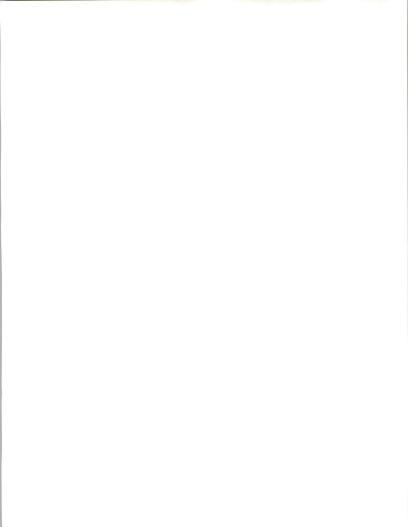
Quelles Perspectives pour les Services autour du Client/Serveur?

Conférence INPUT
Paris
Mercredi 17 novembre 1993



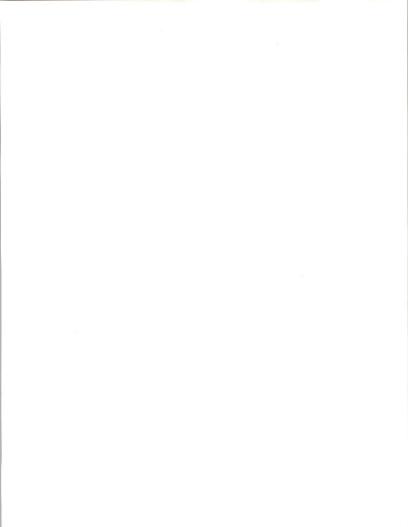


Prepared by INPUT 1881 Landings Drive Mountain View, CA 94041-0848 U.S.A.

Quelles Perspectives pour les Services autour du Client/Serveur?

Printed in the United States of America.

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



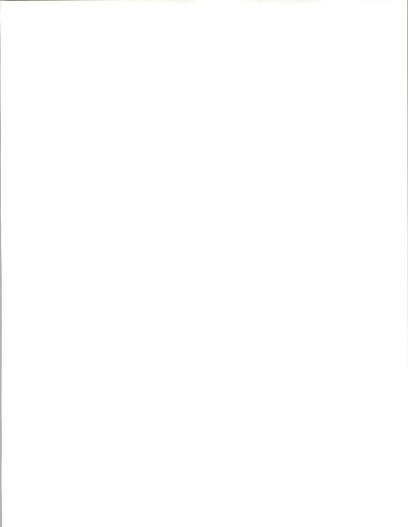
Client/Server: The New IT Environment

Peter A. Cunningham President INPUT

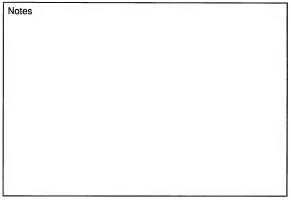
Topics

- Introduction
 - IT Revolutions
 - Client/Server Computing
- Client/Server User Implementation
- Vendor Strategies
- Conclusion

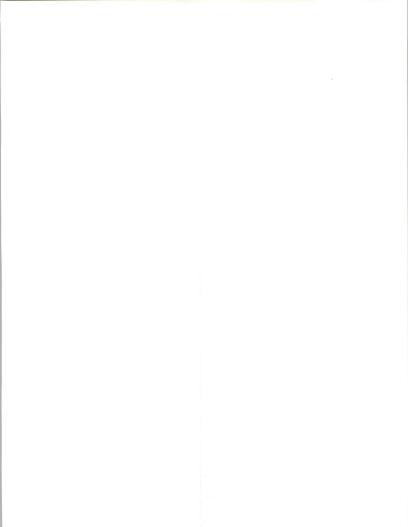
Notes		



Introduction



11/17/93

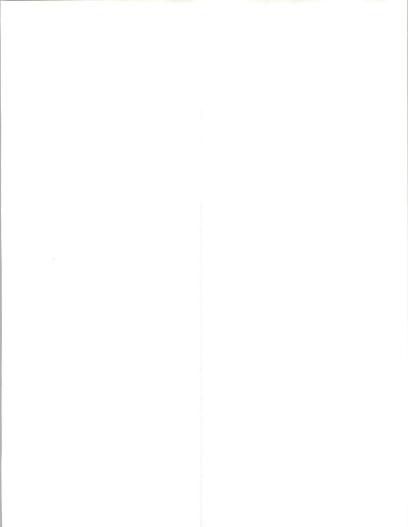


Revolutions

- Downsizing
- Outsourcing
- Re-engineering
- Networking

IS-94a

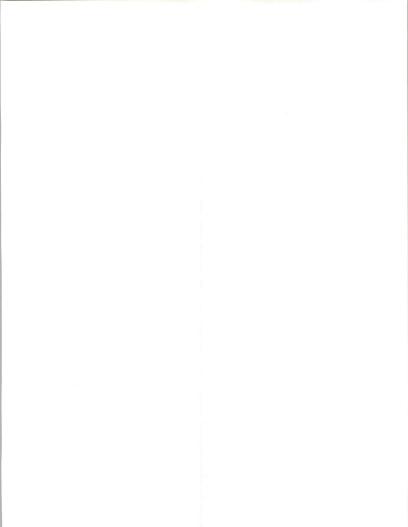
Notes		



Client/Server Computing Description

- · Concept involves
 - Sharing of responsibility; client and server necessary for applications result
 - 'Action' on the part of both client and server computers to achieve result

Notes	

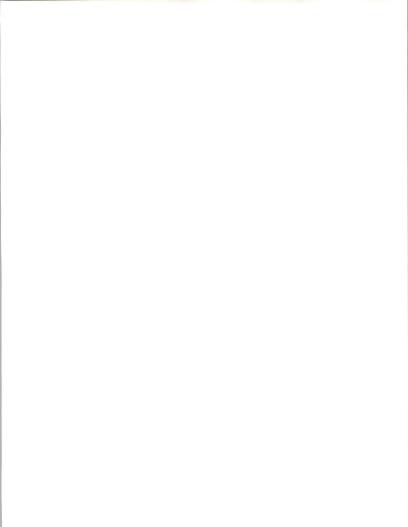


Client/Server Computing Description

 Server computer provides information, software and/or resources to client computers to enable applications processing

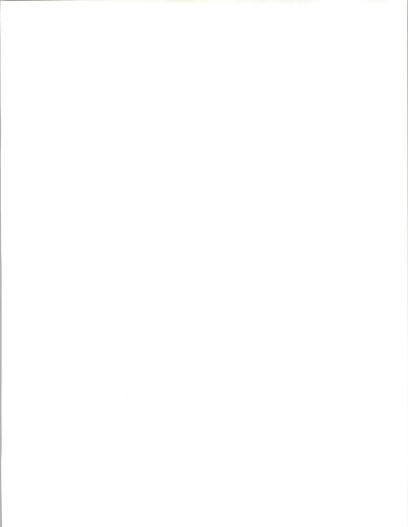
UN-PC-1 INPUT

Notes		



Client/Server User Implementation

Notes		

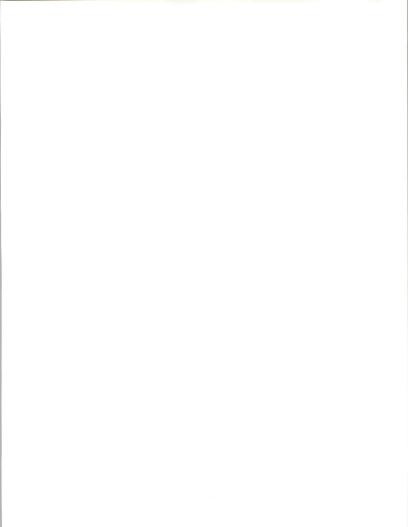


C/S Sample Characteristics

Characteristic	1993	1997
Avg. No. of Clients	1,294	2,318
Avg. No. of Servers	24	96
Avg. No. of LANs	34	78
Server/LAN Ratio	0.71	1.23
Client/Server Ratio	70/1	55/1
104 roomandonto		

124 respondents

Notes		



Equipment Selection Reasons

	Proportion of Mentions (%)			
Reason	Client	Server		
In-Place	33	31		
Price- Performance	25	22		
Standards	18	11		
Other	23	35		
MC2 DAC 7				

Notes

*Top four from 60 user surveys



Conclusions—Equipment

- Servers are increasingly large PCs
- Already 'Legacy' C/S structures
- "Intel" is a leading C/S vendor
- Client market saturating
- Server market is open

Notes		

Distribution of Operating Systems

 Proportion of Mentions (%)

