

# **Mariner Product Overview**

January 9, 2007





Serena Mariner is the single product and platform necessary to flexibly combine portfolio, project, resource, demand and financial management to provide complete solutions for Project Portfolio Management (PPM), IT governance and New Product Development (NPD). Unlike other products whose process workflow or bottom-up project management approaches are cumbersome and difficult to implement, Mariner offers a balanced approach that ensures rapid results and sustained incremental value.

Mariner goes beyond efficient project and resource management, helping you to optimize performance, evaluate initiatives based on value and build a sound portfolio of investments. With Portfolio Management at its core, Mariner integrates all of the elements necessary for effective project portfolio management:

- Portfolio Management draws lifecycle, resource, financial and project data into an integrated decision support framework where tradeoffs are examined, impacts are analyzed and performance is tracked and optimized.
- Project Management provides a consistent, comprehensive approach for initiating project requests, creating project plans, collecting project costs, and tracking time, status and deliverables.
- Resource Management delivers a holistic view of the entire resource pool, enabling an organization to analyze utilization and skills, and to assess the impact of project changes on individuals or groups based on role, team, geography or other attributes.
- Demand Management enables an organization to capture all sources of demand for capital and resources, channeling requests through the appropriate levels of approval and mobilizing resources as rapidly as possible, eliminating decision lag time.
- Financial Management provides a consistent method for modeling and monitoring key financial indicators (like ROI and NPV) and for continuously managing costs and benefits across the investment lifecycle.

Because your initiative will only be successful if embraced by your organization, Mariner was designed to ensure rapid time to value and successful deployment:

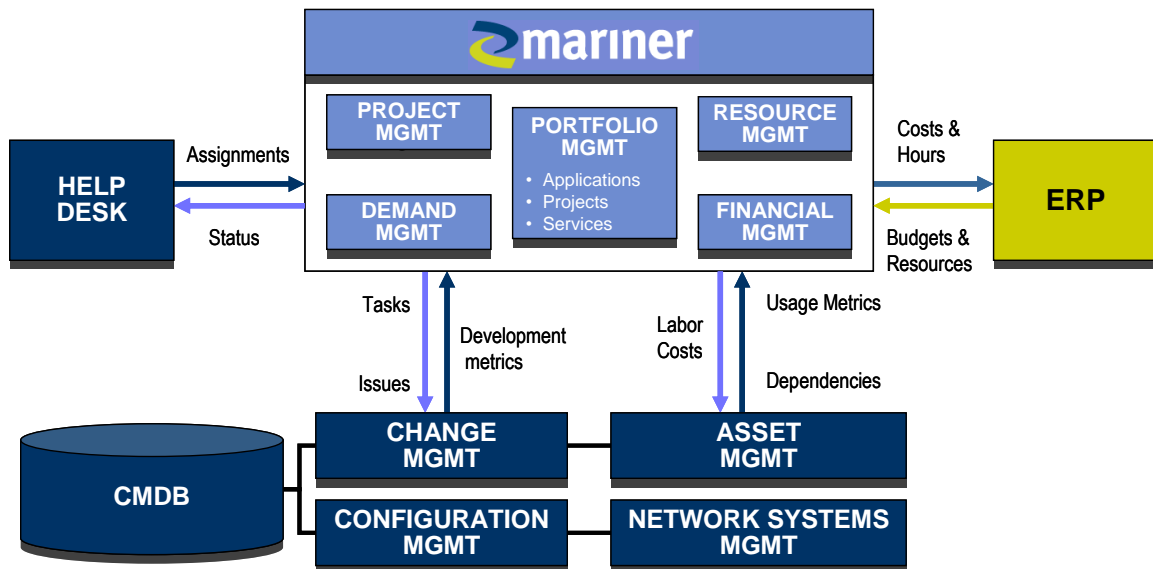
- Mariner is **highly configurable** by non-technical resources. An organization's existing processes can be quickly modeled and maintained using Mariner's drag-and-drop view designer.

- Mariner's Web-based interface is **highly intuitive** and easy to use, minimizing training time and speeding adoption.
- Mariner supports the development of portfolios with rollups based on varying levels of investment detail, which means you can **create visibility into the portfolio in as little as 30 days**.
- Maturity-based Accelerators preconfigure Mariner software with **best practices and proven business processes** right out of the box.

### Value for Every Role

Enterprise software solutions are only as good at the data they contain. The key to ensuring rich, comprehensive data is to provide benefit for all users that must interact with the system. Mariner offers benefits for employees at every level in the organization:

- **Executive stakeholders** gain visibility into the portfolio so they can quickly identify status and risks. A role-based home page provides personalized status information at logon.
- **Portfolio managers** can drill-down from high level portfolio views to detailed project data. "What if" analysis tools allow them to assess the impact of portfolio changes and ensure continued alignment with business objectives.
- **Project managers** get the tools they need to build task plans, find and schedule the most appropriately skilled resources, resolve issues, mitigate risks and track progress. Automated reporting and built-in notifications mean project managers spend less time managing documents and data and more time managing projects.
- **Resource managers** have the ability to assess competing demands for resources and efficiently direct the right people to the most critical tasks and activities. Agreements with project managers about generic and specific resource allocations are clearly tracked.
- **Team members** are freed from the randomizing effects of shifting priorities and demands. Project collaboration, document management and time tracking tools enable each individual to make better decisions in support of the portfolio.



**Key differentiators:**

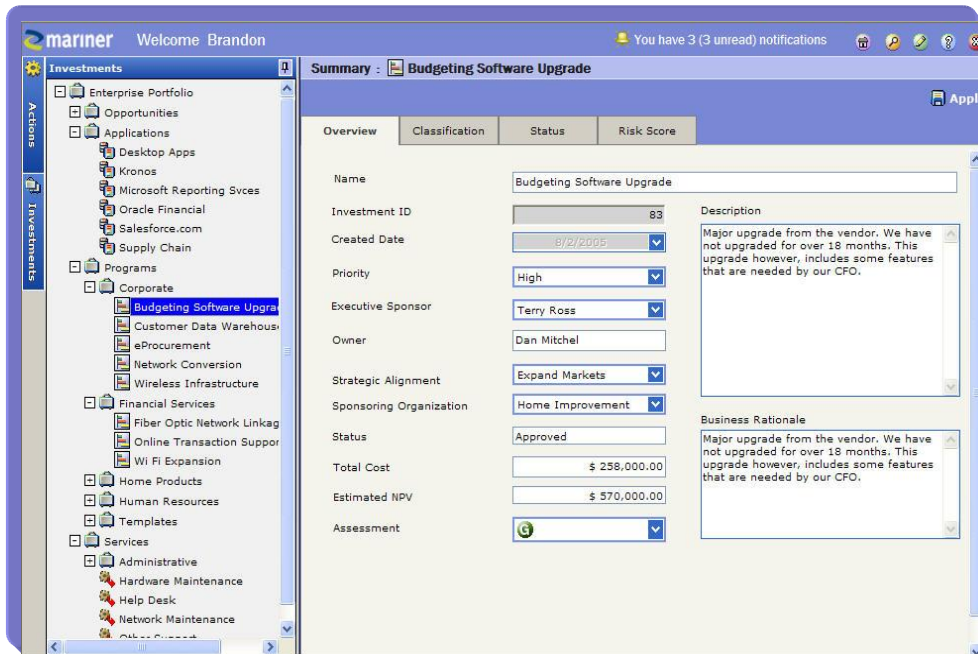
Serena offers a comprehensive Project Portfolio Management solution (Mariner v5.0) which encompasses portfolio management, demand management, financial management, resource management, and project management capabilities. This integrated functionality is provided through a single web-based platform.

