ProModel’s Technology Platform

ProModel Corporation rapidly delivers customized predictive and prescriptive decision support solutions by leveraging our technology platform developed over the last 30 years. Utilizing a proven agile development process, ProModel has successfully developed reusable analytic and component software modules to support custom solutions that solve real world problems. This rich platform enables us to rapidly develop and implement customized local and web based enterprise applications.

ProModel’s Technology Team

ProModel's software development teams consist of in-house expert program managers, software engineers and QA resources that design, develop, deliver and configure the applications via a proven agile approach. Skill sets include architecture design, UI experts and business analysts with a deep working knowledge in JavaScript, HTML5, CSS, C#, Silverlight, MS SQL Server and Oracle. Our senior consultants and SMEs have more than 150 years of combined experience delivering solutions with certifications including master black belt, black belt, green belt, SME lean bronze, lean expert, PPM, and PE.

Technology Platform Sample Applications

Army Force Generation Synchronization Tool (AST)

The tool for UNIT mission planning. Web-based system of record running on the Army's secret network (SIPR Net) for FORSCOM. It is used for “sourcing” missions with critical resources and quickly predicting and visualizing the future years’ impact on availability and readiness.

Key Modules AST Utilizes:

- Web-based graphical user interface and modern form elements that supports multiple browsers
- Advanced synchronization and scheduling engine
- SQL server relational database, fully responsive, scales to any size
- Data integration from multiple sources via web services
- Data managers handle asynchronous data pulls, concurrency, and saving
- Query builders to filter custom initiating data requests
- Alert and notification workflow module
- Administration module - provides the ability to define login credentials, roles and rights, templates and other critical administrative functions.
- Data visualizations/reporting module customizable by the end user, who specifies pivoting and filtering options

A Partial List of our Technology Platform Components Includes:

Advanced graphical components, standard and customizable:

- Charts
- Dashboards
- Diagrams
- GANTT Charts
- Scorecards

Enterprise, line of business data integration with:

- Microsoft Excel
- Microsoft Visio
- Microsoft Project
- Stat-Fit
- Minitab
- Customer-specific web services
- Customer-specific relational databases

Predictive analytics platform components:

- Discrete event simulation (DES)
- Analytical algorithms
- Project & portfolio scheduling simulation engine
- What-if? scenario management platform
- Business intelligence reporting engine
- Statistical distribution fitting API

Prescriptive analytics platform components:

- Continuous improvement, real time optimization framework
- Business intelligence reporting engine
- Particle swarming and genetic evolution
- 3D spatiality location engine
- Prescriptive scheduling engine

"ProModel has the best and most thorough software development plan/process I’ve ever seen.”

Naval Air Systems Command’s Accreditation Agent, NST
Army Decision Support Tool Set (DST)
Web-based system for distribution and re-distribution of Army equipment. It is running on the Army’s non-classified network (NIPR Net). It is used to optimize equipment distribution plans based on Army priorities and available supply sources.

Key Modules DST Utilizes:
- Web-based graphical user interface and modern form elements that support multiple browsers
- Scheduling and optimization engine for auto sourcing
- Oracle TIGR2 relational database in a real application cluster
- Data integration from multiple sources via web services
- Data managers handle asynchronous data pulls, concurrency and saving
- Query builders to filter custom initiating data requests
- Alert and notification workflow module
- Administration module - provides the ability to define login credentials, roles and rights, templates and other critical administrative functions.
- Data visualizations/reporting module customizable by the end user, who specifies pivoting and filtering options
- F5 load balancing across multiple web servers. This is critical as DST-SM’s user base is global, over 5,000 users, and regularly encounters 300 – 500 users in the system at any one time.

ORION
The current global force management process is a time-consuming and labor intensive process. ORION, as a consolidated platform enabled by application interfaces that are intuitive and optimized for efficiency, allows users to make timely and critical decisions, better inform key enterprise stakeholders and optimize the allocation and assignment of forces across the globe. It decreases the “data-mining” space and increases the “decision-making” space.

Key Modules ORION Utilizes:
- ORION dashboard is a customizable widget based interface that provides navigation menus and visualizations based upon user-established preferences.
- Catalog module provides force structure visualizations, unit attributes and capability and employable entity descriptions for each force in the inventory.
- Force Element Inventory–Predictive Analysis Tool (FEI-PAT) provides users with a graphical view of force assignment and allocation by combatant command. users can conduct course of action analysis within this module.
- Constellation module provides users with a geospatial perspective of the laydown of forces and preferred munitions.
- Capability module provides users with textual descriptions and images of warfighting capabilities as defined by the services.
- Dynamic force employment module provides user with capability to create, visualize, and measure impacts of dynamic force employment scenarios against the current or future global laydown of the force.

Shipyard AI
A web-based tool for automated and continuous shipyard capacity planning used tactically to track interim product and unit progress, identify potential early or late completions, provide immediate options for alternate layout locations of next units based on unforeseen schedule changes and support the optimization of yard cranes and transporters. Shipyard AI is used strategically to perform what-if analysis on potential future work loading through the shipyard, perform initial footprinting, and shop loading for new ship programs based on yard business rules and management preferences to level load footprints and shops.

Key Modules Shipyard AI Utilizes:
- Web-based GUI and modern form elements that support multiple browsers
- Works on mobile devices
- Advanced simulation, optimization and scheduling engine
- SQL server relational database
- Data integration from multiple sources
- Graphical business rules editor for space allocation
- Alert and conflict notification module
- Administration module - provides the ability to define login credentials, roles and rights, templates and other critical administrative functions.
- Data visualizations/reporting module supports the rapid creation of customized reports