



**NUCLEUS  
RESEARCH**

CASE STUDY E78  
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ROI ANALYSIS YOU CAN TRUST™

## ROI Case Study: Microsoft Business Solutions-Solomon Edison Welding Institute

### **THE BOTTOM LINE**

Edison Welding deployed Microsoft Project Server with Microsoft Business Solutions-Solomon to better manage its project resources and expenses. The company has drastically improved the utilization rate of existing engineering resources and minimized cost overruns.

**ROI: 504%**

**Payback: 3 months**

### **THE COMPANY**

Edison Welding Institute (EWI) is the nation's leading organization dedicated to materials joining and related technologies. Headquartered in Columbus, Ohio, EWI's staff members provide materials joining assistance, contract research, consulting services, and training to more than 3,300 customers and federal agencies, including the US Navy for which it operates the Navy Joining Center.

From its 132,000 square foot, state-of-the-art facility, EWI's 130 staff work hand-in-hand with customers to increase product quality, productivity, customer satisfaction and profitability by delivering innovative solutions to today's most critical manufacturing issues.

### **THE CHALLENGE**

EWI's engineers used Microsoft Project on a standalone basis to manage project activities, while the business staff of EWI used Microsoft Business Solutions-Solomon to manage all project accounting tasks. As the organization's project scheduling and accounts systems were separate, this led to inefficiencies. Because the data entry process was mostly manual, reporting of project status and resource management was sometimes delayed. As a result, project managers had difficulty predicting cost overruns.

EWI decided to deploy a project and resource management system that was fully integrated with the financial and accounting system, and that could provide a singular and accurate view of enterprise-wide project activity.

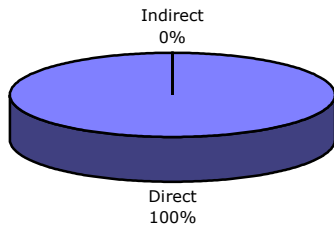
### **THE STRATEGY**

In December of 2001, EWI began a trial of the beta version of the Microsoft Project Server solution. A project team including an internal IT person and a consultant from Microsoft Business Partner AccuNet worked on installing the software and integrating it with EWI's existing Microsoft Solomon system.

The integrated project management and accounting system was beta tested by eight power users who underwent two days of training. Before the system was deployed in the first quarter of

2001, 20 users participated in a pilot. Currently 60 people in EWI have Web access to Microsoft Project Server to enter and view project data, while 130 employees use Microsoft Solomon to enter their project timecards and expense information.

### BENEFITS



3-YEAR TOTAL: \$1.48M

### KEY BENEFIT AREAS

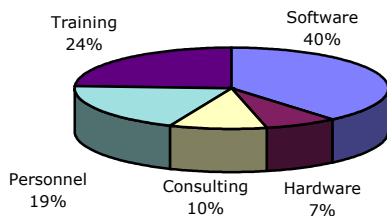
Using Microsoft Solomon and Microsoft Project Server to manage the allocation and consumption of resources has enabled EWI to minimize project delays and improve the utilization of its technicians and engineers. Key benefits of the solution include the following:

- Increased utilization rate. Better management and allocation of resources has meant that EWI's billable staff has increased the percentage of time spent on revenue-generating activities. Since the deployment of the integrated system, EWI has experienced an average increase of 6 percent in utilization rates over the past three years.
- Reduced operational costs. Improved cost controls gained from better visibility of project assignments and resources, has enabled EWI to significantly reduce cost overruns. Central storage of all project data enables decision makers to easily monitor project status and make adjustments before costs escalate.

### KEY COST AREAS

Key costs included software, training, personnel, consulting, and hardware. Software, including licenses for Microsoft Project Server and annual maintenance fees for Microsoft Solomon, made up the largest cost category, accounting for 40 percent of total project costs. Training for EWI's staff comprised 24 percent of the project expenses. Personnel costs for system installation and ongoing support totaled 19 percent. Consulting costs totaled 10 percent, while hardware costs came in at 7 percent of the overall project budget.

### COSTS



3-YEAR TOTAL: \$136,726

### LESSONS LEARNED

In order to better meld EWI's business processes with the Microsoft technology, EWI's IT staff devoted time to customizing fields and views in Microsoft Project so that it could provide project reports that met EWI's information requirements.

EWI also had to work on synching the reporting functions of the Microsoft Project Web front end with that of the client version of the system, so that all employees could view the same reports regardless of how they accessed the system.

## **CALCULATING THE ROI**

Nucleus calculated the costs of software, hardware, consulting, personnel, training, and other investments over a 3-year period to quantify EWI's total investment.

Software costs included the cost of Microsoft Project Server licenses and annual maintenance, as well as the annual maintenance fee for EWI's existing Microsoft Solomon licenses.

Direct benefits calculated included reduced operational costs due to improved project cost accounting, and increased utilization rates for EWI's employees. The benefit for increased utilization was calculated based on the profit from the increased revenue generated by EWI's billable employees, 60 percent of which is attributed to the technology.

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**SUMMARY**

Project:	<b>Microsoft Business Solutions-Solomon</b>
Annual return on investment (ROI)	<b>504%</b>
Payback period (years)	<b>0.22</b>
Net present value (NPV)	<b>632,850</b>
Average yearly cost of ownership	<b>45,575</b>

<b>ANNUAL BENEFITS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Direct	0	442,092	307,992	734,871
Indirect	0	0	0	0
<b>Total Benefits Per Period</b>	0	442,092	307,992	734,871

<b>DEPRECIATED ASSETS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	0	0	0
<b>Total Per Period</b>	0	0	0	0

<b>DEPRECIATION SCHEDULE</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	0	0	0
Hardware	0	0	0	0
<b>Total Per Period</b>	0	0	0	0

<b>EXPENSED COSTS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	26,797	8,824	8,824	8,824
Hardware	10,000	0	0	0
Consulting	13,879	0	0	0
Personnel	11,750	4,900	4,900	4,900
Training	33,128	0	0	0
Other	0	0	0	0
<b>Total Per Period</b>	95,554	13,724	13,724	13,724

<b>FINANCIAL ANALYSIS</b>	<b>Results</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Net cash flow before taxes		428,368	294,268	721,147
Net cash flow after taxes		278,439	191,274	468,746
<b>Annual ROI - direct and indirect benefits</b>				<b>504%</b>
Annual ROI - direct benefits only				504%
<b>Net present value (NPV)</b>				<b>632,850</b>
<b>Payback (years)</b>	<b>0.22</b>			
Average annual cost of ownership		109,278	61,501	45,575
3-year cumulative ROI	1019%			
3-year IRR	433%			

**FINANCIAL ASSUMPTIONS**

All government taxes	35%
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.