

## Case Study

### 3M

#### 3M Medical Division Doubles Milestone Attainment with Integrated Project Scorecards

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***3M is a diversified technology company with a yearly revenue of nearly U.S.\$23 billion. In 2004–2005, the company’s Medical Division was not achieving its new product launch goals. Lack of a standard, simple format for communicating project status was creating project delays. To solve this problem, the division turned to an intuitive project scorecard solution, which it created with an integration of the Microsoft® Office Enterprise Project Management (EPM) Solution and Microsoft Office Visio® Professional 2003 drawing and diagramming software. The EPM solution maintains project information and Office Visio pulls the data into color-coded project scorecards that are easy to understand and share. Since using the integrated solution, the division has doubled its milestone attainment, improved business insight, simplified communications, and saved significant time on project status tasks.***

#### Situation



“ The bottom line is that in 2004, we were hitting 34 percent of our milestones, and in 2006 we hit 68 percent. In that time frame we doubled our milestone attainment. ”

**Chuck Stakston**  
Business Process  
Manager  
3M Medical Division

3M is a diversified technology company that specializes in many areas, including adhesives, abrasives, light management, and microreplication. The company’s business segments include Business and Office; Display and Graphics; Electronics and Communications; Industrial and Transportation; and Safety, Security, and Protection Services. Health Care is the company’s largest segment, earning nearly U.S.\$4 billion annually. 3M has 75,000 employees and is based in St. Paul, Minnesota.

In 2004–2005, the Medical Division of the Health Care segment, which provides surgical tapes, adhesive skin closures, and other medical products, was falling short of its product launch goals. “We were tracking our new product launches and sales and seeing that we were not growing our business at the rate we wanted to,” says Chuck Stakston, Business Process Manager, 3M Medical Division.



The company began a Six Sigma project—a business process improvement project—to address the problem. “Our goal was to figure out how to get new products into the market faster,” he says. “We used the Six Sigma methodologies to assess our process, find the root causes for delays in new product

development, and learn how to accelerate cycle times.”

“When we analyzed projects that had been canceled or in trouble or had been delayed significantly, we determined that our number one ‘critical X’ was keeping management engaged with the issues and status of our projects,” he says. “We found that projects that got launched very quickly were usually ones that had a high level of management involvement, engagement, and support, and those that were not as visible tended to struggle or be delayed or terminated.”

The next step, says Stakston, was to ask, “How could we improve everybody’s ability to know what’s currently happening with our projects?” Project teams were using Microsoft® Office Project Standard 2003 to generate plans, but, “We didn’t have a real standardized approach for either how the plans should look—what information they should contain—or how we should share them,” he says. Project managers used Microsoft Office PowerPoint® 2003 presentation graphics program to communicate with lab managers, “But often a team may have been struggling with a particular issue for some time and already lost weeks or months by the time that happened,” says Stakston. “Managers were getting frustrated because they weren’t being made aware of problems and issues at the time when they could have helped a project team resolve them.”

The division needed a solution that would give managers an opportunity to proactively support projects, thereby leading to greater product launch success. To start, it needed to provide better visibility of project plans, standardize key progress indicators, and communicate issues to managers regularly.

## Solution

In looking at their options, 3M project managers wanted to utilize a solution that was familiar and easy to use. Functionally, they wanted a solution that would present an intuitive “scorecard” type of project summary to management. And they wanted to keep project tracking time low. With all of this in mind, in April 2005, Stakston says, “We landed on the EPM-Visio scorecard solution.”

