



# SOFTWARE REVIEW 263

**Steve Cotterell** takes another look at this highly configurable portfolio and project management solution.

## SmartCore

**By combining an off-the-shelf portfolio and project management application with bespoke software configuration, SmartCore is designed to fulfill the requirements of mid-size and large organisations.**

Based in London, Ninth Wave began life in 1995 as a consultancy organisation. Realising that no software currently available gave them all they required, they developed their own. In 2001 they began marketing this software - concentrating on giving service to their customers with their UK-based implementation team configuring the software to their customer's requirements. An initial working application can be deployed within a week.

The company aims to serve mid-size to large organisations. They're currently working with the Home Office who are rolling out a 4G-based emergency service mobile communications programme to more than 400 organisations including the police and fire service. It's also being used by many household name organisations to manage an assortment of large projects.

SmartCore is web-based and works in all popular browsers - no other software needs to be installed. It can be hosted by Ninth Wave or in-house. The data's stored and backed up in the UK with a backup (retained for a week) taken every fifteen minutes. The system's fully audited - every change by every person is recorded.

Some customers take it off-the-shelf, some with some modifications and others using a more customised product to suit particular needs. The software can evolve as customers' businesses evolve and gain maturity.

The software is modular, but not all modules are used by all customers. It's been designed to manage corporate strategy;

portfolio construction and execution; benefits delivery; learning and feedback and operational management. The modules include a tile-based interface; a workflow engine; a wikki engine for internal documentation and customer's process guides; a scenario and forecasting engine; a social media type activity feed that messages other people and, written to order; wizards that perform specific processes required by customers.

API interfaces with third-party products enable data from multiple sources (financial, HR, etc.) to be integrated.

This software's infinitely customisable and, bearing this in mind, this review concentrates on the out-of-the-box system which isn't necessarily identical to that used by customers, which may have been configured for them.

Single sign-on is supported. The user-based security system allows various levels of access to the different system areas. Any part of the SmartCore system can be set to require two-factor authentication. In these circumstances, not only do you need to log in to the system, but to access a particular area, you need to enter a code (changing every thirty seconds) that's sent to your phone via an app.

Each user sees a tiled interface, each tile connecting to an aspect of the product. When senior managers log in, their workspace would focus on portfolio strategy management and planning.

They can click an “Analytical Hierarchy Process” (AHP) tile to display the organisation’s strategic objectives which they can rank in order of importance. The table lets you compare each objective with the others, stating their comparative importance. This enables you to prioritise projects that deliver against your most important objectives. You can create different strategic scenarios and compare how the projects perform against each scenario.

SmartCore can be configured to collect new project proposals, a questionnaire collecting whatever information the organisation considers necessary to consider a new project. The information gained can be automatically scored and the system suggests which project type, from those that have previously been configured, this new project fits.

When deciding upon the project type, both questionnaire answers and historical data are used to calculate stage durations and resource requirements - which are editable. A template project can be constructed to match each project type. Questions can be asked about the suggested project’s alignment with the strategic objectives and the system can indicate how the project scores against each objective.

You can create multiple “Target Operating Models” each containing a different resource pattern for the organisation, containing details of availability and holidays. You can then run various what-if scenarios comparing different projects sets (containing both proposed and live projects) within different Target Operating Models to see how they fit with one another. Where the forecast indicates there would be a problem, you can play with the data, removing a project, moving projects in time, increasing resource levels, delaying or splitting stages. The system takes account of dependent stages so that if a stage is moved, all dependent stages also move, including those in other projects.

Although most commonly used for resource forecasting, this system can be used to compare any datasets, for example benefits, cash flow or server availability.

Once you’re considering using a scenario in real life, you can produce a Word report listing the changes you need to make to the Target Operating Model and the work portfolio to achieve the desired result.

Looking at the system from the project managers’ perspective, they see a different interface with tiles relating to their viewpoint.

