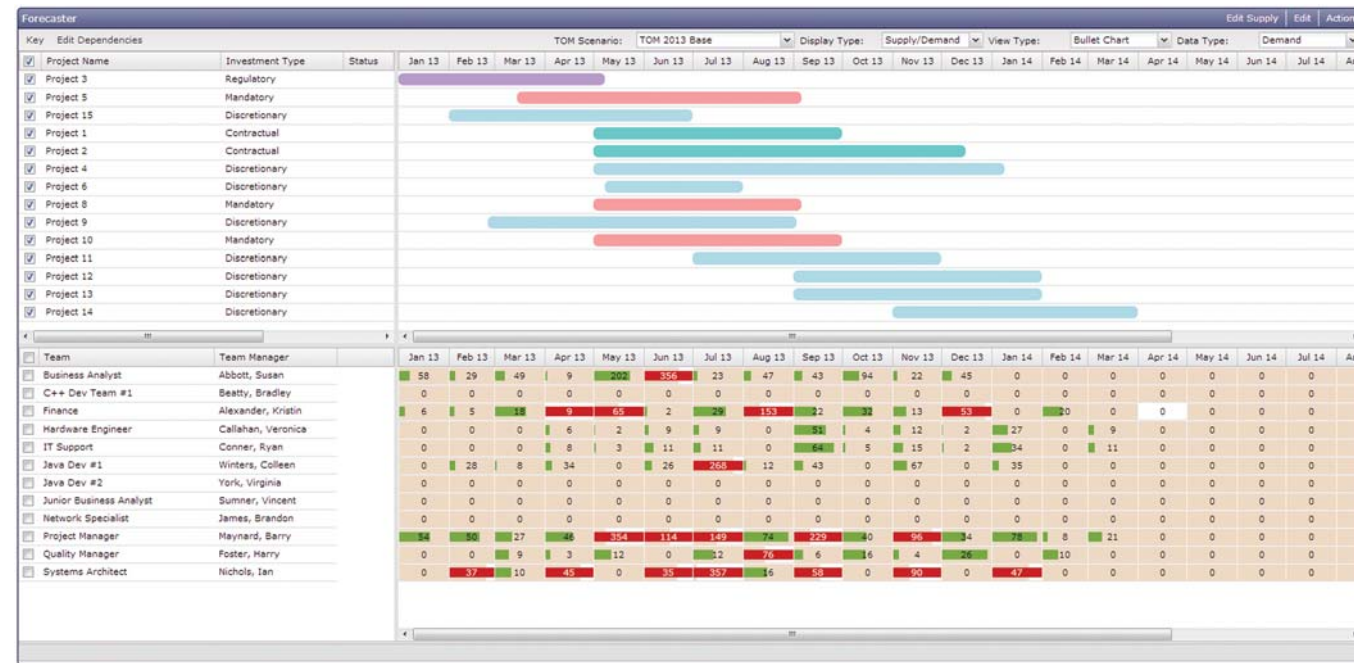


## SmartCore – a technology to ease your spreadsheet fixation

by Jon Lewis\*



The history of cost estimating has seen few innovations; the slide rule, the little black book, look-up tables and the spreadsheet are as far as we've come. Ninth Wave's SmartCore technology is looking to finally bring us into the 21st Century.

SmartCore is a web-based, highly adaptive platform that allows distributed users to collaborate and share both information and workflow in a controlled knowledge-management environment. Flexible and adaptable, and providing all the benefits of a bespoke software application with the rapid implementation of an off-the-shelf software package, one of SmartCore's strengths is that it can be deployed rapidly, delivering measurable benefits and improvements in business processes and procedures within just a few weeks.

Good system solutions need the flexibility to enable the user to morph the system to support the way the organisation works today, and the agility to change as new business needs emerge. However, investment in these localised solutions can be hard to justify. Cost and time concerns will often see good process sacrificed for low cost –

typically this results in spreadsheets being used to perform complex tasks in ever-increasing degrees of intricacy with all the resultant problems of lack of control and loss of transparency.

The following describes how the intelligent application of the SmartCore platform supported a new way of working for a forward-thinking automotive manufacturer.

### Counting the costs of development

A recent project has been the design and development of an extension to a parametric cost forecasting solution for a leading UK automotive manufacturer. The project, the result of a close collaborative partnership between Ninth Wave and PRICE Systems – experts in the generating of cost forecasting and estimation solutions – has now completed its pilot phase and has already shown substantial reductions in the time and costs of producing reliable cost forecasts for the production of new concept vehicles.

'The automotive industry operates in a very competitive market which requires extremely accurate control and management of product costs', explained Ninth Wave Director, Richard Meakin. 'Cost

forecasting requires quality data and information, both of which can be hindered by a lack of resources, poor context capture and validation difficulties. Our new solution substantially simplifies and shortens the entire cost forecasting process and gives the business visibility of the expected outturn costs at very early stages in a new vehicle programme – something that without major capital investment was considered impossible until very recently.'

