

Chapter 25 Standards and Metrics

Matthew Easton

- 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