In addition to comprehensive PPM functionality, Serena's key differentiators are usability (ease of use), configurability (adaptable vs. prescriptive), and maturity based packaging.

We differentiate ourselves from our competitors in the following ways:

- Serena Software has best in class Solution Accelerators with integrated Governance Process Methodology.
- Serena has the best financial planning capabilities with dynamic views of calendar and fiscal periods as well as integrated FTE planning.
- Serena has the broadest support of Project Management maturity levels with inherent planning and best-in-class 2-way Microsoft Project integration.
- Serena helps users make better decisions faster with the market's best dynamic, real-time decision making capabilities with time-phased scenario modeling.
- Serena solutions can be rapidly implemented, removing the risk of long expensive deployments and allows users to quickly start realizing the benefits of the system.

## Investment Initiation:



The screenshot shows the 'Budgeting Software Upgrade' investment initiation form in the Serena Mariner application. The form is titled 'Summary : Budgeting Software Upgrade' and includes an 'Apply' button. The form is divided into several sections: Overview, Classification, Status, and Risk Score. The main form fields include:

- Name: Budgeting Software Upgrade
- Investment ID: 83
- Created Date: 8/2/2005
- Priority: High
- Executive Sponsor: Terry Ross
- Owner: Dan Mitchel
- Strategic Alignment: Expand Markets
- Sponsoring Organization: Home Improvement
- Status: Approved
- Total Cost: \$ 258,000.00
- Estimated NPV: \$ 570,000.00
- Assessment: G

The Description and Business Rationale fields contain the following text: "Major upgrade from the vendor. We have not upgraded for over 18 months. This upgrade however, includes some features that are needed by our CFO."

The Demand Management component of Serena Mariner enables an organization to capture all sources of demand for capital and resources, channeling requests through the appropriate levels of approval and mobilizing resources as rapidly as possible, eliminating decision lag time.

Projects represent just one of the competing demands for your resources. In fact, demand actually takes many forms, including large investment requests, simple project requests and service maintenance requests — all vying for the same resources. Mariner allows you to capture, classify and evaluate all sources of demand so you can appropriately prioritize work and allocate resources to the highest value opportunities.

### Route All Types of Requests

Mariner's notification and workflow capability directs the traffic, shuttling requests through the appropriate approval steps. While large investments may require several levels of approval and complex business case analysis, small requests must be quickly routed to the right people to do the work. Mariner's demand management capabilities efficiently handle both large and small requests.

### Product Features

- Configurable request pages — Capture and consolidate all types of requests in a consistent, easy-to-use format. Mariner's request pages are 100% configurable and can be accessed by anyone in your organization.
- Notifications and workflow — Simple workflow routes requests through a defined approval process, routing small requests directly to the people doing the work, while driving a standard business case development process to support large investment decisions.
- Demand flow analysis — Analyze demand flow and categorize and chart requests of all sizes to uncover demand patterns and improve performance.

### Key Benefits

- Create visibility — Most of an organization's capacity is consumed by maintenance and ongoing support activity. Because of their small size and urgency, these requests typically

fly below management radar. By capturing and facilitating the flow of this activity, management will understand for the first time what it costs to "keep the lights on."

- Accelerate response time — Configurable business rules are used to screen incoming requests, routing the highest priority demand to the right people, notifying staff immediately of new assignments and automatically adding assignments to timesheets. This minimizes the lag time between requests and results.
- Optimize staffing — Tracking the demand for resources over time facilitates better forecasting and resource planning. With Mariner, you can model future demand and plan staffing levels appropriately.
  - Model all sources of demand
  - Field all requests
  - Route according to business criteria
  - Analyze impacts
  - Document key decisions and approvals history

## Portfolio Selection:



When demand exceeds supply, organizations need a portfolio approach to help them select the best mix of investments. With Mariner analytical tools, you'll identify the right mix of investments for today, *and* have the flexibility to revisit your decisions to ensure past investments are still appropriate for the portfolio. Shared access to a central repository eliminates the "keepers of the data" syndrome and allows users to conduct their own analysis. Unlike many solutions that rely on third-party reporting or business intelligence tools for analysis, Mariner allows you to quickly drill down from all query results and charts to detailed portfolio information, compressing analysis time from days to minutes.

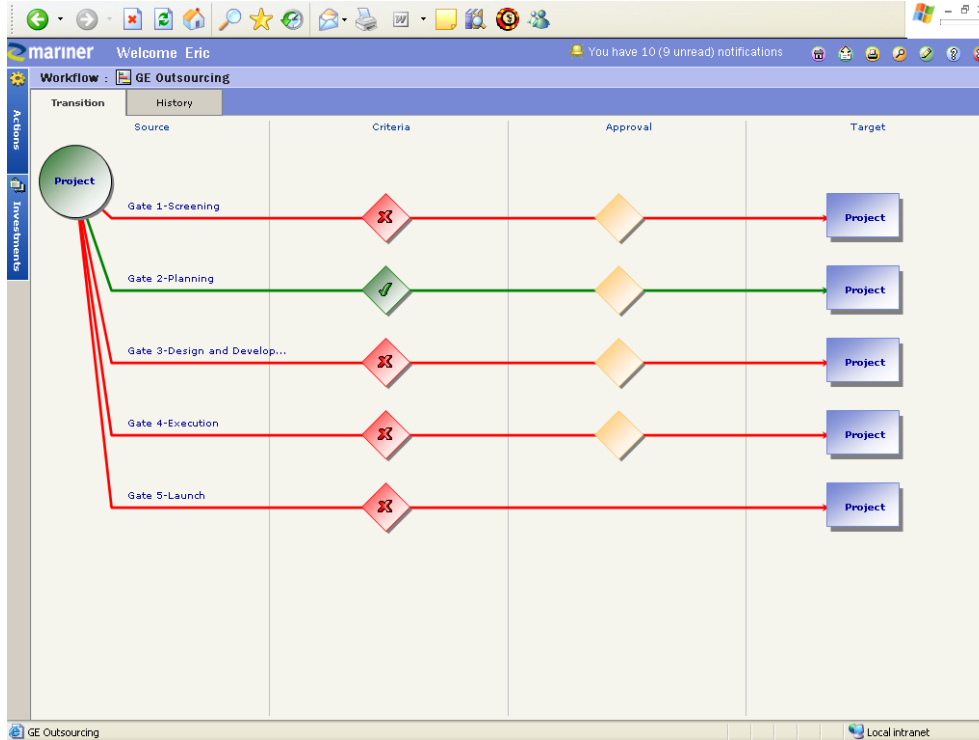
### Evaluate the Impact of Portfolio Decisions

Understanding the sequencing of investments is crucial to maintaining an achievable portfolio. Because a large portion of your capacity is tied up in nondiscretionary work, the timing of investments must be considered relative to other investments in the portfolio. With Mariner's time-phased financial rollups, you'll see instantly whether you have the staff and budget needed to take on that new investment and, more importantly, the ability to investigate the alternatives.

