



**Engineering and Construction**

# Manage risk. Protect profit.

Today's engineering and construction market is highly competitive, driving profit margins down as risks increase. It only takes one failed project to wipe out an entire year's profit. As a project-based organization who depends upon the accuracy of decisions made every day, you need best-in-class project management solutions that build a competitive advantage for the field and office. Primavera offers the most specified project management solutions in the industry to help you profitably manage the business of engineering and construction.

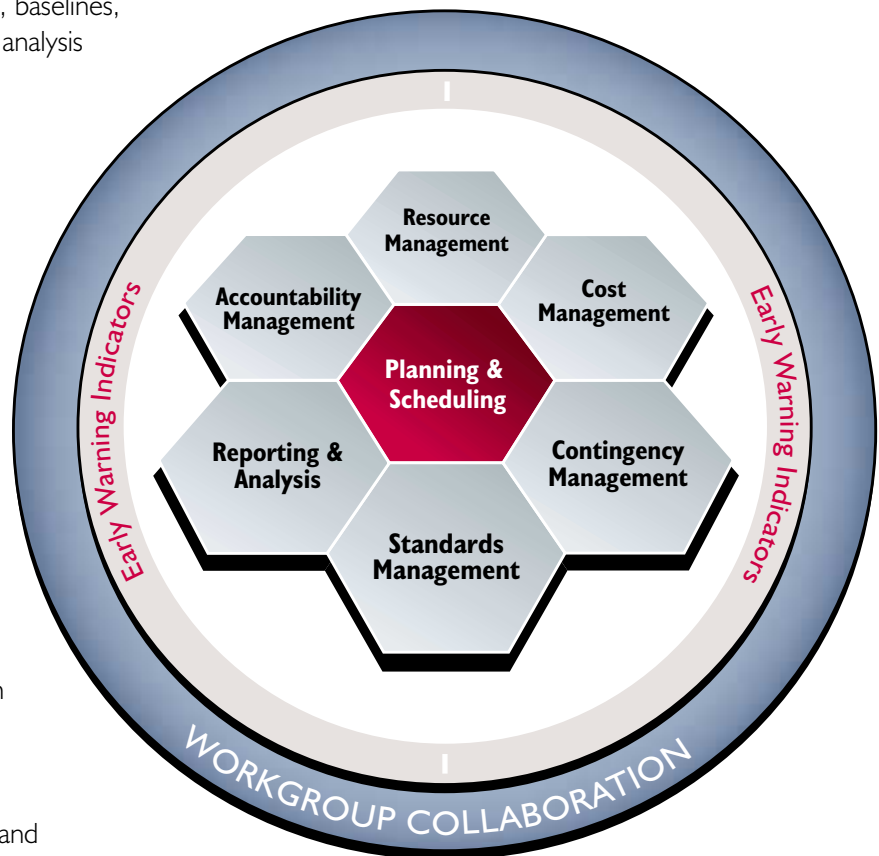
Primavera helps you:

- Obtain early warning of project risks
- Improve visibility into project performance
- Forecast project health at completion
- Collaborate with the project team

## The most trusted project management solution for the Engineering and Construction industry.

Primavera is tailored for the specific needs of the engineering and construction industry. It empowers project managers and team members to work together and reduce risk through:

- Flexible **planning and scheduling** analysis to stay on target, including critical path scheduling, baselines, Gantt charts, trace logic and "what-if?" analysis in the event of changes
- Advanced **reporting and analysis** for key performance metrics, project dashboards and lookahead reports
- Strong **accountability management** practices to track action items and responsibilities
- Better **resource management** to effectively plan labor, equipment, materials and keep everyone billable
- Integrated **cost management** to help you forecast profit, conduct earned value analysis, compare estimates and integrate with accounting
- Customizable **contingency management** to help you identify, plan and mitigate risk, track issues and set automatic alerts
- Centralized **standards management** to ensure your SOPs are best-in-class and successfully used by your entire organization



