

2001



**Software Brand Preference
in the Manufacturing Enterprise**

A Study of Brand Preference in 12 Product Categories

Table of Contents

CONTENTS	PAGE
About This Study	2
Company Position Tables	5
CAD/CAM/CAE and Other Engineering Applications	6
Customer Relationship Management	8
Data Acquisition/Data Collection Software	10
Electronic Commerce	14
ERP/MRP/MRP II	16
Human-Machine Interface (HMI)	22
Maintenance Management Software/Enterprise Asset Management	24
MES/Plant Floor Operations Software (Including Supervisory Control/QC/SQC)	26
PC-Based Control Software	32
Product Data Management Systems	34
Supply Chain Execution	36
Supply Chain Planning (Includes Advanced Planning & Scheduling)	42
How This Study Was Conducted	46
Questionnaires	47
Technical Appendix	49
Supplementary Product Group Reports Available	50
Index to Companies	52

Managing Automation's 2001 Brand Preference Study

This study – the seventh brand preference study sponsored by Managing Automation – covers the major categories of advanced technology software products purchased for use in the manufacturing enterprise. It covers all major types of software needed for implementing industrial automation, integrated manufacturing and e-business in the manufacturing enterprise. Respondents are from a sample of major buying influences for these products. Therefore, it authoritatively reveals how buyers and specifiers in this market perceive industry vendors. (This study is a companion to a study on hardware suppliers.)

The findings show that the market is made up of business and technology managers from key functional groups in the manufacturing enterprise -- corporate/financial, MIS/IT, manufacturing/production, plant/facilities, and design/R&D -- as well as the systems integrators and consultants who assist these managers and teams. Each group is well represented among the respondents to the study. All respondents are involved in acquiring technology and/or planning and implementing their companies' (or clients') use of advanced manufacturing software.

A substantial proportion of each functional group answered for each of the 12 different product groups listed in the study. Thus, the study shows that each functional group is involved in the decision-making for all the wide range of software products used in industrial automation, integrated manufacturing and e-business in the manufacturing enterprise. The proportion of each functional group answering for each product group is shown on page 4.

Marketing Values

For companies selling software products to the U.S. manufacturing market, this report provides a picture of their market positions relative to their major competitors. These positions are based on the market's opinion of vendors in each category.

“Which would you most likely investigate if your organization were planning to purchase the product indicated?”

“Considering all factors, which one manufacturer do you believe, at this time, offers the best value?”

The listed vendors can determine, first, the proportion of the market that would investigate them when a purchase is being considered and, second, the proportion that considers them the leader – the best overall value.

The major value of this study is the “snapshot” it takes of the market. In addition to showing a particular company's position, it reveals the competitive arena in which the company operates. For instance, some markets have a very horizontal structure with no dominant leader. Others have a very vertical structure with one or two companies dominating the market.

In this study, an average of 52% would investigate the top company in a market and 20% would investigate the fifth ranked company. In one product area, “Customer Relationship Management,” 69% would investigate the top company, but only 12% (one sixth as many) would investigate the fifth-ranked company. In another area, “MES/Plant Floor Operations,” 39% would investigate the number one company and the percentage drops just six points to 33% for the fifth-ranked company.

While the study's most important element is the picture of the market at a moment in time, change is also important. Since this is one of a series of studies, the 1994 and 1998 ranks for “would investigate” are included for comparison with 2001.

In addition to the rankings for most likely investigate and best value, the importance of the buying criteria used in the purchase/selection decision is determined for each of the 12 product groups, so vendors know why the market ranks them as they do. The seven measured criteria are:

- Competitive Pricing
- Manufacturing Knowledge/Expertise
- Documentation
- Integrators/Consultants Recommendation
- Reliability
- System Compatibility
- Technical Service/Back-Up

By analyzing the results by the answers to this criteria question this report goes a step further than most brand preference or brand awareness studies. As a result, vendors can determine their standing among respondents who value delivery, those who value technical service, etc.

Each listed company, therefore, can see the market's perception of its relative strengths and, conversely, its relative weaknesses. It should be noted that even the highest rated vendor might have a relative weakness. The company may be first for all six criteria, but if its lead for, say, delivery is significantly smaller than its lead in the other five areas, then that is a relative weakness.

The same applies in the opposite direction for the lower ranked companies.

Study Scope

This study provides authoritative information for several reasons:

- It covers all functional groups involved in the selection of advanced manufacturing technology products. It does not provide answers from just a segment of the total influence group.
- The study response level provides a solid statistical base for individual products. The number answering for the different product categories ranged from 171 for "Maintenance Management Software/Enterprise Asset Management" to 247 for "CAD/CAM/CAE and Other Engineering Applications."
- As stated, a high proportion of each functional group answered for each product. (See table on the following page.) This is significant evidence of each group's interest in all the software products used in the manufacturing enterprise.
- The study covers decision makers within the manufacturing enterprise as well as ancillary influences such as consultants, systems integrators, and value-added resellers.
- The study includes the full range of software used to implement industrial automation, integrated manufacturing and e-business.
- To minimize position bias, all vendors were rotated. Half the questionnaires were done in alphabetical order and half in reverse-alpha order.
- A large sample – 3,000 – was used, with a dollar incentive and a second mailing to the entire list.

Proportion Answering For Each Product

	All Respondents	Corporate/ Financial Management	MIS/IT Management	Production Planning/ Inventory Control/ Purchasing Mgmt.	Automation/ Manufacturing/ Production Management	Plant/ Facilities Management	Design/R&D Management	Systems Integrators/ VAR Consultants
CAD/CAM/CAE and Other Engineering Applications	88%	87%	96%	83%	96%	75%	97%	84%
Customer Relationship Management	73%	81%	84%	83%	69%	66%	71%	80%
Data Acquisition/Collection Software	80%	79%	84%	83%	84%	75%	79%	84%
Electronic Commerce	68%	75%	76%	73%	69%	66%	68%	80%
ERP/MRP/MRP II	75%	83%	92%	73%	78%	69%	74%	80%
Human Machine Interface (HMI)	76%	68%	76%	83%	84%	84%	84%	80%
MES/Plant Floor Operations Software (including Supervisory Control/QC/SQC)	77%	79%	84%	80%	82%	88%	71%	80%
Maintenance Management Software/Enterprise Asset Mgmt.	61%	66%	72%	63%	60%	66%	53%	60%
PC-Based Control Software	75%	75%	76%	77%	80%	78%	82%	76%
Supply Chain Planning (includes Advanced Planning & Scheduling)	67%	72%	76%	77%	64%	72%	61%	72%
Supply Chain Execution	64%	70%	80%	77%	58%	63%	53%	68%
Product Data Management Systems	65%	62%	72%	70%	64%	59%	71%	68%
Base:	282	47	25	30	45	32	38	25

How to read this table: Of the 282 respondents, 88% answered for CAD/CAM/CAE & other engineering applications, 73% answered for Customer Relationship Management, etc., and down. Across, of the 47 Corporate/Financial Management respondents, 87% answered for CAD/CAM/CAE. Of the 25 MIS/IT Management, 96% responded for CAD/CAM/CAE, etc., on across.

Company Position Tables

The tables on the following 40 pages show, for each of the twelve product categories:

Left-hand page: The proportion of respondents (proportion of respondents answering for that product category) who indicated they would likely investigate that company and which company they believe offers the best overall value.

Right-hand page: The proportion of respondents that would likely investigate each company, based on those respondents considering a particular criterion important.

The tables “read down.” That is, each column represents a group of people. In the tables on the left-hand page, the columns represent all respondents who answered for that product category. Thus, the top number in the fourth column of numbers shows the proportion that would likely investigate that supplier. The base for the percentages is shown at the bottom of the table.

The first column shows that company’s ranking in the 1994 study, based on “would likely investigate.”

The second column shows that company’s ranking in the 1998 study, based on “would likely investigate.”

The third column shows that company’s ranking in the current study (2001).

The fourth column of numbers, as stated, shows the proportion that would likely investigate that company.

The fifth column shows the rank order based on preference (best overall value).

The sixth column shows the proportion indicating they believe that company offers the best overall value.

In the tables on the right-hand page the first column shows the proportion, of those who checked “Competitive Pricing” important, that would likely investigate that company. This, as described in the introduction, gives a picture of each company’s relative strengths and weaknesses. The base for each criterion is shown at the bottom of that column. A comparison of these bases shows the importance of each criterion when selecting a supplier of that product. The closer this number is to the base on the left hand page, the more important the criterion.

Some companies have no mentions in the right-hand table even though the total column (4th column, left-hand table) shows some mentions. This is because those respondents did not answer the criteria question.

No mentions are indicated with “ - ”. Less than ½ of 1% are indicated with asterisks.

CAD/CAM/CAE & Other Engineering Apps.

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
1	1	1	Autodesk Inc.	63%	1	25%
#	4	2	SolidWorks Corp.	33%	2	13%
2	2	3	IBM/Dassault Systemes (Catia Software)	26%	3	7%
20	20	4	Cadkey (Baystate Technologies)	23%	4	5%
8	5	5	Parametric Technology Corp. (PTC)	19%	5	4%
10	6	6	UGS (formerly Unigraphics Solutions)	16%	6	3%
#	#	7	Cadence Design Systems Inc.	15%	8	1%
4	3	8	Intergraph Corp.	13%	7	2%
#	#	9	Mentor Graphics	9%	9	1%
#	12	10	Bentley Systems Inc.	7%	11	1%
14	9	10	SDRC	7%	10	3%
18	12	12	MSC Software Corp (formerly MacNeal-Schwendler Corp)	7%	14	*
#	11	13	Ansys, Inc.	5%	13	1%
3	6	14	Co-Create Software Inc.	5%	12	2%
#	#	15	Avant! Corp.	5%	*	*
#	24	16	Matra Datavision, Inc.	3%	*	*
#	#	17	Delmia (formerly Deneb Robotics)	2%	*	*
Base:				247	247	

Not studied in
that year
* Less than
0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Autodesk Inc.	34%	37%	35%	35%	42%	44%	32%
SolidWorks Corp.	22%	20%	22%	25%	17%	17%	25%
IBM/Dassault Systemes (Catia Software)	7%	12%	12%	10%	14%	11%	6%
Cadkey (Baystate Technologies)	7%	6%	4%	5%	5%	6%	10%
Parametric Technology Corp. (PTC)	6%	6%	8%	-	6%	6%	10%
UGS (formerly Unigraphics Solutions)	6%	3%	4%	-	6%	6%	6%
Cadence Design Systems Inc.	-	2%	4%	-	-	-	3%
Intergraph Corp.	4%	2%	4%	10%	4%	4%	3%
Mentor Graphics	1%	1%	2%	-	1%	1%	-
Bentley Systems Inc.	2%	2%	2%	2%	-	1%	-
SDRC	7%	3%	-	5%	5%	4%	3%
MSC Software Corp (formerly MacNeal-Schwendler Corp)	1%	-	-	-	1%	1%	-
Ansys, Inc.	-	-	2%	-	-	-	-
Co-Create Software Inc.	2%	3%	2%	10%	4%	1%	3%
Avant! Corp.	-	-	-	5%	-	-	-
Matra Datavision, Inc.	-	-	-	-	-	-	-
Delmia (formerly Deneb Robotics)	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	82	94	51	20	85	82	81

