IRM 5231/04
W/CH 1

U.S. Marine Corps

FUNCTIONAL REQUIREMENTS DEFINITION

PCN 186 523104 00

DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, D.C. 20380

5231/04
MCCTA
10 JUL 1987

From: Commandant of the Marine Corps

Subj: INFORMATION RESOURCES MANAGEMENT (IRM) FUNCTIONAL REQUIREMENTS DEFINITION

Ref: (a) MCO 5231.1A
(b) MCO 5271.1
(c) MCO P5600.31

Encl: (1) IRM-5231-04

1. PURPOSE. To provide guidance and instructions on the development of Functional Requirements Definitions as required by reference (a).

2. AUTHORITY. This publication is published under the authority of reference (b).

3. APPLICABILITY. The guidance contained in this publication is applicable to all contractors and Marine Corps personnel responsible for the preparation of Functional Requirements Definitions.

4. DISTRIBUTION. This technical publication has been assigned distribution as listed below, and those activities concerned will receive updated printouts of their Individual Activity Table of Allowances for Publications indicating distribution. Requests for increase or decrease in allowance quantities should be submitted to the Commandant of the Marine Corps (HQSP) in accordance with reference (c).

5. SCOPE

a. Compliance. Compliance with the provisions of this document is mandatory.

b. Waivers. Waivers to the provisions of this publication can be granted only by MCCTA.

6. RECOMMENDATIONS. Recommendations concerning the contents of this technical publication should be forwarded to the MCCTA via the appropriate chain of command. All recommended changes will be reviewed upon receipt and implemented if appropriate.

5231/04
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Subj: INFORMATION RESOURCES MANAGEMENT (IRM) FUNCTIONAL REQUIREMENTS DEFINITION

7. SPONSOR. The sponsor of this technical publication is MCCTA.

R. R. PORTER
Brigadier General, U.S. Marine Corps
Director, Command, Control, Communications
and Computer (C4) Systems Division

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IN REPLY REFER TO:
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CTAS-20
27 MAY 1992

From: Commandant of the Marine Corps

Subj: INFORMATION RESOURCES MANAGEMENT (IRM) FUNCTIONAL REQUIREMENTS DEFINITION

Encl: (1) New page inserts to IRM-5231-04

1. PURPOSE. To transmit new page inserts and direct pen changes to the basic technical publication of 10 July 1987.

2. ACTION

a. Remove present pages A-1, H-1 and the COMMENTS/ REVISIONS page and replace with new pages A-1, H-1 and the new COMMENTS/REVISIONS page.

b. Change the CMC Code in the basic letter of promulgation from "CCI" to "MCCTA" in paragraphs 5.b., 6. and 7.

c. Change the "Distribution:" of the basic letter of promulgation to read the same as shown in the "Distribution:" section of this change.

3. FILING INSTRUCTIONS. This change transmittal will be filed immediately following the signature page of the basic technical publication.

4. CERTIFICATION. Reviewed and approved this date.

H. W. JENKINS, JR.
Assistant Chief of Staff
Command, Control,
Communications,
Computer and Intelligence

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UNITED STATES MARINE CORPS

Information Resources Management (IRM) Standards and Guidelines Program

Functional Requirements Definition
IRM-5231-04

10 JUL 1987

ENCL (1)

RECORD OF CHANGES

Log completed, change action as indicated.

Change Number	Date of Change	Date Received	Date Entered	Signature of Person Entering Change

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Chapter 1

GENERAL

Chapter 1

GENERAL

1.1. INTRODUCTION. The objective of the Functional Requirements Definition Standard is to provide the documentation requirements and evaluation criteria necessary to ensure the production of a well-defined functional definition of the user's requirements. A clear, unambiguous specification of the proposed system's Functional Requirements Definition is required before starting General Design. The Functional Requirements Definition will detail the user's requirements for new, changed, or enhanced applications.

1.1.1. Objectives. The specific objectives of this standard are:

a. Define all the required documentation produced in modeling the Functional Requirements.

b. Define the format for the identified documentation.

c. Provide guidelines for the production of the documentation.

d. Provide the criteria through which the completeness, internal consistency, and acceptability of the documentation will be evaluated.

1.2. SCOPE. The scope of this document is to govern the documentation produced during the process of Modeling Functional Requirements.

1.2.1. Documentation. The specific documents are:

a. Current Physical Model. The model defining the operational environment of the existing system.

b. Current Logical Model. The model defining the fundamental or essential functions which the existing system performs, as well as the fundamental or essential stored data to support those functions.

c. New Logical Model (Functional Requirements Definition). The model defining the fundamental essential functions which the new system must perform, as well as the fundamental or essential stored data to support those functions.

