



PACIFIC DATA MANAGEMENT, INC.

CUSTOMER PROFILE

The Challenge

Quantum Corporation faced a challenge: how to replace a complex spreadsheet that tracked the bill of materials for every product. The single-user spreadsheet was not only inefficient, but it was also so comprehensive that only one user knew how to operate it. As a result, it could not be used by any other department to gather financial or statistical data. To solve these problems, Quantum hired PDM to develop a cross-platform, multi-user database that tracked bill of materials prices accurately, generated ad hoc reports quickly, and was easy for all users to operate.

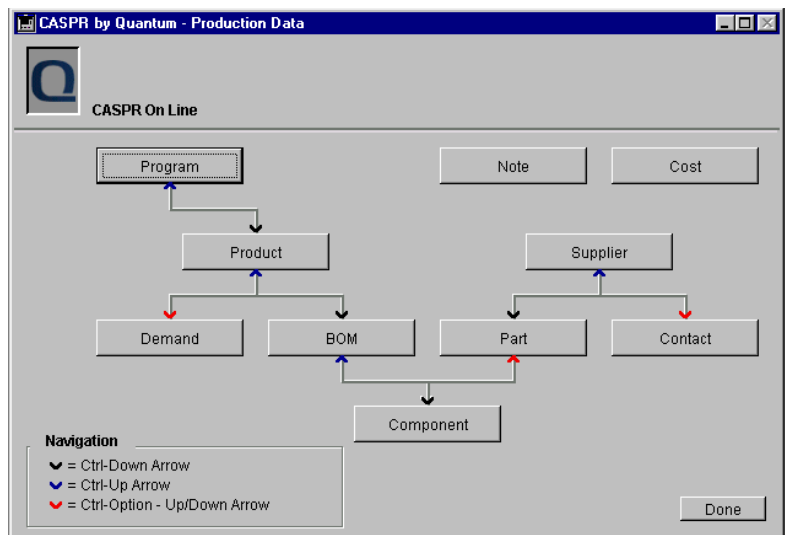
The Process

PDM built Quantum a relational database, based on an Oracle server, that fulfills all of Quantum's requirements and provides many more unexpected benefits. Quantum especially appreciates the fact that PDM made the development process interactive, allowing management and users to give input along the way. "Our needs changed while PDM was building the system and PDM was able to easily adapt what they had already done to give us a better system in the long run," reports Colleen Cayes, Director of Materials. As a result, the system is tailored specifically to Quantum's business.

QUANTUM CORPORATION

PACIFIC DATA MANAGEMENT

Quantum Corporation, a \$4.4 billion computer hard disk manufacturer, recently replaced its bill of materials tracking system with a custom relational database developed by Pacific Data Management of San Jose, California. For years, Quantum had used a complex spreadsheet to track detailed cost information about the many component parts used to build hard disk drives. Because the spreadsheet was unable to provide Quantum with robust data management capabilities, the company hired PDM to create a database that could be used by many departments, create detailed reports, and ensure pricing accuracy.



Users easily navigate through the comprehensive client/server database.

The cross-platform database runs on an Oracle back-end and supports both Macintosh and PC clients. "We needed a real multi-user, client/server database that could run on multiple platforms," said Colleen Cayes, Director of Materials at Quantum. "That way, the system would be able to grow with us and could be used by many different people within the company."

In contrast to their old single-user spreadsheet, the database is used by 60 people in many different departments, all of which perform vital data analysis. Corporate Materials and commodity managers enter pricing data and forecast how much it will cost to build the disk drives. The Finance Department runs detailed reports to evaluate and determine the final cost of the drives. Marketing is able to forecast how many drives to build, or whether a product should be built at all. All users can search the database by component, supplier, or any other criteria and sort the resulting data to determine trends or make pricing comparisons.

"For the first time, we are able to provide other departments with pricing data far in advance," states Diana Chan, Strategic Systems Manager. "Now, they have so much more time to meet with vendors, negotiate prices and determine the final cost of a drive." And because Quantum ships new drives every 18 months, it is critical that the company know exactly when it should stop building a product. "These are time-

sensitive decisions, and our data helps the company make these critical business decisions,” adds Chan.