 OS
 Client
 Server

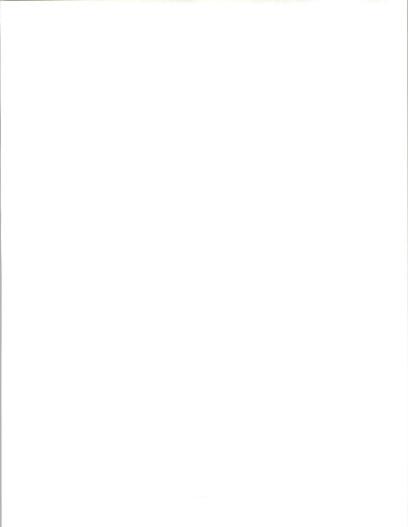
 DOS
 73
 38

 UNIX
 7
 32

 OS2
 14
 13

 Other
 7
 17

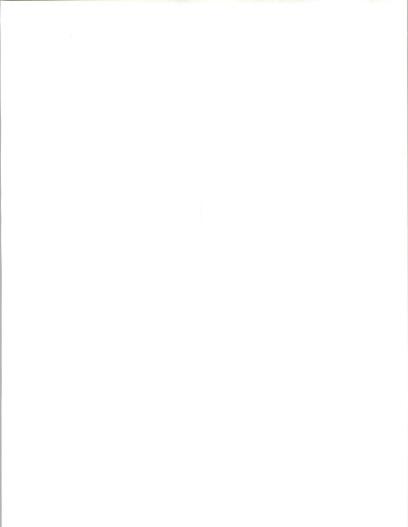
Notes		



Distribution of Network Operating Systems

os	Proportion of Responses (%)
Netware	74
LAN Manager	8
LAN Server	7
TCP	6
Other	10
MC3-PAC-11	

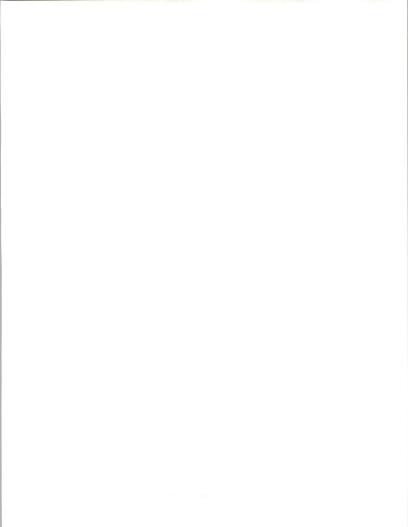
Notes



Conclusions Operating Systems

- Dislocation between client and server OS
 - Clients, DOS is 'there'
 - Servers, selection is open
- Novell dominates NOS—No change expected
- NT is not penetrating rapidly

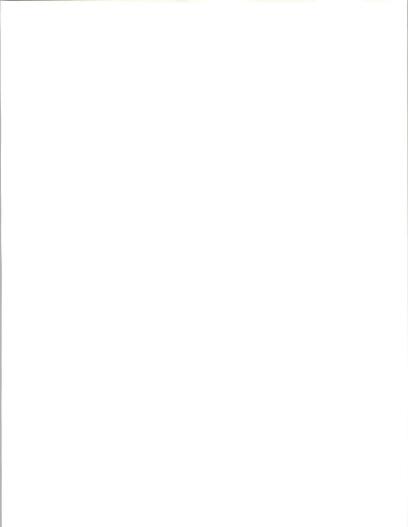
Notes		



Conclusions on DBMS

- Oracle is well positioned on both C and S
- Microsoft gaining ground fast
 - FoxPro on both C and S
 - Access on clients

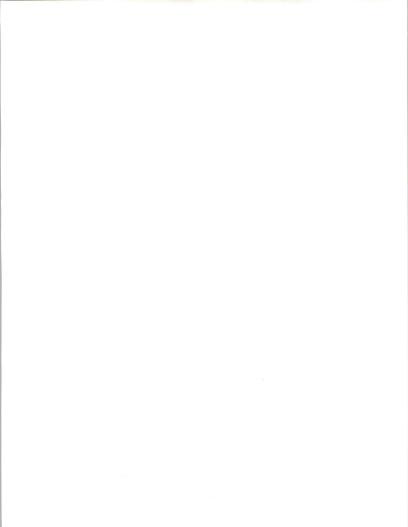
Notes		



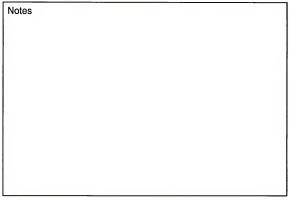
Conclusions on DBMS

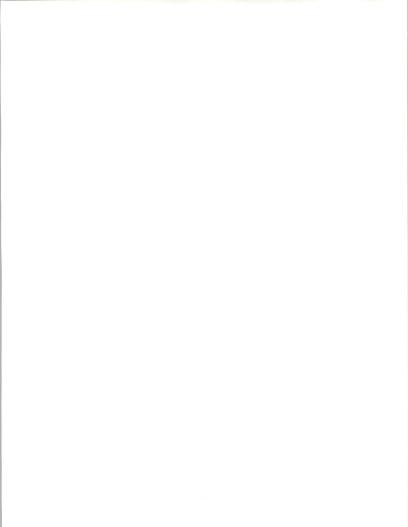
- Data base systems may be increasingly unnecessary on clients
 - 'Run-time' versions with data
 - No need for data management
- Variety of data base combinations exploding

Notes		



Impacts on Vendor Strategies



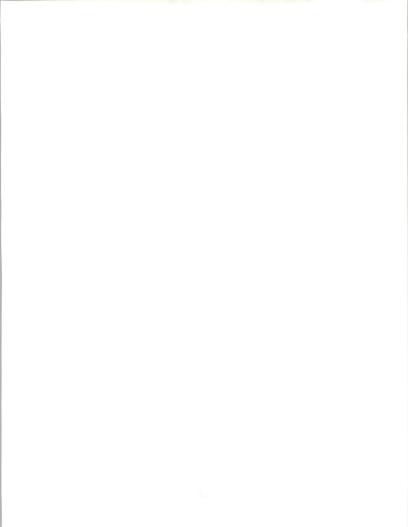


Vendor Strategies Systems Companies

- Establishing C/S units
 - IBM Data General
 - Tandem Amdahl
- · Generally attacking market
 - DEC

MC3-PAC-20a

Notes		

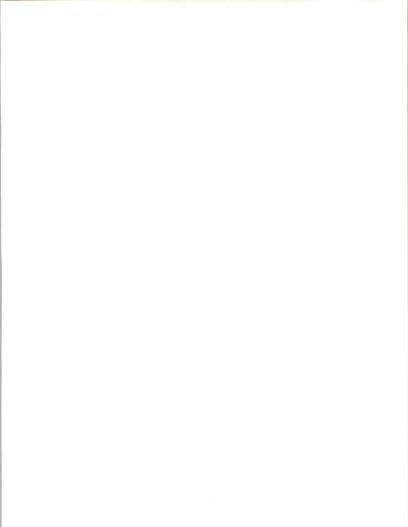


Vendor Strategies Systems Companies

- "Cosmetic" approach in many cases
- · Attempting to 'co-opt' the market
- Supported by consultants/IS managers

MC3-PAC-20b

Notes			

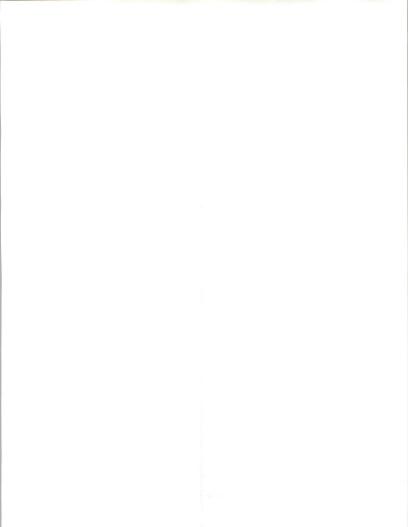


Vendor Strategies—Software Products Companies

- · Running scared/hard
- High-end products
 - Downsizing products
 - Choosing ADEs difficult
 - Dramatically reduced pricing
 - Costly process

MC3-PAC-21a

Notes		



Vendor Strategies—Software Products Companies

- Low-end products
 - Adding features/functions
 - Potential for network distribution
 - Slowing client growth
 - Server pricing difficult

MC3-PAC-21b

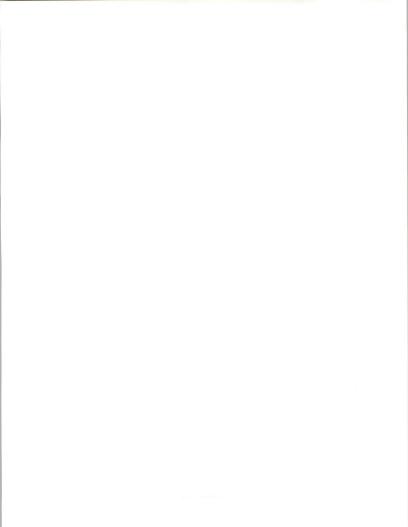
Notes		

Vendor Strategies Services Companies

- · Integrators leveraging knowledge
 - Andersen, CSC, Systemhouse, TRW
- Professional services companies switching skills
 - CGS, CTG, IMI

