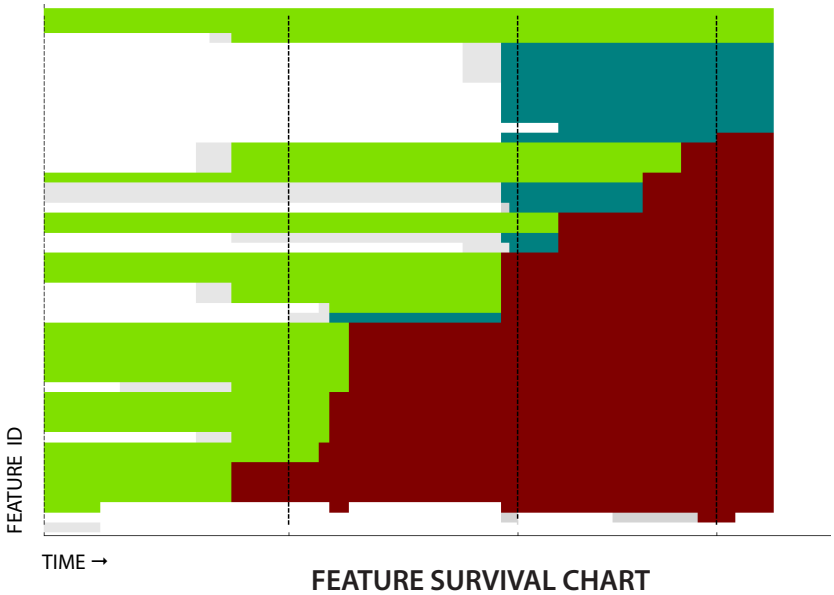
Visualization of Feature Survival in Platform-Based Embedded Systems Development for Improved Understanding of Scope Dynamics

by Krzysztof Wnuk, Björn Regnell, Lund University and Lena Karlsson, DNV Sweden

Visualization can improve real industrial projects.

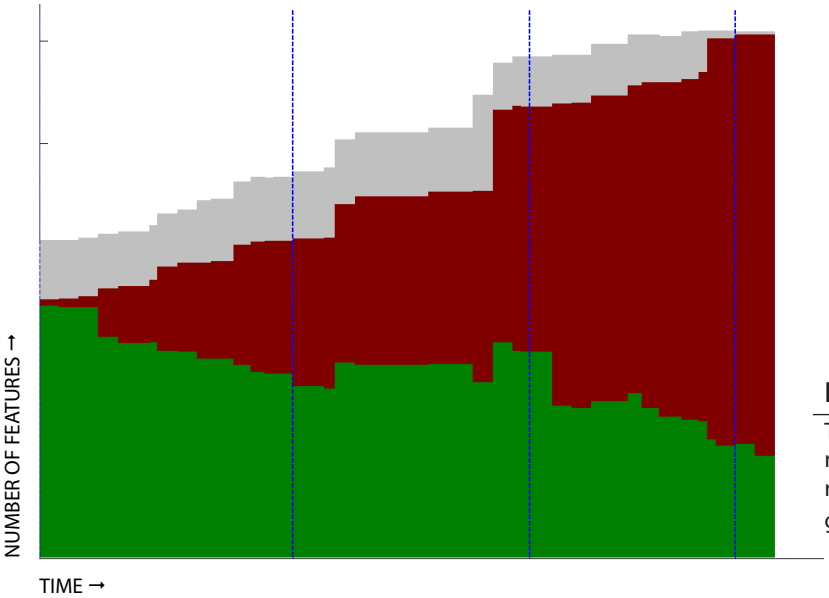
This method for visualizing the scoping process in platform-based development of embedded systems shows the decision process of including or excluding features that are candidates for the next release.

Charts are evaluated in a large-size embedded system platform project and indicates that the visualization of feature survival and scope dynamics can improve the understanding of the decision process of platform scoping in real industrial projects.



FEATURE SURVIVAL CHART

The red lines show out-scoped features. The green lines show features in scope (light green for primary flow features and dark green for secondary flow features). The survivors are placed at the top, as the graph is sorted on duration in scope from last baseline.



FEATURE GROWTH CHART

The green area represents the number of in-scoped features, red the number of out-scoped and gray the number of undecided.

Future work includes improving user interaction.