1.2.2. Documentation Contents. Each of the above mentioned models equates to a specification composed of the following:

a. General information regarding system objective, scope of development activities, responsibilities of development team, and recommendations.

b. An event list, describing the events in the environment to which the system must respond.

c. Context diagram, or in the case of a clearly defined subsystem, a relative context diagram.

d. Leveled set of data flow diagrams consisting of a figure 0 and associated child figures to the functional primitive level.

e. Mini-specifications for all functional primitives declared on the lowest level child figures.

f. Data dictionary for all data declared on the data flow diagrams.

g. Supporting information such as performance characteristics, ADPE environment, and summaries of required changes.

1.3. APPROACH. The process of modeling functional requirements is initiated by an approved set of user requirements.

1.3.1. Definition of Functional Requirements. The development of the Functional Requirements Definition is the initial step in the overall structured systems analysis. This step is made up of three substeps:

a. Model the current operations (Current Physical Model).

b. Distill the essential functions (Current Logical Model).

c. Add new requirements (New Logical Model).

1.3.2. Current Physical Model. Modeling the current operations results in a model of the existing system (Current Physical Model) and should be a complete study of the affected user areas. This encompasses both manual/clerical and automated areas, organizational responsibilities, and site specific information. The identification of what existing functions need to be changed or deleted and how the new system is to interface with the existing environment should be studied and documented in enough detail to assure that all affected functions are included.

1.3.3. Current Logical Model. Distilling the essential functions starts with the Current Physical Model as input and results in a Current Logical Model of the existing fundamental or essential functions the system currently performs, and fundamental or essential stored data to support those functions (Current Logical Model). Most of this is derived directly from the physical model developed in the previous step. To do this, fundamental or essential functions are removed from the technological limitations of the existing environment. Organizational, technological, and geographic boundaries are eliminated as well as those processes or functions that support and/or maintain those boundaries. Stored data are analyzed to remove redundancies and to remove those items

stored and structured based on the technological limitations of the existing system.

1.3.4. New Logical Model. Adding new requirements starts with the Current Logical Model and new requirements as inputs. It results in a New Logical Model of the new essential functions the system will perform, and the essential stored data to support those functions (New Logical Model or Functional Requirements Definition).

Chapter 2

METHODOLOGY

2.1. DOCUMENT CURRENT PHYSICAL MODEL. Recording the current system does take some extra time during the front end of a project life cycle. But the importance of taking this time must be stressed. This effort has a big payoff: team members gain a thorough understanding of the business system prior to any attempt of modifying it--after all, does it make sense to change something if you don't know how it works in the first place? Additionally, the documentation, which essentially is a by-product of recording the system, is completed up front as opposed to being saved for last--or never.

2.1.1. Analysis Steps. The steps required in recording the current system are explained below. These steps involve the development of data flow diagrams, a data dictionary, and mini-specs. (See Section 2.4 for details on developing these structured specifications.)

a. Develop an event list to describe the events in the environment to which the system must respond. Show these events as information flows into the system such as shown in figure 2-01, "Example Context Diagram." A context diagram is a top-level graphic representation of the system or subsystem under study.

b. Identify major business functions. Draw a data flow diagram that shows all the sources and destinations of data; all major functions; all net inputs and net outputs. Use the context diagram as a checklist to ensure that there is a function to handle each interface. (The resulting data flow diagram is Figure 0.)

c. Analyze each business function.

(1) What are the major steps, or processes, involved in carrying out this business function: Draw a parent-level diagram for each business function identified in Figure 0. Include one process for each of these major steps; draw the flow of data for each net input and net output identified on Figure 0.

(2) Include the additional data flow and file entries in the data dictionary.

d. For each major step, or process, on the parent level diagram, learn what must happen to complete that process. At this point, it is possible to either partition further and draw a child level diagram, or write the mini-specs for this process. The following rules of thumb will help in deciding if the analysis of this particular process has reached the primitive, or most detailed, level:

(1) One approach is to stop when you think the insides of your lowest level process can be completely described in mini-specs of about one page each. This is obviously an arbitrary rule, but it has a positive side effect in readability of the resultant product. Mini-specs that are much smaller than a page