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Customer Relationship Management

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	#	1	Oracle Corp.	69%	1	27%
#	#	2	Peoplesoft Inc. (Vantive)	42%	3	6%
#	#	3	Siebel Systems	25%	2	8%
#	#	4	Nortel Networks (Clarify)	20%	4	3%
#	#	5	Trilogy Development Corp.	12%	9	1%
#	#	6	Epicor Software	11%	5	2%
#	#	7	Onyx Software	11%	6	2%
#	#	7	Invensys (Baan Company)	11%	7	1%
#	#	8	Lilly Software Associates Inc.	9%	6	2%
#	#	9	E.piphany	8%	9	1%
#	#	10	Metrix	8%	5	2%
#	#	11	Clarus	7%	9	1%
#	#	12	RTS Software	6%	8	1%
#	#	13	Aspect Communications	5%	7	1%
#	#	13	IFS - Industrial and Financial Systems	5%	7	1%
#	#	14	Dendrite International Inc.	4%	8	1%
#	#	15	Davox	3%	*	*
#	#	16	Astea International	2%	*	*
#	#	16	Firepond (formerly CWC)	2%	*	*
Base:				207	207	

Not studied in
that year
* Less than 0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Oracle Corp.	37%	48%	32%	41%	26%	29%	37%
Peoplesoft Inc. (Vantive)	6%	9%	18%	11%	10%	18%	15%
Siebel Systems	12%	7%	18%	15%	13%	16%	7%
Nortel Networks (Clarify)	2%	2%	4%	7%	2%	-	2%
Trilogy Development Corp.	2%	2%	-	-	2%	2%	2%
Epicor Software	6%	4%	4%	4%	-	-	2%
Onyx Software	6%	2%	4%	-	6%	4%	5%
Invensys (Baan Company)	2%	2%	-	4%	-	4%	2%
Lilly Software Associates Inc.	4%	9%	-	-	4%	8%	10%
E.piphany	-	-	-	4%	-	-	-
Metrix	8%	4%	-	4%	6%	8%	5%
Clarus	2%	-	4%	-	-	2%	2%
RTS Software	2%	2%	4%	7%	2%	2%	2%
Aspect Communications	2%	-	4%	4%	-	-	-
IFS - Industrial and Financial Systems	4%	4%	4%	7%	4%	4%	5%
Dendrite International Inc.	2%	2%	7%	-	-	-	-
Davox	-	-	-	-	-	-	-
Astea International	-	2%	-	-	-	2%	2%
Firepond (formerly CWC)	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	51	46	28	27	48	51	41

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Data Acquisition/Data Collection Software

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	#	1	IBM	40%	1	11%
1	1	2	Rockwell Automation/Rockwell Software	38%	2	10%
#	#	3	Siemens Energy & Automation	32%	3	7%
#	#	4	Honeywell Industrial Automation and Control	31%	5	4%
#	#	5	National Instruments	21%	4	6%
#	#	6	Agilent Technologies (formerly H-P)	20%	8	2%
#	#	7	J.D. Edwards	20%	5	4%
#	4	8	Intellution, Inc.	16%	5	4%
#	#	9	Manufacturing Data Systems	16%	13	1%
#	6	10	USDATA Corp.	10%	8	2%
#	#	10	Quality Measurement Systems	10%	13	1%
#	#	12	BMS (Bar Coded Management Systems)	8%	8	2%
#	#	13	Sirius Computer Solutions, Inc.	8%	13	1%
#	#	13	Opto 22	8%	19	*
#	#	15	Epicor Software	7%	19	*
#	#	16	Panasonic Factory Automation	7%	8	2%
#	#	17	Instant Data Systems	6%	16	1%
#	#	17	StatSoft	6%	19	*
#	#	19	Real World Technology	5%	8	2%
#	#	19	Bradley Ward Systems	5%	19	*
#	19	19	Simulation Sciences, Inc.	5%	19	*
#	#	19	Profitkey International Inc.	5%	*	*
#	14	19	Promis Systems Corp	5%	*	*
#	10	24	ITC Integrated Systems	4%	16	1%

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
IBM	13%	19%	12%	19%	18%	11%	13%
Rockwell Automation/Rockwell Software	15%	13%	16%	29%	18%	19%	22%
Siemens Energy & Automation	15%	12%	14%	14%	6%	14%	9%
Honeywell Industrial Automation and Control	2%	9%	-	5%	5%	5%	-
National Instruments	12%	9%	12%	10%	8%	8%	9%
Agilent Technologies (formerly H-P)	2%	-	2%	-	2%	5%	2%
J.D. Edwards	10%	6%	5%	5%	9%	6%	7%
Intellution, Inc.	8%	10%	7%	10%	8%	6%	9%
Manufacturing Data Systems	-	2%	5%	5%	2%	3%	2%
USDATA Corp.	2%	3%	9%	10%	5%	5%	6%
Quality Measurement Systems	5%	3%	2%	-	3%	3%	4%
BMS (Bar Coded Management Systems)	5%	3%	5%	5%	3%	5%	4%
Sirius Computer Solutions, Inc.	2%	-	-	-	2%	-	2%
Opto 22	-	-	-	-	-	2%	-
Epicor Software	2%	-	-	-	2%	-	-
Panasonic Factory Automation	3%	3%	5%	5%	2%	5%	4%
Instant Data Systems	2%	3%	2%	-	2%	3%	2%
StatSoft	-	2%	-	-	2%	-	-
Real World Technology	2%	2%	2%	-	2%	3%	-
Bradley Ward Systems	-	-	-	5%	-	-	-
Simulation Sciences, Inc.	2%	-	-	-	-	-	-
Profitkey International Inc.	-	-	-	-	-	-	-
Promis Systems Corp	-	-	-	-	2%	2%	2%
ITC Integrated Systems	-	-	2%	-	2%	2%	2%

Continued on next spread

Data Acquisition/Data Collection Software (cont.)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	#	25	Casco Development Inc.	4%	19	*
#	19	26	Ci Technologies Inc.	4%	16	1%
#	#	26	TA Engineering	4%	19	*
#	#	28	ONSPEC Automation Solution	3%	19	*
#	13	29	Iconics, Inc.	3%	*	*
#	#	30	IQS Inc.	2%	19	*
#	#	30	Emation Inc.	2%	*	*
#	#	32	Process Integrity	2%	19	*
#	#	32	PowerWay Inc.	2%	19	*
#	#	34	Cimlinc Inc.	1%	*	*
#	#	35	Finley Systems Inc.	1%	*	*
12	5	35	HighJump Software (formerly DCSI)	1%	*	*
#	#	37	Action Systems Associates	*	19	*
#	#	37	Stochos	*	*	*
Base:				226	226	

Not studied in
that year
* Less than 0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Casco Development Inc.	2%	2%	2%	-	2%	2%	-
Ci Technologies Inc.	-	2%	-	-	-	2%	-
TA Engineering	-	-	-	5%	-	-	-
ONSPEC Automation Solution	-	-	-	-	2%	2%	-
Iconics, Inc.	-	-	-	-	-	-	-
IQS Inc.	-	2%	2%	-	2%	2%	2%
Emation Inc.	-	-	-	-	-	-	-
Process Integrity	-	2%	-	-	-	-	-
PowerWay Inc.	-	-	-	5%	-	-	-
Cimlinc Inc.	-	-	-	-	-	-	-
Finley Systems Inc.	-	-	-	-	-	-	-
HighJump Software (formerly DCSI)	-	-	-	-	-	-	-
Action Systems Associates	-	2%	2%	-	2%	3%	-
Stochos	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	61	67	43	21	66	65	54

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Electronic Commerce**

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
1994	1998	2001		Likely Investigate	"Best Value"	
Ranking				%	Rank	%
#	#	1	Oracle Corp.	66%	1	21%
#	#	2	SAP America	44%	2	16%
#	#	3	i2 Technologies Inc. (RightWorks)	27%	3	5%
#	#	4	Ariba Technologies	21%	4	4%
#	#	5	Commerce One	17%	6	3%
#	#	6	Broadvision	13%	5	4%
#	#	7	Trilogy Software Inc.	13%	7	2%
#	#	8	Clarus	8%	13	1%
#	#	9	Open Market	8%	7	2%
#	#	9	Interworld	8%	9	1%
#	#	11	Purchasesoft	7%	9	1%
#	#	12	NetVendor	6%	9	1%
#	#	13	Click Commerce	4%	13	1%
#	#	14	Intelic	4%	9	1%
#	#	15	Haht Software	3%	*	*
#	#	15	Ironside Technologies	3%	*	*
#	#	17	Agentics	2%	13	1%
#	#	17	Comergent	2%	*	*
#	#	19	Hotsamba	2%	*	*
#	#	19	Tradec	2%	*	*
#	#	21	Entigo (Signal Internet Technologies)	1%	*	*
#	#	22	Asera	1%	*	*
Base:				192	192	

Not studied in that year

* Less than 0.5%

** Not included in previous studies

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Oracle Corp.	30%	41%	21%	23%	40%	34%	34%
SAP America	26%	18%	36%	26%	29%	24%	31%
i2 Technologies Inc. (RightWorks)	5%	7%	7%	10%	3%	8%	9%
Ariba Technologies	5%	2%	-	7%	5%	5%	3%
Commerce One	5%	5%	-	3%	5%	3%	3%
Broadvision	9%	9%	4%	10%	3%	5%	-
Trilogy Software Inc.	2%	2%	11%	3%	-	3%	3%
Clarus	-	5%	-	-	-	-	6%
Open Market	2%	2%	4%	-	3%	-	-
Interworld	2%	2%	-	7%	3%	3%	3%
Purchasesoft	-	-	-	3%	-	3%	-
NetVendor	2%	2%	4%	7%	3%	3%	3%
Click Commerce	-	-	-	3%	-	-	-
Intelic	2%	2%	7%	-	3%	*	3%
Haht Software	-	-	-	-	-	-	-
Ironside Technologies	-	-	-	-	-	-	-
Agentics	-	-	-	3%	-	-	-
Comergent	-	-	-	-	-	-	-
Hotsamba	-	-	-	-	-	-	-
Tradec	-	-	-	-	-	-	-
Entigo (Signal Internet Technologies)	-	-	-	-	-	-	-
Asera	-	2%	-	3%	-	-	-
Base: (CRITERIA IMPORTANCE)	43	44	28	31	38	38	35