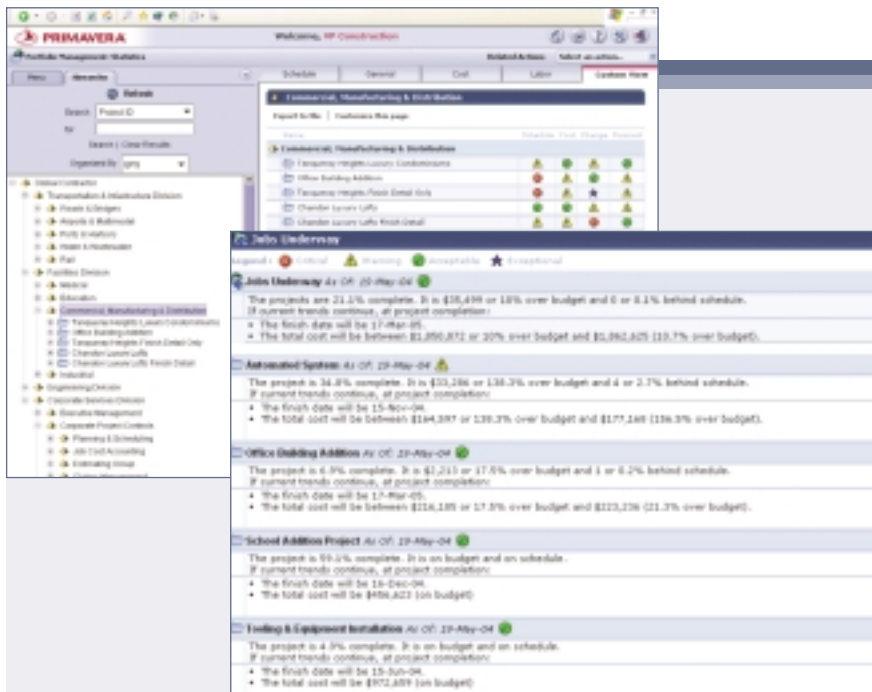
# Trusted solutions for your unique perspective.

Since 1983, Primavera Systems, Inc. has helped the engineering and construction industry deliver over \$4.5 trillion worth of projects. Primavera is ranked by *Engineering News-Record* (ENR) as the most used project management software in the industry. The reason for this is trust. Whether you are an owner, architect, engineer, contractor or subcontractor, people rely upon Primavera to deliver the most accurate information about your project.

## Many players, many perspectives. Everyone on the same page.

Engineering and construction projects are an integrated process. Owners, engineers, schedulers, program managers, management, contractors and subcontractors must communicate and collaborate to get the job done — and done right. Project risks and reduced profitability occur when critical information is kept in silos. With everyone in the loop, Primavera helps accelerate the delivery of important information to the right person.

Primavera is a powerful solution for all construction professionals. It provides centralized, simultaneous access by multiple users to all project information, from management Key Performance Indicators (KPIs) to detailed work assignments for individual team members. It gives visibility to timely and accurate information and establishes clear accountability across the project team. Primavera combines the power of a Windows® desktop with the simplicity of the Web.



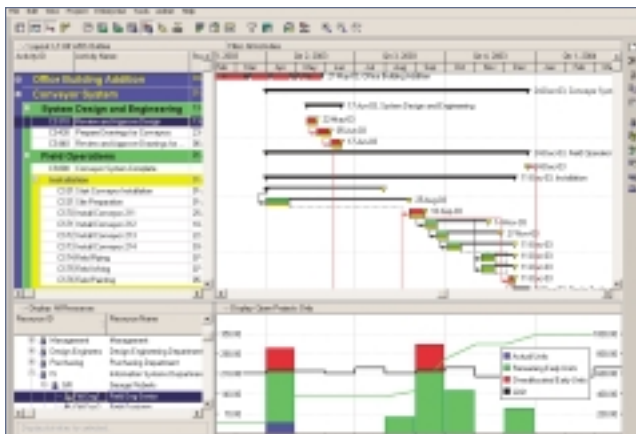
**Management** needs a way to view high-level project summaries via an interactive browser interface that delivers KPIs and management details at any given time across their business unit. General managers and operations managers can see project information the way they need it — without becoming project schedulers. Primavera displays project schedule and cost metrics so project profitability and cash flow can be forecasted.

