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).

**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

**Palantír Architecture**

- **Visualizations**
  - 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?
    - Shows pair-wise conflict
  - Palantír is independent of the type of CM system used, and has been successfully integrated with RCS, CVS, and JSVN
  - Future work
    - Case study to determine the effectiveness of Palantír
    - Further support for indirect conflicts (impact and dependency analysis)
    - Develop additional visualizations

**Pair-wise Comparison**