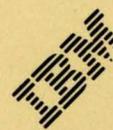


Introducing
Order
Processing and
Accounting
Applications

General
Information
Manual



System/36

IBM System/36

Manufacturing Accounting
and Production Information
Control System (MAPICS)

**Introducing Order Processing
and Accounting Applications**

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Inventory Management 5727-M45
Accounts Receivable 5727-M44
Sales Analysis 5727-M48

File Number
S36-72

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Changes are made periodically to the information herein; any such changes will be reported in subsequent revisions.

This document contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples contain the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

The illustrations and photographs used in this manual are representative models of the IBM System/36.

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To the reader . . .

This publication discusses the Order Processing and Accounting applications of the Manufacturing Accounting and Production Information Control System (MAPICS). MAPICS consists of twelve interrelated applications designed for the manufacturing and related process industries. Those applications are:

- Order Entry and Invoicing
- Inventory Management
- Accounts Receivable
- Sales Analysis
- Product Data Management
- Material Requirements Planning
- Production Control and Costing
- General Ledger
- Accounts Payable
- Payroll
- Data Collection System Support
- Capacity Requirements Planning

The first four applications—Order Entry and Invoicing, Inventory Management, Accounts Receivable, and Sales Analysis—are discussed in this publication. For information on the other applications in MAPICS, see the following publications:

- *Introducing the General Ledger, Accounts Payable, Payroll, and Data Collection System Support Applications for IBM System/36* (GH30-9000).
- *Introducing the Manufacturing Applications for the Manufacturing Accounting and Production Information Control System for IBM System/36* (GH30-9002), for Product Data Management, Material Requirements Planning, and Production Control and Costing.

How this book is organized

The first of the three sections of this book contains general information about the System/36 and four applications. Here you will find a brief overview of what the applications are and what they can do for you. The second section of the book contains more detailed information about the applications. The third section contains miscellaneous detailed information and a glossary of terms used with System/36 application programs.

Availability of the product

The applications described in this book—Order Entry and Invoicing, Inventory Management, Accounts Receivable, and Sales Analysis for the System/36—will be available from IBM in the fourth quarter of 1983.

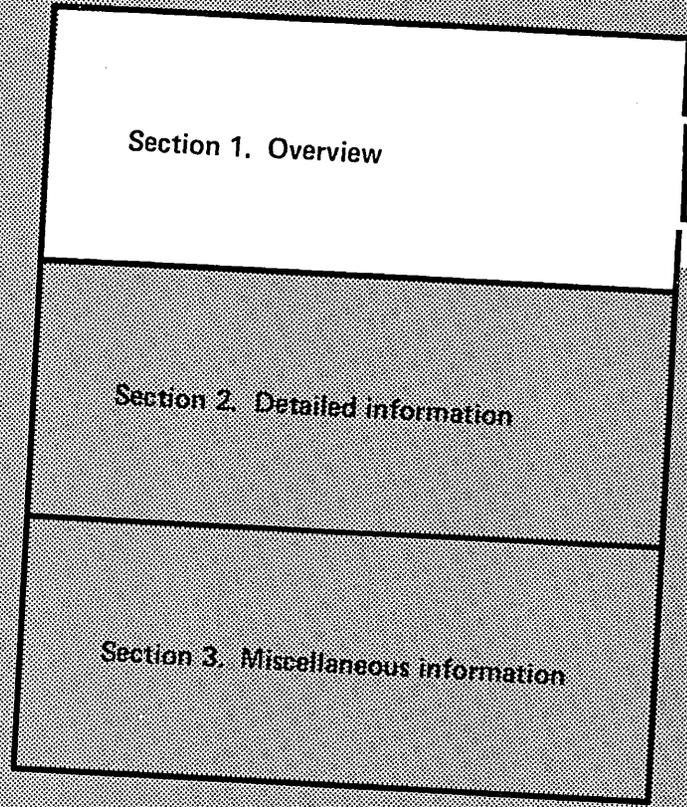
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Think about it . . .

In your business, everything relates to the order you receive from your customer. The task of shipping the right product to the customer on an agreed-to schedule is not simple. Your customers are constantly demanding newer, better products; and internally, you must continually balance sales objectives against production capacity, sales price against costs, inventory levels against working capital. Also, everyone from your auditing firm to governmental agencies and consumer groups is telling you to keep better, more detailed records.

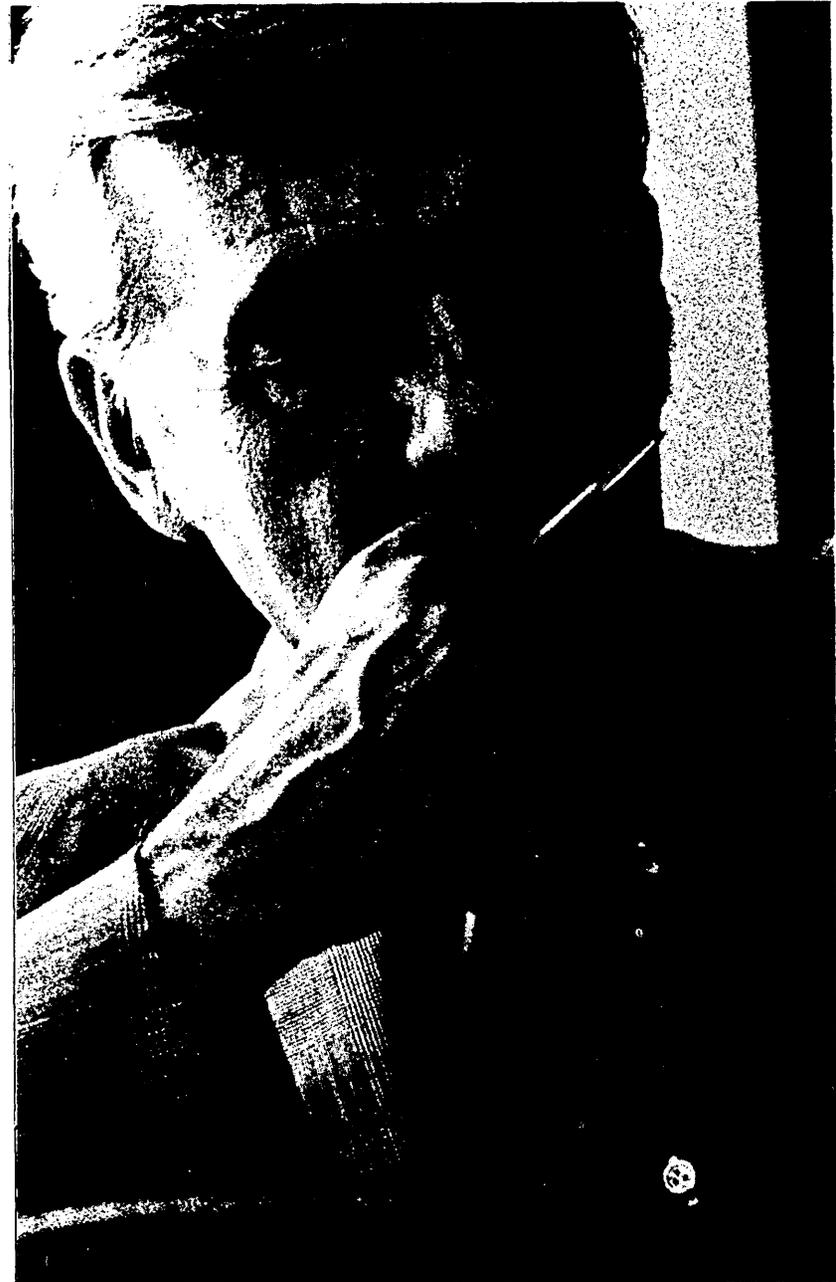
To be successful in this business, you need answers—lots of them. Which products should we stock? Do profit margins compare to last year? How much inventory do we have now? Can we cut it? How did we miss a change in ship dates? How big is our backlog? Why do we continue to ship stock to slow-paying customers? To answer these questions and formulate long-term strategies, you need the facts. But because the data making up the facts changes rapidly, you need information fast and in a format you can use.

IBM's Manufacturing Accounting and Production Information Control System (MAPICS) can fulfill these needs. MAPICS takes a practical approach to customer order processing, beginning with order entry, acknowledgments, pricing algorithms, and backlog management, and continuing through preparation of shipping documents and invoices.

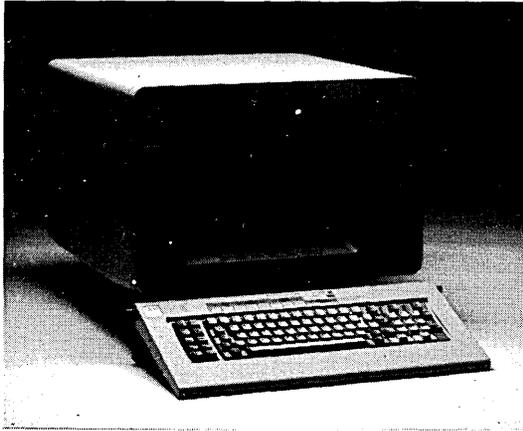
You can stop there, if you like, or you can activate the interfaces to other modules, including entry of standard features for end items, updating Inventory, Accounts Receivable and Sales Analysis applications. In fact, you can use order entry data for material requirements planning and even production control. With few exceptions, you choose the applications and their sequence for installation. A modular approach such as this allows you to tailor the installation sequence to your current needs, while allowing for subsequent application growth.

There's an additional aspect to consider. The MAPICS Order Processing and Accounting series of application packages is designed specifically for a work station system, the System/36. Work stations allow you to move the power of the computer to the work, rather than vice versa. In the final evaluation, your own good judgment is critical to the successful achievement of your goals. But MAPICS can help make your job easier. Think about it.

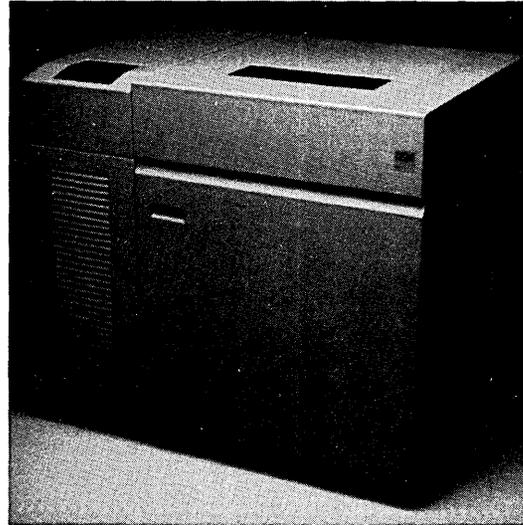
. . . IBM System/36 applications can help you find solutions



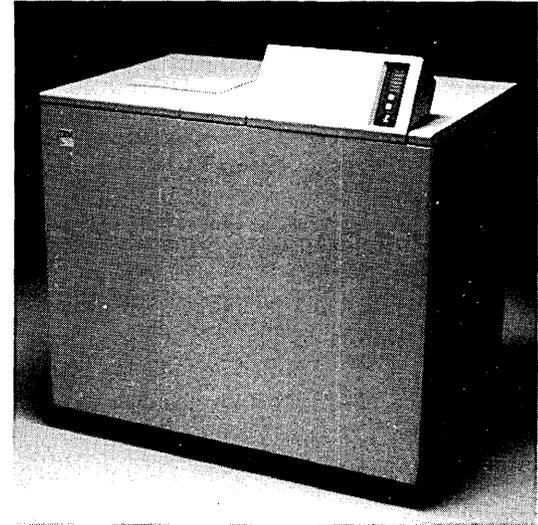
The System/36 is made up of . . .



Display stations (Display Model)



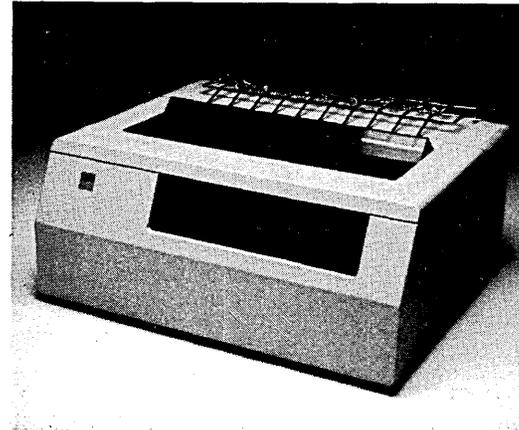
A system printer (Display Model)



A processing unit (Display Model)



Diskettes



Work station printers (Display Model)

The **processing unit** can have 128K, 256K, 384K or 512K of main storage (K means 1024 characters). It can have disk storage with 29.1, 60.0, 198.5, or 398.7 million characters.

Display stations have a 1920-character display, an 83-key conventional keyboard with function control keys, and a 10-key numeric pad.

The **system printer** can be either line printers that can print up to 650 lines per minute, or serial printers that can print from 40 characters per second to 560 lines per minute.

Work station printers are serial printers that can print from 40 characters per second to 560 lines per minute.

Diskettes can be one-sided (with capacity for storing either 246,272 or 303,104 data characters) or two-sided (with capacity for storing either 985,088 or 1,212,416 data characters).

Up to 30 display stations and work station printers can be directly attached. One display station must be within 20 feet of the processing unit and designated as the system console.

A communications adapter allows remote attachment of up to 64 additional work stations.

See "System requirements" in Section 3 for the minimum configuration required for the applications discussed in this book.

. . . Components you select and put together to meet your specific needs

The System/36 hardware components . . .



A typical System/36 configuration (Display Model)

Plus IBM-supplied programming . . .

System/36 program products that include

- The System Support Program (SSP) program product that controls and monitors the internal activities of System/36 and allows multiple jobs to operate concurrently
- The Utilities program product used by the applications described in this book

System/36 applications that consist of

- Programs that allow you to select options to tailor your applications to your needs (system tailoring)
- Files of data that contain your business information
- Programs that process the data you enter and print reports
- File maintenance procedures to help you keep the data in your files current and accurate
- Inquiry procedures that let you display your current business information

. . . Equal a total solution

The work station approach . . .

In a work station system, the emphasis is on accuracy of input data, availability of up-to-the-minute information, and the ability to inquire into data within the system.

When you use any of the applications described in this manual, you can use work stations to enter data, to display information, and to begin a job—three important data processing functions.

Data input at the source improves accuracy

With work stations, the person who uses the information can enter the data directly into the computer. Display screens guide the operator through data entry for each item of information, displaying the results of processing for verification. The system edits the data for errors and displays error messages on the screen.

Errors can be corrected as they are discovered, by the people most qualified to correct them—the users themselves.

Up-to-the-minute information in the files improves operating efficiency

In a multiple work station system where files are kept current, information is available to be displayed as needed. Information need not be manually transferred between departments because the most current information is available in the system, where everyone can use it.

Inquiry gives you immediate access to data in the system

Inquiries can be made into the system for information such as sales or accounts receivable data. Since these inquiries need not occur from the display station where the information was originally entered, an executive who has his own display station can inquire into information stored in the System/36 without leaving his office.

. . . Supports a variety of processing methods

The System/36 uses interactive processing, batch processing, or a combination of both to process your information.

Interactive processing

When the System/36 processes transactions or records as the operator enters data, it is operating in *interactive* mode. Each transaction is processed individually. The system processes the data and returns the results rapidly to the operator at the work station.

The interactive mode is used when data requires immediate processing. Examples of interactive processing are:

- Data entry and edit
- File maintenance
- Inquiries

Batch processing

When the System/36 processes transactions or records as a group, it is operating in *batch* mode. Batch processing is usually more efficient for data that does not require immediate processing and for printing reports.

Using the batch processing method, applications described in this manual can accept input data entered through a keyboard at a display station, data entered from diskettes prepared on the IBM 3740 Data Entry System, or data collected by the IBM 5230 Data Collection System.

Examples of batch processing are:

- Updating master files with transaction data
- Printing invoices
- Printing stock status reports

Multiprogramming

In the System/36, more than one job can run at the same time—this is called *multiprogramming*. Because of multiprogramming, the System/36 can support multiple work stations operating concurrently on different jobs.

With this feature, multiple programs share the System/36. For example, while one program waits for an input or output operation to be completed, another program can be executing instructions. As a result, the computer is used more efficiently and the total workload is completed faster than if the programs were executed one following the other.

Spooling

A facility that increases the System/36's operating efficiency is spooling of print data. Data to be printed is stored on internal disk (spooled) and printed later. Two or more jobs that generate printed output can thus be run concurrently because the output is stored on disk and printed when convenient.

Your system console operator controls spooling operations through System/36 operating commands.