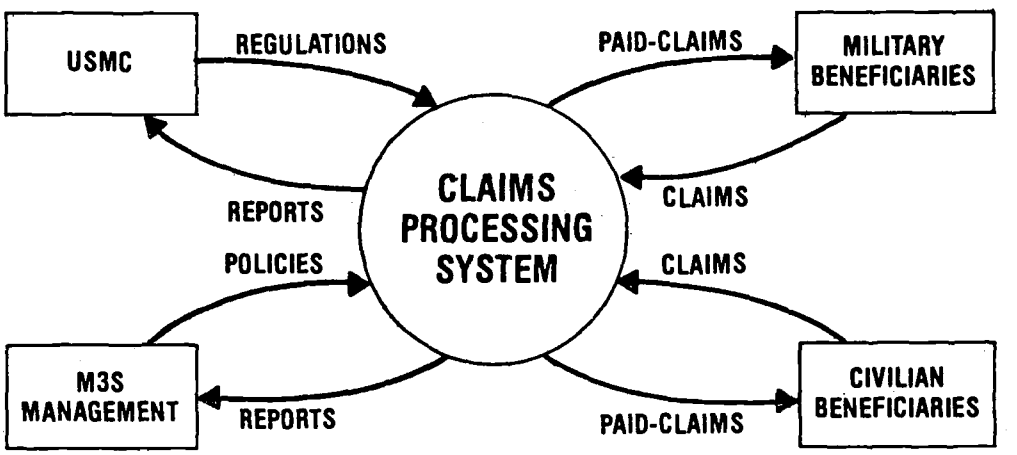

FIGURE 2-01
Example Context Diagram

are too choppy to deal with easily (easy enough to read, but difficult to assemble into a working understanding of the system), whereas larger ones seem to cry out for further partitioning. Think of a process as primitive until you try to specify it. If you find yourself with an unwieldy description, go back and partition further.

(2) Another approach is to stop when a process may be described in a simple sequence of steps. This sequence should have a single entry and a single exit, rather than a possibility of branching out and disrupting the sequence. Imagine a single thread running through each of the steps tying them together.

(3) Sometimes a process doesn't qualify as a primitive by any of the preceding rules, but it is nevertheless indivisible. If a process simply cannot be partitioned, it is primitive.

(4) The results of each approach is a set of leveled diagrams, as shown in Figure 2-02, "Leveled Diagrams."

e. Continue partitioning until the business functions have been divided into small enough pieces to easily comprehend.

f. Write mini-specs for each of the most primitive processes.

g. Once the business functions have been identified and partitioned into smaller units, it is necessary to distinguish between manual functions and automated functions. All the interfaces between these two types of functions must be identified and analyzed by establishing a man/machine boundary on the primitive data flow diagrams. Every piece of data and the process for entering that data must be described. Furthermore, all system output requirements must be identified as well as the manual processes that handle the output. Examine all the data flows that cross the man/machine boundary, and add the following information to those data dictionary entries:

(1) A data flow crossing the boundary represents information going into or leaving the system.

(2) What additional processes are required in order to get this information into the system? Identify both on-line and manual processes.

(3) What additional processes are required in order to receive information from the system? What is done with the information once it is received? Identify these manual processes.

2.2. DOCUMENT CURRENT LOGICAL MODEL. Once the current physical model of the system has been developed, the next step is to derive the current logical representation of the physical model. This is accomplished by (1) identifying the processes which are included only because "that is the way it has always been done," (2) determining the manner in which the user policy can best be

