

**15.561A: Information Systems:
From Technology Infrastructure
to the Networked Corporation**

**15.566: Information Technology as an
Integrating Force in Manufacturing**

**Class #10: TRANSFORMING
THE VALUE-ADDED CHAIN**

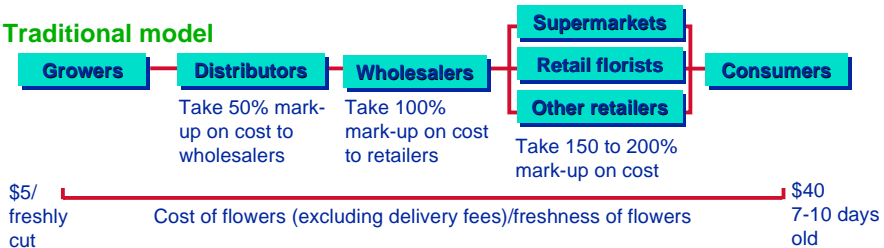
Spring 1998
Sloan School of Management
Massachusetts Institute of Technology

Yannis Bakos
E53-329
Tel. (617) 253-7097; Fax (617) 258-7579
Email: bakos@mit.edu
Web: http://web.mit.edu/bakos

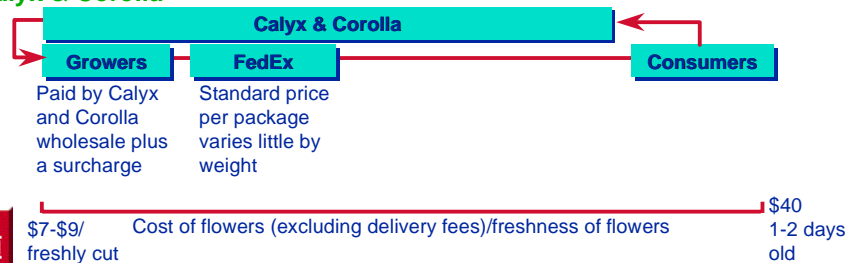


**Calyx & Corolla: Redefining the
Distribution Channel**

Traditional model



Calyx & Corolla



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ELECTRONIC DATA INTERCHANGE (EDI)

- **Direct computer-to-computer exchange of standard business transaction documents**
 - different than fax or e-mail
 - standardized formats
 - error checking, security/authentication
- **Main benefits**
 - reduced costs
 - increased speed and accuracy
 - reduce inventories and move to JIT delivery
 - integration of the value chains



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ELECTRONIC DATA INTERCHANGE (Cont'd)

Four key components

- transaction standardization
- translation software
- value-added network
- procedures for complying with legal rules and security requirements



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INTEGRATING BUSINESS PROCESSES ACROSS ORGANIZATIONS

■ Product Design&Development

- short product lifecycles
- manufacturing of complex products
- integrate many inputs from customers and suppliers: technology, marketplace, service

■ Delivery

- short order cycles
- reduced inventories

■ Customer Service

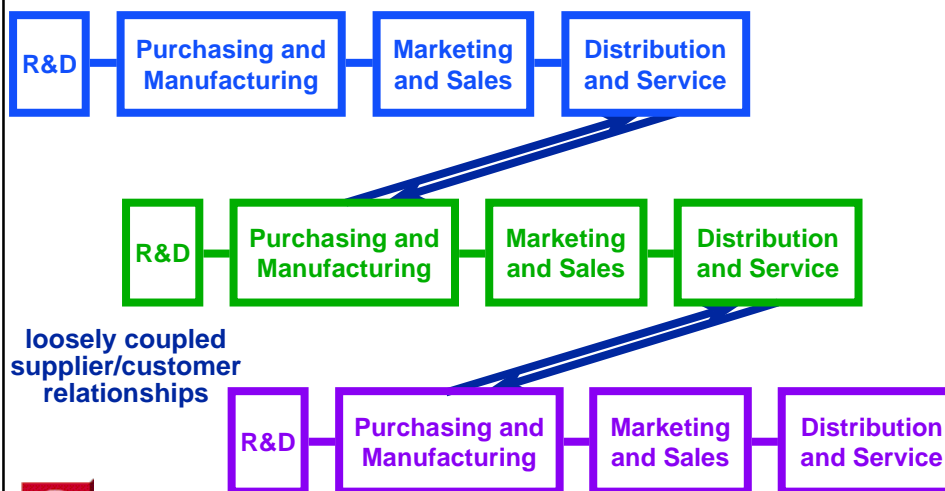
- market driven products
- highly customized offerings



