Exploring Effort Distribution in RUP Projects

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ABSTRACT
Rational Unified Process (RUP) effort data from industrial projects is explored (1) to improve our understanding of project dynamics from a resource perspective, (2) to develop a method for project management to gain insight in resource allocation and (3) to follow up on earlier work on RUP effort visualization [2].

Categories and Subject Descriptors
D.2.8 [Software Engineering]: Metrics–Process metrics
Performance metrics D.2.9 [Software Engineering]: Management–Productivity

General Terms
Management, Measurement

1. RUP HUMPS
RUP attributes all effort spent in software development to one of nine predefined disciplines. The RUP hump [1] is a plot of effort spent over time during all disciplines.

2. METHOD
Detailed hour registration data was collected from a large software development organization. This effort data was triangulated by examining various other sources of electronic project data available. The data was visualized, consistent with the RUP hump chart, and these visualizations were analyzed. Finally, senior project members were confronted with the process visualizations.

3. OBSERVATIONS
The visualizations are very dependent on the manner in which data with regard to effort is logged. For example, schedule pressure and cost-structure have significant effect on accuracy and structure of effort data. To project management the drawings were perceived as a useful validation of their resource spending.

Project A displays an interesting pattern concerning rework of a poor design in a late stage of the project.

REFERENCES