

A Publication from INPUT's Downsizing Programme—Europe

## The Upside of Downsizing

The term 'Downsizing' conjures up images of simple operating systems, off-the-shelf applications software, and cheap microprocessors replacing mainframes. The result of this shift will be the demise of entire IS departments and the eventual ruin of mainframe vendors.

Although there is some truth in this scenario, since 1991 INPUT has been studying the dynamics of corporate downsizing, and has identified a more positive picture for vendors. Although the mainframe is losing ground through being subject to a great deal of financial scrutiny, there are a number of opportunities emerging as a result.

From research conducted in the U.S. and Europe, INPUT believes that these opportunities lie largely in the areas of application software products and specialised areas of consultancy.

This research bulletin highlights the impact of downsizing on user organisations and specifies the opportunities that are arising as a result.

### Cost Reduction Creates Change in IS Control

The need to downsize in order to reduce IS costs is the most frequently stated driving force behind the decision-making process. This,

combined with the need to effectively serve the needs of restructured and frequently decentralised organisations, and the development of alternative business processes, mean that in many cases the traditional central processing based scenario is no longer appropriate, or cost-effective to maintain.

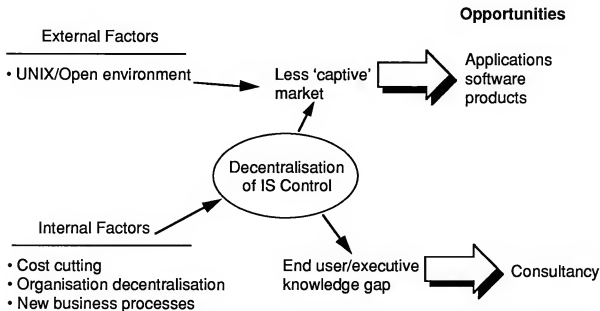
There are exceptions to this, however, in particular large mainframes for shared data base applications that are central to a company's core business (e.g., a reservation system). This particular situation does not lend itself to a client/server architecture; however, other applications on the mainframe may.

Essentially, one of the greatest cost-reduction exercises within organisations is the reduced financing of in-house applications development and maintenance. With the greater freedom to buy applications software products created by the shift to UNIX and lower-level decentralised systems, the control of IS is also being decentralised to the end users. Additionally, the decision making process and buying power for IS products and services are increasingly changing from IS managers to senior executives.

As illustrated in Exhibit 1, this change in control is creating a number of product and service opportunities for vendors.



## Opportunities Created Through Downsizing



Source: INPUT

### An 'Open Shop' Emerging

IS departments' managers tend to have favoured and known suppliers that operate a more 'closed-shop' environment. The contribution of a more open environment being developed through UNIX, and the shift in procurement power, are creating a major opportunity for alternative vendors to enter what has traditionally been a proprietary mainframe market.

Vendors are having to become more competitive in their approach, therefore, to what was traditionally a more captive market. In particular, those companies that develop UNIX-based applications and services will increase their market presence.

INPUT has found that the shift from mainframe environments is roughly equally balanced between a migration to IBM AS/400 and UNIX

platforms. The relative attractiveness of these options is determined in terms of cost, lessening of vendor control and application availability.

Although moving to a UNIX environment gives users the comfort factor of greater vendor independence and is often more cost effective, the reason for choosing AS/400 is the attraction for a greater range of applications software that is currently available. The shift, however, is expected to increase in favour of UNIX.

### The 'New' IS Controllers Need Guidance

Opportunities in consultancy are emerging at two levels as a result of downsizing. At the end-user level, network integration skills will become increasingly in demand. The distribution of processing power requires greater levels of intracompany network communications. In particular, as the end users



have greater involvement and control over their IS, expertise requirements increase at the local network level. SI vendors will find themselves dealing more with departmentalised and smaller organisations, and company divisions rather than at the overall organisational level. Again, skills in UNIX-based environments in the medium term will also be in short supply as the market takes shape.

At the higher executive level, consulting opportunities will become more apparent in business and IS strategy. In particular, management consultancy skills are required to assist decision makers in the areas of business process re-engineering and the lessening of in-house IS expertise. This will create an

opportunity for advice and direction on IS strategy. Traditionally, these decisions have been part of the realm of in-house departments, which are often reluctant to pursue outside expertise.

Having assessed the opportunities, INPUT concludes that the vendors that will be best placed to ride the downsizing wave are those that develop and promote skills in the areas given in Exhibit 2.

Over 1993, INPUT will be investigating these opportunities more in order for vendors to profit from the positive impact that downsizing is creating in the IS industry.

Exhibit 2

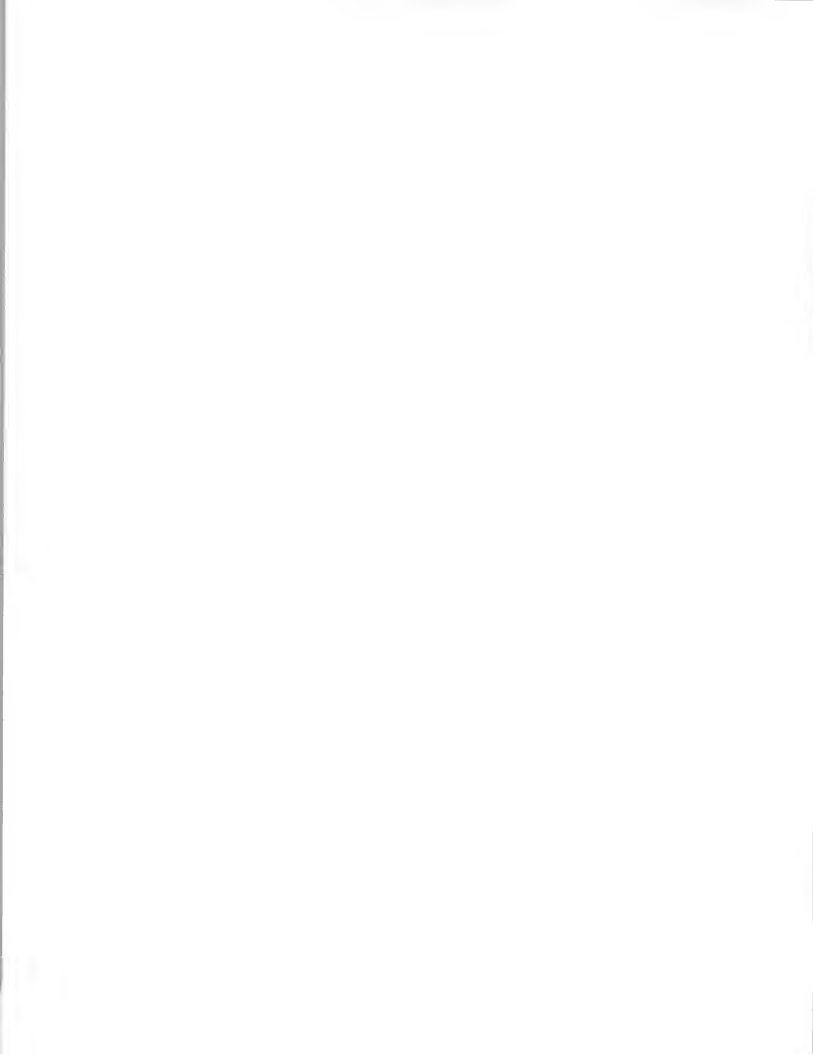
### **Vendor Strategies To Profit From Downsizing**