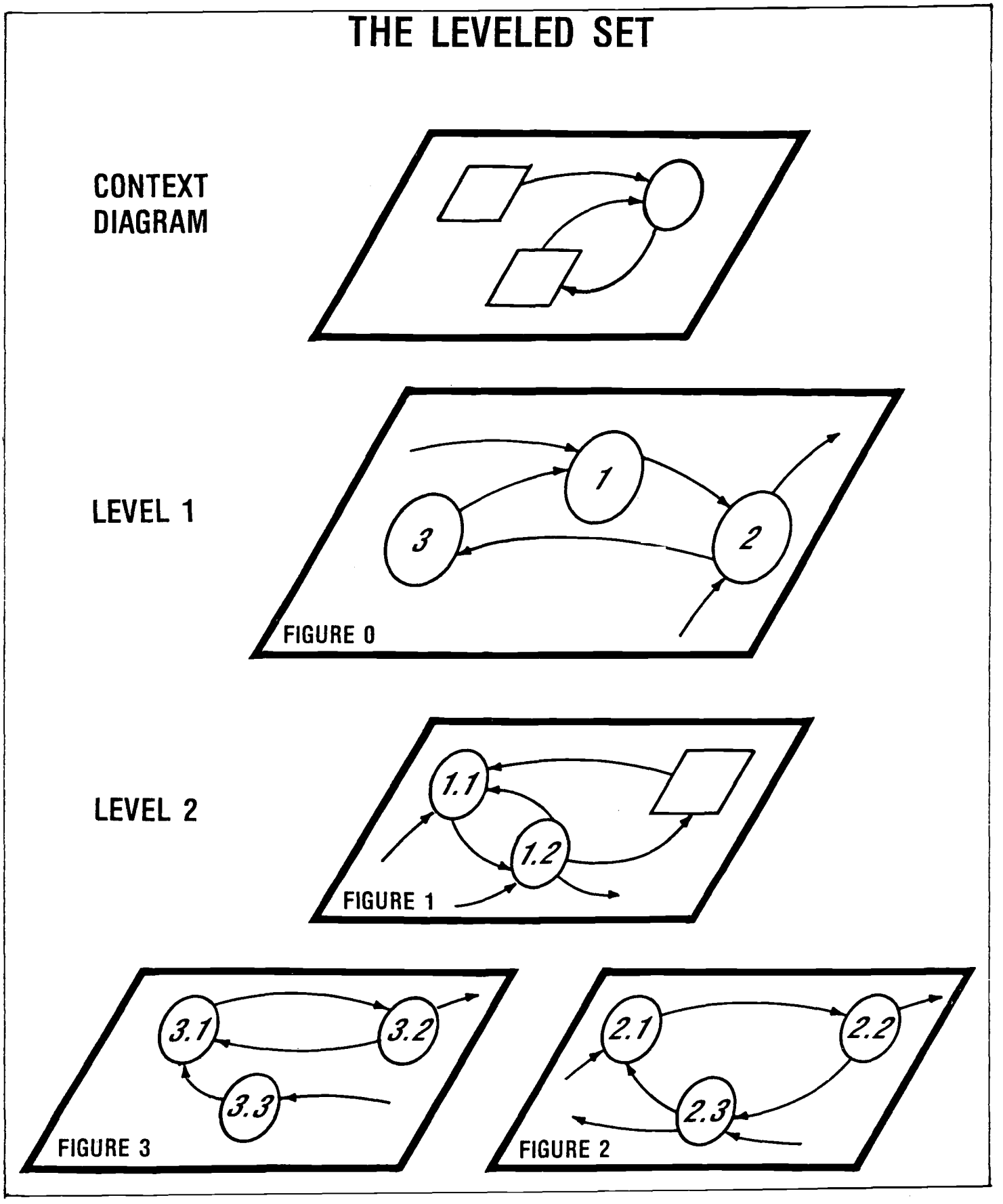

FIGURE 2-02
Leveled Diagrams

represented, and (3) finding the underlying requirements of the current system.

2.3. DOCUMENT NEW LOGICAL MODEL. Once the current logical model has been developed, the next step is to derive the new logical model.

2.3.1. Analysis. When developing a new logical system, the following questions must be answered:

a. What new functions, or processes, is the user looking for?

(1) From a business point of view, how are the functions accomplished?

(2) What are the new input and output requirements?

(3) How should the new functions interface with the current functions?

b. What are the necessary security requirements?

c. Should there be any audit trails?

d. What are the infrequent or exception situations? For example, how will month-end, quarter-end, and year-end affect the system?

e. Where is it necessary to include safeguards against fraud?

2.3.2. Format. Mini-specs must be included with the new logical model that describe the new processes. These specifications must be verified by the user. In conjunction with the data flow diagrams and mini-specs, the data dictionary must be updated.

2.4. STRUCTURED SPECIFICATION. The methodology previously described referred to data flow diagrams, mini-specs, and a data dictionary. These are some tools to use to help complete a successful systems analysis. The data flow diagrams are a graphic means of representing the man/machine system, one of the goals of analysis. They also can be effectively used to partition the system from large abstract concepts to more specific processes. These diagrams are incomplete, though, without the mini-specs. These are the descriptions of what goes on within each of the lowest levels, or most detailed processes. They are written in a very precise language and specify what must be done. The data dictionary is an integral part of the specification in that it ties the mini-specs and data flow diagrams together by giving definition to all the data flows they reference.

2.4.1. Data Flow Diagram. This diagram is a network representation of a system. The system is portrayed in terms of its component pieces, with all interfaces among the components indicated. The diagrams are made up of only four basic elements: data flows,

processes, files or data stores, data sources and destinations. A data flow is a pipeline through which packets of information of known composition flow. The following is a list of notational conventions:

a. Never give two flows the same name.

b. Use names that accurately represent the data that flows through the pipeline plus anything else you know about it.

c. Use hyphenation and capitalization.

d. Label every data flow except those going into or out of simple files.

