

A MitemView Customer Reference

Solution Overview

Industry
Manufacturing

Application
Procurement

Business Solution
PC based intelligent front-end to Dun & Bradstreet (D&B) Software's Millennium™ Purchase Order Module

Architecture
Visual Basic™ front-end using Mitem View® for access to mainframe D&B application and PPG custom mainframe modules

Products Used
Microsoft's Windows™ 3.11
Microsoft's Visual Basic™
MITEM Corp.'s Mitem View 4.1
D&B Software's Millennium™
Novell SAA Gateway™

Benefits
Streamlined requisitioning, approval, and purchasing functions (paperless); reduced training and administrative costs; conservative productivity and operational savings exceed \$600,000. Extended viability of D&B system 5-7 years.

PPG Industries is a \$5.8 Billion manufacturer and supplier of flat and specialty glass products, fiber glass, coatings and industrial resins, and specialty chemicals for the automotive, home and industrial markets. In 1989 the PPG Glass Group converted to Dun & Bradstreet Software's Millennium™ financial applications (D&B) in all 21 North American Glass Division facilities. The new systems were installed to improve financial aspects of their business which includes: accounting; purchasing; storeroom, raw and packaging materials, and glass inventories. PPG developed requisitioning and invoice approval modules and installed D&B Human Resources. One theme, however, continues to prevail about D&B: *the system is user unfriendly*. PPG users who write or approve requisitions, approve invoices, or even "power users" can be heard to say: "In this age of desktop computers, why can't someone make D&B as easy to use as my other desktop tools?"

"The system (Millennium) was good, but the user interface left a lot to be desired ... even for the experienced user."
Ralph Siebach
Global Director, Field & Facilities Purchasing
PPG Industries, Inc.

Key Business Issues

The D&B implementation was a success from several aspects - financial, supplier consolidation, one standard database, and major reductions in PPG headcount. There were two major issues, however, challenging the complete success of the D&B implementation. First, the use of paper requisitions and paper invoices were determined to be unacceptable for the

D&B implementation because PPG was converting to a regionalized purchasing and accounting strategy. This was a critical operational issue. To correctly implement a regionalized approach and take full advantage of the new system, approval for all

requisitions and invoices from the remote plant sites needed to be processed electronically. Secondly, as previously described, the system was difficult to use and generally unfriendly to a variety of users.

Re-engineering the Business Process

A creative solution was designed to address these problems by building an intelligent front-end system which hid the complexities and unfriendliness of D&B and presented the user community with an intuitive, PC based, graphical interface (Figure 1). Plant Managers, with a single mouse click, could approve or redirect requisitions or invoices. Purchasing professionals who were experts at using the Millennium system eight hours a day in command line mode, greatly benefited from the re-engineered workflow by eliminating numerous keystrokes and transforming dozens of 3270 mainframe screens. Repetitive steps were converted to simple interactions with buttons, icons, and pull down menus. One or two graphical screens were substituted for many mainframe screens. By re-engineering the workflow for both the infrequent and expert users, productivity gains were achieved. "Now purchasing professionals can spend less time working with D&B and more time on the business of procurement" said Jack Zumwalt, Manager Regional Purchasing, Glass Business Group.

Main Requisition Screen

Supplier Data and Number: 73442000
STANLEY PROCTOR CO
530 LAKEVIEW PLAZA BLVD STE G
COLUMBUS, OH 43085
Phone: 614-436-4887 Fax: 614-421-0515

Requisition Number: RQDCR2320
Requisition Action: Purchase
Requisition Date: August 17, 1995
Requisition Total \$: \$808.75

To Be Used For: LINE 24 C.E. UPGRADE MODICON; SUPPLIES
Buyer: BDA

Required Date: August 30, 1995
Confirmed PO Data: N
Supplier Contract: AA273
PO Number: AA326

Department and Charges: AA 326 03236940000 500418
Subledger Account: F XA
Buttons: Create Split, Create Notes

Item	Quan	U/M	Description	Pr/Unit	Unit Price	Ext. Amount
01	2	EA	MODICON P/N AS-EM85-300 EN	U	350.00	700.00
02	200	LB	DISPOSABLE TOWELS - #77409	U	.54375	108.75

Buttons: Save / Unapproved, Save / Approved

figure 1

"Even though the D&B system internally was excellent overall, the part that most of the people see and use is the human interface for requisitioning, approval of requisitions and invoices."

