



## System Development and Life-Cycle Management (SDLCM) Methodology

<b>Subject</b> Installation Instructions	<b>Type</b>	Standard
	<b>Identifier</b>	S-5252
	<b>Effective Date</b>	February 2002
	<b>Revision No.</b>	3

Approval

CISSCO Program Director

### A. PURPOSE

This standard specifies content and format requirements for SDLCM Methodology Installation Instructions.

### B. APPLICABILITY

This standard applies to all NRC Project/Tasks, subject to the SDLCM Methodology, that plan to develop and deploy a new, upgraded, or migrated data processing system or software application.

This standard is used by those persons who create, update, review, and approve the Installation Instructions for deployable systems.

### C. REFERENCE PUBLICATIONS

The following publications contain related information:

- *SDLCM Methodology Handbook*, Component 4, Engineer the Solution
- *SDLCM Methodology Handbook*, Component 5, Deploy the Solution
- SDLCM Methodology Standard S-5051, Tactical Integration Plan
- SDLCM Methodology Procedure P-2141, Operational Readiness Review
- SDLCM Methodology Standard S-1056, Security Controls
- SDLCM Methodology Procedure P-5141, Site Acceptance and Operations Testing
- SDLCM Methodology Standard S-5151, Test Plan

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#### **D. STANDARD**

The Installation Instructions document provides a detailed description of the activities involved in the installation of a new or enhanced NRC system and the equipment resources, both hardware and software, required for its support in the production environment.

The Installation Instructions may be provided as an appendix to the Tactical Integration Plan instead of as a separate document.

Tailor this standard as needed to be consistent with the size, scope, and complexity of the system. Add sections and subsections for special topics. Sections and subsections that are not applicable should *not* be deleted; they should indicate “not applicable.” Add other topics necessary to provide a complete picture of the planning elements. Summarize important material, as needed, to clarify or emphasize special aspects of the plan. When appropriate, reference other documents and plans rather than repeating material unnecessarily.

The following paragraphs describe the content of the Installation Instructions.

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## 1. INTRODUCTION

Briefly describe the purpose of the installation instructions.

### 1.1 Objectives

Describe the capability that will exist after the installation of the deployed system and its support resources.

### 1.2 Scope

Identify the activities that mark the beginning and end of the installation. Describe any installation activities not covered by these instructions.

### 1.3 Assumptions

Identify any assumptions concerning installation of the system, including those related to the qualifications of the installation personnel.

### 1.4 Applicable Documents

List the documents that support the Installation Instructions or that provide additional information about the various activities included, such as the Project/Task Tactical Integration Plan, hardware and software installation and maintenance manuals and procedures for the support environment; test requirements and plans; training materials; facility and security plans; problem resolution procedures; and applicable Project/Task schedules.

## 2. APPROACH

Describe the strategy for accomplishing installation and cutover of the system being deployed. Identify the high-level activities included in this strategy and the organizations involved and their responsibilities. Describe how coordination will be maintained among these organizations. Clearly identify the date or activity that concludes the installation process and signals readiness for cutover to the new system.

## 3. GENERAL INSTALLATION INSTRUCTIONS

Identify the system or system release being installed. Summarize the system function and the context in which it operates, including its external interfaces.

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### 3.1 Special Considerations

State any special conditions, such as the need for parallel operations with an existing system, availability of interfacing systems, readiness of the facilities, that could affect the implementation of the installation instructions.

### 3.2 Installation Considerations

State the considerations that must be met during system installation. The following considerations are typical of what needs to be addressed:

- Hardware or software to be installed
- State of readiness required at each operational support site
- Physical, security, and safety restrictions for hardware, software, or personnel entering each facility
- Preshipment checkout of hardware, software, or data
- Special shipping, packaging, or delivery needs
- Special communication needs
- Configuration and data management needs
- Engineering support needs
- How and where acceptance testing is to be performed
- Hardware and software acceptance criteria
- Certifications or inspections to be performed
- Simulation requirements for external interfaces
- Staff training needs for acceptance testing, operations, and maintenance
- Required date by which cutover must be complete
- Problem reporting and tracking

### 3.3 Installation Milestones

Include, or refer to the TIP for, the installation milestone schedule. Identify the major hardware and software transitions and other associated activities, such as acceptance testing. Indicate any site preparation milestones that can affect installation activities.

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### 3.4 Interfaces

Describe the system interfaces and the transitions that will be made over the course of installation. List the hardware and software configuration changes that must be accomplished to support these transitions. Identify the organizations responsible for the various interfaces.

### 3.5 Problem Identification and Resolution

Refer to the Project/Task problem reporting and tracking procedures. Identify any deviations from the standard process applicable to the installation and cutover of the system.

## 4. SPECIFIC INSTALLATION INSTRUCTIONS

Provide the step-by-step installation instructions or procedures to complete each major installation activity. Identify any differences in an instruction that apply to various operational sites. If these differences are significant, prepare site-specific instructions for the given installation activity. As a starting point, consider preparing instructions for each of the following activities:

- Installation of the support environment (hardware and software) at each support site. This may require multiple instructions, each specific to a site.
- Receipt and identification of the Project/Task executable software for each support site, including any batch files, command files, data files, or other software files needed to install and operate the software on its target computer(s).
- Receipt and identification of the source files to transition to each support site, including any batch files, command files, data files, or other files needed to regenerate the executable software.
- Verification of the version records of the software prepared for each support site.
- Installation of the deliverable software in the support environment at each site.
- Verification of the deliverable software in the support environment at each site. These instructions may refer to the acceptance test procedures if appropriate.

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- Participation with the developer in demonstrating to the acquirer that the deliverable software can be regenerated and maintained using commercially available, acquirer-owned, or contractually deliverable software and hardware.
- Participation in an Operational Readiness Review, a joint software supportability technical and management review, for cutover at each site.

Include the information below in the instruction or procedure for each installation activity.

#### **4.1 Installation Instruction for Activity 1**

Identify the activity and the schedule for its completion.

##### **4.1.1 INSTALLATION ACTIVITY 1 STARTUP**

Clearly identify the event that triggers the activity startup and any inputs required for completion of the steps of the activity.

##### **4.1.2 INSTALLATION ACTIVITY 1 STEPS**

Clearly describe each step to be performed, its dependency on the successful completion of any previous steps, and the person(s) (by role, not name) responsible for completing the step. Remember to include the steps needed to verify that the status of the installation at the completion of, or during, the performance of the activity.

The steps may be enumerated in a list and the roles included in an activity–role table. Table 5252–1 is an example of such a table.

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**Table 5252-1. Example of an Activity-Role Table**

Activities	Receiving Clerk	Quality Assurance	Installation Technicians	Installation Manager
Receive support environment hardware at operational site	P*			
Perform receiving Inspection of support environment hardware	P	R		A
Certify support environment hardware		P		A
Move support environment hardware from receiving to the room where support environment to be installed.	P		R	

\* P = Performs, R = Reviews, A = Approves

#### 4.1.3 INSTALLATION ACTIVITY 1 COMPLETION

Clearly describe the step or milestone that indicates completion of Installation Activity 1. Identify the results of completing Installation Activity 1 and any outputs of the activity.

#### 4.n Installation Instruction for Activity n

Provide an installation instruction in the same format for each additional installation activity as for activity 1.