MC3-PAC-22a

Notes			

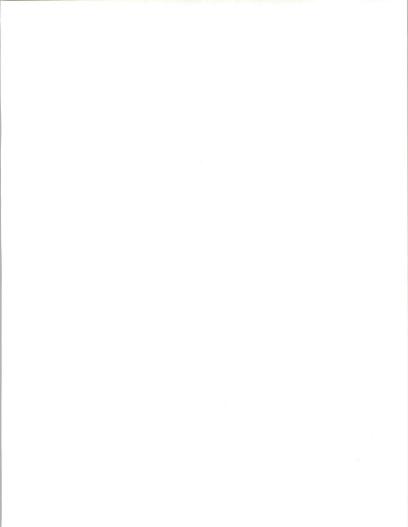


Vendor Strategies Services Companies

- Processing companies addressing threats
 - ADP, EDS, TCC
- Network companies seizing opportunities
 - AOL, CompuServe, CONNECT

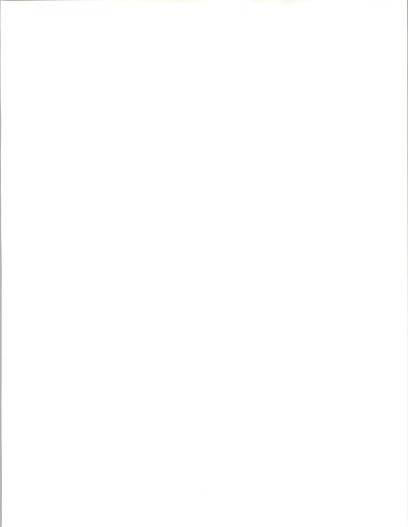
MC3-PAC-22b

Notes	



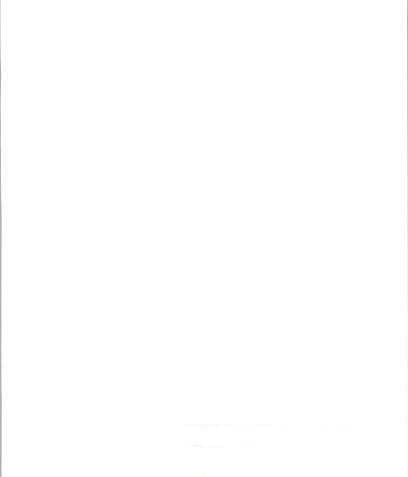
Client/Server Influence on Professional Services Work MF/Mini Work C/S Work Mainframe/Mini Work that is C/S driven 1993 1995 1998 INPUT

Notes	



Vendor Strategies

- Developing software for multiple platforms
- Acquiring/developing C/S skills
- Establishing technology centers
- Struggling with marketing/sales
- Stepping across boundaries



Conclusions

- Data supports:
 - Movement to users
 - Fragmentation
 - Movement away from "standards"
 - Movement towards interoperability

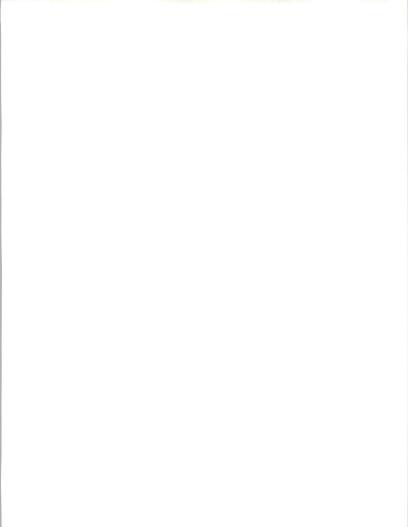
Notes			



Conclusions

- Changing demand for products and services
 - Targets are more diffused
 - Needs are defined more narrowly
 - Buyers are more 'selfish'

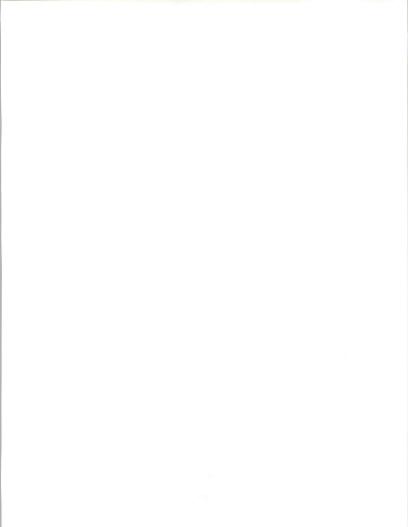
Notes		



Conclusions

- C/S accelerates impact of price performance improvements
- Network products/services prime opportunities
- Internet is the network model of the future
- Small ("piggyback") networks will multiply

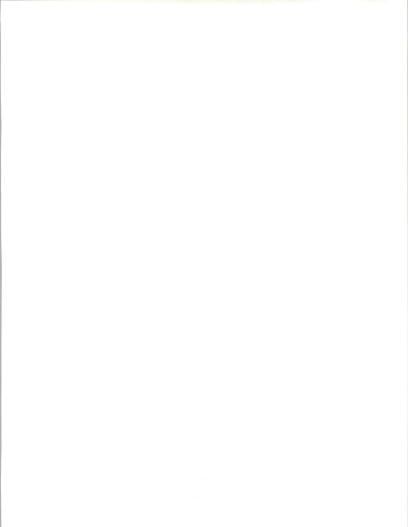
Notes	



Successful Products and Services—Characteristics

- High-value, low-cost (of ownership)
- · On the winning platforms
- Flexible and extendable
- Easily implemented and operated
- Low cost, high value support
- Constantly improved price/ performance

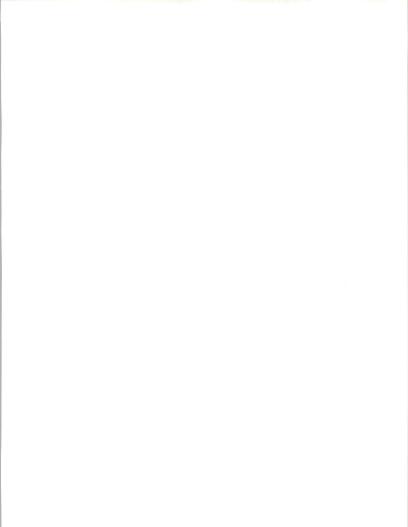
Notes		



Successful Products and Services—Marketing

- Win "beauty contests"
- Influence the influencers
- Price properly

Notes		



PETER A. CUNNINGHAM PRESIDENT

PROFILE

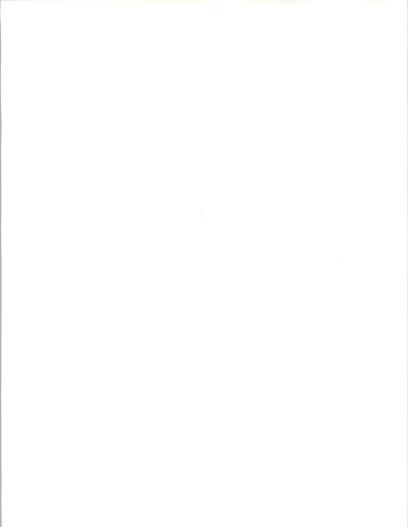
- Mr. Cunningham has 28 years of experience in the information technology industry, including over 20 years of P&L responsibility in consulting.
- Mr. Cunningham provides information and advice to users and vendors of information technology.
 He specializes in analysis and forecasting of major trends in the industry, particularly in software, services, and the impact of information technology on people and organizations.
- In 1974, Mr. Cunningham founded INPUT to provide planning services, market research and consulting to buyers and vendors of IT products and services on a worldwide basis. The company specializes in analyzing and forecasting the applications and use of IT, particularly through the information services industry. This industry is now over \$250 billion per year in size and is being driven by trends in outsourcing, systems integration, and downsizing. INPUT's mission is to provide its clients the ability to benefit from these and other IT trends and opportunities.
- Previously, he was a founder and President of J.W. Goodhew and Associates, Inc., a Washington, D.C. data processing consulting company specializing in the Medicaid, association, and manufacturing industries, as well as the federal government. Prior to that, Mr. Cunningham was with Management Science America, responsible for data processing projects in government and industry.
- Mr. Cunningham came to the United States with C-E-I-R, for whom he performed systems
 development and management.
- · Mr. Cunningham started his career with ICL in 1964 in systems software development.

EDUCATION

- B.Sc. (Physics), Associate of the Royal College of Science, Imperial College, London
- · M.P.A. (Technology of Management), The American University, Washington, D.C.

