

A Computer in a Finishing Shop? -What a Novel Idea!

Ira S. Handelsman, Cornerstone Systems, Inc., Crystal Lake, IL USA

If you were to put a PC in your shop, you can do the following: Control your business with a shop management software program; advertise your business nationally and locally with a website over the Internet; buy and sell goods and services using e-commerce; and communicate with employees, friends, family and customers by e-mail. Many more uses will be explored.

For more information, contact:
Ira S. Handelsman
General Manager
Cornerstone Systems, Inc.
333 Commerce Drive Suite 200
Crystal Lake, IL 60014 USA
800.275.4274
ira@ask4csi.com
www.ask4csi.com

Computers have become an everyday word. Everywhere you turn, there is a computer looking at you. **But why should Finishers turn to computers?**

According to Products Finishing's Steve Kline on a past article that he wrote, he says: "Although information cannot be found on the balance sheet, it is perhaps the most valuable asset of any company. In recent years, many companies maintained this valuable asset in numerous file cabinets or a couple of databases, one for accounting and one for shipping/receiving and so on. When the information was needed, an employee searched through various cabinets or databases and pieced the required information together. But more and more companies realize that the real value of information comes not from maintaining it, but from their ability to distribute, compute and analyze it virtually instantaneously. Why are these capabilities so important? Because with them a company can better understand costs, increase efficiency and improve communications with customers."

What do finishing shops say about a computer program that runs their business?

"...allows us to grow our business, better service our customers, and increase the bottom line by putting in place processes that maximize our productive resources while minimizing non-valued added activities."

"...we now have the capability to minimize overhead and accordingly track orders though the plant, which increased our productivity. ...supplies our personnel with real data that they can rely on and manage, but our customers have relied on the security of knowing we can provide them with the information they need."

"Process control is vital to the metal finishing industry. ...arranges process masters and makes it easy to fine tune specific processes, even by part number. ...order entry, parts pricing, and invoicing control has helped us manage our company efficiently to serve our customers needs for fast accurate technical information."

"...allows us to communicate to our customers, giving them solid information on their job and its status."

Advantages of adding a shop management program:

1. It's quicker
2. More information for better decision-making
3. Frees key people up in the shop
4. Helps eliminate mistakes
5. Accurate record keeping
6. Audit Trail
7. Saves on labor
8. ISO certification
9. Ability to do repeat orders

How will this make us better finishers?

1. It will save your people time
2. Shop becomes more efficient
3. Eliminates parts being lost
4. Be able to track orders when a customer calls
5. Produces backlog reports
6. Amount of reworks will decrease
7. Enter information only once
8. Recapping business activity for each month becomes easy
9. Produce at a higher rate
10. Historical information at your fingertips

Why can't we continue to be on the manual system?

Both big and small shops are on manual systems, and there is nothing wrong with that way of doing business. It has worked for some companies that I know of for the past 60 years. I recently visited a company that has been doing it for the past 40 years, but realizes that a change is needed. However, today we live in a computer world, where our children are being taught the use of computers from 1st grade and up. Our news of the world is being first reported over the Internet, and the Internet is vastly becoming our new means of communication.

Manual system operated shops are sometimes afraid of the computer. Being afraid of striking the wrong key, and wiping all the information out. However, computers are becoming easier to operate each and every day. There are so many resources to learn computers from. There are computer books as well as all types of trade magazines from beginners all the way to the most technical oriented users. Of course there are school courses being given all the time on Windows 95, 98, 2000, XP, ME and also courses on the Internet.

Once you overcome the initial fear of computers, you can see how valuable a tool that a computer system could do for you personally and for your business. Energy previously expended entering orders by hand, invoicing, checking on shipments, typing or copying statements and summarizing information for projections or reports, can now be handled by a software program. You can print, fax, e-mail customer statements, provide accurate entry of shipping tickets (invoices), customer's sales history, quotation, shop tracking and accounts receivables, etc. You can even e-mail and fax information directly to the customer. You only enter information once, therefore eliminating mistakes on repeat customers. Recapping your business activity for each month becomes easy. Sales and customer history are automatically available when needed.

How will a program grow my business?

A software system provides the finisher with the most important functions needed to increase overall efficiency. Time being spent before out on the floor looking for parts, orders that were not written up correctly etc, can now be better spent with your customers and production areas.

The following are screen shots of a typical program for the finishing industry:

Quotations : Create quotes to send out to customers via e-mail or directly fax from the computer. Quotations link to order entry, process masters, and invoicing. A quotation can consist of multiple parts with each part having its own pricing. In order entry, the computer automatically attaches a quote based on an exact part ID match.

