

# INPUT

PARK 80 PLAZA WEST-1, SADDLE BROOK, NEW JERSEY 07662

(201) 368-9471

September 17, 1981

Ms. Lavelle Shields  
Senior Product Analyst  
Data Processing Division  
1133 Westchester Avenue  
White Plains, NY 10604

Dear Lavelle:

At our last meeting you requested information on the lease line costs in the pricing scheme used by Xerox Computer Services. In response, I have found the following:

- Xerox has a nationwide network with processing nodes linked to the main processor.
- Customers need only tie into the network at the nearest processing center such as Boston, for example.
- Xerox works with the telephone company on the line and its costs. Based upon telephone exchange and miles to the nearest processing center, Xerox determines the monthly rate.
- Xerox passes on this communications cost at no mark-up.

The strategy here, Lavelle, is to provide customers with a "single-vendor" solution. It is not a source of revenue to Xerox.


You also requested my list of twenty-one (21) primary vendors of manufacturing systems, and I have attached it to this letter. It has not been verified with any vendors, but rather represents their marketing efforts. On the other hand, it will provide you with a idea of the scope of the market. I hope that it is useful.



Ms. Lavelle Shields  
September 17, 1981  
Page 2

I've enjoyed working with you and Aaron Klapow and hope that we can "do it again". I have provided Aaron with the information he requested in our meeting. Thank you for the opportunity to work with IBM.

Sincerely,



Jud Breslin  
Senior Consultant

/ehs

Enclosure



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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Tres Computer Systems ADDRESS: Dallas, Texas

PRODUCT: MMS NUMBER OF INSTALLATIONS: N/A

PRICE: N/A

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( )	Purchasing	( X )
Capacity Planning	( )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: MRP Software International ADDRESS: Andover, Massachusetts

PRODUCT: MRP I&II NUMBER OF INSTALLATIONS: 120

PRICE: N/A

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( X )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( X )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( X )
H-P 3000	( X )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

X

NAME: Rath and Strong ADDRESS: Dallas, Texas

PRODUCT: PIOS NUMBER OF INSTALLATIONS: 25

PRICE: \$25-\$80,000

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( )	Order-Entry	( X )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( X )
IBM 30XX	( )	Honeywell	( X )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

X

NAME: IIS ADDRESS: Cincinnati, Ohio

PRODUCT: INICS NUMBER OF INSTALLATIONS: 40

PRICE: \$80,000+

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( X )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Gains Systems Group ADDRESS: Oak Brooke, Illinois

PRODUCT: GAINS NUMBER OF INSTALLATIONS: N/A

PRICE: N/A

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( )	Purchasing	( )
Capacity Planning	( )	Engineering	( )
Cost Accounting	( X )	Forecasting	( X )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Boeing Computer Services ADDRESS: Seattle, Washington

PRODUCT: PMS NUMBER OF INSTALLATIONS: N/A

PRICE: N/A

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( )	Order-Entry	( )
Other	( X )		
<u>Master Schedule</u>			

COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( X )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: American Software ADDRESS: Atlanta, Georgia

PRODUCT: MMS NUMBER OF INSTALLATIONS: 35

PRICE: N/A

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( X )	Order-Entry	( )
Other	( X )		
<u>Master Schedule</u>			

COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( X )
DEC 11/70	( )	Burroughs	( X )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Management Sciences America ADDRESS: Atlanta, Georgia

PRODUCT: MSA NUMBER OF INSTALLATIONS: N/A

PRICE: 200+

MODULES OFFERED:

MRP	( )	Inventory Control	( X )
Shop Floor	( )	Purchasing	( X )
Capacity Planning	( )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( X )	Honeywell	( )
IBM 43XX	( X )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Arista Mfg. Systems (Xerox) ADDRESS: Winston Salem, North Carolina

PRODUCT: ARISTA NUMBER OF INSTALLATIONS: 75+

PRICE: \$25,000+

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( X )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Comserv Corporation ADDRESS: Mendota Heights, Minnesota

PRODUCT: AMAPS NUMBER OF INSTALLATIONS: 100

PRICE: \$100,000+

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( X )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( X )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( X )	Other	( X )
		<u>IBM 3033</u>	



PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

X

NAME: Computer Covenant ADDRESS: Farmington, Connecticut

PRODUCT: IMS NUMBER OF INSTALLATIONS: 35

PRICE: \$19,000

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( X )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Xerox Computer Services ADDRESS: Los Angeles, California