2.4.2. Mini-spec. This specification is written for each bottom-level process of the diagram and should specify what the system does. The goals for mini-specs include the following:

a. There must be one mini-spec for each functional primitive in the set of data flow diagrams.

b. Each mini-spec must describe the rules governing transformation of data flows arriving at the associated primitive into data flows leaving it.

c. Each mini-spec must describe underlying policy governing transformation, but not a method of implementing that policy.

d. The mini-spec must state transformation policy without introducing redundancy of any sort into the specification document.

2.4.3. Data Dictionary. The purpose of a data dictionary during the analysis phase is to become an integral part of the specification document by providing definitions for data flows and files. It is not meant at this time to provide record layouts with specific field characteristics. It is meant to define all the data elements required to carry out a process and to describe all the data elements that are included in data stores, or files. Record formats, sizes, screen layouts, and physical data element values are deferred until design.

a. As part of the data dictionary certain elements will be definitions of data flows between processes, while others will be definitions of data stores. A data store may be related to other data stores also defined in the data dictionary. These relationships may be diagrammed to show the total logical structure of the part of the data base accessed by the part of the system specified in the new logical model. This may be represented graphically to show the logical data structure.

b. The data dictionary contains information about data stored in the data base that are fundamental to the systems stated

purpose. The mini-specifications identify all uses of this data in various process functions.

2.4.4. Object Partitioning. The analysis must identify the relevant stored data elements in the data dictionary to begin the process called "object partitioning." In object partitioning the analyst groups the elements of the data base by simply keeping like or related elements together and keeping unlike or unrelated elements apart. Each such group is given a name that describes the grouping. The analyst then organizes the elements within each group and selects an identifier element, or key, that uniquely describes each record. These groups are identified on the New Logical Model data flow diagrams as new data stores.

Chapter Table of Contents

Chapter 3

CONTENT AND FORMAT

Chapter 3

CONTENT AND FORMAT

3.1. DOCUMENTATION STANDARDS. The Functional Requirements Definition should be documented in accordance with the standards described in the following paragraphs. There will be three deliverables described that should be included in the Functional Requirements Definition. Deviations from this standard must be submitted in writing to the appropriate approval authority.

3.1.1. Current Physical Model. This deliverable is the first component of the Functional Requirements Definition. In developing the current physical model the practitioner should use the table of contents described in Appendix B, "Current Physical Model Table of Contents," and document the text according to the item descriptions in Appendix C, "Current Physical Model Content Description." The criteria through which the acceptability of the current physical model will be evaluated is in Paragraph 3.1.4, "Evaluation Criteria."

3.1.2. Current Logical Model. This deliverable is the second component of the Functional Requirements Definition. In developing the current logical model the practitioner should use the table of contents described in Appendix D, "Current Logical Model Table of Contents," and document the text according to the item descriptions in Appendix E, "Current Logical Model Content Description." The criteria through which the acceptability of the current logical model will be evaluated is in Paragraph 3.1.4., "Evaluation Criteria." This document should be composed from the existing material in the current physical model defined in Paragraph 3.1.1., "Current Physical Model."

3.1.3. New Logical Model. This deliverable is the third component of the Functional Requirements Definition. The new logical model should be formatted as shown in Appendix F, "New Logical Model Table of Contents." The text should be documented as shown in Appendix G, "New Logical Model Content Description."

3.1.4. Evaluation Criteria. The criteria to evaluate the completeness and internal consistency of the Functional Requirements deliverables, particularly the new logical model are based on the procedural information contained in Section 1.3, "Approach." The criteria with which to evaluate the acceptability of the models will include:

a. All sections and paragraphs detailed in Appendices B through G will be included in the document. Any section or paragraph deemed not applicable to any one model by the developing organization will appear with a justification for its exclusion.

b. Figure 0 of the data flow diagram (DFD) will show the major functional areas of the system, including the new functions that the current system does not address.

c. Child diagram DFD's will declare the essential and/or custodial functions of the new system.

d. Process names will reflect the essential and/or custodial functions the new system will carry out without references to a technological environment.

e. Data flow names will reflect the logical meaning of the data and not the physical form of the data.

f. Data dictionary definitions include only the implementation independent characteristics of the data.

g. Mini-specifications reflect the proposed rules governing the transformation of data without references to the physical means of performing the work.

h. Every data store declared on the DFD's must be represented on the entity relationship diagrams.

i. There must be some process in a DFD that uses data from each one of the data stores shown in the logical data diagram.