- Offer management consulting
- Offer IS strategy consulting
- Develop industry specific application software products (in particular UNIX-based)
- Increase network integration and management capability
- Desktop service and support approach to serve end users

Source: INPUT

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This Research Bulletin is issued as part of INPUT's Downsizing Information Systems Programme—Europe.  
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## ABOUT INPUT

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Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, objective analysis and insightful opinions to support their plans, market assessments and technology directions, particularly in computer software and services. Clients make informed decisions more quickly and save on the cost of internal research by using INPUT's services.

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## CUSTOM CONSULTING

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Many vendors leverage INPUT's proprietary data and industry knowledge by contracting for custom consulting projects to address questions about their specific market strategies, new product/service ideas, customer satisfaction levels, competitive positions and merger/acquisition options.

INPUT advises users on a variety of IT planning and implementation issues. Clients retain INPUT to assess the effectiveness of outsourcing their IT operations, assist in the vendor selection process and in contract negotiation/implementation. INPUT has also evaluated users' plans for systems and applications downsizing.

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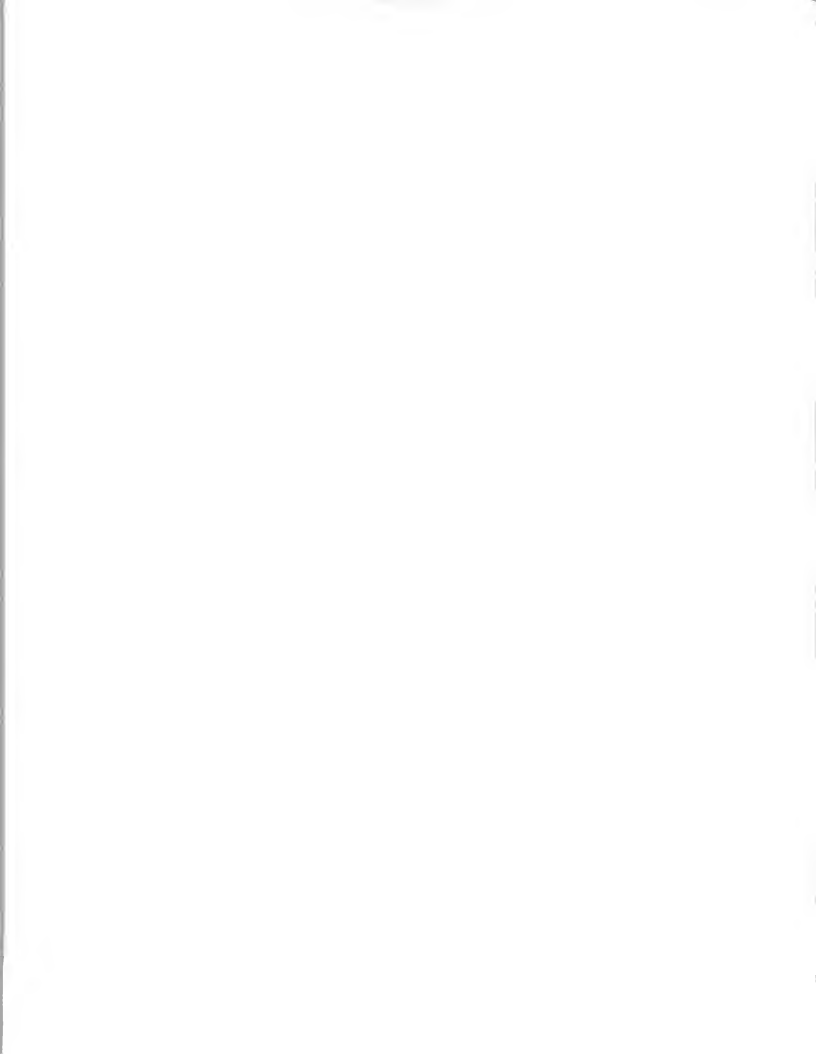
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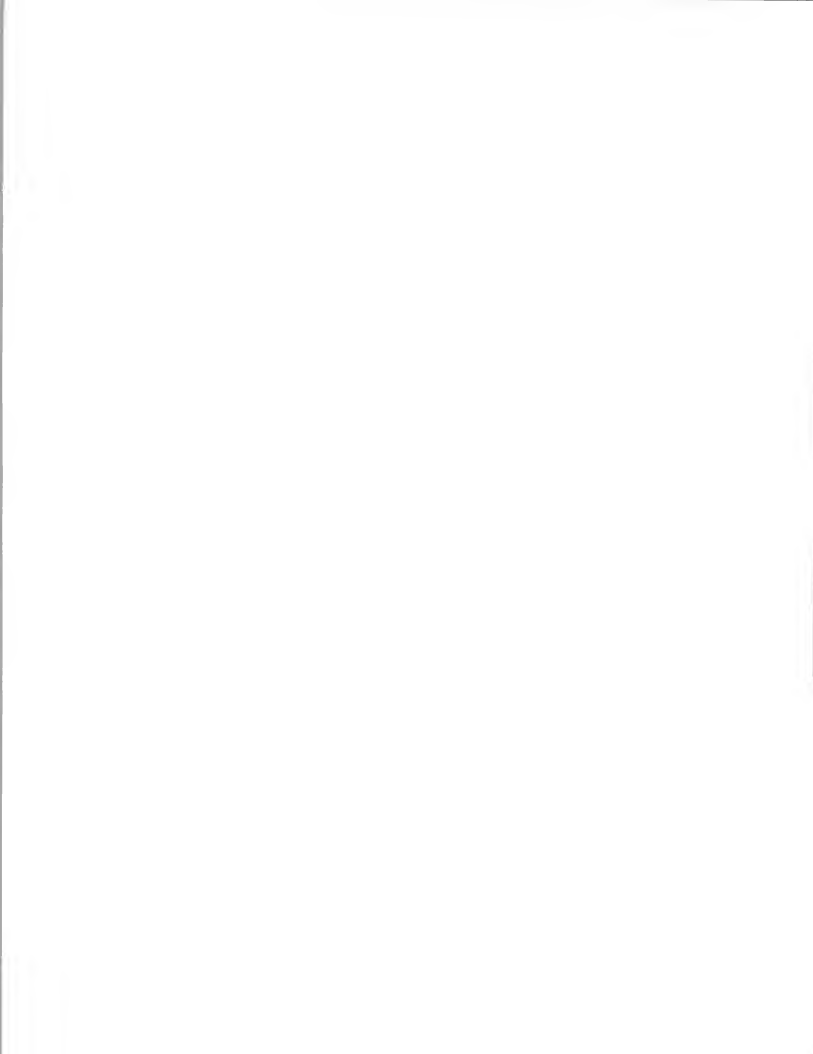
***A SURVEY OF SIX  
EDI SOFTWARE  
VENDORS***

