Palantír: Increasing Awareness Among Distributed CM Workspaces
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Problem

Current CM systems offer only limited support for coordination (e.g., locking and merging).

Palantír Architecture

Visualization(s)
Extractor
Internal state
Event wrapper
Event service
CM client
CM server
Workspace
CM repository

Goal

- Improve workspace awareness among developers, such that they are continuously informed of parallel changes
  - Which artifacts are being changed?
  - What is the severity of the changes? (amount/size of change between the two versions)
  - What is the impact of the changes? (effect of changes on the workspace owner’s current work)
- Deliberately but unobtrusively break isolation of workspaces

Eclipse View

- Red triangles depict cumulative severity of changes across all workspaces
- Blue triangles will depict cumulative impact of changes
- Name of artifacts annotated with text representing severity and impact

Visualizations

Status and Future Work

- Palantír is a novel prototype that brings awareness to CM workspaces
  - Which artifacts are being changed by whom?
  - What is the severity of the changes?
- Palantír has been integrated with the Eclipse-CVS plugin
- Palantír persistently stores event history so that it can be replayed
- Future work
  - Case study to determine the effectiveness of Palantír
  - Build Palantír plugin for Subclipse (Subversion - Eclipse)
  - Support for indirect conflicts (impact and dependency analysis)
  - Develop additional visualizations
    - Project Management view