3.2. DOCUMENTATION DEPENDENCIES. The documentation governed by this standard may also rely on the content of other project deliverables and/or standards. Figure 3-01, "Precedence Relationship," shows those project deliverables and standards which impact the Functional Requirements Definition deliverables.

3.2.1. Preceding Documents. The boxes that precede the Functional Requirements Definition as shown by a connected line with an arrow, are those project deliverables that must be completed before the Functional Requirements Definition. The preceding documents for any one development effort are:

a. Requirements Statement
b. Economic Analysis Deliverables

3.2.2. Consultation Documents. The boxes and bars that are in line vertically with the Functional Requirements Definitions 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. Project Deliverable Style Manual (IRM-5230-02)
b. Inspection and Acceptance (IRM-5231-17)
c. Data Dictionary (IRM-5235-01)
d. Library Management System (IRM-5233-06)
e. Programming Standard (IRM-5234-01)
f. Prototyping Standard (IRM-5231-18)

3.2.3. 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 Functional Requirements Definition 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.

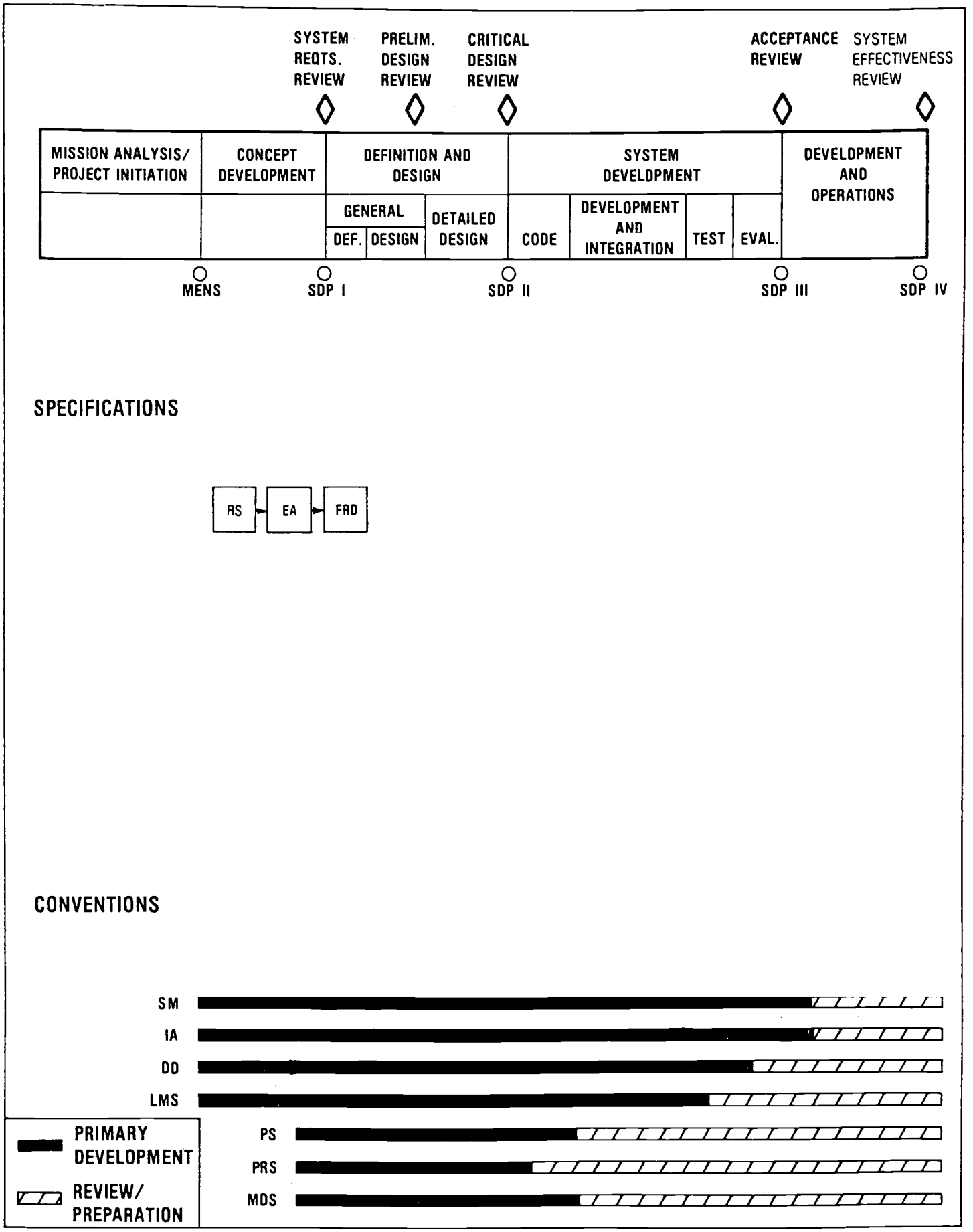

FIGURE 3-01
Precedence Relationship

Appendix A

GLOSSARY

DD - Data Dictionary

EA - Economic Analysis

FRD - Functional Requirements Definition

IA - Inspection and Acceptance Standard

LMS - Library Management System

MDS - Man-Machine Dialogue Standard

MENS - Mission Element Need Statement

PRS - Prototyping Standard

PS - Programming Standard

SDP - System Decision Paper

SM - Style Manual

Appendix B

CURRENT PHYSICAL MODEL TABLE OF CONTENTS

Current Physical Model

Appendix C

CURRENT PHYSICAL MODEL CONTENT DESCRIPTION

SECTION 1 GENERAL

This section will document the objective, scope, and other general information required in the current physical model.

1.1 OBJECTIVE

This paragraph will describe the current system objectives. It will include or reference a statement of the deficiencies of the current system in meeting the user's requirements.

1.2 SCOPE

This paragraph will document the scope, or context, of the existing system. It will describe the existing environment affected by the deficiencies identified in Section 1.1, "Objective," above, with particular regard to organizational environment, site specific information, and the identification of the specific applications under study.

1.3 AUTHOR

This paragraph will identify the organization charged with producing the current physical model. In case of contracting efforts, it will include an organization chart of the producing organization with functional titles and a job description for those functional titles.

1.4 CURRENT PHYSICAL MODEL ACTION PLAN

This paragraph will document the findings and recommendations of the organization charged with producing the current physical model. The findings will present a qualitative measure of model acceptability with particular regard to

