

# Bell Helicopter Textron Inc. Transforms Business with Earned Value Management Approach



Bell Helicopter Textron Inc.  
 Fort Worth, TX  
[www.bellhelicopter.textron.com](http://www.bellhelicopter.textron.com)

## Industry:

Aerospace & Defense

## Annual Revenue:

US\$3 billion

## Employees:

10,000

## Oracle Products & Services:

Primavera Project Portfolio Management  
 Primavera Earned Value Management  
 Primavera Risk Analysis

## Key Benefits:

- Helped restore the company to U.S. Department of Defense, Defense Contract Management Agency compliance
- Unified cost and scheduling data to ensure more effective project management
- Helped migrate to an earned value management approach

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As an industry-leading producer of helicopters, Bell Helicopter Textron Inc. has many government and military customers and must, therefore, meet rigorous federal procurement standards. Its commercial customers also demand high standards. Bell Helicopter understands that a vital component in meeting its customers’ requirements and expectations is reliable project management for the various design and development projects it undertakes each year.

However, due to outdated and disparate systems, Bell Helicopter was increasingly challenged to meet its customers’ requirements. The situation was crystallized after a discouraging Defense Contract Management Agency (DCMA) audit that documented multiple deficiencies, resulting in a loss of market confidence in Bell Helicopter and, more tangibly, in a direct monetary hit in the form of contract withholdings.

Bell Helicopter needed to undertake a complete transformation of its project management processes, an initiative that would require robust project management software. After careful evaluation, Bell Helicopter selected Oracle’s Primavera applications. With the help of Primavera and a significant culture shift to focus on earned value management (EVM), Bell Helicopter has significantly improved its performance. In 2009, DCMA returned for an audit and found Bell Helicopter to be compliant in all 32 areas that it evaluates, which places the company among only three other companies worldwide to achieve that level of proficiency. This achievement has restored customer confidence in Bell Helicopter and also enabled the company to recapture the previously withheld payments.

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Yancy Qualls  
Manager, Integrated  
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Bell Helicopter Textron  
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### **Unifying Costing and Scheduling**

Oracle’s Primavera Project Portfolio Management and Primavera EVM have helped Bell Helicopter to unify its cost and scheduling data and support EVM.

Previously, Bell Helicopter maintained its cost and scheduling data in numerous disparate, homegrown costing systems and an outdated Microsoft Projects scheduling system. For multiple schedulers to work on a project at the same time, they had to create multiple schedule files. Also, there was no integration between cost and scheduling or among contracts, limiting visibility.

With as many as 150 concurrent projects and potentially millions of schedule lines in progress at any given time, Bell Helicopter’s previous system was simply not sustainable and had resulted in users operating in numerous shadow systems and spreadsheets.

With Primavera applications, Bell Helicopter can resource a load directly to the application, meaning its cost and schedule data are always in line. Users can also collaborate via Primavera’s intuitive applications and link between contracts, ensuring that they are operating on the most up-to-date data. Bell Helicopter’s ability to conduct critical path analysis has significantly improved with Primavera’s automated features. Additionally, the Primavera applications integrate easily, enabling Bell Helicopter to interface with third-party systems such as its financial system (for reporting budget actuals).

Another problem Bell Helicopter had faced was the lack of support for EVM—widely-regarded as a vital process for evaluating progress objectively. However, EVM was not a priority at Bell Helicopter prior to the business transformation.

“Many users did just enough to get by and say they were doing EVM, but then went back to their old habits,” Quall said. “With the help of Primavera, we have taken EVM from something we did on the side because we had to and made it a key part of our business.”

### **Integrating Cost and Schedule Risk Assessment**

Another area that Bell Helicopter has improved is risk analysis. In particular, the company was looking for a solution that would help it not only meet, but exceed, the requirements for probabilistic analysis of key contract completion dates under the U.S. government's data item description (DID) document that defines the contractual requirements for all major defense contractors. The DID was the catalyst for Bell Helicopter to begin working on internal processes that would yield a stricter adherence to project management and risk management standards that exceeded government standards. Bell Helicopter also felt a solid risk analysis platform would serve to stabilize estimates and projections.

