

Feature Transition Charts for Visualization of Cross-Project Scope Evolution in Large-Scale Requirements Engineering for Product Lines

Wnuk, Regnell, & Karlsson

- **Which aspect of requirements engineering does the paper address?**
- Data for creating the visualization comes from scope changes documented on a weekly basis. The company being studied delineates requirements management and design activities with four milestones, wherein the bulk of scope changes should be completed by the end of the 2nd milestone.
- **What visualization approach / technique is being proposed?**
- Feature Transition Charts (FTC) compliment the authors' original work on Feature Survival Charts (FSC) by marking the transition of features across or within projects. This is done through the use of color, icons/nodes on an X (time) -Y axis.
- **What is the status of this work?**
- The visualizations included are prototypes based on a collection of real-world project data with analysis performed post-mortem. Further application to other projects of varying industry and size are suggested by the authors.
- **What main benefits are likely to arise from use of the approach?**
- Provides at-a-glance information through the use of color, visual symbols, and bar graph-like readability regarding 'the presence and nature of scope changes across projects or projects' releases.'
- **What are the costs / issues associated with use of this approach?**
- Very large projects may result in difficult to read transition information without the inclusion of an interactive zoom or filtering feature. Also, the technique has not been applied proactively in scope analysis to this point.

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- How would you evaluate the learning curve in implementing this technique in the given context / moving forward?
- How do you see this approach / technique being used within the spectrum from real-time analysis to documentation, record keeping, and as guidance for future iterations?
- Given that your visualizations were produced from data gathered from scope changes documented on a weekly basis, do you believe that this concept could be modified in order to work in a wide range of RE methodologies? Or is this a niche technique?