**Owners/Clients** need access — anywhere and at any time. Clients and owners need to collaborate with project managers and schedulers to establish project delivery dates. Create a competitive advantage by providing your client with browser-based access to keep them informed. Primavera makes this easier than ever.



**Contractors** can often execute large portions of a project. Now you can provide them with Primavera Contractor — an easy-to-use scheduling tool that allows you to distribute portions of the project schedule to your subs and receive updates automatically via e-mail. Now you can keep everyone on schedule.

**Project engineers and field staff** can use Primavera as a mobile PDA option that allows field engineers or superintendents to update project status in the field — without being tethered to a computer. These users can easily check in and check out activities, providing frequent status updates.



**Professional project planners** use Primavera to schedule projects with ease, establish company standards using template technology, perform baseline analysis to understand exact project progress and easily consolidate subcontractor schedules.

# Primavera. Not just a schedule anymore.

Customizable dashboard for each member of your team

Forecast profitability at completion

Up to the minute cost and schedule health

Coordinate job meetings and inspections

The screenshot displays the Primavera Project Manager interface with several key components:

- Schedule Performance:** A table showing project metrics for 'Autumn Breezes Assisted Living Center'.
 

	To Date		Forecast at Completion	
	Schedule	Cost	Schedule	Cost
Autumn Breezes Assisted Living Center	★ 42 early	● \$3,564,717 under	● 40 late	● \$500 over
Milestones		● on budget	● 40 late	● on budget
Building 2 - Phase 1		● on budget	● 17 late	● on budget
Garage 7 - Phase 1	No Progress	No Progress	No Progress	No Progress
Building 1 - Phase 2	★ 33 early	● \$3,564,717 under	● 34 late	● \$500 over
Building 4 - Phase 3		● on budget	● 27 late	● on budget
Garage 8 - Phase 3	No Progress	No Progress	No Progress	No Progress
Building 3 - Phase 4		● on budget	● 40 late	● on budget
- Project Calendar:** A calendar for June 2004 with a list of activities such as 'Building Slab Incl. UO Utils', 'Fourth Floor Masonry Structure', and 'Roof Slab'.
- Job Site Cam:** A video feed showing a construction site with a large building under construction.
- Project Issues:** A table listing issues, including one with a 'High' priority: 'Finish Date Variance (days) is -13'.
- Critical activities behind schedule:** A table showing activities like 'Place Roof Trusses and Sheathing' with a 'Days Late' of 40 and a 'Total Float' of -2.

Custom "portlets" connect you to your job – even remotely

Manage risk effectively with automatic alerts

Proactive display of critical activities

Know which activities you should be working on today

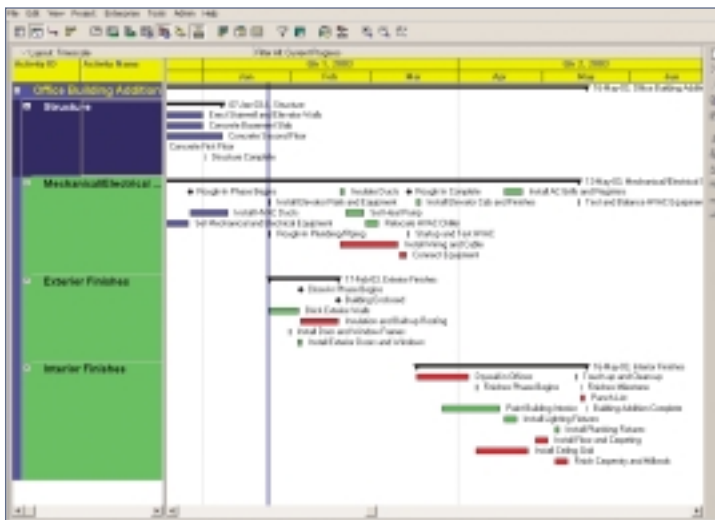
“Primavera is a proven solution that makes it easier to work together and get the job done.”