***A STUDY FOR***

***TEXAS INSTRUMENTS  
INCORPORATED***

***JULY 9, 1993***

**INPUT®**



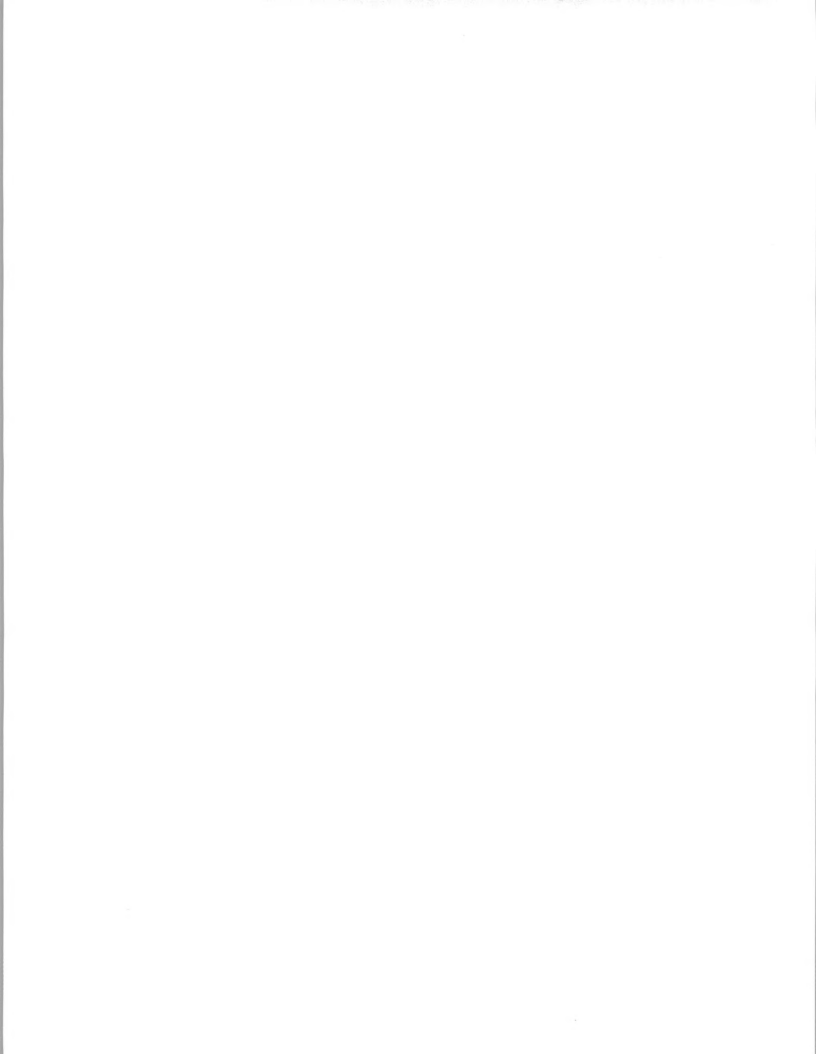
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# A SURVEY OF SIX EDI SOFTWARE VENDORS

A Study For  
Texas Instruments Incorporated

July 9, 1993

**INPUT®**



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*A Survey of Six EDI Software Vendors*

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INPUT exercises its best efforts in preparation of the information provided in this report and believes the information contained herein to be accurate. However, INPUT shall have no liability for any loss or expense that may result from incompleteness or inaccuracy of the information provided.

YTX 448 1993



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## Executive Summary

The exhibit on the next page overviews the EDI software offerings of the selected vendors in tabular form.



### Selected EDI Software Vendor Overview

Vendor	Product	Platform	Price	Markets	Support
Blue Rainbow	Multinet/400	AS/400	\$5,400- \$31,600	Retail, manuf., cross industry	\$ for install. support, 24-hr hotline; toll free number; money back guarantee
	Multinet/PC	DOS, OS/2	\$3,550	(same)	(same)
	Multinet/UNIX	UNIX V, IBM AIX	\$3,550		
Harbinger	InTouchEDI	PC	\$1,295	utilities, manuf., banks, govt.	toll free hotline
	InTouchEDI PLUS	PC	\$1,995		
Premenos	EDI/400	AS/400	\$6,000- \$28,000	manuf., dist., and all industries	hotline; training & users conference
	EDI/e	UNIX	\$10,000- \$60,000		
	EDI/36	IBM Sys36	\$5,700		
	EDI/38	IBM Sys38	\$9,000		
Sterling Software	Gentran	MVS, VSE	\$37,000- \$139,000	manuf., retail, distribution, transport; internatn'l	hotline support; on- site support; support often incl. with product
		DEC VAX	\$7,500- \$35,000		
		AS/400	\$7,500- \$47,500		
		PC	\$1,295		
		UNIX	\$7,500- \$42,500		
Supply Tech	STX-PC	IBM PC/compat.	\$2,495	auto, manuf., all industries; internatn'l	hotline support costs \$600-\$780 per year; training costs \$495 per day; mainframe package includes one day of install. support
	STX- Mainframe	MVS, VSE	\$19,500		
TSI International	Trading Partner	MVS, VSE	\$30,000- \$200,000	large manufs, retailers & their suppliers; mass markets; government	Hotline in the U.S. and Europe and through distributors
	Trading Partner PC	MS-DOS w/Windows	\$495		
	EDI Kits	MS-DOS w/windows	\$249-\$395		
	Mercator	MS-DOS w/windows	undetrmd		





## Company Profiles

This chapter offers comprehensive profiles of each selected EDI software vendor.

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### A

#### **Blue Rainbow Software International Corp.**

Suite 330  
1899 Powers Ferry Rd.  
Atlanta/Marietta, GA 30067  
404-612-1949

Revenue: \$2 million 1992 (INPUT estimate)  
Chief Contact: Hans D. Plotzeneder, President

##### **a. Company Background:**

Blue Rainbow was founded and is headquartered in the U.K. It provided midrange EDI software until the license for it was purchased by GE Information Services. In 1992, Blue Rainbow established a U.S. operation headquartered in Atlanta, GA. It is selling its own label of software in the U.S. from this office.