VISUAL SHOP - [Quotations - by JD]

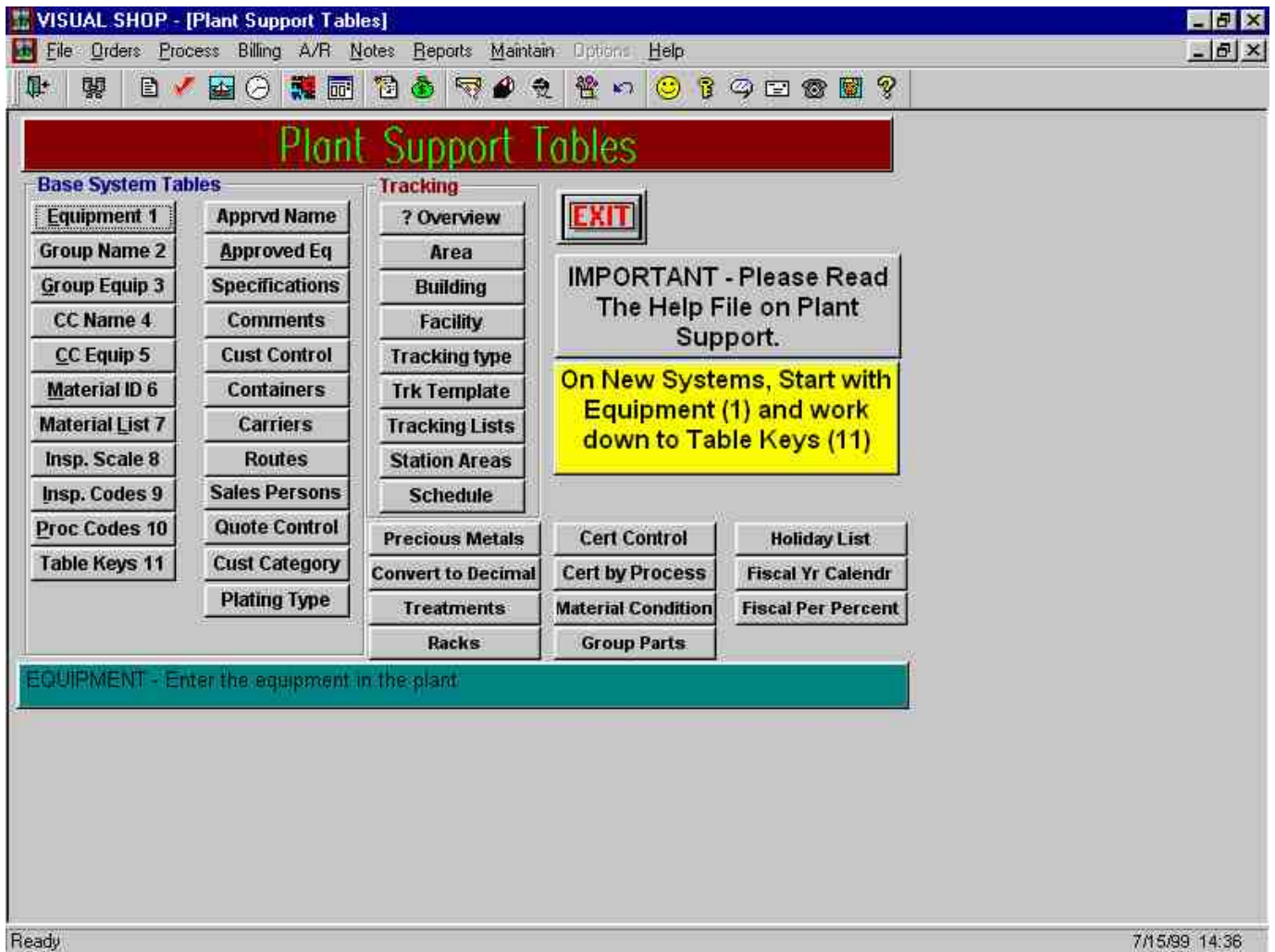
File Orders Process Billing A/R Notes Reports Maintain Options Help

Quote Id: 0 Cust Id: Turnaround: Cus Name: Contact: Title: R.F.O. #: Eff On: 07/16/1999 Exp On: 10/14/1999 Sales ID: Log#: Phone: Fax: Route: Carrier: \$ Value: \$0.00 Terms: Delivered by: ☐ Phone ☒ Mail ☐ Fax ☐ E-Mail ☐ Visit ☐ Prints

Rows	Parts and Prices
1	

Short Quote - Prices and Parts on 1 window ☒

Quote Header Information. 7/16/99 8:11



The **Plant Support Tables** is where base information is loaded into a system. Everything is built upon this information. In a sense, it is the foundation of the system.

