Case Study

ManuLogix
Transform Your *Ideas!*

Enterprise Resource Planning

EXECUTIVE SUMMARY

Client: Stainless Motors
Location: Albuquerque, NM
Customer Since: Jul, 2010
Users: 35

Challenge

Client was experiencing growth, but was facing manufacturing issues in aligning with customer's expectations in both quality and delivery schedules. Multiple Issues were stated:

- Lack of insight on ordering raw materials
- Broken tools that caused unloading of CNC machines
- Slight variations in their motor specifications
- Improper use of stocked raw materials
- Unable to substitute and track Bill Of Material changes

COMPANY'S PROFILE

ManuLogix's client **Stainless Motors** manufactures stainless steel motors with over 1000 models ranging from 1/2 HP to 20 HP for pharmaceutical and food and beverage industry, following GMP standards. Client wanted to introduce new line of products sanitary power transmission equipment.

ENTERPRISE RESOURCE PLANNING PLATFORM - SMART

System for Material and Resource Tracking (**SMART**) was specifically designed by the stakeholders. Stainless Motors was facing several problems in production, inability to forecast proper raw materials requirement, decreased customer satisfaction due to delays.

Since this client is a small business, ERP vendors such as **Epicor** and **NetSuite** recommended **changing their business practices to suit their respective software**.

Goal#1: Build a custom ERP that envelops their Business Processes and helps them scale up their operations as their teams grow and more CNC machines are added.

Goal#2: Platform shall be easy to use and provide close tracking of inventory consumption.

Goal#3: Increase Employee Accountability. Enhance worker productivity with real-time tracking of Jobs, Production and workflow using touch screen computers.

Goal#4: Quicker turnaround from Orders to Cash, Reduced Paper Work, Increased Operational efficiencies

DISCRETE & REPETITIVE MANUFACTURING FUNCTIONALITY

SMART was designed and developed with customer in mind and can be modified to suit any client's business processes.

SOLUTION: We met the client and the stakeholders: Sales, Production, Purchasing, Accounting, Engineering staff and workers independently. Each has highlighted what issues they were facing with the current system and how they want the new system to behave. We heard all their concerns and provided a functional specification document that encapsulated their requirements.

We refined these requirements and identified milestones for a base release. Base release featured breadth wise functionality in all the roles, screens with access rights and permissions.

We built **an nTier MVC .NET 4.0 web application,** with **CrystalReports** 2010, **SqlServer** 2008.

The following were the features of **SMART**:

➔ Sales, Quotations and Work Orders

➔ Invoices/Receivables/Check Reconciliation

➔ Purchase Orders/Payables/Check printing

➔ Inventory Management

Benefits:
- ✓ Quick turn-around : Orders to Cash
- ✓ Improved Operational Efficiency
- ✓ Increase Employee Accountability
- ✓ Tighter Inventory Control

➔ General Ledger

➔ Production Orders, Routing, Tracking

➔ Bill Of Materials w/ Versioning & Parts substitution & History

➔ Shipping/Receiving

➔ Engineering/CAD/Docs/Tasks/Validations

➔ Tools, Repairs & Returns Inventory Control

➔ Per Dashboard Analytics

➔ Over 75 Crystal Reports

➔ Management Console for Admin

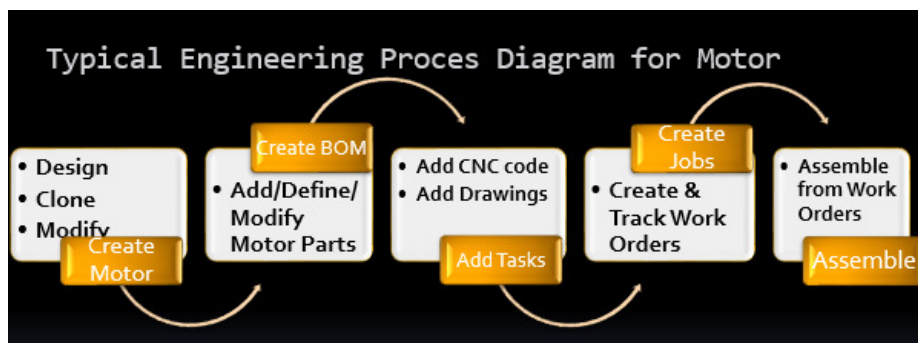➔ Payroll Management

ManuLogix Inc
Established: Jan 2010

16 Overlook Drive
Tyngsboro, MA 01879

Employees: 19

PRODUCT ENGINEERING

Technologies: .NET MVC, PHP Zend Web Applications, REST services, Ajax, JQuery, IOS Apps, Android, Windows Azure, SliverLight and more

SCRIPT YOUR ENGINEERING AND PRODUCTION

Typical Engineering Proces Diagram for Motor

Design & Engineering:

→ Attach Bill Of Materials
→ Attach CNC Code/Drawings
→ Clone Motor or Substitute BOM parts
→ Assemble Motor
→ Pack, Ship & Invoice
→ Reconcile Payment

Purchase Orders

Receive Partial	Receive Partial Line Item

Force Close after Partial Order Received	Validate Payable with received shipment	Pay multiple POs with single check

Shipping Order

Ship Partial Order	Ship Partial Line Item

Ship to Multiple Customer sites	Reconcile Multiple Invoices with Single check	Reconcile Multiple Invoices from different orders with signle check

Project Outcome :

During beta testing, client has used the system and wanted us to address few feature platform tweaks to increase productivity for their users. We have implemented and deployed successfully – all within their budget and reasonable time frame changes. We figured, if we take some additional time and give client, what they wanted, they will come back for additional work. We were right.

Client has liked the performance of the product deployment and asked us to design a **Payroll module**. It integrates to their Worker Clock management. Payroll is run weekly by one person and supports salaried and hourly, generates W2, Accounting information for monthly IRS Submissions, provides all types of deductions, Overtime, Double time, Unpaid Time Off and more.

After 3 years of deployment, client still has needs for growth and improving operational efficiencies.

TECHNOLOGY

	WEB APPLICATION	**IPAD**
Platform	MVC4.0, ASP.NET/C#, IIS7.0, SQLServer 2008	IOS7.0
Tools	Visual Studio 2010, Crystal Reports 2010	XCode5.x
Others	JQuery/JavaScript, HTML5, CSS3.0, REST Services, Telerik Controls, Ajax, XML/JSON	JQuery/JavaScript, HTML5, REST Services/JSON

Next Steps

If you like our solution and approach, please contact us:

1. We will have a phone conversation to assess your needs
2. We may need to meet with your team to understand clearly your business processes and any specific requirements
3. Your implementation may involve data migration, if you have an existing system or data import, if you are using an ad-hoc storage
4. Implementation to deployment may take 3 to 4 months depending on the customization
5. We will have a test run on a parallel basis with your existing system for validation of the system
6. We can then taper off the use of old system and completely utilize the new system