— Jerry Irwin, Project Control Director, CH2MHill

# Primavera — a complete suite.

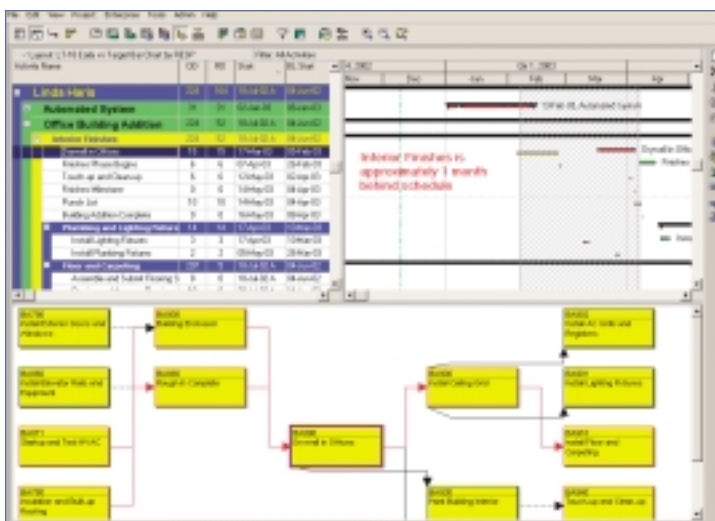
Through Primavera's full range of browser-based, client/server and desktop solutions, the right tool will be placed in the right hands. Obtain the information needed to make smart business decisions and give everyone on your team information needed to finish projects — on time and on budget.

## Project management for project controls professionals



### Plan and control large projects efficiently

Primavera provides project schedulers with the basic tools to easily plan and control projects. Schedulers can quickly create optimum project plans, zero in to understand the critical path and easily create “what-if?” projects to simulate possible adjustments — including adding resources, shortening duration by working faster, working on weekends and holidays and doubling up on activities.

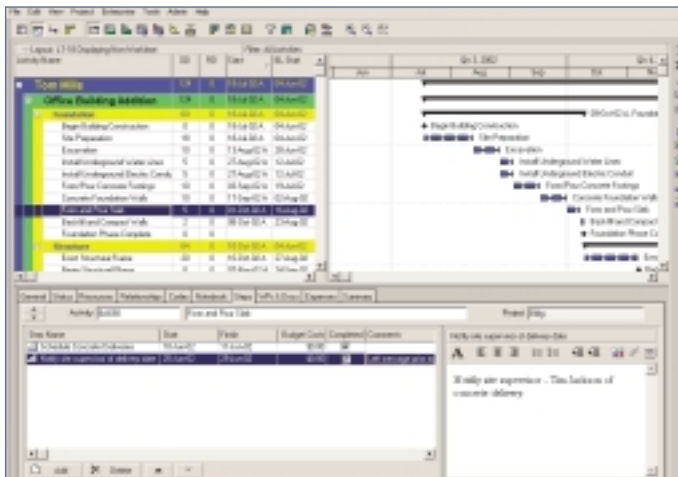
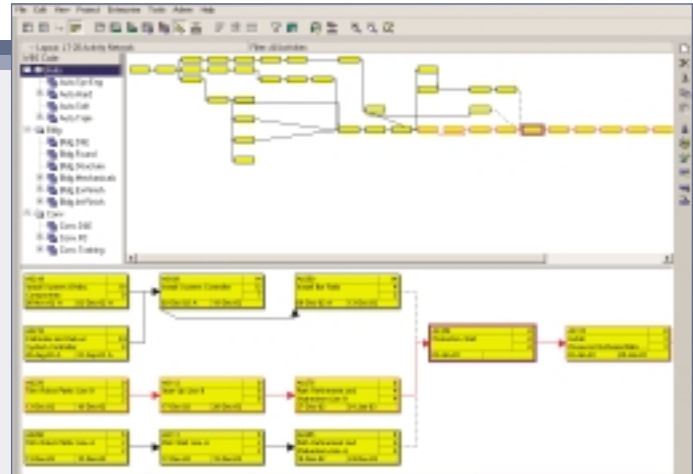


### Schedule with confidence

Primavera project management provides easy-to-use analytical tools for all project scenarios. Schedulers can examine an activity — and its predecessors and successors — with trace logic. Determine why an activity is scheduled at a particular time, and answer questions such as, Why is there negative float? Were any of its predecessors delayed? Do any of its predecessors or successors have constraints? Is the logic correct?