Scenario: CUSTOMER SERVICE / LOYALTY	AOC	EL	IPGC	IRS	LHR	OCS
Goto airline for premium clients - AOC Rank: 3 (7.82%)		<---	< Neutral	< Neutral	< Neutral	<---
Enhanced loyalty - EL Rank: 1 (39.01%)		<++++	<+++	<---	< Neutral	
Expansion in key global cities - IPGC Rank: 6 (6.52%)			< Neutral	< Neutral	<---	
Improved revenue streams - IRS Rank: 5 (7.06%)						
Develop LHR as worldclass hub - LHR Rank: 4 (7.06%)						
Outstanding customer service - OCS Rank: 2 (32.53%)						
Consistency Rating:	Excellent					

How important is 'Goto airline for premium clients' in relation to 'Expansion in key global cities'?

- Absolutely More
- Strongly More
- Considerably More
- Slightly More
- Equal
- Slightly Less
- Considerably Less
- Strongly Less
- Absolutely Less

Save Cancel

## The Analytical Hierarchy Process

Infographic tiles display, on the tile, a quick overview of the status of each of that project manager’s projects. Right-clicking displays some extra information. These can also be configured to show risks, issues or anything else you wish. You can create groups of sub-tiles, reachable through a tile in the main display.

Along the top of the screen is a workflow bar giving you access to the workflow actions available to you at this point. Workflows are configurable and anything in the system can be subjected to one.

There’s a figure on the “Action Today” tile that shows how many actions require your attention. Clicking the tile shows a list of these actions. Click each list item to go to that specific area.

A timesheet can be reached via a tile and a “Record Time” button can be included on the workflow bar which enables a team member to record the time spent on a task from anywhere in the system instead of opening their timesheet.

Another tile can open a guidance wikki. Contextual help is also reached via a help button on every page.

“Widget” apps can be created and attached to tiles, as can URLs.

Clicking a project’s Infographic tile, you open a dashboard giving a brief overview of the project. Click the dashboard to go to the tabbed project page. All tabs are configurable, many by users but some can be reserved for the systems administrator. On the left of the “Summary” tab page is a threaded conversation panel and at the top of the screen a colour-coded key milestone roadmap.

Below that are budget, schedule, resource demand, earned value, quality and scope information panels and details of risks and issues. Click any of these panels to go to screens containing more information. Beneath that is an overview of the project by stage. Every record in the system has attached to it the facility for threaded conversation. They can also contain emails sent and received about that item as well as system generated exceptions and alerts. You can address questions and comments to specific people and a note can be kept of the workflow status of that item.

Managers who create tasks, naming other people as owners, can configure a tile that produces a list of actions assigned to other people that they want to monitor.

Forecaster		TOM Scenario: TOM 2013 Base												Save	Cancel			
Key	Display Type:	Resource	View Type: Bullet Chart												Data Type: Available			
Project Name	Investment Type	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May
Project 1	Contractual	[Progress bar]																
Project 2	Contractual	[Progress bar]																
Project 3	Regulatory	[Progress bar]																
Project 4	Discretionary	[Progress bar]																
Project 5	Mandatory	[Progress bar]																
Project 6	Discretionary	[Progress bar]																
Project 7	Mandatory	[Progress bar]																
Project 8	Mandatory	[Progress bar]																
Project 9	Discretionary	[Progress bar]																
Project 10	Mandatory	[Progress bar]																
Project 11	Discretionary	[Progress bar]																
Project 12	Discretionary	[Progress bar]																
Project 14	Discretionary	[Progress bar]																
Project 15	Discretionary	[Progress bar]																
Team	Team Manager	Jan 13	Feb 13	Mar 13	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Apr 14	May
Business Analyst	Abbott, Susan	285	226	210	263	258	213	225	236	266	199	166	211	182	192	201	20	
IT Support	Bailey, Bradley	104	90	95	100	94	72	65	100	95	104	95	88	104	75	85	100	16
Finance	Alexander, Kristin	54	42	28	23	32	39	51	35	33	27	34	33	30	0	0	0	
Hardware Engineer	Callahan, Veronica	87	75	79	83	87	81	72	83	85	66	61	61	75	65	70	83	81
IT Support	Conner, Ryan	87	75	79	83	87	49	72	83	86	61	63	58	72	63	68	83	81
Java Dev #1	Winters, Colleen	261	225	237	215	261	180	237	194	240	223	198	211	225	237	249	24	
Java Dev #2	York, Virginia	174	150	158	166	174	120	144	166	158	174	158	146	174	150	158	166	16
Junior Business Analyst	Summer, Vincent	87	75	79	83	87	60	72	83	79	87	79	73	87	75	79	83	81
Network Specialist	James, Bradley	87	75	79	83	87	60	72	83	79	87	79	73	87	75	79	83	81
Project Manager	Maynard, Barry	87	75	61	56	170	20	21	26	32	84	59	33	33	41	58	83	81
Quality Manager	Foster, Harry	35	30	32	33	23	24	29	20	20	13	21	20	25	33	32	33	31
Systems Architect	Nichols, Ian	35	30	32	33	23	24	29	20	20	13	21	20	25	33	32	33	31

