1986 COCOMO USERS MEETING

INTEGRATED MANAGEMENT PROCESS WORKBENCH

IMPW

AN R & D CONTRACT FUNDED BY THE EEC ESPRIT PROGRAMME

DURATION: 3 YEARS

APPROXIMATE COST: 3.25 MILLION U.S. DOLLARS

JOHN JENKINS
IMPERIAL COLLEGE 5/86
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OBJECTIVES

1. TO PRODUCE A PROTOTYPE SOFTWARE PROJECT MANAGEMENT WORKBENCH

2. TO EVALUATE THE PROTOTYPE WORKBENCH
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WORKBENCH ORGANISATION

- SET OF MANAGEMENT FUNCTIONS
- KNOWLEDGE DATABASE
- MANAGER-WORKBENCH INTERFACE
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PARTNERS

INTERNATIONAL COMPUTERS LIMITED, UK.

IMPERIAL COLLEGE, LONDON UNIVERSITY, UK.

C.E.T.E. MEDITERRANEE, F.

VERILOG S.A., F.

NATIONAL INSTITUTE FOR HIGHER EDUCATION, DUBLIN, IRE.
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IMPLEMENTATION ENVIRONMENT

- UNIX V $ PCTE

- BIT-MAPPED GRAPHICS WORKSTATION

PCTE # PORTABLE COMMON TOOL ENVIRONMENT

- An ESPRIT funded project
major workbench functions

user functions

project analysing functions
- identify the objectives and the characteristics of the software
- select a project profile and instance it
- relate the project to other projects with the same characteristics

quality assurance functions
- suggest development scenarios adequate for the project
- help to select the best scenario
- supply information on the methods, tools, techniques
- define procedure and standards for activities and deliverables

planning functions (time and resource management)

structure tasks
- identify tasks
  - development tasks
  - quality tasks
  - management tasks
  - training tasks
- identify relationships between tasks

estimate resources required
- help to select the more adequate estimating tools
- supply different estimating tools

elaborate and optimise development plan
- prepare skeleton with the deliverables due date
- establish resource information (personnel, machine, money)
  - provide list of personnel with availability and experience
- assign activities to people
- simulate different development plans
  - from a time point of view (PERT)
  - from a cost point of view
- identify check points

starting up functions
- provide a presentation of the project to the staff, to the client

monitoring functions
- provide calendar to the manager with the check points
- prepare the check points
  - produce progress request forms and send them
  - prepare frameworks for meetings (actions done, problems detected, ...)
- display comparative information on planned against actual
- provide the current status of the project (delay or advance, cost)
- help to find solutions in case of slippage
- simulate different solutions in case of slippage
- measure the software (size, complexity, ...)

closing functions
produce balance sheets
help to analyse why problems have occurred?
define more precise profiles of the personnel
overall functions (not related to a precise step)
supply information on the project (staff, task state, ...)
help functions
historisation functions
access (browse) through previous project with the same characteristics
text processing functions
communication functions
system documentation control functions
administrator functions
update knowledge database
update historical data
update estimation algorithms
improve general project profile
configure of the workbench according to the company needs
manipulated objects
- customer requirements
- objectives
- project profile
- methods, tools, techniques
- activities/tasks
- deliverables
- resources (personal, machines, money)
- plan(s)
- checkpoints
- balance sheets
- previous project
- calendar
- progress state reports
Dans le cadre du Programme Européen ESPRIT

Réalisé par le consortium

ICL & Imperial College (GB)
NIHE (IRL)
CETE & VERILOG (F)

Un projet de 420 HM sur 3 ans

Objectif : Un prototype préindustriel d'un environnement de gestion de projet.

Spécificités : Système ouvert vis à vis des fonctions de management, Interface ergonomique, Assistance à la décision et à la déduction.

Base de Connaissance
PROCESSEUR

Règles et faits liés à la gestion et à la production de logiciels

Plans, Suivis, Documentation Réunions, Bilans, ...

Représentation graphique et manipulation Aspects ergonomiques

SYSTEME DE PRODUCTION

FONCTIONS DE GESTION DE PROJET

INTERF ACE MANAGER / ATELIER