## PERT Diagramming made easy

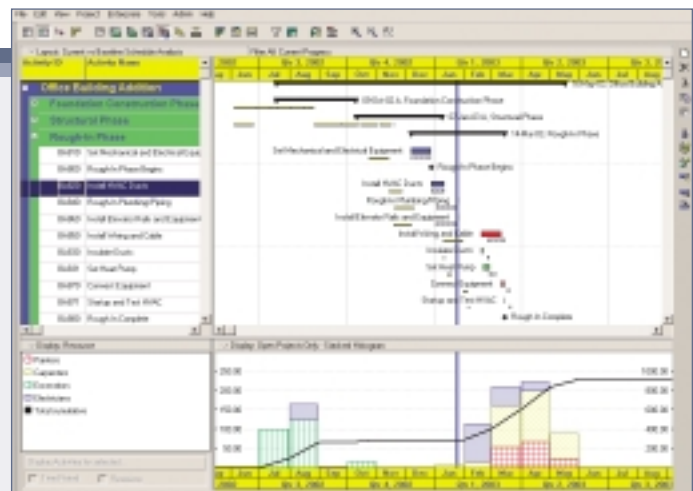
You can control nearly every aspect of diagrams, including the appearance of activities, the contents of activity boxes and the spacing between activities. Schedulers use PERT Diagramming to graphically view relationships among activities and project workflow, focus on the driving relationships and examine, edit and create activities, as well as their predecessors' and successors' logic.



## Eliminate subjective progress

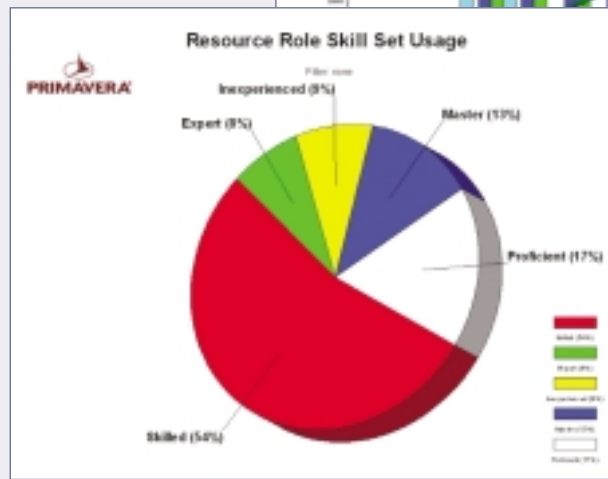
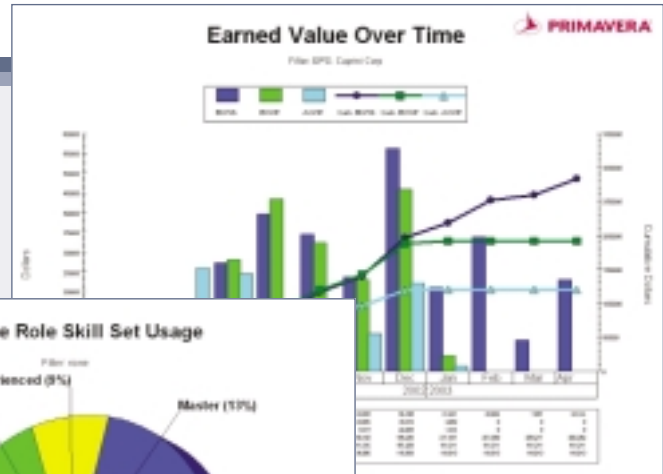
What is the difference between 20% and 30% complete? Use the Step feature in Primavera to break down activities, each with weighted completion, costs, dates and instructions required for completing the task. Steps are ideal for quantifying progress because, after all, your payment depends upon it.

