CodeTopics: Which Topic am I Coding Now?

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Demonstrations Track
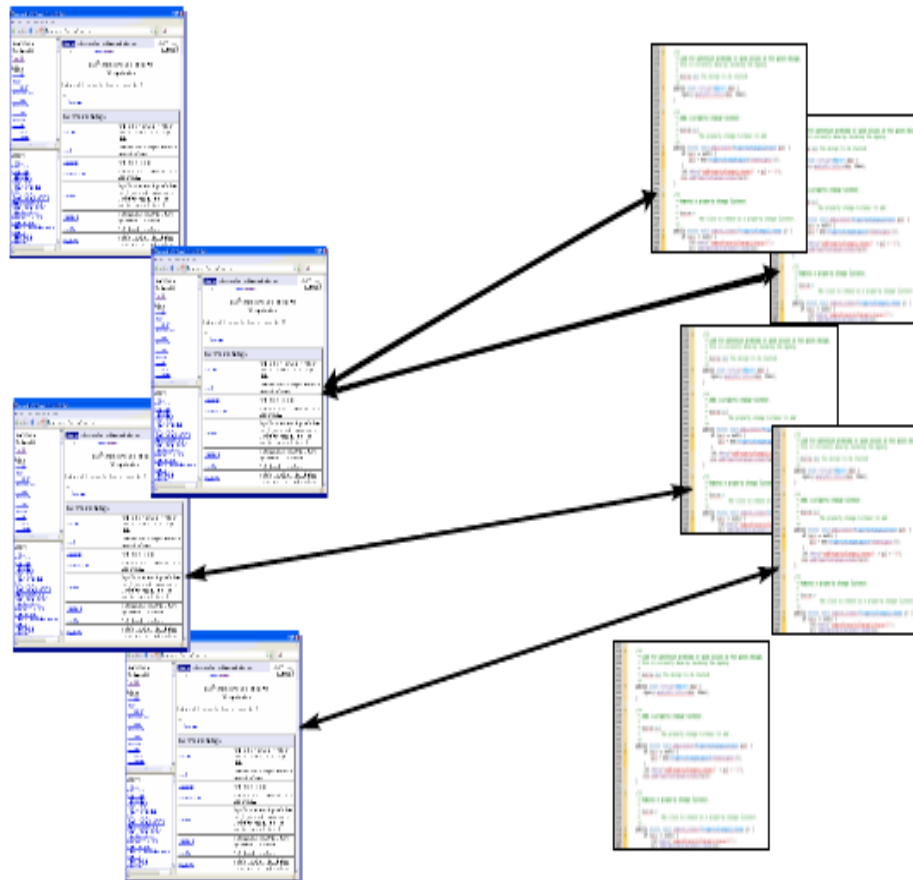Honolulu, Hawaii
May 27, 2011