C:\Pictures\VS Screen Shots\VSshoporder.jpg - Microsoft Internet Explorer

File Edit View Go Favorites Help

Chase Screws Inc. Tar: In: 1/19/1999 13:38 Ph: (972) 578-7087
Chicago IL 12345 Req: 01/22/99 By: JD Fx: (972) 379-3875

Po: 11203-A Printed: Order Number Code Load
Via: North By: JD **140** **56 1**

CERTS

#	Qty	Part Number / Part Name / Part Description		Ea Wt.	Lint Wt.
1	150	31ab Bracket		0	0
	150	Order Qty:	150	Load Qty:	150
		Order Net:	0	Load Net:	0

Part Length: 2 Width: 1.38 Height: 3 Dia: 1.3 Thick: 0.3 Qty/Ld: 0 Lbs/Ld: 0
Info Material: Process: Sq": 0 Units/Hr: 0 Sq'/Ld: 0.0

CONTAINERS	Number	Qty	Gross Wt.	Tare	Net
Box	1	100	0	0	0
Skid	1	50	0	0	0

Process ID: Zinc Plate
Comment: Make sure parts are clean when done

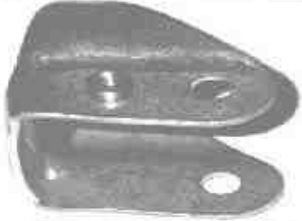
INSPECTION	Scale	Min	Max	Value
Thick	Inches	.	.	.004

Process Steps

1 Zinc Plate Group: Plating
COMMENT: Parts should come out clean
Oscillate barrels. 300 lbs per barrel. 5.0 volts. Cycles: 188 seconds

2 Bake Group: 12
Bake after Plate

Shop Order



My Computer

Shop Order will contain a wealth of information.

1. Order header will contain the customer information such as PO number, ship to and receive from addresses, requested date, rush date, etc.
2. Containers that were received, quantity, and pounds.
3. Parts name, ID, and description.
4. Serial numbers.
5. Process master is searched and displays general process master information.
6. Inspection requirements.
7. Process Steps is the instructions that are carried out to perform the process.



ABC Plating Company
Certification

Order No.: 140

Date: 01/19/1999

Entry Date: 01/19/1999

Page: 1 of 1

To:

Chase Screws Inc.
350 Second Street
P.O. Box 300
Chicago IL 12345

Purchase Order No.: 11203-A

Packing List No.:

Material: Steel

We are pleased to provide you with the following Certification

Quantity	Part Number / Part Name / Part Description	Pounds
150	31ab Bracket	0

Make sure parts are clean when done

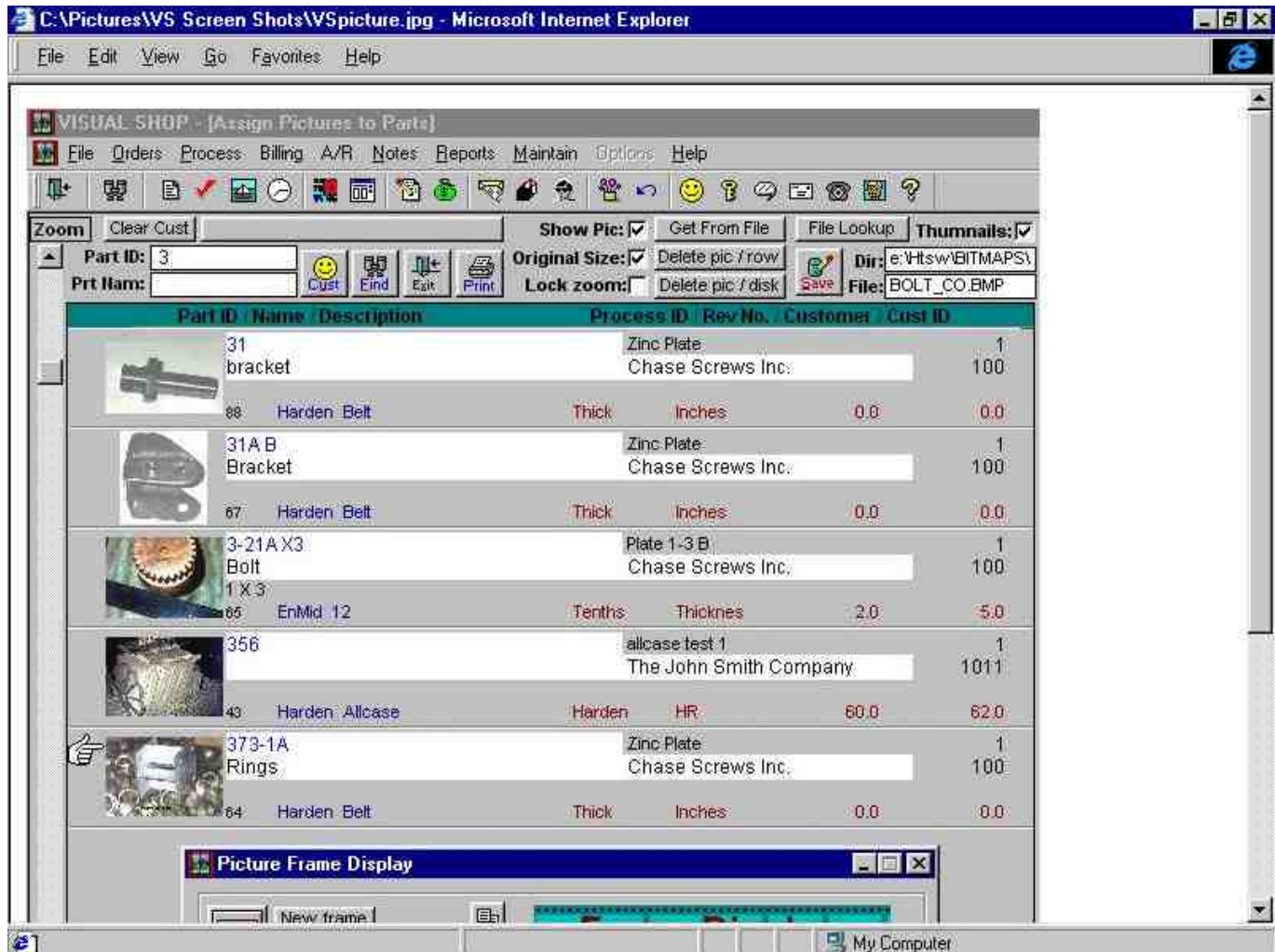
Insp. Type	Scale	Minimum	Maximum	Number	Other
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Customer Requirements:

