U.S. Marine Corps



IMPLEMENTATION PLAN



UNITED STATES MARINE CORPS

MARINE CORPS COMPUTER AND TELECOMMUNICATIONS ACTIVITY QUANTICO, VIRGINIA 22134-5010

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From: Director, Marine Corps Computer and Telecommunications

Activity

Subj: INFORMATION RESOURCES MANAGEMENT (IRM) IMPLEMENTATION PLAN

Ref: (a) MCO 1510.37

(b) MCO P5231.1

(c) MCO 5271.1

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1. <u>PURPOSE</u>. To provide guidance and instructions on the development of Implementation Plans as required by references (a) and (b).

2. CANCELLATION: IRM-5231-16.

- 3. <u>AUTHORITY</u>. This publication is published under the auspices of reference (c).
- 4. <u>APPLICABILITY</u>. The guidance contained in this publication is applicable to all contractors and Marine Corps personnel responsible for the preparation of an Implementation Plan. This standard is applicable to the Marine Corps Reserve.
- 5. <u>DISTRIBUTION</u>. This technical publication will be distributed as indicated.

6. SCOPE.

- a. <u>Compliance</u>. Compliance with the provisions of this publication is required unless a specific waiver is granted.
- b. <u>Waivers</u>. Requests for waivers will be considered by MCCTA on a case by case basis.
- 7. <u>RECOMMENDATIONS</u>. Forward recommendations concerning the contents of this technical publication to MCCTA via the appropriate chain of command. All recommended changes will be reviewed upon receipt and implemented if appropriate.

Subj: INFORMATION RESOURCES MANAGEMENT (IRM) IMPLEMENTATION PLAN

8. $\underline{\text{SPONSOR}}$. The sponsor of the technical publication is CMC (MCCTA).

D. P. HOUSTON

Colonel, U.S. Marine Corps Director, Marine Corps

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UNITED STATES MARINE CORPS

Information Resources Management (IRM) Standards and Guidelines Program

Implementation Plan
IRM-5231-16A

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Change Number	Date of Change	Date Received	Date Entered	Signature of Person Entering Change
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IRM-5231-16A

PUBLICATION TABLE OF CONTENTS

	<u>Paragraph</u>	<u>Page</u>
<u>Chapter 1</u>		
GENERAL		
Section 1. OBJECTIVE	1.2.	
<u>Chapter 2</u>		
CONTENT AND FORMAT		
Section 1. DOCUMENTATION STANDARDS Section 2. DOCUMENTATION DEPENDENCIES	2.1.	2-3 2-3
<u>APPENDIXES</u>		
A. GLOSSARY	A-1 B-1 C-1	
STANDARDS	D-1	

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
2-01	Precedence Relationship	2-5
C-01	Responsibility/Task Matrix	C-3
C-02	Work Breakdown Structure	C-4
C-03	Activity Precedence Diagram	C-5
C-04	PERT Network	C-6
C-05	Gantt Chart	C-7
C-06	Implementation Tracking Report	C-9
C-07	Support Materials Matrix	C-10
C-08	Site Personnel Requirements	C-13
C-09	Required Components for Implementation	C-14
C-10	Site Identification	C-17
C-11	Site Schedule	C-18
C-12	Hardware Requirements	C-20
C-13	Software Requirements	C-21

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IRM-5231-16A

Chapter Table of Contents

Chapter 1

GENERAL

		<u>Paragraph</u>	<u>Page</u>
Section 1.	OBJECTIVE	1.1.	1-3
Section 2.	SCOPE	1.2.	1-3
Contents		1.2.1.	1-3
Section 3.	APPROACH	1.3.	1-3
Tracking	Vehicles	1.3.1.	1-4

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<u>Chapter 1</u>

GENERAL

- 1.1. <u>OBJECTIVE</u>. This Implementation Plan Standard establishes uniform procedures and guidance for the development of an implementation plan to accomplish the installation of functional segments of the system and to achieve operational status at each installation site. This standard provides the documentation requirements and evaluation criteria necessary to control the implementation process. It also identifies the procedures to follow during implementation and denotes all activities that affect implementation. The document developed from this standard will provide guidance for management, users, and technical personnel involved in the implementation effort.
- 1.2. SCOPE. System implementation within the scope of project/system management is the process of installing, training, and accepting a functional part of the system. The request for an implementation plan governed by this standard is initiated by the Project Manager at specific stages within the development project. Points within the project such as the development or purchase of new software, procurement of new hardware, or the installation of telecommunications equipment should initiate an implementation plan. The System Development Methodology (SDM) should define the specific process which requires an implementation plan.
- 1.2.1. <u>Contents</u>. The plan contains, at a minimum, the following items:
- a. An introduction which contains the primary objectives of the system being developed.
- b. An organizational responsibility section which contains examples of specific tasks in matrix format.
- c. Task audit procedures and methods for tracking the procedures.
- d. Detailed site information and examples of specific system locations, points of contact, and training requirements.
- 1.3. <u>APPROACH</u>. The Implementation Plan describes the activities and schedule necessary to ensure an effective and efficient transition of the developed system to an operational status. Project management identifies the tasks and activities, estimated durations, and task dependencies associated with implementation. This data is input and controlled through some form of a planning and tracking vehicle.

