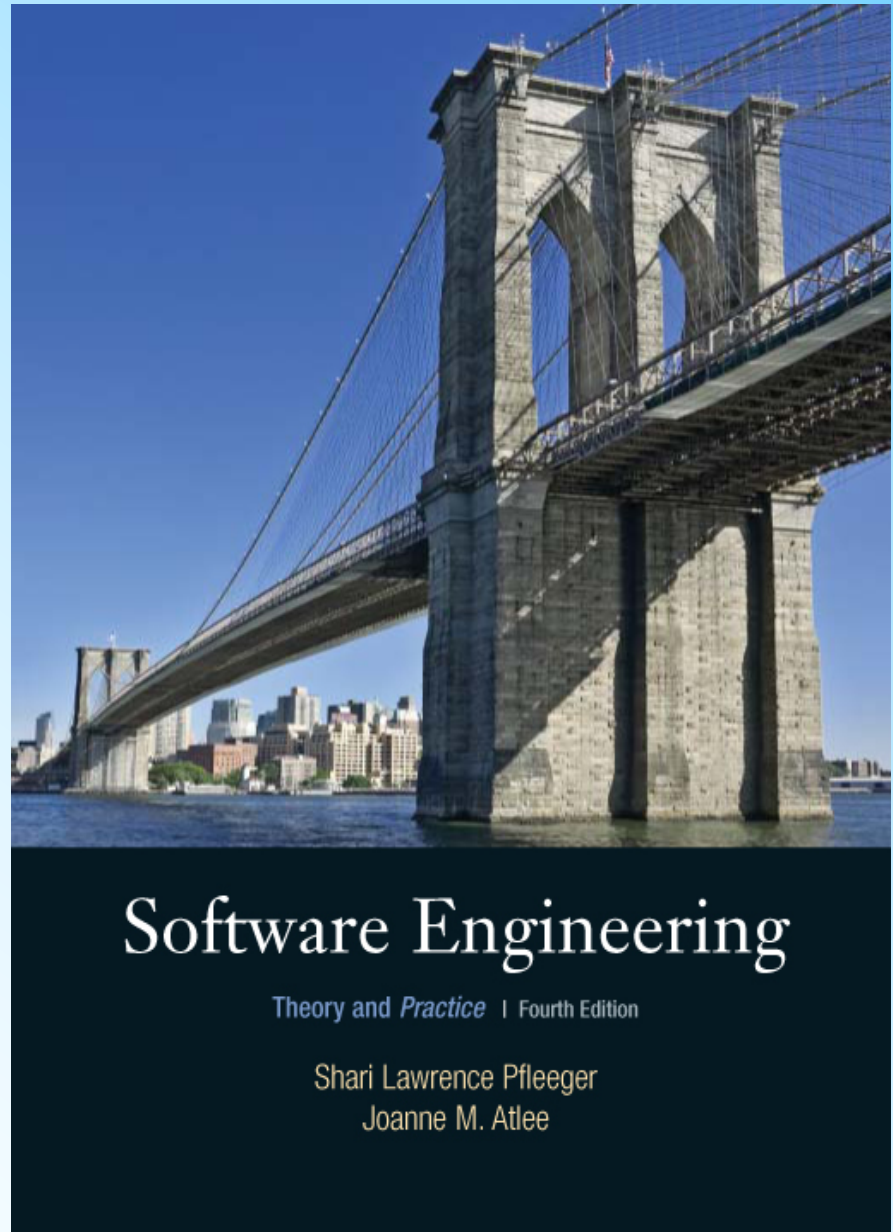


Chapter 10

Delivering the System

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Chapter 10 Objectives

- Training
- Documentation

Chapter 10: Delivering the System

- It is more than just putting the system in place
- It is also helping users to understand and feel comfortable with the system
 - Training
 - Documentation

10.1 Training

Types of People Who Use a System

- Users: exercise the main system functions
- Operators: perform supplementary functions
 - create back up copies of data files
 - define who has access to the system

10.1 Training

User and Operators Functions

User Functions	Operator Functions
Manipulating data files	Granting user access
Simulating activities	Granting file access
Analyzing data	Performing backups
Communicating data	Installing new devices
Drawing graphs and charts	Installing new software
	Recovering damage files

10.1 Training

Types of Training

- User training
- Operator training
- Special training needs

10.1 Training

User Training

- Introduces the primary functions
 - Record management: record creation, deletion, retrieval, sorting
 - Navigation thru the system
 - No need to internal mechanism (e.g., sorting algorithms, data structures)
- Relates how the functions are performed now, how to perform later with the new system
 - Need to take into account the difficulty of transition learning

10.1 Training

Operator Training

- Focuses on support functions and addresses how the system works rather than what the system does
- Runs in two levels
 - how to bring up and run the new system
 - how to support users

10.1 Training

Special Training Needs

- Infrequent vs. frequent users
 - Certain functions may become forgotten
- New users (who have replaced trained users)
- Existing users interest in brush-up on things missed
- Need for specialized training