**Keeping you on track** Your project controls team can create a snapshot of a project plan, providing a target against which you can track a project's cost, schedule and performance. Primavera allows the project controls team to categorize and organize baselines by type, such as initial plan, customer sign-off, approved project plan and "what-if?" plans.



# Project management for project controls professionals (cont.)

**Superior project reporting** Primavera helps project control professionals manage single projects or complex programs. Professional project schedulers use Primavera to plan and analyze multiple projects to ensure that they're completed on time and within budget and share progress.



Project: NBS

LA-01 Two Week Lookahead

Activity ID	Activity Name	Early Start	Early Finish	Activity % Complete	Total Float
<b>Autism Services Assisted Living Center</b>					
<b>Autism Services Assisted Living Center</b>					
0000	Root - 2	02-Aug-04	07-Sep-04	20.0%	00
0001	Place Mechanical/Equipment Supports	05-Aug-04	05-Aug-04	0%	25
0002	Fat and File Roofing	05-Aug-04	30-Aug-04	0%	20
0003	Electric to Building 2 Power Vault	05-Aug-04	14-Sep-04	20%	00
0004	Roofs, Utilities & Pavers	05-Aug-04	05-Aug-04	20.00%	20
0005	Envelope - 2	05-Aug-04	05-Aug-04	0.00%	54
0006	Install Exterior Windows and Sliding Glass Doors Floor 1	05-Aug-04	12-Aug-04	0%	28
0007	Install Exterior Windows and Sliding Glass Doors Floor 2	06-Aug-04	17-Aug-04	0%	25
0008	Install Exterior Windows and Sliding Glass Doors Floor 3	11-Aug-04	20-Aug-04	0%	27
0009	Install Exterior Windows and Sliding Glass Doors Floor 4	10-Aug-04	27-Aug-04	0%	27
0010	Install Building & Casit Windows Floor	05-Aug-04	12-Aug-04	0%	28
0011	Install Building & Casit Windows Floor 2	13-Aug-04	05-Aug-04	0%	24
0012	Structure - 1	05-Aug-04	30-Sep-04	54.00%	0
0013	Third Floor Warranty Division	05-Aug-04	09-Aug-04	0%	0
0014	Fourth Floor Stab & Collar Beam	10-Aug-04	23-Aug-04	0%	0
0015	Structure - 2	05-Aug-04	14-Sep-04	0%	0

**Industry standard reports** There are more than 100 industry standard reports that are included in the solution. These reports have been used in many ways including proposals, client status reports, management reports, claim litigation, arbitration, even team building. Just in case these are not enough for you, Primavera comes integrated with a report writer so you can customize any of these reports to suit your specific needs.

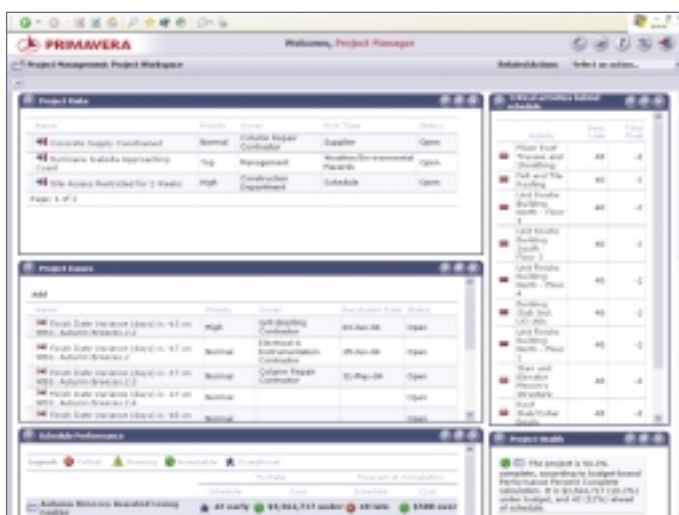
# myPrimavera

Primavera's browser access provides a collaborative platform through which team members can view current issues and risks facing project efforts to represent true project performance — including industry-standard metrics, such as earned value — against all projects within a program.

## Browser-based project management for the masses

Primavera provides personalized workspaces that deliver appropriate information to users, depending upon their role in the project. Browser applications provide anywhere, anytime access without the need to install special software on your desktop.