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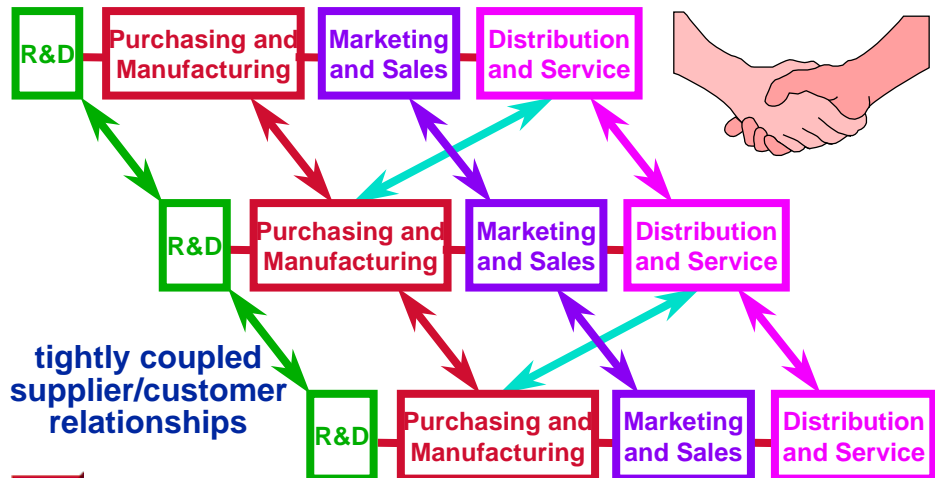
INTEGRATING BUSINESS PROCESSES ACROSS ORGANIZATIONS



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7 INTEGRATING BUSINESS PROCESSES ACROSS ORGANIZATIONS (Cont'd)

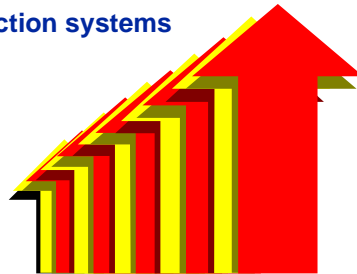


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8 IMPLICATIONS FOR THE IT INFRASTRUCTURE

- Network the organization together and to the customer
- Renovate and integrate the transaction systems
- Provide for data consistency, control and security
- Extend the transaction systems out to the suppliers and the customers to promote information exchange
 - in design, production, delivery and service
- An extroverted IT architecture, based on Intranets, and taking advantage of the Internet!

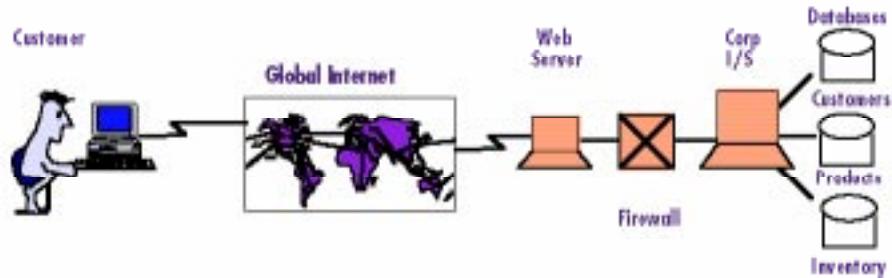


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PROVIDE ACCESS TO CORPORATE DATABASES INTERNALLY AND EXTERNALLY

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For: Order Status
Transaction Records
Product Information



source: P. Gudonis, BBN Planet

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EMERGING ORGANIZATIONAL ALTERNATIVES