### Product Features

- **Ad hoc analysis** —With Mariner's built-in ad hoc analysis and charting, portfolio analysts will spend less time gathering data and more time analyzing the portfolio. And, because the analytical tools run in real time, analysts can drill down to up-to-date details within seconds.
- **Approval workflow** — Mariner's built-in approval workflow streamlines execution and collaboration. Audit trails ensure decisions can always be tracked back to their source.
- **"What if" and scenario planning** — Portfolio managers can develop and investigate multiple alternative portfolios using single mouse clicks to add and subtract investments. The results can be saved and compared with other scenarios, plans, baselines and actual results.

**Governance:**



Our IT Governance Solution extends core PPM processes and planning to align IT investments with corporate strategy and increase IT's value to the business. With our solution, IT can:

- Optimize the full lifecycle of investments in the IT portfolio, minimizing TCO and maximizing ROI
- Drive total IT costs as low as 1% to 3% of revenue
- Shift base spend to new project spend, increasing new project capacity to more than 50% of total IT spend

Unlike other IT Governance solutions, Serena offers rapid deployment, low training requirements and adaptability to existing processes, which means:

- Immediate increase in IT's value to the enterprise
- Easier adoption by users than with other governance solutions
- Early return on your investment

**Accelerators get you there faster**

Serena offers a series of maturity-based Accelerators — bundled solutions that include best practices, implementation services, proven business processes, preconfigured software and integrated product/process training. Accelerators map to the specific needs of an organization at different stages of process maturity, allowing them to identify and focus on process improvements that will provide the most value.



With maturity-based Accelerators, organizations can:

- Accelerate benefits by leveraging out-of-the-box software capabilities to support a pre-defined set of processes

- Reduce implementation risk by sorting capabilities into logical buckets that can be incrementally deployed
- Reduce TCO by focusing resources only on elements critical to your current stage of implementation

Serena maturity-based Accelerators initially focus on delivering top-down portfolio analysis and planning, without getting bogged down in building detailed project and resource information. Unlike other solutions whose process workflow or bottom-up project management approaches are cumbersome and difficult to implement, Serena offers a balanced approach that ensures rapid results and sustained incremental value.

### **Maturity Based Accelerator – Stage 1**

#### *Bring visibility to your portfolio*

The Serena Maturity-Based Accelerator—Stage 1 meets the requirements of most organizations beginning their first IT governance initiative. Stage 1 provides visibility into how the IT portfolio aligns with the business and exposes the mismatch between supply and demand for IT resources. With a simple, proven framework and standard metrics for modeling project and non-project work, the CIO and IT steering committee gain a solid foundation for balancing and aligning the portfolio in as little as 30 business days.

#### *Creating visibility*

Before introducing new procedures geared toward improving project processes, or assessing the ROI or TCO of proposed IT initiatives, companies can realize immediate benefits by bringing visibility to the current mix of IT projects and the applications being supported. This analysis can bring to light obvious issues, and many times there are fairly easy resolutions. For example, dropping non-strategic initiatives, retiring outdated applications or consolidating redundant systems allows resources to be shifted to initiatives that offer real value to the business. And because IT management and business stakeholders both have visibility into the IT investment portfolio, they can start to rein in demand that far exceeds available resource capacity.

Before	After
<p><b>Limited visibility</b></p> <ul style="list-style-type: none"> <li>• Redundancy within portfolio</li> <li>• Inability to effectively prioritize</li> <li>• No top-down planning capability</li> </ul>	<p><b>Portfolio aligned with business</b></p> <ul style="list-style-type: none"> <li>• Duplicate and off-strategy projects are eliminated</li> <li>• Impact of portfolio changes is easy to model and understand</li> <li>• IT management and business stakeholders have shared visibility into IT investment portfolio</li> </ul>
<p><b>Demand exceeds supply</b></p> <ul style="list-style-type: none"> <li>• Can't measure or communicate IT capacity — IT can't say "no"</li> <li>• Inefficient allocation of resources</li> <li>• Capacity consumed by base operations</li> </ul>	<p><b>Balanced supply and demand</b></p> <ul style="list-style-type: none"> <li>• IT has information needed to measure capacity, drive prioritization</li> <li>• Resource over-allocation and underutilization is identified</li> <li>• Resources are shifted from base operations to new development</li> </ul>

Serena matches your maturity level -As your organization and processes mature, you can seamlessly upgrade to the Stage 2 Accelerator to drive additional value out of your IT governance initiative.

**Maturity Based Accelerator – Stage 2**

*Enhance IT execution*

With visibility into the IT portfolio and correction of the resource supply/demand mismatch, a company is ready to shift into the next stage of governance maturity: improving execution. With the Serena Maturity-Based Accelerator—Stage 2, organizations benefit from implementation of tighter process controls for decision workflow, resource allocation, project planning, status reporting and time tracking. This increased level of control and standardization helps organizations better manage IT performance and improve on-time, on-budget delivery of IT projects.

Enhancing execution

Not only do more effective processes lead to improved project execution and decreased failure rates, they give IT the ability to evaluate the portfolio on an ongoing basis. Changes in business strategy that impact the portfolio have a well-understood impact on project execution. Within days, appropriate resources can be redeployed to new projects, minimizing the lag time between decision and execution.

Before	After
<p><b>Ad-hoc planning and tracking</b></p> <ul style="list-style-type: none"> <li>No processes to ensure continuous portfolio alignment</li> <li>Can't rapidly adjust the portfolio when business or market changes</li> <li>No real-time access to actual project and service costs</li> </ul>	<p><b>Closed-loop planning and tracking</b></p> <ul style="list-style-type: none"> <li>Portfolio changes have measured project and resource impacts</li> <li>Lower-value projects are eliminated based on continuous assessment</li> <li>Key performance indicators can be monitored for early warning signs</li> </ul>
<p><b>Ad-hoc execution</b></p> <ul style="list-style-type: none"> <li>High project failure rate</li> <li>Frequent budget overruns</li> <li>Unplanned spillover from year to year</li> </ul>	<p><b>Closed-loop execution</b></p> <ul style="list-style-type: none"> <li>Automated workflow process ensures consistent execution and data capture</li> <li>Task-level direction and accountability improves success</li> <li>Common tools are used to manage issues and risk</li> </ul>

Serena matches your maturity level - As your organization and processes mature, you can seamlessly upgrade to the Stage 3 Accelerator to drive additional value out of your IT governance initiative.

### Maturity Based Accelerator – Stage 3

#### Optimize your ROI

With visibility into the portfolio and effective processes for better project execution, the IT organization is ready to move to stage three of governance maturity. With the Serena Maturity—Based Accelerator-Stage 3, organizations begin managing the complete lifecycle of IT investments - from the time a customer makes a request, through project completion and launch, on through the maintenance and refresh stages, and ultimately through retirement.