With Primavera Risk Analysis, Bell Helicopter is able to incorporate risk analysis processes into all projects, from proposals to in-progress projects to cost reduction initiatives. The Primavera tools help Bell Helicopter identify common scheduling pitfalls that may result in misleading schedule or risk analysis results and report confidence levels with regards to finish dates and costs, among other factors.

"Now, we can more accurately predict the success of a project based on schedule and cost, said Kim Herrington, vice president, Cost Management Integration, Bell Helicopter Textron Inc.

Stuart Retter, Bell Helicopter's lead for integrating Risk Management and Earned Value Management, added, "Primavera Risk Analysis provides better metrics to improve our estimates and accuracies and gives us an early look at identifiable risks that will help us improve our target dates and more efficiently evaluate our business opportunities."

Bell Helicopter completes approximately 30 risk assessments each month, some of which are contractually obligated and others it does just as a precautionary measure.

### **Documenting Processes and Delivering Reports**

To further improve its EVM efforts, Bell Helicopter realized a need to document processes for future use. It created "EZ-EV," a knowledge library of more than 3,500 documents covering everything from overviews on the Primavera tools to detailed, point-and-click directions.

Additionally, Bell Helicopter continues to improve its reporting capabilities. With a custom-built Web-based tool called Premier, the company has created a “one-stop shop” for project management data. Premier integrates data from the Primavera applications and combines it with data from other systems including Bell Helicopter’s financials, procurement, manufacturing, engineering, logistics, and quality systems, among others. Users can quickly and easily access key data including conditional metrics.

### **Why Oracle?**

In selecting a solution, Bell Helicopter needed software that was user friendly, because user buy-in was essential. Second, it wanted solutions that integrated seamlessly with each other and provided timely, actionable data. Relatively easy integration with third-party systems was also vital. At the same time, the volume and size of Bell Helicopter’s projects required a robust solution. Perhaps most importantly, the system needed to provide the data required for Bell Helicopter to be compliant with the Federal regulations that apply to its military and government contracts. Oracle’s Primavera applications met all of these needs.

“After an exhaustive evaluation process, we felt that the Primavera applications were the best choice to meet all of our business needs,” Qualls said.

Bell Helicopter’s customers seem to agree. One of its largest military customers referred to Primavera as “the Cadillac of project management systems.”

### **Implementation Process**

Once Bell Helicopter made the decision to transform its project management approach, it realized that the right choice in software was critical. The company embarked on a year-long process of evaluating all of the products on the market and attending industry conferences. After considering other products including Artemis, Open Plan, MPM, and Dekker Trakker, Bell Helicopter selected Primavera. It then implemented Primavera and migrated existing project data. Bell Helicopter continues to improve the system and roll out new features.

### Advice from Bell Helicopter

- Ease into your use of Primavera applications. Once you get to a point where the basics become second nature, then add all the bells and whistles over time.
- Make process documentation a priority. Since there are so many options and customizable features within Primavera, if you leave it uncontrolled, everyone will find their own way of doing things. Defining and documenting standardized processes will help mitigate this problem.
- Before you implement, make sure the data you are bringing in is accurate and complete. Any clean up you can do on the front end will pay big dividends down the road.
- Know software's limits. Fancy new tools won't solve all your problems and bad habits, culture changes are necessary too.

*Founded in 1935 as Bell Aircraft Corporation, Bell Helicopter Textron Inc. is an industry-leading producer of commercial and military, manned and unmanned vertical lift aircraft and pioneer of the revolutionary tilt rotor aircraft. Bell Helicopter was the first company to obtain certification for a commercial helicopter and, over its history, has delivered more than 35,000 aircraft around the world.*