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- Successful enterprises will increasingly structure as value-added partnerships among specialists
- These enterprises must retain the agility of small companies, while also accruing the benefits of scale
- These enterprises must be flexible to facilitate the entry of new partners that bring new value, and the exit of current partners who no longer create value



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WHO BENEFITS FROM INFORMATION LINKS?

- **Efficiency gains for all parties involved**
 - Costs and benefits may not be realized at the same place
- **The party with the biggest knife gets most of the pie**
 - if the loss of bargaining power outweighs gains in efficiency, there will be resistance to change

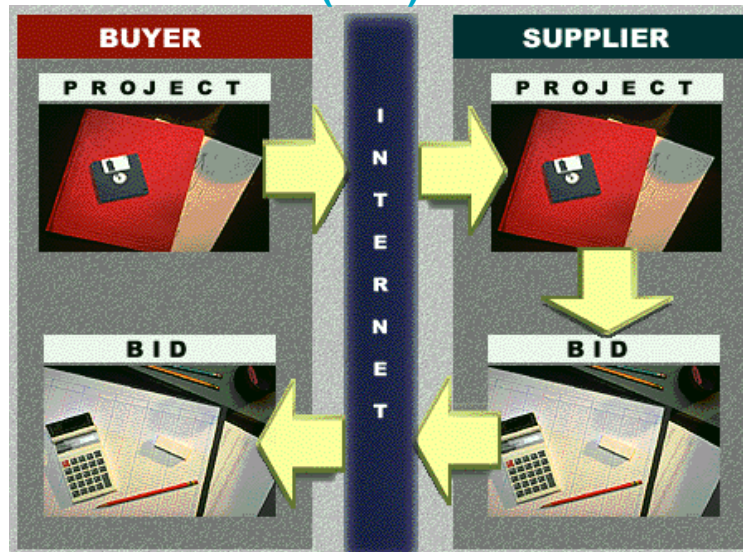


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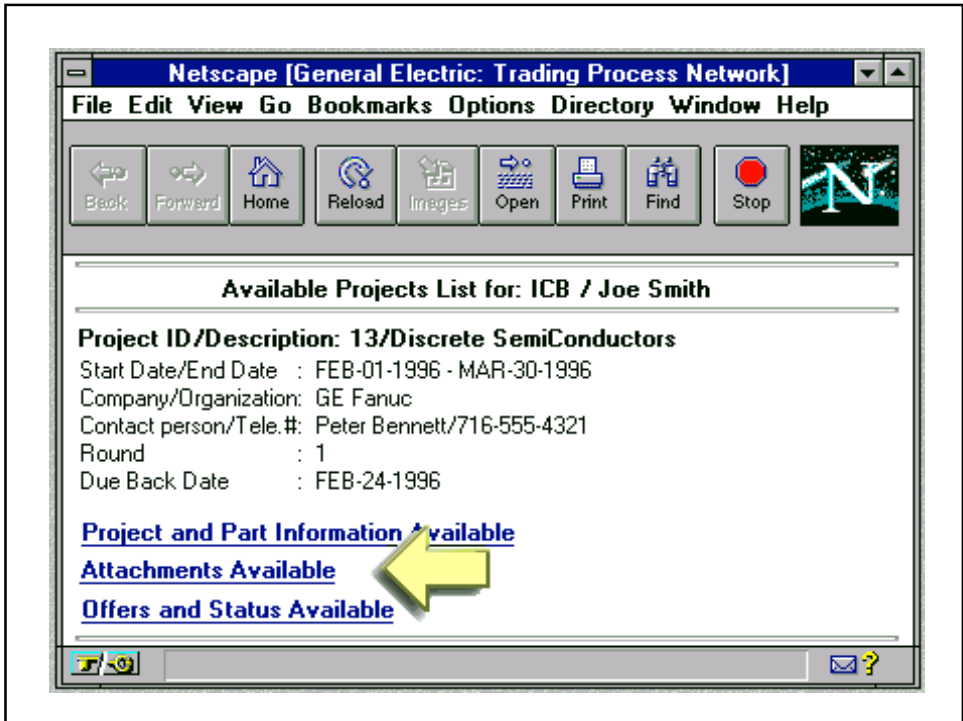
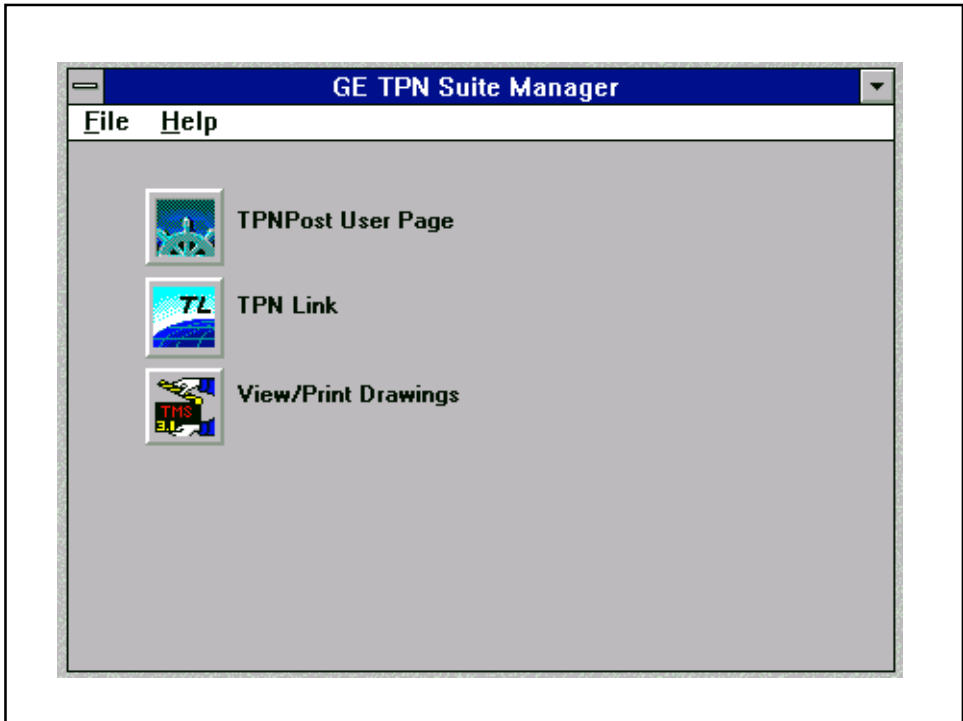
GE's TRANSACTION PROCESSING NETWORK (TPN)