##### **b. Software Products and Prices:**

*Multinet/400:* EDI translation software for the IBM AS/400 computer. Features: trading partner profile maintenance facility; standards supported include X12, EDIFACT, ODETTE and Tradacoms and industry-specific; comes with communication modules that connect to most major US and international value-added networks; allows for job stream scripting for unattended operations; has store-and-forward facility for messages; has history and audit control features; security based on user password system;



application data interface supports integration with AS/400 native data base.

Prices:

C04, D02, E02, F02: \$5,400  
B10, C06, C08, D04, E04, E06, F04, F06: \$7,600  
D08, D10, E08, E10, F08, F10: \$9,350  
B30, B35, D20, E20, F20: \$10,900  
B40, B45, D25, D35, E25, E35, F25, F35: \$13,800  
B50, D45, E45, F45: \$15,900  
B60, D50, E50, F50: \$18,600  
B70, D60, E60, F60: \$21,700  
D70, E70, F70: \$25,900  
D80, E80, F80: \$28,900  
E90, E95, F90, F95: \$31,600

*Multinet/PC:* EDI translation software that runs in MS-DOS environments. Has same features as Multinet/400 product (except for the data interface) and the interactive transaction entry and print facility which allows the user to hand key in a document and immediately send it or print out (on paper) a received document.

Price: \$3,550

*Multinet/UNIX:* EDI translation software that runs under UNIX V (version 4) and IBM AIX environments. Uses graphical user interface, point-and-click mapping, user-tailorable menus, set up information (including trading partner profiles, data maps, standards) can be added or modified interactively via on-line screens.

Price: \$3,550

*Messenger:* E-mail software for the AS/400. Designed for the messaging needs of a small user base; expandable to a mid-sized company. Has built in gateways to LANs and public networks.

Prices:

same groups of AS/400 processors as MULTINET/400. Prices as follows:  
\$3,240; \$4,500; \$5,580; \$6,480; \$8,280; \$9,240; \$10,680; \$12,360;  
\$14,160; \$16,560; \$19,080.





**c. Markets Targetted:**

Blue Rainbow is targetting installations of AS/400s, RS/6000s, PS/2s, and PC Windows platforms across all vertical markets in both the U.S. and the U.K. Blue Rainbow's chief resellers in the U.K. are the Sema Group (a systems integrator), EPG Computer Services Limited (a provider of turnkey systems for the London insurance industry), and INS (one of the two key VANs in the U.K. which is jointly owned by GEIS and ICL/Fujitsu). These resellers have catapulted Blue Rainbow's customer base in the U.K. to the several hundreds. Blue Rainbow has been operational in the U.S. since February 1992. It has had slow success in sales. It is pursuing retailers and their manufacturer suppliers.

**d. Support**

Blue Rainbow provides a range of product and customer support services. On-site installation support and product training are optionally available, including turnkey services complete with system and communications setup, testing, and certification.

Additionally, annual maintenance fees provide for ongoing product development and enhancement; updates to new or existing standards within 60 days of release from committee; and 24-hour hotline support.

Also, Blue Rainbow provides an unconditional money-back guarantee that states: within 100-days of receiving the system, the customer may, at its sole option, return the product and any related materials to Blue Rainbow for a full refund of any license fees paid.

Blue Rainbow has a toll-free number but it appears to be a marketing and sales, not support, number.



**B****Harbinger\*EDI Services**

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1055 Lenox Park Blvd.  
Atlanta, GA 30319-5309  
404-841-4334

Chairman: Tycho Howle  
President: James Davis

**a. Company Background**

Harbinger\*EDI Services, part of Harbinger Computer Services (founded in 1983), is a strategic alliance with Westinghouse Electric, C&S Bank in Atlanta, First Bank System in Minneapolis, and Marine Midland Bank in Buffalo. The company features EDI PC software and Tandem-based value-added network services for companies wishing to establish EDI links with their trading partners.

**b. Software Products and Prices**

*InTouch\*EDI PC*: Simple translation software designed to be installed and running in 30 minutes. Requires: IBM compatible PC XT, AT, PS/2 or PC; 640K RAM; Hayes compatible modem; hard disk. The installation program automatically interrogates the hardware and configures the software to reflect modem location, type and speed, telecommunication parameters, and the toll-free number of Harbinger's network. It creates a subdirectory on the hard disk and loads the InTouch\*EDI software. Then, the program dials the Harbinger network and registers the user on the network.

The software allows the user to: retrieve documents manually or in an unattended mode; sort documents by date, type or trading partner; print summaries or the full text of documents; prepare outgoing response to documents without rekeying data; store incoming documents; search files for documents; add trading partners in minutes.

Does not support integration with other application software. This is a standalone send and receive device.

Price: \$1,295.

*InTouch\*EDI PLUS PC*: Has all the features of InTouch\*EDI PC and allows for some integration with internal software applications so that files



can be handed off electronically. Requires PC with 80286 processor or above, 640K RAM, Hayes-compatible modem, hard disk. Works with most file transfer software (IRMA for IBM mainframes, Advance Link for Hewlett-Packard minicomputers). Additional features include: import and export capabilities; compliance checking; archiving capabilities; scheduler for unattended operations. The compliance checking of the document syntax includes edits on: envelope checking, segment order and occurrences, segment requirements, looping structures and occurrences, data element requirements and relationships, data element code values, delimiter conversions by trading partner.

Price: \$1,995

*InTouch\*Shipper* (Windows/Bar code): Runs in a Windows environment. Creates outgoing shipping notices and prints bar codes (to be placed on shipments) based on incoming purchase orders. Designed for use on the loading dock. *InTouch\*Shipper* tracks how many items go into a pack or shipment, and it tracks how many items have been shipped to the customer and how many are owed or pending. Outstanding shipments are tracked by both trading partner and part number.

Price: \$2,000-\$3,000

*InTouch Cash Manager*: treasury workstation software.

*InTouch\*PAT* (*Payment and transfers*): treasury workstation software.

### **c. Markets Targetted**

Harbinger has a large customer base with banks with its cash management and EDI/EFT software. With its EDI translation software, it targets utility companies (particularly power companies), manufacturing (including autos, pharmaceuticals, textiles, electronics, oil, chemical), and transportation companies. It also has a couple of government contracts: one with the State of Minnesota and one with the U.S. Government's Wright Patterson Contract Center (Akron, OH). Also, Harbinger has licensed its switch software (the basis for its network service) to Sprint International, Bell Atlantic (which is now discontinuing its EDI services) and Transact Data Services (a Toronto-based transport service bureau).



**d. Support**

Harbinger offers a toll free telephone hotline support from 8:00 am to 8:00 pm EST. Harbinger claims that its support staff resolves 80 percent of all incoming questions on the first call.

The Harbinger binary file transfer mechanism makes standards maintenance exceptionally easy. Harbinger provides all EDI standards electronically, so software maintenance for end users is hassle free. And for large companies with a multitude of trading partners, it's easy to keep linked suppliers current with a single timely update.