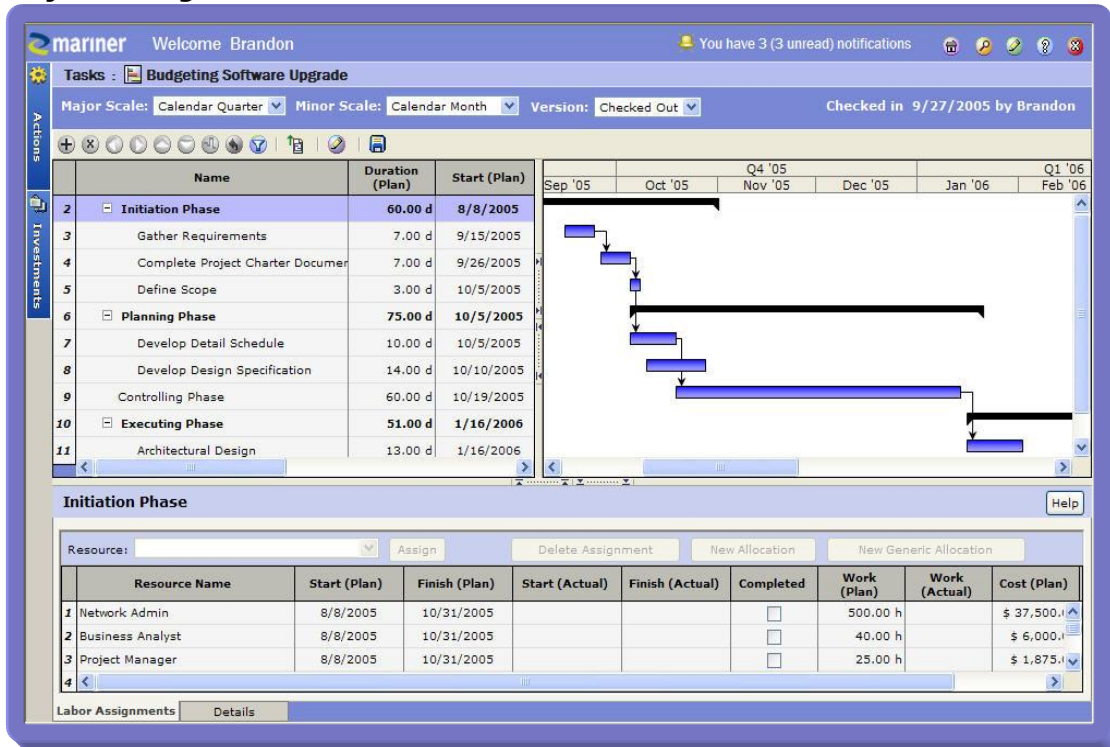
Accelerate responsiveness and maximize IT value

In stage three, companies measure the realization of value and the ongoing lifecycle costs and funnel that back into the portfolio decision making process. Enhanced financial modeling yields better IT investment decisions that reduce total lifecycle costs (TCO) and maximize the business benefits (NPV and IRR). Organizations are ultimately able to rationalize their application portfolios based on solid financial metrics.

Before	After
<p><b>No lifecycle management</b></p> <ul style="list-style-type: none"> <li>• No understanding of ROI and TCO across project lifecycle</li> <li>• No accountability for benefits</li> <li>• No ability to track projects back to original business case</li> </ul>	<p><b>Managed return on IT</b></p> <ul style="list-style-type: none"> <li>• Shift from a project-centric to investment-centric perspective</li> <li>• Consider lifecycle cost and benefits for improved decision-making</li> <li>• Manage complete investment lifecycle</li> </ul>

Serena believes you shouldn't have to pay for what you don't need. That's why the Serena IT Governance Solution is packaged and priced by stage. Organizations that already used Serena to enhance IT performance and streamline project and service delivery will benefit from the Stage 3 Accelerator's ability to accelerate responsiveness and maximize IT value.

## Project Management:



The screenshot displays the Serena Mariner Project Management interface. At the top, it shows the user 'Brandon' and a notification for 3 unread items. The main task is 'Budgeting Software Upgrade'. The interface is divided into several sections:

- Task List:** A table listing project tasks with columns for Name, Duration (Plan), and Start (Plan).
 

ID	Name	Duration (Plan)	Start (Plan)
2	Initiation Phase	60.00 d	8/8/2005
3	Gather Requirements	7.00 d	9/15/2005
4	Complete Project Charter Document	7.00 d	9/26/2005
5	Define Scope	3.00 d	10/5/2005
6	Planning Phase	75.00 d	10/5/2005
7	Develop Detail Schedule	10.00 d	10/5/2005
8	Develop Design Specification	14.00 d	10/10/2005
9	Controlling Phase	60.00 d	10/19/2005
10	Executing Phase	51.00 d	1/16/2006
11	Architectural Design	13.00 d	1/16/2006
- Gantt Chart:** A visual representation of the project schedule, showing task bars and dependencies across a timeline from September 2005 to February 2006.
- Initiation Phase Details:** A table showing resource assignments for the 'Initiation Phase'.
 

Resource Name	Start (Plan)	Finish (Plan)	Start (Actual)	Finish (Actual)	Completed	Work (Plan)	Work (Actual)	Cost (Plan)
1 Network Admin	8/8/2005	10/31/2005			<input type="checkbox"/>	500.00 h		\$ 37,500.00
2 Business Analyst	8/8/2005	10/31/2005			<input type="checkbox"/>	40.00 h		\$ 6,000.00
3 Project Manager	8/8/2005	10/31/2005			<input type="checkbox"/>	25.00 h		\$ 1,875.00

The Project Management component of Serena Mariner provides a consistent, comprehensive approach for initiating project requests, creating project plans, collecting project costs, and tracking time, status and deliverables.

### Mariner provides an extremely flexible project management framework that supports a wide range of approaches:

- For smaller, lower risk projects Mariner supports "back of the envelope" planning, where only high-level phases and resources need to be defined.
- For projects that are higher risk or more complex, Mariner provides robust, yet straightforward project and task management capabilities.
- For project managers who are more comfortable using Microsoft Project, Mariner provides complete bidirectional integration with Microsoft Project.

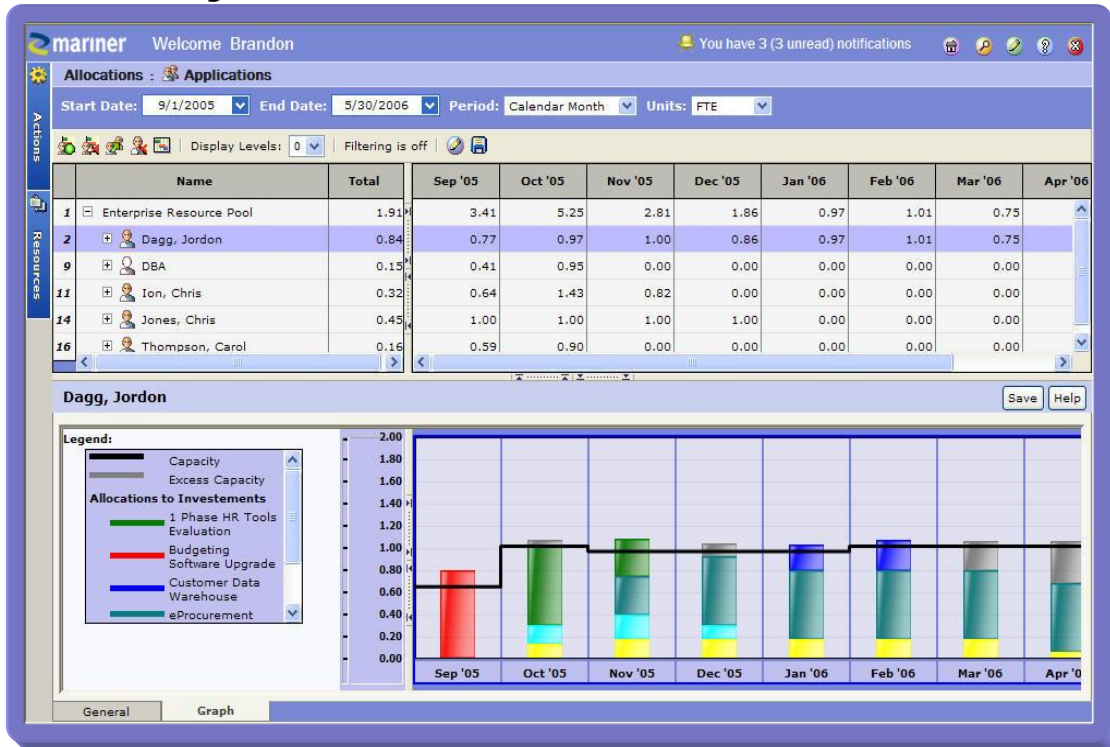
This level of flexibility ensures broad acceptance of your project portfolio management solution, which is critical for complete data capture and dependable rollups.

