SCSD2613 System Analysis and Design



TOPIC VI Systems Implementation Part Three: Installation and Documentation

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MAJOR TOPICS

SYSTEM IMPLEMENTATION

• System implementation process

SYSTEM CONSTRUCTION (CODING) & TESTING

- System construction
- Types of system testing

INSTALLATION

- Types of system installation
- Planning the installation

DOCUMENTING THE SYSTEM

• Generic guidelines

TRAINING AND SUPPORT

- Types of training
- Support

ORGANIZATIONAL ISSUES

- Factors
- Security issues
- Project closure



MAJOR TOPICS

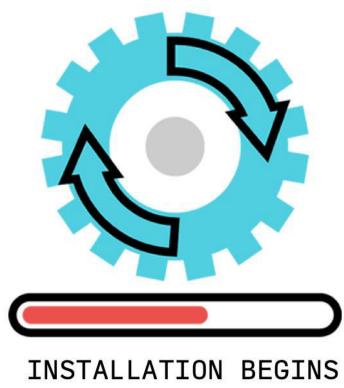
INSTALLATION

- Types of system installation
- Planning the installation



INSTALLATION

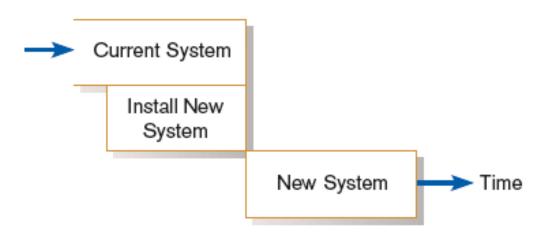
- Installation: the organizational process of changing over from the current information system to a new one.
- It can be involved three important steps:
 - Software installation.
 - Hardware installation.
 - Data conversion.
- Four installation strategies:
 - Direct Installation
 - Parallel Installation
 - Single-location installation
 - Phased Installation





DIRECT INSTALLATION

 Changing over from the old system to a new one by turning off the old system when the new system is turned on





- No duplication of effort for the users.
- No transition costs.
- Learning advantage.
- Immediately benefits.

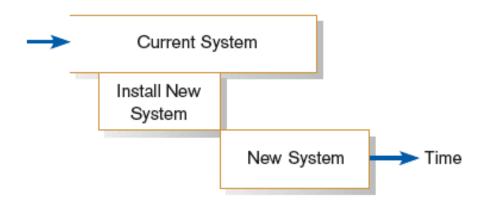


- High risk.
- Cannot compare results with the old.
- Sense of user insecurity



PARALEL INSTALLATION

 Running the old information system and the new one at the same time until management decides the old system can be turned off





- Low risk.
- Sense of user insecurity.
- Ability to compare results with the old

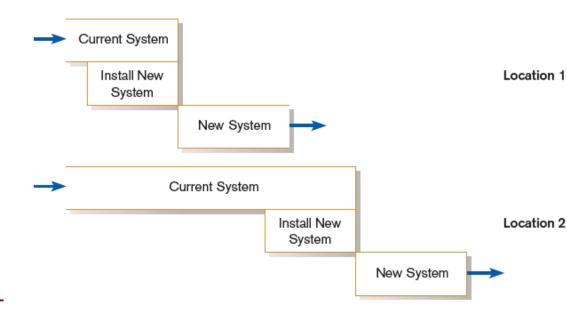


- Duplication of effort for the users
- Transition costs.
- Additional computer processing.



ISINGLE LOCATION INSTALLATION

- Trying out an information system at one site and using the experience to decide if and how the new system should be deployed throughout the organization
- Also known as location or pilot installation





- At the location, same with direct installation.
- Low risk for different location.



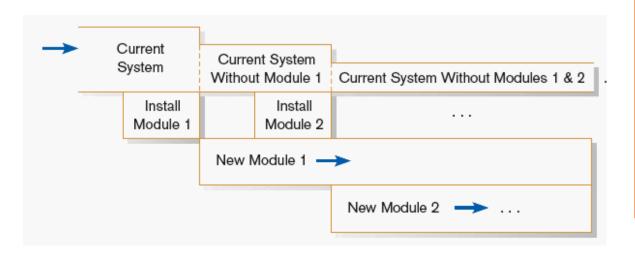
- At the location, same with direct installation.
- High risk at the same location.

INSTALLATION STRATEGIES



PHASED INSTALLATION

 changing from the old information system to the new one incrementally, starting with one or a few functional components and then gradually extending the installation to cover the whole new system





- User learning advantage.
- Low risk.
- Easier
 Installation incremental



- Long period of change.
- Careful version control.



PLANNING INSTALLATION

- Considerations
 - Data conversion
 - Error correction
 - Loading from current system
 - Planned system shutdown
 - Business cycle of organization



MAJOR TOPICS

DOCUMENTING THE SYSTEM

• Generic guideline



DOCUMENTING THE SYSTEM

- **System documentation**: detailed information about a system's design specifications, its internal workings, and its functionality
- User documentation: written or other visual information about an application system, how it works, and how to use it
- Internal documentation: system documentation that is part of the program source code or is generated at compile time
- External documentation: system documentation that includes the outcome of structured diagramming techniques such as data flow and E-R diagrams



DOCUMENTING THE SYSTEM

TABLE 13-5 SDLC and Generic Documentation Corresponding to Each Phase

| Generic Life-Cycle Phase | Generic Document |
|------------------------------------|-------------------------------------|
| Requirements Specification | System Requirements Specification |
| | Resource Requirements Specification |
| Project Control Structuring | Management Plan |
| | Engineering Change Proposal |
| System Development | |
| Architectural design | Architecture Design Document |
| Prototype design | Prototype Design Document |
| Detailed design and implementation | Detailed Design Document |
| Test specification | Test Specifications |
| Test implementation | Test Reports |
| System Delivery | User's Guide |
| | Release Description |
| | System Administrator's Guide |
| | Reference Guide |
| | Acceptance Sign-Off |

(Source: Adapted from Bell and Evans, 1989.)



GENERIC USER'S GUIDE OUTLINE

Preface

- 1. Introduction
 - 1.1. Configurations
 - 1.2 Function flow
- 2. User interface
 - 2.1 Display screens
 - 2.2 Command types
- 3. Getting started
 - 3.1 Login
 - 3.2 Logout
 - 3.3 Save
 - 3.4 Error recovery
 - 3.n [Basic procedure name]
 - 3.n.n [Task name]

Appendix A—Error Messages ([Appendix])

Glossary

Terms

Acronyms

Index

Source: Adapted from Bell and Evans, 1989.)



DOCUMENTING THE SYSTEM



Figure 13-7

Example of online user documentation

(Source: Microsoft Corporation.)











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Thank You

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