U.S. Marine Corps

LIBRARY MANAGEMENT SYSTEM

From: Commandant of the Marine Corps

Subj: INFORMATION RESOURCES MANAGEMENT (IRM) LIBRARY MANAGEMENT
SYSTEM

Ref: (a) MCO P5231.1
        (b) MCO 5271.1
        (c) MCO P5600.31

Encl: (1) IRM-5233-06A

1. PURPOSE. To provide guidance on the development of a Library
Management System as part of the system development methodology
(SDM) documentation required by reference (a).

2. CANCELLATION. IRM-5233-06.

3. SUMMARY OF REVISION. This revision updates the usage of the
test environment and the deletion of MARKIV. The section
addressing crossover requests has been rewritten to suggest the
usage of an automated means of accomplishing crossover requests.
All figures which pertained to the batch method of crossovers
have been removed.

4. AUTHORITY. The information promulgated in this publication
is based on policy and guidance contained in reference (b).

5. APPLICABILITY. The standards outlined by this publication
are applicable to all contractors and Marine Corps personnel who
develop Library Management Systems. This standard is applicable
to the Marine Corps Reserve.

6. DISTRIBUTION. This technical publication has been assigned
Distribution as listed below. Appropriate activities will
receive updated individual activity Table of Allowances for
Publications. Requests for changes in allowance should be
submitted in accordance with reference (c).

7. SCOPE

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

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

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8. <u>SPONSOR</u>.   The sponsor of the technical publication is CMC
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UNITED STATES MARINE CORPS

Information Resources Management (IRM) Standards
and Guidelines Program

<u>Library Management System</u>
IRM-5233-06A

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LIBRARY MANAGEMENT SYSTEM
IRM-5233-06A

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GENERAL

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Chapter 1

GENERAL

1.1. <u>OBJECTIVE</u>. The objective of the Library Management System Standard is to establish uniform procedures and guidance for the development of a Library Management System (LMS).

1.2. <u>SCOPE</u>. This publication establishes standard libraries for SOURCE and OBJECT modules. It also identifies the requirements for the release and distribution procedures, records, and report types to be used daily in the operation of the libraries.

1.2.1. <u>Applicability</u>. The provisions of this standard will be applied to all project development groups and operational activities such as Central Design and Programming Activities (CDPA's), Force Automated Service Centers (FASC's), and Regional Automated Service Centers (RASC's).

1.3. <u>APPROACH</u>. The following paragraphs provide a brief description of the four major components that should be contained in an LMS. Greater detail is provided in chapter 2 of this publication.

1.3.1. <u>Library Structure</u>. Provides standard libraries for all elements of the system, i.e. source and object modules, procedures, and file descriptions.

1.3.2. <u>Control Procedures</u>. Ensures control of the production and test versions of all libraries for local and exported systems.

1.3.3. <u>Export Procedures</u>. Provides the capability to export Class I system to designated field automated data processing (ADP) activities on a scheduled basis.

1.3.4. <u>Import Procedures</u>. Controls receipt and loading of incoming Class I systems, ensuring coordination of the responsible programming team/branch, appropriate production personnel, and users at the time of implementation.

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Chapter 2

COMPONENTS

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Chapter 2

COMPONENTS

2.1. LIBRARY STRUCTURE.

2.1.1. Purpose. This section defines the types of data sets that will be established, controlled, and maintained as part of the LMS. XXXX is used throughout to identify the high level index specified in MCO P5233.1 for the site. YYYY and ZZZZ are used to identify second level indices used by the site for master and test libraries respectively. In some instances, it may be desirable to further separate 'test' libraries into a category known as development. Similar naming conventions apply to development members in the development environment.

2.1.2. LIBRARIAN Data Sets. LIBRARIAN is the Marine Corps operational library management software package.

    a. Master LIBRARIAN Data Sets. The below listed LIBRARIAN data sets are in a production status and exclusively controlled and maintained by LMS.

        (1) XXXX.YYYY.SOURCE. Contains source language for programs and FDs.

        (2) XXXX.YYYY.PROC. Contains procedures.

        (3) XXXX.YYYY.SYSIN. Contains SYSIN member associated with production procedures.

