form Definition Language and the Forms Driven Form Editor. General electronic form characteristics also are described.

Part 16, Forms Language Compiler Development Specification
This document describes the requirements for the compiler (FLAN) that translates Form Definition Language source files into binary form definition file format.

Part 17, Forms Language Compiler Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the Forms Language Compiler.

Part 18, Forms Language Compiler Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Forms Definition Language Compiler (FLAN) and the Make Includes (MAKINC).

Part 19, Forms Driven Editor Development Specification
This specification establishes the design, development, test and qualification requirements of the Forms Driven Form Editor (FDFE). The FDFE is a software tool for creating and initializing form definitions.

Part 20, Forms Driven Editor Product Specification
This specification establishes the developmet, test, and qualification requirements of a computer program identified as the Forms Driven Forms Editor.

Part 21, Forms Driver Forms Editor Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Forms Driven Form Editor.

Part 22, Graph Definition Language Development Specification
This specification establishes the design, development, test, qualification, and performance requirements of the Graph Definition Language (GDL) program, an extension of the Form Definition Language (FDL) program.

Part 23, Rapid Application Generator and Report Writer Development Specification
This document describes the design and development requirements of the Report Writer program which translates report definitions into programs that access databases via the CDM.

Part 24, Report Writer Product Specification
This specification establishes the development, test, and qualification reuquirements of a computer program identified as the Report Writer.

Part 25, Application Generator User Manual
This manual explains the Application Generator and Report Definition Language programs and provides the process of creating a hard copy report of selected database information resident in the Common Data Model. This information is accessible through the IISS Neutral Data Manipulation Language. This manual also describes the Hierarchical Report Writer which functions as a post processor to the initial report writer.

Part 26, Report Writer Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Report Writer program.

Part 27, Rapid Application Generator Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the Rapid Applicaction Generator.

Part 28, Rapid Application Generator Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Rapid Application Generator program.

Part 29, Text Editor Development Specification
This specification establishes the performance, development, test and qualification requirements of the Text Editor (TE) program. The TE provides IISS users with file editing capabilities and, in conjunction with the UI Form Processor, provides the ability to edit items displayed on a form.

Part 30, Text Editor Product Specification
This specification establishes the development, test, and qualification requirements of the a computer program identified as the Text Editor.

Part 31, Text Editor User Manual
This document provides instructions in how to use the Text Editor's file editing capabilities. Editing functions include inserting, deleting, moving, and replacing text.

Part 32, Text Editor Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Form Processor Text Editor (TE) program.

Part 33, Application Interface Development Specification
This specification establishes the design, development, test, and qualification requirements of the Application Interface (AI) program. The AI is used by application programs to create the messages which correspond to FP calls and are sent to the User Interface Monitor (UIM) of the Form processor by way of the Network Transaction Manager.

Part 34, Application Interface Product Specification
This specification establishes the development, test, and qualification requirements of a computer program identified as the Application Interface.

Part 35, Application Interface Unit Test Plan
This specification establishes the development, test and qualification requirements of the Application Interface (AI) program.

Part 36, Layout Optimization System Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Layout Optimization System program.

Part 37, Layout Optimization System Design Specification
This document describes the requirements for the performance, design, test, and qualification of the Layout Optimization System.

Part 38, Electronic Documentation System Development Specification
This specification establishes the development, test, and performance requirements of an integrated set of computer programs collectively known as the Electronic Documentation System (EDS). The EDS is intended to support the movement of a document through the document life cycle.

Part 39, Electronic Documentation System User Manual
The Electronic Documentation System User Manual discusses and explains how to apply an integrated set of tools that enables the user to create, edit, revise, and generate documents with a well-defined logical structure and a well-defined layout structure.

Part 40, SGML Tagger Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the SGML Tagger program.

Part 41, EDS Parser Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the EDS SGML Tagger program.

Part 42, EDS Document Type Definition Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the EDS Document Type Definition program.

Part 43, EDS Layout Editor Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the EDS Layout Editor program.

Part 44, EDS Document Formatter Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the Document Formatter program.

Part 45, EDS MacPaint to Postscript Unit Test Plan
This unit test plan establishes the methodology and procedures used to adequately test the capabilities of the EDS MacPaint to Postscript program.

