

Introduction to Usability Maturity Assessment

Nigel Bevan

October 2000

www.usability.serco.com/trump

nbevan@usability.serco.com

Serco Usability Services, UK



Usability Maturity

What is it, Can it be Measured?

- **Ignorance:** We don't have problems with usability
- **Uncertainty:** We don't know why we have problems with usability
- **Awakening:** Is it absolutely necessary to always have problems with usability?
- **Enlightenment:** Through management commitment and improvement of human-centred processes we are identifying and resolving our problems
- **Wisdom:** Usability defect prevention is a routine part of our operation



Evaluate the organisational processes

Usability Maturity Model (INUSE)

HCD.1 Ensure HCD content in system strategy

HCD.2 Plan and manage the HCD process

HCD.3 Specify the user and organisational requirements

HCD.4 Understand and specify the context of use

HCD.5 Produce design solutions

HCD.6 Evaluate designs against requirements

HCD.7 Introduce and operate the system

Applied and refined by Lloyds Register in software, telecoms and defence companies in UK, France, Sweden and Finland.

ISO TR 18529 : Human-centred lifecycle process descriptions



Usability Maturity Model

HCD.2 Plan and manage the HCD process

- Consult stakeholders.
- Identify and plan user involvement.
- Select human-centred methods and techniques.
- Ensure a human-centred approach within the project team.
- Plan human-centred design process.
- Manage human-centred process.
- Champion human-centred activities.
- Provide support for human-centred design



Usability Maturity Model

HCD.3 Specify the user and organisational requirements

- Clarify and document the system goals.
- Define stakeholders.
- Assess risk to stakeholders.
- Define the system.
- Generate the user and organisational requirements.
- Set usability objectives.



Usability Maturity Model

HCD.4 Understand and specify the context of use

Identify and document

- user's tasks.
- significant user attributes.
- organisational environment.
- technical environment.
- physical environment.



Usability Maturity Model

HCD.5 Produce design solutions

- Allocate functions
- Produce composite task model
- Produce system design
- Use existing knowledge to develop design solutions
- Specify system
- Develop prototypes
- Provide user training
- Provide user support



Usability Maturity Model

HCD.6 Evaluate designs against requirements

- Specify and validate context of evaluation.
- Evaluate early prototypes in order to define the requirements for the system.
- Evaluate prototypes in order to improve the design.
- Evaluate the system in order to check that the system requirements have been met.
- Evaluate the system in order to check that the required practice has been followed.
- Evaluate the system in use in order to ensure that it continues to meet organisational and user needs.



Summative assessment

- Measure the extent to which each base practice is:
 - Performed
 - Managed
 - Established
- Use software process assessment methods
 - CMM: Capability Maturity Model
 - SPICE: ISO 15504
- Assessed Inland Revenue/EDS (TRUMP Project)
 - 3-4 people for one week
 - Detailed profile and improvement recommendations
 - Likely to be an annual process

Formative assessment

- Assessed IAI (TRUMP Project)
 - One person - one day workshop
 - List of process improvement recommendations
- Assess the extent to which each base practice is:
 - Performed and managed

