

NUCLEUS
RESEARCH

ROI: 86%
Payback: 1.4 Years

PLEX SYSTEMS

THAI SUMMIT AMERICA

ANALYST

Andrew MacMillen

THE BOTTOM LINE

Thai Summit America deployed the Plex Smart Manufacturing Platform to modernize its enterprise resource planning (ERP) capabilities and continue its transition towards cloud software implementations. The company realized time and cost savings and increased the productivity of both its financial and operational staff. Nucleus found that Plex's ability to centralize data on one platform and connect departmental workflows has enabled Thai Summit to verify results and create reports more quickly than it previously could. Since deploying Plex, Thai Summit has implemented production cycle analysis and reduced the amount of working capital that it requires each year.

THE COMPANY

Thai Summit America is a majority-owned subsidiary of Thai Summit Group with headquarters in Howell, Michigan. The company was established in 1987 and provides its customers with engineering services, stamping and assembly capabilities as well as tool and die design, construction, modification and refurbishment. Thai Summit America primarily serves the North American market and employs nearly 1,000 staff across its sites.

THE CHALLENGE

Thai Summit was previously using an on-premises version of QAD for its ERP needs and had outgrown its deployment. Employees only used the application for financial management and its on-premises structure could not scale up to accommodate the organization's data load. Many of the ad-hoc systems in place for reporting and resource allocation were limited either by a lack of scope or inefficient construction that prevented decision makers from seeing a holistic view of the company's current position.

The company was also leveraging multiple software tools to support the system's maintenance requirements and provide additional back office functionalities, including human capital management. The separation of enterprise applications prevented any kind of profitability analysis and led to logistical weaknesses in the company's supply chain. There was no real-time collaboration between Thai Summit's departments which caused delays in the company's daily operations and monthly close process.

**Cost : Benefit
Ratio**

1 : 1.4

THE STRATEGY

Thai Summit began the implementation of the full Plex suite in January 2019 and went live with its deployment two months later. The company considered an upgraded cloud version of QAD ERP, but selected the Plex Smart Manufacturing Platform for two primary reasons:

- **Consolidation.** Thai Summit's top priority was to simplify its IT ecosystem so it could redeploy assets away from software and process maintenance to strategic planning and growth initiatives. Plex enabled the company to retire all of its extra solutions and move their associated processes to its platform.
- **Scalability.** A foundational element of Thai Summit's short-term roadmap is sustained growth and the company needed its new ERP solution to manage new product lines and use cases in addition to handling increased volumes of existing sales and operations. Plex presented itself as a long-term growth partner, and Thai Summit has plans to further expand and develop its existing implementation.

TYPES OF BENEFITS

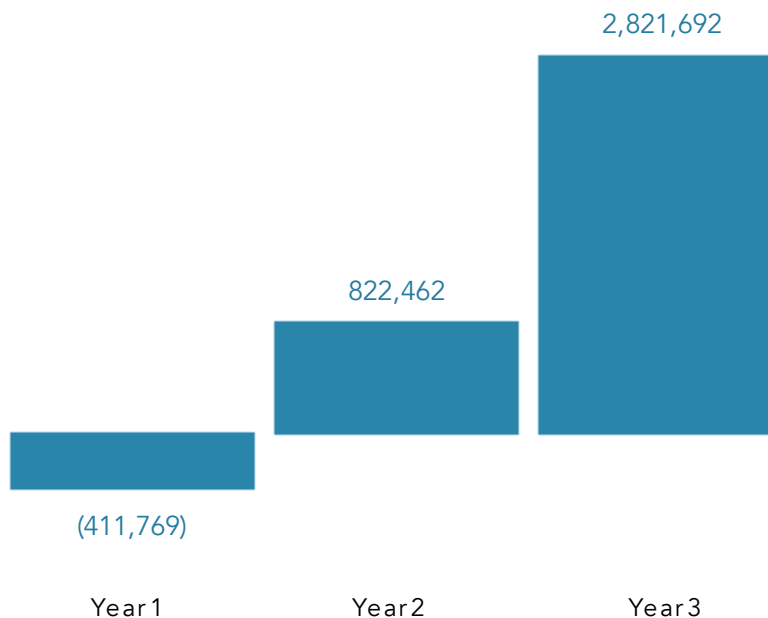


KEY BENEFIT AREAS

Despite the upfront costs of configuring new software, Thai Summit experienced a relatively short payback period on its investment. Key benefit areas seen as a result of the Plex deployment include:

- **Eliminated costs.** After going live on the Plex Smart Manufacturing Platform, Thai Summit was able to retire its deployment of QAD ERP and eliminate the associated costs from its books. The company has also redeployed resources away from data entry and legacy process support to more valuable strategic planning work.
- **Cost savings from reductions in working capital.** Because Thai Summit has more granular visibility into its data, floor managers can track transactions and address material surpluses and shortages more quickly. The increased accuracy in operational forecasts delivered by Plex has enabled the company to carry less inventory while maintaining service rates and customer satisfaction.
- **Increased user productivity.** Thai Summit has realized time savings with Plex's prebuilt workflows and task automation capabilities. Thai Summit employees can complete twice as much work each month due to task automations and real-time connections to data and support documentation, enabling the company to scale up its operations without increasing employee headcount.