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

ERP/MRP/MRP II

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
4	1	1	Oracle Corp.	52%	2	11%
20	2	2	SAP America	41%	1	11%
#	3	3	PeopleSoft Inc.	33%	5	4%
16	4	4	J.D. Edwards	24%	3	8%
#	23	5	Great Plains Software	20%	4	5%
#	10	6	QAD Inc.	14%	6	3%
#	9	7	MAPICS (formerly Pivotpoint)	13%	17	1%
#	13	8	Macola, Inc	12%	7	2%
#	5	9	Invensys (Baan Company)	12%	7	2%
#	18	10	Epicor Software (Platinum Software)	10%	9	2%
#	11	11	Lilly Software Associates, Inc.	9%	18	1%
7	8	12	Fourth Shift Corp./AremiSoft	8%	17	1%
#	23	13	Made2Manage Systems, Inc.	7%	10	1%
#	35	13	Invensys (Marcam Solutions Inc.)	7%	*	*
15	23	13	Systems Software Associates (SSA)	7%	*	*
#	18	13	Western Data Systems	7%	*	*
11	35	17	American Software Inc.	6%	10	1%
#	16	17	CMS Manufacturing Systems Inc.	6%	10	1%
#	#	17	Deltek Systems	6%	10	1%
#	12	17	Intuitive Manufacturing Systems Inc.	6%	18	1%
30	35	21	ROI Systems Inc.	5%	18	1%
#	46	22	LawsonSoftware	5%	*	*
#	23	22	Profitkey International Inc.	5%	*	*
#	35	24	Friedman Corp.	4%	10	1%

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Oracle Corp.	17%	17%	14%	23%	13%	14%	13%
SAP America	17%	15%	21%	19%	20%	25%	26%
PeopleSoft Inc.	6%	5%	5%	8%	5%	2%	2%
J.D. Edwards	13%	15%	12%	8%	12%	14%	13%
Great Plains Software	9%	4%	5%	8%	8%	14%	6%
QAD Inc.	5%	5%	2%	8%	3%	41%	6%
MAPICS (formerly Pivotpoint)	2%	3%	5%	4%	3%	2%	2%
Macola, Inc	3%	4%	2%	4%	2%	-	4%
Invensys (Baan Company)	3%	4%	5%	8%	5%	8%	4%
Epicor Software (Platinum Software)	5%	3%	2%	-	-	2%	2%
Lilly Software Associates, Inc.	2%	1%	2%	-	3%	2%	2%
Fourth Shift Corp./AremiSoft	3%	3%	2%	-	2%	2%	2%
Made2Manage Systems, Inc.	2%	1%	2%	4%	2%	2%	2%
Invensys (Marcam Solutions Inc.)	2%	1%	-	-	-	-	-
Systems Software Associates (SSA)	-	-	-	-	-	-	-
Western Data Systems	-	-	-	-	-	-	-
American Software Inc.	6%	3%	-	4%	-	-	-
CMS Manufacturing Systems Inc.	-	1%	2..3%	-	2%	-	-
Deltek Systems	2%	3%	2%	4%	2%	-	2%
Intuitive Manufacturing Systems Inc.	2%	-	-	-	-	-	-
ROI Systems Inc.	-	1%	-	-	2%	2%	-
Lawson Software	-	-	-	-	-	-	-
Profitkey International Inc.	-	-	-	-	-	-	-
Friedman Corp.	5%	1%	2%	-	2%	2%	2%

Continued on next spread

ERP/MRP/MRP II (cont.)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
1994	1998	2001		Likely Investigate	"Best Value"	
Ranking				%	Rank	%
#	23	24	Ross Systems Inc.	4%	*	*
#	23	26	Qantel Technologies	4%	17	1%
#	58	26	Syspro Impact Software	4%	17	1%
19	13	26	Frontstep (formerly Symix Computer)	4%	10	1%
#	23	29	HarrisData	3%	17	1%
#	#	29	SupplyChain.com, The	3%	*	*
13	13	31	Kewill ERP (formerly Micro-MRP)	3%	17	1%
#	58	32	IFS - Industrial & Financial Systems	3%	10	1%
20	23	33	Cincom Systems Inc.	2%	18	1%
#	58	33	Enhanced Systems & Services	2%	*	*
#	46	33	InterBiz Solutions (formerly Acacia Tech/MK C	2%	*	*
#	58	33	SCT (Systems & Computer Tech.)	2%	18	1%
#	58	37	Brain International (CMI)	2%	*	*
#	58	37	Expandable Software	2%	*	*
#	35	37	Glovia International	2%	*	*
#	58	37	Navision Software/Damgaard	2%	18	1%
#	46	37	Visibility Inc.	2%	17	1%
#	#	42	Encompix	1%	*	*
#	46	42	PowerCervCorp.	1%	*	*
#	35	42	Sage Tetra	1%	*	*
#	58	45	Infinium Software	1%	*	*
#	84	45	Intentia International	1%	*	*
#	35	45	Jobscope Corp.	1%	*	*
#	58	45	Ramco Systems	1%	*	*

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Ross Systems Inc.	2%	1%	-	-	-	-	-
Qantel Technologies	-	-	-	-	2%	-	-
Syspro Impact Software	2%	1%	5%	-	3%	2%	2%
Frontstep (formerly Symix Computer)	3%	3%	2%	4%	3%	4%	6%
HarrisData	-	-	-	-	-	-	-
SupplyChain.com, The	-	-	-	-	-	-	-
Kewill ERP (formerly Micro-MRP)	-	1%	-	4%	2%	-	-
IFS - Industrial & Financial Systems	3%	3%	5%	8%	3%	4%	4%
Cincom Systems Inc.	-	-	-	-	-	2%	-
Enhanced Systems & Services	2%	1%	-	-	-	-	-
InterBiz Solutions (formerly Acacia Tech/MK Grp)	-	-	-	-	-	-	-
SCT (Systems & Computer Tech.)	-	-	-	-	-	2%	-
Brain International (CMI)	-	-	-	-	-	-	-
Expandable Software	-	-	-	-	2%	-	-
Glovia International	-	-	-	-	-	-	-
Navision Software/Damgaard	-	1%	2%	-	2%	-	2%
Visibility Inc.	2%	-	-	4%	2%	-	-
Encompix	-	-	-	-	-	-	-
PowerCervCorp.	-	-	-	-	-	-	-
Sage Tetra	-	-	-	-	-	-	-
Infinium Software	-	-	-	2%	-	-	-
Intentia International	-	-	-	-	-	-	-
Jobscope Corp.	2%	1%	-	-	-	-	-
Ramco Systems	-	-	-	-	-	-	-

Continued on next spread

ERP/MRP/MRP II (cont.)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	58	45	Scala North America Inc.	1%	*	*
#	#	50	Apps4Biz.com	1%	*	*
#	#	51	FlexiInternational	*	*	*
34	23	51	Geac Computer Corp. (JBA International)	*	*	*
#	58	51	MAI Systems Corp	*	*	*
Base:				212	212	

Not studied in
that year

* Less than 0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Scala North America Inc.	-	-	-	-	-	-	-
Apps4Biz.com	-	1%	-	-	2%	-	-
FlexiInternational	-	-	-	-	-	-	-
Geac Computer Corp. (JBA International)	-	-	-	-	-	-	-
MAI Systems Corp	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	64	75	43	26	60	49	54

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Human-Machine Interface (HMI)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	1	1	Rockwell Automation (Rockwell Software & Allen-Bradley)	56%	1	16%
#	2	2	GE Fanuc Automation	44%	2	13%
#	#	3	Honeywell	43%	4	8%
#	4	4	Siemens Industrial Automation	43%	5	4%
#	2	5	Wonderware	27%	3	9%
#	#	6	ABB Industrial Systems Inc.	22%	7	2%
#	6	7	National Instruments	18%	8	2%
#	5	8	Fisher Rosemount/Intellution Inc.	15%	5	4%
#	#	9	Invensys	11%	8	2%
#	12	10	Computer Technology Corp.	10%	14	1%
#	7	10	USDATA Corp.	10%	*	*
#	26	12	OSI Software Inc.	8%	12	1%
#	8	13	Xycom (Proface)	7%	14	1%
#	11	14	Nematron	6%	12	1%
#	26	14	TA Engineering	6%	14	1%
#	18	16	Iconics, Inc.	5%	*	*
#	20	17	Intec Controls Corp.	5%	14	1%
#	9	18	Entivity (Steeplechase/Think & Do)	4%	8	2%
#	30	19	Camstar Systems, Inc.	3%	8	2%
#	15	20	Brooks Automation (formerly FASTech)	2%	*	*
#	15	21	eMation (formerly PC Soft International)	1%	*	*
Base:				214	214	

Not studied in that year

* Less than 0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Rockwell Automation (Rockwell Software & Allen-Bradley)	23%	33%	31%	23%	27%	30%	29%
GE Fanuc Automation	21%	11%	14%	17%	23%	19%	22%
Honeywell	9%	8%	14%	17%	8%	7%	12%
Siemens Industrial Automation	4%	3%	3%	10%	2%	2%	3%
Wonderware	18%	5%	10%	17%	21%	21%	16%
ABB Industrial Systems Inc.	4%	5%	3%	-	5%	4%	3%
National Instruments	4%	3%	-	-	2%	5%	3%
Fisher Rosemount/Intellution Inc.	7%	11%	10%	3%	5%	5%	5%
Invensys	4%	3%	7%	13%	3%	2%	3%
Computer Technology Corp.	-	3%	-	3%	2%	2%	2%
USDATA Corp.	-	-	-	-	-	-	-
OSI Software Inc.	4%	5%	3%	-	3%	-	5%
Xycom (Proface)	-	2%	-	-	2%	-	-
Nematron	2%	3%	-	-	-	2%	-
TA Engineering	-	-	-	3%	-	2%	-
Iconics, Inc.	-	-	-	-	-	-	-
Intec Controls Corp.	-	-	-	-	2%	-	-
Entivity (Steeplechase/Think & Do)	-	3%	3%	-	3%	2%	2%
Camstar Systems, Inc.	4%	3%	-	-	-	-	-
Brooks Automation (formerly FASTech)	-	-	-	-	-	-	-
eMation (formerly PC Soft International)	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	57	66	29	30	66	57	58

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Maintenance Management Software / Enterprise Asset Mgmt.