**C****Premenos**

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1000 Burnett Ave.  
Suite 200  
Concord, CA 94520  
510-602-2000

Revenue: \$12 million (INPUT estimate for 1992)  
Chief Contact: Elizabeth Hudson, Director of Marketing

**a. Company Background:**

Premenos currently markets and supports electronic messaging software products for midrange computers, including EDI software for IBM A/400, RS/6000, System/38, System/36, and HP 9000 systems, and electronic mail software for IBM AS/400 systems.

The company was founded in 1978 as ACS, Inc. and developed software products for apparel manufacturers. After divesting itself of some of its apparel related products, the company settled on the name of Premenos, in 1992.

**b. Software Products and Prices:**

Premenos offers EDI translation and data communications products for midrange systems.

*EDI/400*: is translation software for the AS/400. Written in native RPG, the most common programming language for the AS/400. Handles ANSI X12, TDCC, EDIFACT, ODETTE and TRADACOMS standards as well proprietary and industry-specific. Features include: on-line maintenance for trading partner setup; any or all data may be selected out of the translation process allowing the user to deal only with applicable information; on-line maintenance for user-defined look up tables for ship-to, product ID and other codes; standards updates through tape or diskette; conditional mapping makes it possible translate and map an element based on another element received within the same segment; catenation allows joining data from two or more non-consecutive fields in user file to create an element in an outgoing document; decatenation enables splitting data within an incoming element and place the data into separate fields in user file; menus



customizable; 30 predefined communications programs support all major networks and trading partners.

Other general capabilities are: unattended operation using a scheduler; management reports that summarize jobs and details; menu-driven installation; mailbox system to allow an automated process for receiving and sending documents.

Prices range from \$6,000 to \$28,000 (tier pricing based on computer model)

*EDI/e*: is a patented, built-in programming language that allows users to write custom translation programs. *EDI/e* is written for UNIX environments and makes full use of client/server architecture. It runs on IBM RS/6000s and HP 9000s. *EDI/e* is designed to function as an EDI server. This means that the computer running *EDI/e* is the gateway between all applications on all computers within the enterprise network and the outside world. It sends and receives EDI communications and provides routing, translation and audit services for all applications within the enterprise network. *EDI/e* includes scripted communications for asynchronous access to VANs. Also included are scripts for use with Cleo hardware and software for bisynch connectivity. Typically a communication session with a VAN would be unattended and initiated automatically based on the scheduling mechanism within UNIX. Any other communications supported by the computer may be used with *EDI/e*. This includes TCP/IP and SNA. Multiple communications sessions may be run concurrently. *EDI/e* can translate any format to any other format (not just EDI to internal formats).

It is priced from \$10,000 to \$60,000 based on the number of "document relationships" of the customer.

*EDI/36*: for the IBM System 36; similar in functions as *EDI/400*.

Priced at \$5,700.

*EDI/38*: for the IBM System 38; similar in functions as *EDI/400*.

Priced at \$9,000.

*QMAIL*: is an E-mail software product that runs in an AS/400 environment. Basic features: send and receive mail (local or remote AS/400s); outbound mailbox; receipt acknowledgment for local messages; mail forwarding; automatic mail forwarding; append comments before



forwarding; message formatting; purge, archive and reorganize mail files; create distribution lists; carbon copy and blind copy; copy test to and from any source file; execute any AS/400 command without leaving QMAIL; event logging, document status and communications error tracking. Has built in connectivity to: AS/400 to AS/400 communication protocol (AAP); SNADS; X.400; TCP/IP; GE QuickCom; IBM Mail Exchange; AT&T EasyLink.

It is priced from \$1,500 to \$10,000 based on the number of users.

**c. Markets Targetted:**

Premenos is the leading provider of EDI software to the AS/400 market place. It enjoys a strong relationship with Advantis, getting its start as an EDI software vendor by building software that Advantis (then operating as IBM Information Network) resold under its own label. The relationship continues today, although Advantis does not use its label but sells the Premenos product to customers.

Premenos' EDI/e product (more details below) is a key product in bringing open systems to companies that want to establish EDI and electronic commerce systems. Premenos wants to serve customers across industries who use midrange platforms.

**d. Support**

According to product literature, Premenos customer support is rated "excellent" by MIS administrators and consultants. Premenos offers training classes and an annual users conference.



**D****Sterling Software, Inc., EDI Group**

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4600 Lakehurst Court  
P.O. Box 7160  
Dublin, OH 43017-0760  
614-793-7000

Revenue: \$259 million (FY Sept. 1992)  
Group President: Warner Blow

**a. Company Background:**

Sterling Software, headquartered in Dallas, TX, is a major worldwide supplier of software products and services in selected niches within three markets: systems software, electronic data interchange/electronic commerce, and Federal government professional services. The company has three operating groups corresponding to these three focuses. The groups act autonomously. The EDI/Electronic Commerce group is headquartered in Columbus, OH, and generated \$57 million in 1992.

Sterling's strategy is to expand its existing businesses through internal growth and complementary product or company acquisitions. During the first half of 1993, Sterling acquired Systems Center, Inc. (Reston, VA) a major supplier of systems software products worldwide. The \$185 million valued transaction brings a new revenue stream to the corporation of approximately \$130 million. The major synergies of this acquisition are most closely felt with Sterling's Systems software division. However, Systems Center has an extensive global sales and service network which Sterling had long desired. Thus the Systems Center acquisition brings a worldwide distribution channel to Sterling which will enhance its EDI/Electronic Commerce business as well. The acquisition has led to a corporate wide streamlining of job functions with redundancies eliminated primarily among the EDI and Systems divisions.

**b. Software Products and Prices:**

Sterling Software's EDI Group offers a range of software products and network services. For a full description, see INPUT's report, EDI Vendor Profiles and Competitive Analysis. Below are brief descriptions of products





and services that are relevant to the EDI Group's open systems and electronic commerce strategy.

*Gentran*: Sterling's EDI translation software product. It has several versions depending on the target computer platform. It runs on:

Gentran for IBM 30XX, 42XX, 9370 under MVS and DOS/VSE Advanced EDI management and translation software. Table-driven functions allow easy updating of trading partners, standards and versions without programming. On-line menu driven mapping system speeds integration with applications. All public standards supported. Compliance and error control. Audit and management reports allow user to track and control EDI activity, document flow and functional acknowledgments. Security by passwords and through interfaces with internal security systems such as ACF2, TopSecret and RACF. Event-Driven EDI (EDE) module combines batch and online capabilities. Documents can be translated, processed and communicated to applications (and vice versa) as they are received. Real Time EDI (RTE) puts document translation in a CICS-based totally online mode. EDE and RTE are designed to support Just-in-Time and Quick Response kinds of requirements.