Task Name	Project Manager (Proj. Mgr.)	Scorecard Content	FTE	FTE Indicator	Expense	Expense Indicator	Scorecard Milestone	Milestone Indicator	Rtg. Question	Rtg. Question Indicator	RED	RED Indicator
1 Scorecard Tasks			No		No		No		No		No	
2 FTE's			Yes	●	No	No	No		No		No	
3 Expenses			No		Yes	●	No		No		No	
4 Milestones			No		No		No		No		No	
5 Scorecard Milestone #1	Hover task #1		No		No	Yes	●		No		No	
6 Scorecard Milestone #2	Hover task #2		No		No	Yes	●		No		No	
7 Scorecard Milestone #3	Hover task #3		No		No	Yes	●		No		No	
8 Scorecard Milestone #4	Hover task #4		No		No	No	●		No		No	
9 Rtg. Questions			No		No		No		No		No	
10 Rtg. Question #1	Hover task #1		No		No	No	Yes	●			No	
11 Rtg. Question #2	Hover task #2		No		No	No	Yes	●			No	
12 Rtg. Question #3	Hover task #3		No		No	No	Yes	●			No	
13 Rtg. Question #4	Hover task #4		No		No	No	No	●			No	
14 Rtg. Questions			No		No		No		No		No	
15 Rtg. #1	Hover task #1		No		No	No	No		Yes	●		
16 Rtg. #2	Hover task #2		No		No	No	No		Yes	●		
17 Rtg. #3	Hover task #3		No		No	No	No		Yes	●		
18 Rtg. #4	Hover task #4		No		No	No	No		Yes	●		

Figure 1. Project Professional 2003 scorecard template

With the help of Milestone Consulting Group (a Microsoft Gold Certified Partner) and Visibility.biz (a Microsoft Visio® Partner), Stakston was able to bring his scorecard solution

concept to reality. Milestone Consulting Group implemented the Microsoft Office Enterprise Project Management (EPM) Solution—which includes Microsoft Office Project, Microsoft Office

Project Portfolio Server, and Microsoft Office Project Web Access. The group worked closely with Stakston and his team to develop a standard project template with custom project tracking metrics, views, and macros. Visibility.biz helped 3M take advantage of its investment in Microsoft Office Visio Professional 2003 drawing and diagramming software. The company assisted Stakston in developing an automated, standardized project status report, and a top-priority projects "heatmap" design, using information that Office Visio pulls directly from the EPM Microsoft SQL Server™ 2005 database. The result is an integrated solution jointly developed for the complete project scorecard process.

Monthly, project managers create and update top priority projects using standardized Project templates. Managers track key project metrics using green, yellow, and red graphical status indicator markers. "We chose the metrics based on our lessons learned from past projects." Green denotes that the metric is on track with an action plan; yellow denotes the action plan is started but not progressing well; and red means the action plan is either not started or not progressing well.

The division tracks key metrics that include:

FTEs. Full time equivalent resources (people).

Milestones. "Key milestone dates are established at the beginning of each year and tracked for timely delivery. Anything lagging by three months is considered a 'red' condition," says Stakston.

Big questions. The primary questions the project is dealing with that need to be answered for it to be successful. For example, "Will the customer actually buy this?" Stakston says.

Expenses. Does the team have the budget needed to cover expenses?

Product features (or "NUD" for "New, Unique, and Difficult"). This includes "product features that we've gathered from our voice of market or voice of customer research that says that if we can deliver on these, the product should be successful in the market," he says. "We track whether the team is able to deliver on the most critical of all of those things."

Risks, Issues, and Action Plans. "This is where we summarize the top issues and risks on the scorecard," says Stakston.

After managers determine the status of the project, they can quickly generate a scorecard. Managers select a "Build Scorecard" button, which prompts Visio Professional 2003 to generate the scorecard. Visio Professional retrieves the project scorecard data from the EPM SQL Server database and creates the scorecard view.

"Each of the project managers responsible for all the top priority projects generate a scorecard and present them to lab managers once a month," Stakston says.

After generating the scorecard, the project manager selects "Publish" to publish the scorecard to the corporate metrics dashboard Microsoft Office SharePoint® site. Managers have the option to modify the data before doing so. At the end of the month, Stakston uses another Visio template



**Figure 2. Single, automated Office Visio-Project Professional 2003 scorecard**

developed by Visibility.biz to instantly compile all of the scorecards into a single PowerPoint slide deck, and generate a summary "heatmap" of all projects. The heatmap lets project stakeholders quickly spot projects at risk.

"Sometimes we share just the heatmap view to show how things are going," says Stakston. "Hopefully everything is green. But that's not always the case, so if there are yellow or red status lights, we can zero in on which projects are having the most trouble."

"We use the slide decks so that each of the project managers can come in and give a quick summary to lab managers on what's happening on this project," he says. "That presents an opportunity for the lab manager to help us solve the problem. There's a dialog about what's needed for any yellow and red conditions to go back to green."