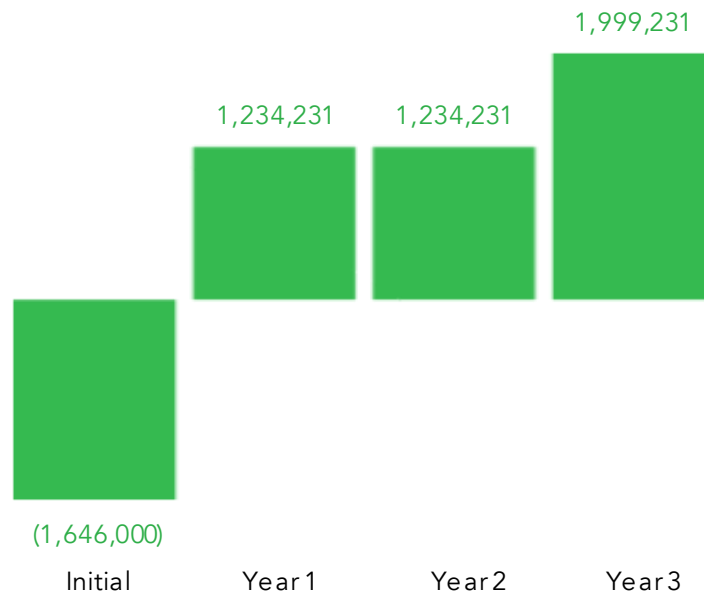
CUMULATIVE NET BENEFIT



KEY COST AREAS

The largest cost area of the Thai Summit America deployment was the purchase and configuration of the Plex software. Other cost areas over the three-year period included the price of new hardware (including tablet computers, mobile hand scanners, and sensor hardware upgrades), personnel time for the employees who executed the implementation, and employee time spent being trained on the new system.

NET CASH FLOWS



LESSONS LEARNED

When enterprise application projects affect a critical mass of employees and processes, ownership and accountability must be shared as much as possible. Thai Summit America had total executive support for both the new software and the subsequent change management, which was crucial for the success of the Plex deployment. The company has also invested heavily in making “champions” out of long-term Plex stakeholders who possess deep expertise with specific business departments. Thai Summit Plex champions can create new workflows for specific tasks and then standardize those procedures to train future employees on those tasks.

Moving to a simpler IT setup with a higher adoption level has enabled Thai Summit America to implement coordinated best practices to inform decision making and increase efficiency. Interdepartmental approvals have all been consolidated onto the Plex platform, while employees can now access and work on materials remotely through the Plex Document

Control System. When engineering changes are requested, Plex workflows automatically adjust material requirements and notify departments of the modifications in real time. Thai Summit has also configured its product quality planning so that engineering work is measured against preset milestones, with email reminders automatically sent to teams that fail to meet program objectives.

Because all data is stored in one place, value-add strategic work has been democratized to more departments within the company. The new organizational visibility enables Thai Summit employees and external auditors to work more efficiently and plays a central role in decision making across the company. Plex workflows keep each employee informed of what is needed at any given moment and the overall progress of ongoing projects, leading to streamlined inventories and improved reporting accuracy. Thai Summit's business analysts and infrastructure technicians work closely together to continue expanding the scope of Plex's use cases and drive additional value as the company grows.

CALCULATING THE ROI

Nucleus Research analyzed the costs of software, hardware, personnel, professional services, and user training over a three-year period to quantify Thai Summit America's total investment in Plex technology in US Dollars. Direct and indirect benefits were also quantified in US Dollars over the three-year period.

Direct benefits quantified included the eliminated costs from retiring its legacy ERP solution and the associated maintenance, and the reduced cost of working capital from streamlining inventory requirements.

Indirect benefits quantified included the time savings from Plex's prebuilt workflows and automated capabilities and increased efficiency of both financial and operational staff. Nucleus calculated the time savings benefit using the fully loaded cost per hour of employees. Time savings were multiplied by a correction factor to account for the inefficient transfer of time between time saved and additional time worked.

FINANCIAL ANALYSIS

Annual ROI: 86%

Payback period: 1.4 years

BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	535,000	535,000	535,000
Indirect	0	2,679,231	2,679,231	2,679,231
Total per period	0	3,214,231	3,214,231	3,214,231

COSTS - CAPITALIZED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	141,000	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	141,000	0	0	0

COSTS - DEPRECIATION	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	28,200	28,200	28,200
Project consulting and personnel	0	0	0	0
Total per period	0	28,200	28,200	28,200

COSTS - EXPENSED	Pre-start	Year 1	Year 2	Year 3
Software	765,000	765,000	765,000	0
Hardware	0	0	0	0
Consulting	440,000	0	0	0
Personnel	0	1,215,000	1,215,000	1,215,000
Training	300,000	0	0	0
Other	0	0	0	0
Total per period	1,505,000	1,980,000	1,980,000	1,215,000

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
All government taxes	45%			
Cost of capital	7.0%			
Net cash flow before taxes	(1,646,000)	1,234,231	1,234,231	1,999,231
Net cash flow after taxes	(968,750)	691,517	691,517	1,112,267
Annual ROI - direct and indirect benefits				86%
Annual ROI - direct benefits only				-66%
Net Present Value (NPV)				1,189,466
Payback period				1.4 years
Average Annual Cost of Ownership				2,273,667
3-Year IRR				60%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the solution.