## The Forecaster screen

When planning resources over a long period you can display a "Resource Grid" which, for the first few days shows daily data, switching then to weekly data and, after a few weeks to monthly data, giving the required detail in a suitably granulated format.

The "Project Details" tab gives access to the project logs of actions, risks, issues, decisions, assumptions, change requests, critical success factors and lessons learned.

Beneath the "Financials" tab is a two-level cost breakdown structure. You can do top-down (the portfolio manager allocates the budget) or bottom-up (the project manager requests a budget) budgeting. Resource rate cards are used for calculation of resource costs. Actual figures can be brought in from a general ledger system or can be typed in manually.

Beneath the "Planning" tab is the new SmartCore Gantt chart. The general display of the dependencies between tasks (all four types are supported) can be turned off and then, by clicking a task, you can display just the links connected to that task. All constraints are shown but the active constraints are specifically indicated. A baseline and the Critical Path can be displayed and each task can be colour-coded, according to its status.

The "Impact" screen shows what impact this project has on different parts of the organisation. At the project level this isn't particularly significant but, at a higher level, the impact of the different projects in hand need monitoring to avoid embarrassing conflicts. This is illustrated on programme and portfolio impact dashboards which can be played with to see what action can be taken to mitigate such embarrassing conflicts.

The "Deliverables" centre shows the deliverables required to execute a project. Each can be clicked to see the details of the deliverable, colour-coded to indicate which have been approved, etc. Documents can be uploaded into each deliverable's area.

A "Benefits Management" tab can be used to collect details of tangible and intangible benefits compared with a baseline forecast. Each benefit has an owner who is responsible for updating it. Even

## The project manager's Tiled Home Page with a project Dashboard superimposed



after the project has finished, the system can be set to email that person to continue to collect the benefit data. A dashboard at portfolio level aggregates the benefits from all projects.

The "Stakeholder Management" tab allows you to identify your stakeholders. You can assign a RACI (Responsible, Accountable, Consulted, Informed) matrix to each. You record what you'll inform each person about, how you'll inform them and how often. This produces your communications plan. You can set up automatic communications to specific groups of people at specific intervals.

With its increasing popularity, SmartCore has embraced Agile and can support multiple methodologies, supporting both Waterfall and Agile methodologies in the same portfolio and/or project. A Homepage tile opens SmartCore's new project Scrum and Kanban boards.

The Scrum board shows columns for each team member with the backlog cards contained in the "Manager" column and the cards for each team member in their own column. Each card carries a set of icons containing information about the task. Click a work card to see a low level of detail. The way the board can be configured and displayed is totally configurable. As with other parts of the system, the workflow bar at the top of the screen shows the options available at each work stage.

SmartCore can be integrated with source code repositories to enable SmartCore's workflow rules to be evaluated as code's

checked into the repository. This enables the automatic tracking of the "done" status of each development item and provides any required custom quality control processes (e.g. a developer can't check in code without providing a release note in SmartCore). Once the code's checked into the repository, email alerts are issued to testers informing them that the item is ready to test along with the accompanying release note and test scripts. You can also display a report showing all of the work requests contained in a specific release.



## A Deliverables Dashboard

Facilities can be provided for clients to log into the system to report problems and request changes. A questionnaire can be completed by the client and, based on the response to the questions, an automatic priority can be calculated. The reported incidents can also be tracked against the relevant Service Level Agreement and the system will automatically escalate if a problem is detected.