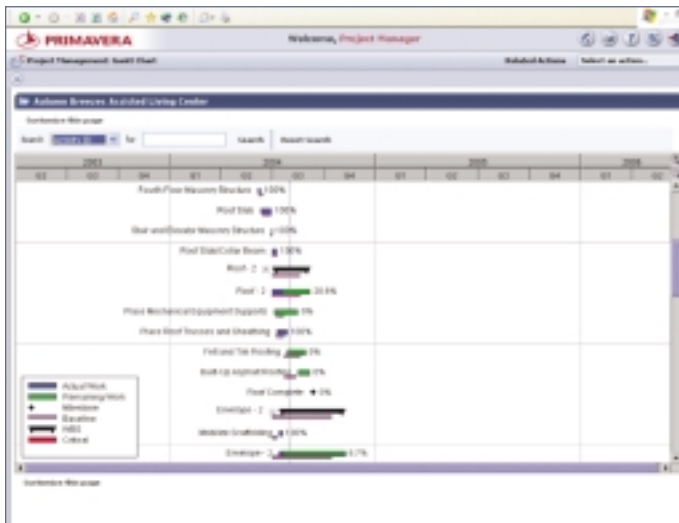
**Guided to action** The project dashboard provides vital statistics to assist the program manager in highlighting key performance metrics for a project. Project managers can highlight where action is needed — including important project milestones — with a list of critical activities that are behind schedule. This helps open team discussions and provides a true project picture to those who need it.



## Anticipate and mitigate project risks

Integrated risk management features enable your project team to identify, quantify and mitigate risks such as weather delays, late materials or sophisticated installations. Risks can be categorized and control plans can be documented as part of the overall project plan. Primavera also helps teams prepare for the unexpected through a "what-if?" project and resource simulation engine to determine the schedule and cost exposure of project risks. With this information, project managers and schedulers can flag potential risks and take necessary steps to plan an appropriate response.





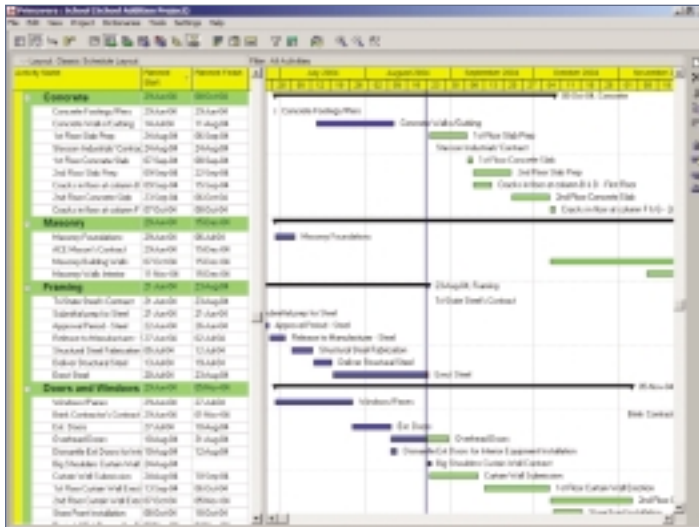
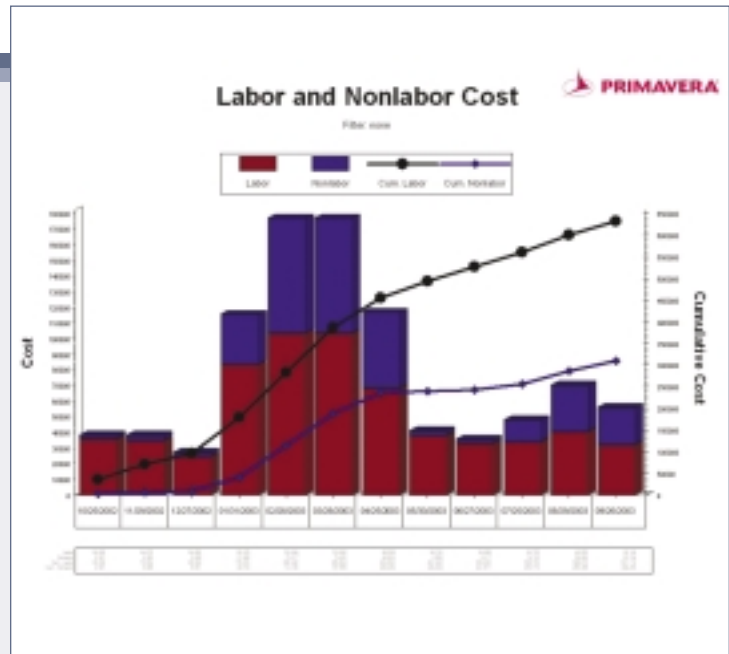
**Collaborative access for clients and owners** Build a competitive advantage by offering your client interactive access to project performance. Using a Web browser, team members — including design consultants and owners — can view up-to-date project status information, such as a 60-day look-ahead, graphical reports, summary level schedule and cost information. Users can even drill down for detailed activity information, such as notes identifying status, scope or problems encountered at the site.

