Bringing Agile Artifacts Closer to the Implementation

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Problem

- Dispersion of requirements among mediums
  - E-mails
  - Sticky notes
  - Tools
  - Artifacts

- Traceability and consistent documentation harder to achieve

- Agile practices require dynamic management of requirements
RQ1

What are the available requirements artifacts for software projects, and what are their characteristics?

Steps:

1. Analyse a selection of RE-related literature for artifacts
2. Classify them along different dimensions
3. Conclude findings from classification analysis
Classification dimensions

1. SDLC phase(s) of origin
2. SDLC phase(s) of use
3. Format
4. Model
5. Physical
6. Executable
7. Contains
8. Helps create
9. Convention of creation
Classification

- The resulting table of artifacts was analysed

- Several findings discovered
Findings

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4. A small number of graphically enhanced artifacts are executable.
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2. A small number of artifacts originate in the Development and Testing phase.
3. A small number of artifacts are used in the Deployment and Maintenance phase.
4. A small number of graphically enhanced artifacts are executable.
5. Most artifacts are used to create other artifacts.
Approach

● Model artifacts in the development environment

● Model requirements workflow inside IDE
  ○ Creation, updating, removing artifacts
  ○ Visualization
  ○ Navigation

● Using IDE for requirements management
Demo
Future work

- Linking domain entities with requirements
- Modeling other artifacts and custom views for them
Question Time