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Case Study

Continuous Improvement

Big Three Automaker Driving Best Practices

The manufacturing plants of a Big Three Automaker had been achieving dramatic continuous improvement results on a case-by-case basis. However, the results were largely isolated and proven solutions were not easily shared. NuTechs was asked to design and implement a tool to facilitate leveraging these continuous improvement activities across the company's North American divisions.

The automaker required the ability to exchange ideas and share specific achievements between operating facilities in an effort to document best practices of the various plants.



Traditional methods of passing paper reports between divisions and sending people from plant to plant to implement common best practices had proven far too costly and slow in generating the rate of improvement demanded by the marketplace. This automaker

needed a way to create a best practices knowledge repository for continuous improvement activities throughout entire enterprise. The input had to be structured to allow only proven, substantiated methods. A requirement to move beyond traditional methods of communication to allow instantaneous dissemination and access to documentation and methodologies was imperative.

NuTechs performed an analysis to determine how to deploy ideas and methodologies across the company. It quickly became obvious that simply entering contributions from thousands of people in an electronic knowledge bank was inefficient.

Determining Obstacles

A number of obstacles stood in the way of creating an optimal knowledge repository:

- **An approval process was needed** allowing only viable methods to become part of the company knowledge repository. Unproven or unsubstantiated methods cause confusion and wastes valuable time and resources
- **An efficient way to catalog and index all of the information was needed.**

The Challenge:

Move beyond traditional, paper-based methods of communication to allow instantaneous access to successful, proven solutions. Create knowledge repository for continuous improvement activities throughout entire enterprise to facilitate exchange of ideas and proven methodologies. Streamline input to allow only proven, substantiated methods.

The Solution:

Lotus Domino Workflow was customized to achieve desired functionality. Implemented hierarchical controls to restrict enterprise-wide access until appropriate approval level is granted to ensure only approved best practices are distributed. Flexible design accommodates many possible approval sequences.

The Results:

Increased communication of best practices between plants. Elimination of paper forms for submission of best practices and elimination of printing costs of training manuals.

How would other locations be able to quickly sift through the knowledge repository for information to address their problems? For example - if an improvement idea affected cost and quality on certain manufacturing processes in a certain location, how should it be classified for future retrieval by different locations that have different processes but similar issues?



- **The content and presentation needed to be consistent.**

Each location had its own standards and methods for documentation. This made it difficult for other locations to quickly review and understand whether a given method had merit in another location.

- **The solution needed to be flexible.**

It is impossible to anticipate every variation of how processes are completed. Flexibility in a solution was a must.

- **Access to subject matter experts was needed.**

Traditional methods of correspondence proved to be ineffective. Paper messages

were easily ignored or lost, and “phone tag” resulted in frustration.

Solution Exceeds Expectations

Due to the complexity of the approval workflow, and adherence to the automaker’s standards, Lotus Domino Workflow was chosen to expedite development.

Domino Workflow is a Lotus tool set that allows developers to design and maintain workflow applications. NuTechs followed the requirements of each plant and designed a solution to cover a broad range of needs.

Hierarchical controls were implemented to restrict enterprise-wide access until appropriate internal approval is granted to ensure only approved best practices are distributed.

The flexible design accommodates many possible approval sequences. For example, some divisions required plant manager approval of the best practice, while others required a committee consensus. The solution allows each plant the ability to choose their approval workflow type. Available types include single approver, 100% consensus, majority rules and x of y approval.

Seven Databases Make Up The Solution:

Web Administration:

This houses keywords, graphics and JavaScript for web pages.

Bulletin Board:

A read-only database that stores training information, training manuals, schedule of training classes, and subject matter expert profiles.

Discussion Forum:

Allows for interactive discussions.

Practice Sharing Review:

Users submit best practice concepts and images for review and approval.

Practice Sharing:

Holds approved best practices for distribution to other plants.

Digital Images:

Stores all approved digital media.

On-line Help:

Holds all system help documentation.

The Results

The solution has dramatically increased the communication and implementation of best practices across all plants. The elimination of paper forms for submission of best practices and the elimination of printed training manuals has significantly reduced costs.

Because Domino Workflow was used to build the workflow scripts, end users can easily modify the approval flow chart and change the approval sequence without requiring design changes by technicians.

The final Return on Investment (ROI) after worldwide deployment is still being calculated. However, the savings

calculated during the pilot period has been proven to be a multiple of the initial investment in the first year alone.

Contact NuTechs

Our approach ranges from planning your project to assisting in training and managing the 'paradigm shift' that occurs when technology is applied in new and powerful ways.

NuTechs has a fully developed and proven methodology that drives quick and effective deployment.

NuTechs provides support for all aspects of your IT project, from defining the IT strategy and infrastructure to identifying and enhancing critical business processes. Our experience uniquely positions NuTechs to understand the interdependence between complex IT problems and business issues, and the need for practical, workable solutions.

Contact NuTechs today for a confidential review of the current state of technology in use at your firm. We will assist you in determining the best way to leverage your existing technologies and business processes. The opportunities to improve and reduce costs are real, providing the right tools and methodologies are implemented.

We look forward to working with you.

About NuTechs

NuTechs is an information technology consulting services firm located in Bloomfield Hills, Michigan. NuTechs provides a full spectrum of information technology consulting services including solutions for:

- Groupware
- Manufacturing Solutions
- Networking
- Enterprise Messaging
- Web Strategies
- Technology Consulting Services

NuTechs' consulting solutions customer base includes DaimlerChrysler Corporation®, Ford Motor Company, BancOne, Comerica, Fry Multimedia, The Phoenix Group, and KMart.

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