1.3.1. Tracking Vehicles.

- a. Examples of tracking vehicles include a Work Breakdown Structure (WBS), an Activity Precedence Diagram (APD), a Program Evaluation and Review Technique (PERT), and a Gantt chart. One of these tracking vehicles could be used to develop an Implementation Tracking Report supported by a detailed responsibility/task matrix. Personnel requirements could then be determined based on estimated duration and identified tasks. The tracking vehicles provide an overall framework to ensure proper planning and control of the implementation effort.
- b. During system implementation, actual start and completion dates are loaded into the tracking vehicle and are output through the Implementation Tracking Report. During the implementation process, other activities are required to ensure proper coordination between the Project Manager site personnel, and contractors or in-house development personnel. This will ensure that appropriate provisions have been made with respect to travel, security, support materials, and training requirements. It will also ensure that all required hardware, software, and documentation have been identified and are available to complete the implementation process in a timely fashion.

Chapter Table of Contents

Chapter 2

CONTENT AND FORMAT

	<u>Paragraph</u>	Page
Section 1. <u>DOCUMENTATION STANDARDS</u>	2.1.	2-3
Deliverable Evaluation Criteria		2 - 3 2 - 3
Section 2. <u>DOCUMENTATION DEPENDENCIES</u>	2.2.	2-3
Preceding Documents	2.2.2.	2 - 3 2 - 4 2 - 4

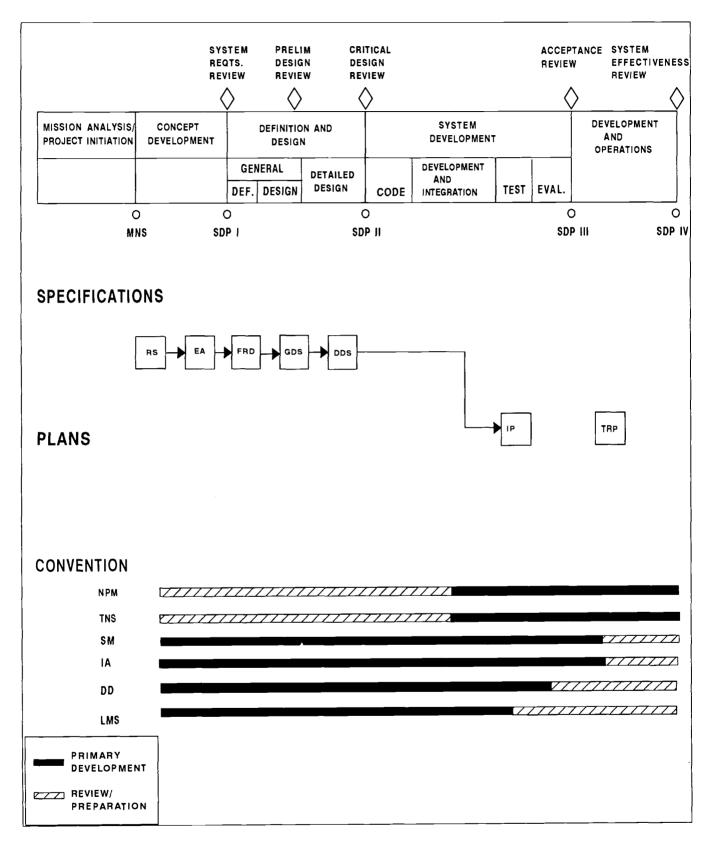
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Chapter 2

CONTENT AND FORMAT

- 2.1. <u>DOCUMENTATION STANDARDS</u>. The Implementation Plan should be developed in accordance with the criteria described in the following paragraphs. The required sections and paragraphs of an implementation plan are listed in Appendix B and described in Appendix C.
- 2.1.1. <u>Deliverable</u>. The deliverable produced through the use of this standard is an Implementation Plan. In developing the plan, the author will use the table of contents described in Appendix B and develop the text according to the descriptions in Appendix C. All information described should be present. However, additional material may be presented if necessary for completeness or clarity.
- 2.1.2. <u>Evaluation Criteria</u>. Criteria to evaluate the Implementation Plan for completeness and accuracy is as follows:
- a. All sections and paragraphs contained in Appendix B should be included as presented.
- b. Any section or paragraph deemed not applicable to the plan should appear with a statement to that effect and the justification for its exclusion.
- c. The purpose of Implementation Plan as described in Appendix C, Paragraph 1.1 "Purpose," should be consistent with the outline of activities as documented in Appendix C, Section 2, "Implementation Process."
- d. The overall plan must present a sound approach to the task and a viable structure as adjudged by the Marine Corps and project staff personnel familiar with the intricacies of the system and its environment.
- 2.2. <u>DOCUMENTATION DEPENDENCIES</u>. The documentation governed by this standard may also rely on the content of other project deliverables and/or standards. Figure 2-01, "Precedence Relationship," shows those project deliverables and standards which impact the Implementation Plan deliverables.
- 2.2.1. <u>Preceding Documents</u>. The boxes that precede the Implementation Plan as shown by a connected line with an arrow, are those project deliverables that must be completed before the Implementation Plan. The preceding document for any development effort is the Detailed Design Specification Deliverables.