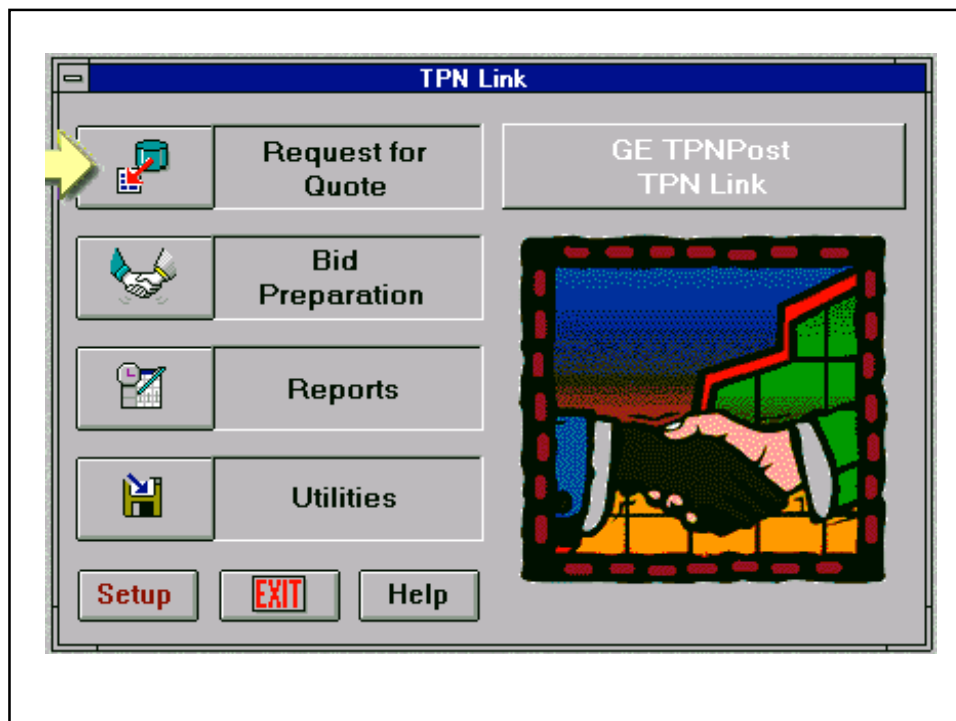
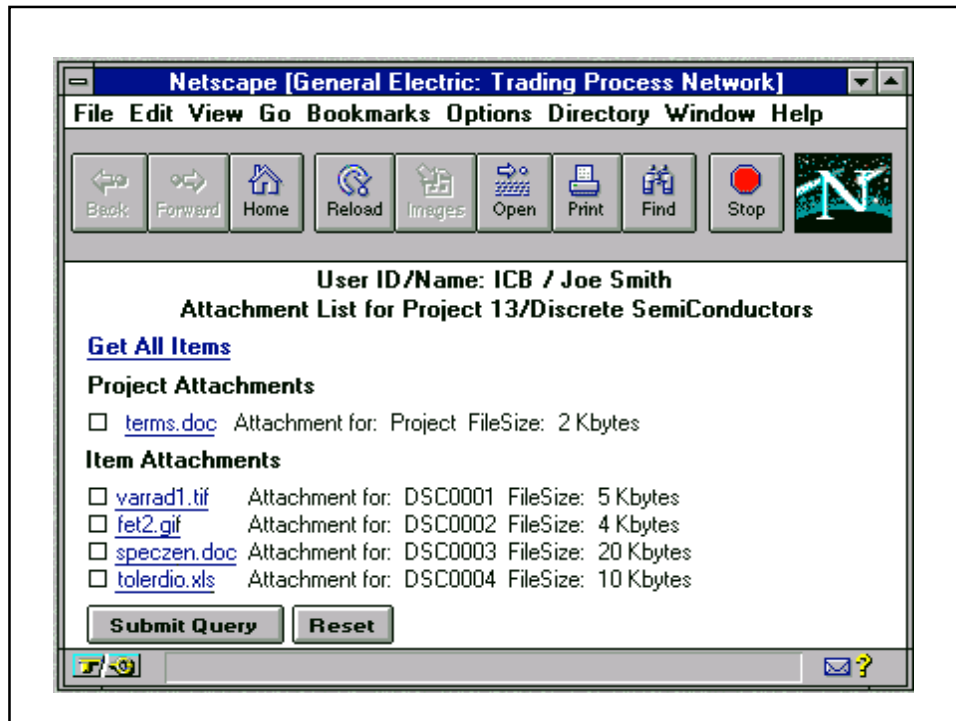
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Select Part Package