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	#	1	Rockwell Automation (Entek/Maximo)	47%	1	15%
7	1	2	Datastream	29%	2	11%
13	19	3	MRO Software (formerly PSDI)	19%	4	4%
#	9	4	Invensys/Avantis (formerly Marcam Solutions)	18%	3	8%
12	2	5	Flour Daniel, Inc.	16%	6	3%
#	2	6	CMS Manufacturing Systems Inc.	15%	6	3%
#	4	7	Systems Software Associates (SSA)	12%	12	2%
#	4	8	Intuitive Manufacturing Systems Inc.	12%	5	4%
#	7	9	JB Systems	11%	10	2%
#	6	10	DP Solutions	8%	6	3%
#	22	11	IFS - Industrial & Financial Systems	7%	10	2%
#	14	12	CHAMPS Software, Inc.	6%	13	1%
#	19	13	Computational Systems Inc. (CSI)	6%	6	3%
#	22	13	Ramco Systems	6%	*	*
#	#	15	Executive Mfg. Technologies (EMT)	5%	16	1%
#	#	16	Cayenta (formerly Mainsaver)	5%	13	1%
#	28	17	Indus International	4%	16	1%
#	16	17	Revere Inc.	4%	*	*
#	9	17	Tetra International Inc.	4%	*	*
#	#	20	Ivara Corporation	2%	13	1%
#	#	21	Mincom	1%	*	*
Base:				171		171

Not studied in that year
* Less than 0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Rockwell Automation (Entek/Maximo)	28%	25%	15%	18%	23%	24%	29%
Datastream	16%	13%	11%	24%	16%	17%	10%
MRO Software (formerly PSDI)	4%	6%	11%	6%	2%	5%	5%
Invensys/Avantis (formerly Marcam Solutions)	6%	6%	15%	29%	7%	12%	10%
Flour Daniel, Inc.	4%	6%	4%	-	5%	-	7%
CMS Manufacturing Systems Inc.	6%	6%	7%	6%	11%	7%	10%
Systems Software Associates (SSA)	6%	2%	-	-	-	2%	-
Intuitive Manufacturing Systems Inc.	4%	6%	7%	12%	5%	7%	7%
JB Systems	2%	4%	4%	-	5%	2%	2%
DP Solutions	8%	4%	7%	6%	7%	-	5%
IFS - Industrial & Financial Systems	6%	2%	7%	6%	5%	5%	5%
CHAMPS Software, Inc.	-	2%	-	-	2%	-	2%
Computational Systems Inc. (CSI)	6%	4%	4%	-	5%	5%	5%
Ramco Systems	-	-	-	-	-	-	-
Executive Mfg. Technologies (EMT)	4%	2%	-	-	2%	2%	2%
Cayenta (formerly Mainsaver)	2%	-	4%	-	-	2%	-
Indus International	-	2%	-	6%	-	-	2%
Revere Inc.	-	-	-	-	-	-	-
Tetra International Inc.	-	-	4%	-	2%	-	2%
Ivara Corporation	-	2%	4%	6%	2%	2%	5%
Mincom	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	50	48	27	17	44	41	41

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

MES/Plant Floor Operations Software

(Including Supervisory Control/QC/SQC)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	1	1	Rockwell Automation/Rockwell Software	39%	1	10%
#	3	2	GE Fanuc Automation	37%	3	6%
#	3	3	Siemens Industrial Automation	36%	5	3%
#	#	4	IBM	35%	2	6%
#	#	5	Honeywell	33%	4	5%
#	6	6	ABB Industrial Systems Inc.	20%	8	2%
#	6	7	Foxboro Company, The	19%	11	2%
5	5	8	Intellution, Inc.	16%	5	3%
#	13	8	Square D/Groupe Schneider	16%	8	2%
#	2	10	Invensys (Wonderware)	13%	13	1%
#	6	10	National Instruments	13%	11	2%
#	37	12	MAPICS (formerly Thru-Put Tech)	12%	18	1%
#	#	12	Westinghouse	12%	*	*
#	11	12	Fisher Rosemount Systems, Inc.	12%	7	3%
#	15	15	Kronos Inc.	11%	8	2%
#	26	16	Lilly Software Associates, Inc.	9%	13	1%
#	46	17	OSI Software Inc.	8%	13	1%
#	11	17	FactorySoft, Inc.	8%	18	1%
#	16	19	Opto 22	7%	17	1%
#	9	19	USDATA Corp	7%	18	1%
#	13	21	Taylor Manufacturing Systems	1%	18	1%
#	9	22	Epicor (formerly Dataworks Corp.)	5%	17	1%
#	37	22	GageTalker CimWorks	5%	17	1%
#	20	22	Aspen Technology Inc.	5%	*	*

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Rockwell Automation/Rockwell Software	26%	11%	25%	18%	19%	25%	22%
GE Fanuc Automation	4%	7%	14%	14%	9%	4%	10%
Siemens Industrial Automation	-	4%	-	4%	3%	4%	4%
IBM	12%	10%	8%	7%	15%	10%	8%
Honeywell	6%	7%	8%	7%	7%	6%	8%
ABB Industrial Systems Inc.	-	6%	3%	4%	3%	-	6%
Foxboro Company, The	2%	1%	-	7%	2%	2%	4%
Intellution, Inc.	8%	7%	8%	7%	9%	10%	8%
Square D/Groupe Schneider	2%	7%	6%	-	2%	2%	4%
Invensys (Wonderware)	4%	-	-	4%	-	2%	2%
National Instruments	4%	6%	8%	4%	7%	8%	6%
MAPICS (formerly Thru-Put Tech)	-	-	-	-	-	-	-
Westinghouse	2%	1%	-	-	-	-	-
Fisher Rosemount Systems, Inc.	6%	4%	8%	-	3%	6%	4%
Kronos Inc.	2%	3%	-	4%	3%	-	2%
Lilly Software Associates, Inc.	6%	4%	-	-	-	6%	2%
OSI Software Inc.	4%	3%	3%	4%	3%	2%	6%
FactorySoft, Inc.	-	1%	-	-	-	-	-
Opto 22	-	3%	-	-	-	2%	-
USDATA Corp	-	-	-	-	-	2%	-
Taylor Manufacturing Systems	-	-	-	-	-	-	-
Epicor (formerly Dataworks Corp.)	-	3%	3%	-	2%	2%	4%
GageTalker CimWorks	2%	1%	6%	-	3%	2%	4%
Aspen Technology Inc.	-	-	-	-	-	-	-

Continued on next spread

MES/Plant Floor Operations Software (cont.)

(Including Supervisory Control/QC/SQC)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	37	22	CIM Vision International	5%	*	*
13	29	26	GenRad/GR Software (ICC/Mitron)	5%	*	*
#	29	27	Bradley Ward Systems	4%	18	1%
#	55	27	Cimlinc Inc.	4%	17	1%
#	55	27	IFS - Industrial & Financial Systems	4%	13	1%
16	29	27	Promis Systems Corp.	4%	*	*
#	37	31	Base Ten Systems	4%	18	1%
#	#	31	PRI Automation	4%	13	1%
#	29	33	Greco Systems	3%	17	1%
21	55	33	Camstar Systems, Inc.	3%	18	1%
#	#	33	DataSweep	3%	18	1%
#	37	33	Iconics, Inc.	3%	18	1%
#	46	33	PowerWay Inc.	3%	18	1%
#	#	33	Brooks Automation	3%	*	*
18	20	39	Gensym Corporation	3%	17	1%
#	46	39	TA Engineering	3%	18	1%
#	29	39	Intuitive Technology Corp.	3%	*	*
#	55	42	Syspro Impact Software	2%	17	1%
#	46	42	Ci Technologies Inc.	2%	17	1%
19	46	42	Consilium (Applied Materials)	2%	*	*
#	46	45	Intec Controls Corp.	2%	18	1%
#	#	45	POMS Corporation	2%	*	*
#	55	47	Northwest Analytical Inc.	1%	17	1%
#	#	47	Intercim	1%	18	1%

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
CIM Vision International	-	1%	-	-	-	-	-
GenRad/GR Software (ICC/Mitron)	-	-	-	-	-	-	-
Bradley Ward Systems	-	1%	-	4%	-	-	-
Cimlinc Inc.	2%	-	-	4%	-	2%	2%
IFS - Industrial & Financial Systems	4%	3%	6%	-	3%	4%	4%
Promis Systems Corp.	-	-	-	-	-	-	-
Base Ten Systems	-	-	-	-	-	2%	-
PRI Automation	2%	3%	6%	7%	3%	2%	4%
Greco Systems	2%	1%	-	4%	2%	2%	2%
Camstar Systems, Inc.	-	1%	-	-	-	-	-
DataSweep	2%	1%	-	-	-	-	-
Iconics, Inc.	-	-	-	-	-	-	-
PowerWay Inc.	-	-	-	4%	-	-	-
Brooks Automation	-	-	-	-	-	-	-
Gensym Corporation	-	1%	-	-	-	-	2%
TA Engineering	-	-	-	4%	-	-	-
Intuitive Technology Corp.	-	-	-	-	-	-	-
Syspro Impact Software	-	-	-	-	-	-	2%
Ci Technologies Inc.	-	1%	-	-	-	2%	-
Consilium (Applied Materials)	-	-	-	-	-	-	-
Intec Controls Corp.	-	-	-	4%	-	-	-
POMS Corporation	-	-	-	-	-	-	-
Northwest Analytical Inc.	2%	1%	3%	4%	2%	2%	-
Intercim	-	-	-	-	-	2%	-

Continued on next spread

MES/Plant Floor Operations Software (cont.)

(Including Supervisory Control/QC/SQC)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	46	47	ORSI Group	1%	18	1%
#	#	47	VIA Information Tools	1%	18	1%
#	20	47	eMation (formerly PC Soft International)	1%	*	*
#	#	47	iBASEt	1%	*	*
23	55	53	RWT Corp (Real-World Technology)	1%	18	1%
#	#	54	Afcon Controls & Automation	1%	*	*
#	#	54	Hartlepool Systems International	1%	*	*
#	46	54	Q-CIM Inc.	1%	*	*
Base:				218	218	

Not studied in that year

* Less than 0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
ORSI Group	-	-	-	-	-	2%	-
VIA Information Tools	-	1%	3%	-	2%	-	2%
eMation (formerly PC Soft International)	-	-	-	-	-	-	-
iBASEt	-	-	-	-	-	-	-
RWT Corp (Real-World Technology)	-	-	-	4%	-	-	-
Afcon Controls & Automation	-	-	-	-	-	-	-
Hartlepool Systems International	-	-	-	-	-	-	-
Q-CIM Inc.	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	51	70	36	28	59	52	50

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

PC-Based Control Software

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	1	1	Rockwell Automation (Rockwell Software/Allen-Bradley)	52%	1	18%
#	5	2	Honeywell	48%	2	11%
#	4	3	GE Fanuc Automation	44%	3	9%
#	2	4	Siemens Industrial Automation	42%	4	4%
#	9	5	ABB Industrial Systems Inc.	25%	5	3%
#	6	6	Cutler-Hammer/Eaton	23%	10	2%
#	9	7	Foxboro Company, The	18%	12	1%
#	6	8	Intellution, Inc.	17%	5	3%
#	6	9	National Instruments	16%	8	2%
#	3	10	Invensys (Wonderware)	15%	5	3%
#	19	11	OSI Software Inc.	12%	8	2%
#	13	11	Opto 22	12%	12	1%
#	12	13	USDATA Corp.	10%	10	2%
#	#	14	Xycom (Proface)	8%	*	*
#	#	15	Phoenix Contact	5%	*	*
#	#	16	Nematron	4%	*	*
#	#	17	Beckhoff Automation	4%	12	1%
#	13	17	Entivity (Steeplechase/Think & Do)	4%	12	1%
#	#	19	Afcon Controls & Automation (P-CIM)	1%	*	*
Base:				211	211	