- 2.2.2. <u>Consultation Documents</u>. The boxes and bars that are in line vertically with the Implementation Plan show the concurrent documents that may be consulted at that time. The boxes are other project deliverables governed by standards, and the bars are particular conventions described by standards. The deliverables and standards used for consultation are:
 - a. Training Support Plan Deliverables
 - b. Naming Conventions (IRM-5234-04)
 - c. Network Procedures Manual (IRM-5239-01)
 - d. Project Deliverable Style Manual (IRM-5230-02)
 - e. Inspection and Acceptance (IRM-5231-17)
 - f. Data Dictionary (IRM-5235-01)
 - g. Library Management System (IRM-5233-06)
 - h. Data Base Conversion Plan (IRM-5231-13)
 - i. ADPE Support Plan (IRM-5231-12)
 - j. Telecommunication Support Plan (IRM-5239-05)
 - k. Computer Operations Manual (IRM-5231-08)
 - 1. Man-Machine Dialogue (IRM-5234-02)
- 2.2.3. Change Requirements. Since the SDM is an integrated methodology, there exists a relationship between documents in that preceding documents provide information to the follow-on documents. During the development of the Implementation Plan new issues may arise that will require changes to preceding documents. These changes must be documented and approved in accordance with the quality assurance and configuration management procedures. Externally imposed milestones that are unrealistic to accomplish should not be used as an excuse to defer or eliminate the documentation requirements.



* - See Appendix A (Glossary) for Definition of Acronyms

FIGURE 2-01 Precedence Relationship

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Appendix A

GLOSSARY

<u>AIS</u> :	AIS	is a	an	acronym	for	"Automated Information System"
<u>DD</u> :	DD	is a	an	acronym	for	"Data Dictionary"
DDS:	DDS	is a	an	acronym	for	"Detailed Design Specification"
<u>EA</u> :	EA	is a	an	acronym	for	"Economic Analysis"
FRD:	FRD	is a	an	acronym	for	"Functional Requirements Definition'
<u>GDS</u> :	GDS	is a	an	acronym	for	"General Design Specification"
<u>IA</u> :	IA	is a	an	acronym	for	"Inspection and Acceptance"
<u>IP</u> :	IP	is a	an	acronym	for	"Implementation Plan"
<u>LMS</u> :	LMS	is a	an	acronym	for	"Library Management System"
MNS:	MNS	is a	an	acronym	for	"Mission Need Statement"
<u>NPM</u> :	NPM	is	an	acronym	for	"Network Procedures Manual"
<u>RS</u> :	RS	is a	an	acronym	for	"Requirements Statement"
<u>SDM</u> :	SDM	is a	an	acronym	for	"System Development Methodology"
SDP:	SDP	is a	an	acronym	for	"System Decision Paper"
<u>SM</u> :	SM	is	an	acronym	for	"Project Deliverable Style Manual"
<u>TNS</u> :	TNS			acronym andard"	for	"Telecommunications Network Naming
TRP:	TRP	is	an	acronym	for	"Training Support Plan"
TSP:	TSP	is .	an	acronym	for	"Telecommunications Support Plan"

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Appendix B

IMPLEMENTATION PLAN TABLE OF CONTENTS

Implementation Plan

Section	1. 1.1. 1.2. 1.3.	Introduction Purpose References Terms and Abbreviations
Section	2. 2.1. 2.2. 2.3. 2.4. 2.5. 2.6. 2.7. 2.8. 2.9.	Implementation Process Description Organizational Responsibilities/Tasks Tracking Methods Implementation Schedule Support Materials Training Personnel Orientation Site Personnel Requirements Security
Section	3. 3.1. 3.2. 3.3. 3.4.	System Components Proprietary Software Application Software Jobstream Conversion System Verification
Section	4. 4.1. 4.2. 4.3. 4.4. 4.4.1. 4.4.2. 4.4.3. 4.5. 4.6.	Site Information Site Identification Site Schedule Hardware and Software Requirements Facility Requirements Orientation Facilities Classroom Facilities Implementation Team Workspace Detailed Implementation Procedures Detailed Update Procedures

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Appendix C

IMPLEMENTATION PLAN CONTENT DESCRIPTION

SECTION 1 INTRODUCTION

This section presents the primary objective of the Implementation Plan and other general information relative to its use.

