DEPARTMENTAL REGULATION	Number: 3230-003
SUBJECT: Software Management	DATE: March 3, 1988
	OPI: Agency Technical Services Division, Office of Information Resources Management

1   PURPOSE AND SCOPE

 This regulation establishes policy, responsibilities, and procedures for life cycle software management. It covers software development, acquisition, shared acquisition, quality assurance, and maintenance.

2   SPECIAL INSTRUCTIONS AND CANCELLATIONS

a   The following two new Departmental Manuals enlarge on the responsibilities defined in this policy regulation:

(1)   DM 3200-1, Application Systems Life Cycle Management Manual, presents a methodology for life cycle management of application systems. Use of the methodology assures effective acquisition, development, implementation, and maintenance of application systems.

(2)   DM 3200-2, "A Project Manager's Guide to Application Systems Life Cycle Management," is a detailed, technical guide for managers of major software acquisition projects. The purpose of this guideline is to assist project managers who may require more detail than DM 3200-1 provides.

b   Use the policies stated in this regulation in conjunction with the technical approval requirements set forth in DR 3130-1.

c   This Regulation supersedes DR 3220-2, Common Use Software issued March 13, 1984.

3   APPLICABILITY

The standards and policies apply to software purchased, developed, or used by or on behalf of the United States Department of Agriculture (USDA).

Use of a life cycle management methodology applies to major software acquisition or development projects. The intent is to provide a framework for software management which is flexible in its application. Agencies may adapt the methodology stated in DM 3200-1 to meet specific agency needs or development techniques. Commercially available methodologies may be consistent with DM 3200-1.

4   REFERENCES

INTERNAL AND EXTERNAL

Source   Publication   Title/Subject

GSA   FAR   Subchapter G, sub-parts 42 and 43

NBS   Pub 500-144   Use of Proprietary Software Products

OMB   Circular A-76   Policies for Acquiring Commercial or Industrial Type Products and Services Needed by the Government

USDA   AGAR 439.70   Delegation of Acquisition Authority

USDA   DR 3111-1   Departmental Long-Range IRM Planning

USDA   DR 3130-1   Technical Approval for IRM Products and Services

USDA   DR 3130-2   Microcomputer Policy

USDA   DR 3140-1   USDA ADP Security Policy

USDA   DR 3140-1   USDA ADP Security Manual

USDA   DR 3200-1   Services at Departmental Computer Centers

USDA   DM 3200-1   Application Systems Life Cycle Management Handbook

USDA   DM 3200-2   A Project MarLager's Guide to Application Systems Life Cycle Management

USDA   DR 3300-1   Telecommunications

USDA   DR 3400-3   Departmental Information Locator System

USDA   DR 5039-3   Agency Requests for Delegation of Procurement Authority for ADP Acquisitions

5   DEFINITIONS

     a   Application Systems Life Cycle (ASLC) is the time span between determining a need for a system and the end of its operational use. overall, the system life cycle is a number of discrete phases with formal milestones placed between and during each phase.

     b   Fourth Generation Language is any language containing a data base management system used in conjunction with applications development, user query, and report generation. A fourth generation language requires minimum coding effort of the user.

     c   Software management is the establishment and implementation of policies and practices to ensure efficient and cost-effective development or acquisition, use, and maintenance of all types of computer software.

     d   Systems Life Cycle Management (SLCM) is the process of managing development or acquisition and implementation of applications software from the earliest planning until it is no longer operational.

     e   System Life is the planned duration for which a hardware or Software system or service is useful to an agency. The agency determines this time span. The system life begins with acceptance of the item and ends when it is no longer useful.

6   OBJECTIVE

     The objective of software management is to:

     a   Maximize benefit/cost ratio and measure return on investment.

     b   Improve overall management of information resources.

     c   Enhance compatibility within USDA agencies.

     d   Reduce maintenance costs through life cycle management.

     e   Enhance security.

     f   Increase opportunities for software sharing over the life cycle.