Not studied in
that year
* Less than 0.5%

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Rockwell Automation (Rockwell Software/Allen-Bradley)	32%	41%	34%	39%	29%	35%	38%
Honeywell	16%	10%	11%	28%	15%	16%	10%
GE Fanuc Automation	13%	18%	21%	17%	19%	12%	19%
Siemens Industrial Automation	8%	7%	5%	6%	6%	7%	7%
ABB Industrial Systems Inc.	2%	3%	7%	-	3%	4%	2%
Cutler-Hammer/Eaton	3%	5%	2%	-	6%	2%	3%
Foxboro Company, The	3%	2%	5%	-	3%	4%	2%
Intellution, Inc.	10%	3%	2%	-	8%	2%	5%
National Instruments	3%	3%	-	-	3%	4%	3%
Invensys (Wonderware)	5%	3%	5%	11%	3%	5%	3%
OSI Software Inc.	3%	2%	7%	-	5%	7%	5%
Opto 22	-	-	-	-	2%	-	-
USDATA Corp.	3%	-	-	6%	-	-	2%
Xycom (Proface)	-	-	-	-	-	-	-
Phoenix Contact	-	-	-	-	-	-	-
Nematron	-	-	-	-	-	-	-
Beckhoff Automation	3%	-	2%	-	-	2%	-
Entivity (Steeplechase/Think & Do)	2%	2%	-	6%	-	-	2%
Afcon Controls & Automation (P-CIM)	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	62	61	44	18	65	57	58

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Product Data Management Systems**

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	2	1	IBM - Catia Software	55%	2	13%
#	1	2	Autodesk, Inc.	53%	1	21%
#	#	3	Parametric Technology Corp. (PTC)	20%	3	4%
#	16	4	Agile Software Corp.	19%	5	3%
#	8	5	Invensys (Baan Company)	16%	4	4%
#	3	5	Intergraph Corp.	16%	9	2%
#	6	7	Computervision Inc.	15%	11	1%
#	5	8	UGS (formerly Unigraphics Solutions)	15%	5	3%
#	15	9	MatrixOne	13%	15	1%
#	12	10	SDRC/Inso (Sherpa)	9%	5	3%
#	#	11	SmarTeam	7%	8	3%
#	10	12	Documentum Inc.	6%	9	2%
#	4	13	Co-Create Software Inc.,	3%	11	1%
#	#	13	Eigner & Partner	3%	11	1%
#	#	13	Auto-Trol Technology	3%	*	*
#	16	13	Matra Datavision Inc.	3%	*	*
#	16	17	Formtek	2%	11	1%
#	12	18	Cimage NovaSoft	2%	*	*
Base:				183	183	

Not studied in that year

* Less than 0.5%

** PDM/Document Mgmt Systems in previous reports

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
IBM - Catia Software	18%	21%	25%	45%	25%	31%	27%
Autodesk, Inc.	27%	27%	28%	20%	40%	29%	27%
Parametric Technology Corp. (PTC)	11%	6%	6%	5%	6%	6%	9%
Agile Software Corp.	5%	8%	6%	-	2%	3%	-
Invensys (Baan Company)	9%	6%	6%	10%	6%	6%	9%
Intergraph Corp.	2%	4%	3%	5%	2%	6%	3%
Computervision Inc.	2%	4%	6%	5%	4%	3%	3%
UGS (formerly Unigraphics Solutions)	5%	6%	3%	5%	8%	6%	6%
MatrixOne	-	4%	-	-	4%	3%	-
SDRC/Inso (Sherpa)	5%	2%	3%	-	4%	-	6%
SmarTeam	7%	6%	6%	10%	-	-	-
Documentum Inc.	-	6%	-	5%	-	-	3%
Co-Create Software Inc.,	5%	2%	3%	-	2%	6%	6%
Eigner & Partner	2%	-	3%	-	-	-	-
Auto-Trol Technology	-	-	-	-	-	-	-
Matra Datavision Inc.	-	-	-	-	-	-	-
Formtek	2%	4%	3%	-	2%	6%	3%
Cimage NovaSoft	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	44	52	32	20	48	35	34

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Supply Chain Execution **

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	#	1	IBM	43%	1	8%
#	1	2	PeopleSoft Inc.	35%	3	5%
#	1	3	J.D. Edwards	31%	2	8%
#	5	4	i2 Technologies Inc.	18%	3	5%
#	14	5	MAPICS (formerly Thru-Put Tech)	18%	12	2%
#	4	6	Invensys (Baan Company)	14%	3	5%
#	8	7	Manugistics Inc.	13%	7	2%
#	8	8	QAD Inc.	10%	7	2%
#	12	9	Advanced Planning Systems Inc.	9%	7	2%
#	#	9	CMS Manufacturing Systems Inc.	9%	19	1%
#	3	11	Epicor (formerly Dataworks Corp.)	8%	6	3%
#	25	11	Logility Inc.	8%	19	1%
#	5	13	SynQuest Inc.	6%	12	2%
#	#	13	Systems Software Associates (SSA)	6%	15	1%
#	#	15	Robocom Systems Inc.	6%	7	2%
#	#	15	Ann Arbor Computer	6%	19	1%
#	#	17	Intuitive Manufacturing Systems Inc.	5%	12	2%
#	#	17	Manhattan Associates	5%	15	1%
#	25	19	IFS - Industrial & Financial Systems	5%	7	2%
#	#	19	Catalyst International Inc.	5%	19	1%
#	#	19	Kewill Logistics	5%	19	1%
#	#	19	BDM International	5%	*	*
#	#	19	HK Systems (Irista)	5%	*	*
#	#	19	McHugh Software International	5%	*	*

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
IBM	11%	10%	19%	11%	11%	4%	21%
PeopleSoft Inc.	9%	6%	3%	5%	16%	9%	5%
J.D. Edwards	11%	14%	7%	16%	13%	18%	10%
i2 Technologies Inc.	9%	10%	16%	16%	11%	13%	13%
MAPICS (formerly Thru-Put Tech)	2%	4%	7%	-	2%	2%	3%
Invensys (Baan Company)	11%	8%	7%	16%	4%	9%	10%
Manugistics Inc.	4%	8%	3%	5%	2%	4%	5%
QAD Inc.	-	4%	-	5%	2%	-	-
Advanced Planning Systems Inc.	2%	2%	3%	5%	-	9%	3%
CMS Manufacturing Systems Inc.	-	4%	-	-	2%	4%	5%
Epicor (formerly Dataworks Corp.)	-	8%	3%	5%	4%	2%	3%
Logility Inc.	-	2%	-	-	-	-	3%
SynQuest Inc.	4%	4%	-	5%	-	7%	3%
Systems Software Associates (SSA)	2%	2%	3%	-	2%	2%	-
Robocom Systems Inc.	4%	2%	3%	11%	4%	4%	5%
Ann Arbor Company	2%	-	-	-	2%	-	-
Intuitive Manufacturing Systems Inc.	2%	2%	7%	11%	2%	2%	3%
Manhattan Associates	2%	2%	-	5%	2%	-	3%
IFS - Industrial & Financial Systems	4%	2%	7%	5%	4%	4%	5%
Catalyst International Inc.	-	2%	-	-	-	-	-
Kewill Logistics	-	2%	3%	-	-	-	3%
BDM International	-	-	-	-	-	-	-
HK Systems (Irista)	-	-	-	-	-	-	-
McHugh Software International	-	-	-	-	-	-	-

Continued on next spread

Supply Chain Execution (cont.) **

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	#	25	Auto-Soft Corp.	4%	15	1%
#	14	25	American Software Inc.	4%	19	1%
#	#	25	Optum Software	4%	19	1%
#	#	25	TigrSoft	4%	19	1%
#	18	25	Marcam Solutions Inc.	4%	*	*
#	#	30	CIM Vision International	3%	19	1%
#	32	30	Descartes Systems Corp.	3%	19	1%
#	25	30	Renaissance Software LLC	3%	19	1%
#	14	30	Numetrix, Inc.	3%	*	*
#	25	34	Ramco Systems	3%	15	1%
#	53	34	Industri-Matematik International (IMI)	3%	19	1%
#	#	34	Provia Software	3%	19	1%
#	#	34	InterBiz Solutions (formerly Acacia Technologies/MK Group)	3%	*	*
#	42	38	EXE Technologies Inc.	2%	19	1%
#	#	38	IBS (Interactive Business Systems)	2%	19	1%
#	18	38	Optimax Systems Corp.	2%	19	1%
#	#	38	Revere Inc.	2%	19	1%
#	32	38	Cetec Automation	2%	*	*
#	25	38	Demand Management Inc.	2%	*	*
#	25	38	Endura Software Corp.	2%	*	*
#	#	38	Infinium Software	2%	*	*
#	32	46	Glovia International	2%	*	*
#	42	46	TECSYS	2%	*	*
#	#	48	ILOG	1%	*	*

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Auto-Soft Corp.	2%	2%	3%	-	-	-	-
American Software Inc.	2%	-	-	-	-	2%	-
Optum Software	-	-	3%	-	-	-	-
TigrSoft	2%	-	3%	-	2%	-	-
Marcam Solutions Inc.	-	-	-	-	-	-	-
CIM Vision International	-	-	-	-	-	2%	-
Descartes Systems Corp.	-	-	3%	-	-	-	-
Renaissance Software LLC	-	-	-	-	-	-	-
Numetrix, Inc.	-	-	-	-	-	-	-
Ramco Systems	-	-	-	5%	2%	2%	-
Industri-Matematik International (IMI)	-	-	-	-	-	-	-
Provia Software	2%	2%	-	-	2%	2%	3%
InterBiz Solutions (formerly Acacia Technologies/MK Group)	-	-	-	-	-	-	-
EXE Technologies Inc.	2%	-	3%	-	2%	-	-
IBS (Interactive Business Systems)	2%	-	-	-	2%	2%	-
Optimax Systems Corp.	-	-	-	-	-	-	-
Revere Inc.	2%	-	-	-	-	-	-
Cetec Automation	-	-	-	-	-	-	-
Demand Management Inc.	2%	-	3%	-	2%	-	3%
Endura Software Corp.	-	-	-	-	-	2%	-
Infinium Software	-	-	-	-	2%	-	-
Glovia International	-	-	-	-	-	-	-
TECSYS	-	2%	-	-	-	2%	3%
ILOG	-	-	-	-	-	-	-

Continued on next spread

Supply Chain Execution (cont.) **

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	53	48	Vastera Software Inc.	1%	*	*
#	42	50	Intenia International	1%	*	*
#	#	51	Intrepa	*	*	*
Base:				179	179	

Not studied in that year
* Less than 0.5%
** Supply Chain Mgmt. in previous reports