A record is kept of the root causes of each problem and, using this record, trends can be spotted. Testing records can also be retained so that the causes of failed tests can be monitored and if necessary linked to the people involved. Where the details of an Agile project are shown on a Gantt, clicking on the Sprint bar can display charts showing the burnup, burndown and detail of the individual stories.

At the end of a sprint you can send a questionnaire to the team asking them how they think they've performed. A set of charts can then be produced showing the consolidated results of the questionnaire.

You can also give team members access to a "Retrospective View" containing three columns; "What went well?" "What didn't?" "What should we do better?" Each individual can add "Post-it" notes to each column and anyone can vote to "like" another's comment. The view, when complete, gives an overview of how the team felt about the sprint.

To establish how an Agile project will be considered to have succeeded prior to it starting, you ask the stakeholders to rank the aspects of a project that they consider to be most important, using a screen containing a set of sliders. This produces a "Contract" summarising the consolidated opinion of the stakeholders.

The system allows for regular meetings to be managed. Agendas can be created and minutes and the matters arising are handled, as can the voting on meeting subjects. The system can interface with apps like GoToMeeting or Skype or it can be used at a physical meeting with someone recording the meeting minutes and decisions on a laptop.

Decisions, risks, actions, etc. decided at the meeting are automatically added to the relevant logs and tracked accordingly. If the meeting feels unable to make a decision, the matter can be automatically escalated to a higher authority.

Where an organisation has a quality management system, SmartCore can contain the details of the requirements and, when an audit needs to be done, can present it for completion. Non-conformance can be recorded and corrective actions can be monitored and these records can be made available to external auditors.

SmartCore now supports the analysis of large volumes of data, grouping data sets at periodic user-defined intervals to speed data analysis and reporting - more than a million records can be grouped in under half a second.

The introduction of Pivot Tables, allows users to slice and dice sets of data on-the-fly using a tried and tested interface similar to MS Excel. Any field in the system can be marked to collect metrics, against which queries can be made to interpolate the data set to find trends over time without storing any snapshots of the data itself.

SmartCore has been configured to monitor an organisation's infrastructure estate covering memory and CPU usage, disk space and hardware alert, operating system and other software patching and SSL certificate monitoring. These results are aggregated through SmartCore's API from a number of different monitoring technologies and displayed as a dashboard for each server. Email alerts are generated when hardware alerts are triggered or thresholds are exceeded.

## How much does it cost?

SmartCore costs from £3,000 a month for a minimum 20 update user system. A 50 update user system would cost £3,900 a month. This is for a hosted (SaaS) solution, including software licencing, support and maintenance, upgrades and hosting. The cost depends on the number of update users and the functionality required. All prices exclude VAT.

## Right to Reply

Steve, thank you for this updated review of SmartCore's latest features and capabilities. We're pleased that you've been able to cover all the exciting recent developments in the solution, including our new Gantt charts for both traditional and Agile projects, Scrum/ Kanban boards, in-task Time Recording, enhanced Meeting Management, Pivot Tables for data analysis and how SmartCore's interfacing API can be used to monitor IT infrastructure. NinthWave offers a 'one-stop-shop' for all our customers, providing design, implementation, integration, support and hosting services as required, with every aspect delivered by Ninth Wave. With an "out of the box solution" that can be configured to meet almost any requirement, our approach appeals to those organisations that aren't entirely sure what they want, those who recognise that their needs will change over time, and to those whose requirements are simply unique.

With a company focus on portfolio and project management, we have successfully deployed SmartCore across a range of different sectors, including defence, energy, finance, government, media, manufacturing, services, telecoms and transport. As an established UK-based firm in a market shared with large US corporations, we are proud to offer an innovative and powerful solution that is up-to-date with all the latest trends in PPM software.

*Jon Lewis - Director, Ninth Wave*

## Contact Details

### Ninth Wave Ltd.

4th Floor, Sherborne House,  
119 Cannon Street, London EC4N 5AT  
Tel: 020 7403 4433  
Email: [partners@ninthwave.co.uk](mailto:partners@ninthwave.co.uk)  
Web: [www.ninthwave.co.uk](http://www.ninthwave.co.uk)