More Information Project Name

Filter Item Data By Discrete SemiConductors

Close Window

Bid #	Item #	Item Description	Total Estimated Usage Quantity	Initial Weighted Offer Price
DSC0001	259A9249P15	VAR RAD 130V 30J	1023320	\$0.06
DSC0002	259A9140P1	TRN FET DRIV 500V	312000	\$1.28
DSC0003	259A9238P34A	ZEN DIO AXL 75V 1W 5%	1145000	\$0.02
DSC0004	259A9238P26	ZENER 1W 36V 10%	1969760	\$0.02
DSC0005	259A9238P15A	IN4737A DIO ZEN 12V 1W	860900	\$0.02
DSC0006	259A9238P13A	ZENER DIODE 10V 5% 1W	68620	\$0.02
DSC0007	259A9238P11A	ZENER 1W 8.2V 5%	20400	\$0.03

More Information

Show Attachments Bid Number: DSC0001

Close Window Item Number: 259A9249P15

Total Est. Usage: 1,023,320

Initial Offer Price: .06

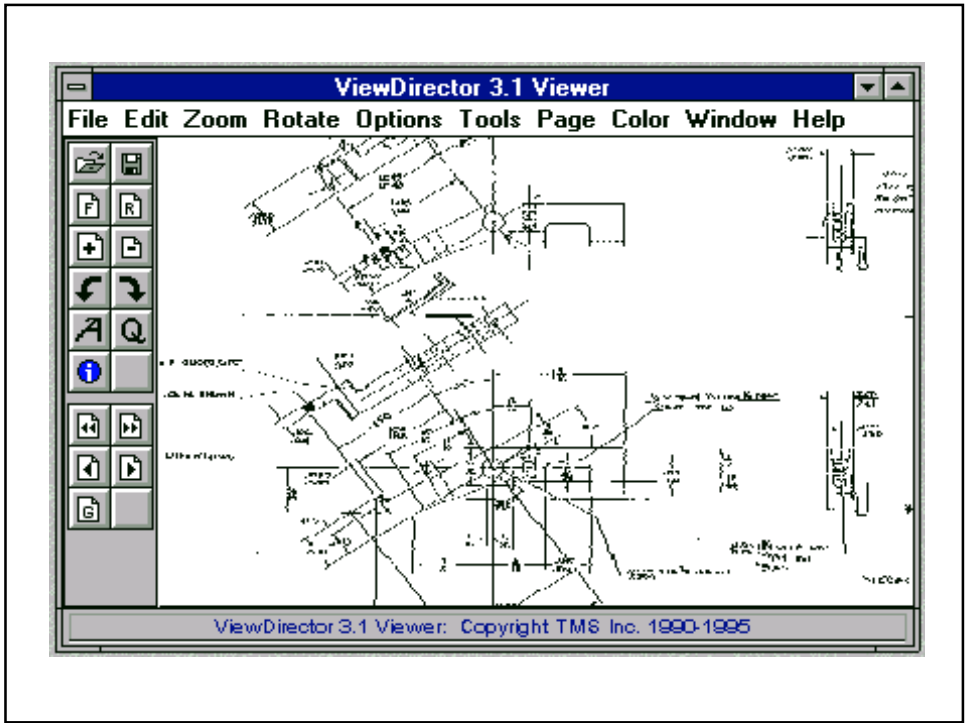
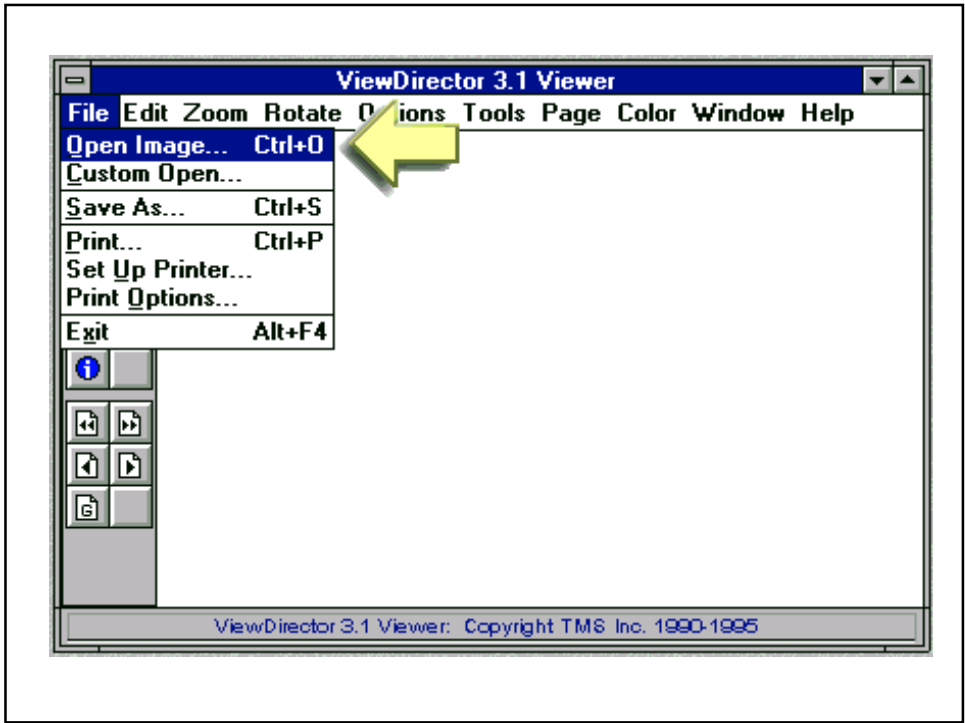
Project Name: Discrete SemiConduct Business: GE Fanuc