Typical operations reports provide a picture of where you were six to eight weeks ago — that's an eternity in today's volatile business environment. With Mariner's built-in timesheet capabilities, you get real-time analysis of actual project hours and costs. Performance indicators and variance calculations alert managers to potential problems early, while there is still time for correction. The end result is more accurate, up-to-date forecasting to ensure projects are delivered on time and within budget.

### Product Features

- **Drag-and-drop task planning** — Create and maintain project and task plans using in-grid editing and drag-and-drop Gantt views to schedule tasks, create dependencies and assign resources.
- **Threaded discussions** — Threaded discussions provide a standardized approach for documenting, assessing, resolving and escalating issues and risks.
- **Document management** — Document management capabilities ensure key project and program information becomes part of the permanent record. Mariner's native document management capabilities mean there's no need to purchase another third-party solution.
- **Resource planning and timesheets** — Resource planning views help project managers find the best available resources. Integrated time tracking allows project managers to update their task plans instantly with approved timesheet data, saving time and improving accuracy at the task level.

## Resource Management:



The Resource Management component of Serena Mariner delivers a holistic view of the entire resource pool, enabling an organization to analyze utilization and skills, and to assess the impact of project changes on individuals or groups based on role, team, geography or other attributes.

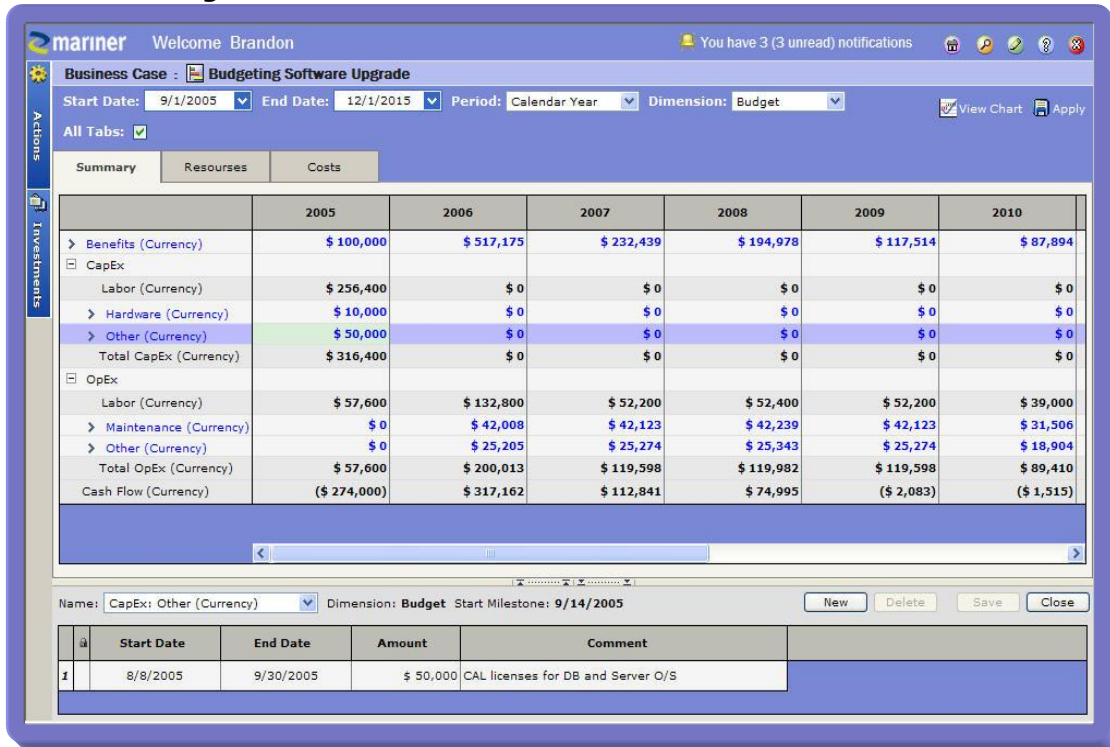
### Balance Supply and Demand

Effective resource management leads to fewer bottlenecks, better forecasting of demand and faster response to changing priorities. Mariner links capacity planning, resource allocation, utilization, task assignments and skills, giving resource managers a holistic view of their entire resource pool. This allows the organization to assess total resource capacity and make strategic plans for optimizing full-time team members or augmenting staff with contract resources.

### Product Features

- **Resource Breakdown Structure** — Model your resource pool using a simple and intuitive breakdown structure that mirrors your organization. Use standard Active Directory or LDAP integration to keep it accurate and up-to-date.
- **Resource allocation by role and/or skill** — Search for the right resource by role or skill, comparing current allocation and availability before committing resources.
- **Resource utilization** — Monitor how resources are actually being utilized by comparing assignments to allocations and approving timesheets to monitor actual effort and performance.
- **Key Benefits**
- **Highlight mismatch between supply and demand** — Mariner compares total capacity for resources and skills to total demand, so portfolio and resource managers can easily see where demand exceeds supply.
- **Analyze impact of proposed projects** — Resource allocations roll up to the portfolio level to ensure decisions are based on actual resource capacity.
- **Identify and resolve bottlenecks** — With Mariner's drill-down capability, potential bottlenecks are easily identified and resolved.

## Financial Management:



The screenshot shows the Mariner interface for a business case titled "Budgeting Software Upgrade". The start date is 9/1/2005 and the end date is 12/1/2015. The period is set to "Calendar Year" and the dimension is "Budget". The interface displays a summary table with columns for years 2005 through 2010. The table is categorized into Benefits, CapEx (Capital Expenditure), and OpEx (Operating Expenditure).

	2005	2006	2007	2008	2009	2010
> Benefits (Currency)	\$ 100,000	\$ 517,175	\$ 232,439	\$ 194,978	\$ 117,514	\$ 87,894
[-] CapEx						
Labor (Currency)	\$ 256,400	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
> Hardware (Currency)	\$ 10,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
> Other (Currency)	\$ 50,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Total CapEx (Currency)	\$ 316,400	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
[-] OpEx						
Labor (Currency)	\$ 57,600	\$ 132,800	\$ 52,200	\$ 52,400	\$ 52,200	\$ 39,000
> Maintenance (Currency)	\$ 0	\$ 42,008	\$ 42,123	\$ 42,239	\$ 42,123	\$ 31,506
> Other (Currency)	\$ 0	\$ 25,205	\$ 25,274	\$ 25,343	\$ 25,274	\$ 18,904
Total OpEx (Currency)	\$ 57,600	\$ 200,013	\$ 119,598	\$ 119,982	\$ 119,598	\$ 89,410
Cash Flow (Currency)	(\$ 274,000)	\$ 317,162	\$ 112,841	\$ 74,995	(\$ 2,083)	(\$ 1,515)

Below the table, a detailed view for "CapEx: Other (Currency)" is shown with a start milestone of 9/14/2005. It includes a table with columns for Start Date, End Date, Amount, and Comment.

i	Start Date	End Date	Amount	Comment
1	8/8/2005	9/30/2005	\$ 50,000	CAL licenses for DB and Server O/S

The Financial Management component of Serena Mariner provides a consistent method for modeling and monitoring key financial indicators (like ROI and NPV) and for continuously managing costs and benefits across the investment lifecycle.