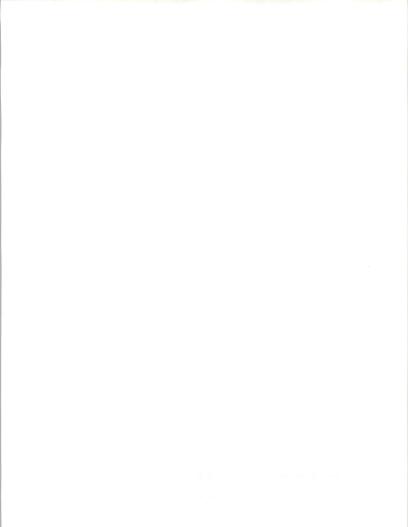
MEMBERSHIPS

- · Fellow of the British Computer Society
- · Member of the Worshipful Company of Information Technologists (Guild of the City of London)



European Opportunities in Client/Server Information Services

Peter Lines Director INPUT—Europe



European Client/Server Markets

- Economic/political environment
- User community impacts
- · Five-year market forecasts
- Services industry—year 2000
- Strategies for success

MC3-PL- 3 INPUT

Notes			

11/17/93



European Community 1993

 Shattered vision and economic difficulties create new environment for IT decisions

MC3-PL- 4 INPUT

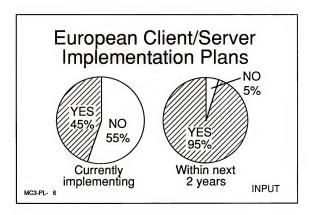


European IT Users

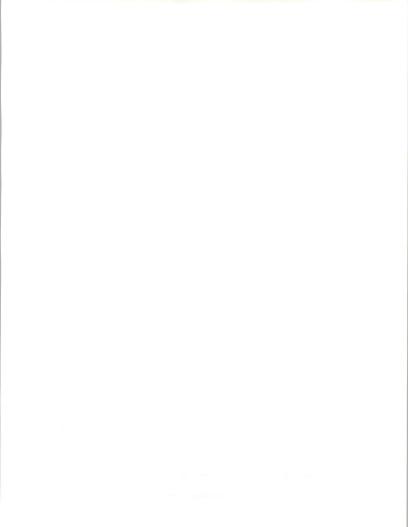
- Demand client/server applications
- Require support and services
- Drive IT expenditure externally

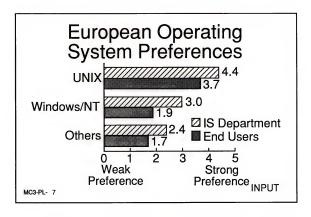
MC3-PL- 5 INPUT

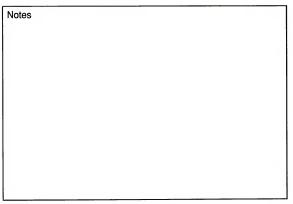




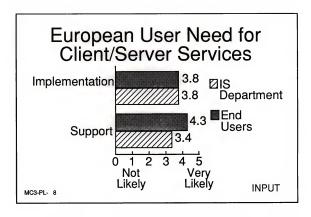
Notes	

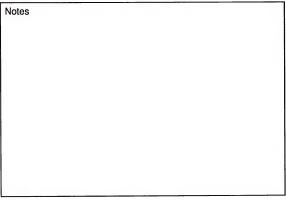




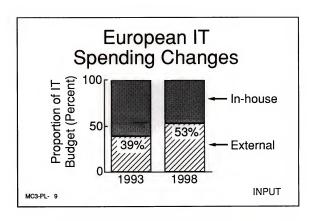


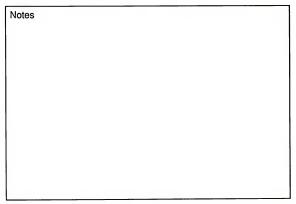












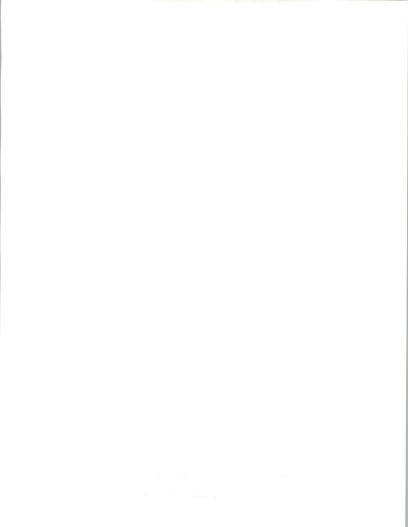


European Client/Server Markets

- Software product brand leaders scale up
- Open competition for client/ server projects
- · Transition costs fuel outsourcing

MC3-PL- 10 INPUT

Notes		



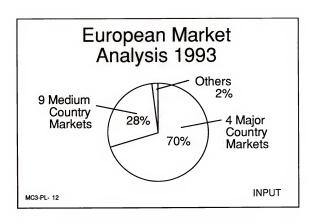
European Software and Services Market C/S Impact

Sector	1993-1998 CAGR (%)	1998 Market Proportion (%)
C/S	+43	65
Non C/S	-9	15

MC3-PL- 11 INPUT

Notes			

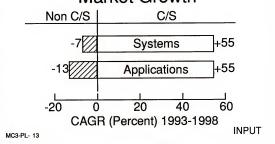




Notes		

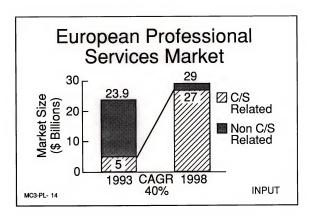


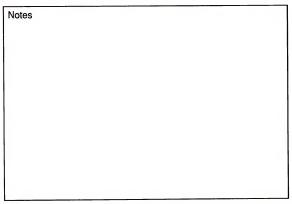
European Software Products Market Growth



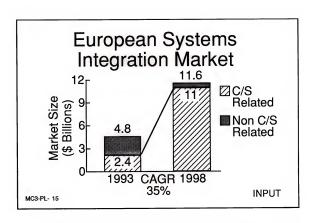
Notes		

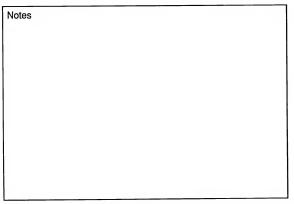


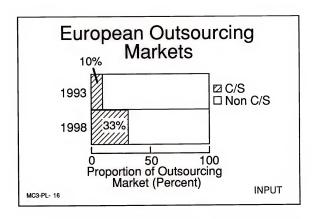












Notes	
_	



The European Information Services Industry—2000

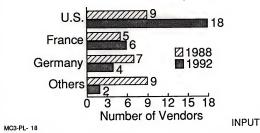
- U.S. vendors strengthening market position
- · Mid-sized firms challenged

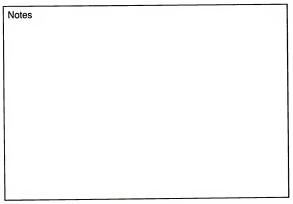
MC3-PL- 17 INPUT

Notes		



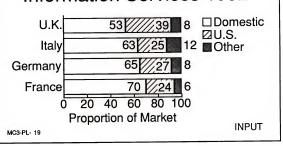
Top 30 Software Product Vendors Europe





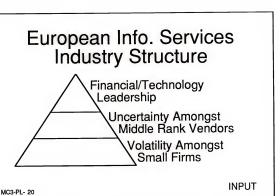


European Market Shares Information Services 1992



Notes





Notes	



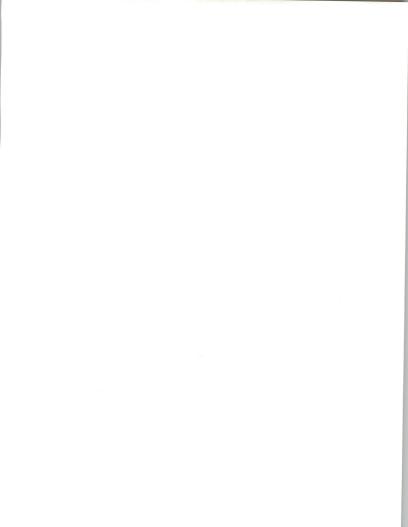
European Success Strategies Built on:

- · U.S. products
- U.S. experience
- European resources

INPUT

Notes	

MC3-PL- 21



PETER LINES VICE PRESIDENT MANAGING DIRECTOR

PROFILE

CAPABILITIES

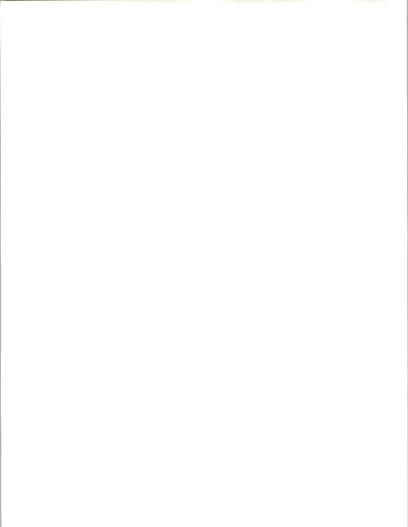
Peter Lines has twenty-five years of experience in the computer industry. He currently has
responsibility for all of INPUT's European Programme research and custom consulting. He
specializes in analysis and forecasting of major trends in the computer software and services
business in Western Europe.