**Prices:**

Configuration	MVS OS	VSE OS
Batch	\$42,000	\$37,000
Batch with EDE	\$47,000	\$42,000
Real Time EDI (RTE)	\$48,000	\$43,000
Batch/RTE combo	\$85,600	\$76,600

(these include 2 days of on-site training)

The following include the translation module, communications module and process control

PLUS BSC	\$111,400	\$92,000
PLUS SNA	\$121,000	\$98,000
PLUS SNA with SPC	\$131,000	\$108,000
PLUS COMBO	\$139,000	\$110,000

(these include 3 days of on-site training)

Event Driven Module: \$18,000

**Gentran DEC VAX**

Includes programs, documentation, tables, all transaction sets, and mapping integration system.



Tier 1 (Micro VAX II, 2000, 3100, 3200, 11/700, 11,725, 11/730)  
\$7,500

Tier 2 (11/750, 11/780, 11/782/, 11/785, 33XX > 39XX, 5000, 6210,  
6310, 82XX, 83XX) \$15,000

Tier 3 (62XX-- except 6210, 63XX -- except 6310, 64XX, 65XX, 85XX,  
86XX, 87XX) \$25,000

Tier 4 (88XX, 89XX, 9000 series) \$35,000

Columbus based training for one person for tiers 1-4: included.

Two days' on-site installation consulting for tiers 3-4: included.

Two days' on-site installation consulting for tiers 1-2: \$1,000 per day plus  
expenses

First year maintenance: included

Annual renewal fee: 15% of initial license fee.

Gentran AS/400. Provides EDI management and translation functions as  
well as communications and mailboxing. Support all major EDI standards.  
Mapping function makes use of Data Description Specification to let user  
use existing file structures. On-line monitoring of EDI processing.  
Automated job scheduling. Detailed reporting. Compliance and error  
control. SNA and bisynch support. Interactive job tracking.

#### Pricing:

AS/400 models: C04, D02, D04, E02, E04: \$7,500

AS/400 models: B10, B20, B30, B35, C06, C10, C20, C25, D06, D10,  
D20, E06, E10, E20: \$9,800

AS/400 Models B40, B45, D25, D35, E25, E35: \$13,600

AS/400 Models B50, D45, E45: \$16,200

AS/400 Models B60, B70, D50, D60, E50, E60: \$19,500

AS/400 Models D70, E70: \$25,000

AS/400 Models D80, E80: \$35,000

AS/400 Model E90: \$47,500

Included in initial term license fee: programs, documentation, tables, all  
transaction sets, mapping integration system, integrated job scheduler,  
multi-configuration communications subsystem, course fee for 3-day  
Columbus-based training, 1-800 hotline support, 12-month warranty and  
first year maintenance. Renewal term license fee: 15% of initial term license  
fee.

IBM S/3X from \$6,000



**Gentran PC:** Includes complete X12, UCS, VICS, WINS, and TDCC message standard support. Includes two selections from Sterling's GENTRAN PC format library. The initial license fee and software renewal fees, respectively, include on year of customer support services and scheduled software upgrades.

**Prices:**

Gentran PC: \$1,295 initial license fee (\$495.00 annual renewal fee)  
Transaction Data File \$700 (\$100 annual renewal fee)  
TDF and Toolkit \$1,700 (\$200 annual renewal fee)

**Communications software:**

Doculink/MNP \$150.00 (asynchronous software for communicating at 1200 or 2400 bps via Hayes compatible modems.

Doculink/BSC \$250 (bisynchronous software for communicating at 2400 or 4800 bps using the Microgate communications board.

**Gentran UNIX**

Runs on IBM RS/6000 and HP 9000.

Prices range from \$7,500 to \$42,500

*Commerce Connection:* a multi-purpose, customer-workstation interface to Sterling's EDI network. Allows users to conduct many kinds of network communications E-mail, EDI, file transfer and distributed data bases. It is delivered to the customer in the form of (1) a software package that runs on an individual's workstation and, in turn, interfaces with (2) network services that include E-mail boxes, network administration services, catalog/library services, and file-transfer services. A key service is library services. Through library services, EDI trading partners can send reference files to their trading partners. Using this facility, a hub company, for example, could disseminate new EDI transaction set templates, E-mail addresses, product catalogs and product listings, policies and procedures, and otherwise administer its electronic connections with its trading partners.

Commerce Connection has a graphical user interface, runs under MS-DOS. A Windows and UNIX version is in the works. Price is \$240 per user.

*Vector:* Sterling's set of financial and banking software products, including an EDI/EFT payments module. The module allows banks to send and receive EDI/EFT transmissions on behalf of their corporate customers.



*Educational Services:* Sterling has experienced great success and has been very aggressive in providing EDI education and training. Its EDI Center (located in Columbus, OH) has trained over 15,000 people from over 10,000 organizations. It offers on-site training and video courses as well.

**c. Markets Targetted:**

Between its EDI software and network services offerings, Sterling has dominant market positions in the hardware retail/supplier industry, grocery industry, pharmaceutical distribution industry. It has expanded its share recently in the broader retail industry, transportation and manufacturing sectors. Sterling has customers in every segment and it is expanding internationally, particularly in Canada, the U.K., and Japan.

In the fourth quarter of 1992, the EDI Group of Sterling Software announced that it was expanding beyond offering EDI software and services to provide "Electronic Commerce" products and services. The significant new vision outlined a strategic growth path to move from being a largely U.S.-focused EDI vendor to becoming a global "electronic commerce" vendor over the next five years.

Sterling identifies changing customer needs as impetus to move to a more comprehensive product/service offering. Sterling distinguishes four main kinds of products and services that comprise its electronic commerce solution set:

- **Communication services.** Includes such network services as EDI, E-mail, file transfer, and enhanced facsimile. Sterling expects to offer E-mail services this year. Sterling will not offer voice networks or virtual data networks.
- **Enabling software.** Includes EDI management software, E-mail workstations (to come in 1993), X.400 software, security software and monitoring software (such as its recently released ViewPoint package, that manages/logs EDI system activities. Sterling will not develop end-user applications. For tying into applications, it will continue to rely on alliances with application software vendors such as American Software (Atlanta, GA) or reseller agreements such as the one with Information Access Inc. (Cleveland, OH) for the food brokerage community.
- **Value-added shared applications.** These are EDI-enabled applications that a community of trading partner companies would use. They include data base services (such as Sterling's MarketQuest product), shipment tracking, RFP/bid award bulletin boards, and others. Sterling will not offer custom applications for individual companies.





- Closely related professional services. These include EDI education, mapping services, and implementation services but not systems integration or programming services.

In the near term (1993 and 1994), Sterling intends to roll out an X.400 messaging service through its switching center and complement it with workstation E-mail and file management software. It will offer the EDI-enabled applications of electronic payments and bid-award clipping services for the grocery and pharmaceutical industries.