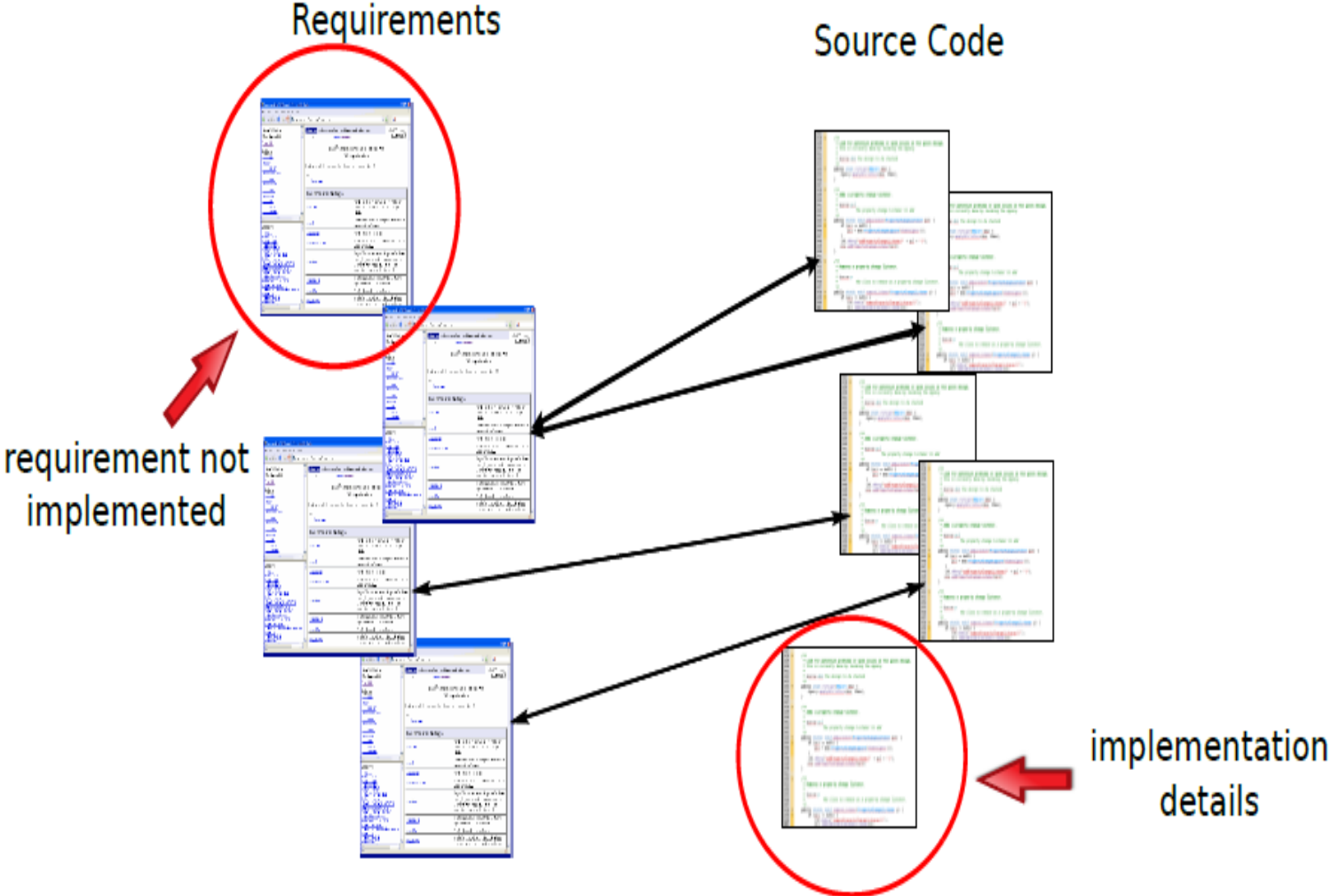# Motivation

Requirements

Source Code

Motivation

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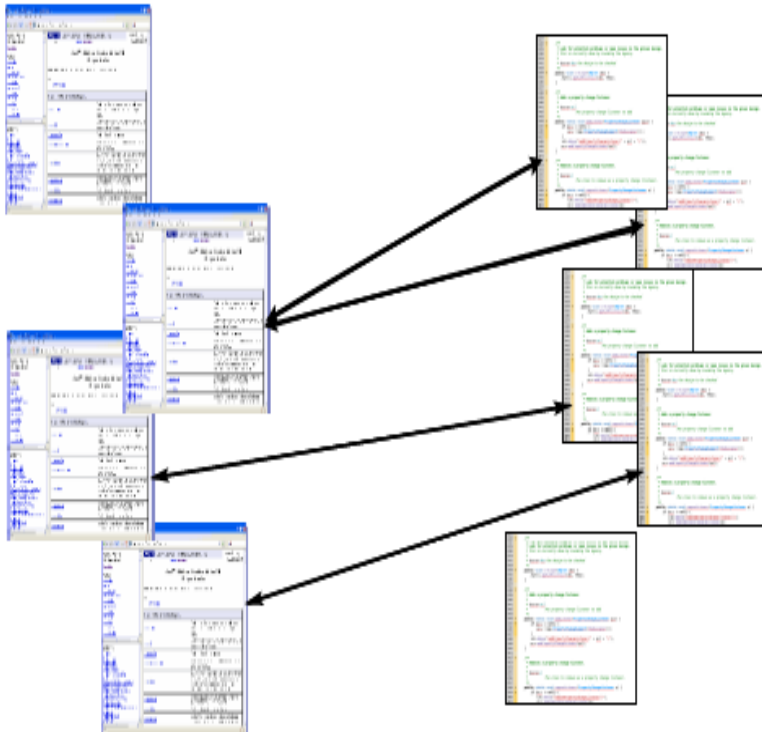
Benefits to Developers

- Describes source code files with terms from related artifacts

- Helps the developer to check whether
  1. a requirement is not yet implemented
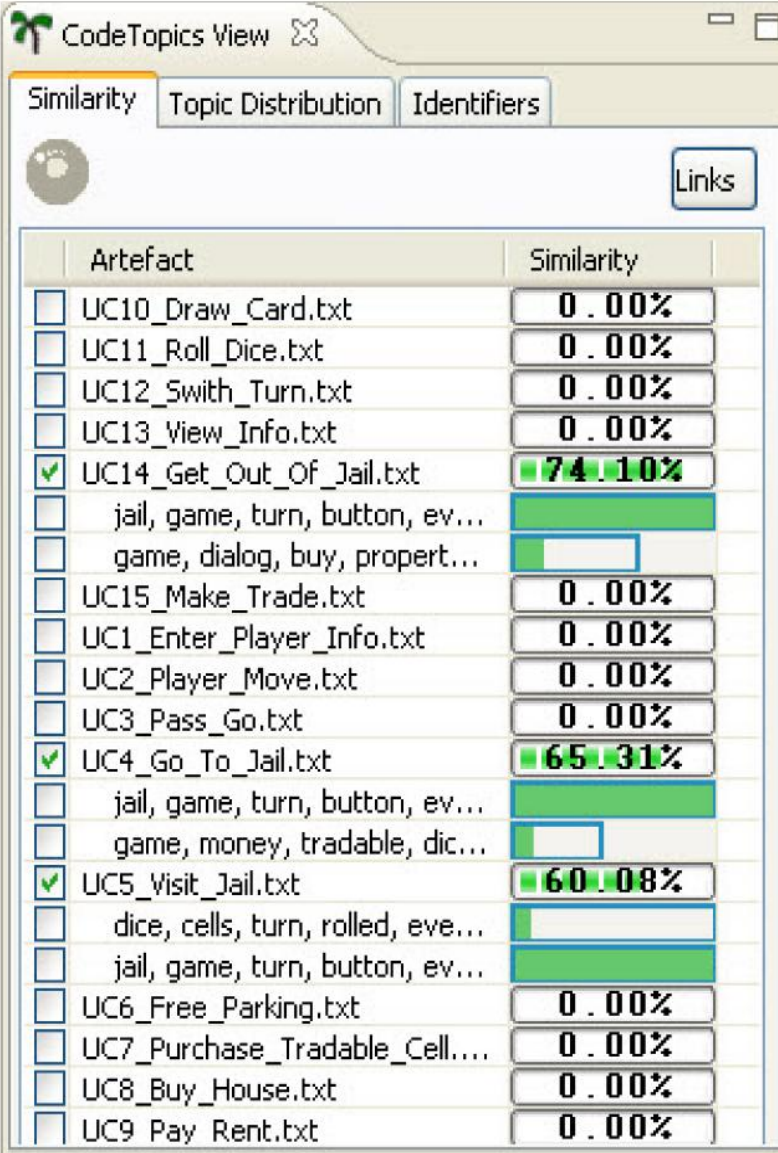 2. a source code file contains low level details not reflected in requirements