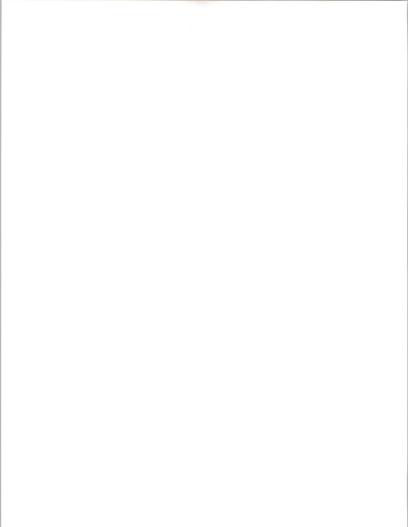
BACKGROUND

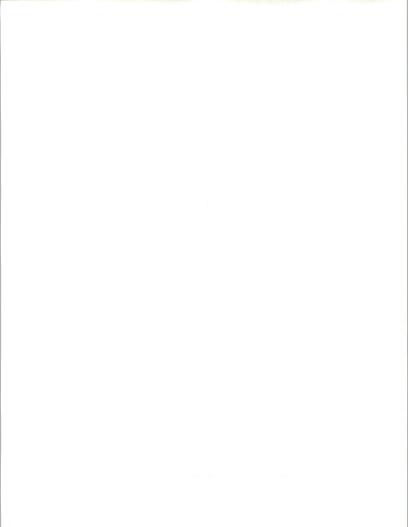
- With INPUT since 1983, Mr. Lines originally set up the Western European Market Analysis
 Programme for the computer software and services business. Subsequently he took management
 responsibility for all research in Europe, including INPUT's Customer Services Programme and
 custom consulting assignments. Mr. Lines became a Director of INPUT, Ltd. on the 1st January
 1988.
- Prior to INPUT, he was with Sperry Computer Systems' U.K. subsidiary where he held a variety
 of posts, including those of Regional Software Support Manager, Regional Marketing Support
 Manager and Marketing Planning Manager.
- Mr. Lines commenced his career in the computer industry in 1966 with English Electric Computers (subsequently ICL), as a systems analyst.

EDUCATION

· B.Sc. (Economics), London School of Economics







Leading Vendors Client/Server Strategy

Peter A. Cunningham President INPUT



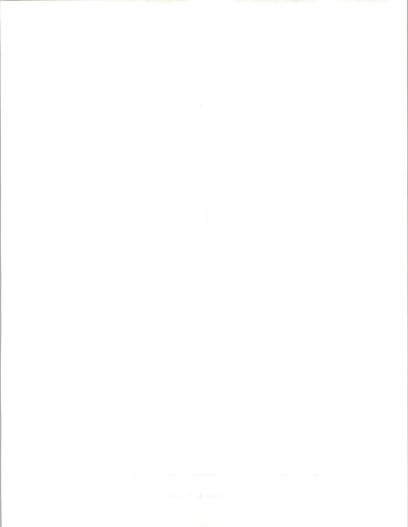
Tandem

Client/Server Strategy

- Fault tolerance and high availability for client/server (Himalaya Range)
- "Instant Information Everywhere"
- Client/Server as a customer service/customer delivery tool
- · Shift away from proprietary systems

MC3-DR-1 INPUT

Notes		



Tandem

INPUT Analysis

- Fierce market forced layoffs, hurt profits (Q3,'93)
- Himalaya Range must succeed
- UNIX-based OLTP focus for client/server strategically wise

MC3-DR-2 INPUT

Notes		

11/17/93

GUPTA

Client/Server Strategy

- Develop/market easy-to-use, scalable, open software
- Build on success in comprehensive PC-based systems
- Enhance compatibility through alliance programs (ISV, NCP)

MC3-DR-3 INPUT

Notes		



GUPTA

INPUT Analysis

- Good products, smart market focus, successful results
- Support and marketing need improvement
- Comprehensive vision faces competition (Powersoft, KnowledgeWare)

MC3-DR-4 INPUT

Notes		



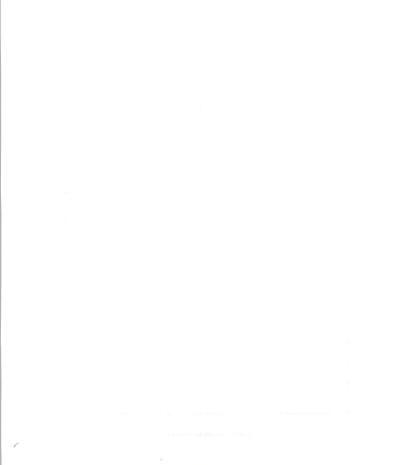
Andersen

Client/Server Strategy

- Business Integration (BI) philosophy
- Strategic partnering (BIP program)
- Comprehensive software/service provisions

MC3-DR-5 INPUT

Notes		



Andersen

INPUT Analysis

- Powerful, dynamic tools (Foundation)
- Business Integration=intelligent, successful strategy
- Well positioned, focused for client/server

MC3-DR-6 INPUT

Notes		



EDS

Client/Server Strategy

- Match technology to customer business needs
- Help customers define/implement client/server solutions (Right Step Program)
- Explore/develop new client/server technology

MC3-DR-7 INPUT

Notes		



EDS

INPUT Analysis

- Multi-platform, multi-application expertise
- Deep understanding of business/industry needs
- Substantial experience and resources

MC3-DR-8 INPUT

Notes		



OpenVision

Client/Server Strategy

- Offer all-encompassing client/server system (OpenV*OPSS)
- "Customer-centric" service
- Strategic acquisition/alliance practices

MC3-DR-9 INPUT

Notes	



OpenVision

INPUT Analysis

- Young company, old experience (Mike Fields, Oracle)
- OpenV*OPSS not a "make-or-break" product
- Successful integration/ development of acquired products

MC3-DR-10

INPUT

Notes		



Microsoft

Client/Server Strategy

- Windows=fundamental client/server structure
- Develop and market for lowthrough high-end users
- Continuous development, end-user focus (Hermes, Cairo)

MC3-DR-11 INPUT

Notes		



Microsoft

INPUT Analysis

- Position=top end-user GUI vendor
- NT is ambitious, but not proven
- NT, HERMES focus of extreme competition

MC3-DR- 12

INPUT

11/17/93

Digital

Client Server Strategy

- Integrate technology, expertise, and industry focus
- New, comprehensive client/server services and business practices
- October 12, 1993—Over 170 new, C/S-focused products (Largest product announcement in Digital's history)

MC3-DR-13 INPUT

Notes		



Digital

INPUT Analysis

- · Acting on the need to change
- Positioned to provide client/server to installed base, and new customers
- · Intriguing, strategic product direction

MC3-DR-14 INPUT

Notes			



Intersolv

Client/Server Strategy

- Open applications development, regardless of platform mixture
- "Mix and match" hardware, networks, and software development
- Fast, cost-effective development to give customers competitive advantages

MC3-DR- 15

INPUT

Notes		



Intersolv

INPUT Analysis

- · Competitive player in applications development market
- · Strategic alliances (ex. Powersoft, Digitalk) bolstering market presence, installed base
- Modular product strategy—avoiding problems of being "all encompassing" solutions vendor INPUT

MC3-DR- 16

Notes	



Powersoft

Client/Server Strategy

- LAN-focused applications development
- Client/Server Open Development Environment (CODE) partner program of alliances
- "Object Easy, SQL Smart, Windows Rich, MIS Friendly" product design

MC3-DR-17 INPUT

Notes			

Powersoft

INPUT Analysis

- One product company—risky position
- Strong competition—Gupta, KnowledgeWare, Microsoft
- PowerBuilder successful, but still evolving
- CODE program serving well