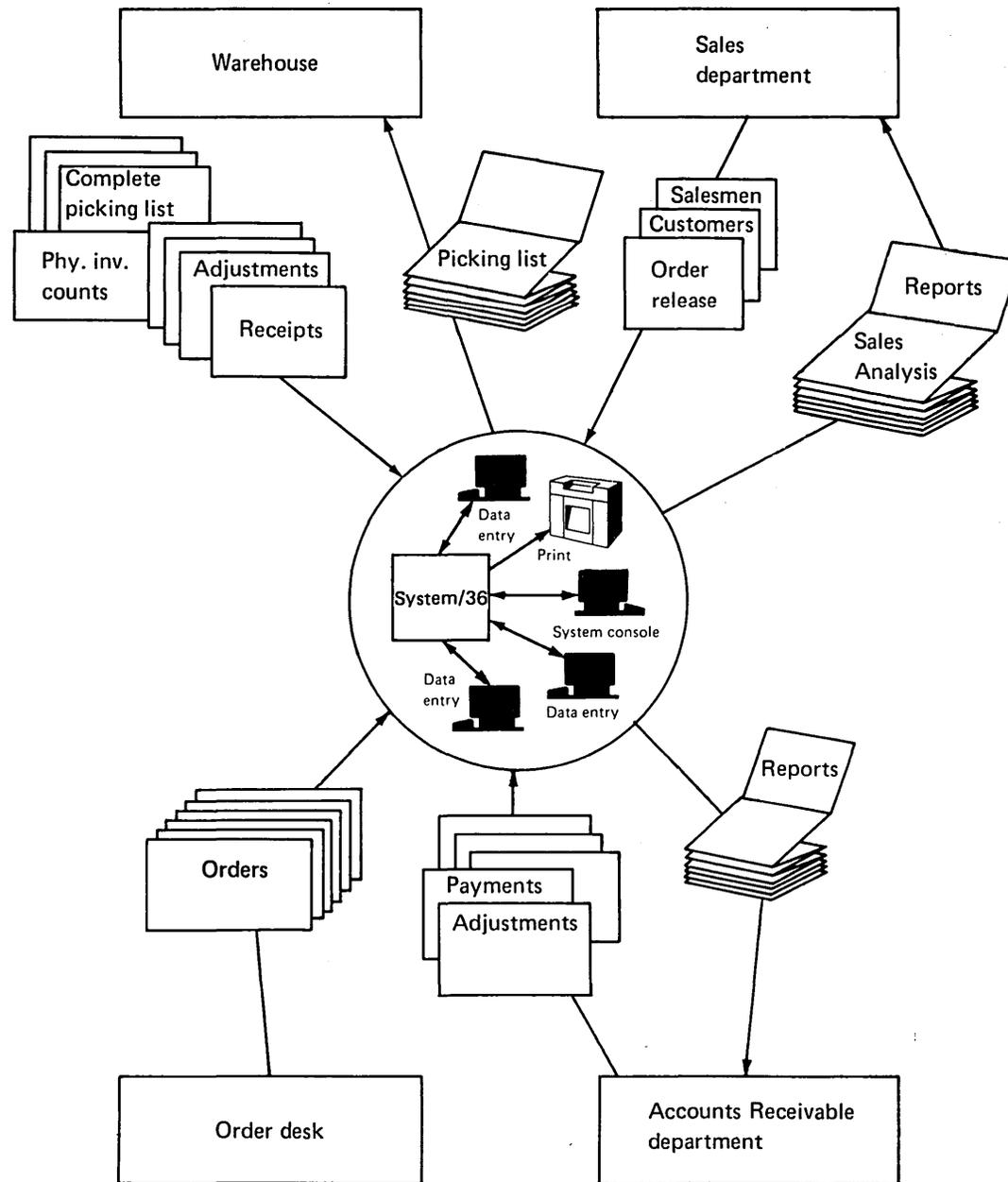
Note: For more information on any of these processing methods, see *Presenting the IBM System/36*, GA21-4773.

Centralized environment

In a centralized environment, all System/36 equipment and operators are in one location. All input to the system is submitted to the central processing area and the results must be delivered back to the submitting departments.

Advantages of this type of environment are:

- Control and scheduling of data processing activities are easier
- Only the people in the central processing area need to know how to operate the System/36 and its work stations

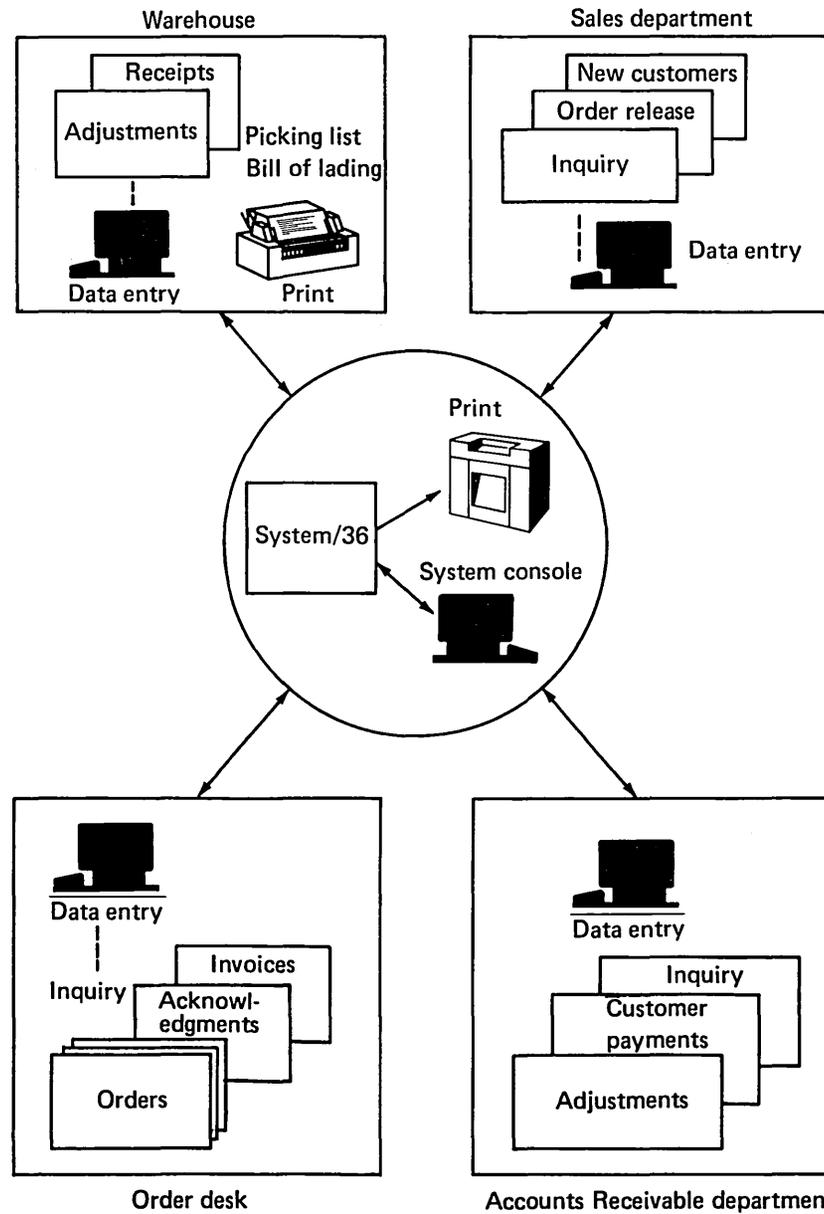


Decentralized work station environment

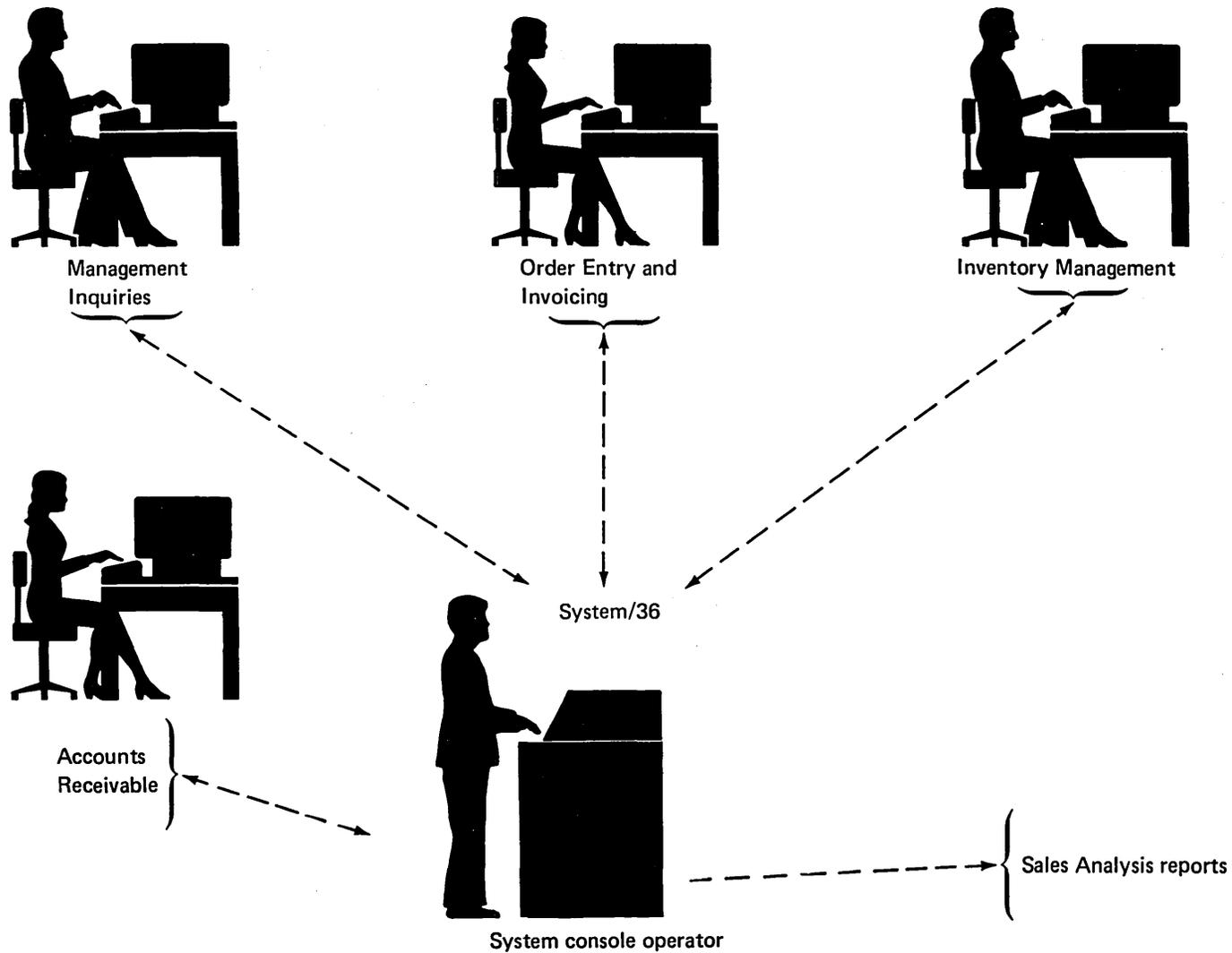
In a decentralized environment, one or more work stations and operators are located away from the main system. Local work stations can be as far away from the processing unit as 5000 feet.

Advantages of this type of environment are:

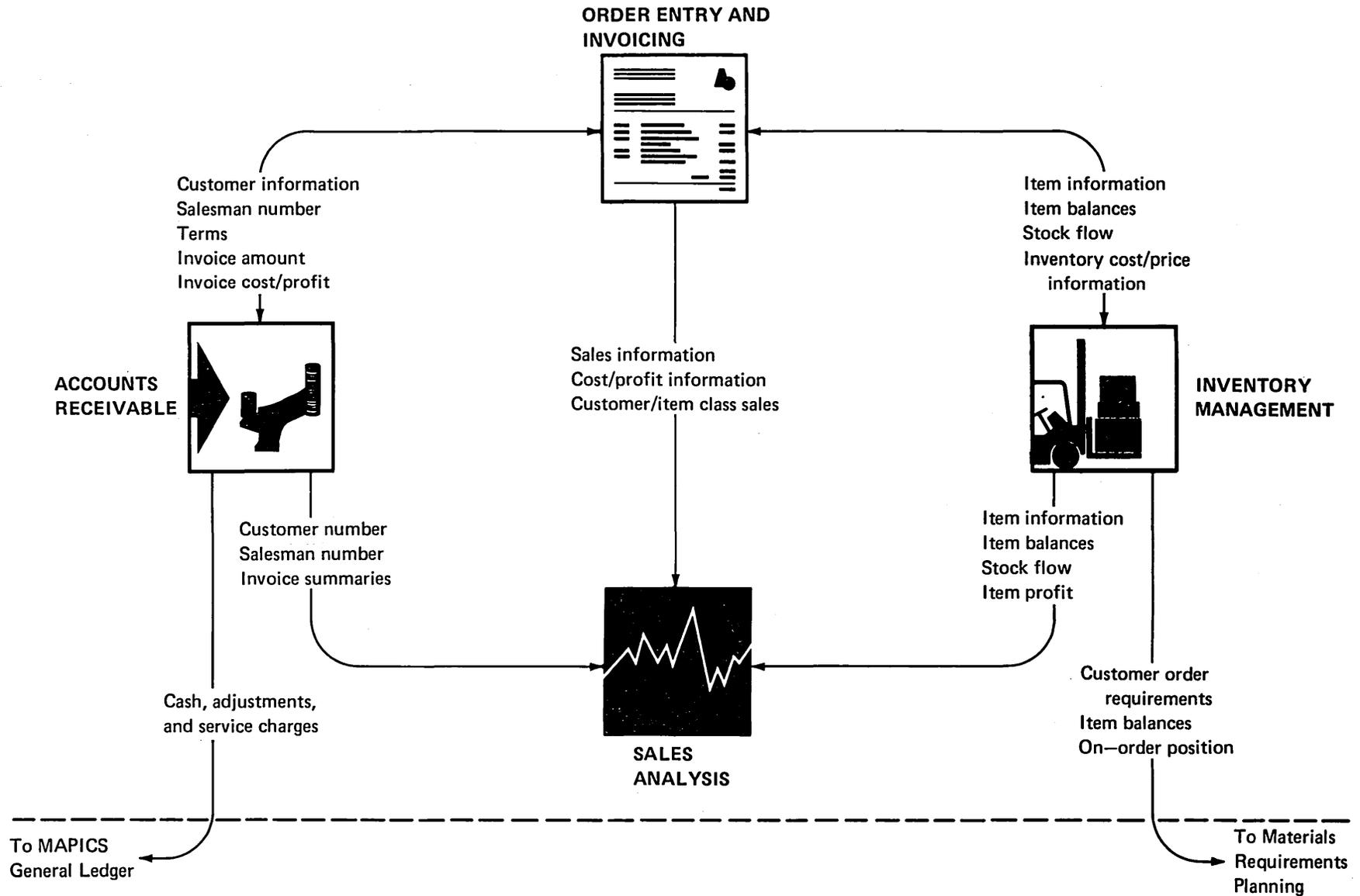
- Processing is generally faster because each department enters information into the System/36 instead of forwarding it to a centralized area
- Errors are reduced because the people most familiar with the information enter it into the System/36.



In a typical operating environment, the system accepts data and inquiries from work stations . . .



... And coordinates the flow of information from one application to another



Built-in control features . . .

The System/36 and MAPICS have many built-in features that help you control both the accuracy of the information stored in the System/36 and the access people have to it.

General controls

A program monitors the sequence of certain procedures used by the operator. This ensures that these procedures are executed in the proper order.

All transactions are edited for validity. The operator must correct errors before files can be updated.

Through a set of tailoring questions, you can specify the sizes of your master files (number of customers, number of items, and so on) and select application options (invoice format 1 or 2, printing picking list from data entry batches, and others). If a master file becomes nearly full (because you add new customers or new items), the application displays a message to notify you. You can then enlarge the master file by giving new answers to the appropriate file size questions. Further, you can change application options (change invoice formats, for example) by reanswering application questions.

Accounting controls and audit trails

The applications generate control totals for each batch of information and show them on the display screen. The operator can balance these totals to manually-derived totals.

As the batch of data is processed by the applications, the same control totals are derived at key steps for balancing back to the original control totals. This function provides your audit trail.

System security

Because work stations increase the number of people who have access to your system, you may want to restrict access to your information. You can do this in the following ways:

- Order a keylock feature on your display stations. This feature allows you to lock a display station so that no one can use it without a key.
- Use the SSP-provided password security system, which restricts access to display stations.
- Use the password security system provided with the application. This system restricts access to certain procedures and functions within an application.

Save and restore procedures

To help protect your installation against accounting and system errors that can occur in even the most carefully managed operation, a set of programs and procedures is provided to assist you. These procedures, implemented at your option, include:

- Periodically saving your master files on diskettes (backup)
- Retaining all transactions on disk between saves of master files

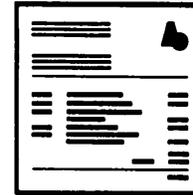
Should you encounter system problems, such as power failure, a procedure analyzes the status of your system to determine whether you can safely restart any programs being run when the problem occurred. If restart cannot take place, the system tells the operator what steps to take.