#### **d. Support**

Depends on specific software product. See product descriptions. For all customers, Sterling offers a 1-800 number and access to a staff of troubleshooters. On-site assistance is charged for (usually at the rate of \$1000/day plus expenses).



**E****Supply Tech, Inc.**

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1000 Campus Drive  
Ann Arbor, Michigan 48104  
313-998-4800

President: Ted Annis

**a. Company Background**

Supply Tech, Inc., founded in 1984 by Ted Annis and Gail Jackson, initially developed IBM PC-based EDI software for the automotive industry. Supply Tech is expanding its markets to cover other industries that use EDI throughout the world. The company's products focus exclusively on EDI and bar coding.

**b. Software Products and Prices**

STX for the Microcomputer: Runs on IBM and compatible PCs. Supports ANSI ASC X12, EDIFACT, TDCC, and UCS standards. It supports most public VANs and private EDI networks. Comes with an API that supports integration with applications software. Comes with an interface to ISOCOR's X.400 family of Message Transfer Agents to that the STX software can make access to X.400 transport systems (and use X.435 to send EDI messages). Menus can be displayed in six different languages. Includes mandatory and conditional field enforcement, automatic generation of flat file layouts in formats usable in C and Cobol programs and HP LaserJet printer support. The patented Overlay capability allows EDI transactions, data entry screens, and reports to be developed on-screen without requiring programming changes. Other features are unattended operation capability, document turnaround, and LAN compatibility.

Price: \$2,495.

Overlays: Predefined and pre-mapped transactions of the most commonly used transactions including those specific to nearly all major hubs. Overlays automatically generate the mapping information needed for EDI translation.

Price: \$150 to \$300 per overlay



STX for the Mainframe: EDI software designed to run on IBM mainframes with MVS or DOS/VSE operating systems. The software features compliance checking. Overlays allow the software to comply with EDI standards while offering flexibility to accommodate the varying needs of trading partners in terms of EDI transaction definitions, compliance checking criteria, and application flat-file interface -- all without programming. Overlays define the EDI components and the relationships between them for each implementation of an EDI transaction. Supports X12, EDIFACT, TDCC, and UCS standards as well as industry conventions. Allows on-line administration via CICS with a full menu system and context-sensitive help screens. Batch operations can process with or without CICS being available. Also, STX will permit batch and CICS to operate on the same files simultaneously. Multiple data sets can be used while occupying only a single CICS region. STX interfaces with virtually all communications packages or subsystems. Multiple communications connections and multiple subsystems may be used.

Price: \$19,500.

#### **c. Markets Targetted**

Supply Tech got its start in the automobile manufacturing and supply industry, where it continues to have a large customer base. It has expanded this auto industry base throughout the world and is one of the principal EDI software vendors to auto makers and their suppliers in Mexico, South America and Europe.

Supply Tech is widely used in many other industries outside autos. Being the largest supplier of PC EDI software (with more than 10,000 installations) its customers range across retailers, manufacturers, transportation companies and others.

#### **d. Support**

For PC software, Supply Tech provides training at \$495 per day and hotline support (\$600/year for a Level 1 system; \$780/year for a level 2 system).

For the mainframe software, the pricing includes one day of installation support. The annual maintenance fee is \$2,925 (15% of sales price).



## F

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TSI International

45 Danbury Rd.  
Wilton, CT 06897  
203-761-8600

Revenue: 1992 revenue \$16 million (INPUT estimate)  
President: Constance Galley, President and CEO

**a. Company Background:**

TSI International develops and markets software products for IBM mainframes and PCs with a special focus on solutions for the delivery of data to production systems. TSI addresses the market needs of traditional (manual) data entry as well as EDI. The company is an IBM Business Partner.

Founded in 1967, TSI successfully developed and marketed systems software products in the IBM mainframe software market, culminating in the 1978 introduction of KEY/MASTER, which grew over the following years to become the world's leading data input software system.

In 1990, after receiving private placed capital, TSI launched its own mainframe translation software product, Trading Partner. During 1990 TSI also acquired the license and customer base to TranSettlement's TranSlate EDI software for IBM mainframes and acquired the PC-translation company Foretell Corporation (from JWP, Inc.).

In 1992, TSI launched its kit series of PC based EDI software, which are translation software packages that have been pre-configured for specific trading communities (e.g. Wal-Mart, All-State, etc.)

In 1993, TSI launched Mercator, a general purpose translation product capable of translating data arranged in any file format into any other file format (including but not limited to standardized file formats). Mercator is object oriented and runs under Windows.

**b. Software Products and Prices:**

*Trading Partner:* a high-performance, mainframe-based EDI management software package. Includes translation functions, communications for direct ties to trading partners, applications gateway (for importing and





exporting data from applications), on-line mapping facility, and various checking and reporting functions. Priced from \$30,000 to \$200,000.

*Trading Partner PC:* EDI translation software including all asynchronous network connections. Requires a -386 (or larger) computer, Windows and a mouse. Priced at \$495.

*EDI Kits:* pre-packaged solutions for a particular trading partner. It contains all the transaction sets and reports required for that trading partner and may contain document turn-arounds to reduce data entry. Priced at \$249 to \$395 each.

*Standards collection:* A standards collection consists of all transaction sets or messages in our inventory for multiple versions and releases. The X12 set, for example, includes versions 2002 through 3020. Collections are available for ASC X12, EDIFACT, and TRADACOMS. Priced at \$295.

*Mercator:* Is a mapping tool that uses a point-and-click approach to mapping data from one file format to another. Runs under Windows, is object-oriented by design and so therefore eliminates writing code (programming) as a way map files together. Has uses beyond merely EDI applications. Mercator is a truly generic mapping tool and can map any file to any other file (not just standard EDI files). Also, Mercator acts in a run time mode so that it is translation software in addition to a mapper. One Mercator customer describes it as a "CASE tool for EDI mapping." Pricing has not been determined at this time.

TSI also sells products in the data acquisition and data input arena. For more information on these, see INPUT's report, EDI Vendor Profiles and Competitive Analysis.

#### **c. Markets Targetted:**

TSI is targeting the EDI mass market. It is cognizant that there is a second tier of EDI user: the suppliers of the principal hub companies. These suppliers number in the 100s of thousands, not the tens of thousands, the current number of EDI users today.

In line with targeting the mass market, TSI has adopted a mass market price point for its PC software: under \$500. Also, its EDI Kits products are aimed at allowing small users to come up quickly in adopting EDI. A Kit is translation software that comes pre-packaged with the transaction sets used by a particular hub company (for example, Wal-Mart, All-State Insurance, etc.).