1.1. PURPOSE

This paragraph describes the purpose of the Implementation Plan in the following words, modified when appropriate:

The objective of the Implementation Plan for (Project Name) is to provide the necessary information to the functional users and data processing personnel to accomplish the installation of a previously tested AIS and to achieve operational status at additional sites.

1.2. REFERENCES

This paragraph provides a brief summary of reference documentation that is applicable to the development, operation, and maintenance of the system. It should include such documentation as user manuals and computer operations manuals.

1.3. TERMS AND ABBREVIATIONS

This paragraph contains any terms and abbreviations that are unique to this document, or reference the Volume II glossary containing these items and abbreviations.

SECTION 2 IMPLEMENTATION PROCESS

This section provides a description of the implementation process, including support, user, and operational activities. It also identifies who will accomplish the various elements of the process, provide a schedule of events, and present additional information of interest to both the functional user and data processing personnel. The Mainframe AIS Implementation/Release Standards contained in Appendix D will be followed for initial release and maintenance release of Class IB, IIB, or IIIB AISs.

2.1. DESCRIPTION

This paragraph provides a general description of the system and the processes to ensure proper implementation, such as, the tasks to be performed, site identification, and schedules.

2.2. ORGANIZATIONAL RESPONSIBILITIES/TASKS

This paragraph describes organizational responsibilities and tasks associated with actual implementation. This process should be performed under the direction of an implementation team leader.

An example of how to depict these organizational responsibilities and tasks is shown in Figure C-01, "Responsibility/Task Matrix." It should contain the identified implementation task on the vertical axis and the actions of each team member on the horizontal axis. For each task, the Implementation Team Members' responsibility for performing that task is identified by either a "P" which indicates primary responsibility, or an "X" which indicates participation in the task.

2.3. TRACKING METHODS

This paragraph describes tracking methods that can be used in monitoring implementation activities. Some examples for this process include a Work Breakdown Structure (WBS) as in Figure C-02, Activity Precedence Diagram (APD) as in Figure C-03, Program Evaluation and Review Technique (PERT) as in Figure C-04, or Gantt chart as in Figure C-05.

$\frac{\texttt{IMPLEMENTATION PLAN}}{\texttt{IRM-5231-16A}}$

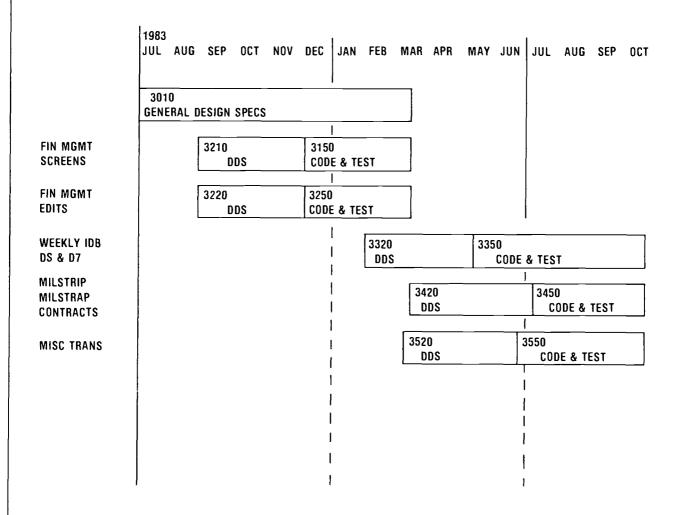
Responsibility/Task Matrix

IMPLEMENTATION TEAM BILLET	TASK	IMPLEMEN- CD TATION S	CDMPUTER	FUNC- TIONAL	COMPUTER PROGRAM-	USER	FUNC.	SITE	DATA	DATA BASE	SITE DATA BASE	0A
RESPONSIBILITIES/ TASKS	<u>a</u>	TEAM LEADER	ANALYST	SYSTEM ANALYST	MER	COMMAND	USER	PERSON- NEL	MANAGER	ADMINIS- TRATOR	ADMINIS- TRATOR	REP
IDENTIFY POINT OF CONTACT	3.1	d										
CREATE TRAINING SCHEDULE	3.2	ď										
ARRANGE SITE TRAINING	3.3	ď				×						
CONDUCT SITE TRAINING	3.4	d	×	×	×	×						
IDENTIFY BRIEFING ATTENDEES	4.1	d				×						
ARRANGE BRIEFING FACILITIES	4.2	d				×						
CONDUCT BRIEFING	5.1	d	×	×	×	×	×	×			×	
CONDUCT IMPLEMENTATION	5.2	ď	×	×	×	×	×	×			×	×