a. Model representative of the current system

b. Model a sound basis for starting the next activity (Current Logical Model)

Based on the findings, a recommended course of action will be stated whether to re-address the issues raised in developing the model or to proceed with the next activity.

SECTION 2 STRUCTURED SPECIFICATION

This section contains the high level description of the existing components affected by this Functional Requirements Definition.

2.1 DATA FLOW DIAGRAMS

This paragraph contains the context diagram, and a leveled set of DFDs.

2.1.1 Context Diagram

This paragraph should contain the context diagram. The context diagram is the highest level DFD defining the overall scope of the subject Functional Requirements Definition.

2.1.2 Level Set of Diagrams

This sub-paragraph contains at least the first two levels of data flow diagrams that define the existing physical implementation. Each diagram should be produced in accordance with the Style Manual.

2.2 MINI-SPECIFICATIONS

Because the current physical model is only the first step in the analysis process this paragraph should be limited to brief descriptions of each of the lowest level processes in the DFDs.

2.3 DATA DICTIONARY

This paragraph indicates the appropriate method of locating the Data Dictionary definitions relative to this document. Because the current physical model is only the first step in the analysis process, these should be limited to brief definitions of the flows shown on the DFDs.

SECTION 3 SUPPORTING DOCUMENTATION

This section will document information pertinent to the current system and existing environment not covered in the structured specification.

3.1 CURRENT ORGANIZATIONAL CONTEXT

This paragraph will describe the organizational context within which the current system operates. It will include organizational missions, job descriptions, and organization charts for those organizations within the context of this study.

3.2 CURRENT ADPE ENVIRONMENT

This paragraph will describe the current ADPE environment. It will include existing system architecture diagrams and information pertinent to existing hardware/software configurations.

3.3 CURRENT PERFORMANCE CHARACTERISTICS

This paragraph will document the performance characteristics of the current system. It will include all information pertinent to current performance such as periodicity or cyclic processing requirements, response times, and throughput volume.

Appendix D

CURRENT LOGICAL MODEL TABLE OF CONTENTS

Current Logical Model

Appendix E

CURRENT LOGICAL MODEL CONTENT DESCRIPTION

SECTION 1 GENERAL

This section will reference the current physical model for its objectives and scope, and other general information required in the current logical model.

1.1 AUTHOR

This paragraph will identify the organization charged with producing the current logical model. In case of contracted efforts, it will include an organization chart of the producing organization with functional titles and a job description for those functional titles.