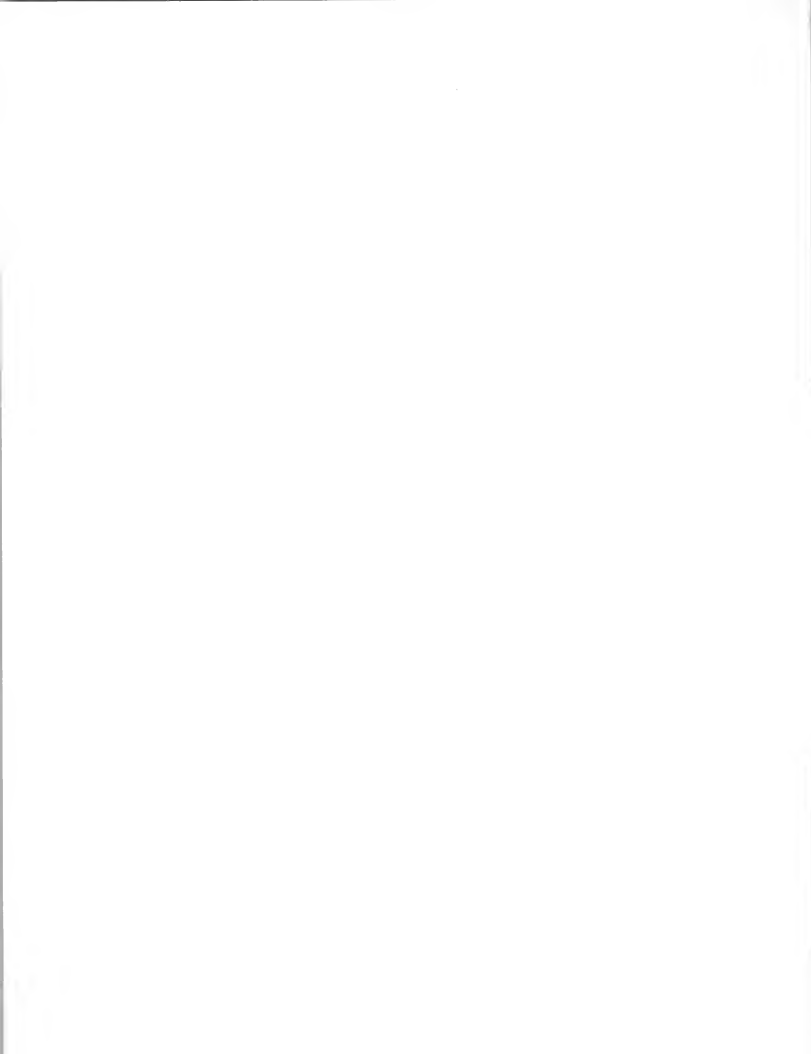
TSI is aggressively pursuing the hub-spoke strategy. It has won large contracts with hub companies, establishing deals where the hub's suppliers are recommended to purchase TSI's PC software. TSI has targeted large Fortune 1000 companies and government agencies to sell its product to. TSI also supplies hub companies with sophisticated mainframe size EDI translation software with its product, Trading Partner.

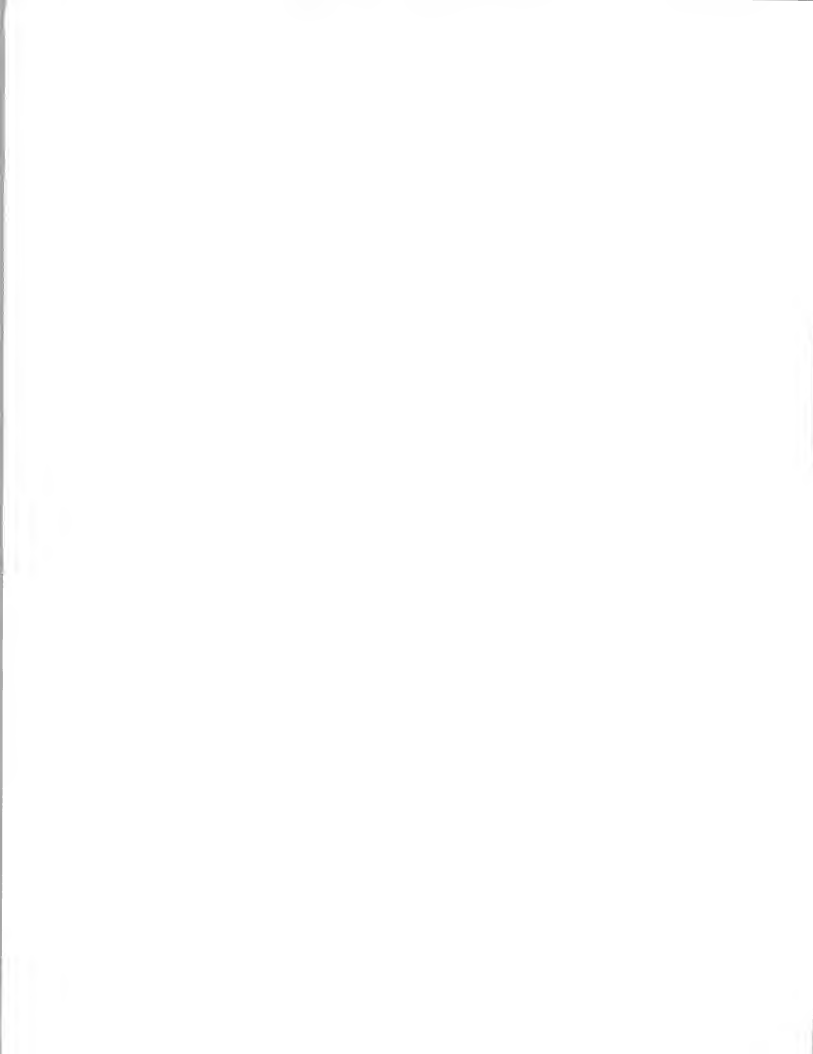
#### **d. Support**

TSI services its customers in North America by hotline from corporate headquarters in Connecticut. Customers in the UK and Holland are serviced by the London office. Customers in 23 other countries are serviced by a network of distributors.

TSI offers professional services and seminars. Also, the account manager is the first line of contact.







## ABOUT INPUT

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Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, objective analysis, and insightful opinions to support their plans, market assessments and technology directions particularly in computer software and services. Clients make informed decisions more quickly and save on the cost of internal research by using INPUT's services.

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- Systems Integration
- IT Vendor Analysis
- EDI / Electronic Commerce
- U.S. Federal Government IT Procurements

#### **— EUROPEAN —**

- Outsourcing
- Systems Integration
- Customer Services

## CUSTOM CONSULTING

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Many vendors leverage INPUT's proprietary data and industry knowledge by contracting for custom consulting projects to address questions about their specific market strategies, new product/service ideas, customer satisfaction levels, competitive positions and merger/acquisition options.

INPUT advises users on a variety of IT planning and implementation issues. Clients retain INPUT to assess the effectiveness of outsourcing their IT operations, assist in the vendor selection process and in contract negotiation/implementation. INPUT has also evaluated users' plans for systems and applications downsizing.

## INPUT WORLDWIDE

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