"If there's something that the lab managers can't deal with at that time—for example, if we are missing a resource—the technical director brings that to the division level and requests a resource, or whatever the case may be. These are the kinds of things that happen as a result of creating and presenting the scorecards once a month."

The solution also helps 3M Medical Division track projects after they are launched. Stakston says, "We continue to track them for at least a year, in a slightly different format. At that point, we're tracking whether we are hitting our sales forecasts, our unit costs, quality feedback, and customer satisfaction goals."

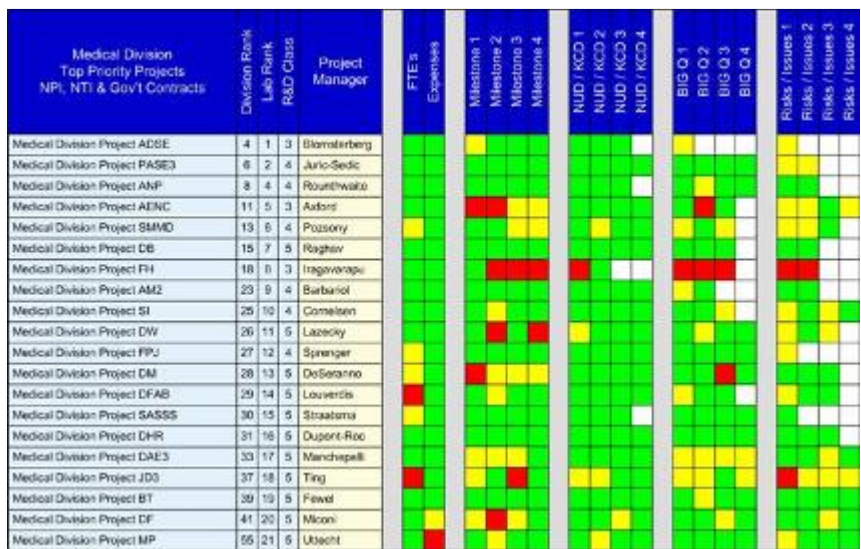
## Benefits

"The scorecard solution helped us quickly put together information that reflects the current status of our projects, and keep management closely engaged with them," says Stakston. After successfully deploying this solution, the division has doubled its milestone attainment. Managers have improved business insight and agility, communications are simplified, and project managers spend less time on project status reporting.

### Doubled Milestone Attainment

"The bottom line is that in 2004, we were hitting 34 percent of our milestones," says Stakston, "and in 2006 we hit 68 percent. In that time frame, we doubled our milestone attainment and implemented a solution that did not increase reporting time for our project managers."

The ultimate measure of the solution's success, Stakston says, is whether it helps the division achieves its milestones and accelerates new product development. "If anything, this solution is catalyzing that opportunity. It's an enabling process that helps us get the job done—better, faster, cheaper—and ultimately it affects the top line and the bottom line."



### Improved Business Insight

Publishing the scorecards to the SharePoint Web site, "gives us the ability to connect everybody and have a level of visibility that we never had before." With the use of intuitive colors and schemes, "The Visio presentation lets us

Figure 3. Summary "heatmap" of all scorecards see important information very easily," Stakston says.

Because the presentations have been standardized with identical format and content, "It not only standardizes the message to management," Stakston says, "but we can look at the scorecards and figure out very quickly which ones have issues, understand what those issues are, and focus on resolving them."

### Simplified Communications

Previously, the division had no consistency in how it communicated its projects. "By standardizing and automating it," says Stakston, "everybody is using the same method of communication in the same format."

## **Project Manager Timesavings**

Today, project managers are working on their project plans, while simultaneously keeping their scorecards up to date. "The process of transferring the information to the overall presentation has been completely automated," he says.

"For me, there were times when I could spend an entire weekend trying to get the summary charts together and make sure the boxes in my spreadsheet were the right color. With this solution, the original plan gets instantly translated to the summary page. So what used to take me, say, 16 hours on a weekend, I can do now in a minute."

Part of the timesavings is the ability to work in a single application, says Stakston. "We used to bounce back and forth from one application to another, with no connection between them. Now, we have the convenience of working in one application. That has been a huge timesaving benefit."

As for more widespread deployment of the solution, Stakston says, "Other 3M divisions are looking at our solution and asking questions about what we've done."

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