Typically, the processes involved in estimating the costs of producing a vehicle component, such as a headlight cluster, are time-consuming and expensive. Required information, including cost estimates of existing light clusters, can reside in any number of disparate data repositories across the organisation, ranging from centralised data stores through to individual PCs. One of the major issues encountered by estimators is that there is frequently no single source of truth, and no guarantee that the data which is being used as the basis for the new estimates is accurate, reliable or up to date.

### A single source of truth

'Across the automotive industry, Pur-

chase Cost Estimation and Analysis departments employ a large number of estimators, typically highly qualified engineers in their industry,' explained William Dickson, Implementation Manager at Ninth Wave. 'For every new vehicle that goes into production, tens of other candidates do not make the cut. A large amount of time and resource can be spent estimating costs for these candidate vehicles; the vast majority of which will never be progressed. It is imperative that organisations streamline their cost estimation at this early phase in the life cycle to ensure that effort is focused on the vehicles that will make it into production.'

In order to dramatically reduce time taken to estimate a new concept vehicle, Ninth Wave and PRICE Systems designed a question-based extension to the TruePlanning parametric estimating solution. For each core functional area of the vehicle a complexity score can be calculated, either by using past historical data or answering a series of questions about that component. These complexity scores are automatically fed into TruePlanning, to determine the concept vehicle's target cost.

TruePlanning is designed to reduce time and cost when developing estimates while increasing accuracy, so that decisions based on estimates of cost, benefits, schedule and effort are being guided by the best information available. However, the solution could not provide the flexibility and adaptability specifically required by automotive manufacturers in the collaboration and sharing of information and processes in a controlled environment. Issues, such as 'What if?' analysis, the ability to produce cost estimates for a range of options within a specific component, the availability of this information to estimators and management across the organisation (who could themselves refine the information to produce alternative costings), were paramount, as was the overriding need for complete confidence that the information being manipulated to derive each estimate was sourced from a single, trusted and up-to-date source of truth.

'Our partnership with Ninth Wave has opened up the world of complex

forecasting to those in the organisation who need to generate answers quickly that can be used to make reliable decisions in a fast-changing world. Long gone are the days where only qualified engineers had the knowledge to produce these complex estimates,' explained PRICE Systems VP of Northern Europe, Andrew Langridge.

### A business-critical role across the organisation

The tight integration of SmartCore with TruePlanning delivers a comprehensive, rapidly implemented and easy-to-use parametric cost estimation and knowledge management solution that can play a business-critical role in organisations in all market sectors.

In this particular project, estimators are able to produce costings for completely new components or base their estimates on existing components, refining these with additional data, adding options and updating historic information, quickly, accurately and easily with just a few mouse clicks. The information upon which the estimates are based can be sourced from anywhere within the organisation or created from scratch by the estimator. In all cases, the core information is stored within SmartCore's multi-user repository, providing a single source of trusted information that can be accessed by all authorised users. The solution is a marked contrast to the traditional estimation methodologies of sourcing and verifying the accuracy of information (including the ever-present concern that it may not be the latest available), building spreadsheets or calculations using other tools to incorporate the costs of each individual item, and error checking before producing the final estimate.

In addition to taking a considerable amount of time (and associated high costs) the final estimate usually resides on a single PC and even if it is then made available to colleagues for review, refinement and manipulation, the results exist as a separate estimate, unlinked in any way to the original. Issues arise such as duplication, the introduction of errors from inaccurate or out-of-date information and no real

management or control over various versions. These issues, along with the introduction of a new set of parameters, generally require a complete reworking of the estimate.

Entirely customisable through a web browser, SmartCore can be configured rapidly to meet a variety of organisational and individual information needs and provide a shared environment for thousands of users over the Internet. As well as integrating with a wide range of other business software applications, SmartCore melds powerful and flexible workflow, dashboards and reporting into a tried and tested solution that can be rapidly configured by business users to meet current and future requirements. SmartCore applications can be tailored without any programming to the exact requirements of any organisation and, in addition to its comprehensive internal capabilities, SmartCore can integrate with or assimilate information from external finance, groupware, scheduling and document management applications.

The SmartCore/TruePlanning project is providing a leading automotive manufacturer with a detailed understanding and management of information requirements for cost estimates. The benefits to the industry of better cost estimates at the conceptual design stage include improved cost control and enhanced ability to adjust to anticipated market trends.

SmartCore's accurate, early-stage estimation bolsters confidence for strategic investment decisions, enables fast and accurate 'Should cost' and 'What if?' analysis, leads to improved cost control through increased visibility of cost drivers across the organisation, and delivers time and cost savings for resource and planning management.

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