SOFTWARE DOCUMENTATION

Software documentation is written text that accompanies computer software. It both explains how the software operates or how to use it and may mean different things to people in different roles.

Importance of software documentation
1. Provide for communication among team members
2. They should provide information for management to help them plan, budget and schedule the software development process.
3. It acts as an information repository to be used by maintenance engineers
4. Describe to users how to operate and administer the system
5. In all software projects some amount of documentation should be created prior to any code being written for example Design docs, etc.
6. Documentation should continue after the code has been completed for example User's manuals, etc.

The two main types of documentation created are *Process* and *Product* documents

PROCESS DOCUMENTATION

(a) Used to record and track the development process
  ➢ Planning documentation
  ➢ Cost, Schedule, Funding tracking
  ➢ Schedules
  ➢ Standards e.t.c.
(b) This documentation is created to allow for successful management of a software product
(c) Has a relatively short lifespan
(d) Only important to internal development process
(e) Except in cases where the customer requires a view into this data
(f) Some items, such as papers that describe design decisions should be extracted and moved into the product documentation category when they become implemented

PRODUCT DOCUMENTATION

Describes the delivered product
Must evolve with the development of the software product
There are two main categories of process documentation:

1. System Documentation

This describes how the system works, but not how to operate it
Examples:
  ➢ Requirements Spec
  ➢ Architectural Design

- ➢ Detailed Design
- ➢ Commented Source Code
- ➢ Including output such as JavaDoc
- ➢ Test Plans
- ➢ Including test cases
- ➢ V&V plan and results
- ➢ List of Known Bugs

2. User Documentation

User Documentation has two main types
- ➢ End User
- ➢ System Administrator

In some cases these are the same people. The target audience must be well understood. There are five important areas that should be documented for a formal release of a software application. These do not necessarily each have to have their own document, but the topics should be covered thoroughly. These include:
- ✓ Functional Description of the Software
- ✓ Installation Instructions
- ✓ Introductory Manual
- ✓ Reference Manual
- ✓ System Administrator's Guide

Document Quality

Providing thorough and professional documentation is important for any size product development team

Document Structure

All documents for a given product should have a similar structure
The authors "best practices" are:
- ➢ Put a cover page on all documents
- ➢ Divide documents into chapters with sections and subsections
- ➢ Add an index if there is lots of reference information
- ➢ Add a glossary to define ambiguous terms