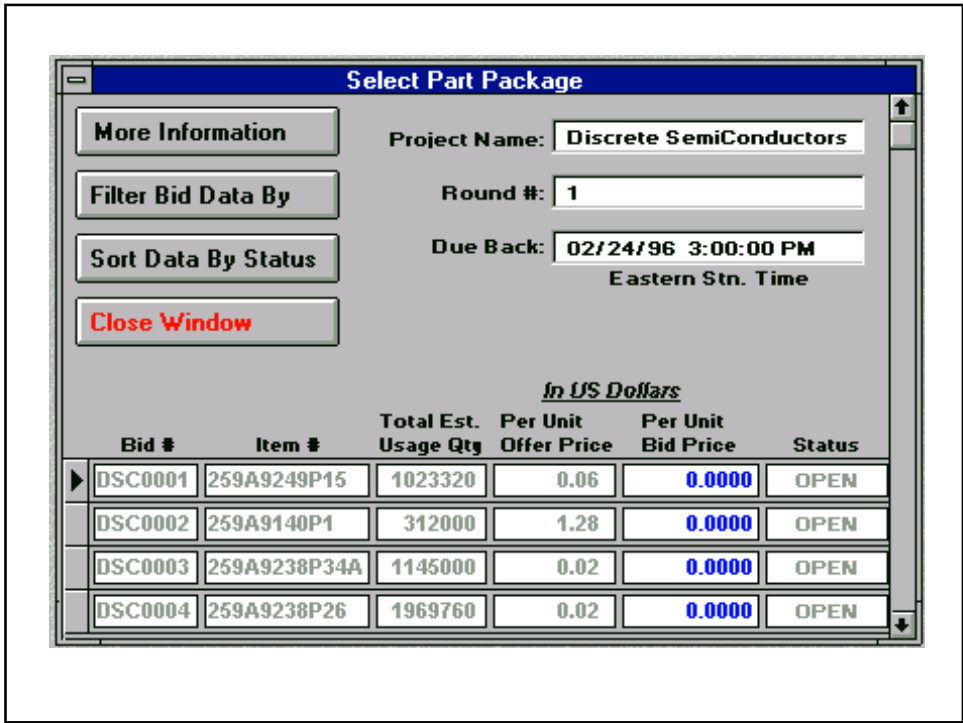
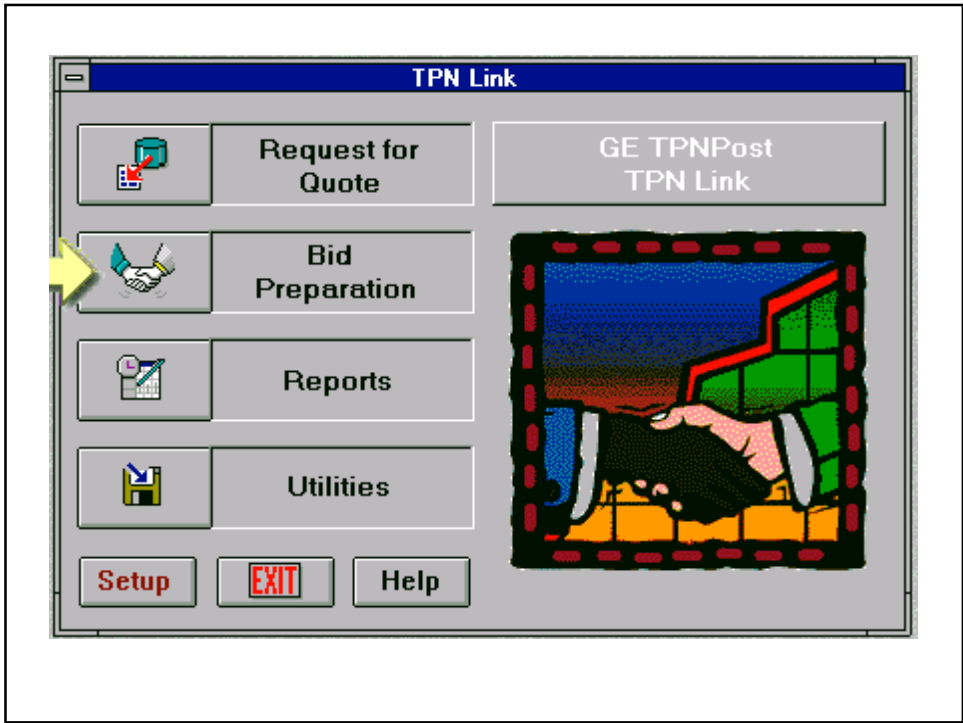
Contact Person: Shooner Robert Location: ROCKVILLE MI