The Corporate Materials department prints the data monthly in a variety of analytical reports. It used to take three weeks to generate this critical financial data and reports from the spreadsheet. It now takes three days. “We are so much more efficient now, and we are using our people smarter,” notes Chan.

In addition to being more efficient, the database is also much more accurate than the spreadsheet. Quantum’s products can contain some of the same parts, and the spreadsheet allowed users to enter different prices for the same part—an error that was nearly impossible to detect and compromised the true bill of materials cost. The PDM database solves that problem by accepting only one price per part and displaying the accurate price each time the part is used. Now, the vital pricing data is credible, which allows Quantum to forecast more accurately and price its drives even more competitively.

The screenshot shows the 'Part Allocation' window for part 'Buffer SRAM 32KX8 55NS CMOS, TSOP28'. It displays a table with columns for Cost Type, Supplier, and various cost metrics across different quarters (01/97, 02/97, 03/97). The 'QNTM' cost type is highlighted in black. Below the main table, there are summary rows for Subtotal, Demand, and Adjusted Demand. At the bottom, there are checkboxes for 'Percent', 'Quantity', 'Source', 'Cost', and 'Show tenths', along with a 'Total Demand' of 6,172,872.

Cost Type	01/97, CQ1 97	02/97, CQ1 97	03/97, CQ1 97
Cost Type 1	0.00	0.00	0.00
MKE	0.00	0.00	0.00
Cost Type 3	1.40	1.40	1.40
QNTM	1.39	1.39	1.38
Cost Type 5	1.40	1.40	1.40
Cost Type 6	0.00	0.00	0.00

Supplier	%	Qty	S	Cost	%	Qty	S	Cost	%	Qty	S	Cost	%	Qty	S	Cost
Hirachi	42	124,118	M	1.38	43	206,124	M	1.38	45	376,200	M	1.37	44	283,600	C	1.40
Commodity Mgr Est	12	35,462	C	1.41	12	57,623	C	1.41	10	83,600	C	1.40	10	64,000	C	1.40
Mitsubishi	26	78,835	C	1.39	28	134,220	C	1.39	33	275,880	C	1.38	34	216,000	C	1.38
Samsung	16	47,283	C	1.42	13	62,316	C	1.42	7	58,520	C	1.40	6	36,000	C	1.40
Hyundai	4	11,820	P	1.45	4	19,174	P	1.45	5	41,800	P	1.41	6	36,000	C	1.40
Subtotal	100	295,520		1.39	100	479,360		1.39	100	836,000		1.38	100	640,000		1.40
Demand		295,520				479,360				836,000				640,000		
Adjusted Demand		0				0				0				0		

Detailed data about all parts is stored in easy-to-read screens.

Quantum highly recommends PDM to companies wanting customized databases. “They are a very intelligent group of people and they truly understood our needs,” notes Cayes. “And they were extremely creative. We would present them with a very complicated task that the system needed to perform and they would come back with an elegant implementation of it that helped us navigate the database better and be more effective.”

In addition, Cayes and Chan note that PDM’s enthusiasm gave their department the motivation to continue perfecting the database so it is now as tailored as possible. “They were tremendously fun to work with and we loved working with them,” says Cayes. In fact, Quantum is so pleased with the database that it is now being used in the company’s Japan office. Quantum also plans to hire PDM in the future to assist with a Web-based database that will make Quantum even more competitive and efficient.

Adds Cayes, “This is a key system to Quantum. It works well. Users like it. And it’s effective. What more can I say?”

The Benefits

The primary benefits of the database are that data is now accurate and it is easily accessible, allowing Quantum to respond quickly to last minute changes and requests. For example, users can search and sort data in almost any way and print detailed reports at the click of a button. The reports can display trend analysis and comparisons, and allow users to present several different “what if” scenarios that help Quantum price its disk drives competitively. The benefit of using PDM is that Quantum employees actually enjoyed the entire development process and were highly impressed with PDM’s vast database knowledge, which was proven by the efficient and tailored database that helps Quantum do business better.



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