MC3-DR-18

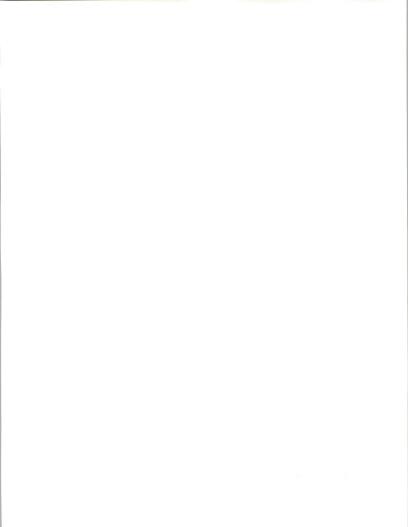
Notes		



MC3-PAC-24



11/17/93

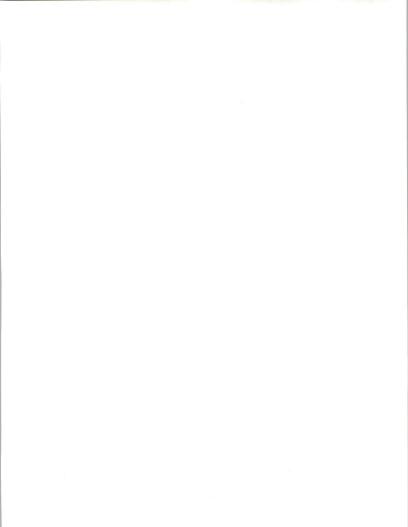


The best of times *IS* here, for vendors who can:

- Deliver client/server solutions
- Achieve global presence
- Deliver open systems solutions
- Sell/consult at strategic levels

MC3-BG-17a

Notes		

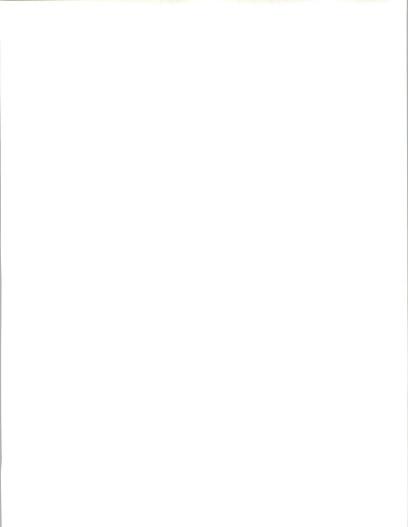


The best of times *IS* here, for vendors who can:

- Provide software solutions on multiple operating systems
- Form alliances to expand client/server product scope, skill sets, market coverage

MC3-BG-17b

Notes			



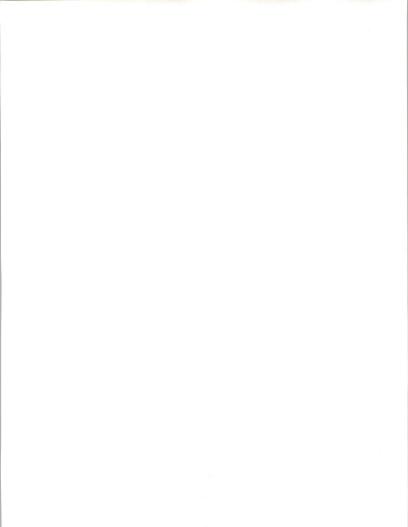
The best of times *IS* here, for vendors who can:

- Build alternate delivery channels
- Provide customizable products
- Offer a continuum of services

INPUT

MC3-BG-17c

Notes		

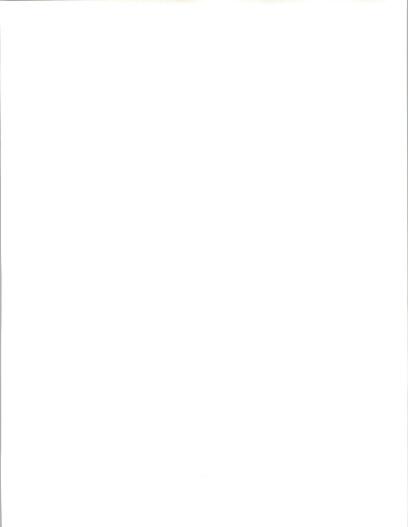


The best of times *IS* here, for vendors who can:

- · Invest in sales training
 - Sales staff
 - Support staff

MC3-BG-17d

Notes		

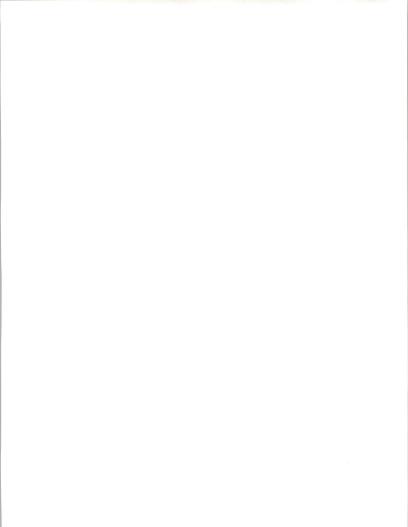


The best of times *IS* here, for vendors who can:

- Leverage their expertise
 - Vertical market
 - Technology/establish technology centers

MC3-BG-17e

Notes		



INPUT[®]

Avec INPUT, les Directions Générales, impliquées sur les marchés des technologies de l'information, prennent des décisions plus rapides et optimales. Depuis 1974. utilisateurs et fournisseurs bâtissent leurs réflexions stratégiques et engagent leurs actions à partir des données, analyses et recommandations délivrées par INPUT. société internationale spécialisée sur les marchés des logiciels et services.

N' attendez plus pour tirer parti, vous aussi, des connaissances et de 1' expertise mondiale d' INPLIT Contactez-nous

PROGRAMMES EN SOUSCRIPTION

- · Information Services Markets
 - Données mondiales et nationales
 - Analyses par secteur d'activité
- · Systems Integration and Business Process Change
- · Client/Server Applications and Directions
- IT Outsourcing Opportunities
- · Information Services Vendor Profiles and Analysis
- EDI/Electronic Commerce
- · U.S. Federal Government IT Markets
- IT Customer Services Directions
- Interactive Communications Services
- Multimedia Opportunities

COMPOSANTES DES PROGRAMMES

- Etudes de marché (plus de 100 titres par an)
- Bulletins de recherche sur les principaux enjeux, tendances, ...
- Projections à 5 ans
- Analyse de la concurrence
- · Accès aux experts consultants
- Hotline

BASES DE DONNÉES

- · Software and Services Market Forecasts Europe
- · Software and Services Vendors
- · U.S. Federal Government
- · Commercial Application LEADS

ETUDES SPÉCIFIQUES

Pour les offreurs

- · Stratégie de marché
- Analyse d'opportunités
- Etude de satisfaction
- Positionnement
- · Conseil en acquisition

Pour les utilisateurs

- Evaluation de fournisseurs
- · Scenario d' outsourcing
- Opportunités de marché
- Aide à la planification
- Analyse comparée d'utilisateurs

AUTRES SERVICES

- Présentations, conférences
- Conseil Fusion/Acquisition
- Recherche de partenaires

Newsletters

INPLIT WORLDWIDE

Frankfurt

Sudetenstraße 9 D-35428 Langgöns-Niederkleen Germany Tel. +49 (0) 6447-7229

Fax +49 (0) 6447-7327

London 17 Hill Street London W1X 7FB

England Tel. +44 (0) 71 493-9335 Fax +44 (0) 71 629-0179

New York

400 Frank W. Burr Blvd. Teaneck, NJ 07666 USA Tel. 1 (201) 801-0050

Fax 1 (201) 801-0441

Paris 24. avenue du Recteur

Poincaré 75016 Paris France Tel. +33 (1) 46 47 65 65

Fax +33 (1) 46 47 69 50 San Francisco

1881 Landings Drive Mountain View CA 94043-0848 U.S.A.

Tel. 1 (415) 961-3300 Fax 1 (415) 961-3966

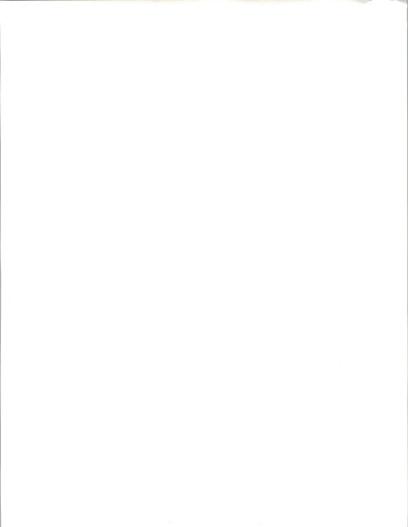
Tokyo

Saida Building, 4-6. Kanda Sakuma-cho Chivoda-ku, Tokyo 101 Japan Tel. +81 3 3864-0531