PRODUCT: XMS NUMBER OF INSTALLATIONS: 700+

PRICE: By usage (timeshare)

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( X )	Order-Entry	( X )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( X )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( X )

Timesharing all compatibles



PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Informatics, Inc. ADDRESS: Des Plaines, Illinois

PRODUCT: MS NUMBER OF INSTALLATIONS: 44

PRICE: \$15-\$54,000; \$10-\$16,000; \$6-\$12,000

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( X )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burrughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Control Information, Inc. ADDRESS: Bensemville, Illinois

PRODUCT: CII NUMBER OF INSTALLATIONS: N/A

PRICE: -

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( )
Capacity Planning	( )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

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NAME: Sesa, Inc. ADDRESS: Boston, Massachusetts

PRODUCT: SESAP NUMBER OF INSTALLATIONS: 17

PRICE: \$85,000 (Includes hardware)

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( )	Order-Entry	( X )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( X )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( X )
IBM 43XX	( )	Microdata	( X )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Ask Computer Systems ADDRESS: Los Altos, California

PRODUCT: Manman NUMBER OF INSTALLATIONS: 100+

PRICE: \$40-\$80,000

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( X )	Sperry Univac	( X )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

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NAME: A. B. Smith Corporation ADDRESS: Brown Deer, Wisconsin

PRODUCT: MDS NUMBER OF INSTALLATIONS: N/A

PRICE: N/A

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( )	Purchasing	( )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( )	Order-Entry	( X )
Other	( X )		
<u>Product Control</u>			

COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: McDonell Douglas ADDRESS: \_\_\_\_\_

PRODUCT: CAPOSS-E NUMBER OF INSTALLATIONS: N/A

PRICE: Usage (timesharing)

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Martin Marietta ADDRESS: Greenbelt, Maryland

PRODUCT: MAS II NUMBER OF INSTALLATIONS: N/A

PRICE: Timeshare turnkey

MODULES OFFERED:

MRP	( X )	Inventory Control	( X )
Shop Floor	( X )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( X )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

NAME: Mandate Corporation ADDRESS: Cleveland, Ohio

PRODUCT: \_\_\_\_\_ NUMBER OF INSTALLATIONS: 56

PRICE: \$20,000 \_\_\_\_\_

MODULES OFFERED:

MRP	( X )	Inventory Control	( )
Shop Floor	( )	Purchasing	( X )
Capacity Planning	( X )	Engineering	( )
Cost Accounting	( )	Forecasting	( )
Financials	( )	Order-Entry	( )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( )	Honeywell	( )
IBM 43XX	( )	Microdata	( )
H-P 3000	( X )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( )

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PRIMARY VENDORS  
OF  
MANUFACTURING SYSTEMS

Y

NAME: Computeristics ADDRESS: Hamden, Connecticut

PRODUCT: Custom-Order NUMBER OF INSTALLATIONS: N/A

PRICE: N/A

MODULES OFFERED:

MRP	( )	Inventory Control	( X )
Shop Floor	( )	Purchasing	( )
Capacity Planning	( )	Engineering	( )
Cost Accounting	( X )	Forecasting	( )
Financials	( X )	Order-Entry	( X )
Other	( )		

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COMPUTER PROCESSING ON:

IBM 360/370	( X )	Prime	( )
IBM System 3/34	( )	Data General	( )
IBM 30XX	( X )	Honeywell	( )
IBM 43XX	( X )	Microdata	( )
H-P 3000	( )	Sperry Univac	( )
DEC 11/70	( )	Burroughs	( )
Wang	( )	Other	( X )
		<u>Univac 1100</u>	



REMOTE COMPUTING SERVICE FOR INDUSTRY SPECIFIC

INDUSTRY SPECIFIC

- INPUT estimates that 1980 revenues for RCS companies in the industry specific category will be \$315,000,000, growing at a rate of 28%.
  - This is made up of fourteen major companies listed in Exhibit 1.
  - The total of these companies is \$304,500,000.
  - An estimated 30-40 very small companies easily account for the additional \$10,000,000.
- Manufacturing systems and CAD/CAM applications are included in this category . . . any systems sold to discrete manufacturers.
  - According to INPUT, industry specific includes business and scientific software such as MRP systems, seismic data processing and numerically controlled machine tool software.
  - It also includes data base services.
- Function specific includes some scientific software tools sold to discrete manufacturers but they are specific to a user such as modeling, simulation, linear regression analysis and other statistical routines.