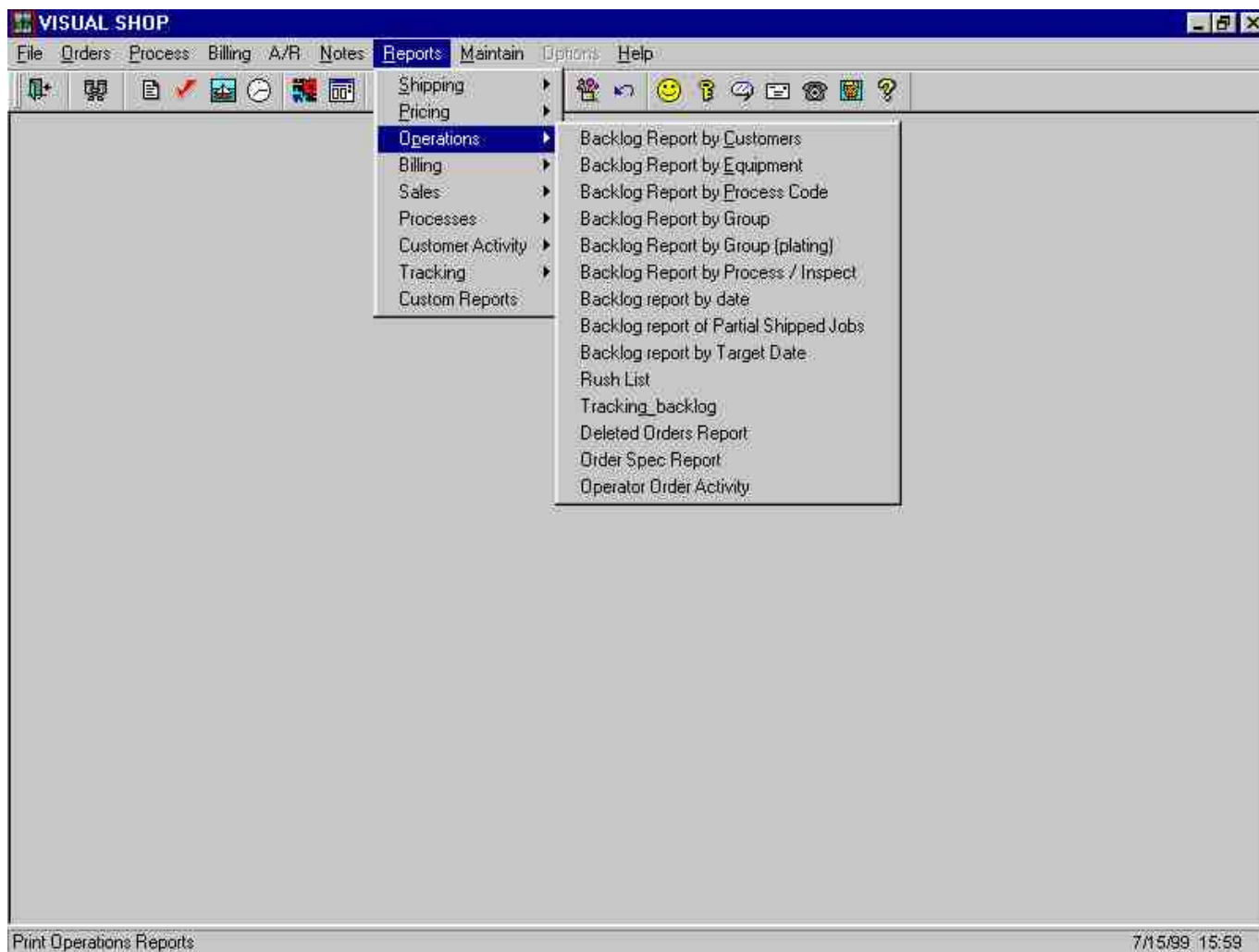
Thick: Inches .004

Results:

