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Software Standards

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Software Standards

- Software standards play an important role in quality management
  - They define the required attributes of a product or process
- Types of standards
  - International standards
  - National standards
  - Organizational standards
  - Project standards

Importance of Standards

- Encapsulation of best practice
  - It avoids repetition of past mistakes
- They are a framework for defining what quality means in a particular setting
  - What is the organization's view of quality
- They provide continuity
  - A new staff can understand the organization standards

Product and Process Standards

- Product standards define characteristics that all components should exhibit
  - For instance, a common programming style and document structure
- Process standards define how the software process should be enacted
  - For instance, verification process and definition of testing activities

Product Standard Examples

- Design review form
- Requirements document structure
- Method header format
- Java programming style
- Project plan format
- Change request form

Process Standard Examples

- Design review conduct
- Submission of new code for system building
- Version release process
- Project plan approval process
- Change control process
- Test recording process

Improve Use of Standards

- To motivate the use of standards
  - Involve practitioners in development: they should understand the rationale underlying a standard
  - Review standards and their usage regularly: Standards can quickly become outdated
  - Standards should have specialized tool support: forms can be used facilitate the standard use

Bibliography

- Ian Sommerville. Software Engineering, 9th Edtion. Pearson Education, 2010.
  - Chaper 24 (Section 24.2)