TRENDS IN RCS

- INPUT estimates that of all RCS computing, manufacturing systems (excluding scientific and engineering) may grow only at a rate of 6%.
  - This results from the makeup of the RCS vendors used in the trends study.
  - See Exhibit 2.



- Of 17 major RCS vendors, only seven are heavily involved in manufacturing systems.
  
- The percentage of manufacturing revenue to total revenue is:
  - Less than 20% for four companies.
  - Twenty-seven percent (27%) for National CSS.
  - Thirty-three percent (33%) for UCC.
  - Seventy-two percent (72%) for Xerox Computing Services.
  
- As a general conclusion, most of the companies with manufacturing involvement have a relatively low percentage of manufacturing revenue to total revenue.
  - Therefore, they do not seem to predict any major growth.

#### CONCLUSION

- The growth projection of 28% may be realistic for total revenue including inflation.
  - Xerox and Boeing have an impact here.
  - UCC and National CSS also.
  
- It is probably not realistic for business manufacturing systems such as MRP to grow at a rate of 28%.
  - In-house computing on minicomputers and mainframes will continue to dominate.



-1980-

BASIS FOR FORECAST OF REMOTE COMPUTING SERVICES(INDUSTRY SPECIFIC)

<u>COMPANY</u>	<u>PROJECTED 1980 REVENUE</u>	<u>USED IN TRENDS</u>
Martin Marietta	\$ 10,000,000	\$ 54,000,000
Comserv	1,500,000	-
McAuto	23,000,000	150,000,000
National CSS	28,000,000	102,000,000
United Computing Systems	20,000,000	60,000,000
ASK	2,000,000	-
MDSI	32,000,000	-
Tymshare	30,000,000	-
ADP	10,000,000	57,000,000
Xerox Computing Services	34,000,000	47,000,000
Control Data	45,000,000	-
GEISCO	40,000,000	-
UIS	15,000,000	-
Boeing	<u>14,000,000</u>	85,000,000
TOTAL	\$304,500,000	



SEVENTEEN COMPANIES USED IN RCS TRENDS

<u>COMPANY</u>	<u>1979 REVENUE</u>	<u>NOT IN MANUFACTURING</u>	<u>PERCENTAGE MANUFACTURING</u>
Control Data	\$200,000,000	X	
Remote Computing Company	8,500,000	X	
Optimum Systems	31,000,000	X	
Rapidata	20,500,000	X	
Data Crown	12,000,000	X	
ADP	57,000,000		17%
Computer Science Corporation	127,000,000	X	
Boeing	85,000,000		16%
On-Line Systems	20,000,000	X	
United Computing System	60,000,000		33%
Martin Marietta	54,000,000		18%
Reynolds and Reynolds	140,000,000	X	
National CSS	102,000,000		27%
Informatics	12,000,000	X	
Xerox	47,000,000		72%
Tymshare	30,000,000	X	
McAuto	151,000,000		15%

66

COMPANY PROFILE

	ASK	M/M	MCAUTO	XEROX
Revenue - 1980	\$9M	\$94M	\$335M	\$80M
Noncaptive Revenue	\$9M	\$55M	\$150M	\$60M
Employees	100	2,100	5,200	1,100
Founded	1972	1970	1968	1970
Growth 1978-1979	320%	35%	55%	30%
RCS/Turnkey	HP 3000 Sperry	HP 3000 IBM	Microdata(?) IBM Various	Arista
Primary Product	Manman	MAS	Co-op Caposs-E	IAS
Pricing	Product	Usage	Usage	Lease Equip- ment Transaction
Handouts				
Company Highlight	Yes	Yes	Yes	Yes
Price List	Yes	Draft	Draft	No
Product Literature	Yes	Yes	Yes	Yes
Newsletter	Yes	No	No	Yes

INPUT



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PRODUCTS OFFERED

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	ASK	M/M	MCAUTO	XEROX
Inventory Control	Yes	Yes	Yes	Yes
Engineering	Yes	Yes	Yes	Yes
Shop Floor Control	Yes	Yes	Yes	Yes
Capacity Planning	Yes	Yes	Yes	Yes
MRP	Yes	Yes	Yes	Yes
Purchasing	No	Yes	Yes	Yes
Order Entry	Yes	Yes	Yes	Yes
Accounts Receivable	Yes	Yes	Yes	Yes
Accounts Payable	Yes	Yes	Yes	Yes
General Ledger	Yes	Yes	Yes	Yes
Payroll	No	No	Yes	Yes
Cost Accounting	Yes	Yes	Yes	Yes