Certifications are based on Cert Formats. You can specify a particular format to be used. If there are no specific formats selected, then the computer will assign the cert to a standard format. Different formats for different customers.



The **expediting** window allows you to look up orders, review current order status and order information, place jobs on rush, post information to the customer history tables, post notes through the note system, print quick backlogs, and automatically log transactions to the current history table when order is reviewed. It data logs everything. Keep track of whatever takes place with that order: who entered it, who shipped it, etc.



Reports are very important to have. As described above, you can see what types of reports that can be made available to you with just dealing with operations.

Invoicing

VISUAL SHOP - [Invoicing - by JD]

File Orders Process Billing A/R Notes Reports Maintain Options Help

LOCKED Doc # 1-103 100 Chase Screws Inc.
 02/02/99 Date: 1/19/99 350 Second Street
 Updated To A/R Printed Invoice Chicago IL 12345

Priced OK Total Inv \$: **\$1366.56**

Order: 140 In: 01/19/1999 Out: 01/19/1999 Ship qty: 150 Total Order \$ **\$1366.56**
 Steel/Harden Post: 11203-A lbs: 0.00 1 of 1 OK

Part Qty	Part ID / Name / Description	Each Wt	Total Wt
150	\$1ab	0.00	0.00
1 of 1	Bracket	67	Totals 0.00
150			

Pricing Price by Process

Process Code	Equip	Group	Cost center	Job Plan In	Part Row	1 of 3
Zinc Plate	0	Plating		0	0	
Setup +	Price X	Unit Type or	Minimum	Price Code	Units	Dollars
\$0.00	\$1.3453	Qty	\$50.00		150	\$201.79

Process Code	Equip	Group	Cost center	Job Plan In	Part Row	2 of 3
Bake	0	12		0	0	
Setup +	Price X	Unit Type or	Minimum	Price Code	Units	Dollars
\$0.00	\$0.93183	Qty	\$25.00		150	\$139.77

Process Code	Equip	Group	Cost center	Job Plan In	Part Row	3 of 3
Cert	0			0	0	
Setup +	Price X	Unit Type or	Minimum	Price Code	Units	Dollars
\$0.00	\$25.00	Flat Charge	\$0.00		0	\$25.00

Done My Computer

Automatic creation of invoices based on memorized pricing or quotes. When a job is shipped, the invoice is automatically created if the job is a repeat job, then it is automatically priced. Also have the ability to do multiple orders on one invoice and partial billing. You can change an invoice at any time.

There are many types of pricing that a system should do: part pricing, process pricing, process pricing by customer, process grid pricing, grid or dimensional pricing, bracket or step pricing.

Invoice

ABC Plating Company

Invoice No.: 1 - 103
Invoice Date: January 18, 1999
Terms: Net 30
Page No.: 1 of 1

Remit To ABC Plating Company P.O. Box 18 Crystal Lake IL 60014	1
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Bill to:
 Chase Screws Inc.
 350 Second Street
 P.O. Box 300
 Chicago IL 12345

Sold to: 100
 Chase Screws Inc.
 350 Second Street
 P.O. Box 300
 Chicago IL 12345

Part / Price / Description	Part Qty	Part Lbs	Units	Price Method	Unit Price	Amount
Order #: 140 PO #: 11203-A						
31ab Bracket	150					
Zinc Plate	150			Per Each	\$1.3453	\$201.79
Bake	150			Per Each	\$0.93183	\$139.77
Certification				Flat Charge	\$25.00	\$25.00

Thank you for your business

Pay This Amount: \$366.56

Process Masters is a set of instructions to do a job from start to finish. A part is assigned to a process master. When a part comes in it is automatically linked to a process master. A generic process master is a standard process that the shop does. In the parts system, the generic master can be tweaked for that particular part by altering the racking instructions, packing instructions, etc. Record all types of production rates for the part: the size, price, color, etc.

