Introducing the Eclipse Process Framework
www.eclipse.org/epf

Peter Haumer
phaumer@us.ibm.com

EPF Project Committer
What Development Teams Are Facing Today

- No **common language** or terminology between processes - redundancy and inconsistencies
- Knowledge cannot easily be **customized** for different projects or new best practices
- No **central community** or **communication framework** to facilitate convergence of best practices across domains

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- Project plan templates
- Article on serialized java beans
- Website with Configuration mgmt guidelines
- Book on J2EE
- JUnit user guide
- Wiki on agile development
- Knowledge base on managing iterative development
- Lessons learnt from previous project and iteration
- Latest research on effectiveness of pair programming
- Corporate guidelines on compliance
A better approach

Standardize representation and manage libraries of reusable method content

- Content on agile development
- Content on managing iterative development
- Guidance on serialized Java beans

JUnit user guidance

Lessons learnt from previous project and iteration

Content on J2EE

Configuration mgmt guidelines

Corporate guidelines on compliance

Develop and manage processes for performing projects

- Process assets patterns
- Standard or reference processes
- Project plan templates

Cohesive Web site customized for my project needs

Project plan templates and optional process instrumentation, relevant for the context of my project
Eclipse Process Framework Project Goals

- Provide an **extensible framework** and **exemplary tools and content** for software process engineering
  - **Extensible Framework**
    - Meta-model based on OMG SPEM
    - Core extensible process tooling framework
  - **Exemplary and extensible tools**
    - Method and Process authoring
    - Library management and content extensibility
    - Configuring and publishing
  - **Exemplary and extensible process content**
    - Range of software development and management processes supporting
      - iterative, agile, and incremental development
      - applicable to a broad set of development platforms and applications
Value to the industry

- Converge industry process investments through a common process framework
- Broadly endorsable and will bring diverse process champions together
- A foundation for the industry to engineer, communicate and reuse process assets
- Tools, metamodel and core content for seeding an ecosystem
  - More reuse, more industry reach, more process/tool integration
Manage textual IC and reusable method content.

**EPF Composer**

IC / Best Practices

Books / Publications

Standards / Regulations

Homegrown Methods

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Easy to use, form-based rich-text editing capabilities.
Assemble processes by with reusable method content and process patterns. Consistent management of WBS and Activity diagrams.
Introducing the Eclipse Process Framework

- BUP applying four RUP phases lifecycle model
- Scrum-like process with a lifecycle model using Sprints
- Scrum specific management approach
- Capability Pattern reused from BUP method plug-in

BUP specific management approach
Eclipse Process Framework Conceptual Architecture

Key:
- Red: Proposed IBM Contribution
- Blue: Proposed Object Mentor

- Basic Unified Process
  Adapted from RUP

- Agile/XP

- EPL Process Content Plug-ins

- User-defined Content Plug-ins

- EXTENSIONS
  • Project Mgmt.
  • Oper. Mgmt.
  • Systems Mgmt.

- Tool Extensions

- Commercial Process Content Plug-ins

- TOOLING (Authoring, Publishing)

- META MODEL IMPL. (Unified Method Architecture)

- Open Source Development

- Common Language & Vocabulary

- Extensible, Customizable, Flexible

- ECLIPSE

Adapted from RUP
Extensible, Customizable, Flexible
Common Language & Vocabulary
Open Source Development
ECLIPSE
TOOLING (Authoring, Publishing)
META MODEL IMPL. (Unified Method Architecture)
Commercial Process Content Plug-ins
Tool Extensions
Basic Unified Process
Adapted from RUP
Agile/XP
EPL Process Content Plug-ins
User-defined Content Plug-ins
EXTENSIONS
• Project Mgmt.
• Oper. Mgmt.
• Systems Mgmt.

Proposed IBM Contribution
Proposed Object Mentor
Beacon/RMC Runtime Architecture
High-Level Architecture

- Authoring
- Browsing
- Publishing
- Export
- Import
- Diagramming
- Library Management
- Application Workbench
- Rich Text
- UMA Service
- Search
- Common
- JTidy
- EMF
- GEF
- Lucene
- WST Common Properties UI
- Eclipse RCP Runtime

Java Runtime

EPF tool components
Eclipse components
Other open source components
Sun/IBM JRE
Technology Stack

- Eclipse Rich Client Platform (RCP) 3.1
- Eclipse Modeling Framework (EMF) 2.1
- XML Meta Interchange (XMI) 2.0
- Extensible Stylesheet Language Transformation (XSLT) 1.0
- XML Localization Interchange File Format (XLIFF) 1.0
- UML 2.0 Diagram Interchange Specification
- Graphical Editing Framework (GEF) 3.1
- Java2D
- Eclipse Forms
- DHTML (HTML, JavaScript, DOM & CSS)
- W3C JTidy
- Apache Lucene
- Java Applet
Industry Support

- IBM
- 2-Pro Mentor
- Adaptive
- Ambysoft
- Armstrong Process Group
- BearingPoint
- Bedarra Research Labs
- Capgemini
- Catalysts
- Covansys
- Ivar Jacobson International
- Number Six Software

- Object Mentor
- SOFTEAM
- University of British Columbia
- aubryConseil
- European Software Institute
- Jaczone
- NTT Comware
- Object Management Group (OMG)
- Osellus
- Sogeti
- Telelogic
- Unisys
- Wind River
EPF Project Structure
EPF Project Timeline

- Announcement (Oct 12)
- Proposal posted on Eclipse Web site (Oct 25)

- Project creation (Jan)
  - Contribution of parts of RMC tooling
  - ~15% of RUP content
  - Initiation of open source project
  - Committers face-to-face meeting

- Creation Review (Dec 21)

- EPF v1.0 (2H06)
  - Updated based on community feedback
  - Basic Unified Process
  - XP / Scrum process
  - Eclipse 3.2
  - APIs
  - SPEM 2.0

- EPF v1.5 (Q207)