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
Vastera Software Inc.	-	-	-	-	-	-	-
Intentia International	-	-	-	-	-	-	-
Intrepa	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	45	52	31	19	45	45	39

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

Supply Chain Planning **

(includes Advanced Planning & Scheduling)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	#	1	SAP America	41%	1	17%
#	20	2	Rockwell Automation/Rockwell Software (formerly Systems Modeling Corp.)	34%	2	6%
#	1	3	PeopleSoft Inc.	33%	4	5%
#	18	4	J.D. Edwards (Numetrix, Inc.)	27%	3	6%
#	7	5	i2 Technologies, Inc.	21%	6	4%
#	37	6	MAPICS (formerly Thru-Put Tech)	18%	7	3%
#	15	7	Lilly Software Associates Inc.	14%	8	3%
#	3	8	Invensys (Baan Company)	14%	5	5%
#	8	9	Manugistics Inc.	11%	10	2%
#	23	10	Supply Chain Solutions, Inc.	11%	9	2%
#	31	11	Logility Inc.	8%	12	1%
#	#	11	Aspen Technology Inc.	8%	16	1%
#	31	13	Profitkey International Inc.	6%	16	1%
#	5	14	Taylor Manufacturing Systems	6%	12	1%
#	5	15	SynQuest Inc.	5%	10	2%
#	#	15	Demand Management Inc.	5%	16	1%
#	#	17	TigrSoft	4%	*	*
#	18	17	WebPlan (formerly Enterprise Planning Sys.)	4%	*	*
#	#	19	Freemarkets Inc. (Adexa Inc.)	3%	12	1%
#	38	20	IFS - Industrial & Financial Systems	3%	16	1%
#	#	21	LPA Software Inc.	2%	12	1%
#	#	21	John Galt Company	2%	16	1%
#	#	23	RockySoft	2%	*	*
#	#	24	Demantra	1%	*	*

Continued on next spread

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
SAP America	23%	23%	28%	38%	27%	28%	31%
Rockwell Automation/Rockwell Software (formerly Systems Modeling Corp.)	9%	15%	6%	9%	18%	4%	17%
PeopleSoft Inc.	9%	10%	6%	6%	9%	9%	4%
J.D. Edwards (Numetrix, Inc.)	8%	4%	16%	3%	16%	7%	13%
i2 Technologies, Inc.	4%	8%	6%	13%	4%	7%	6%
MAPICS (formerly Thru-Put Tech)	6%	6%	13%	3%	7%	9%	6%
Lilly Software Associates Inc.	9%	4%	6%	-	9%	7%	6%
Invensys (Baan Company)	9%	6%	6%	13%	-	9%	4%
Manugistics Inc.	-	4%	-	6%	-	2%	2%
Supply Chain Solutions, Inc.	2%	2%	-	3%	2%	4%	2%
Logility Inc.	2%	4%	3%	3%	2%	2%	4%
Aspen Technology Inc.	4%	-	6%	3%	2%	2%	4%
Profitkey International Inc.	2%	2%	-	-	2%	2%	-
Taylor Manufacturing Systems	-	-	-	-	-	-	-
SynQuest Inc.	4%	4%	-	3%	2%	4%	4%
Demand Management Inc.	-	-	-	3%	-	-	-
TigrSoft	-	-	-	-	-	-	-
WebPlan (formerly Enterprise Planning Sys.)	-	-	-	-	-	-	-
Freemarkets Inc. (Adexa Inc.)	4%	-	3%	-	4%	-	-
IFS - Industrial & Financial Systems	2%	2%	3%	-	2%	2%	2%
LPA Software Inc.	-	-	3%	-	-	2%	-
John Galt Company	-	2%	-	-	2%	-	-
RockySoft	-	-	-	-	-	-	-
Demantra	-	-	-	-	-	2%	-

Continued on next spread

Supply Chain Planning (cont.) **

(includes Advanced Planning & Scheduling)

Companies Respondents Would Investigate and
Companies They Believe Offer The Best Value --

Would Likely Investigate			Company	Would	Consider	
Ranking				Likely Investigate	"Best Value"	
1994	1998	2001		%	Rank	%
#	38	24	InterBiz Solutions (formerly MKGroup)	1%	*	*
#	#	24	STG	1%	*	*
#	51	27	Ortems Americas	1%	*	*
#	51	28	Alt-C	*	*	*
Base:				188	188	

Not studied in that year

* Less than 0.5%

** APS in previous reports

How to read this table: The first two columns show the rank of the vendor in the 1994 and 1998 studies, based on the proportion of respondents who would likely investigate that vendor if planning to buy this product or service. The third column shows the company's rank in the current (2001) study. The fourth column shows the percentage of respondents who would likely investigate that company; this is the percentage on which the current ranking is based. The next two columns show the rank based on preference and the proportion indicating they prefer that company. Preference is based on considering that company as offering the best overall value. If two or more companies are tied on the basis of percentages, the order of listing is based on actual number of mentions. If that is also tied, they are listed in alphabetical order.

Companies Respondents Would Investigate – By Criteria Importance Rating –

Company	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators'/Consultant Recommendation	Reliability	System Compatibility	Technical Service/Back-Up
InterBiz Solutions (formerly MKGroup)	2%	-	-	-	2%	-	2%
STG	-	-	-	-	-	-	-
Ortems Americas	-	-	-	-	-	-	-
Alt-C	-	-	-	-	-	-	-
Base: (CRITERIA IMPORTANCE)	53	52	32	32	45	46	48

How to read this table: The first column shows the percentage of those who indicated "competitive pricing" is an important selection criterion, that also would investigate that supplier. Thus, this table indicates a company's relative strengths and weaknesses based on its likelihood of being considered among people who value technical service, among people who value documentation, etc. Comparing across, a high score (relative to competitors in that column) indicates a strength; a low score (relative to competitors) indicates a weakness. The bottom row shows the number saying each factor is an important consideration in the selection of this product. This row, therefore, shows which factors are most important in promoting this product.

How This Study Was Conducted

This study, conducted by Managing Automation and tabulated by Processing Consultants in Marketing, was sent to 3,000 MANAGING AUTOMATION subscribers selected on a systematic random (Nth name) basis. Returns were received from 282 (9.4%), of which 282 were received in time to be included in the tabulation. We believe this is an acceptable percentage response considering the demanding nature of the questionnaire.

The study covers twelve product categories; each listing from 17 to 54 identified vendors. Respondents were asked to check which of the companies listed they would investigate if they were planning to buy that product or service, which one they believe offers the best overall value, and to indicate which criteria they use in evaluating specific companies.

Each questionnaire was printed so that half had the company names in alphabetical order; the other half had the company names in reverse-alpha order. The buying criteria question similarly reversed order to minimize position bias. (The questionnaires are reproduced on the following page.)

Respondents by Title/Function

	TOTAL	
Corporate and Financial Management	47	17%
MIS/IT Management	25	9%
Production Planning, Inventory Control, Materials or Purchasing Management	30	11%
Automation Manufacturing/Production Management	45	16%
Plant/Facilities Management	32	11%
Design/R&D Management	38	14%
Systems Integrator/VAR/Consultant	25	9%
Other/No Answer	40	14%
Base: (All respondents)	282	100%

Respondents by Industry Group

	TOTAL	
Metalworking	165	59%
Processing	63	22%
Non-Mfg. (Systems Integrators/Consultants/Engineering Services/VARs/etc.)	43	15%
Manufacturing Type Not Specified/No answer	11	4%
Base: (All respondents)	282	100%

SIC Categories:

Metalworking	25, 34-39
Processing	20-24, 26-33

MA Logo

PRODUCTS/BRAND STUDY

PRODUCTS/BRAND STUDY

1a. What manufacturers would you most likely investigate if your organization were planning to purchase the product indicated? (Please check all companies you would investigate.)

1b. Considering all factors, which one manufacturer do you, at this time, believe offers the best overall value? (Please circle the one company that you, at this time, believe offers the best value.)

CAD/CAM/CAE AND OTHER ENGINEERING APPLICATIONS

UGS (formerly Unigraphics Solutions) Intergraph Corp. Autodesk, Inc.
SolidWorks Corp. IBM/Dassault Systems (Catia Sfrw) Ansys, Inc.
SDRC Delmia (formerly Deneb Robotics) Other: _____
Parametric Technology Corp. (PTC) Co-Creat Software Inc.
Mentor Graphics Cadkey (Baystate Technologies) (Also, please circle choice as best value.)
Matra Datavision, Inc. Cadence Design Systems
MSC Software Corp. (formerly MacNeal-Schwendler Corp.) Bentley Systems Inc.
Avant Corp.

CUSTOMER RELATIONSHIP MANAGEMENT

Trilogy Development Group Lilly Software Associates, Inc. Clarus
Siebel Systems Invenys (Baan Company) Astea International
RTS Software IFS - Industrial & Financial Systems Aspect Communications
PeopleSoft, Inc. (Vantiv) Firepond (formerly CWC) Other: _____
Oracle Corp. E-piphany
Onyx Software Epicor Software (Also, please circle choice as best value.)
Nortel Networks (Clarify) Dendrite International Inc.
Metrix Dava

DATA ACQUISITION/DATA COLLECTION SOFTWARE

USDATA Corp. PowerWay Inc. Honeywell Ind'l Automation & Ctrl.
TA Engineering Panasonic Factory Automation HighJump Software (formerly DCS)
Stochos Opto 22 Finley Systems Inc. Episcor Software
StatSoft ONSPEC Automation Solution Emation Inc.
Sirius Computer Solutions, Inc. National Instruments Cimline Inc.
Simulation Sciences, Inc. Manufacturing Data Systems Ci Technologies Inc.
Siemens Energy & Automation J.D. Edwards Casco Development Inc.
Rockwell Autom'n/Rockwell Sfrw ITC Integrated Systems Bradley Ward Systems
Real World Technology IQS Inc. BMS (Bar Coded Mgmt Systems)
Quality Measurement Systems Intellution, Inc. Agilent Technologies (formerly H.P.)
Promis Systems Corp. Instant Data Systems Action Systems Associates
Profitkey International Inc. Iconics, Inc. Other: _____
Process Integrity IBM (Also, please circle choice as best value.)