Should you need to reprocess transactions, you can load the master files you saved on diskette and reprocess the transactions without rekeying them.

. . . Help you maintain accurate reports and records

**Introducing your MAPICS order processing and
accounting application programs . . .**

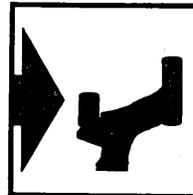
Order Entry and Invoicing



Inventory Management



Accounts Receivable



Sales Analysis



Order Entry and Invoicing (OE&I) . . .

The order entry function is a key starting point for activity in a manufacturing organization. For make-to-order products, this function describes the item to be manufactured and when the item is required. For ship-from-inventory products, it streamlines the order processing so items can be shipped promptly. Depending on which related applications are installed, OE&I updates item balances maintained by Inventory Management, charges invoiced to customers can be used to update Accounts Receivable records, and records of sales can be used as the basis for the various Sales Analysis reports. The OE&I application greatly reduces clerical functions that would otherwise be required to process information for each of the other applications independently.

Order entry operates in an interactive mode and can accommodate multiple work station operators entering data concurrently. The work station operator can enter order information, verify it on the display screen, and make corrections and changes to the order before it is used for further processing. The OE&I application retrieves customer names, addresses and other predefined information; selects prices; applies discounts, markups, and taxes; calculates extensions; and prints invoices that reflect all customer charges. It also prints the invoice register that shows summary information for all invoices printed during a given period.

Order Entry and Invoicing directly associates each customer line item ordered with the appropriate item in the inventory master files, if Inventory Management is installed. This feature allows rapid access to current requirements information, such as all orders for an item, by using inquiries available in the Order Entry and Invoicing and Inventory Management applications.

Features

The Order Entry and Invoicing application offers:

- Interactive entry, edit and correction of customer orders
- Online file maintenance of master files and customer orders
- Blanket order support with up to 24 releases
- Entry time or invoice time pricing
- Multicompany support for up to 20 companies
- Credit limit checking (Accounts Receivable application required)
- Automatic creation of back orders
- Invoice and credit memo processing
- Picking lists
- Bills of lading
- Work station printer support for picking lists and bills of lading
- Standard options for end items (Product Data Management application required)
- Credit processing for returns and allowances
- Pricing structure including
 - Contract prices selected by contract and item number
 - Quantity-price break discounts
 - Operator-entered special or one-time prices
 - Trade discounts based on customer
 - Discount or markup prices calculated for any item with percentages automatically selected or manually keyed as overrides



Major reports

- Order Acknowledgment confirms a customer's order, giving details of items ordered
- Picking List is used for picking orders, and can serve as a packing slip and shows the bill of lading packing code for each item
- Invoices and Credit Memos show details of customer purchases or items returned
- Bills of Lading show the basic customer shipping information on a pre-printed form
- Invoice Register is a summary listing of all invoices printed in a given period
- Taxing Body Reports show in summary or detail form the taxable sales and taxes charged by taxing body
- Customer Order Shortage Report shows all inventory items which have been over-committed (Inventory Management application required)

- Open Order Status Reports show the backlog by customer, item or date. The same reports can be run for back orders.
- Blanket Order Status Report shows the current position of entered blanket orders
- Monthly Worksheets show information related to commissions and general ledger reporting

Inquiries

All orders for a customer

Customer status

Detailed information for an order

All customer orders for an item

**... Greatly reduces clerical functions
and provides flexibility in
processing orders and invoices**

Inventory Management (IM) . . .

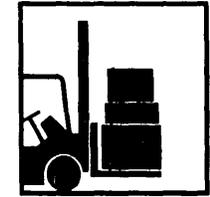
The Inventory Management application is designed to assist in improving the control of inventory, which is a major asset of a manufacturer. The objectives of Inventory Management are to provide up-to-date information for improving your decision-making and reducing inventory, and to maintain tight operating and audit controls. These objectives will help you establish efficient allocation of inventory dollars while maintaining satisfactory customer service levels, thereby maximizing the return on inventory investment.

The Inventory Management application can be subdivided into three major areas. The first area provides the perpetual inventory functions which maintain inventory balances by processing related transactions (receipts, issues, adjustment, and so on). The second area provides management with the dollar values and analyses required for sound inventory decision. The third area provides the ability to effectively release and track manufacturing and purchase orders, allowing inventory managers to manage both on-hand and on-order positions of inventory items.

Operating personnel in the purchase department, the stock room, or at the receiving dock can enter receipts, issues, adjustments and other transactions through the work station on an item-by-item basis. The system edits each transaction for validity (item number, warehouse) and, if the transaction passes all edits, the master file is updated. An inventory transaction register, printed periodically, shows the transactions processed.

Features

- Interactive entry, edit, and correction of inventory transactions
- Immediate processing of transactions
- Online master file maintenance
- Exception flagging
- Cycle count and regular physical inventory
- Multiple warehouse support
- Perpetual inventory recordkeeping
- Item costing (average, last and standard)
- LIFO/FIFO valuations
- Order release for purchase and manufacturing orders
- Blanket order support for purchase orders
- Performs allocations of materials for manufacturing orders at order release
- Sets "replan" flag for use by Material Requirements Planning (if installed)



Major reports

- **Stock Transaction Register** is a record of all data accepted by the application
- **Stock Status Report** shows the condition of items in inventory at month-end or year-end
- **Stock Status Review** is available on request so that the status of all or selected items in inventory can be seen
- **Inventory Analysis Reports** show the financial and stock movement aspects of items in inventory
- **Physical Inventory List** is printed in various sequences for all or selected groups of items to simplify periodic inventory counts. The same reports are used for cycle count items
- **LIFO/FIFO reports** show by individual receipt transactions the value of inventory
- **Material Shortage Reports** show the material not available to meet current released demands

Inquiries

- Item master
- Item allocation
- Item balance history
- Open orders
- Item availability

**. . . Helps you manage your
investment in inventory**

Accounts Receivable (AR) . . .

A manufacturer normally has a significant investment in his receivables, and keeping an accurate account of this asset is essential. The company's cash flow, ability to react to business cycles, ability to extend credit and, ultimately, the profit picture are directly affected by the accuracy of receivables accounting.

To help you manage this important asset and keep tight controls on your customer accounts, the MAPICS Accounts Receivable application makes it possible for you to:

- Do automatic credit checking, if the OE&I application is installed
- Make timely and accurate application of payments to customer account information on the display screen
- Inquire into customer account records to obtain information for making credit decisions
- Prepare neat, accurate, and timely statements
- Improve collection of customer accounts and reduce losses from bad debts through automatic aging, aged trial balances, and delinquency notices
- Reduce clerical efforts and improve accuracy through the system's input-checking and accounting control features

The Accounts Receivable application uses summaries of invoices created by Order Entry and Invoicing to apply charges automatically to customer accounts. Invoice summary information can also be entered directly through the Accounts Receivable application.

One or more work station operators can enter payments and adjustments with immediate updating to reflect the most current accounts receivable balance. Concurrently, one or more work station operators can enter invoice summaries, and/or the summaries can come from the Order Entry and Invoicing application, if installed.

The system supports both open-item and balance-forward customers. A code in each customer record indicates which type of accounting is in effect for the customer. It can be changed at appropriate points in the accounting cycle to switch a customer account from one type to the other.

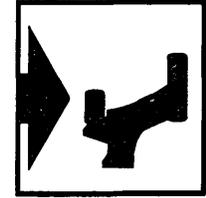
For balance-forward accounts, the operator can:

- Easily apply payments from the oldest to the most current aging period, or
- Apply cash directly to any period

For open-item accounts, the operator can:

- Enter a payment or adjustment to be applied directly to an invoice, if the invoice number is known, or
- Enter a payment or adjustment if the invoice number is not known, by
 - Entering the gross amount of the customer's payment. A display screen shows the outstanding invoices for that customer
 - Selecting from this screen the items to be paid. After the items have been selected, the system displays the amount remaining to be applied to this account. The system creates a record for any unapplied cash that remains after the payment operation is over
- For either open-item or balance-forward customers, the operator can:
 - Enter a payment for the entire amount due and
 - Use the "writeoff" facility to eliminate agreed-to discrepancies

At the end of the month, the application prepares customer statements. The Aged Trial Balance and delinquency notices can be printed any time, on request.



Features

- Online application of cash and adjustment entries
- Interactive entry, edit, and correction of customer invoice summaries
- Balance-forward and open-item accounting
- Accounts Receivable aging including future aging
- Service charges for open item and balance forward customers
- Credit limit checking
- Aged Trial Balance on request
- Multicompany support for up to 20 companies

Major reports

- AR Transaction Register is a record of all data accepted by the application
- Paid Item List is a record of all items cleared by payments or adjustments in open-item accounts
- Aged Trial Balance reports are available monthly, or on request, in a variety of formats designed to meet specific management information requirements
- Delinquency notices can be printed for all or selected customers with past-due accounts
- Statements can be printed for all or selected customers

Inquiry

Customer

... Helps you to improve collection of customer accounts and reduce losses

Sales Analysis (SA) . . .

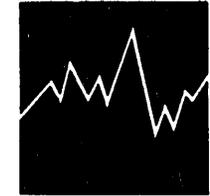
The Sales Analysis application, when integrated with the other applications, provides sales, cost, profit amount and profit percent reporting for management analysis. Using summaries of sales transactions, and customer and item data, the sales analysis reports enable more effective management decisions toward higher profitability on goods sold and, at the same time, reduction of the cost of sales overhead.

The application is designed to furnish critical information on demand, including history data or current period only. This information can help you evaluate and track:

- Individual customer purchasing statistics
- Profit amount and percent reported by customer, item, item within item class, and by salesman
- Individual salesman's productivity
- Sales organization effectiveness, including salesman assignments and product line coverage
- New marketing strategies

Features

- Accepts input from other Order Processing and Accounting applications
- 12-month or 13-period processing
- System tailoring report selections



Major reports

Customer performance

- Profit Analysis by Customer Report shows profit for each customer or a selected group of customer's
- Sales Analysis by Customer Report shows sales for this period and year-to-date compared to last year's information
- Sales Analysis by Customer Class Report is the same as the Sales Analysis by Customer Report except that the information is grouped by customer class

Item performance

- Profit Analysis by Item Report, in sequence by item within item class, shows sales volume and profitability of all or selected items
- Sales Analysis by Item Report shows quantity and sales amounts for the current period and last year with percentage differences
- Profit Analysis by Item Class Report is the same as the Profit Analysis by Item Report except that statistics are grouped by item class

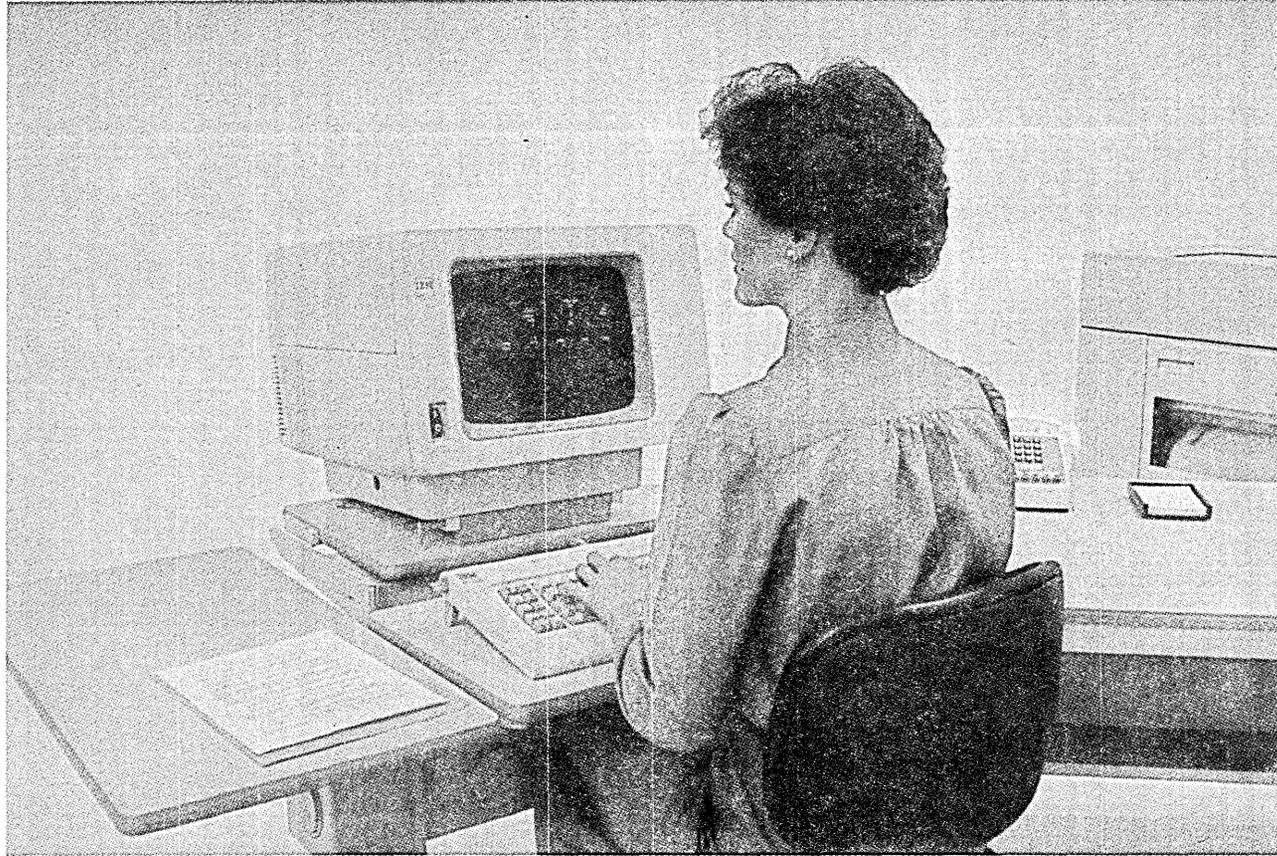
Salesman performance

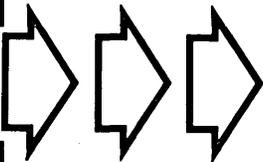
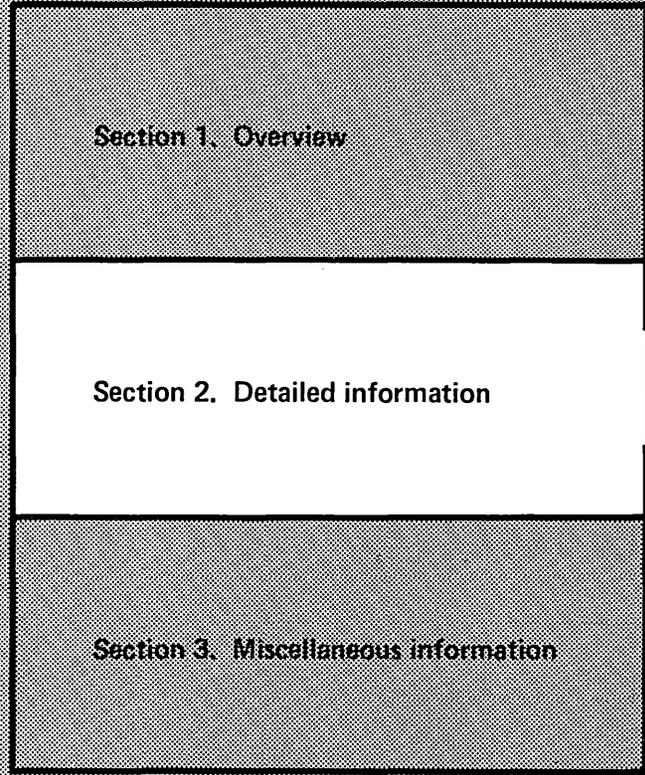
- Sales Analysis by Salesman Report shows sales volumes for the current period and year-to-date, compared to last year
- Profit Analysis by Salesman Report shows sales, cost and gross profit for both the current period and year-to-date

Inquiries

Customer
Item
Salesman

... Enables more effective
management decisions





Order Entry and Invoicing

Information flow

Application functions

Automatic creation of backorders
Flexible pricing structure
Cash and COD sales
Cost and profit information calculated
Credit limit checking

Credit memo processing
Printing options
End of period reporting
Order comments
Standard options for end items
Blanket order support
3740 support

Operations

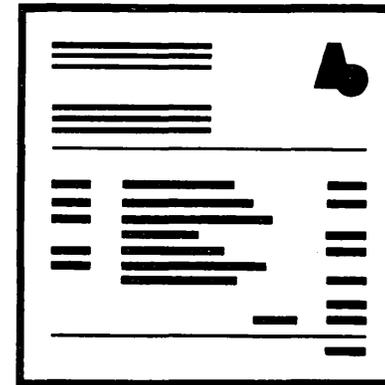
Entering orders
Updating master files
Acknowledging orders
Printing picking lists
Printing bills of lading
Printing customer order shortage report
Releasing orders and printing invoices

Printing invoice register
Printing inventory transaction register
Printing open order status reports
Printing item price list
Printing taxing body reports
Printing blanket order status report
Printing commission worksheet
Printing general ledger worksheet

Inquiries

Customer orders
Customer status
Customer requirements by item

Interfaces



ORDER ENTRY & INVOICING

Order Entry and Invoicing

Information flow

Figure 2-1 shows how information flows through the Order Entry and Invoicing (OE&I) application. The numbers in the following discussion refer to this figure.