INPUT



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SERVICES OFFERED

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	ASK	M/M	MCAUTO	XEROX
File Creation	Advise	Advise	Yes - Fee	Advise
File Conversion	No	No	Yes - Fee	No
Forms	No	No	Yes - Fee	Standard
Project Plan	No	No	No	Yes
Training - On Site	\$125/Day	Negotiable	Negotiable	Free
Training - Classroom	\$125/Day	Negotiable	No	Free
Consulting Rate	\$500	N/A	N/A	Free
Phone-in Consulting	Yes	No	No	No
Documentation - Primary	Yes	N/A	No	Yes
Network	Tymnet	MMDS	McAutonet	Xerox
Computer	HP 3000	370	370	30XX Amdahl

INPUT



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MARKETING AND ADVERTISING

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	ASK	M/M	MCAUTO	XEROX
Direct Sales Offices	13	13	50	27
Brochures - Primary	Yes	Yes	Yes	Yes
Advertise	Yes	Yes	Yes	Yes
Seminars	No	No	No	Yes
Theme -				
Designed For Company	Yes	Yes	Yes	No
Do Not Need Staff	No	Yes	Yes	Yes
Related Support - Graphics	Yes	Yes	Yes	No
Fast Uptime	Yes	Yes	Yes	Yes
Case Studies	No	Yes	Yes	Yes

INPUT



IMPLEMENTATION

	ASK	M/M	MCAUTO	XEROX
Use Outside Consultants	Yes	No	No	No
Systems Specifications	No	No	No	Yes
Training	Yes	Yes	Yes	Yes
Plan Project	No	No	No	Yes
Monitor Progress	No	No	No	Yes
Time Frame	Six Months	Customer	Customer	Month
Use of Sequence	No	No	No	No
Customization	No	No	No	Software <sup>①</sup>
Average Usage - Terminals	4	N/A	N/A	4
Average Size	None	None	None	None

① Formater - Reporter - Definer - Filer

INPUT



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XEROX COMPUTER SERVICES - PRICING

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- CHARGE FOR HARDWARE
  - 1340 A (DIABLO/DAISY WHEEL) \$200/MONTH
  - 1330 (CRT) \$150/MONTH
  - 1350 (INTELLIGENT TERMINAL) \$1,000/MONTH
- LEASE LINE
- SOFTWARE
  - INSTALLATION \$200/MODULE
  - USAGE - TRANSACTIONS  
FILE SIZE  
PRINT LINES
- AVERAGE FOR FOUR TERMINALS \$2,000-4,000/MONTH
- TERMS: MONTH 1 FREE  
MONTH 2-7 120% ESTIMATED USAGE  
MONTH 8+ ACTUAL USAGE

INPUT



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MARTIN-MARIETTA DATA SYSTEMS - PRICING

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- CONNECT TIME
  - 300 BAUD \$10/HOUR
  - 2400 BAUD \$12/HOUR
  - 4800 BAUD \$18/HOUR
  
- RESOURCE UNIT
  - INTERACTIVE \$2/SECOND
  - OFF HOURS \$1.50/SECOND
  - SERVICE CLASS NEGOTIABLE
    - . 15 MINUTES NEGOTIABLE
    - . 1 HOUR NEGOTIABLE
    - . 2 HOURS NEGOTIABLE
    - . 4 HOURS NEGOTIABLE
    - . 24 HOURS (APPROXIMATELY) .25/SECOND
  
