

System Development and Life-Cycle Management (SDLCM) Methodology

Туре	Standard
Identifier	S-1055
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Approval

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A. PURPOSE

This standard specifies content and format requirements for the SDLCM Methodology Development and Maintenance Environment Products Installation Plan.

B. APPLICABILITY

This standard applies to all Project efforts or Maintenance tasks that fall under the SDLCM Methodology umbrella and that require the installation of hardware or software as part of their Acquire Support Resources component. It is used by those persons who plan for the acquisition of resources for subsequent design and development components.

Whereas the Tactical Integration Plan specifies an installation plan for deployment, this Development and Maintenance Environment Products Installation Plan applies specifically to the installation of products for the development environment.

C. REFERENCE PUBLICATIONS

The following publications contain related information:

• SDLCM Methodology Handbook

D. STANDARD

The Development and Maintenance Environment Products Installation Plan provides a detailed description of the activities involved in the installation of equipment resources required for the Design the Solution component. It defines responsibilities, schedules, risks, and risk mitigation approaches.

The standard outline for this document is discussed below. Enhance the outline as needed by adding subsections and separately numbered items to the sections in the standard outline. Add sections and subsections for special topics. Sections and subsections that are not applicable should *not* be deleted; they should indicate "not applicable."

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1. INTRODUCTION

1.1 Background

Describe the need for the installation of support resources.

1.2 Objectives

Describe the capability that will exist after the installation of the support resources.

1.3 Scope

Define the Development and Maintenance Environment Products Installation Plan and what it describes, such as hardware and software installation, for a given Project effort or Maintenance task. Describe the activities that mark the beginning and end of the installation. Also describe what it does not cover.

1.4 Assumptions

If not specifically covered under background or in requirements, provide all assumptions here.

1.5 Applicable Documents

List the documents that support this plan or that provide additional information about the various activities included under this plan, such as hardware and software installation and maintenance manuals and procedures; test requirements; training materials; applicable system requirements and specification documents; Project effort/Maintenance task or mission schedules; facility site requirements, plans, and activity schedules; and problem resolution procedures and policies.

2. APPROACH

Describe the various stages of activity and the strategy for accomplishing the installation and turnover. Describe the organizations involved and their responsibilities. Describe how coordination will be maintained among these organizations. Clearly identify the date or activity at which turnover occurs.

3. GENERAL SYSTEM INSTALLATION

Describe the organization receiving the system and the facility that houses it.

3.1 System Overview

Summarize the system's function and the context in which it operates, including the interfaces. State any special conditions that exist and how they might affect this plan or its implementation. State whether this is an entirely new system or just new hardware or new software. If this is not a new system, describe the old one and what components or

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functions are being replaced or modified. If software maintenance releases exist, describe the releases and what they are intended to accomplish, such as resolution of test discrepancies, software enhancement, a phased improvement plan, or patches for operational problems. State whether the new software or hardware will be operated in the environment in which it is acceptance tested or broken down and rebuilt in some other location.

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 installation site
- Physical, security, and safety restrictions for hardware, software, or personnel entering the 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
- Activities sequences that must be adhered to
- Simulation requirements
- Staff training needs for acceptance testing, operations, and maintenance
- Required date by which turnover must be complete
- Problem reporting and tracking

3.3 Installation Milestones

Prepare the milestone schedule for the installation period. Indicate the major hardware and software transitions and other associated activities, such as acceptance testing. Include site preparation milestones that can affect installation activities.

3.4 Interfaces

Describe the system's 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. Describe the organizations responsible for the various interfaces.

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3.5 **Problem Identification and Resolution**

Describe the problem reporting and tracking procedures. Identify who is responsible at various stages for the defined activities. Describe the problem resolution procedures and how fixes or changes are introduced into the installation process.

4. HARDWARE INSTALLATION AND ACCEPTANCE

If hardware installation is required, summarize what is involved: shipping and receiving, site preparation, removal of the old system, packing and unpacking, setup, startup, vendor or third-party system software installation, network connection, and acceptance testing.

4.1 Hardware Installation Approach

Describe the activities necessary to fulfill the hardware installation requirements: physical installation, equipment turn on and initial checkout, operating system and vendor or third-party software installation and testing, and hardware acceptance. If this is a replacement system and the old system is being retained for the transition period, describe plans for parallel system operations and, in case of need, procedures for fallback to the old system. Consider whether it would be of use to bridge the switchover period with an alternate processor.

4.2 Hardware Installation

List the hardware being installed or retained. Describe the nominal sequence of hardware installation activities.

4.3 Hardware Acceptance

List and describe the acceptance activities associated with the new or reconfigured system. This can include both pre- and post-installation checkout and the exercising of the physical interfaces. Describe the conditions necessary for acceptance testing to begin and to be concluded successfully. Describe the acceptance criteria.

4.4 Responsibilities

Allocate responsibility for the various hardware installation, acceptance test, switchover, and fallback activities.

5. SOFTWARE INSTALLATION AND ACCEPTANCE

Summarize what is involved: vendor or third-party commercial off-the-shelf (COTS) software installation, application software installation and generation, network installation, user allocations, logical name assignments, system tuning, and acceptance testing.

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5.1 Software Installation Approach

Describe the activities necessary to fulfill the software installation requirements: system configuration; software installation, setup, and testing; file allocation and user account creation; network installation; operating system and vendor or third-party COTS software installation and testing; and installation of monitoring tools. Describe procedures for the final switchover to operations and develop the initial system tuning parameter values.

As necessary, establish policies and procedures for installing and accepting new software releases, ensuring integrity and security of the system and its data, and monitoring resource usage. If this is a replacement system or a new software release and the old software is being retained for the transition period, develop plans for parallel operation of the old and new software systems and, in case of need, procedures for fallback to the old software.

5.2 Software Installation

List the software being installed or retained. Describe the nominal sequence of software installation activities.

5.3 Software Acceptance

List and describe the acceptance activities associated with the new software. These activities can include formal reviews and inspections by the customer or purchasing agency. Describe the conditions necessary for acceptance testing to begin and to be concluded successfully. Describe the acceptance criteria or refer to the acceptance test plan.

5.4 Responsibilities

Allocate to specific individuals the responsibility for the various software installation, acceptance test, switchover, and fallback activities.

6. TRAINING REQUIREMENTS

State training requirements for personnel. List the tasks to be performed and describe the skills and knowledge necessary for accomplishing each task.

Identify the positions that are to be staffed. Describe any cross-training requirements.

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7. RISKS AND RISK MITIGATION

Enumerate the risks associated with installation and turnover of hardware or software and COTS, availability of key personnel, delays in facility or site preparation, failures of hardware or software, delays in acceptance of all or part of the system, deficiencies in operational procedures, and inexperience of staff. Analyze the potential impact of these risks and describe any proposed risk mitigation strategies, such as activity resequencing, staffing changes, activity regrouping, vendor changes or COTS substitution, and equipment rental. Analyses should consider critical Project effort/Maintenance task or system functional objectives that may be jeopardized.