FIGURE C-01 Responsibility/Task Matrix

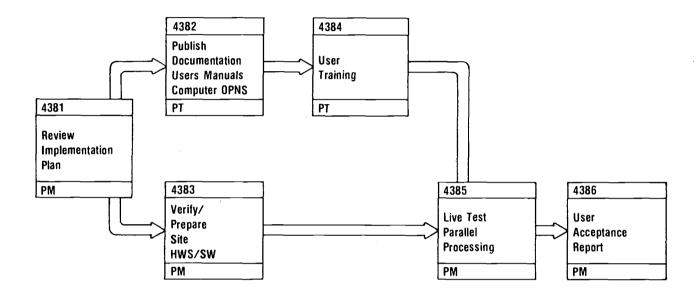
Work Breakdown Structure

The Work Breakdown Structure (WBS) defines the work to be performed from the highest level to the lowest level of detail necessary to describe the tasks to be accomplised. It is the breakdown that defines the individual work to be performed. An example of a WBS for a task is:



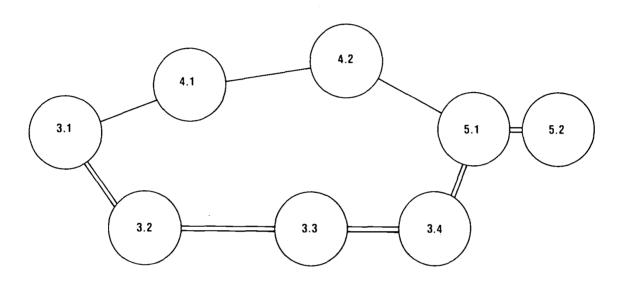
Activity Precedence Diagram

The Activity Precedence Diagram (APD) is the mechanism by which the planned sequence of events is first addressed. Each WBS member is shown on the diagram as a discrete event, connected from the left to all other WBS members which must precede it. An example is:



Pert Network

The PERT network is a tool for planning and tracking tasks or activities with regard to duration and preceding tasks. The chart represents the network of activities required to implement a system or subsystem.



Task ID	Task Description	DURATION	Date-Start Date-Complete
		 -	
3.1	Identify Point of Contact	1 Day	
3.2	Create Training Schedule	4 Days	
3.3	Arrange Site Training	2 Davs	
3.4	Conduct Site Training	10 Days	
4.1	Identify Briefing Attendees	1 Day	
4.2	Arrange Briefing Facility	2 Days	
5.1	Conduct Briefing	1 Day	
5.2	Conduct Implementation	12 Days	

Gantt Chart

The Gantt chart is the mechanism by which the planned schedule of events and deliverables is derived for the tasks. Preliminary estimates of the manpower and duration of each WBS member are used with the Activity Precedence Diagram to develop a schedule for each lower level WBS member. An example is:

WORK PRACTICE	NDVEMBER 12 WEEK 1	NDVEMBER 19 WEEK 2	NOVEMBER 26 WEEK 3	DECEMBER 3 WEEK 4	DECEMBER 1D WEEK 5
4381 Review Implementation Plan					
Publish Documentation Users Manual					
Verify/ Prepare Site HW/SW					
User Training					
Live Test Parallel Processing					
User Acceptance Report					

2.4. IMPLEMENTATION SCHEDULE

This paragraph contains the information necessary to provide an overall task framework to ensure proper planning and control of the implementation process. Figure C-06, "Implementation Tracking Report," is an example of a planning and control mechanism to ensure successful installation and operation of the system. Specific information required to produce a training schedule should be extracted from the project Training Support Plan and used in determining the overall implementation schedule.

2.5. SUPPORT MATERIALS

This paragraph lists the type, source, and quantity of support materials required for implementation. It includes both administrative and technical materials required, and the organization responsible for ensuring that the materials are available. Figure C-07 provides an example of a Support Materials Matrix. Reference should be made to the project Training Support Plan for specific support materials required for training during implementation.

2.6. TRAINING

This paragraph describes the types and amounts of training required to ensure that the system can be used expediently and can be maintained by the functional and data processing communities. Those portions of the project Training Support Plan (TRP) applicable to implementation should be identified and a synopsis from the TRP included within this section of the Implementation Plan. Specific "Section" references to the TRP for detail information should be included herein. For example, Functional User Training conducted during implementation is described in detail in the TRP. A synopsis of Functional User Training should appear herein along with a reference to the TRP where detailed information regarding schedule, staffing, on other planning elements may be obtained.