Fax +81 3 3864-4114 Washington, D.C. 1953 Gallows Road

Suite 560 Vienna, VA 22182

U.S.A. Tel. 1 (703) 847-6870







European Opportunities in Client/Server Information Services

MC3-PL- 1

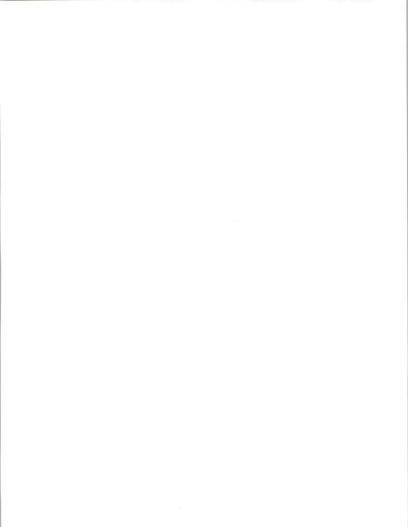


Peter Lines

Director INPUT—Europe

MC3-PL- 2



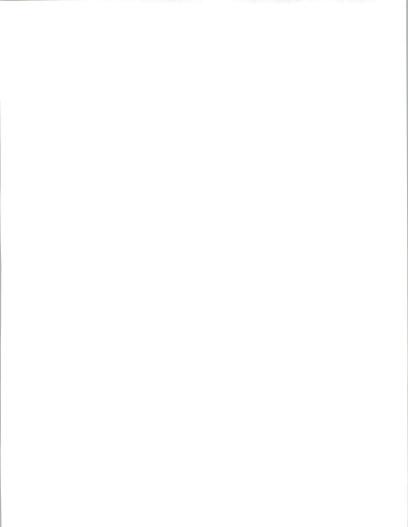


European Client/Server Markets

- Economic/political environment
- User community impacts
- Five-year market forecasts
- Services industry—year 2000
- Strategies for success

MC3-PL- 3



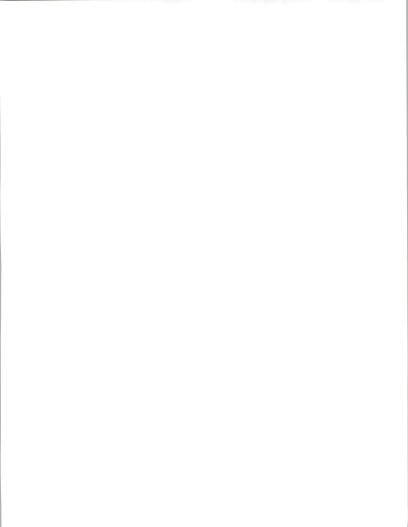


European Community 1993

 Shattered vision and economic difficulties create new environment for IT decisions

MC3-PL- 4



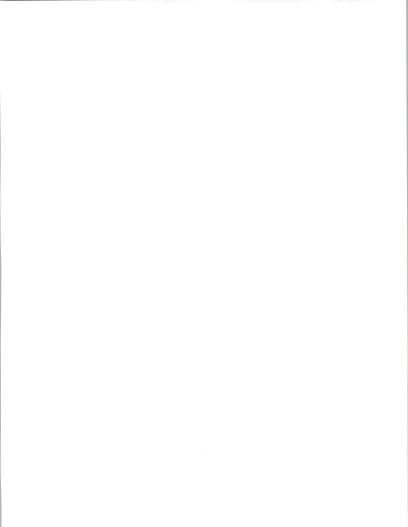


European IT Users

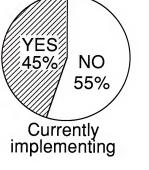
- Demand client/server applications
- Require support and services
- Drive IT expenditure externally

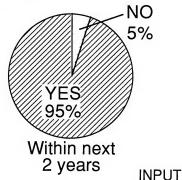
MC3-PL- 5



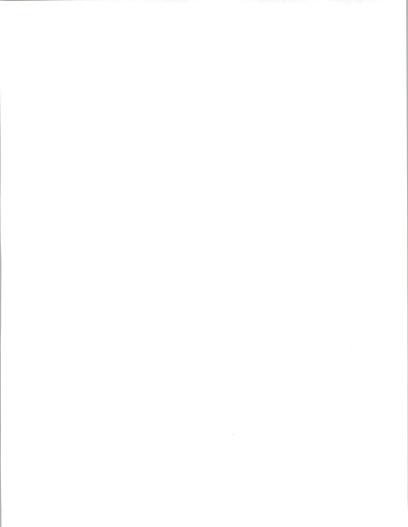


European Client/Server Implementation Plans

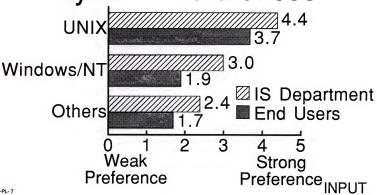




MC3-PL- 6

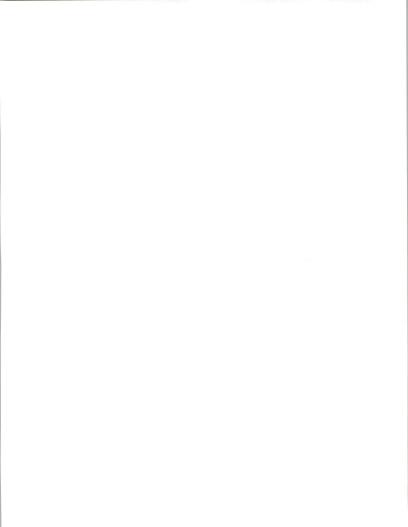


European Operating System Preferences

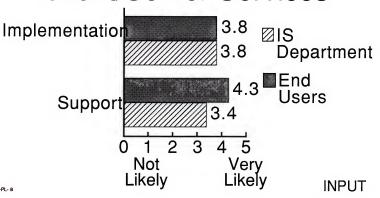


MC3-PL- 7



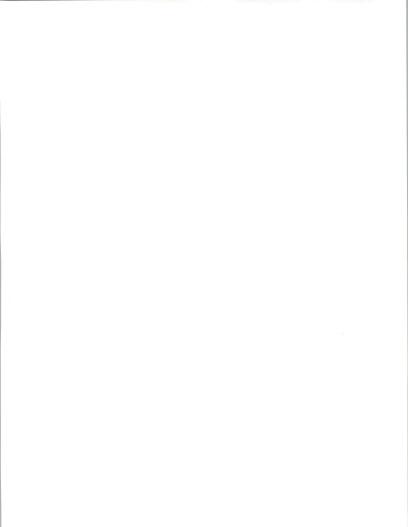


European User Need for Client/Server Services

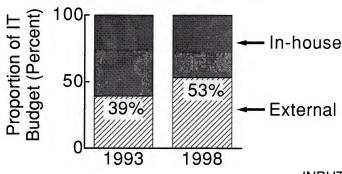


@ 1993 by INPUT. Reproduction Prohibited

MC3-PL- 8

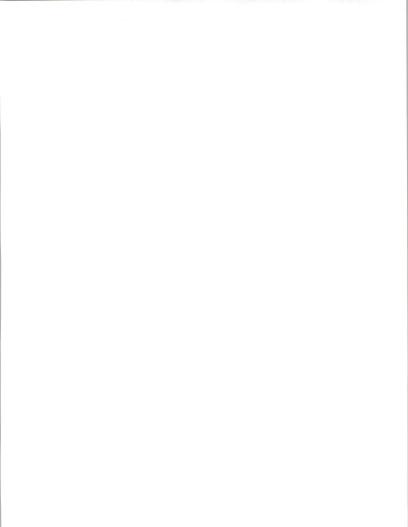


European IT Spending Changes



MC3-PL- 9



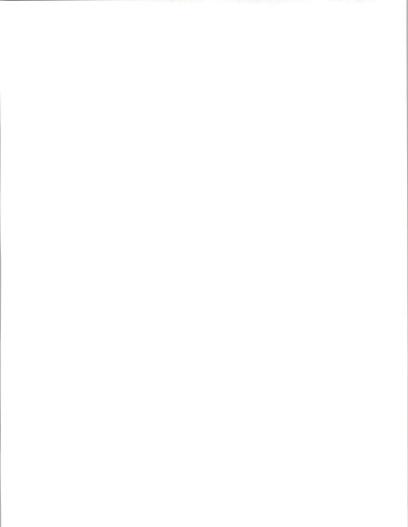


European Client/Server Markets

- Software product brand leaders scale up
- Open competition for client/ server projects
- Transition costs fuel outsourcing

MC3-PL-10



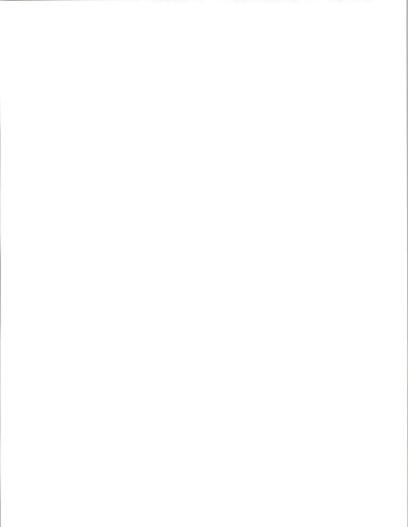


European Software and Services Market C/S Impact

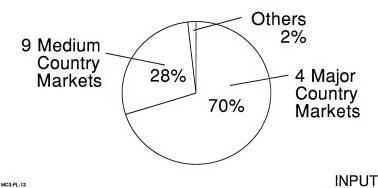
Sector	1993-1998 CAGR (%)	1998 Market Proportion (%)
C/S	+43	65
Non C/S	-9	15