Orders are entered **1** and picking lists (optional) and bills of lading (optional) are printed either at work stations or at the system printer **2**. Order acknowledgements (optional), the invoice register, the invoices, the update register, and the inventory transaction register show the results of order processing and invoicing **3**.

On request, the customer open order report, customer order shortage report, item open order report, item price list, tax reports, general ledger worksheet, commissions worksheet, and the blanket order status report can be printed **4**.

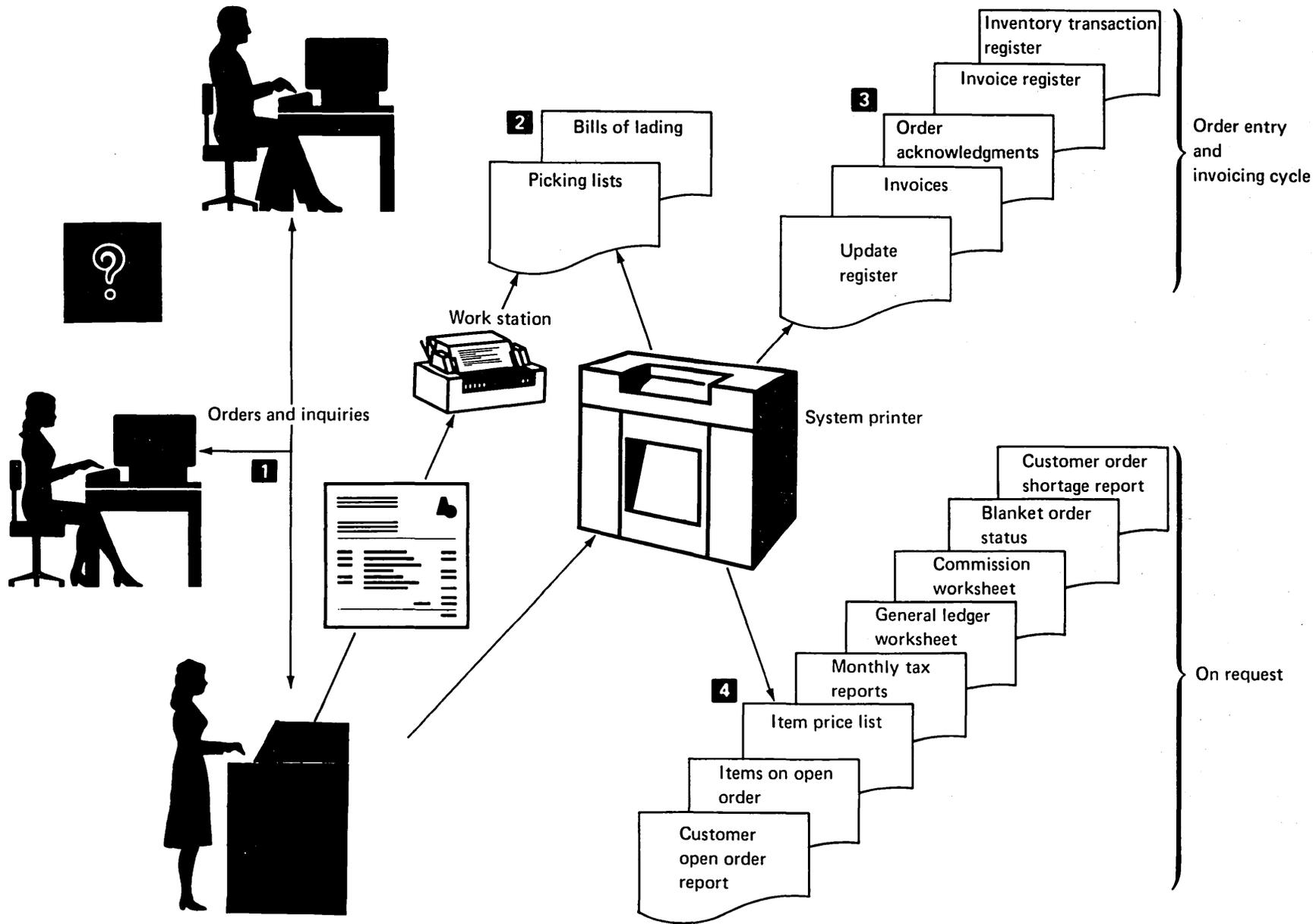


Figure 2-1. Order Entry and Invoicing information flow

Application functions

Order Entry and Invoicing provides flexibility in processing orders and invoices. The normal method is to enter an order in interactive mode, add this order to the open order files, print picking lists and, when the order is shipped, release the order into the invoicing cycle. This method gives you control over open, unfilled orders and better control over the shop floor by giving notice of the backlog of orders. It also permits you to release picking lists based on manufacturing schedule dates, thereby eliminating manual control of paperwork in the picking department.

You can also process through direct billing, which means that operator-entered orders go directly into the invoicing cycle without being added to the open orders file. Using this method, your warehouse personnel can use a manually-created source document to fill a customer's order. Using that source document, with quantity shipped noted, the order department work station operator enters the information into the system using the immediate invoice entry procedure. The invoice is created, and the transaction data is used to update the appropriate master records (depending on which applications you have installed).

Backorder quantity calculated

OE&I automatically creates and manages back orders based on your pre-determined codes in the customer and item records. If the customer and item records in a billing transaction are coded to allow back orders and the operator does not override them, the system calculates quantity back-ordered by subtracting quantity shipped from quantity ordered, it then prints this information on the invoice, and creates back-order records for these items. The printing of back-order picking lists is under user selection.

Flexible pricing structure

The Order Entry and Invoicing application allows you to control your invoice prices by coding your customers and items, and by choosing from among several pricing methods. The application can select a price along with a discount or a markup percentage which may vary by customer for each line item.

You may also establish quantity discounts for selected items. For example, if a customer orders 50 to 100 of an item, the discount rate could be less than if 101 to 200 were ordered. You establish up to five quantity ranges and related discount percentages. The system automatically applies the discount accordingly. Furthermore, you can have contract or negotiated prices by items. The system uses this price as the unit net price. The operator can enter a price or cost amount which acts as an override to the net sales amount and is treated as the extended sales amount for that item. Alternatively, the operator can override a unit price, in which case all applicable discounts or markups are applied. Operator-entered override percentages are used instead of a system-selected discount or markup percentage.

You have the option to select order pricing at order entry time or invoicing time, depending on whether you want prices to be fixed at order entry time, or subject to change until they are shipped.

Figure 2-2 describes the item pricing hierarchy.

After all item prices have been established, applicable trade discounts are calculated. Two basic methods are available: the first method uses one of five discounts, based on a code in the customer's record; the second method uses one of five available discounts based on order value.

Up to four taxes may be added to each invoice if both customer and item are subject to the same tax.

Cash and COD sales tracking

If you do not extend credit on some orders, you can still process the order and capture inventory and sales information by treating the order as a cash or cash-on-delivery (COD) sale. The customer's receivable account is not affected by the sale, but the Cash or COD invoice appears on the invoice register.

Cost and profit information calculated

The application calculates cost and profit information for goods sold, based on costs stored in the items files. This information is printed on the invoice register.

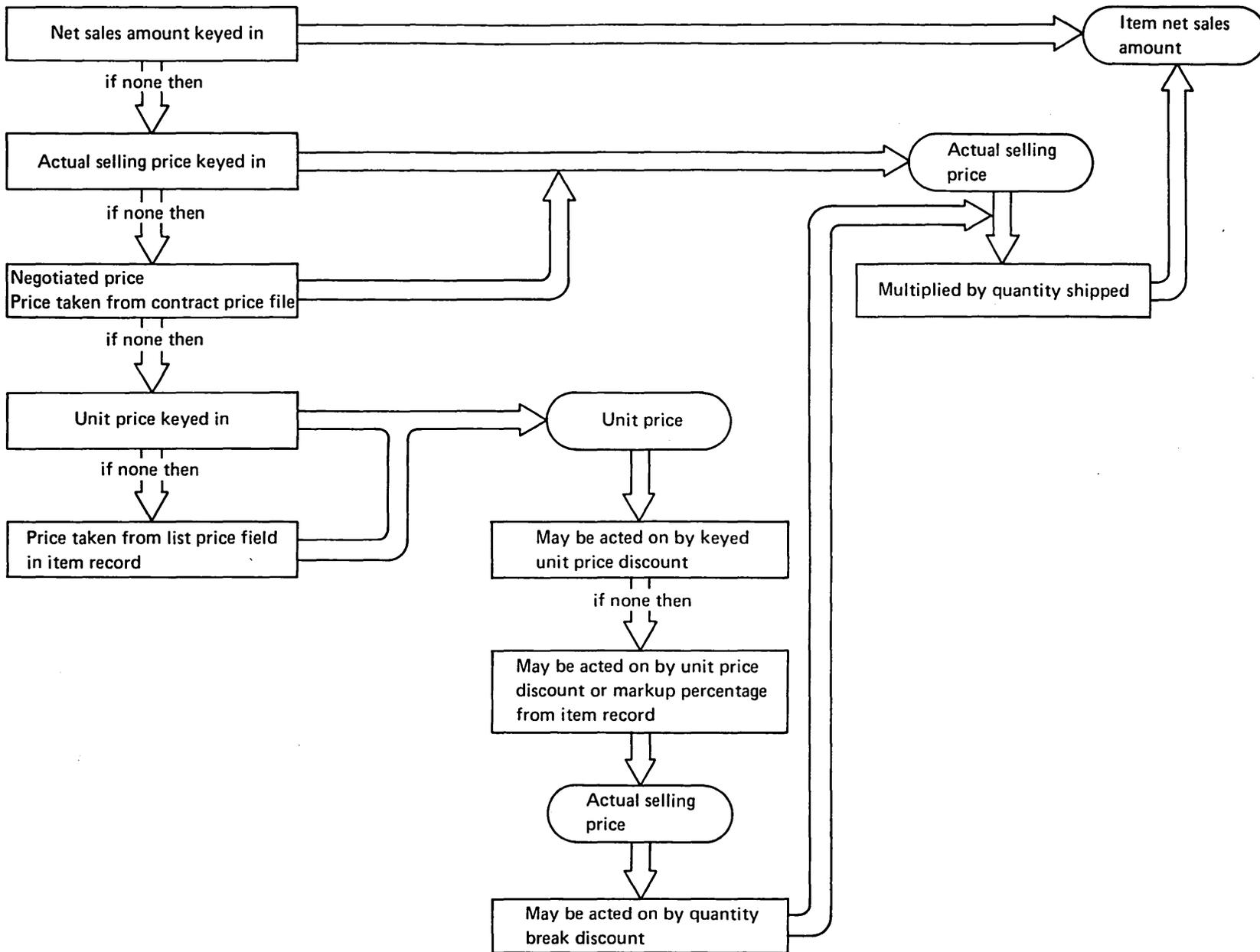


Figure 2-2. Item pricing hierarchy

When a sale involves extensions of the price of an item, the same calculations are performed on the cost figure. Even though cost and profit figures are accurately calculated, they should be treated only as close approximations of the real cost of goods sold and the real profit realized. The cost basis used in the calculations is the item base cost established by the costing method selected by the Inventory Management application, if installed, or a manually maintained cost if Inventory Management is not installed. (See the discussion of Item Costing in the Inventory Management section of this manual.) Profit percent can be computed either as a percentage of the sales amount or as a percentage of the cost amount.

Credit limit checking

One of the most effective ways to control credit is to limit the amount extended. If your system includes the Accounts Receivable application, you can establish limits for each customer. After you have loaded these limits into the system, they can be adjusted as business conditions change.

During order entry, the receivables balance, as last updated, is displayed and compared to the credit limit assigned the customer. Additionally, the number of outstanding orders for the customer is displayed. If the Accounts Receivable balance exceeds the assigned credit limit, the field is highlighted, indicating that the credit limit is exceeded.

Credit memo processing

The OE&I application accepts an entire order as a credit (treated as a negative invoice), or individual line items on invoices can be credited. The application automatically returns credit items to stock, increases the on-hand balance unless the operator defines the individual transaction as an "allowance". All sales amounts are updated to reflect either type of credit, but "allowance" credits will not increase the inventory quantity on hand, nor reduce accumulated costs.

Printing options

The OE&I application provides reporting flexibility through tailoring options. You can choose to have the picking lists, bills of lading, and/or acknowledgments printed from the entry batch.

Whether or not this batch option is selected, you still have the choice of printing picking lists within manufacturing schedule date limits. You can also individually select up to eight order numbers to print picking slips or bills of lading.

End of period reporting

For end of period tax reporting, the tax body report has the following options:

- No report required
- Summary report required
- Detail report required
- Both summary and detail reports required

The commission worksheet and the general ledger worksheet options are required or not required. Any of these options can be overridden during any period closing.

Order comments

Two types of comment records can be used. The order comment is made up of three 25-character fields. These order comments stay with the order until the order is completely invoiced or canceled.

The second type of comment is associated with individual items. These comments appear immediately after the item for which the comment is entered. These comments are also three 25-character fields in length and remain with the item until it is invoiced or canceled.

During installation, you establish if the comments should be printed only on internal documents (picking lists) or external documents (acknowledgments, invoices). Once established, these defaults can be overridden as each comment is entered.

Standard options for end items

Many customers sell items having predefined product features which describe the end item more fully. These product features may be required (for example, voltage, color) or not required (for example, digital clock on a microwave oven). Each required product feature must have at least two standard options (voltage must be 115, 208, or 230) while nonrequired features can have one or more options.

When an end item with standard options is entered, the application prompts the operator for entry of a series of codes which identify the options. This data is then edited against the standard options available to the particular end item. If all edits are valid, the application selects the options specified, and includes them with the order. Price and cost are accumulated from item master records, and discounts or markups are calculated based on the end-item.

There are variations in the printing of standard option information on documents such as the picking list, acknowledgment, and invoice. These variations are:

Picking list—prints the option description but not the item number, packing codes, or quantity of the option and feature records.

Acknowledgments and invoices—prints the item number and option description but does not print quantity.

This function requires that the Product Data Management application also be installed.

Blanket order support

A blanket order is an order for one item with several shipping (release) dates. Using the OE&I application, an item can be entered for up to 24 individual release dates. Once the operator has entered the item and total scheduled quantity to be shipped, the application prompts the operator to enter the individual released quantities and dates.

There can be as few as one but not more than 24 releases per item. This single release function can be used for standing orders. Picking lists for blanket order items must be selected individually. The operator enters the order number and the release number for which the picking list is required. There can be only one item per blanket order.

3740 support

The Order Entry and Invoicing application is designed to operate in interactive mode. However, specific procedures allow you to enter data from diskettes recorded on the IBM 3740 Data Entry System. This feature enables you to enter data created off-site or off-line.

The transactions entered from diskette are processed independently of the interactive batches. The diskette data is transferred to the IBM System/36, and a batch edit is performed on the data. Error correction is handled by the 3740 Data Entry System. When all the data is error-free, the operator can release the batch for updating the open order files.

This diskette entry mode supports the functions described in this section with the following exceptions:

- No provision is made for entering blanket order items
- No provision is made for entering standard option items
- File maintenance must be performed at a display station
- The immediate invoicing function must be done via the display station; the invoice release function must be processed on a display station.

Operations

All operations for the Order Entry and Invoicing application start with the OE&I Main Menu. This menu provides maximum flexibility in the selection of the operations to be performed.

Because of the number of functions that can be performed by OE&I, second-level menus are used. For example, from the master menu, the operator selects order processing; a second-level menu appears and the operator can select the particular entry method required.