Financial management is a critical component of selecting the right investments. Mariner supports the capture of costs and benefits over the entire lifecycle of each investment — from concept, through development and launch, and on through the maintenance and retirement phases. Unfortunately, accurate benefits estimates are tough to come by. Too often complex spreadsheets used to justify new investments boast incredible returns that never seem to materialize. Using Mariner, you'll create financial models centrally, using a consistent model that ensures estimated benefits can be captured and ultimately measured against actual returns.

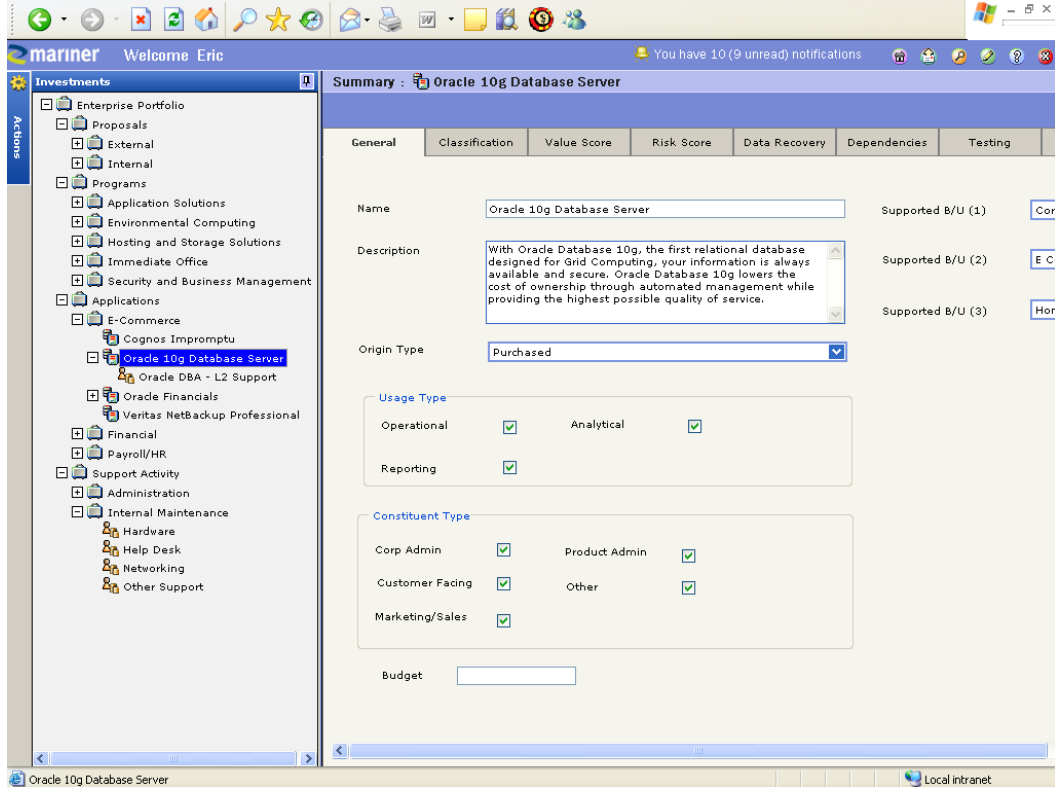
### Product Features

- **Standard Business Cases Views** — Using standard business cases, the organization can more effectively compare different types of investments, rolling up total costs and benefits across the portfolio.
- **Time-phased financial rollups** — Mariner's time-phased capabilities allow you to model and track the financial implications of project starts, stops and delays, and easily adjust your fiscal or accounting calendars. Time-phased costs, benefits and other metrics are rolled up at every level, providing accurate summary information based on highly detailed data.
- **Financial planning** — Total costs (CapEx and OpEx) for investments in the portfolio are summarized, allowing you to shift between standard and fiscal calendars to understand budget impacts and improve financial performance.

### Key Benefits

- **Improve forecasts and fiscal accountability** — Project and operations data never fits nicely into financial accounting periods. Shifting dates and changing costs make projects extremely unpredictable. Using Mariner, project costs and schedule data are updated continuously, providing timelier and better forecasts that align with accounting periods.
- **Monitor performance** — Model and monitor key performance indicators (ROI, NPV, IRR and TCO) to continuously measure plan versus actual and actual versus baseline. Mariner highlights early indicators that projects are off course, enabling you to correct small issues before they become big ones.
- **Realize benefits** — Mariner captures the benefits once the project has been deployed and allows you to track them back to the original business case for better accountability.

## Application Management:



The screenshot displays the Serena Mariner web application interface. The left sidebar shows a tree view of investments, with 'Oracle 10g Database Server' selected. The main content area shows a 'Summary' page for this application, with tabs for General, Classification, Value Score, Risk Score, Data Recovery, Dependencies, and Testing. The 'General' tab is active, showing fields for Name, Description, Origin Type, Usage Type, Constituent Type, and Budget. The 'Usage Type' section includes checkboxes for Operational, Analytical, and Reporting. The 'Constituent Type' section includes checkboxes for Corp Admin, Product Admin, Customer Facing, Other, and Marketing/Sales.

Most governance and portfolio management processes focus entirely on the selection of new business applications and the projects required to deliver them. The Serena Application Portfolio Management (APM) Solution extends the boundaries of the IT governance process to include the final products of IT - the deployed applications. By bringing to light the sheer number of applications in the current portfolio, IT organizations can begin to reduce duplication and complexity, ultimately leading to:

