Chapter 25
Standards and Metrics

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- Standards - concern prescribed ways of discussing, presenting, or doing something, which seeks to achieve consistency across products of the same type
  + Generally make life easier
  + Assure a certain level of quality

- Common Examples
  electrical wiring
  shoe sizes
  train tracks
Standards Organizations

- ISO (International Organization for Standardization)
  + Mechanical standards
- IEC (International Electrotechnical Commission)
  + Electrical standards
- JTC1 - joint committee b/t ISO and IEC
  + Information technology standards
- ANSI (American National Standards Institute)
- BSI (British Standards Institution)

Where else do standards come from?

- Governments
  + Ministry of Defense, FDA
- Professional bodies
  + IEEE, ASME
- Industry
  + Microsoft
- De facto standards
  + Qwerty keyboard
- House standards (house style guides)
  + Corporations
Why interface design standards?

- Common Terminology
  + Facilitates comparisons
- Maintainability and Evolvability
  + Maintain similar programs
  + Easy addition
- Common Identity
  + Same ‘look and feel’
- Reduce Training
  + Standard command keys
- Health and Safety
  + Standard warnings for unexpected behavior

- ISO 9241 - addresses ergonomic requirements for work with Visual Display Terminals (VDTs); hardware and software
  + Task requirements
  + Keyboard requirements
  + Workstation layout
  + Postural requirements
  + Requirements for displayed colors
  + Environmental requirements
- EC Council Directive (1990) - addresses minimum health and safety requirements for work with display screen equipment
  + Legal requirement
• Metrics - numerical measures of the products and processes of software development
  + Analytic
  + Performance
  + Psychometrics
• Analytic
  + Paper-based products
• Performance
  + Duration
  + Count
  + Proportion of task completed
  + Quality of output
• Psychometrics
  + Users complete questionnaires about a prototype
  + Efficiency, Affect, Helpfulness, Control, Learnability