The optional security code feature interacts with the menu and subsequent operations to ensure that only those individuals designated to have access to specific data and operations are permitted to continue processing.

```
COMMAND                                MENU: AMB00
ORDER ENTRY AND INVOICING
--MAIN MENU--

1 ORDER PROCESSING MENU
2 INQUIRY MENU
3 REPORTS MENU
4 MONTHLY CLOSE
5 FILE MAINTENANCE MENU
6 FILE LOAD MENU

READY FOR OPTION NUMBER OR COMMAND
```

```
COMMAND                                MENU: AMB10
ORDER ENTRY AND INVOICING
--ORDER PROCESSING--

1 ORDER ENTRY
2 ORDER ENTRY-IMMEDIATE RELEASE
3 ORDER MAINTENANCE
4 ORDER RELEASE
5 DISKETTE ORDER ENTRY
6 BATCH UPDATE
7 PICK LISTS
8 ACKNOWLEDGEMENTS
9 INVOICES
10 BILLS OF LADING
11 RETURN TO OE&I MAIN MENU

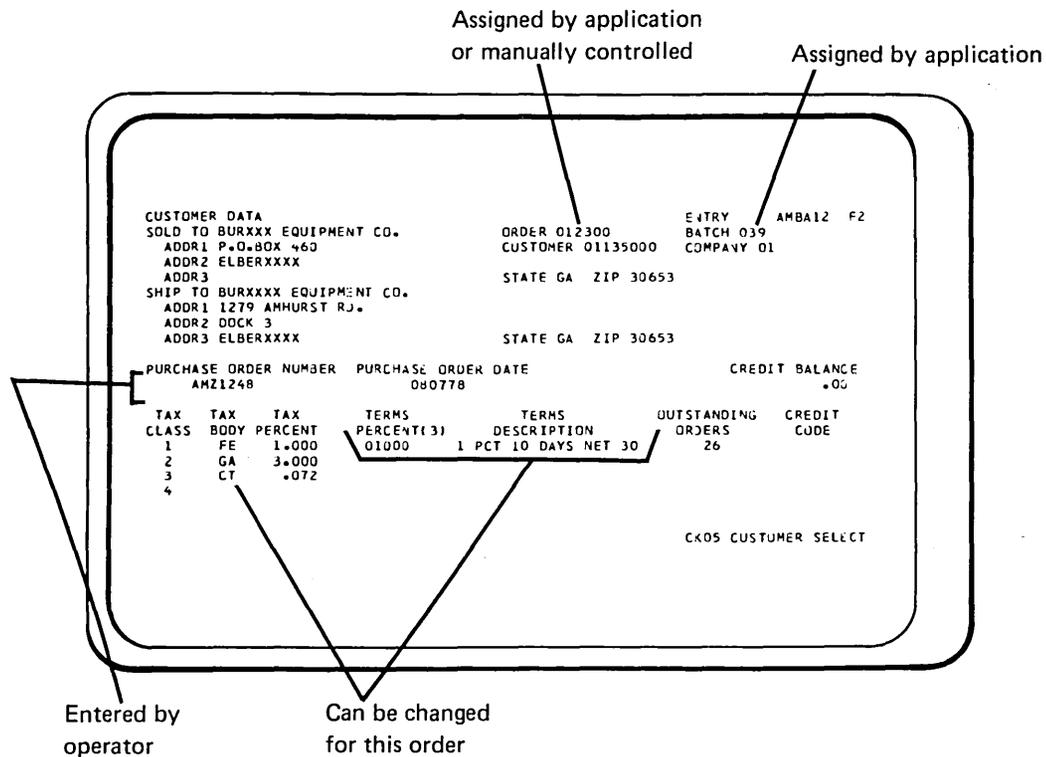
READY FOR OPTION NUMBER OR COMMAND
```

Entering orders

The order entry cycle of the OE&I application takes orders that have been manually edited, and allows the operator to enter the order with system editing during each step. The operator selects the procedure from the menu that provides the order displays, in sequence, as needed for order entry. This procedure guides the operator through the required steps; the system does not allow the operator to skip required displays, either purposely or accidentally. For example, your operator first enters customer and order header information. The system then prompts with the next display (order body or transaction), and the operator cannot proceed until at least one transaction is entered or the order is canceled.

To start the entry of an order, the operator enters the customer number and order number (unless system-assigned) on the Customer Selection display. The system displays information from the customer file as shown on the Customer Data display. This information is standard data from the customer's master record, and can be changed for this order by the operator.

Note: If this is a new customer, the operator can select another display to enter basic customer information that the system immediately includes in the customer file.



After the basic information regarding the customer is verified, the system displays the Order Data display.

When order data is entered and verified, the operator can elect to enter an order comment or proceed to item entry.

B = Blanket
S = Standard
I = Individual

Used if contract prices are in effect for this customer

Standard warehouse for this order— can be overridden on item entry

| | | | | | | |
|--------------------------------|---------------|-------------------------------|-----------------|-----------------|-----------------|-----------|
| CUSTOMER ORDER DATA | | | | ORDER 012300 | ENTRY BATCH 039 | AMBA13 F2 |
| ORDER DATE | ORDER TYPE | PRIORITY | REQUESTED DATE | WAREHOUSE | | |
| 080878 | S | 1 | 091078 | 1 | | |
| SHIPPING INSTRUCTIONS | | | SALESMAN NUMBER | CONTRACT NUMBER | | |
| AMFTXX LINES | | | 31701 | | | |
| MFG. SCHEDULE DATE | INVOICE NO. | INVOICE DISCOUNT CODE | PERCENT(3) | | | |
| | | 0 | | | | |
| CREDIT MEMO CODE | SALES CODE | CREDIT MEMO INVOICE REFERENCE | | | | |
| UNIT PRICE DISCOUNT PERCENT(3) | A/R AGE MONTH | | | | | |
| CK05 CUSTOMER SELECT | | | | | | |

If this is a credit memo, the credit can be applied directly to an open AR item by entering the referenced invoice number

Used for future aging if AR is installed

There are two methods of entering item information. The first method allows an operator to enter minimal information regarding the item ordered. Item number and quantity are required entries. The application verifies the item number and displays the description and price for the item entered. The operator can enter up to ten lines in this fashion prior to adding the information to the order set.

The second method allows the operator to enter basic information regarding the item and additionally, override information regarding this item for this specific order (for example, selling price, tax codes). The system responds with the information from the master file (description, etc.) and the pricing for this item. When the information is verified, the operator can enter a comment to be associated with the item or continue with the next item on the order.

As each order is entered, the operator has the option to process the order immediately into the Open Order files (allows immediate printing of the picking list) or to hold the order for processing during a batch update run at a later time.

At the conclusion of a batch of orders, the operator can release the batch for updating into the order files or hold the orders for processing at a later time.

| CUSTOMER BASIC ITEM ENTRY | | COMPANY 01 | | CUSTOMER 02007000 | | ENTER | | AMBAAL Y2 | |
|---------------------------|-------------|------------|---------------------|-------------------|------------|-------|--|-----------|--|
| ORDER 000006 | | BATCH 007 | | ORDER | | UNIT | | | |
| LINE NO. | ITEM NUMBER | WAREHOUSE | DESCRIPTION | ORDER QUANTITY | UNIT PRICE | U/M | | | |
| 1 | 03010 | 1 | PLATE | 10 | 11500 | EA | | | |
| 2 | 03011 | 1 | COLLAR | 10 | 5000 | EA | | | |
| 3 | 03012 | 1 | SPRING | 20 | 500 | DZ | | | |
| 4 | 26006-20 | 1 | TANK 8 BY 12 INCHES | 10 | 14500 | EA | | | |

| LINE | ITEM NUMBER | ORDER QUANTITY | WAREHOUSE | UNIT PRICE(3) |
|------|-------------|----------------|-----------|---------------|
| 5 | 27005-A | 10 | 1 | |

CK19 UPDATE ITEMS

Only information required

| CUSTOMER ITEM ENTRY | | COMPANY 01 | | CUSTOMER 01135000 | | ENTRY | | AMBA31 F2 | |
|---------------------|-------------------|----------------------|----------------|-------------------|---------------------|--------------|--|-----------|--|
| PREVIOUS ITEM | | ORDER 012300 | | BATCH 039 | | | | | |
| ITEM NUMBER | QTY ORDERED | | | | | | | | |
| 03370 | 3 | | | | | | | | |
| UNIT PRICE(3) | MARKUP PERCENT(3) | CTY DISCOUNT PERCENT | CONTRACT PRICE | SELLING PRICE(3) | NET SALES AMOUNT(2) | | | | |
| 14950 | 5000 | | | 15697 | 4709 | | | | |
| CREDIT | TAX CODES | WAREHOUSE | LOCATION | NON-INVENTORY | UNIT WEIGHT(3) | UNIT COST(4) | | | |
| N | 1 2 3 4 | AREHOJSE | P109 | N | 3000 | 9950 | | | |
| DESCRIPTION | Y N N Y | 1 | TYPE | CLASS | U/M | | | | |
| MOTOR | | | 4 | 70 | EA | | | | |

CK14 BYPASS ITEM

Application calculates extended item amount based on pricing scheme or on overrides entered on this display

N = normal sale
 R = return item (will increase inventory quantity on hand during invoicing)
 A = allowance—credit item not returned to stock

Updating master files

When a batch of orders is released, the system updates the master files, prints an update register and, depending on options you chose, prints picking lists, acknowledgments, and bills of lading.

The update register is printed after a batch (or batches) of orders update the master files. This activity register shows new orders, changed orders, and those orders released for invoicing.

B = blanket order
S = standard item release
I = individual item release

Work station that performed the operation

Were back orders created?

What type of maintenance was performed?

| UPDATE REGISTER | | | | | | | | | | DATE | 8/08/08 | 14.08.51 | PAGE | 1 | AMSEF |
|-----------------------------|------------|--------------|------------|----------------|-------|------------|----------------|----------------|------------|---------------|---------|------------------|------------|--------------------|-------|
| ORDER NUMBER | BATCH TYPE | BATCH NUMBER | ORDER TYPE | CUST/CO NUMBER | WS ID | ITEM COUNT | SPEC CHG COUNT | PRICE OVERRIDE | BACKORDERS | **TYPE OF HDR | CHM | MAINTENANCE ITEM | **SPEC CHG | PICK SLIPS PRINTED | |
| C003050 | E | 030 | S | 1135000-01 | F1 | 1 | 4 | --- | --- | --- | --- | --- | --- | --- | |
| C003051 | I | 031 | S | 1444000-01 | F1 | 3 | --- | --- | YES | --- | --- | --- | --- | --- | |
| C007830 | M | 032 | S | 22315000-01 | F1 | --- | --- | --- | --- | --- | --- | YES | --- | YES | |
| C004010 | R | 033 | S | 8552000-01 | F1 | 5 | --- | --- | --- | --- | --- | --- | --- | YES | |
| C004050 | R | 033 | S | 11025000-01 | F1 | --- | --- | --- | --- | --- | --- | --- | --- | YES | |
| TOTALS | | BATCH | | ITEM | | SPEC CHG | | | | | | | | | |
| NUMBER OF "E" BATCH TYPES - | | 1 | | 1 | | 4 | | | | | | | | | |
| NUMBER OF "I" BATCH TYPES - | | 1 | | 3 | | | | | | | | | | | |
| NUMBER OF "M" BATCH TYPES - | | 1 | | 5 | | | | | | | | | | | |
| NUMBER OF "R" BATCH TYPES - | | 1 | | | | | | | | | | | | | |

E = entered orders
I = orders entered for immediate invoicing
M = maintained orders
R = orders released for invoicing

Number of items in order

Number of special charges entered

Were standard prices overridden?

Report sequence is batch type within order number

Acknowledging orders

The acknowledgment serves as confirmation that your customer's order has been received and is being processed. The acknowledgment is similar in format to the invoice.

Printing picking lists

The picking document can serve several purposes:

- To direct the warehouse personnel in filling an order
- To serve as a packing slip
- To assist in final bill of lading preparation by identifying the bill of lading packing code for each line item

If you have a work station printer in a warehouse, these lists can be printed on stock paper at that location. If you have several warehouses, each can have a work station printer. As picking lists are selected, the operator can direct them to the appropriate printer based on the warehouse number included on the order. Work station printers can be positioned up to 5000 feet from the processing unit.

The system offers two methods of printing picking lists: as a batch of orders is added to the master files or selected from the orders file at a later time. Picking lists printed from the batch are sorted so that items on an order are in warehouse location sequence. Inventory requirements are posted to the inventory file (if Inventory Management is installed) at the time picking lists are printed.

| BATCH NO. 027 | | PICKING LIST | | DATE 6/JR/76 | PAGE 2 | |
|---------------------------------|----------------------|------------------|------------------------|--------------|------------------|-----|
| SHIP-TO ADDRESS | | ORIGINAL | | | | |
| K.S. AUSTIN CO | | CUSTOMER 3655000 | SCHEDULE DATE 12/JR/76 | | | |
| BOX 409 | | COMPANY 1 | REQUEST DATE 12/19/76 | | | |
| ALBANY | | JA 3078J | | | | |
| ATLANTA | | | | | | |
| *** ACCEPTS BACKORDER | ORDER NO. REFERENCE | ORDER DATE | ORDER TYPE | | | |
| *** ACCEPTS PARTIAL SHIP | COE3123 | 6/23/76 | 5 | | | |
| SHIP INSTRUCTIONS - | | | | | | |
| ORDER COMMENTS ATT.-DEAN GRAHAM | | | | | | |
| PACK CODE | LOCATION | ITEM NUMBER | QUANTITY ORDERED | U/A | QUANTITY SHIPPED | U/A |
| 01 | 1 A099 | 99001 | 10 | EA | ----- | -- |
| | SPRAY UNIT | | | | | |
| | WHEEL 12 IN DIA | | | OPTION | | |
| | TANK 12 BY 24 INCHES | | | OPTION | | |
| | AUTO SWITCH | | | OPTION | | |
| 01 | 1 A099 | 99001 | 3 | EA | ----- | -- |
| | SPRAY UNIT | | | | | |
| | WHEEL 12 IN DIA | | | OPTION | | |
| | TANK 12 BY 24 INCHES | | | OPTION | | |
| 00 | 1 P104 | 0301L | 4 | EA | ----- | -- |
| | PLATE | | | | | |
| | PACK FOR EXPJRT | | | | | |
| | USE CARTON 7.6X | | | | | |

Used with the bill of lading

Picking list shows if customer will not accept partial shipments or back orders

Printing bills of lading

This document, like the picking list, can be printed as a batch of orders is added to the master files or selected individually from the orders file. The system prints the basic heading information on a pre-printed bill of lading form for use by the shipping department. As with the picking lists, bills of lading can be directed to the work station printer.

Printing Customer Order Shortage Report

If you have both Order Entry and Invoicing and Inventory Management installed, you can elect to print the Customer Order Shortage Report at any time. This report shows all inventory items which have current customer requirements (picking list has been printed) and are in a negative available position (on hand minus manufacturing and customer requirements equals available). This report reflects immediate over-commitments of inventory so that action can be taken before disruption of either manufacturing or shipping occurs.

| CUSTOMER ORDER SHORTAGE REPRT | | | | DATE | 8/08/78 | TIME | 16.08.05 | PAGE | 1 | AMBMB |
|-------------------------------|------|----------------------|-----------------------|-------|---------|------------------------|------------|-----------|--------------|-------|
| ITEM NUMBER | WHSE | ITEM DESCRIPTION | ---ON ORDER STATUS--- | | | -----ALLOCATED TO----- | | AVAILABLE | | |
| | | | U/M | PJRLH | MFG | ON-HAND | MFG ORDERS | | CUST. ORDERS | |
| 03424 | 1 | TREADLE ASSEMBLY | EA | 100 | 0 | 133 | 0 | 150 | 17- | |
| 26006-20 | 1 | TANK 8 BY 12 INCHES | EA | 0 | 42 | 365 | 240 | 175 | 50- | |
| 26006-21 | 1 | TANK 10 BY 18 INCHES | EA | 0 | 200 | 185 | 0 | 500 | 315- | |
| 26006-22 | 1 | TANK 12 BY 24 INCHES | EA | 0 | 103 | 183 | 150 | 75 | 42- | |
| 27005-A | 1 | PUMPING UNIT | EA | 0 | 10 | 17 | 0 | 80 | 61- | |

Invoicing cycle

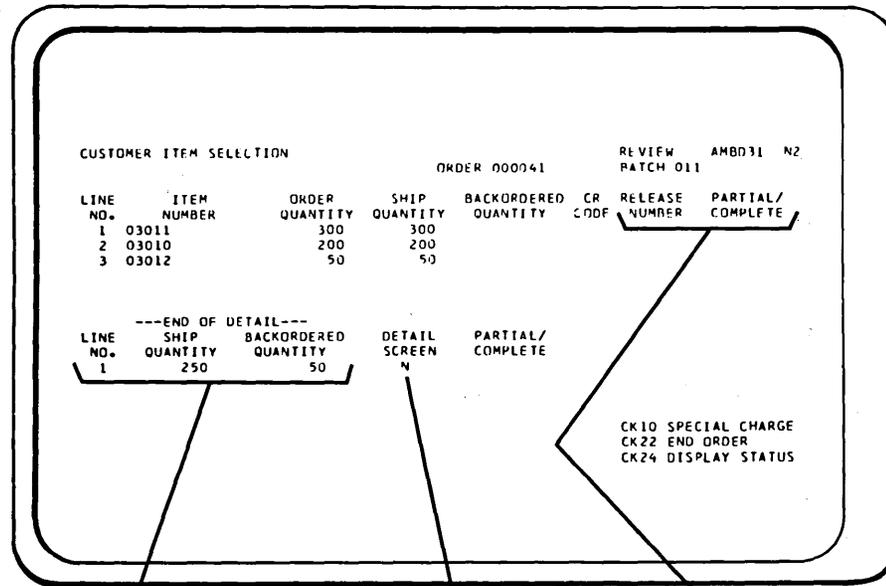
The second major processing cycle is the invoicing cycle. This cycle uses the picking list as a source document to reflect partial shipments, shipping information, and quantity changes, so that the invoice reflects the actual shipment.