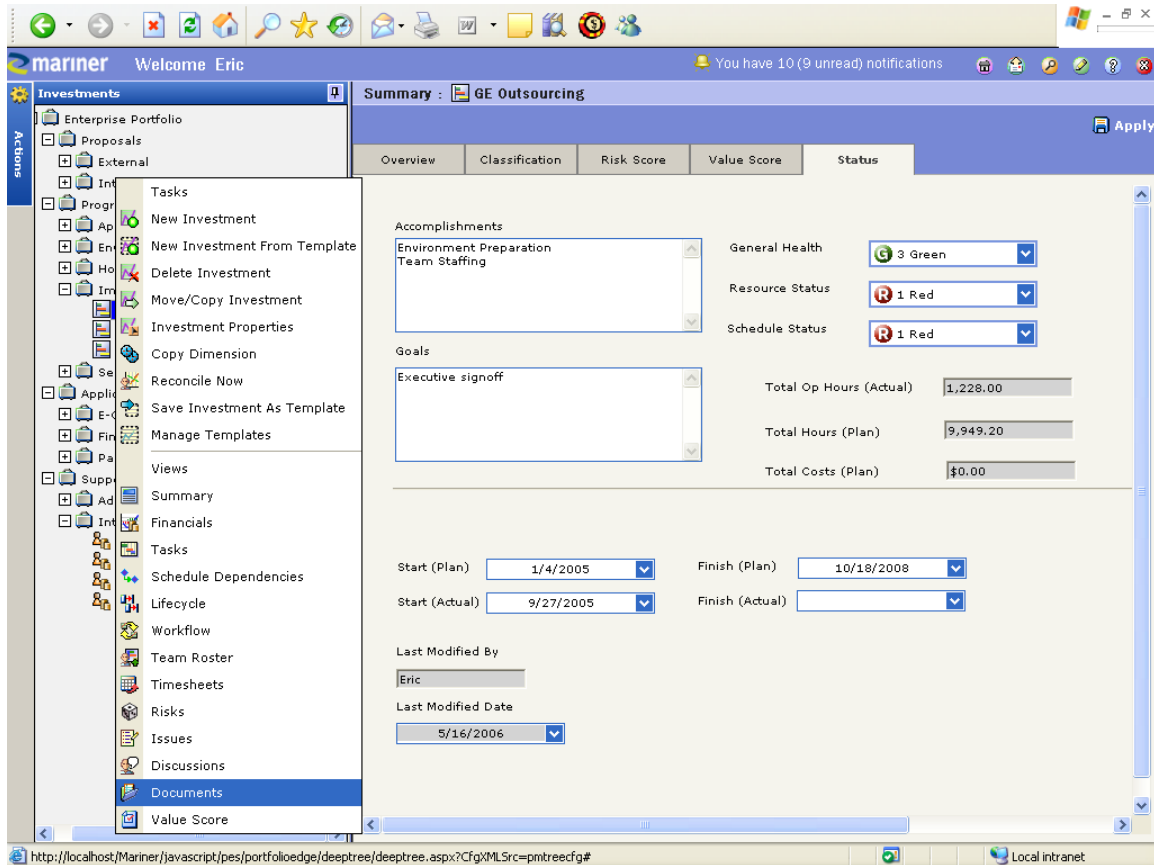
- Reduced operations costs - as much as 20% for large organizations
- Increased resource capacity for development and new projects
- Improved agility and responsiveness to business growth
- Better compliance with corporate technology and architecture standards

The APM process

Effective APM begins with ranking or categorizing applications along a number of dimensions, including business unit alignment, application characteristics, lifecycle, usage, performance and technical/architectural compliance. This assessment provides the necessary data to support decisions to replace, retire or further invest in applications across the enterprise. More advanced organizations will benefit from total lifecycle planning and management, where long-term implications of investment decisions are examined. Accountability for total costs, both direct and indirect, and benefit realization is maintained at an application level. This ensures an optimal portfolio of applications that minimizes your ongoing support and maintenance costs and frees up resources for other important business objectives.

- Efficient inventory of applications
- Support for rationalization
- Interactive analysis
- Capture of total cost of ownership

**Collaboration:**

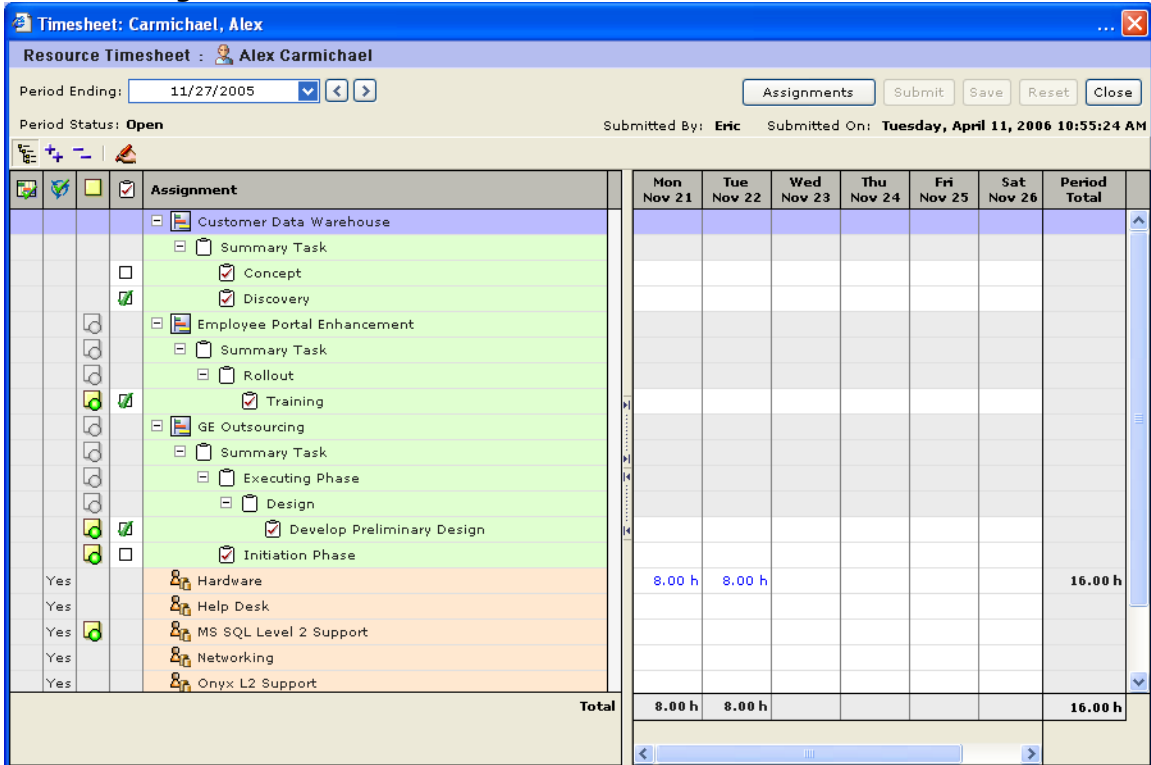


Mariner offers organizations a comprehensive set of collaborative capabilities designed to encourage knowledge sharing, make data more accessible, bring operational efficiencies, and help project teams work better together.

These capabilities, delivered within a single, integrated application framework, include:

- Document management functions allowing any electronic file type to be stored and retained with check-in/out protection and version control
- Configurable on-line and email based alerts for all key events
- Threaded, on-line discussion forums with date/user stamps allowing a project team to efficiently exchange information around items of interest or concern
- Integrated issues and risks management supporting the identification, assignment, and escalation of issues and risks throughout the portfolio and user community
- Role-based user homepages providing an efficient portal to relevant, actionable information

**Time Tracking:**



Assignment	Mon Nov 21	Tue Nov 22	Wed Nov 23	Thu Nov 24	Fri Nov 25	Sat Nov 26	Period Total
Customer Data Warehouse							
Summary Task							
Concept							
Discovery							
Employee Portal Enhancement							
Summary Task							
Rollout							
Training							
GE Outsourcing							
Summary Task							
Executing Phase							
Design							
Develop Preliminary Design							
Initiation Phase							
Hardware	8.00 h	8.00 h					16.00 h
Help Desk							
MS SQL Level 2 Support							
Networking							
Onyx L2 Support							
<b>Total</b>	<b>8.00 h</b>	<b>8.00 h</b>					<b>16.00 h</b>

Mariner provides high-performance, scalable, on-line time management functions that allow organizations to capture actual time spent on any activity or investment within the portfolio. Mariner's timesheet is a highly configurable efficient means for resources to enter their time by either calendar or fiscal period.

Review and approval by both project managers and resource owners supports a variety of organizational models and business practices.