VISUAL SHOP - [Part Maintenance]

File Orders Process Billing A/R Notes Reports Maintain Options Help

Part ID / Name / Descr. 1 of 1 **Process ID / Customer**

Rev: 1

PO Number: ☐ On Hold

Dimensions Wt: 0 Size: 0 Sq: 0 Cu: 0 Sq: 0
 Per: D1: 0 D2: 0 D3: 0 D4: 0 Th: 0

Part Information Type: Condition: Category: Certify?: No
 Plating Type: Rack ID: Cert Format:
 Paint Type/#: Material:
 Paint used by part: 0 Powder Type/#: Line In: 0
 Lot Number: Powder used by part: 0 Request Days:
 Color: Seal: 0
 Treatment Code: Specification:
 Part Specification - Text - 150 characters: Recipe ID #: 0 ☐ Recipe Verified

Metal Type 1: Price of Metal 1: 0 Oz Metal 1: 0
 Metal Type 2: Price of Metal 2: 0 Oz Metal 2: 0
 Metal Type 3: Price of Metal 3: 0 Oz Metal 3: 0
 Metal Type 4: Price of Metal 4: 0 Oz Metal 4: 0

Containers per Ld: 0 Qty per Ld: 0 Lbs per Ld: 0 Unit Cost:
 Sq. per Ld: 0 Cu. per Ld: 0 Units per hr: 0
 Racks per Load: 0 Rack Assign By: 0 Quote ID: 0 Quote Rk Cst:
 Rack Time: 0 Unrack Time: 0 Quoted Qty: 0
 Masking Time: 0 Order Size: 0 Quoted By:

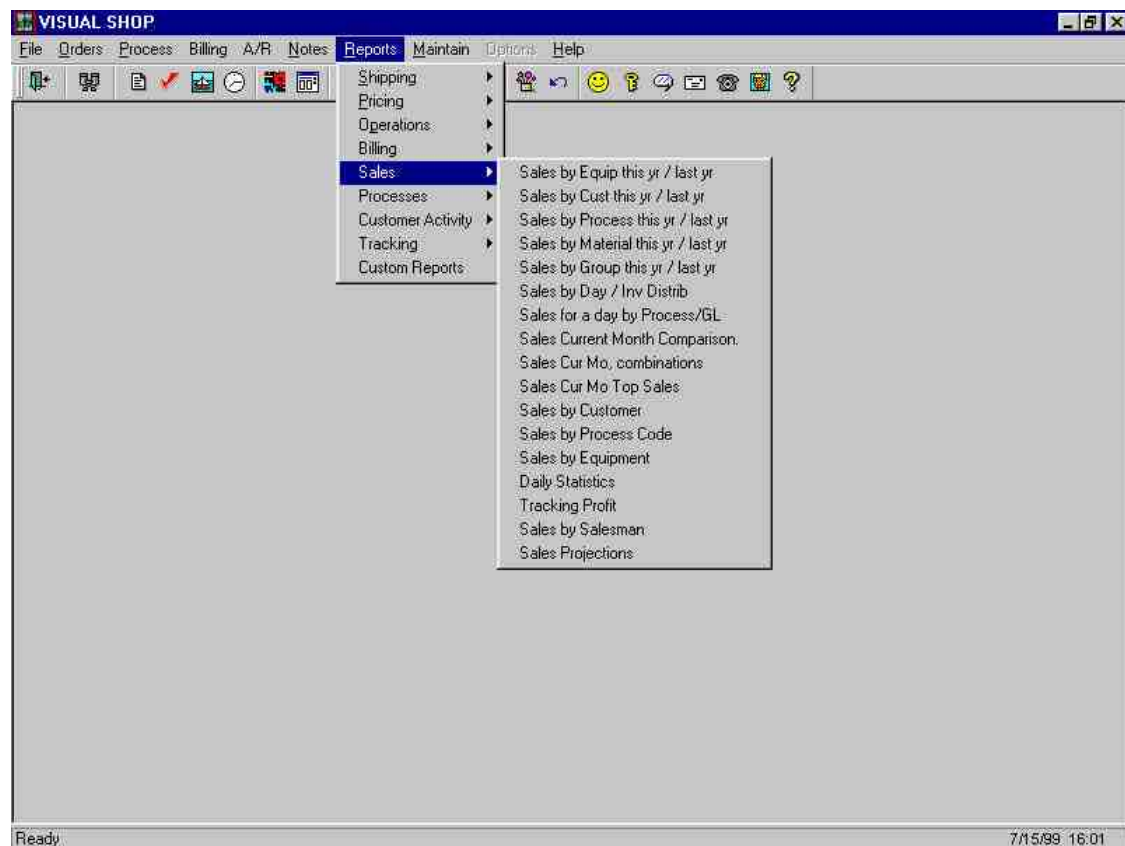
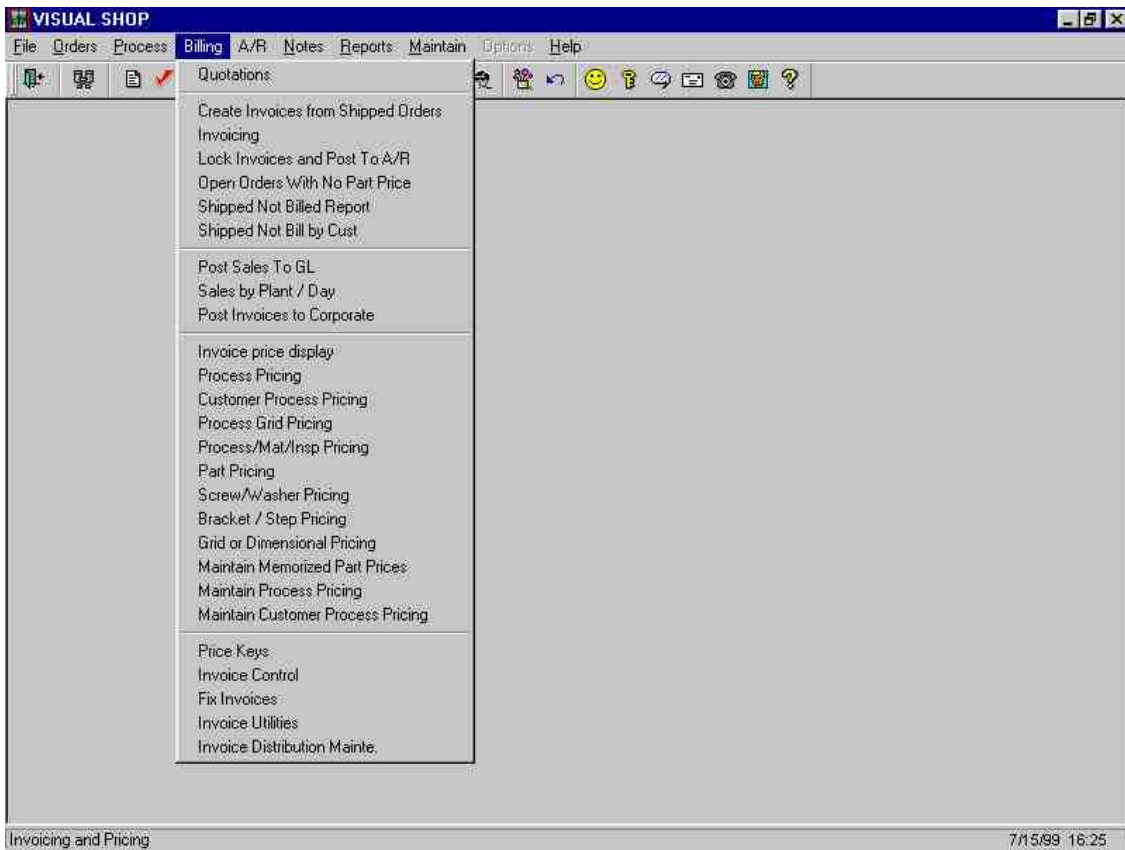
Search / Change Parts
☒ Part List
☐ Type / Material list
☐ Full List
☐ Part Price ☐ Price Table
 Part ID:
 Name:
 Material:
 Part type:

New Part

Controls **Quote**

Maintenance

Ready 7/16/99 8:17



Can never have enough **reports**.

Shipping

Shipping of the parts

VISUAL SHOP - [Shipping - Operated by: JD]

File Orders Process Billing A/R Notes Reports Maintain Options Help

Certs
Ship To:
Chase Screws Inc.
350 Second Street
P.O. Box 300
Chicago, IL 12345

Chase Screws Inc.
Detail 100 0 Ctr: 0
Carrier:
Frt Bill:
Frt \$: \$0.00
Route: North

Shipping Control
Enter Order 204
1. Get Order 2. Print it
Print ☒ Fax ☐ Label ☐ Label Cpy ☐
Multi Order Shipper ☐
07/15/1999 16:33
Containers Results Override
Hide Parts Print Cert Reprint
Show Serial #s Show all Loads

Ship to Address Control
Update Add Delete

Id	Part Id	Part Qty	Part Lbs	Shipped Qty	Shipped Lbs	Ship Now Qty	Ship Now Lbs	Ship Line Complete
1	3-----1	333		0		333		<input checked="" type="checkbox"/>
Total Order		333		0		333		

Print and update this shipper. 7/15/99 16:33

IMF
Pioneer
Metal Finishing
Corporation

ABC Plating Company

Order No.: 140
Ship Date: 1/19/1999

Shipping Ticket

Page 1 of 1

Sold To: 100
Chase Screws Inc.
350 Second Street
P.O. Box 300
Chicago IL 12345

Ship To: 505
Chase Screws Inc.
350 Second Street
P.O. Box 300
Chicago IL 12345

Purchase Order Number	Packing List No	Customer Job No	Route	Carrier
11203-A			North	

Quantity	Part No. / Part Name / Part Description	Pounds
150	31ab Bracket	

Container Type	# Of Containers	Cust Cont Id	Container Type	# Of Containers	Cust Cont Id
Box	1		Skid	1	

We will be closed for the holidays.