Contact Methods: Office Phone: 203-555-9384 x452
 Fax: 203-555-9928
 Email: ShoonerR@Orein.com

Item Description: VAR RAD 130V 30J Current:

Voltage: Tension Strength:





Select Bidding Activity

Round:
EAU:
Offer Price:
Year:

Comments

Let's talk about possible productivity plans we have in mind that should interest you.

Freight	<input type="text" value="0.0050"/>	Tooling	<input type="text" value="\$0.00"/>
Fabrication	<input type="text" value="0.0530"/>	Lead Time	<input type="text" value="1 week"/>
Total Bid Price	<input type="text" value="0.0580"/>	Min Order Qty	<input type="text" value="1000"/>

Bid Price Improvements

Volume Discount

Additional 5% Discount if Annual Volume exceeds 250000 units.

Consigned Stock

It is possible to keep one month of consigned stock at a 1% premium.

Select Part Package

Project Name:

Round #:

Due Back:

Eastern Stn. Time

In US Dollars

Bid #	Item #	Total Est. Usage Qty	Per Unit Offer Price	Per Unit Bid Price	Status
DSC0001	259A9249P15	1023320	0.06	0.0580	OPEN
DSC0002	259A9140P1	312000	1.28	1.3400	OPEN
DSC0003	259A9238P34A	1145000	0.02	0.0000	OPEN
DSC0004	259A9238P26	1969760	0.02	0.0180	OPEN

Select Bidding Activity

Part Package	Type	Contract Date
Discrete SemiConduc	PRIOF	6/1/96