Jack Zumwalt
Manager, Regional Purchasing
Glass Business Group

"What previously required a user to traverse and interact with 12-15 mainframe screens to perform a function is now one or two GUI screens."

Dan Bonner
Senior Purchasing Agent

"The new GUI system is so fast that our purchasing professionals retrieve data (from the D&B mainframe system) as quick as from their local hard drive."

Betty Hilliard
Senior Purchasing Specialist

Approach

A small, 4 person team working together as an adjunct to their normal job responsibilities conceived, defined, modeled, programmed, and implemented the final solution over an eight month period. "We started at the beginning, from the user's perspective, to really understand the plant facilities user and purchasing buyer requirements for purchase orders, requisitions, approval of requisitions and invoices," said Zumwalt. Each user group had different workflow requirements. From this initial analysis, PPG was able to design a new electronic workflow and graphical interface that more closely followed their business process.

Key Features / User Benefits

- All text fields now have full word processing and spell check capability.
- Real time information is available on requisitions and purchase orders with a single mouse click.
- Requisitioner and purchasing can easily find requisition and cross referenced PO delivery dates and pricing in one graphical screen.
- Requisition and invoice approvals are accomplished with a single mouse click.
- Charge numbers, ship to, bill to codes, and preferred vendor selection are available from pull down menus.
- The new graphical requisition is visually similar to PPG's old paper requisition form.
- The D&B database files are not duplicated at the desktop.
- Frequently used clauses, i.e. sentences, paragraphs, and documents, are user defined and easily imported into any requisition or purchase order with a single mouse click.
- Spending for various accounts is easily retrieved by managers.

Technology

PPG selected the Visual Basic™ programming environment from Microsoft for constructing the graphical representation of the re-engineered workflows. MitemView from MITEM Corporation was used to provide the communications middleware for interacting with the Millennium host system and the additional PPG host modules (see Figure 2).

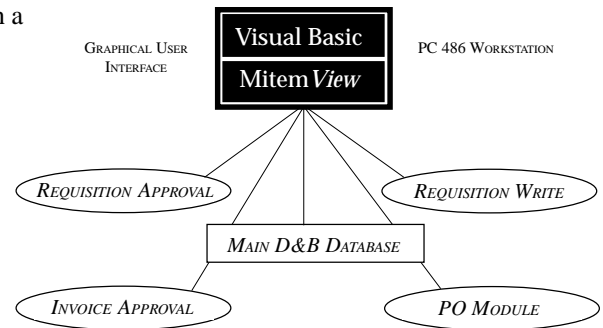


figure 2

Mitem View

MitemView is a PC based, non-invasive technology. MitemView enabled PPG to collapse several mainframe screens into one graphical screen. No software was installed on the PPG mainframe. A patented middleware technology, MitemView provides a number of services in the form of a communications framework which aided PPG in developing their new PC based application. Once the conceptual design was completed, a single programmer using Visual Basic and the MitemView tools created the interface to the Millennium system. The programming began in August and was completed by late November, 1994. The new PC graphical interface is being rolled out to all of the 21 PPG Glass facilities in North America with a total user population in excess of 1,500. Since its introduction in December, the user reception has been very positive. The users are delighted with the new GUI front-end to D&B. "As we implement, we are removing the only major objection to Millennium - the user unfriendliness," said Zumwalt, "now, D&B works like a local PC application with local performance."

For more information

For more information about Mitem View please call 1-800-82-MITEM E.S.T. or visit our home page <http://www.mitem.com>

©1995 - 1999 MITEM Corporation. All rights reserved. This document is for informational purposes only. MITEM CORPORATION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY. MitemView is a registered trademark of MITEM Corporation. Windows and Visual Basic are registered trademarks of Microsoft Corporation. Millennium is a registered trademark of Dun & Bradstreet Software. Novell SAA is a registered trademark of Novell, Inc.