

**NUCLEUS
RESEARCH**

Case Study D134
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ROI ANALYSIS YOU CAN TRUST™

ROI Case Study: Microsoft Project AMS

THE BOTTOM LINE

AMS implemented Microsoft Project to enable managers to automate the process of measuring performance across multiple projects. The system allowed AMS to create complex reports in less time without hiring additional staff.

ROI: 114%

Payback: 11 months

THE COMPANY

AMS is a global business and IT consulting firm to the government, financial services, and communications industries. AMS applies both proprietary and partner technologies and provides solutions through business consulting, system integration, and outsourcing. Founded in 1970, AMS is headquartered in Fairfax, Virginia, and has offices worldwide. The company has approximately 6300 employees.

THE CHALLENGE

Several years ago, AMS developed an internal project management system called Project In A Box. Based on Lotus Notes, the homegrown system was becoming inefficient and costly to operate, particularly because it was designed as a standalone, noncollaborative product. When a new consulting project was set up, a new instance of the database has be created, leading to a chaotic system with literally hundreds of separate databases. Without any kind of centralized information sharing, it was difficult to use information from one project on another project. The system also prevented AMS's managers from viewing companywide metrics, such as project completion rates and whether projects were being completed on time and on budget.

AMS's executives needed a system to allow them to have a portfolio view of the health of the company's projects in progress. A collaborative project management system would allow AMS managers to:

- Measure project performance and earned value metrics (EVM) allowing for improvements in on-time and on-budget delivery to customers.
- Standardize processes
- Understand the impact of task dependencies within complex projects
- Share information across different product lines

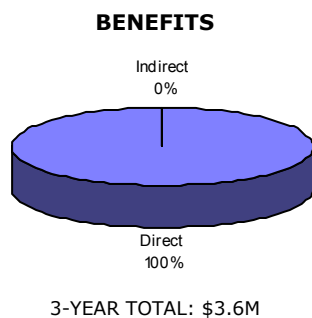
THE STRATEGY

Many AMS project managers were already using Microsoft Project as a desktop application, developing project plans and work breakdown structures (WBS's) on their individual PCs. However,

these individual installations were not networked together and did not feed critical project performance information to executives. Therefore, in October 2002, when AMS began the vendor selection process for a companywide project management solution, Microsoft Project was the natural choice, both because many internal users were already experienced with the application's scheduling and planning functionality and because Microsoft offered the best price point.

In March 2003, AMS chose Microsoft as its project management software vendor and began a pilot program. In June 2003, AMS selected the public sector product engineering group as the first department to begin the pilot program. AMS divided this initial pilot program into four distinct phases:

- Phase 1. In early July, AMS installed Microsoft Project for and trained 15–20 project managers working on a common product line.
- Phase 2. In late August, AMS expanded the installation to 170 people in another product line within the same group.
- Phase 3. In late September, AMS rolled out Project's decision support capabilities to ten executives, allowing them to mine data for reporting purposes.
- Phase 4. If the pilot is successful, AMS will expand the Project program to 4,000 users companywide in a staged rollout.

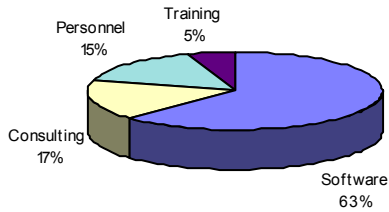


KEY BENEFIT AREAS

With the pilot program well under way, AMS is already seeing benefits from Microsoft Project. The system has helped AMS meet its goal of creating a more collaborative project management system that allows managers to view metrics and create schedules with a view of resources across projects and across the entire organization. The collaborative nature of Microsoft Project Server allows team members, team leaders, and project managers to complete EVM reporting more quickly, leading to more available time for billable hours. The quantifiable benefits from the Microsoft Project deployment include:

- Productivity gains from automated weekly reporting process. Consultants and developers now spend less time each week creating weekly status and performance reports, leading directly to more time available for billable hours.
- Productivity gains from automated earned value metrics analysis. Team leaders and project managers now spend less time processing and analyzing status and performance reports from team members, allowing them to also have more time available for billable hours.
- The Microsoft Project deployment also allows AMS project managers to get a better sense of project status metrics in real time. This leads to fewer project budget and cost overruns, because project managers can quickly make adjustments to keep projects profitable.

COSTS



3-YEAR TOTAL: \$1.2M

KEY COST AREAS

The largest cost area for AMS's deployment of Microsoft Project was the software license cost, making up 63% of the total cost of the project. Other cost areas over the 3-year period included consulting, training, ongoing maintenance, and personnel costs associated with everyday use of the system.

LESSONS LEARNED

Overall, AMS's Microsoft Project implementation went smoothly. AMS's managers attribute the project's success to their careful planning and staged pilot program approach.

AMS's managers recommend that companies considering similar implementations not underestimate the change management necessary to make Microsoft Project work effectively. Project managers, especially those without PMI certifications, will often need to undergo training on how to build effective work breakdown structures, how to plan and schedule complex projects, and how to adjust WBS's to changing project conditions.

A successful Microsoft Project implementation also requires a high level of communication between team members and project managers. This is especially important with regard to communicating the inputs, steps, expected output, and dependencies of complex business processes.

AMS's managers also recommended that companies carefully look at their internal processes for building WBS's, especially ones for complex projects that require more than 500 tasks. Some of AMS's projects contained upwards of 2500 tasks, which was well above Microsoft Project's practical limit of 500 tasks for single project.

CALCULATING THE ROI

Nucleus Research analyzed the costs of software, personnel, consulting, and training over a 3-year period to quantify AMS's investment in Microsoft Project. Direct and indirect benefits were also quantified over a 3-year period.

Direct benefits quantified included productivity gains for both team members and team leaders when creating EVM reports.

Because AMS was an early adopter, and because it agreed to participate in trade shows and in marketing ventures, the company received consulting services from Microsoft at no cost, though AMS did use internal consultants for a portion of the implementation. Companies currently considering Microsoft Project for similar enterprise implementations must take consulting costs into account when evaluating potential ROI.

Benefits not quantified because of the early stage of AMS's Project deployment included reduced project budget and schedule

overruns. However, Nucleus recommends that companies considering Microsoft Project evaluate this potential benefit.

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SUMMARY

Project:	Microsoft Project Server
Annual return on investment (ROI)	114%
Payback period (years)	0.95
Net present value (NPV)	489,489
Average yearly cost of ownership	198,365

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	728,000	728,000	728,000
Indirect	0	0	0	0
Total Benefits per Period	0	728,000	728,000	728,000

DEPRECIATED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	232,600	0	0	0
Hardware	0	0	0	0
Total per Period	232,600	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	46,520	46,520	46,520
Hardware	0	0	0	0
Total per Period	0	46,520	46,520	46,520

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	0	69,780	69,780	0
Hardware	0	0	0	0
Consulting	63,011	40,000	0	0
Personnel	59,660	9,672	9,672	9,672
Training	31,248	0	0	0
Other	0	0	0	0
Total per Period	153,919	119,452	79,452	9,672

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
Net cash flow before taxes		608,548	648,548	718,328
Net cash flow after taxes		327,534	347,534	382,424
Annual ROI - direct and indirect benefits				114%
Annual ROI - direct benefits only				114%
Net present value (NPV)				489,489
Payback (years)	0.95			
Average annual cost of ownership		505,971	292,711	198,365
3-year cumulative ROI	158%			
3-year IRR	96%			

FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	15%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the application profiled in the accompanying case. Financial modeling tool, format, and methodology copyright Nucleus Research Inc., all rights reserved.