Shipped Complete Quantity Shipped: 150
Pounds Shipped: 0.00

In house e-mail system:

VISUAL SHOP

File Orders Process Billing A/R Notes Reports Maintain Options Help

By: JD Sent on: 07/15/1999 16:24:08 Type: FYI

Subject: [Yellow Box]

Controls: [Cancel] [Exit] [Send]

Create A Note and Send IT

Post Note onto a Document or Table

Document type to attach note to: [Text Box]

Picture Id: 0

Customer Name: [Text Box] [Picture] [Cust]

Send Note to

Add more people to send to [List Box]

[Delete] [Send]

The above slides are examples of what a software program may include. Other items in a program could include Operator Security, Lab Analysis, Digitized pictures of parts, Tracking and scheduling, Bar Coding and more.

The Internet is opening up a lot of new ways how finishers will conduct business now and in the future .

There is a web based software program that will allow your customers to access and enter information via the Internet. This will improve your customer relations while lowering your operating costs. It provides your customers with real time information on their jobs and a quick and easy method of communicating with you. This is highly customizable. Finishers select which customers have access to their data, and can restrict access to specific information on a customer-to-customer basis. The best part is that this can all be done with the click of a mouse, from any web browser anywhere in the world. All the data is in real time, so customers see exactly what the Finisher's see.

Your customer will be able to do the following:

- Enter a quote request,
- Check shipments,
- Request a pickup,
- Check on an order,
- Check their account,
- Communicate via notes.

What will I gain as a finisher for having this Internet feature? **Better Communication.**

1. Your customers get better service.
2. Your customer service personnel will now have more time to take care of real problems.
3. You reduce your operating costs because your phone traffic will be greatly reduced.
4. You provide a level of service that most of your competition can't provide.
5. Your customers can enter their own information such as pick up requests and quote requests.

What will your customers gain by you having Internet? **Better Communication.**

1. Your customers can get the information they need right away.
2. They no longer have to play phone tag or spend long periods of time on hold.
3. And when your customer does call you, you are now more available.

Having a web site on the Internet you will receive the following:

- Access to millions of potential customers worldwide. No matter what size of a company you are, there is a level playing field for all. You have the same opportunity to reach and influence prospects.
- 24-hour access expands your business without ever having to add extra staff.
- Full color graphics of products and services.
- Prospects can review your information at their own pace.
- Easily updated; good for time sensitive material. Cost effective way to advertise compared to hard copy material. And don't forget about the postage cost.
- Links from other sites creating more traffic flow to your web site.

The bottom line here is that with a small investment, you can compete with companies many times your size.

E-commerce is just not for consumer shopping. It is also about using the latest technology to streamline your business practices by creating an increase in both efficiency and savings and by reducing inventories. Businesses are using e-commerce for business-to-business connections that make purchasing easier. With an e-commerce site, supplier sales should increase as they reach a new customer base locally, nationally, and internationally while buyers can enjoy the benefits of sitting in front of their computers and making buying decisions. Simply put, e-commerce is about promoting products and services through an on-line medium. Businesses, both large and small, are present on the Internet, making it easy to shop 24 hours a day, seven days a week, 365 days a year.

Computer technology is here to stay. I realize that shops have existed for many years without ever having a computer, but the times are changing. People say that they are afraid to touch a keyboard on a computer for the fear of striking the wrong key. It is very hard to crash a computer by touching the wrong key. There are many books, schools, and seminars that are geared for the first time user. And the price of hardware has dropped so much that the retailer is virtually giving away computers.

In conclusion: A computer in your shop will save your people time and make you more efficient, and by being hooked up on the Internet you have the future possibilities to do:

- Account Status - customers being able to go onto your web site and check the status of their orders.
- Invoicing - being able to invoice directly over the net.
- Quoting - being able to quote jobs.
- E-mail - send e-mails to your customers. Also being able to send newsletters directly to your customers. Customers being able to request further information about your company.
- Job posting - being able to post current job openings on several industry related sites.
- Discussion forums - many of the industry associations offer discussion boards on common problems and issues related to the industry.
- Trade Associations - being able to check out the AESF or NAMF web sites for important information or future events.
- Customer support - many software companies offer support through the Internet via e-mail or online support.
- Trade Periodicals - being able to read your favorite trade journals over the Internet.
- E-commerce - being able to shop for your parts, equipment, everyday supplies, and more over the Internet.
- **Goal - the ultimate goal is to eliminate paper and to improve communication.** Computers are here and they are here to stay. The time is now for Finishers to join this technology wave. Make that first step, and enjoy the ride!