- STORAGE
  - \$.90-1.20 PER TRACK

INPUT



LAVELLE SHIELDS - 203-629-2053

ARRON KLAPOW - 203-629-2058

## 1981 QUARTERLY SCHEDULING PLAN (Q2)

PROJECT: IBM-COMPUTER SERVICES STUDYDATE: MAY 29, 1981PROJECT LEADER: EDWARD I. METZ

CORPORATE/WEEK ENDING					APRIL				MAY				JUNE						
ACTIVITY	PROJECT	NAME	MAN DAYS	EFFICIENCY	ESMD	CORP. WEEK END	14 4/10	15 4/17	16 4/24	17 5/1	18 5/8	19 5/15	20 5/22	21 (4) 5/29	22 6/5	23 6/12	24 6/19	25 6/26	26 7/3
70: PROJECT AUTHORIZATION/SPECIFICATION		<del>JB</del>	<del>1.0</del>	<del>1</del>	<del>1.0</del>														
70: KICK-OFF MEETING		-																	
70: CLIENT CONTROL		-																	
71: Q DESIGN		JB	1.0	1	1.0														
71: Q APPROVAL/REVIEW MEETING		JB EIM	1.5 1.5	1	1.5														
72: RESEARCH		JB	2.0	1	2.0														
73A: INTERVIEWS ON SITE ( ) NO.																			
74A: INTERVIEWS PHONE ( ) NO.		JB	2.0	1	2.0														
70: MIDWAY REVIEW MEETING																			

~~JB~~ ~~1.0~~ ~~1~~ ~~1.0~~



## 1981 QUARTERLY SCHEDULING PLAN (Q2)

PROJECT: IBMPROJECT LEADER: EDWARD J. METZ

CORPORATE/WEEK ENDING

DATE: MAY 29, 1981

ACTIVITY PROJECT	NAME	MAN DAYS	EFFI- CIENCY	ESMD	CORP. WEEK END	APRIL				MAY				JUNE			
						14 4/10	15 4/17	16 4/24	17 5/1	18 5/8	19 5/15	20 5/22	21(4) 5/29	22 6/5	23 6/12	24 6/19	25 6/26
73B: INTERVIEWS ON SITE ( ) NO.	-																
74B: INTERVIEWS PHONE ( ) NO.	-																
75: DATATAB AND ANALYSIS	JB	2.0	1	1.5													△
76A: WRITING	JB	1.0	.5	1.5													△
76B: ABSTRACT	-																△
77: OC	JB EIM	.5 .5	1 1	.5 .5													△
REPORT PROD. AND SHIPPING																	△
78: PRESENTATION	JB EIM	1.0 1.0	1 1	1.0 1.0													△
70: "THANK YOU" MAILED/ PRESS RELEASE																	△
PLAN				1.0													
ACTUAL												1.0	2.0	2.0	2.0	3.0	2.0
CUM P/A		9		5.0													
JUD BRESLIN	JB	1.0	1	1.0													
ED METZ	EIM	2	1	2.0													
		11		7.0													

$$70 \times 950 = \underline{\underline{\$6650}}$$



RECEIVED

JUN 23 1981

NEW JERSEY

June 15, 1981

Mr. Edward I. Metz, Vice President  
INPUT

Park 80 Plaza West-1,  
Saddle Brook, New Jersey 07662

Dear Mr. Metz:

This letter sets forth your agreement with International Business Machines Corporation (IBM) whereby you will render services to the IBM Data Processing Division, having an office at 1133 Westchester Avenue, White Plains, New York 10604, as an independent consultant, subject to the following terms and conditions:

1. SCOPE OF WORK

You will provide your services to IBM concerning a study of remote computing services offerings to manufacturing companies, as described in Pages 1 to 3 of Attachment A. Your services may include collaboration with and assistance to IBM personnel or others employed or retained by IBM.

2. TERM OF SERVICE

The term of this Agreement shall be from June 15, 1981 through July 31, 1981.

3. BASIS FOR PAYMENT

IBM shall pay you a \$7,000 fee plus out of pocket expenses not to exceed \$1050.

4. EXPENSE REIMBURSEMENT

IBM shall reimburse you for all reasonable travel and living expenses authorized in advance by IBM and incurred in connection with this Agreement. It is understood that reimbursements for travel and living expenses shall be in amounts which are consistent with those received by IBM employees performing comparable services on behalf of IBM.



5. INVOICES TO IBM

You will submit invoices to IBM monthly for the services furnished and travel and living expenses incurred hereunder. IBM shall pay you \$3,500 on commencement of the contract services and the balance of the fee and expenses within thirty (30) days after receipt of your invoice, accompanied by vouchers evidencing such expenses.

6. IBM COORDINATOR RESPONSIBLE

IBM shall appoint a coordinator who shall be responsible for maintaining technical liaison with your supervisor and for determining for IBM the adequacy, acceptability and fitness of the services performed by you.

7. INSPECTION AND ACCEPTANCE

Services and/or items provided by you hereunder are subject to interim and final inspection and acceptance by IBM.