        (4) XXXX.YYYY.DOC. Contains COM/RUNBOOKS. Additional libraries may be created in the same manner as above for storage of the system element that has unique characteristics.

        (5) XXXX.YYYY.OBJECT. Modules contained on this data set will normally be imported programs without source code.

    b. Test LIBRARIAN Data Sets. The following LIBRARIAN data sets are in a test environment (development/modification) and the user has access/update authority.

        (1) XXXX.ZZZZ.SOURCE. Contains source language for programs and FD's in a development or modification (test) environment.

        (2) XXXX.ZZZZ.PROC. Contains procedures in a developmental modification (test) environment.

(3) XXXX.ZZZZ.SYSIN. Contains SYSIN members in a development or modification (test) environment.

(4) XXXX.ZZZZ.DOC. Contain COM/RUNBOOKS in a developmental modification (test) environment.

Additional libraries may be created as necessary.

2.1.3. Partitioned Data Sets. Several partitioned data sets are identified and described in the following paragraphs.

a. Production Partitioned Data Sets. The partitioned data sets listed below are in a production status and exclusively controlled and maintained by LMS.

(1) XXXX.YYYY.PROCLIB. Contains procedures in a production status.

(2) XXXX.YYYY.SYSINLIB. Contains control statements required to execute production procedures.

(3) XXXX.YYYY.LOADLIB. Contains only executable linked modules used in production procedures.

(4) XXXX.YYYY.EXPORT. Is a load library used to construct exported systems.

Additional libraries will be created in the same manner as above for the storage of other system elements that have unique characteristics.

b. Test Partitioned Data Sets. The partitioned data sets listed below are in a test environment (development/modification) and are authorized to be accessed/updated by the user.

(1) XXXX.ZZZZ.PROCLIB. Contains test procedures utilized by the application programmer for test purposes, and also for new procedures under development.

(2) XXXX.ZZZZ.SYSINLIB. Contains control statements associated with procedures under development or test.

(3) XXXX.ZZZZ.LOADLIB. Contains executable linked modules undergoing development or test.

Additional libraries may be created as necessary.

2.1.4. Naming Conventions. Module names will conform to the naming conventions as outlined in IRM-5234-04 and Data Access Security (DAS) IRM-5510-01.

2.2. CONTROL PROCEDURES.

2.2.1. <u>General</u>. All externally developed systems, once imported, will follow the established LMS control procedures as do in-house developed systems. To ensure compliance to LMS control procedures, all requests for work to be performed must be accompanied by an appropriate crossover request.

2.2.2. <u>LMS Control Procedures</u>. Control procedures established at the respective site, must perform, but are not limited to, the following functions.

    a. Requests for loading of new system component resources such as programs, cataloged procedures, file descriptions, runbooks, and SYSIN members to their appropriate libraries.

    b. Requests for exporting existing system component resources to designated facilities.

    c. Requests for moving system component resources from the test libraries to the production libraries, which is commonly referred to as crossover.

    d. Establishment of rules for accessing and maintaining libraries.

2.2.3. <u>Crossover Requests</u>. Crossover requests are a result of a requested library update. These updates occur because of in-house changes or because a new or updated system has been received. The following recommends an automated procedure for accomplishing the crossover request.

    a. <u>Crossover Record</u>. A Problem, Change and Configuration Management (PCM) record is utilized to initiate a library update. A unique crossover (XOV) record exists in TSO's INFO/MAN that is updated whenever a library needs updated. The requestor enters part or all of the following information in the narrative section of the XOV record:

    System name, DOCLIB members, PROCLIB members, SYSINLIB members, LOADLIB members, PARMLIB members, DATASET names and pertinent access information, program names, maps/mapset names.

The detail of the above information will be determined by the type of changes being made (batch/on-line and in-house/export). Once the request has been approved, the Production Analysis Unit (PAU) utilizes programs and CLISTS to dynamically update the target libraries.