Relational Topic Model (RTM)

Topic Extraction

- RTM topics are extracted from:
  - Requirements and Source Code corpus
  - Traceability Links
    - Semi-automatic Recovery (Latent Semantic Indexing)
    - Structural Dependencies (X-Ray)
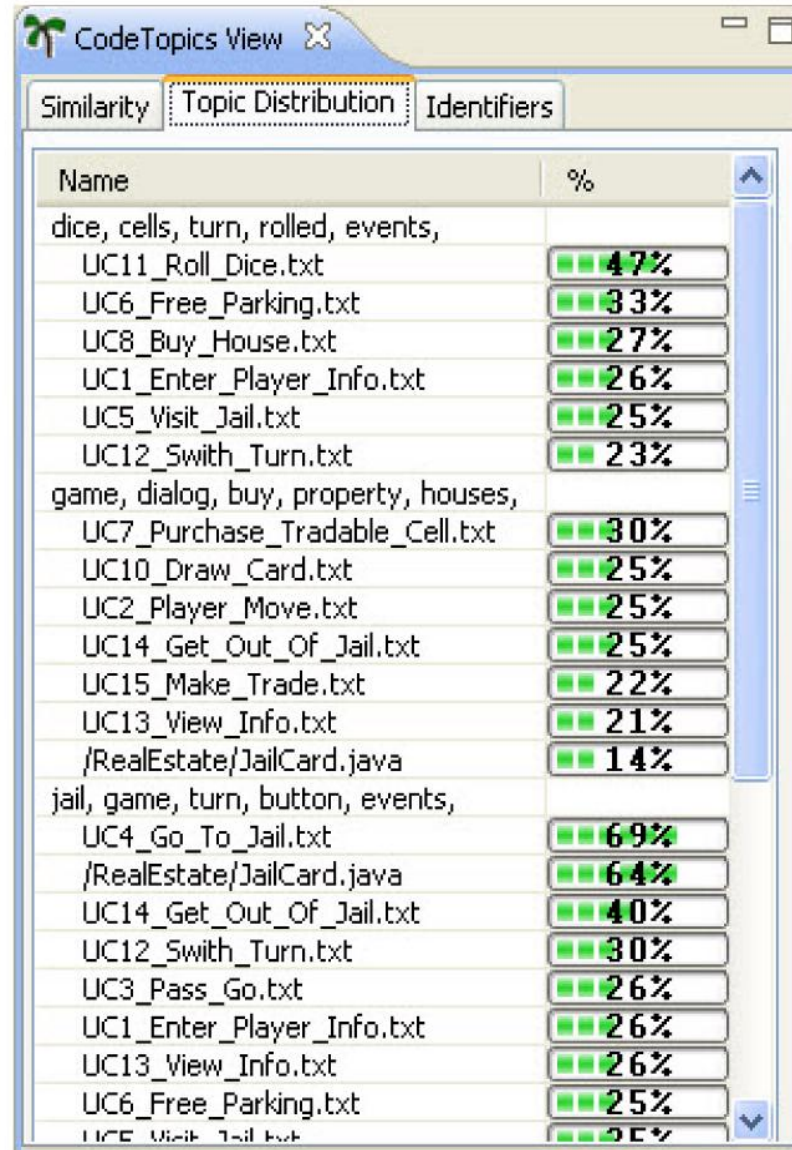   - User specified links

Similarity View

Topics Distribution View

Demonstration

Conclusion

- We present a tool which
  - helps newcomers to understand high level concepts associated with source code
  - provides a finer-grained level of traceability
  - highlights topics not covered by source code as well as those covered only by source code

Thank You

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