7   POLICY

     a   Planning, development and acquisition of software will follow a phased life cycle management approach as described in DM 3200-1. This applies to conversion, enhancements, and major modification of existing software systems.

b   Calculate benefits and costs over the entire systems life cycle. Agencies will implement methodologies to measure return on investment as a feature of any major software acquisition project.

c   The first alternative to meet agency requirements is the use of proprietary (off-the-shelf) software products. The National Bureau of Standards Special Publication 500-144 recommends the use of proprietary packages if the software meets 85-90% of user requirements.

d   As a first alternative, consult the Common Use Software Component of the Departmental Information Locator System (DILS), DR 3400-3 for similar software. Other least Cost alternatives to meet software requirements are software development sharing and use of proprietary software packages.

e   Whenever possible, Agencies will improve software products incrementally instead of developing completely new products. Agencies will perform validation tests at each step in order to maintain the integrity of existing programs.

f   If an agency determines it needs new customized software systems, the development process will use fourth generation language packages. Agencies will use automated project management and software application development tools.

g   Do not copy or distribute copyrighted proprietary software packages beyond contractual limits. (See DR 3130-2, Microcomputer Policy.)

8   RESPONSIBILITIES

a   Office of Information Resource Management (OIRM) has responsibility for:

(1)   Promoting the life cycle management concept and requirements as described in DM 3200-1, Application Systems Life Cycle Management Manual.

(2)   Defining major application systems development projects and their goals and priorities in the Department's IRM Long-Range Plan. See DR 3111-1, Departmental Long-Range IRM Planning.

(3)   Developing and maintaining Departmental software management policy.

(4)   Providing consulting and assistance regarding the application of the life cycle management methodology in software acquisitions.

(5)   Developing and implementing Departmentwide application systems.

(6)   Granting technical approval and serving on agency review team in GSA Go-for-12 projects.

b   Agency Heads and Staff Office Directors who request the development of application systems are responsible for:

(1)   Ensuring use of the life cycle management process in major software development projects within their agencies.

(2)   Appointing officials within user organizations to be responsible for management and control of specific major software development projects.

(3)   Applying the life cycle management process to major application systems development projects to the maximum extent practical.

(4)   Appointing managers that have adequate experience and/or training to manage application systems development projects effectively.

(5)   Making sure major application system project requests are in the Department's ADP and Telecommunications Five Year Acquisition Plan, the Five Year IRM Plan and the A-11.

(6)   Overseeing the acquisition or development of software that supports administrative and programmatic activities within their functional area.

9   STANDARDS

a   USDA-Wide Software. The Departmental Computer Centers (DCC's) will maintain standard data base management software, file backup, dictionary procedures and any other software named as a Departmental standard package.

b   Agency-wide Software.

(1)   Whenever possible, integrate standard software throughout the various sizes of hardware, e. g., the same word processing package for minicomputers and microcomputers. This applies to data base management systems, spreadsheets, and other office automation products.

(2)   As a first choice, agencies will select proprietary (off-the-shelf) software products for use in supporting the following work processes unless provided by Departmental requirements contracts or services:

(a)   Word processing.

(b)   Data base management (local systems)

(c)   Spreadsheet processing

(d)   Telecommunications software

10   PROCEDURES

a   Contractor Developed Software.

(1)   Contractors will follow the life cycle management process outlined in DM 3200-1 to assure that products meet design criteria.

(2)   Software development projects will follow contract management procedures as detailed in the Federal Acquisition Regulations (FAR). Refer to Subchapter G, sub-parts 42 and 43, Software Development Contracting Guidelines.

(3)   Encourage contractors to use Computer Aided Software Engineering (CASE) tools in order to develop quality software.

b   In-house Development of New Software. The procedures outlined for contractor developed software projects apply to in-house projects. Perform a benefit/cost analysis for all development projects. When appropriate, perform an A-76 analysis.

c   Acquisition of New Software by Purchase, License, Lease, or Other Methods. Follow approval and procurement processes as established in DR 3130-1 and DR 5039-3 to purchase or lease software. Threshold values in DR 3130-1 and AGAR 439.70 determine technical approval and delegation of procurement authority, respectively. Consider the following when purchasing software products:

(1)   Multiple site licenses for volume (multiple copies) purchasing.

(2)   Evaluate support and maintenance arrangements provided by the vendor according to the agency requirements.