10.1 Training

Training Aids

- Documents
 - Formal documentation, manuals
 - A small percentages of the users read them
- Icons and online help
 - Metaphors (for objects and functions)
 - Online manuals provide hypertext links
- Demonstrations and classes
 - More individualized, more dynamic; uses of multimedia (hearing, seeing)
- Expert users (and trained individuals)
 - Role models can be convincing

10.1 Training

Guidelines for Training

- Understand the personal preferences, work styles, and organizational pressures
- Need to accommodate different types of students
 - individualized system
- Divide a training class or demonstration into presentation units with short, limited scope
- Determines the type of training based on the location of the students
 - Hundreds of students all over? Use web-based training

10.2 Documentation

Considering the Audiences

- Need to understand the intended audience
 - Users
 - Operators
 - Customer staff
 - Other member of development team
- Design different document for different audience
 - Include a “gentle” introduction

10.2 Documentation

Types of Documentations

- User's manual
- Operator's manual
- General system guide
- Tutorials and automated overviews
- Other documentation: Programmer guide

10.2 Documentation

User's Manuals

- Beginning with the general purpose, and progressing to detailed functional description
 - system's purpose or objectives
 - system's capabilities and functions
 - system features, characteristics, advantages

10.2 Documentation

Operator's Manuals

- Hardware and software configuration
- Methods of granting and denying access to a user
- Procedures for adding and removing peripherals from system
- Techniques for duplicating or backing up files and documents

10.2 Documentation

General System Guide

- The system details in terms the customer can understand
- The system hardware and software configuration
- The philosophy behind the system's construction
- Provide cross-referencing

10.2 Documentation

Tutorials and Automated System Overviews

- Multimedia-based, step-by-step, automated tutorials

10.2 Documentation

Other Documentation: Programmer's Guide

- An overview of how the software and hardware are configured
- Software components detailed and their functions performed
- System support functions
- System enhancements

10.2 Documentation

User Helps and Troubleshooting

- Failure message reference guide
- Online helps files
- Quick reference guide (a quick summary of primary uses, configuration)

10.2 Documentation

Guidelines for Failure Messages

- The name of code component executing when the failure occurred
- The source code line number in the component that was executing
- The failure severity and its impact on the system
- The contents of any relevant system memory or data pointers, such as registers or stack pointers
- The nature of the failure, or a failure message number (for cross-reference with the failure message reference guide)

10.2 Documentation

Example Failure Messages

- The failure message

```
FAILURE 345A1: STACK OVERFLOW  
OCCURRED IN: COMPONENT DEFRECD  
AT LINE: 12300  
SEVERITY: WARNING  
REGISTER CONTENTS: 0000 0000 1100 1010 1100 1010 1111  
0000  
PRESS FUNCTION KEY 12 TO CONTINUE
```

- The reference guide entry

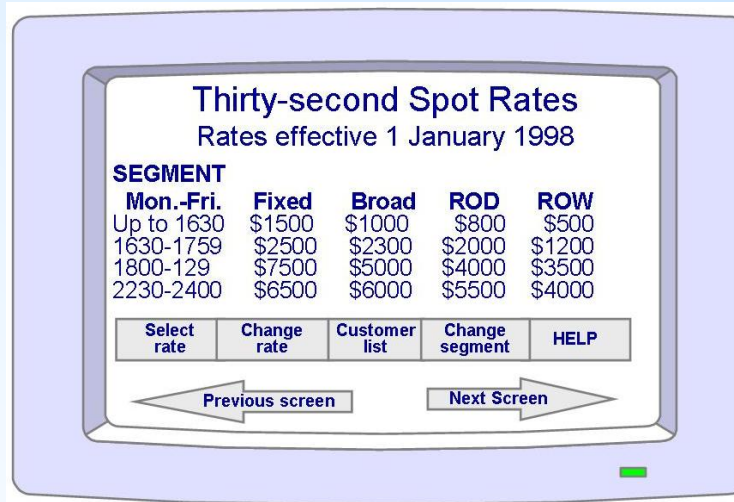
Failure 345A1: Stack overflow.

This problem occurs when more fields are defined for a record than the system can accommodate. The last field defined will not be included in the record. You can change the record size using the Record Maintenance function on the Maintenance menu to prevent this failure in the future.

10.3 Information System Example

Piccadilly System

- A training system can present users with the actual Piccadilly screen



Thirty-second Spot Rates
Rates effective 1 January 1998

SEGMENT	Mon.-Fri.	Fixed	Broad	ROD	ROW
Up to 1630		\$1500	\$1000	\$800	\$500
1630-1759		\$2500	\$2300	\$2000	\$1200
1800-129		\$7500	\$5000	\$4000	\$3500
2230-2400		\$6500	\$6000	\$5500	\$4000

Select rate Change rate Customer list Change segment HELP

Previous screen Next Screen

- Training software can be added to allow users to understand the nature and purpose of each system function

10.4 Real-Time Example

Ariane-5

- Some of the assumptions about the reused Ariane-4 software were not present in the documentation
 - The designers of Ariane-5 should have been able to read all of the underlying assumptions inherent in the code

10.5 What This Chapter Means for You

- Training and documentation should be planned and tracked from the project's beginning
- Training and documentation software should be integrated with the regular system software
- All training and documentation modules and documents should take into account the varying needs of different audiences