The invoicing cycle is initiated by a menu selection. The operator enters an order number to be invoiced, and the system selects the customer and item information associated with this order. When the ordered items are displayed to the operator for verification, changes to pricing information and quantity shipped information can be made.

Note that two basic order types are used to facilitate posting of the quantity shipped. The order types are assigned at order entry time. The types and their effect on this quantity are:

- A standard (S) order assumes that quantity shipped equals quantity ordered unless overridden by the operator
- An individual (I) release order assumes that quantity shipped of an item is zero unless otherwise entered by the operator.

The operator can enter the quantity information as required, and verify that it has been entered correctly. The item selection display is used during the invoicing cycle.



Operator enters only quantities for the items requiring a change

Operator enters a Y to override price, discounts, taxes, etc.

Used for blanket orders only

Once the batch is completed, the operator can initiate the actual invoicing procedure or leave the batch for later invoicing.

When the batch is released for invoicing, the application calculates item extensions and updates the master files to reflect the shipments. The invoice, invoice register and inventory transaction register are printed as part of this cycle.

Printing invoice register

The invoice register summarizes invoices printed during this cycle. It identifies each by invoice number, order number, and customer. This document is in the same format as the invoice register shown in the Accounts Receivable discussion in this section.

Printing inventory transaction register

The inventory transaction register shows the individual items shipped, and is used as an inventory audit trail. The format of this document is the same as that shown in the Inventory Management application transaction processing cycle in this manual.

| INVOICE | | PAGE | |
|---------|--|------|--|
| 1049 | | 1 | |
| DATE | | | |
| 8/10/78 | | | |

| | | | | | |
|--|--|----------|--|--|----------|
| SOLD TO SHARPE STEEL COMPANY BOX 946 NEW YORK CITY | | NY 31709 | SHIP TO SHARPE STEEL COMPANY BOX 946 NEW YJRK CITY | | NY 31709 |
|--|--|----------|--|--|----------|

| CUST. NO. | SHIP VIA | ORDER NO. | SLS. NO. | REFERENCE NO. | TERMS |
|------------|----------|-----------|----------|---------------|----------------|
| 1-19098000 | BEST WAY | C000860 | 31709 | 106331 | 2% NET 10 DAYS |

| ITEM NUMBER | DESCRIPTION | U/M | QUANTITY SHIPPED | QUANTITY BACK ORDERED | UNIT PRICE | AMOUNT |
|-------------|---------------------|-----|------------------|-----------------------|------------|--------|
| 26006-20 | TANK 8 BY 12 INCHES | EA | 2 | | 14.935 | 29.87 |
| 27003-20 | PUMP ASSEMBLY | EA | 2 | | 50.470 | 100.94 |

| TOTAL WEIGHT | NET SALES AMOUNT | TRADE DISCOUNT | MISCELLANEOUS CHGS. | TAXES | TERMS DISCOUNT | AMOUNT DUE |
|--------------|------------------|----------------|---------------------|-------|----------------|------------|
| 36.00 | 130.81 | 2.62 | | 1.17 | 2.56 | 129.36 |

Printing open order status reports

If you need a printed status of your open orders, you can select to run one of the order status reports. These reports can be run in the following ways:

- **By customer**—shows all outstanding orders for each customer or a range of customer numbers. The report details the items on order and totals the number of open orders for each customer (see example).
- **By item**—shows the current backlog of orders for each item with customer orders. The report details the customers who have requirements outstanding for each item.
- **By date**—shows open customer orders in due date sequence. This report also details individual items on the orders.

Note: Each of these reports can print all outstanding orders or only those currently in a backorder position.

Cost value can be standard, average, or last if Inventory Management is installed

| COMPANY NO 2 | | NO. 0? | | OPEN ORDER BY CUSTOMER | | | DATE 8/16/78 | 14.10.01 | PAGE | 2 | 44.00 | | |
|--------------|-----------------|-----------|-------------|------------------------|-----|----------|--------------|--------------------|-------|----------|---------------|------|---------|
| CU-CUSTOMER | NAME | OUR ORDER | P.O. NUMBER | DUPLICATE DATE | HSF | WHSE LOC | ITEM NUMBER | DESCRIPTION | UM | QUANTITY | VALUE AT COST | | |
| 02-0000280G | CAN-DU ENG. CU. | C000154 | AF0092d | 4/07/78 | | 26000-22 | | TANK 12 BY 24 | EA | 3 | 157.77 | | |
| | | C000154 | AF0092d | 4/07/78 | | 27000-02 | | COMPRESSOR | EA | 20 | 137.20 | | |
| | | C000154 | AF0092d | 4/07/78 | | 27003-20 | | PUMP ASSEMBLY | EA | 1 | 27.37 | | |
| | | C000154 | AF0092d | 4/07/78 | | 27003-20 | | PUMP ASSEMBLY | EA | 5 | 135.17 | | |
| | | C000154 | AF0092d | 4/07/78 | | 27006-10 | | TANK TOP - SIZE 10 | EA | 10 | 72.10 | | |
| | | C000154 | AF0092d | 4/07/78 | | 27006-20 | | TANK TOP - SIZE 12 | EA | 3 | 192.06 | | |
| | | C000154 | AF0092d | 4/07/78 | | 27006-20 | | TANK TOP - SIZE 12 | EA | 25 | 1152.3 | | |
| | | C000154 | AF0092d | 4/07/78 | | 77683 | | SCREW | EA | 30 | 1.5 | | |
| | | C000154 | AF0092d | 4/07/78 | | 94978 | | WASHER | EA | 50 | 1.5 | | |
| | | C000154 | AF0092d | 4/07/78 | | 99001 | | SPRAY UNIT | EA | 5 | 474.31 | | |
| | | | | | | | | CUSTOMER TOTAL | ITEMS | VALU | AT SALE | VALU | AT COST |
| | | | | | | | | | 10 | 1,524.43 | 1,524.43 | | |
| | | | | | | | | COMPANY TOTAL | 49 | 3,586.15 | 2,251.09 | | |
| | | | | | | | | FINAL TOTAL | | | | | |

Printing item price list

This report is a listing of item prices, showing the base price and quantity break ranges/percentages for each item. A table of discount/markup percentages with entries for each item is included. The price list can be used when preparing catalogs and as a source for coding orders. All item numbers, or a range of item numbers, can be listed with their list prices and the following information:

- Item number
- Item description
- Unit of measure
- Discount/markup percents

| ITEM NUMBER | DESCRIPTION | | | UNIT PRICE | ITEM PRICE LIST | | | | | DATE | TIME | PAGE | AMV55 |
|-------------|----------------------|-------|------|------------|-----------------|----------|--------|--------|--------|--------|--------|--------|--------|
| | UM | CLASS | TYPE | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 07243 | UNIT | EA | 8J | 4 | .000 | MARKUP % | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | | EA | 8J | 4 | .000 | PRICE | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| 07652 | SCREW | EA | 8U | 4 | .000 | MARKUP % | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | | EA | 8U | 4 | .000 | PRICE | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| 18250-C | TUBE CLAMP | EA | 8G | 4 | .000 | MARKUP % | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | | EA | 8G | 4 | .000 | PRICE | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| 26006-20 | TANK 8 BY 12 INCHES | EA | 5C | 1 | 14.500 | MARKUP % | 7.000 | 6.000 | 5.000 | 4.000 | 3.000 | 2.000 | 1.000 |
| | | EA | 5C | 1 | 14.500 | PRICE | 15.515 | 15.370 | 15.225 | 15.080 | 14.935 | 14.790 | 14.645 |
| 26006-21 | TANK 10 BY 14 INCHES | EA | 5G | 1 | 24.750 | MARKUP % | 7.000 | 6.000 | 5.000 | 4.000 | 3.000 | 2.000 | 1.000 |
| | | EA | 5G | 1 | 24.750 | PRICE | 26.473 | 26.235 | 25.998 | 25.760 | 25.523 | 25.285 | 25.048 |
| 26006-22 | TANK 12 BY 24 INCHES | EA | 5J | 1 | 39.950 | MARKUP % | 7.000 | 6.000 | 5.000 | 4.000 | 3.000 | 2.000 | 1.000 |
| | | EA | 5J | 1 | 39.950 | PRICE | 42.747 | 42.347 | 41.948 | 41.548 | 41.149 | 40.749 | 40.349 |
| 27000-02 | COMPRESSOR | EA | 7U | 4 | 11.950 | MARKUP % | 7.000 | 6.000 | 5.000 | 4.000 | 3.000 | 2.000 | 1.000 |
| | | EA | 7U | 4 | 11.950 | PRICE | 12.737 | 12.637 | 12.538 | 12.438 | 12.339 | 12.239 | 12.139 |
| 27001-01 | ADAPTE GASKET | EA | 7U | 4 | .000 | MARKUP % | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | | EA | 7U | 4 | .000 | PRICE | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| 27002-01 | ADAPTE PLATE | EA | 7U | 4 | .000 | MARKUP % | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | | EA | 7U | 4 | .000 | PRICE | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| 27003-20 | PUMP ASSEMBLY | EA | 2J | 1 | 49.000 | MARKUP % | 7.000 | 6.000 | 5.000 | 4.000 | 3.000 | 2.000 | 1.000 |
| | | EA | 2J | 1 | 49.000 | PRICE | 52.430 | 51.930 | 51.430 | 50.930 | 50.430 | 49.930 | 49.430 |
| 27004-01 | HANDLE | EA | 5J | 2 | 6.250 | MARKUP % | 7.000 | 6.000 | 5.000 | 4.000 | 3.000 | 2.000 | 1.000 |
| | | EA | 5J | 2 | 6.250 | PRICE | 6.638 | 6.625 | 6.613 | 6.600 | 6.587 | 6.575 | 6.563 |
| 27005-A | PUMPING UNIT | EA | 2C | 1 | 7.500 | MARKUP % | 7.000 | 6.000 | 5.000 | 4.000 | 3.000 | 2.000 | 1.000 |
| | | EA | 2C | 1 | 7.500 | PRICE | 8.025 | 7.950 | 7.875 | 7.800 | 7.725 | 7.650 | 7.575 |

Price to which discount or markup percentage is applied

Printing taxing body reports

These reports summarize all tax information (federal, state, local) that may be required by a taxing authority. They are normally printed at month end, but can be run at any time prior to period end. A report can be prepared two ways:

- Summary—prints one line per taxing body showing total sales, total taxable sales, and total tax charged.
- Detail—shows the same total data as the summary report, but also lists each customer and invoice number and amounts that made up the taxing body totals.

The application supports multiple taxing bodies and rates, and each order can have up to four taxes. The invoicing cycle calculates the taxes for each order based on the codes used.

Printing blanket order status report

You can print the status of all blanket orders or only a specific range of order numbers. The report is printed in order number sequence. It is normally used to release blanket order releases for shipment, as well as to review all blanket order items.

| BLANKET ORDER STATUS REPORT | | | | | | | | | | DATE 11/21/78 | 15.02.47 | PAGE 1 | AMBSC |
|-----------------------------|-------------|--------------------|----------------|--------------|------------------------------------|------------------------|----------|---------------------|-------------------|------------------|-------------------|--------|-------|
| ORDER NO. | CO-CUSTOMER | NAME/ ITEM NUMBER | RELEASE NUMBER | RELEASE DATE | ITEM DESCRIPTION/ QUANTITY ORDERED | TOTAL QUANTITY SHIPPED | COMPLETE | LAST INVOICE NUMBER | LAST INVOICE DATE | TOTAL SHIP VALUE | RELEASE PICK LIST | | |
| C000039 | 01-01135000 | APPULLO SUPPLY CO. | | | | | | | | | | | |
| | | 26006-22 | | | TANK 12 BY 24 INCHES | | | | | | | | |
| | | | 01 | 10/15/78 | 10 | 10 | YES | 1497 | 10/15/78 | 423.47 | NO | | |
| | | | 02 | 11/15/78 | 10 | 10 | YES | 1623 | 11/16/78 | 423.47 | NO | | |
| C000040 | 01-01670000 | R.S. AUSTIN CORP. | | | | | | | | | | | |
| | | 03021 | | | VALVE | | | | | | | | |
| | | | 01 | 10/07/78 | 100 | 0 | NO | | | .00 | YES | | |
| | | | 02 | 10/14/78 | 100 | 0 | NO | | | .00 | NO | | |
| | | | 03 | 11/10/78 | 500 | 0 | NO | | | .00 | NO | | |
| | | | 04 | 11/17/78 | 500 | 0 | NO | | | .00 | NO | | |
| | | | 05 | 11/24/78 | 1,500 | 0 | NO | | | .00 | NO | | |
| | | | 06 | 12/02/78 | 1,300 | 0 | NO | | | .00 | NO | | |
| *** FINAL TOTAL *** | | | ORDERS | 2 | | | | | | | | | |

Indicates if a picking list has been printed, but order not shipped

Printing commission worksheet

This report is printed in item number within customer within salesman sequence. It is a detailed report showing all item sales activity for the month. The report shows sales, cost, and profit information for each sale. It can include all or a range of salesmen numbers.

Printing general ledger worksheet

This report is designed as an aid to preparing the sales entry to general ledger. It is a working document that details sales by item number within company. In addition to sales and cost information, returns and allowances are shown.

Inquiries

The Order Entry and Invoicing application has an inquiry capability which permits you to determine the status of any item or customer on file—even while running another procedure at a display station.

When an inquiry request interrupts a procedure in progress, the application saves the current status, processes the inquiry request, restores the procedure, and causes it to resume processing from the point of interruption.

Customer requirements by item

This inquiry displays all of the current orders for a particular customer. It shows each open order for the customer.

| CUSTOMER ORDERS INQUIRY | | | | | | ANBOZ1 | N2 |
|-------------------------|---------------|------------|--------------|---------------|------------|-----------|----|
| ORDER | CUSTOMER P.O. | ORDER DATE | REQUEST DATE | SCHEDULE DATE | ORDER TYPE | PICK LIST | |
| C000022 | | 09/11/78 | 09/11/78 | 09/11/78 | S | NO | |
| C000021 | | 09/11/78 | 09/11/78 | 09/11/78 | S | NO | |
| C000020 | | 09/11/78 | 09/11/78 | 09/11/78 | I | NO | |

--- END OF ORDERS ---

CK24 END OF JOB

Customer status

This inquiry displays basic information regarding a customer. Accounts receivable balance information is included if the Accounts Receivable application is installed.

A = active
 D = deleted
 S = suspended (accept no more orders from this customer)

O = open item
 B = balance forward

```

CUSTOMER 1135000 COMPANY 1
NAME APPOLLO SUPPLY CO.
ADDR ATLANTA

STATE GA ZIP 30301
PHONE 404-123-7654

MEMO DUE 30 DAY 2,311.25
CURR CHG 600.00 60 DAY
CURR PMT 1,200.00 90 DAY
CURR ADJ 120 DAY
CURR AMT 600.00

BACKORDERS YES
PARTIAL SHIP NO
INVOICE DISCOUNT CODE 2
TERMS CODE 2

CUSTOMER STATUS INQUIRY
STATUS A CLASS 10
SALESMAN 31701 TERRITORY 11
BALANCE FORWARD/OPEN ITEM CODE O
STATEMENT CODE N
DATE LAST PAYMENT 7/15/78
SERVICE CHARGE CODE 0 PERCENT .015

TOTAL DUE 3,175.10
CREDIT LIMIT 6,000.00

TAX TAX
CLASS BODY
1 FE
2 GA
3 CT
4

CK24 END OF JOB
    
```

Y = customer gets statements
 N = no statement

Service charge percent if customer is to be assessed service charges

Customer orders by item

This inquiry displays all outstanding customer orders for any inventory item.

Interfaces

The Order Entry and Invoicing application is the source of data for other System/36 MAPICS applications:

- If Accounts Receivable is installed, invoice and credit memo summary records are passed to Accounts Receivable. These records are used by Accounts Receivable to update the amount due for the customer invoiced. Accounts Receivable information is used for credit checking.
- If Inventory Management is installed, Order Entry and Invoicing prints a transaction register of shipped items, and posts these items into the inventory master records. OE&I also relates specific orders for items to the appropriate item inventory records.
- If Sales Analysis is installed, Order Entry and Invoicing passes information related to customer, salesman and item transactions.