ELECTRONIC COMMERCE

Trilogy Software Inc. Interworld Click Commerce
Trade i2 Technologies Inc. (RightWorks) Broadvision
SAP America Hotamba Asera
Purchasesoft Hilt Software Ariba Technologies
Oracle Corp. Entigo (Signal Internet Technologies) Agentic
Open Market Commerce One Other: _____
NetVendor Comergent (Also, please circle choice as best value.)
Ironside Technologies

ERP/MRP/MRP II

Western Data Systems MAPICS (formerly Pivotpoint) Clovia International
Visibility, Inc. MAI Systems Corp. Geac Computer Corp. (JBA Int'l)
Systems Software Associates (SSA) Made2Manage Systems, Inc. Frontstep (formerly Sysim Computer)
Sypro Impact Software Macola, Inc. Friedman Corp.
SupplyChain.com, Inc. Lilly Software Associates, Inc. Fourth Shift Corp./AremiSoft
SCT (Systems & Computer Tech.) Lawson Software FlexInternational
Scala North America Inc. Kewill ERP (formerly Micro-MRP) Expandable Software
SAP America Jobscope Corp. Epicor Software (Platinum Software)
Sage Tetra J.D. Edwards Enhanced Systems & Services
Ross Systems, Inc. Invenys (Baan Company) Encomplex
ROI Systems, Inc. Invenys (Marcam Solutions Inc.) Deltek Systems
Ramco Systems Intuitive Manufacturing Systems Inc. CMS Manufacturing Systems Inc.
Qantel Technologies InterBiz Solutions (formerly Acacia Technologies/MK Group) Cincron Systems, Inc.
QAD Inc. Profitkey International Brain International (CMI)
Profitkey International Infinium Software AppsBiz.com
PowerCerv Corp. IFS - Industrial & Financial Systems American Software Inc.
PeopleSoft, Inc. Oracle Corp. Other: _____
Navision Software/Damgaard Great Plains Software (Microsoft) (Also, please circle choice as best value.)

HUMAN-MACHINE INTERFACE (HMI)

Xycom (Proface) Nemtron Entivity (Steeplechase/Think & Do)
Wonderware National Instruments eMatra (formerly PC Soft International)
USDATA Corp. Invenys Computer Technology Corp.
TA Engineering Intec Controls Corp. Canstar Systems, Inc.
Siemens Industrial Automation Iconics, Inc. Brooks Autom'n (formerly FASTech)
Rockwell Automation (Rockwell Software and Allen-Bradley) Honeywell ABB Industrial Systems Inc.
OSI Software Inc. GE Fanuc Automation Other: _____
Fisher Rosemount/Intellution, Inc.

MES/PLANT FLOOR OPERATIONS SOFTWARE (INCLUDING SUPERVISORY CONTROL/QC/SQC)

Westinghouse Intellution, Inc. Bradley Ward Systems
VIA Information Tools Intec Controls Corp. Base Ten Systems
USDATA Corp. IFS - Industrial & Financial Systems Aspen Technology, Inc.
Taylor for Manufacturing Systems Iconics, Inc. Afcon Cntr'ls & Autom'n (P-CIM)
TA Engineering Sypro Impact Software ABB Industrial Systems Inc.
StatSoft IBM Other: _____
Square D/Groupe Schneider iBASEL (Also, please circle choice as best value.)
Siemens Industrial Automation Honeywell
RWT Corp. (Real-World Technology) Hartlepool Systems International
Rockwell Autom'n/Rockwell Sfrw Greco Systems
Gensym Corporation
Q-CIM Inc. GenRad/R Software (CC/Miron)
Promis Systems Corp. GE Fanuc Automation
PRI Automation GageTalker CmmWorks
PowerWay Inc. Foxboro Company, The
POMS Corporation Fisher Rosemount Systems, Inc.
OSI Software Inc. FactorySoft Inc.
ORSI Group Opto 22 eMatra (formerly PC Soft International)
National Instruments National Instruments
National Instruments Consium (Applied Materials)
MAPICS (formerly Thru Put Tech.) Cimline Inc.
Lilly Software Associates, Inc. CIM Vision International
Kronos Inc. CI Technologies Inc.
Invenys (Wonderware) Canstar Systems, Inc.
Intuitive Technology Corp.
Interim Brooks Automation

SUPPLY CHAIN PLANNING (INCLUDES ADVANCED PLANNING & SCHEDULING)

WebPlan (formerly Enterprise Planning Systems) Profiter International Inc. InterBiz Solutions (formerly MK Group)
TigSoft PeopleSoft, Inc. IFS - Industrial & Financial Systems
Taylor Manufacturing Systems Oremis Americas i2 Technologies, Inc.
SynQuest Inc. MAPICS (formerly Thru Put Tech.) Dematris, Inc. (Adexa Inc.)
Supply Chain Solutions, Inc. Managistics, Inc. Demand Management, Inc.
S.T.C. Logility Inc. Aspen Technology, Inc.
SAP America Lilly Software Associates, Inc. Alt C
RockySoft John Galt Company Other: _____
Rockwell Autom'n/Rockwell Sfrw (formerly Systems Modeling Corp.) J.D. Edwards (Numetrix, Inc.)
Invenys (Baan Company) (Also, please circle choice as best value.)

MAINTENANCE MANAGEMENT SOFTWARE/ENTERPRISE ASSET MANAGEMENT

Tetra International Inc. Invenys/Avantis formerly Marcam Solutions Computational Systems Inc. (CS)
Systems Software Associates (SSA) Intuitive Manufacturing Systems Inc. CMS Manufacturing Systems Inc.
Rockwell Autom'n (Etek/Maximo) Revere Inc. CHAMPS Software, Inc.
Revire Inc. Ramco Systems Cayenta (formerly Mainsaver)
MRO Software (formerly PSD) Mincom Other: _____
JB Systems MRC Software Executive Mfg. Technologies (EMT)
Ivara Corporation DP Solutions Datastream

PC-BASED CONTROL SOFTWARE

Xycom (Proface) Nemtron Cutler-Hammer/Eaton
USDATA Corp. National Instruments Beckhoff Automation
Siemens Industrial Automation Intellution, Inc. Afcon Cntr'ls & Autom'n (P-CIM)
Rockwell Automation (Rockwell Software/Allen-Bradley) Honeywell ABB Industrial Systems Inc.
Phoenix Contact GE Fanuc Automation Other: _____
OSI Software Inc. Foxboro Company, The (Also, please circle choice as best value.)
Opto 22 Entivity (Steeplechase/Think & Do)

SUPPLY CHAIN EXECUTION

Vastara Software, Inc. J.D. Edwards CIM Vision International
TigSoft Invenys (Baan Company) Cetec Automation
TECSYS Intuitive Manufacturing Systems Inc. Catalyst International, Inc.
Systems Software Associates (SSA) Intrepa BDM International
SynQuest Inc. InterBiz Solutions (formerly Acacia Technologies/MK Group) Ann Arbor Computer
Robocam Systems Inc. Intenia International American Software Inc.
Revere Inc. Infinium Software Advanced Planning Systems Inc.
Renaissance Software LLC I.B.O.G. Other: _____
Ramco Systems IFS - Industrial & Financial Systems (Also, please circle choice as best value.)
QAD Inc. IBS (Interactive Business Systems)
Provia Software IBM
PeopleSoft, Inc. i2 Technologies, Inc.
Optum Software HIK Systems (Hista)
Optimax Systems Corp. Glovia International
Numetrix, Inc. EXE Technologies Inc.
McHugh Software International Epicor (formerly Dataworks Corp.)
Marcam Solutions Inc. Eudura Software Corp.
MAPICS (formerly Thru Put Tech.) Descartes Systems Group
Managistics Inc. Manhattan Associates Demand Management, Inc.
Logility Inc. CMS Manufacturing Systems Inc.
Kewill Logistics

PRODUCT DATA MANAGEMENT SYSTEMS

UGS (formerly Unigraphics Solutions) Intergraph Corp. Cimage NovaSoft
SmartTeam IBM - Catia Software Auto-Trol Technology
SDRC/Inso (Shrap) Fortitek Autodesk, Inc.
Parametric Technology Corp. (PTC) Eigener & Partner Agile Software Corp.
MatrixOne Documentum, Inc. Other: _____
Matra Datavision, Inc. Computeruision, Inc. (Also, please circle choice as best value.)
Invenys (Baan Company) Co-Creat Software Inc.

2. For each of the items, what factors are/were important in your decision relative to competing brands?

	Competitive Pricing	Mfg. Knowledge/Expertise	Documentation	Integrators/Consultants' Recommendation	Reliability	System Compatibility	Technical Service/Back-up
CAD/CAM/CAE & Other Eng'g Applications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer Relationship Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data Acquisition/Data Collection Software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E-Manufacturing Software Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electronic Commerce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ERP/MRP/MRP II	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human-Machine Interface (HMI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance Mgmt Systems/Enterprise Asset Mgmt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MES/Plant Floor Operations Software (Including Supervisory Control/QC/SQC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PC-Based Control Software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product Data Management Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supply Chain Execution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supply Chain Planning (Includes Advanced Planning & Scheduling)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6	7

And for background information, will you tell us the following about your company...

A. Products/Services produced at this location: _____ C. Number of employees: _____

B. Industry: _____ D. State: _____

E. Your responsibility: (Please check one only.) _____

Corporate and Financial Management Plant/Facilities Management
MIS/IT Management Design/R & D Management
Production Planning, Inventory Control, Materials or Purchasing Management Systems Integrator/VAR/Consultant
Automation Mfg./Production Management Other: _____

Thank you very much.
Please return your completed questionnaire in the enclosed Business Reply Envelope.

Technical Appendix

Statistical Reliability

Reliability varies by size of the base and by the percentage answer. Answers close to 99% or 1% are more reliable than answers close to 50%. A 90% (or 10%) answer, in other words, is more reliable than a 60% (or 40%) answer. The table below shows the error ranges, for different sample sizes, assuming a 75% (or 25%) answer. Answers close to 50% would have slightly less reliability; answers close to 100% or zero would have slightly more reliability. This table is based on a 95% confidence factor.

Sample Size	Error Range (Example based on 25%)
1000	Plus or minus 2.8 percentage points (22.2% to 27.8%)
800	Plus or minus 3.0 percentage points (22% to 28%)
500	Plus or minus 3.9 percentage points (21.1% to 28.9%)
400	Plus or minus 4.3 percentage points (20.7% to 29.3%)
250	Plus or minus 5.5 percentage points (19.5% to 30.5%)
100	Plus or minus 8.7 percentage points (16.3% to 33.7%)
50	Plus or minus 12.3 percentage points (12.7% to 37.3%)

It should be noted, however, that the true answers is more likely closer to the survey finding than it is to either extreme. That is, in the example above, the true answer for a sample of 100 would probably be closer to 25% than to either 16% or 33%.

Supplementary Product Group Reports are also available.

This report covers the findings of MANAGING AUTOMATION's 2001 Software Brand Preference Study. Extra copies are available at \$300 each from the publisher.

In addition, a full series of supplementary reports are available – each covering a single product group in considerable depth. Priced at \$200 per report, these reports are available at no charge to current MANAGING AUTOMATION advertisers.

What Each Supplementation Product Group Report Contains –

Table A – Scores and Rankings for all vendors – “would likely investigate” and “best value” data by all respondents. *

Table B – “Would Likely Investigate” Scores – detailed for each decision criterion by all respondents. *

Table C – “Preference” Scores – detailed for each key decision criterion by all respondents.

Table D – “Would Likely Investigate” Scores – detailed by respondent job function.

Table E – “Preference” Scores – detailed by respondent job function.