1.2 CURRENT LOGICAL MODEL ACTION PLAN

This paragraph will document the findings and recommendations of the organization charged with producing the current logical model. The findings will present a qualitative measure of model acceptability with particular regard to:

a. Transition to a logical view of the current system clearly made

b. Model a sound basis for starting the next activity (New Logical Model)

Based on the findings, a recommended course of action will be stated whether to re-address the issues raised in developing the model or to proceed with the next activity.

SECTION 2 STRUCTURED SPECIFICATION

This section will document the current logical model and will be organized and formatted as defined below.

2.1 DATA FLOW DIAGRAMS

This paragraph should contain the context diagram and leveled set of data flow diagrams.

2.1.1 Context Diagram

This paragraph should contain the same context diagram that appeared in the current physical model.

2.1.2 Leveled Set of Diagrams

This paragraph contains the leveled set of DFD's from the current physical model, but modified to show the logical functions. If necessary, additional detail can be added by adding one or two more levels to the DFD's.

2.2 MINI-SPECIFICATIONS

This section should contain mini-specifications. The mini-specification (mini-spec) is a statement of the rules governing the transformation of input data flows into output data flows at the functionally primitive mini-system, or process level. Mini-specs will be written only at the lowest level.

2.3 DATA DICTIONARY

The data dictionary for the current logical model includes all the entries from the current physical model, and any additional terms introduced from added levels of the DFDs. This paragraph indicates the appropriate method of locating the Data Dictionary definitions relative to this document.

Appendix F

NEW LOGICAL MODEL TABLE OF CONTENTS

New Logical Model

Appendix G

NEW LOGICAL MODEL CONTENT DESCRIPTION

SECTION 1 GENERAL

This section will document the objective, scope, and other general information required in the new logical model.

1.1 OBJECTIVE

This paragraph will describe the system objectives as defined by the user. It will include the deficiencies of the current system and state the specific objectives of the proposed system to rectify the deficiencies and meet the user's requirements.

1.2 SCOPE

This paragraph will document the scope, or context, of the new system. It will describe changes to the existing environment to include organizational and site specific information. and the identification of the specific applications under study.

1.3 AUTHOR

This paragraph will identify the organization charged with producing the new logical model. In case of contracted efforts, it will include an organization chart of the producing organization with functional titles and a job description for those functional titles.

1.4 FUNCTIONAL REQUIREMENTS DEFINITION ACTION PLAN

This paragraph will document the findings and recommendations of the organization charged with producing the new logical model. The findings will present a qualitative measure of model acceptability with particular regard to:

a. Context appropriate to stated system objectives.

b. Model overly physical in nature such as referencing the physical organization of the person, organization, or program performing the work functions.

c. Model a sound basis for starting the next activity (General Design).

Based on the findings, a recommended course of action will be stated whether to re-address the issues raised in developing the model through the use of prototypes, or to proceed with the next activity.

SECTION 2 STRUCTURED SPECIFICATION

This section contains the final definition of the Functional Requirements.

2.1 DATA FLOW DIAGRAMS

This paragraph should contain the final set of DFD's that describe the new logical model.

2.1.1 Context Diagram

This paragraph contains the context diagram for the new logical model.

2.1.2 Leveled Set of Diagrams (REVISED)

This paragraph contains the same data flow diagrams as used in the previous deliverable, modified to also include any new functions at the lowest level diagrams.

2.2 MINI-SPECIFICATIONS (DETAILED)

This paragraph contains the complete set of mini-specs that describe the New Logical Model.

2.3 DATA DICTIONARY

This paragraph indicates the appropriate method of locating the Data Dictionary definitions of all data flows and data stores in the New Logical Model. These must now be the exact precise definitions of data composition. The composition of each data flow and data store should be defined as well as the definition of the components of the data flows and data stores in the New Logical Model.

2.4 Entity Relationship Diagrams

This section should contain a graphical representation of all data stores, including their relationships to one another. This material is based entirely on the data dictionary entries and the mini-specifications. It merely presents another means to present the data structure relationships.

SECTION 3 SUPPORTING DOCUMENTATION

This section will document information pertinent to the proposed system not covered in the structured specification.

3.1 SUMMARY OF NEW REQUIREMENTS

This paragraph will contain a narrative description of each new requirement as modeled into the new logical model. It will list each requirement in a separate paragraph in a manner which will

facilitate the relating of the requirement to its placement in the model. If possible, the process numbers should be included, and the identification of data flows newly created in the requirement. These standards are not intended to limit the amount of information that may be provided in this section.

Appendix H

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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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