- If Material Requirements Planning is installed, inventory master records are flagged when order changes have been processed; this allows MRP to review items that may need to be replanned.

| ITEM NUMBER 03011 | | CUSTOMER REQUIREMENTS BY ITEM | | | | AMR041 N2 | | | |
|--------------------|---------|-------------------------------|------------|--------------|---------------|-----------|------------|-----------|--|
| DESCRIPTION COLLAR | | WAREHOUSE 1 | | CLASS 71 | | | | | |
| CUSTOMER | ORDER | QUANTITY | ORDER DATE | REQUEST DATE | SCHEDULE DATE | CREDIT | ORDER TYPE | PICK LIST | |
| 12340000 | C000045 | 3J | 09/11/78 | 11/25/78 | 11/25/78 | | S | NO | |
| 14830000 | C000044 | 75 | 09/11/78 | 12/06/78 | 12/06/78 | | S | NO | |
| 14440000 | C000043 | 25 | 09/11/78 | 11/07/78 | 11/07/78 | | S | NO | |
| 12300000 | C000042 | 5J | 09/11/78 | 11/14/78 | 11/14/78 | | S | NO | |
| 16700000 | C000041 | 30J | 09/11/78 | 10/12/78 | 10/12/78 | | S | NO | |

--- END OF ORDERS ---

CK24 END OF JOB

Customer-requested shipping date

Date that item is expected to be available in inventory (manufacturing schedule date)

Inventory Management

Information flow

Application functions

- Transaction processing
- Blanket order support for purchase orders
- Item costing
- Inventory valuation
- Multiple warehouse support
- Physical inventory
- Purchase and manufacturing order release
- 3740 support

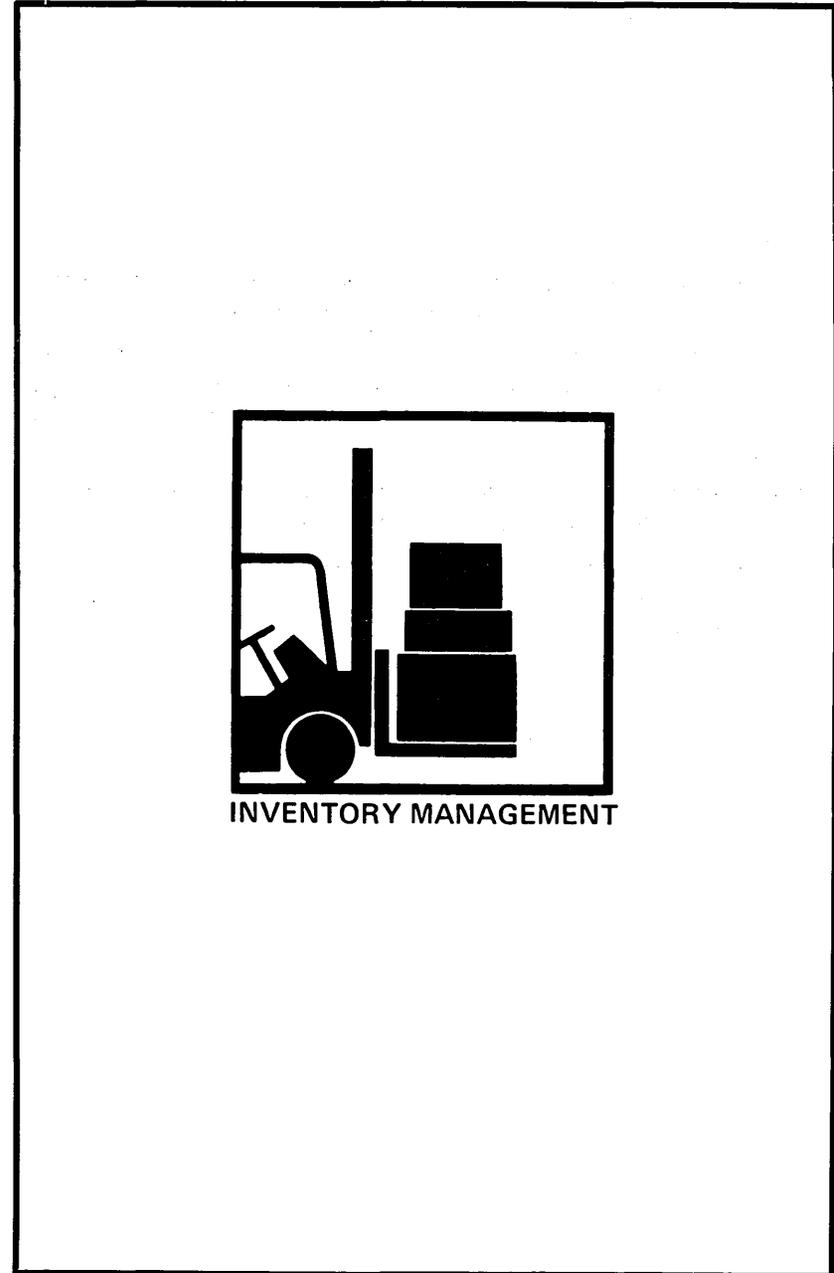
Operations

- Entering transactions and updating the inventory files
- Printing the inventory transaction register
- Purchasing and manufacturing order release
- Printing the stock status report
- Printing the inventory analysis reports
- Printing key management reports
- Printing the physical inventory reports
- Printing the LIFO/FIFO reports
- Printing the ABC analysis report
- Printing order status reports
- Printing reorder reports

Inquiries

- Item master
- Item allocation
- Item balance history
- Open orders
- Item availability

Interfaces



Inventory Management

Information flow

Figure 2-3 shows how information flows through the Inventory Management application. The numbers in the following discussion refer to this figure.

In the Inventory Management transaction and order release processing cycles, shipments, receipts, adjustments, and orders are entered into the system **1** and the inventory transaction register, released order audit lists, and shortage reports are printed **2**.

At month-end, month-to-date totals are reset and the stock status report may be printed **3**. At year-end, year-to-date totals are reset.

On request, the item price list, stock status review, inventory analysis reports, physical inventory reports, LIFO/FIFO reports, reorder reports, order status reports and the ABC analysis can be printed **4**.

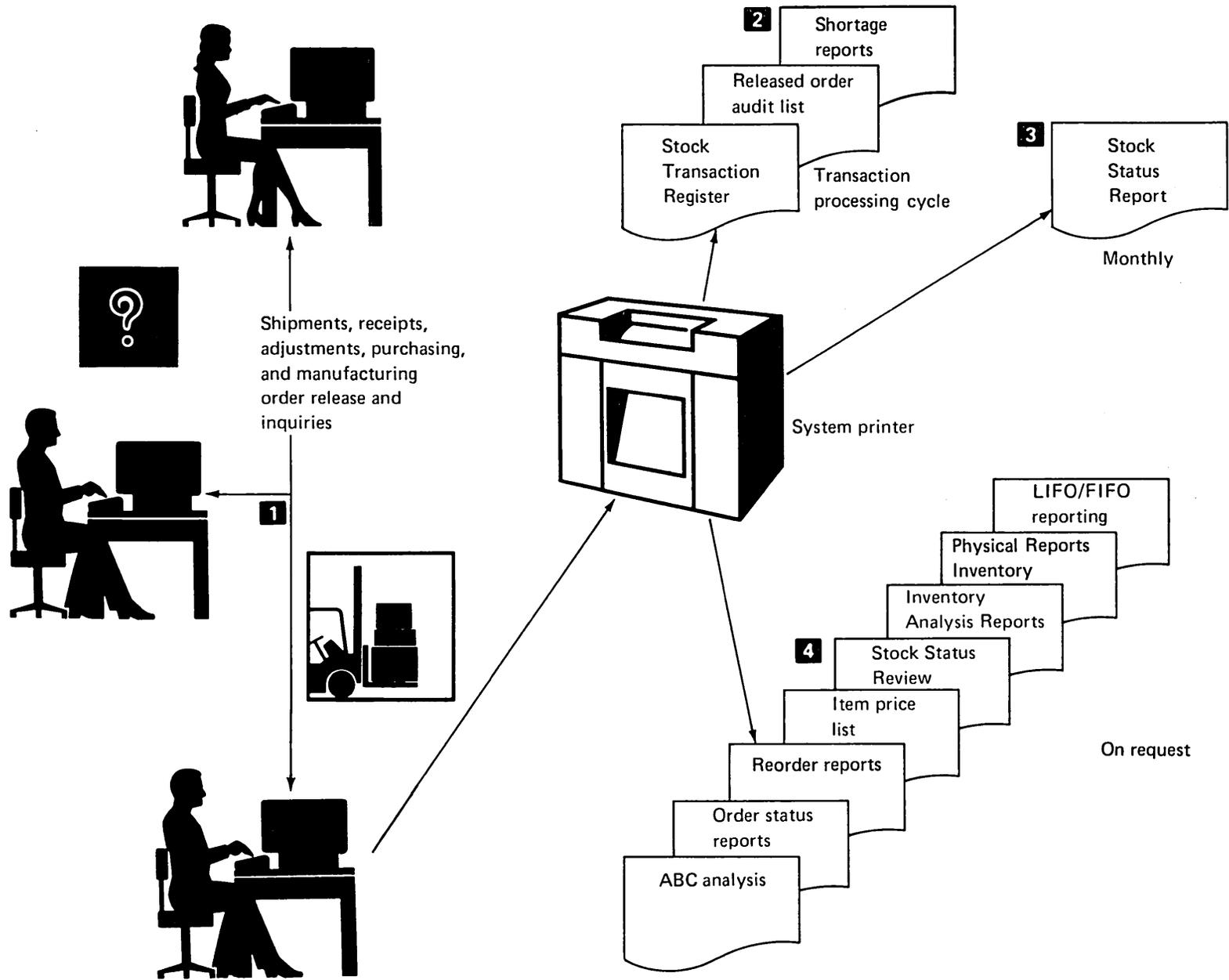


Figure 2-3. Inventory Management information flow

Application functions

Transaction processing

The Inventory Management application supports the processing of many types of inventory transactions. An explanation of the transactions available and their effects on various quantity and other inventory values is given in Figure 2-4.

These transactions are entered and edited individually, and when errorfree, the data immediately updates the inventory master files, or the update can be performed later in batch mode. A register is printed to show the transactions entered.

If an operator enters a transaction and an error is displayed which cannot be resolved immediately, the operator can allow this transaction to be entered into the system for error reporting on the transaction register. These transactions can be reentered after the errors are resolved.

Blanket order support for purchase orders

The purchase order tracking function, associated with order release, can track blanket purchase orders. One control record is entered showing total quantity ordered, then individual release records are entered which show scheduled quantities and dates.

Item costing

The Inventory Management application supports a variety of costing methods for inventory reporting. One method is standard unit costs, which are user-entered and maintained. These standards can be associated with the item master record (establishing a single standard cost for that item for all warehouses), or, if you prefer, an override standard cost can be associated with each item-warehouse combination.

The average cost field is automatically recalculated when a costed receipt transaction is processed (see the transaction matrix for the formula used).

The system also retains the last cost incurred on an item. This provides the replacement cost based on the latest activity for that item. The cost is automatically updated by each costed receipt transaction processed.

In case the cost is not known or not entered at the time an inventory receipt transaction is processed, transactions are available to allow adjustments to the average and last costs.

Although all three cost fields are available for each item, you are asked to specify which costing technique (standard, average, or last) is to be used for your inventory. The selected technique is used for costing of issue, sale, and other transactions, and for reports showing costs.

Note: If the Order Entry and Invoicing application is installed, it also uses the selected primary method for costing of invoice sales items. Regardless of the selected method, the other techniques are maintained as secondary or comparative costs.

Inventory valuation

You can elect during system tailoring to support either LIFO or FIFO or both methods to value your inventory. If you select these options, the application saves all receipt and cost adjustment transactions. You can purge transactions based on your individual requirements (that is, if on annualized LIFO, purge once a year).

The transaction files are sequenced by item number, warehouse and either ascending (LIFO) or descending (FIFO) date sequence. Transaction quantities are matched against the on-hand balance of the item record. The value is determined by summing the transaction amounts for all receipt transactions whose quantities are part of the current quantity on-hand balance. You may list transaction quantities which are to be purged from the file.

You should consult with your auditor on the use of this LIFO/FIFO method to determine whether it satisfies the requirements of all applicable taxing authorities.

Multiple warehouse support

The Inventory Management application tracks inventory stock in up to 35 warehouses. Descriptive item data, such as item descriptions, prices, and tax codes, is in the item master record, and there is one item balance record for each unique item number/warehouse number combination. The number of warehouses may vary by item.

In addition, you can specify one warehouse as the "central" warehouse for use with Material Requirements Planning. The central warehouse contains the balances used by the Material Requirements Planning application.

| Fields updated | Transactions available | | | | | | | | | | | | |
|-----------------------------|------------------------|--------------------|---------------|---------------|-------|----------------------|-----------------------|---------------------|-----------------|----------------------|-----------------------|-------|--|
| | Purchase receipt | Production receipt | Planned issue | Pick complete | Scrap | Inventory adjustment | Miscellaneous receipt | Miscellaneous issue | Cost adjustment | Average cost replace | Standard cost replace | Sales | |
| Transaction code | RP | RM | IP | PC | SC | IA | RC | IS | CA | CR | CS | SA | |
| Reversible | R | R | R | | R | R | R | R | R | R | R | R | |
| Item records | | | | | | | | | | | | | |
| On-hand balance | + | + | - | - | | ± | + | - | | | | - | |
| On order from purchasing | - | | | | - | | | | | | | | |
| On order from manufacturing | | - | | | - | | | | | | | | |
| Allocated to manufacturing | | | - | - | | | | | | | | | |
| Period receipts | + | + | | | | | + | | | | | | |
| Period and YTD issues | | | + | + | | | | + | | | | | |
| Period and YTD adjustments | | | | | | ± | | | | | | | |
| Period and YTD sales | | | | | | | | | | | | + | |
| Standard cost | | | | | | | | | | | ② | | |
| Average cost | ① | ① | | | | | ① | | ① | ② | | | |
| Last cost | ② | ② | | | | | ② | | ② | | | | |
| Order records | | | | | | | | | | | | | |
| Total issued quantity | | | + | + | | | | | | | | | |
| Total scrap quantity | | | | | + | | | | | | | | |
| Total cost | | | + | + | | | | | | | | | |
| Quantity received | + | + | | | | | | | | | | | |
| Material cost | | | + | + | | | | | | | | | |
| Receipt cost | | + | | | | | | | | | | | |
| LIFO/FIFO file | + | + | | | | | + | | + | | | | |

① New average cost will be calculated by the following formula:

$$\frac{(\text{Quantity on hand times average cost}) + \text{transaction amount}}{\text{Quantity on hand plus transaction quantity}}$$

② Cost in master record will be replaced by transaction amount divided by transaction quantity

Figure 2-4. Transaction matrix

Physical inventory

Physical inventory is usually taken periodically. On request, the Inventory Management application prints a physical inventory list that serves as a turnaround document for warehouse personnel to record the actual counts. The list includes item number, warehouse, warehouse location, item description, unit of measure and, if desired, the current on-hand balance.

Several methods are available for selecting the items to be counted:

- All items or a range of item numbers
- By item class
- By warehouse
- By processing logic which occurs in one of three ways:
 - By a code in the item balance record that implies cycle count based on time (1 = monthly, 2 = quarterly, 3 = semiannually)
 - By comparing the count of inventory transactions for an item to a manually entered number (for example, count after every 100 transactions)
 - By a scheduled "Date of Next Count" field in the item balance record. When a purchase or manufacturing order is placed for an item, the order due date is placed in this field. Physical counts can thus be taken prior to order receipt; therefore, counts should take place when the quantity on hand is at a low level. The date field can also be manually entered and maintained.

From the turnaround documents, the operator can enter the actual count data into the system. A report is printed showing the variance between the counted quantity and the quantity stored in the computer file. After verifying the counts, the operator can modify the entries at a work station. A register is printed providing an audit trail of all adjustments to the on-hand balance.

Purchase and manufacturing order release

This function records both purchase orders and manufacturing orders. The purchase orders released are available for tracking to help you stay aware of your current outstanding orders. Control of these orders aids you in preventing overdue situations which can cause component shortages on manufacturing orders.

Note: Purchase order forms are not printed by the application.

During the release of manufacturing orders, order shortage and item shortage reports can be printed showing the items for which insufficient material is available to fill the order. An "order set" of system data records is created to be used to edit order transactions and track order status. Shop packets (including picking lists) can be printed for released orders.

3740 support

The MAPICS Inventory Management application is designed to operate in an interactive mode for transaction processing. However, during peak load requirements or to provide for maintenance of off-site inventories, transactions can be recorded on the IBM 3740 Data Entry System.