Labor time entered is immediately available in support of performance management and cost containment throughout the investment lifecycle. This includes the ability to efficiently review actual performance relative to budgeted, planned, and forecasted values.

## Reporting:

The screenshot displays the Mariner software interface. At the top, there is a navigation bar with the Mariner logo and user information. Below this is a table of active projects with columns for Name, Branch, Type, Health, Schedule Status, Total Expenses (Plan), and Executive Sponsor. The table lists 14 projects, including GE Outsourcing, Transportation Tracking System, and Customer Data Warehouse. Below the table are two charts: 'Activity Cost Breakdown' showing a 3D bar chart of expenses by project type, and 'Branch Activity' showing a 3D bar chart of activity counts by branch. A legend for the Branch Activity chart lists various project types and their corresponding colors.

ID	Name	Branch	Type	Health	Schedule Status	Total Expenses (Plan)	Executive Sponsor
1	Summary					\$2,933,206.50	
2	GE Outsourcing	Immediate Office	O&M	G	R	\$913,473.13	Pat Dumler
3	Transportation Tracking System	Environmental Computing	Service	R	R	\$871,600.00	Terry Rozmar
4	Customer Data Warehouse	Application Solutions	Project	R	R	\$640,415.00	Ralph Collins
5	eRoom Upgrade	Environmental Computing	O&M	Y	G	\$153,200.00	Ralph Collins
6	Fiber Optic Network Linkage	Security and Business Management	Project	G	G	\$113,800.00	Eric Hinkle
7	Upgrade Customer Order Database	Immediate Office	O&M	G	G	\$84,926.36	Terry Rozmar
8	Mariner Implementation	Hostage and Storage	Service	R	R	\$47,968.00	Gene Greg
9	2 Phase HR Configuration	Application Solutions	Service	Y	Y	\$23,360.00	Terry Rozmar
10	3 Phase HR Data Migration	Application Solutions	Service	G	G	\$22,044.00	Terry Rozmar
11	1 Phase HR Tools Evaluation	Application Solutions	Service	Y	Y	\$18,200.00	Terry Rozmar
12	Employee Portal Enhancement	Application Solutions	Service	Y	Y	\$13,200.00	Gene Greg
13	Network Conversion	Hostage and Storage	Project	Y	G	\$12,000.00	Ralph Collins

Mariner offers best-in class reporting capabilities designed to make sure that information is readily available and accessible to users in the appropriate format and medium.

Through native, on-line, native ad-hoc reporting capabilities, Mariner users can easily query and organize enterprise, departmental, and investment level views of past, present, and future portfolio information. These ad-hoc queries are provided to the users in the form of interactive, graphical dashboard views that can be shared, saved, distributed, printed, or exported to spreadsheet.

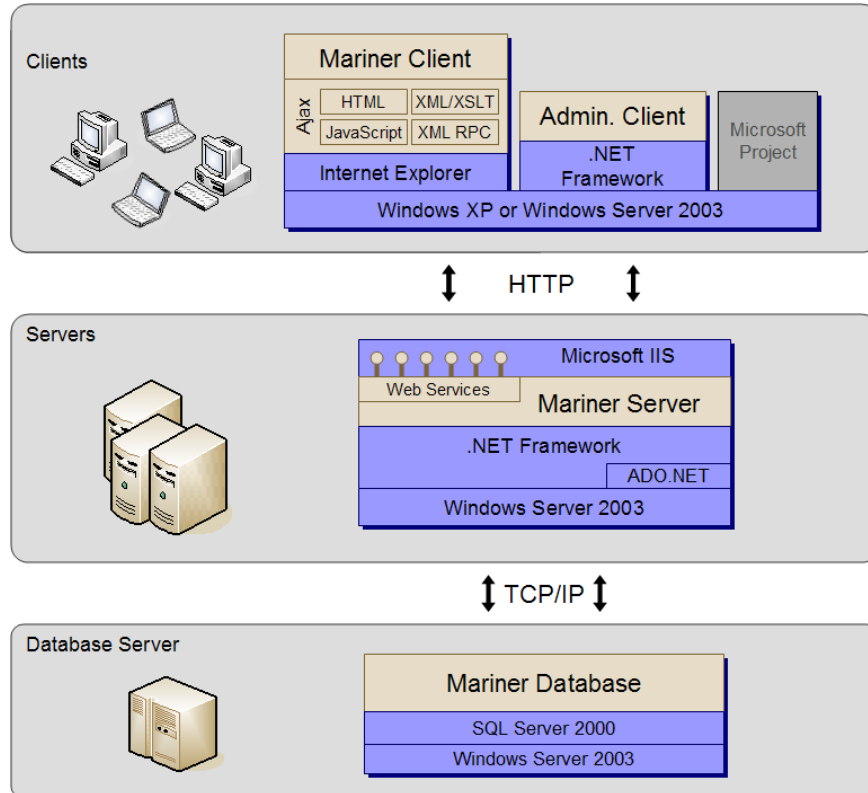
Traditional reporting is provided through Microsoft Reporting Services. Reports generated through Microsoft Reporting Services can be configured, scheduled, generated and viewed from within Mariner's user framework. Mariner provides approximately 30 valuable out of box reports addressing critical investment and resource level concerns.

### Configurability/Adaptability:

Mariner is a highly configurable solution that allows an application administrator to define fields (data elements) with characteristics such as calculations, dependent logic, and value lists. Additionally, menus, views and forms can be created/configured/modified by organizations to fit unique business needs. This 'configurability' is a key differentiator for Serena and eliminates the need for expensive and problematic software customization.

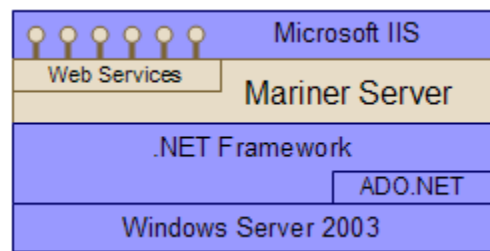
### Hardware Configuration, Operating System / Technical Architecture:

Serena products have been based on a Microsoft based platform since our inception in 1998. Mariner is an n-tier application. In its simplest configuration, Mariner has three physical tiers – the Mariner Client, Application Server, and Database Server. Users interact with Mariner using the Microsoft Internet Explorer Web browser by entering the URL of the virtual directory into which the Mariner server was installed.



Mariner has a zero-footprint client. That is, the user interface is completely implemented using HTML and JavaScript, and requires no client installation. This enables instantaneous deployment to any client computer running the Internet Explorer Web browser. Usability is not compromised at the cost of scalable deployment. The Mariner client implements an AJAX (Asynchronous JavaScript and XML) web user interface that provides the user with a rich and interactive experience.

Mariner clients interact with the Mariner Server by using the industry standard HTTP protocol which enables deployment across a wide variety of network topologies. The Mariner Server has been implemented using the proven service-based Web application architectural pattern. (Fielding R., Taylor, R. 2002. Principled Design of the Modern Web Architecture. *ACM Transactions on Internet Technology (TOIT)*. Vol. 2, 2: 115-150).



The Mariner Server is implemented using the Microsoft .NET Framework, and leverages many of its advanced enterprise application capabilities including memory management, database access, and industry standard Web services.

The Mariner Repository resides in a relational database. The data storage strategy employs advanced meta-modeling techniques. Direct relational access is not recommended. Access to the repository is accomplished exclusively through an API defined by the Mariner Server components.