RAD in the Modern Factory
Patrick Onions, The Knowledge Studio discussion forum, 29 April 2011

Established in 1880, Woodlands Limited began manufacturing wooden structures about thirty years ago. The company has grown rapidly to become one of the largest manufacturers of wooden structures in the UK, and this growth has demanded new ways to scale production, measure performance and reward staff.

We were contracted in March 2011 to develop a bonus scheme to replace the existing spreadsheet-driven team-based system with bespoke individual rewards. The key challenges were the large number of factors influencing individual bonuses and the short project duration. Developed and delivered over a five-week period, live data was captured from the third week onward and accurate management reports produced in the fifth week.

Rapid application development can cost less and present fewer business risks to both parties, but usually at the expense of quality. Without taking shortcuts, is it possible for developers to deliver good bespoke software? We believe so. There are times when sophisticated methodologies are called for, but in this case the lessons were a lot simpler:

- Understand the business problem;
- Collaborate closely with management and staff throughout the project;
- Rigorously analyse and document the data and design from the start;
- Build a strong data model that is extensible, scalable and structured;
- Allow for data changes and maintenance in the database schema;
- Build calculation and aggregation into the data layer (views/queries);
- Keep core functionality simple, avoiding unfamiliar technology and cool (non-essential) features;
- Use inherent features and controls of the language and platform;
- Employ an extremely rapid iterative release and test lifecycle, down to a half hour;
- Know which compromises to make and which to avoid;
- Build for future maintenance and replacement.