8. CONFIDENTIAL INFORMATION

A. "Confidential Information" shall mean that information:

(1) disclosed to you by IBM in connection with, and during the term of, this Agreement; and, (2) which relates to IBM's past, present and future research, development and business activities; and, (3) which has been identified to you at the time of disclosure as the confidential information of IBM. It shall also mean the deliverable items specified in Paragraph One of this Agreement, including drafts and associated materials. The term "Confidential Information" shall not mean any information which is previously known to you without obligation of confidence, or, without breach of this Agreement, is publicly disclosed either prior or subsequent to your receipt of such information, or is rightfully received by you from a third party without obligation of confidence.



June 15, 1981

- B. For a period of five (5) years, you agree to hold all such Confidential Information in trust and confidence for IBM and not to use such Confidential Information other than for the benefit of IBM. Except as may be authorized by IBM in writing, for such period of time, you agree not to disclose any such Confidential Information, by publication or otherwise, to any person other than those persons whose services you require who have a need to know such Confidential Information for purposes of carrying out the terms of this Agreement, and who agree in writing to be bound by, and comply with the provisions of this Section.
- C. Upon termination or expiration of this Agreement, you will return to IBM all written or descriptive matter, including but not limited to drawings, blueprints, descriptions, or other papers, documents, tapes, or any other media which contain any such Confidential Information. In the event of a loss of any item containing such Confidential Information, you shall promptly notify IBM in writing.
- D1. You agree not to make any copies of any writings, documents or other media containing the Confidential Information provided to you by IBM. If copies of such writings, documents or other media are necessary for performing your services under this Agreement, they will be provided by IBM upon request by you.
9. RIGHTS IN DATA
- A. All of the deliverable items specified in Paragraph One of this Agreement prepared for or submitted to IBM by you under this Agreement, shall belong exclusively to IBM and shall be deemed to be works made for hire. To the extent that any of the deliverable items may not, by operation of law, be works made for hire, you hereby assign to IBM the ownership of copyright in the deliverable items and IBM shall have the right to obtain and hold in its own name copyrights, registrations and similar protection which may be available in the deliverable items. You agree to give IBM or its designees all assistance reasonably required to protect such rights.



10. WARRANTIES

You represent and warrant that you are under no obligation or restriction nor will you assume any such obligation or restriction which would in any way interfere or be inconsistent with, or present a conflict of interest concerning, the services to be furnished by you under this Agreement.

You represent and warrant the originality of the deliverable items recited in Paragraph One and that no portion of the deliverable items, or their use or distribution, violates or is protected by any copyright or similar right of any third party.

In providing your services under this Agreement, you understand that IBM does not wish to receive from you any information which may be considered confidential and/or proprietary to you and/or to any third party. You represent and warrant that any information disclosed by you to IBM is not confidential and/or proprietary to you and/or to any third party.

11. GENERAL PROVISIONS

The rights and obligations of Paragraphs Eight, Nine, and Ten shall survive and continue after any expiration or termination of this Agreement and shall bind the parties and their legal representatives, successors, heirs and assigns. You agree to comply, and do all things necessary for IBM to comply, with all applicable Federal, State and local laws, regulations and ordinances, including but not limited to the Regulations of the United States Department of Commerce relating to the Export of Technical Data, insofar as they relate to the services to be performed under this Agreement. You agree to obtain the required government documents and approvals prior to export of any technical data disclosed to you or the direct product related thereto.

12. CONSULTANT'S AGREEMENT WITH HIS EMPLOYEES

You will have an appropriate agreement with each of your employees or others whose services you may require sufficient to enable you to comply with all the terms of this Agreement.



13. YOUR EMPLOYEES NOT DEEMED IBM'S

Personnel supplied by you will remain your employees and will not for any purpose be considered employees or agents of IBM. You assume full responsibility for the actions of such personnel while performing services hereunder, and shall be solely responsible for their supervision, daily direction and control, payment of salary (including withholding of income taxes and social security), workmen's compensation, disability benefits and the like.

14. TERMINATION

This Agreement may be terminated by either party upon thirty (30) days' written notice to the other party.

15. RETURN OF WORK BY CONTRACTOR

In the event of termination or expiration of this Agreement, all work being performed thereunder in your possession shall be forwarded to IBM, and IBM shall make payment at the specified prices/rates for satisfactory services performed to the effective date of termination or expiration.