$\frac{\texttt{IMPLEMENTATION PLAN}}{\texttt{IRM-5231-16A}}$

Task Responsible Individual/ Organization Planned Completion Date Actual Completion Date Create Training Schedule Arrange Site Training Conduct Site Training Hentify Briefing Attendees Arrange Briefing Facilities	Implementation Tracking Report			
	m			
Identify Point of Contact Create Training Schedule Arrange Site Training Conduct Site Training Identify Briefing Attendees Arrange Briefing Facilities		4	S.	9
Create Training Schedule Arrange Site Training Conduct Site Training Identify Briefing Attendees Arrange Briefing Facilities		System Implementation Team		
Arrange Site Training Conduct Site Training Identify Briefing Attendees Arrange Briefing Facilities		System Implementation Team		
Conduct Site Training Identify Briefing Attendees Arrange Briefing Facilities		Implementation Site		
Identify Briefing Attendees Arrange Briefing Facilities		Implementation Site		
Arrange Briefing Facilities	8	Implementation Site		
		Implementation Site		
Conduct Briefing		System Implementation Team		
Conduct Implementation		System Implementation Team		

RESPONSIBLE ORGANIZATION	SYSTEM	SITE DATA PROCESSING	SITE		
SUPPORT MATERIALS	TEAM	ORGANIZATION	ORGANIZATION		
Magnetic Tapes		×			
Disk Packs		×			
Computer Printer Paper		×			
Diskettes		×			
Chart Paper		×			
Chalk		×			
Pencils/Pens		×	×		
Note Paper		×	×		
Handouts, Training	×				
User's Manuals	×				
Computer Operations Manuals	×	×			
ADABAS Messages and Codes Manual	×	×			
ADABAS Operations Manual (OC)	×	×			
ADABAS Utility Manual	×	×			
DBA Reference Card	×	×			
ADAMINT PROGRAMMERS Reference Manual	×				
ADAMINT PROGRAMMERS Reference Card	×				
Complete Message and Codes Manual		×			

$\frac{\texttt{IMPLEMENTATION PLAN}}{\texttt{IRM-5231-16A}}$

					processing, this is necessary as it exists.	"PARMS" for ADABAS and are brought up.								
					* If ADABASE is already installed and processing, this is necessary to get a "picture" of the Data Base as it exists.	** Information must be provided on the "PARMS" for ADABAS and the teleprocessing monitor when they are brought up.								
SITE FUNCTIONAL ORGANIZATION														
SITE DATA PROCESSING ORGANIZATION				×										
SYSTEM IMPLEMENTATION TEAM	×	×	×	×	**	**X	**	×	×					
RESPONSIBLE ORGANIZATION SUPPORT MATERIALS	Complete User Utilities Manual	Complete Systems Utilites Manual	NATURAL DBA Utility Manual	NATURAL Users Guide	ADAREP Report	AOABAS PARMS	COM-PLETE PARMS	AOABAS/COM-PLETE Security Requirements	Local RASC/MASC JCL Standards, etc.					

2.7. PERSONNEL ORIENTATION

This paragraph identifies those efforts required to orient personnel to the new system. This will acquaint key personnel with the purpose, use, schedule, and anticipated impact of the implementation of the new application.

2.8. SITE PERSONNEL REQUIREMENTS

This paragraph addresses personnel requirements at the various sites that will be required to be available or participate in the actual implementation process. Figure C-08, "Site Personnel Requirements," is an example of the types of personnel required during implementation.

2.9. <u>SECURITY</u>

This paragraph contains a discussion of any specific security considerations associated with the data of the system being implemented.

Site Personnel Requirements

BILLET	NUMBER
COMPUTER SYSTEM PROGRAMMER	
COMPUTER SYSTEM ANALYST	
COMPUTER PROGRAMMER	
COMPUTER OPERATOR	
SUPPLY SYSTEM ANALYST	
FUNCTIONAL USER REPRESENTATIVE	
CLERK/TYPIST	
SITE DATA BASE MANAGER	
SITE DATA BASE ADMINISTRATOR	
PRODUCTION CONTROL PERSONNEL	

$\frac{\texttt{IMPLEMENTATION PLAN}}{\texttt{IRM-5231-16A}}$

Required Components For Implementation

DATE SET NAME	STORAGE MEDIA	DASD SPACE REQUIREMENTS				
-						
						
·····						

SECTION 3 SYSTEM COMPONENTS

This section identifies necessary components for installation such as system software, applications software, or job streams. If the data cannot be obtained at the site, or dummy files (empty files with header labels) are needed, the implementation team ensures that these files are available. Otherwise, the site is responsible for having the data available when required by the team. Figure C-09, "Required Components for Implementation," is an example of the form used for required system components.

3.1. PROPRIETARY SOFTWARE

This paragraph defines any proprietary software components required for operation of the application system.

3.2. <u>APPLICATION SOFTWARE</u>

This paragraph defines the procedures for installing application software in the target environment. It describes any variation between software in the source environment and that installed in the target environment where such variations are the result of unique target environment characteristics. Include a description of the relationship between the application software and the library management facilities, and a definition of naming and identifying conventions to be employed where unique to the target environment. A method to insure that all application software components are completely and correctly installed should also be presented.

