

A Mitem View Customer Reference

Solution Overview

Industry
Medical Research

Application
Procurement

Business Solution
Single, integrated PC based intelligent front-end to Geac's (formerly D&B Software) Millennium[®] Purchase Order Module; on-line catalog and EDI.

Architecture
Visual Basic[®] front-end client using Mitem View[®] for access to IBM based PO application and EDI functions.

Products & Services Used
Microsoft's Windows 3.1, Windows 95, NT 3.5, and NT 4.0 Operating Systems
SoftWindows[®] O.S. for Macintosh
Microsoft's Visual Basic 3.0
MITEM Corp.'s Mitem View 4.1
Geac's Millennium P.O. Module 2.00.02
Novell SAA Gateway 2.0

- Benefits**
- Elimination of the paper procurement process
 - Substantial reduction (by more than 1/2) in procurement approval and processing time.
 - Maximized purchases based on an integrated on-line vendor catalog and price comparisons.

The Howard Hughes Medical Institute (HHMI), located in Chevy Chase, Maryland, is the nation's largest private nonprofit source of biomedical research and science education. The Institute was founded in 1953 by the aviator-industrialist Howard R. Hughes. The total value of the Institute's endowment at the end of their 1995 fiscal year was \$8.2 billion.

HHMI is a medical research organization whose scientists study the biological mysteries that underlie health and disease. Their facilities are located throughout the country at leading universities, academic medical centers, and teaching hospitals. Under collaborative relationships with these institutions, its scientists use the tools of molecular biology to shed light on cancer, AIDS, and other diseases.

In addition to its medical research efforts, the Institute's grant program sponsors the largest private science education program in U.S. history. The program also supports the research of outstanding biomedical scientists abroad.

Since 1990, the Institute has disbursed over \$1.5 billion in support of medical research and education.

Business Problem & Objectives

The Institute conducts research in over 60 geographically distributed laboratories throughout the U.S., each of which is supported by a regional administrative office. Among other services, these offices provide purchasing support and in many instances are located a considerable distance from their customer laboratories. Because of the nature of their research, scientists engaged with the Institute are constantly changing as projects are completed and new ones are initiated. Each research project requires a variety of laboratory equipment and supplies.

A major objective of the Institute is to support these research efforts in the most efficient and cost effective manner.

Infrastructure

HHMI had an established, integrated set of mainframe based financial applications supporting their operations. The procurement process used the Millennium PO software module from Geac Computer Corporation, Ltd. (formerly Dun & Bradstreet Software). "Our system [Millennium], although fundamentally sound, is complex and labor intensive when it comes to user training. Training our scientist and lab personnel to interact directly with the Millennium System would have been both costly and ineffective. When considering our requirements for a requisitioning system, we wanted something that was state-of-the-art, intuitive, and inviting for the user," said W. J. Clingenpeel, Director, Purchasing Services, HHMI.

One of the Institute's strategies to achieve operational efficiencies was to eliminate paper requisitions. Accomplishing that strategy posed two challenges. The high turnover rate of the requisitioner and a mainframe based character user interface that was extremely difficult to learn and use.

HHMI saw further opportunities to achieve operational efficiencies by streamlining the procurement process which provided buyers with a more effective tool to maximize purchases for the Institute by building a new, easy to use, PC based graphical interface to Millennium.

Howard Hughes Medical Institute's ERM

Vendor	Catalog Number	Size	Description	Ship to
Ambion Inc	123456		TEST ITEM	Feinberg/Radio
Amersham Corp	RPN1526		INVITRO MUTAGEN SYS	Nabel

Vendor	Ship to	Required	Created
Fisher Scientific Co	Beaudet/Supplies	08/12/96	08/05/96

Item Description	Size	Vendor Status
HEMATALL CAL SAMPLE	6.0000 ML	Validated

Ext. Price: \$10.25

End User: JXG1

Project Code: []

Line Status: Uncommitted

Total Comm/Uncomm Lines: \$822.17

figure 1

ERM Features:

- * POINT-AND-CLICK, WINDOW'S COMPLIANT GRAPHICAL USER INTERFACE THAT IS QUICK TO LEARN AND EASY TO USE SUPPORTING THE ENTIRE PROCUREMENT PROCESS
- * CURRENT PRICE COMPARISON INFORMATION, IN ELECTRONIC FORM, AT THE FINGERTIPS OF THE LAB-BASED DECISION MAKERS
- * ELIMINATION OF PAPER AND ITS ASSOCIATED DELAYS AND STORAGE COSTS
- * IMPROVED OVERALL PROCUREMENT PROCESSING TIME
- * EXTENDED VIABILITY OF HHMI'S CORE FINANCIAL APPLICATIONS
- * SEAMLESS INTERFACE, WITHOUT DATA OR SYSTEM DUPLICATION, WITH THE EXISTING PURCHASING SYSTEM INCLUDING THE EDI SUBSYSTEM
- * LEVERAGES THE CENTRALIZED HEADQUARTERS-BASED COMPUTER STAFF AND INFRA-STRUCTURE
- * SUBSTANTIALLY IMPROVED USER WORKFLOW FOR THE REQUISITIONER, MANAGER, AND BUYER
- * SYSTEM CONTROLS ENFORCED WHILE PROVIDING MORE FLEXIBILITY IN PROCESSING

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>

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Based on these requirements, HHMI created a new PC based, intelligent graphical user interface application called the Electronic Requisition Module (ERM).

The ERM Re-Engineered Process

The existing HHMI paper procurement request consisted of a *set* of items to be purchased from a particular vendor because ultimately the Millennium purchasing system requires the Purchase Order in that format. The ERM completely re-engineers the process such that each item requested is an *individual unit*, not part of a group and are bundled together later in an automated process (*figure 1*). The newly designed approach is more consistent with the way that orders are conceived – randomly, rather than on a vendor-by-vendor basis. Now the requestor, manager, or buyer can change vendors at any point in the process. Prior to implementing the ERM, this was not possible because the items were already grouped by vendor when the requisition was created. In addition, ERM interfaces with an on-line vendor catalog which defaults item data and presents the user with price comparison information.

Another key component of the ERM is its integration with the EDI sub-system which is responsible for sending electronic purchase orders and making vendors' electronic PO acknowledgments available on-line. ERM is the centerpiece which united the individual components. The ERM integrates these functional layers (*figure 2*) into a cohesive system in which purchase requests are processed entirely on-line without the exchange of a single piece of paper.

“An order can now be entered in Boulder, approved in Salt Lake City, routed through Headquarters in Washington, acknowledged by a vendor in Pittsburgh and then reviewed for status back in Boulder in as little as three hours. There was a time when that process could take two days or more,” said James Giordano, Project Leader, HHMI.

Development Process

Mitem View was selected after reviewing several HLLAPI based products. “Our primary concerns were performance and the

Electronic Requisition Module Architecture

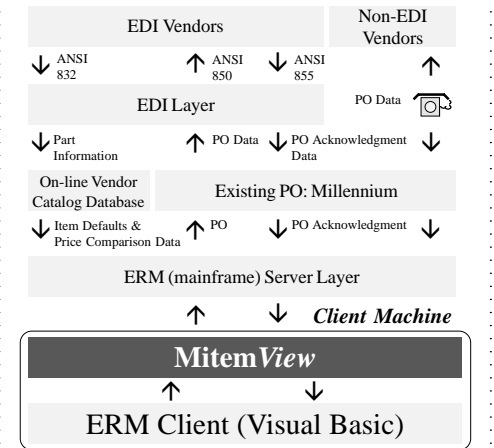


figure 2

maintainability and flexibility of the desktop application programs,” said Giordano.

Using a small team, HHMI deployed the ERM application in approximately 12 months. The initial user interface and re-engineered workflow design was completed in four months. The integration of the on-line vendor catalogs, EDI subsystem and other mainframe changes, and the development of the desktop GUI using Microsoft's Windows 3.1, Visual Basic, and Mitem View took eight months. “We are fortunate to have such a talented IS group who has been able to craft a purchasing application that has exceeded our requirements and expectations,” said Clingenpeel.

Results

The result was a true client/server application with a legacy mainframe providing database services to a point-and-click GUI client. The ERM application was deployed under multiple Microsoft operating systems nationwide in June, 1995 to over 400 users, most of whom focus on science, not procurement. The graphical capabilities, combined with the sophistication and speed of Mitem View, gave the designers the flexibility to make fundamental changes in the way the system processes purchasing data. “We didn't just front-end the existing application, we significantly re-engineered the procurement process, adding a tremendous amount of new functionality and virtually changing the architecture of the purchasing system,” said Giordano.