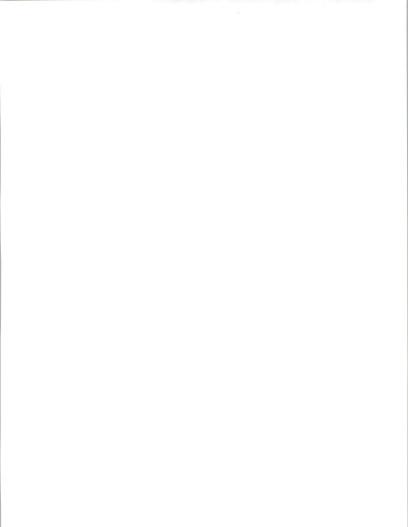
MC3-PL-11



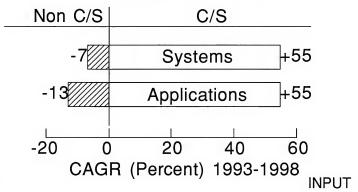


European Market Analysis 1993



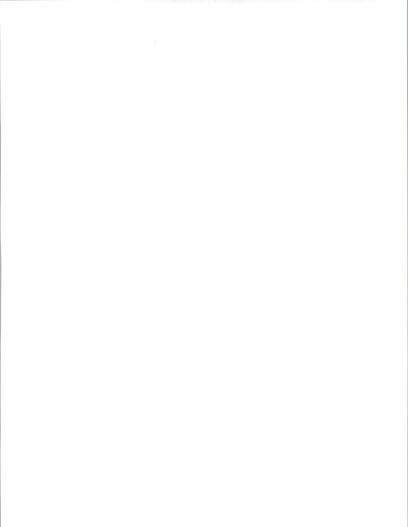


European Software Products Market Growth

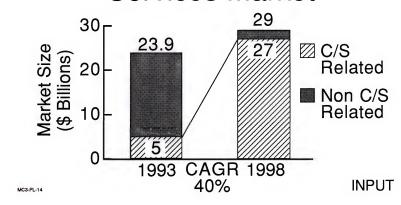


MC3-PL-13

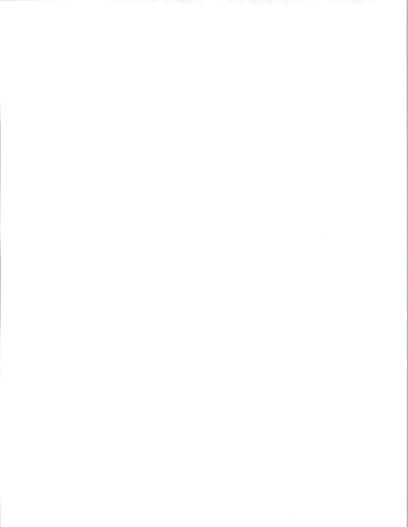




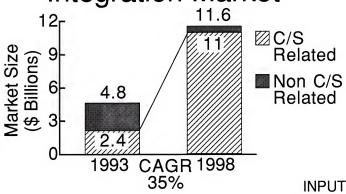
European Professional Services Market





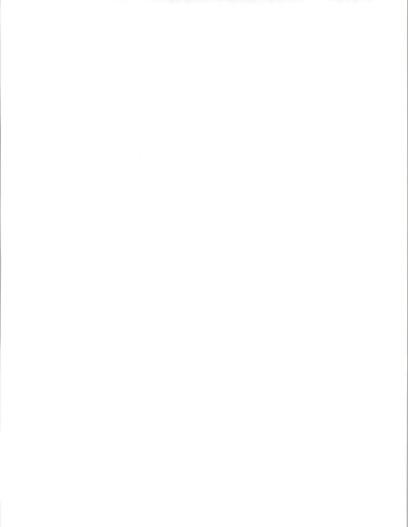


European Systems Integration Market

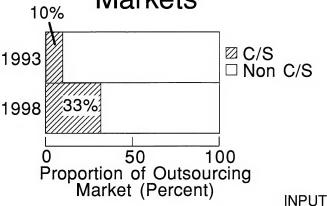


INPUT

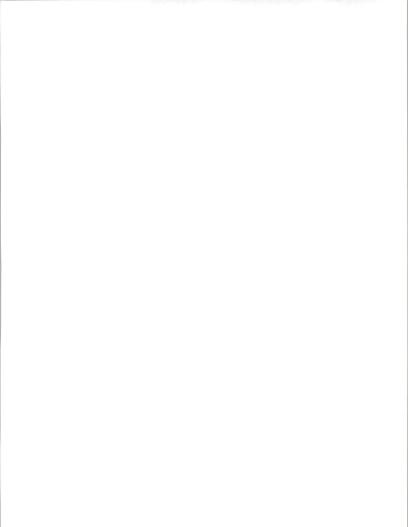
MC3-PL-15







MC3-PL-16

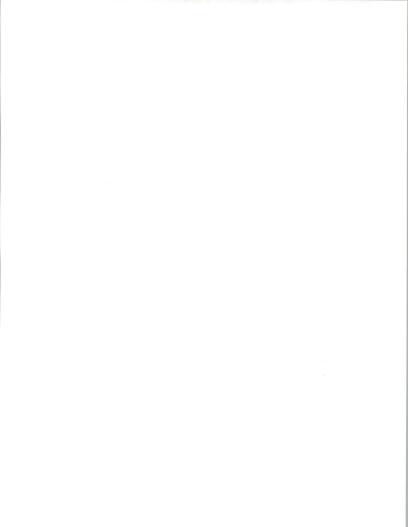


The European Information Services Industry—2000

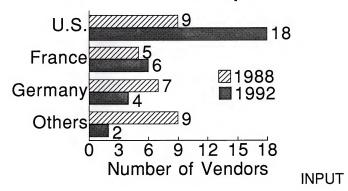
- U.S. vendors strengthening market position
- Mid-sized firms challenged

MC3-PL-17



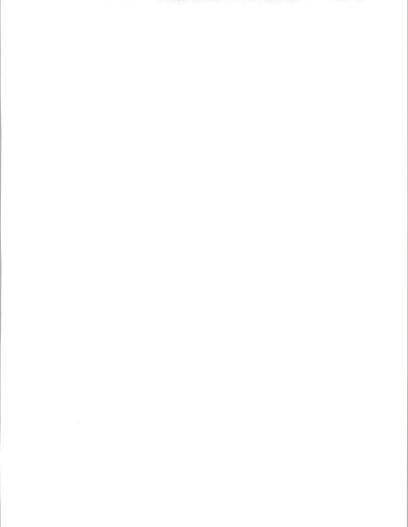


Top 30 Software Product Vendors Europe

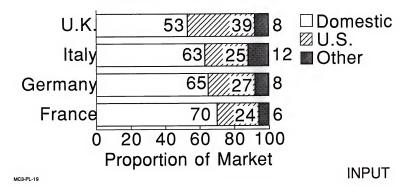


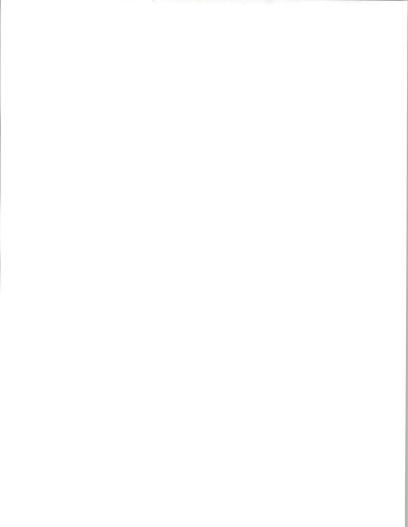
MC3-PL-18



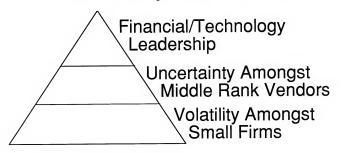


European Market Shares Information Services 1992



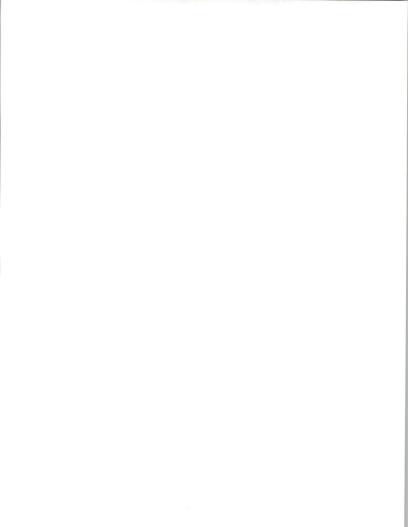


European Info. Services Industry Structure



MC3-PL-20





European Success Strategies Built on:

- U.S. products
- U.S. experience
- European resources

MC3-PL-21