3.3. JOBSTREAM CONVERSION

This paragraph describes the procedures for establishing all jobstreams in the target environment. Include the identification and construction of jobstreams specific to the target environment as well as the transfer of standard jobstreams from the source environment. This paragraph also addresses the naming conventions, accounting codes, and other jobstream elements specific to the target environment. The relationship between jobstreams and procedure libraries will be documented. A method to ensure that all jobstreams are transferred and modified as necessary to conform with requirements of the target environment should also be presented.

3.4. SYSTEM VERIFICATION

This paragraph describes procedures for verifying that the implemented system operates properly within the target environment. Those portions of the Test Plan applicable to this verification should be identified and specific tests or subsets of tests appropriate to this validation should be described. Previously defined test data bases and benchmarks should be addressed with respect to their applicability in verifying that the system installed in the target environment operates within

established performance parameters.

SECTION 4 SITE INFORMATION

This section identifies specific site requirements such as software and hardware requirements, classroom facilities, and support materials. Address all items that are necessary for site installation.

4.1. SITE IDENTIFICATION

The paragraph identifies the implementation site or sites. Include the start and end dates and the name, address, and telephone number of the initial contact representative. Also include the name of the system to be installed. Figure C-10, "Site Identification," can be used to identify the implementation sites and the point of contact at each site.

4.2. SITE SCHEDULE

Specific steps must be accomplished to ensure the successful installation and operation of the system. Figure C-11, "Site Schedule," can be used to identify data processing and user tasks at the proposed site.

Site Identification The implementation of the function will be conducted at _____ from _____ to ____ The Implementation Site Point of Contact for the a. implementation of _____ is: (Name) (Mailing Address) (Telephone)

FIGURE C-10 Site Identification

\.	-	
	COMMENTS	
	PERSONNEL REQUIRED	
Site Schedule	ESTIMATED DURATION	
Site Sc	PLANNED COMPLETION	
	PLANNED START	
	TASK ID	

4.3. HARDWARE AND SOFTWARE REQUIREMENTS

This paragraph addresses the minimum hardware and software required for system implementation. Figure C-12, "Hardware Requirements," and Figure C-13, "Software Requirements," are examples of the information needed to fulfill these requirements.

4.4. FACILITY REQUIREMENTS

This paragraph defines facility requirements for orientation, classroom training, required equipment, and implementation team workspace. All arrangements for facilities and equipment are the responsibility of the implementation site personnel and should be obtained by the dates and times indicated in the implementation schedule.

4.4.1. Orientation Facilities

Orientation briefing facilities will be required on those dates and times indicated in Figure C-06, "Implementation Tracking Report." Therefore, it will be necessary to coordinate the facility arrangements with the implementation site personnel. The size of the facility will be dependent upon the number of personnel attending. Any training aids required for the orientation must also be provided.

4.4.2. Classroom Facilities

Appropriate training aids and classroom facilities for implementation training will be provided at the installation site. The facilities and training aids should be of sufficient number to accommodate the required number of students. Reference should be made to the specific sections of the project Training Support Plan which identify these requirements.

Hardware Requirements

ТҮРЕ	MAKE/MODEL	QUANTITY
PROCESSOR		
DISK STORAGE		
TAPE DRIVES		
TERMINALS		
PRINTER		

FIGURE C-12 Hardware Requirements

$\frac{\texttt{IMPLEMENTATION PLAN}}{\texttt{IRM-5231-16A}}$

Software Requirements

NAME	VERSION	DESCRIPTION

FIGURE C-13
Software Requirements

4.4.3. <u>Implementation Team Workspace</u>

Implementation team work space will be required for the duration of implementation. The workspace provided must accommodate all personnel identified as part of the implementation team, and it should be located near the computer operations activity. Also, there should be a sufficient number of desks, chairs, and phones in order to provide a work area for each team member.

4.5. DETAILED IMPLEMENTATION PROCEDURES

During the "Conduct Implementation" task identified in "Implementation Tracking Report," specific steps must be accomplished to ensure the successful installation and operation of the identified function. The "Responsibility/Task Matrix" is an example of those procedures applicable to implementation site personnel and functional users.

Detail implementation procedures must include contingencies and special requirements, such as:

- a. A procedure to correct failure of implementation due to hardware/software/downtime problems
- b. Determination to execute old/new systems in parallel and the appropriate procedures
- c. Backup and recovery procedures in the event of a minor/major catastrophe during the implementation stage
- d. Provisions for problem logging

4.6. DETAILED UPDATE PROCEDURES

Specific update/run procedures will be provided for the system. A Users Manual or Computer Operations Manual may provide the necessary update/run procedures. For instance, how to balance a particular report would be in the Users Manual, whereas the data files needed to execute the function would be identified in the Computer Operations Manual.