**Mobile management** Primavera mobile management allows companies to take advantage of the mobility offered by handheld devices, enabling users to review and update project information on the go. Using handheld devices with the Palm OS® or Pocket PC platform, field engineers and superintendents can review and update project status information any time, anywhere — at the job site, on the plant floor or in a conference room. With Primavera, real-time status is in the palm of your hand.



## Primavera Cost Management

Improve project control with enhanced cost management and earned value analysis capabilities. Primavera enables project cost analysis to quickly understand performance trends, generate statistical estimates at completion, and adhere to ANSI/EIA 748 earned value standards for all their projects. With comprehensive cost management and earned value analysis capabilities along with period-based reporting functionality and accounting system integration, Primavera Cost Management is the ideal module for organizations that work for the government or simply want to improve control.



**Primavera Contractor** Subcontractors are often responsible for large portions of the overall project and it's important to know their progress and assess their productivity. However, with older technology, integrating subcontractors' schedules is difficult due to incompatible schedule formats and differing codes. Not any more. Now available is Primavera Contractor — an easy-to-use Windows® scheduling tool built for the subcontractor. With the SendProject feature, you are only one click away from sending and importing schedules with all of your subcontractors. Primavera Contractor is built from the same engine as Primavera Engineering & Construction for lightning fast imports and superior ease.

## Completely integrated construction processes

Primavera provides best-in-class applications that enable organizations to enhance performance in these critical areas. Our applications integrate with accounting, estimating contract management, CAD and many other systems to help you flawlessly plan multiple projects, resources, materials and schedules. Primavera helps you execute projects efficiently with construction processes.

## Primavera: In a league of its own.

Primavera is the only collaborative project management solution that project professionals need to build better projects and develop better, more successful businesses. No other collaborative project management solution offers all of Primavera's powerful features in an intuitive and easy-to-use tool. You'll see the benefits immediately.

### A proven solution

For more than twenty years, Primavera has been known as the leading provider of comprehensive project management, control and execution software. Dedication to our customers goes beyond the sales experience to encompass consultation, training and customer support.

We'll help you deal with the project-based world by providing an end-to-end solution for project management success. Primavera and Primavera authorized representatives will address your industry-specific business needs on a global, regional and local level. We offer proven methods for accelerated software implementation. We have an extensive training curriculum to provide product knowledge transfer to your staff. And we provide award-winning customer support to assist you with any technical questions that may arise.

Our goal is clear — your project management success.

**“We estimate a 30% cost savings in planning functions due to increased efficiencies in automated reporting with Primavera software.”**

— Steve Dunn, Planning Manager for GallifordTry

**“Use of Primavera software cut down the amount of losses incurred each year due to missed delivery dates. By utilizing the logic in the software, we have complete control of just-in-time delivery.”**

— John Kirsimagi, Corporate Operations  
Implementation Manager for K. Hovnanian Companies



### Free upgrade for P3 users

If you're a P3 user, upgrading to Primavera Engineering and Construction is free under your Primavera maintenance agreement.



# PRIMAVERA®

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