16. ASSIGNMENT, SUBCONTRACTS

This Agreement shall not be assigned or subcontracted by Contractor without the prior written approval of IBM.

17. SOLE AGREEMENT

This Agreement shall supersede all prior agreements and understandings between the parties respecting the subject matter hereof. This Agreement may not be changed or terminated orally by or on behalf of either party.

18. ALTERATIONS

Any alterations, amendments or modifications to this Agreement may only be accomplished by formal letter amendment signed by authorized officials of both parties.



June 15, 1981

19. IBM TRADEMARK

Notwithstanding any other provisions of this Agreement, you shall have no right to use IBM's trademark, or trade name, or to refer to this Agreement or the services performed hereunder directly or indirectly, in connection with any product, promotion or publication without the prior written approval of IBM.

20. NEW YORK LAW

This Agreement shall be construed, and the legal relations between the parties hereto shall be determined, in accordance with the law of the State of New York.

If the foregoing is in accordance with your understanding, will you please indicate your agreement by dating, signing and returning to us the enclosed copy of this letter.

Very truly yours,

INTERNATIONAL BUSINESS MACHINES  
CORPORATION

By W. H. Egley REM  
W. H. Egley  
Director  Plans & Controls

AGREED TO:

By Edward I. Metz

Title VICE PRESIDENT

Date 7/1/81







ATTACHMENT A

June 1, 1981

Ms. Lavelle Shields  
Senior Product Analyst  
IBM Corporation  
Department 92P/4B37  
1133 Westchester Avenue  
New York, NY 10604

Dear Ms. Shields:

Per our conversation, INPUT is pleased to submit this proposal to provide information on computer services companies providing remote interactive processing for manufacturing companies. The information will include products, pricing, and implementation strategies. Our proposal includes discussions of scope, methodology, deliverables, schedules and fees for this project. Each is discussed below.

SCOPE

- INPUT will identify the companies which provide processing for manufacturing companies and address specific questions.
  - What products do they offer; i.e., MRP, inventory control, bill of materials, etc.? ✓
  - What additional services do they market, such as implementation assistance, file creation and conversion and training? ✓
  - How do they market and advertise their products? ✓
  - What are the costs of their software packages and their services? ✓
  - What revenue is generated by this activity? ✓

QUESTIONNAIRE



- INPUT will analyze and critique the techniques used in implementing their manufacturing packages via remote processing.
  - How do they propose to implement the packages and over what period of time? ✓
  - To what extent is there a network involved? What computers are used? ✓
  - Is there a sequence to follow in their approach? ✓
  - What is the extent and nature of customizations to the packages? ✓
  - What is the size of the average end user and how many terminals do they commonly use? ✓

#### METHODOLOGY

- INPUT will use its extensive library of software directories, software services, and completed research to compile a list of vendors and products. ✓
- INPUT will review publications and other advertising media to assure a comprehensive list of computer service companies.
- INPUT will gather promotional literature to analyze products and services offered. ✓
- INPUT will identify actual users of major products and interview them for their experience in using these products.
  - This will be accomplished exclusively through telephone interviews.



### DELIVERABLES

- INPUT will prepare a final report of findings and conclusions which will include:
  - A list of computer service companies, their products, their services and associated costs.
  - An analysis of marketing techniques.
  - An analysis of the factors relevant to the implementation for these products.
- INPUT will participate in a one day "think tank" session with IBM personnel which will include:
  - A review of findings.
  - An interchange of ideas on the issues of marketing, products, services, and implementation experiences.

### SCHEDULE

- INPUT can commence this study during the week of June 1, 1981 and complete the project during June.
- INPUT estimates an early July date for the report and "think tank" session with IBM.



Ms. Lavelle Shields  
Page 4  
June 1, 1981

FEES

- INPUT's fee for this project is \$7,000 plus any out-of-pocket expenses which should not exceed 15% of the professional fee.
  - One-half of the fee (\$3,500) is due upon authorization. The remainder of the fee plus expenses are due upon completion.
  - INPUT assumes that all terms and conditions governing our previous efforts with IBM will apply.
- This proposal will remain in effect until June 15, 1981.

You may accept this proposal by signing the authorization at the bottom of this letter. Thank you for the opportunity to provide these consultative services to IBM. We look forward to working on the project.

Respectfully,



Edward I. Metz  
Vice President

AUTHORIZED BY IBM

ACCEPTED BY INPUT

NAME \_\_\_\_\_

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