Appendix D

MAINFRAME AIS IMPLEMENTATION/RELEASE STANDARDS

- A. PRE-IMPLEMENTATION. The following materials must be received by the site at least two weeks prior to the scheduled release/implementation date or arrival of the implementation team.
 - 1. All program modules for batch and on-line systems.
- 2. System procedure and execution Job Control Language (JCL) statements in partitioned data set (PDS) format interfaced with University Computing Company's tape management and job scheduling subsystems (UCC7/11). Identify the location of all embedded execution JCL.
 - 3. System documentation to include:
 - a. All operation manuals.
- b. A copy of all source code on microfiche. This includes ADAMINTS, on-line programs, and all link modules.
 - c. Step by step system implementation instructions.
 - (1) File maintenance/reorganization requirements.
 - (2) One-time conversion procedures.
 - (3) Links to modules and special instructions.
- (4) List of problems encountered and solutions determined during implementation of the release at other sites. Include changes required to the operating system, proprietary software, and initialization parameters. Also include changes required to test the system at the Central Design Activity (CDA).
- d. Documentation concerning unique restart instructions for system ABENDs (i.e., abnormal ends to program execution). Include UCC7/11 information for the scheduler concerning unique restart and job submission instructions to handle system ABENDs.
- e. Documentation concerning condition codes. Include UCC7/11 information for the scheduler concerning unique restart and job submission instructions to handle all condition codes.
 - 4. Implementation requirements to include the following:
 - a. Data storage requirements for:
 - (1) Flat files
 - (a) Recommended device types for each file.

IMPLEMENTATION PLAN

- (b) Number of tape drives required if tape is a medium of storage.
- (c) Minimum number of back-up generations required.
- (d) Estimated space requirements for direct access files.
 - (2) Data base files
- (a) Minimum number of back-up generations that are mandated for each file.
- (b) Associator size (in blocks) and maximum growth expected.
- (c) Data size (in blocks) and maximum growth expected.
- (d) Detailed data base back out procedures for the system.
- b. Software prerequisites (i.e., a list of software that should already reside at the Regional Automated Service Centers (RASC) and with end users).
- c. Hardware prerequisites (i.e., a list of equipment that should already reside at the RASC and with end users).
 - d. Security requirements.
- (1) Identify the functional manager (system owner) at both HOMC and local levels.
 - (2) Identify data base application libraries.
- (3) If required, user identification numbers for implementation team members and a complete list of access requirements.
- (4) A statement as to the current security level of the system and any changes that occur to the security level as a result of the new release.
 - e. Special data base requirements.
 - (1) Positioning of data base libraries.
- (2) Special or exclusive processing requirements of the data base that may require special scheduling.
- (3) Requirements for file backups prior to, during, and after implementation.
 - f. Special processing requirements.

- (1) Problems that are known but have not been corrected/implemented in the current release.
- (2) Techniques used that are known to affect response times of other on-line users.
 - (3) Special scheduling requirements.
 - (4) Parallel processing requirements.
- g. Primary and secondary points of contact for the implementation team.
- h. Hard copy of the deallocations which created the partitioned data sets for program and JCL export tapes. The PDS library export tape will be created using the IBM utility program "IEBCOPY".
- i. System implementation schedule for the implementation team.

B. IMPLEMENTATION

- 1. Meet with the Director to provide a brief summary of the implementation plan.
- 2. Meet with pertinent branch/section heads and other personnel that will be involved in the implementation. Establish the ground-work for implementation of the system.
 - 3. Implement the release.
 - 4. Conduct RASC training.
 - 5. Turn over all system deliverables to the CDA/RASC.
 - 6. Debrief the Director.
- C. PERIODIC UPDATES. Systems will be updated as follows:
- 1. All update transmissions will contain an instructions data set in a physical sequential format with instructions about the following:
 - a. New programs and program changes.
 - b. New and changed JCL procedures.
 - c. Enhancements and problem corrections.
 - d. Effective implementation date of the update.
 - e. Any other pertinent information which may include:

- (1) Documentation changes.
- (2) UCC7/11 update information.
- (3) Condition code additions/deletions.
- (4) Restart procedure changes.
- 2. All program updates will be sent in PDS format. All batch programs will contain a System Status Information (SSI) identifier (loaded during the link edit) to assist in tracking program releases.
- 3. All JCL procedure updates will be loaded in PDS format and will be on a data set separate from the programs.
- 4. The preferred transmission method is via the Marine Corps Data Network (MCDN) with files loaded to a direct access device. The release transmissions must contain a step which produces a one part listing directed to the CDA/RASC Production Analysis Unit (PAU). This listing will notify the activity that a new release has been received and will give the name of the instructions data set.

COMMENTS/REVISIONS

Technical publications under the Information Resources Management (IRM) Standards and Guidelines Program (MCO 5271.1) are reviewed annually. Your comments and/or recommendations are strongly encouraged.

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