Table F – “Would Likely Investigate” Scores – detailed by user industry group.

Table G – “Preference” Scores – detailed by user industry group.

Table H – “Would Likely Investigate” Scores – detailed by user plant size.

Table I – “Preference” Scores – detailed by user plant size.

Table J – “Would Likely Investigate” Scores – detailed by user geographical region.

Table K – “Preference” Scores – detailed by user geographical region.

Table L – The Importance Of Each Key Decision Criterion – detailed by respondent job function.

* This table also appears in this report.

Supplementary Product Group Reports Available

<u>Report #</u>	<u>Product Group Covered</u>
0101	CAD/CAM/CAE and Other Engineering Applications
0102	Customer Relationship Management
0103	Data Acquisition/Data Collection Software
0104	Electronic Commerce
0105	ERP/MRP/MRP II
0106	Human-Machine Interface (HMI)
0107	Maintenance Management Software/Enterprise Asset Mgmt.
0108	MES/Plant Floor Operations Software (Including Supervisory Control/QC/SQC)
0109	PC-Based Control Software
0110	Product Data Management Systems
0111	Supply Chain Execution
0112	Supply Chain Planning (Includes Advanced Planning & Scheduling)

To order one or more of these reports, contact your MANAGING AUTOMATION representative, or write to –

MANAGING AUTOMATION
ATTN: Esther Manzano
Five Penn Plaza
New York, NY 10001
(212) 629-1509 FAX (212) 629-1149
Email: emanzano@tpmgnet.com

Index to Companies

-A-

ABB Industrial Systems Inc.....	22, 26, 32
Action Systems Associates	12
Advanced Planning Systems Inc.....	36
Afcon Controls & Automation (P-CIM).....	30, 32
Agentics.....	14
Agile Software Corp.....	34
Agilent Technologies (formerly H-P)	10
Alt-C.....	44
American Software Inc.....	16, 38
Ann Arbor Computer.....	36
Ansys, Inc.....	6
Apps4Biz.com.....	20
Ariba Technologies.....	14
Asera.....	14
Aspect Communications.....	8
Aspen Technology, Inc.....	26, 42
Astea International.....	8
Autodesk, Inc.....	6, 34
Auto-Soft Corp.....	38
Auto-Trol Technology.....	34
Avant! Corp.....	6

-B-

Base Ten Systems.....	28
BDM International	36
Beckhoff Automation	32
Bentley Systems Inc.....	6
BMS (Bar Coded Mgm't Systems)	10
Bradley Ward Systems.....	10, 28
Brain International (CMI).....	18
Broadvision	14
Brooks Automat'n (formerly FASTech).....	22, 28

-C-

Cadence Design Systems Inc.....	6
Cadkey (Baystate Technologies)	6
Camstar Systems, Inc.	22, 28
Casco Development Inc.....	12
Catalyst International, Inc.....	36
Cayenta (formerly Mainsaver).....	24
Cetec Automation	38
CHAMPS Software, Inc.....	24
Ci Technologies Inc.....	12, 28
CIM Vision International.....	38
Cimage NovaSoft	34
Cimlinc Inc.....	12, 28
Cincom Systems, Inc.....	18
Clarus.....	8, 14
Click Commerce.....	14
CMS Manufacturing Systems Inc.....	16, 24, 36

Co-Create Software Inc.....	6, 34
Comergent.....	14
Commerce One.....	14
Computational Systems Inc. (CSI).....	24
Computer Technology Corp.....	22
Computervision, Inc.....	34
Consilium (Applied Materials).....	28
Cutler-Hammer/Eaton.....	32

-D-

Datastream	24
DataSweep	28
Davox.....	8
Delmia (formerly Deneb Robotics).....	6
Deltak Systems.....	16
Demand Management, Inc.....	38, 42
Demantra	42
Dendrite International Inc.	8
Descartes Systems Group	38
Documentum, Inc.....	34
DP Solutions.....	24

-E-

E.piphany.....	8
Eigner & Partner	34
eMation (formerly PC Soft International)	22, 30
Emation Inc.....	12
Encompix	18
Endura Software Corp.....	38
Enhanced Systems & Services	18
Entigo (Signal Internet Technologies)	14
Entivity (Steeplechase/Think & Do).....	22, 32
Epicor (formerly Dataworks Corp.)	26, 36
Epicor Software.....	8, 10, 16
EXE Technologies Inc.....	38
Executive Mfg. Technologies (EMT).....	24
Expandable Software	18

-F-

FactorySoft Inc.....	26
Finley Systems Inc.	12
Firepond (formerly CWC).....	8
Fisher Rosemount Systems, Inc.	26
Fisher Rosemount/Intellution, Inc.	22
FlexInternational	20
Fluor Daniel, Inc.....	24
Formtek	34
Fourth Shift Corp./AremiSoft.....	16
Foxboro Company, The	26, 32
Freemarkets, Inc. (Adexa Inc.)	42
Friedman Corp.	16
Frontstep (formerly Symix Computer)	18

Index to Companies (continued)

-G-		IQS Inc.....	12
GageTalker CimWorks.....	26	Ironside Technologies.....	14
GE Fanuc Automation	22, 26, 32	ITC Integrated Systems.....	10
Geac Computer Corp. (JBA Int'l).....	20	Ivara Corporation.....	24
GenRad/GR Software (ICCMitron)	28	-J-	
Gensym Corporation	28	J.D. Edwards	10, 16, 36, 42
Glovia International.....	18, 38	JB Systems.....	24
Great Plains Software (Microsoft)	16	Jobscope Corp.....	18
Greco Systems.....	28	John Galt Company.....	42
-H-		-K-	
Haht Software.....	14	Kewill ERP	18
HarrisData	18	Kewill Logistics.....	36
Hartlepool Systems International	30	Kronos, Inc.....	26
HighJump Software (formerly DCSI).....	12	-L-	
HK Systems (Irista)	36	Lawson Software	16
Honeywell	22, 26, 32	Lilly Software Associates, Inc.....	8, 16, 26, 42
Honeywell Ind'l Automation & Ctrl.....	10	Logility Inc.....	36, 42
Hotsamba.....	14	LPA Software Inc.....	42
-I-		-M-	
i2 Technologies Inc.....	14, 36, 42	Macola, Inc.....	16
iBASEt	30	Made2Manage Systems, Inc.....	16
IBM	10, 26, 36	MAI Systems Corp.....	20
IBM – Catia Software	34	Mainsaver.....	24
IBM/Dassault Systemes (Catia Sftwr).....	6	Manhattan Associates.....	36
IBS (Interactive Business Systems).....	38	Manufacturing Data Systems.....	10
Iconics, Inc.....	12, 22, 28	Manugistics Inc.....	36, 42
IFS – Industrial & Financial Systems....	8, 18, 24, 28, 36, 38, 42	MAPICS (formerly Thru-Put Tech).....	16, 26, 36, 42
ILOG.....	38	Marcam Solutions Inc.....	38
Indus International	24	Matra Datavision, Inc.....	6, 34
Industri-Matematik Int'l (IMI).....	38	MatrixOne	34
Infinium Software	18, 38	McHugh Software International	36
Instant Data Systems.....	10	Mentor Graphics	6
Intec Controls Corp.....	22, 28	Metrix.....	8
Intelic	14	Mincom	24
Intellution, Inc.....	10, 26, 32	MRO Software (formerly PSDI)	24
Intentia International	18, 40	MSC Software Corp. (formerly MacNeal- Schwendler Corp.)..	6
InterBiz Solutions	18, 38, 44	-N-	
Intercim	28	National Instruments	10, 22, 26, 32
Intergraph Corp.....	6, 34	Navision Software/Damgaard	18
Interworld.....	14	Nematron	22, 32
Intrepa	40	NetVendor.....	14
Intuitive Manufacturing Systems Inc.....	16, 24, 36	Nortel Networks (Clarify).....	8
Intuitive Technology Corp.....	28	Northwest Analytical Inc.....	28
Invensys	22	Numetrix, Inc.....	38
Invensys (Baan Company)	8, 16, 34, 36, 42		
Invensys (Marcam Solutions Inc.).....	16		
Invensys (Wonderware).....	26, 32		
Invensys/Avantis (formerly Marcam Solutions).....	24		

Index to Companies (continued)

-O-

ONSPEC Automation Solution	12
Onyx Software	8
Open Market	14
Optimax Systems Corp.	38
Opto 22	10, 26, 32
Optum Software	38
Oracle Corp.	8, 14, 16
ORSI Group	30
Ortems Americas	44
OSI Software Inc.	22, 26, 32

-P-

Panasonic Factory Automation	10
Parametric Technology Corp. (PTC)	6, 34
PeopleSoft, Inc.	8, 16, 36, 42
Phoenix Contact	32
POMS Corporation	28
PowerCerv Corp.	18
PowerWay Inc.	12, 28
PRI Automation	28
Process Integrity	12
Profitkey International Inc.	10, 16, 42
Promis Systems Corp.	10, 28
Provia Software	38
Purchasesoft	14

-Q-

QAD Inc.	16, 36
Qantel Technologies	18
Q-CIM Inc.	30
Quality Measurement Systems	10

-R-

Ramco Systems	18, 24, 38
Real World Technology	10
Renaissance Software LLC	38
Revere Inc.	24, 38
Robocom Systems Inc.	36
Rockwell Automation/Rockwell Sftwr	10, 22, 26, 32, 42
Rockwell Automation (Entec Maxima)	24
RockySoft	42
ROI Systems, Inc.	16
Ross Systems, Inc.	18
RTS Software	8
RWT Corp. (Real-World Technology)	30

-S-

Sage Tetra	18
SAP America	14, 16, 42
Scala North America Inc.	20
SCT (Systems & Computer Tech.)	18
SDRC	6, 34
Siebel Systems	8
Siemens Energy & Automation	10
Siemens Industrial Automation	22, 26, 32
Simulation Sciences, Inc.	10
Sirius Computer Solutions, Inc.	10
SmarTeam	34
SolidWorks Corp.	6
Square D/Groupe Schneider	26
StatSoft	10
STG	44
Stochos	12
Supply Chain Solutions, Inc.	42
SupplyChain.com, The	18
SynQuest Inc.	36, 42
Syspro Impact Software	18, 28
Systems Software Associates (SSA)	16, 24, 36

-T-

TA Engineering	12, 22, 28
Taylor Manufacturing Systems	26, 42
TECSYS	38
Tetra International Inc.	24
TigrSoft	38, 42
Tradec	14
Trilogy Development Group	8
Trilogy Software Inc.	14

-U-

UGS (formerly Unigraphics Solutions)	6, 34
USDATA Corp.	10, 22, 26, 32

-V-

Vastera Software, Inc.	40
VIA Information Tools	30
Visibility, Inc.	18

-W-

WebPlan (formerly Enterprise Planning Systems)	42
Western Data Systems	16
Westinghouse	26
Wonderware	22

-X-

Xycom (Proface)	22, 32
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