2.3. EXPORT PROCEDURES.

2.3.1. General.

    a. An exported system consists of Class I programs designed and maintained at a specific installation and exported to designated field ADP activities. In addition to the Class I programs there may be procedures, SYSINLIB members, computer operations manuals (runbooks), and transmittal letters associated with an exported system.

    b. Exported systems (full release) will be transmitted to designated receiving sites on a scheduled basis. Exported systems (partial release), for emergency fixes, will be transmitted on an as required basis.

2.3.2. Exported System Identification. Exported systems should be identified by job identification number (JIN), responsible organizational element, number of programs, procedures (PROCs), SYSINLIB members, and runbooks associated with each system. The following is an example:

SYSTEM	JIN	BRANCH	PGM	PROC	SYSIN	RUNBOOKS
MIMMS	A04150	773	124	47	102	47
SASSY	A04100	773	313	164	59	164
DMA	A04152	771	134	58	208	49
MERP	A04300	763	88	26	86	18
DSSC	A04007	773	51	23	12	23
PWR	A04011	772	9	4	9	1

2.3.3. Release Schedule. The schedule should contain the system name, release number, work request cut off date, and transmittal date. The following is an example:

SYSTEM NAME TRANSMITTAL DATE	RELEASE NUMBER	WORK REQUEST CUT OFF DATE	
SASSY	1	1 March	31 March
(A4100)	2	1 September	30 September
DMA	1	1 April	30 April
(A4152)	2	1 October	31 October
MOWASP	1	1 April	30 April
(A4006)	2	1 October	31 October

2.3.4. <u>Methods of Transmission</u>. Exported systems are transmitted via the Marine Corps Data Network (MCDN). The export request should contain the following:

    a. SYSTEM/JIN

    b. Special link instructions

    c. Dataset names and associated access instructions (read only, update, browse, etc.)

    d. Program names, language, compiler, new/updated, location

    e. Procedure/runbook names, new/updated, location

    f. SYSIN members, new/updated, location

2.3.5. <u>Follow-Up Process</u>.

    a. Upon completion of the transmission of an Exported System, a narrative E-mail should be sent to the receiving site. The E-mail will provide the date the system was transmitted and will request confirmation of the successful implementation of the system.

    b. Upon confirmation from the receiving site, the responsible applications programming team/branch should be notified.

2.4. **IMPORT PROCEDURES**. Imported systems are systems which arrive at the installation and must be loaded into the local LMS libraries. The LMS deals with three types of imported systems: External MCCDPA Sponsored Class I Systems, Contractor Developed System, and Class III Systems. The installation procedures, documentation, and testing requirements for each of the three types of imported systems are provided in the following paragraphs.

2.4.1. <u>External MCCDPA Sponsored Class I Systems</u>.

a. A transmittal letter stating contents to include name, language description, and any special handling instructions should be provided. No testing of programs will be performed on any Class I system received.

b. The responsible branch should be notified, by memo, of receipt. No further action should be taken by LMS personnel until a memo is received from the appropriate branch stating what action is required.

2.4.2. <u>Contractor Developed Systems</u>.

a. The procedures for installing contractor developed systems are based on receiving the software in a source language format. The source language code will be an unloaded partitioned data set recorded on a standard label magnetic tape. Documentation stating contents of the magnetic tape, to include module names, programming language, description, and any special handling instructions should be provided. JCL used to build the tape, load the tape to a partitioned data set, and JCL used for compiling and linking modules should also be included.

b. The responsible programming branch should be notified, by memo, of receipt of contractor software. The LMS personnel should load the contractor software from tape to a temporary partitioned data set (PDS). No further action should be taken by LMS personnel until a memo is received from the appropriate branch stating what action is required.

2.4.3. <u>Class III Systems</u>. When a tape containing Class III modules is received from a source other than an external MCCDPA or contractor, such as another DOD agency, appropriate documentation containing content description, instructions, and format of the tape should accompany it. If the tape does not contain source code the procedures described in Paragraph 2.4.1., "External MCCDPA Sponsored Class I Systems," will apply. If the tape contains source code, the procedures described in Paragraph 2.4.2., "Contractor Developed Systems," will apply.

Appendix A

GLOSSARY

MCDN: MCDN is an acronym for "Marine Corps Data Network." It is a common user data communications network that provides computer to computer (bulk data) communications, vice AUTODIN.

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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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