Transactions entered from diskette are processed in a batch environment. The diskette data is transferred to the IBM System/36 and a batch edit is performed. Error correction can be handled either by the 3740 Data Entry System or through a work station. The batch of transactions can then be released for updating the master files.

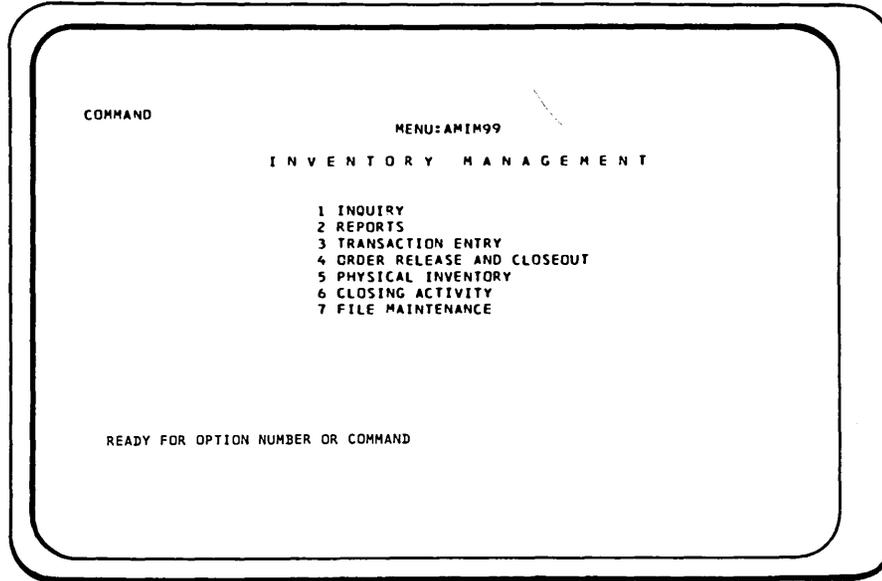
The diskette entry function provides the same transaction capability as the interactive transaction processing with two exceptions: no provision is made for entering those transactions associated with the Purchase and Manufacturing Order Release function, and master file maintenance must be performed at a work station terminal.

Operations

All operations for the Inventory Management application start with the main menu. This menu approach provides considerable flexibility in selecting the job to be performed.

Because of the number of functions performed by Inventory Management, second-level menus are used. For example, from the main menu the operator selects reports, and a second-level menu appears so the operator can select the desired report.

The optional security code feature interacts with the menu and subsequent operations to ensure only those individuals designated to have access to specific data and operations are permitted to continue processing.



A screenshot of a terminal window showing the main menu for the Inventory Management application. The text is as follows:

```
COMMAND                                MENU:AMIM99
                                     I N V E N T O R Y   M A N A G E M E N T
                                     1  I N Q U I R Y
                                     2  R E P O R T S
                                     3  T R A N S A C T I O N   E N T R Y
                                     4  O R D E R   R E L E A S E   A N D   C L O S E O U T
                                     5  P H Y S I C A L   I N V E N T O R Y
                                     6  C L O S I N G   A C T I V I T Y
                                     7  F I L E   M A I N T E N A N C E

                                     R E A D Y   F O R   O P T I O N   N U M B E R   O R   C O M M A N D
```

Entering transactions and updating the inventory files

The Inventory Management application processes many types of transactions. Transactions entered are edited against the master files and, if no errors are found, the master files can be updated immediately to reflect the latest transactions. If an operator enters a transaction which is determined to be invalid (for example, the item number is not on the file), the error is displayed immediately. If the operator cannot correct the error, the system can save the erroneous transaction for later printing on an error log, thus ensuring that all transactions are recorded and processed. This method of entry allows the operator to efficiently enter large volumes of transactions, while master files reflect the most current activity.

If the operator inadvertently posts a transaction to the wrong master record, the original transaction should be reversed with an action code of R to back the erroneous transaction out of the system. The transactions which can be reversed are shown in the transaction table.

Printing the inventory transaction register

The inventory transaction register is an audit trail of those transactions posted to the master files. It can be run at any time, and prints the transactions from all data entry batches not previously printed. Exception conditions, such as reorder point reached and cost deviations, are flagged.

| GATEWAY MFG CO | | INVENTORY TRANSACTION REGISTER | | | | | | | | | | DATE 12/11/78 | | TIME 14.04.34 | | PAGE 1 | | AMV3G | |
|----------------|-----------|--------------------------------|-----------|-------------|---------------|-----------|-----|--------------|----------|-------|--|---------------|--|---------------|--|--------|--|-------|--|
| ITEM NUMBER | | WHSE NO | | DESCRIPTION | | | | | | | | | | ERROR MESSAGE | | | | | |
| TR/REV | TRAN DATE | ORDER NO | COMP CODE | REF NUMBER | VENDOR NUMBER | TRANS QTY | U/M | TRANS AMOUNT | BATCH NO | WS ID | ERROR MESSAGE | | | | | | | | |
| 02982 | CA | 12/11/78 | C | A-17 | | 51- | EA | 50.0000 | 2 | ** | E AM-3076 ITEM NOT FOUND E AM-3213 WAREHOUSE NOT VALID E AM-3116 QUANTITY AND AMOUNT MUST HAVE SAME SIGN | | | | | | | | |

| GATEWAY MFG CO | | INVENTORY TRANSACTION REGISTER | | | | | | | | | | DATE 12/11/78 | | TIME 14.04.34 | | PAGE 3 | | AMV3G | |
|---|-----------|--------------------------------|-----------|------------------|---------------|-----------|-----|--------------|-----------------------------|----------|----------------------------|---------------|-------------------|--------------------|-------|--------|--|-------|--|
| ITEM NUMBER | | WHSE NO | | DESCRIPTION | | | | | | | | | | * CALCULATED VALUE | | | | | |
| TR/REV | TRAN DATE | ORDER NO | COMP CODE | REF NUMBER | VENDOR NUMBER | TRANS QTY | U/M | TRANS AMOUNT | * --- BEGINNING BALANCE --- | | ----- ENDING BALANCE ----- | | ----- AVAIL ----- | | | | | | |
| | | | | | | | | | ON-HAND | ON-ORDER | ALLOC | ON-HAND | ON-ORDER | ALLOC | | | | | |
| 03023 | RC | 12/11/78 | A | POG60 | | 100 | EA | 15.00 * | 120 | 0 | 0 | 220 | 0 | 0 | 220 | | | | |
| CA | 12/11/78 | P0060 | A-8 | | | 100 | EA | 15.00 | 220 | 0 | 0 | 220 | 0 | 0 | 220 | | | | |
| ***** ** CYCLE COUNT REQUIRED. | | | | | | | | | | | | | | | | | | | |
| 03023 | SA | 12/11/78 | B | CO2570 | | 20 | EA | 3.00 * | 220 | 0 | 0 | 200 | 0 | 0 | 200 | | | | |
| | | | | | | | | | 5.00 SALES AMOUNT | | | | | | | | | | |
| ***** ** CYCLE COUNT REQUIRED | | | | | | | | | | | | | | | | | | | |
| 02892 | CA | 12/11/78 | 1 | LOCK CLIP | | 0 | EA | .0150 | 5000 | 0 | 250 | 5000 | 0 | 250 | 4750 | | | | |
| | | | | | | | | | .0150 NEW AVERAGE COST | | .0090 OLD AVERAGE COST | | | | | | | | |
| ***** ** COST DEVIATION | | | | | | | | | | | | | | | | | | | |
| 03010 | CR | 12/11/78 | 1 | PLATE | | 0 | EA | .1550 | 7266 | 0 | 250 | 7266 | 0 | 250 | 7016 | | | | |
| | | | | | | | | | .1550 NEW AVERAGE COST | | .1400 OLD AVERAGE COST | | | | | | | | |
| ***** ** COST DEVIATION | | | | | | | | | | | | | | | | | | | |
| 03011 | CS | 12/11/78 | 1 | THROW-OFF COLLAR | | 0 | EA | .6000 | 15643 | 0 | 250 | 15643 | 0 | 250 | 15393 | | | | |
| | | | | | | | | | | | | | | | | | | | |
| 03012 | IA | 12/11/78 | 1 | SPRING | 078444 | 12- | EA | .11* | 30762 | 0 | 250 | 30750 | 0 | 250 | 30500 | | | | |
| | | | | | | | | | | | | | | | | | | | |
| 03021 | IS | 12/11/78 | 1 | VALVE | | 8700 | EA | 1914.00 * | 8607 | 0 | 0 | 93- | 0 | 0 | 93- | | | | |
| | | | | | | | | | | | | | | | | | | | |
| ***** ** MINUS BALANCE ** ORDER POINT REACHED | | | | | | | | | | | | | | | | | | | |

| GATEWAY MFG CO | | INVENTORY TRANSACTION REGISTER TOTALS | | | | | | | | | | DATE 12/11/78 | | TIME 14.04.34 | | PAGE 5 | | AMV3G | |
|-------------------------------|--|---------------------------------------|--|-------------|----|-----------|--|-----------------|--|--------------------|--|------------------------|--|-------------------------|--|--------|--|-------|--|
| TRANSACTION TYPES | | TRAN CODE | | NO OF TRANS | | TOTAL QTY | | TOTAL TRANS AMT | | TOTAL REPLACE COST | | INVENTORY VALUE CHANGE | | INVENTORY VARIANCE ACCT | | | | | |
| COST ADJUSTMENT | | CA | | 2 | | 100 | | 15.00 | | .0150 | | 30.00 | | 29.98- | | | | | |
| AVERAGE COST REPLACE | | CR | | 1 | | 0 | | .00 | | .1550 | | 108.99 | | 108.99- | | | | | |
| STANDARD COST REPLACE | | CS | | 1 | | 0 | | .00 | | .6000 | | .00 | | .00 | | | | | |
| INVENTORY ADJUSTMENT | | IA | | 1 | | 12- | | .00 | | .0000 | | .00 | | .00 | | | | | |
| PLANNED ISSUE | | IP | | 1 | | 100 | | .00 | | .0000 | | .00 | | .00 | | | | | |
| MISCELLANEOUS ISSUE | | IS | | 1 | | 8,700 | | .00 | | .0000 | | .00 | | .00 | | | | | |
| MISCELLANEOUS RECEIPT ** | | RC | | 1 | | 100 | | .00 | | .0000 | | .00 | | .00 | | | | | |
| PURCHASE RECEIPT TO DOCK | | RD | | 1 | | 10,100 | | .00 | | .0000 | | .00 | | .00 | | | | | |
| PURCHASE RECEIPT TO INSP | | RI | | 1 | | 6,000 | | .00 | | .0000 | | .00 | | .00 | | | | | |
| PRODUCTION RECEIPT * | | RM | | 1 | | 50 | | 1,100.00 | | .0000 | | 1,100.01 | | .01- | | | | | |
| PURCH RECEIPT TO STOCK * | | RP | | 1 | | 360 | | 95.00 | | .0000 | | 104.76 | | 9.76- | | | | | |
| SALE | | SA | | 1 | | 20 | | 5.00 | | .0000 | | .00 | | .00 | | | | | |
| SCRAP | | SC | | 3 | | 61 | | .00 | | .0000 | | .00 | | .00 | | | | | |
| FINAL TOTALS | | | | | 16 | 25,579 | | 1,215.00 | | .7700 | | 1,343.76 | | 148.74- | | | | | |
| * WITH TRANSACTION AMOUNT | | | | | | | | | | | | | | | | | | | |
| ** WITHOUT TRANSACTION AMOUNT | | | | | | | | | | | | | | | | | | | |

Purchasing and manufacturing order release

This function allows user departments to enter order information into the Inventory Management application for shop orders and purchase orders. On-order quantities are reflected in the calculation of "available" inventory. Although the actual purchase order forms are not printed by Inventory Management, an audit trail showing release date, due date, vendor, item number, and quantity is produced. Blanket purchase orders (a standing order with multiple release dates) are handled, as well as single purchase orders.

For shop orders, the procedure varies somewhat. The audit trail still shows the item number, due date, and quantity. Also, component shortages are identified and printed. A material picking list is produced enumerating the necessary components.

Purchase order release

The entry of purchase orders is accomplished by using the display shown here for entering the order information.

Blanket purchase orders can be entered, with all or a portion of the detail concerning releases against the order. The additional release information can be entered later, as release dates and quantities become firm. The system creates records in the open order files so it can edit future transactions and track the status of each phased release.

If the Material Requirements Planning application is installed, order release may be initiated using displays in the Material Requirements Planning application, and the same records are created and the same audit listing produced as if Inventory Management were used alone.

| | | | | | | |
|---------------------|------------------------|----------------------------|-----------------------|--------------------------------|-----------------|----------|
| DATE 12/11/78 | ORDER ENTRY - PURCHASE | ENTER 01 AMI4B2 E1 | | | | |
| ORDER NO PO18066 | ITEM NUMBER 03385 | WH QUANTITY 1 3000 | FOLLOW DATE 011279 | DUE DATE 011579 | REFERENCE | CUST JOB |
| BLNKT NO | PLANR 901 | ITEM DESCRIPTION WRENCH | VENDOR 072303 | VENDOR CATALOG NO WR-BE-3/8 | STK LOC P110 | |

CK19 RETURN TO SELECT
CK24 DISPLAY STATUS

Manufacturing order release

For manufacturing orders, the user may want to enter the component materials to be used to make this order. If the Product Data Management application is installed, this information can be automatically copied from the product structure file.

The system creates material allocation records in the open order material detail file, which is used to "allocate" material for each released shop order. This feature is important in that it ensures that material requirements are known and identified until the components are withdrawn from stock. The total quantity allocated is stored in the balance record for each component item.

Orders which have shortages can be printed on the item shortage report.

Component requirements

Job quantity

| GATEWAY MFG CO | | ORDER SHORTAGE REPORT | | | | DATE 12/11/78 | TIME 19.52.59 | PAGE 1 | AMT4W1 |
|--------------------|-----------|-----------------------|-----------------------|---------|------------|---------------|---------------|---------------|-----------|
| ORDER | ITEM | WHS | DESCRIPTION | PLANNER | START DATE | DUE DATE | REQ QTY | | |
| M000170 | 26006-20 | 1 | TANK 8 BY 12 INCHES | 901 | 11/07/78 | 12/17/78 | 2,000 | | |
| - | COMPONENT | - | DESCRIPTION | - | REQ DATE | REQ QTY | ALL ORDERS | COMPLETE ONLY | |
| 03426 | | | TUBE 8 IN DIA | | 2 11/07/78 | 2,000 | 1,900 | 1,900 | SHORT *** |
| 27006-00 | | | TANK TOP 8 INCHES | | 2 11/07/78 | 2,000 | 1,784 | 1,784 | SHORT *** |
| 27006-70 | | | TANK BOTTOM 8 INCHES | | 2 11/07/78 | 2,000 | 1,791 | 1,791 | SHORT *** |
| ORDER | ITEM | WHS | DESCRIPTION | PLANNER | START DATE | DUE DATE | REQ QTY | | |
| M000180 | 26006-21 | 1 | TANK 10 BY 18 INCHES | 901 | 11/01/78 | 12/16/78 | 1,500 | | |
| - | COMPONENT | - | DESCRIPTION | - | REQ DATE | REQ QTY | ALL ORDERS | COMPLETE ONLY | |
| 03426-B | | | TUBE 10 IN DIA | | 2 11/01/78 | 1,500 | 1,450 | 1,450 | SHORT *** |
| 27006-10 | | | TANK TOP 10 INCHES | | 2 11/01/78 | 1,500 | 1,392 | 1,392 | SHORT *** |
| 27006-80 | | | TANK BOTTOM 10 INCH | | 2 11/01/78 | 1,500 | 1,393 | 1,393 | SHORT *** |
| ORDER | ITEM | WHS | DESCRIPTION | PLANNER | START DATE | DUE DATE | REQ QTY | | |
| M000190 | 26006-22 | 1 | TANK 12 BY 24 INCHES | 901 | 11/14/78 | 12/24/78 | 1,000 | | |
| - | COMPONENT | - | DESCRIPTION | - | REQ DATE | REQ QTY | ALL ORDERS | COMPLETE ONLY | |
| 03426-C | | | TUBE 12 IN DIA | | 2 11/14/78 | 1,000 | 950 | 950 | SHORT *** |
| 27006-20 | | | TANK TOP 12 INCHES | | 2 11/14/78 | 1,000 | 901 | 901 | SHORT *** |
| 27006-90 | | | TANK BOTTOM 12 INCHES | | 2 11/14/78 | 1,000 | 890 | 890 | SHORT *** |
| 27006-90 | | | TANK BOTTOM 12 INCHES | | 2 11/14/78 | 1,000 | 1,000 | 1,000 | SHORT *** |
| ORDER | ITEM | WHS | DESCRIPTION | PLANNER | START DATE | DUE DATE | REQ QTY | | |
| M000200 | 27003-20 | 1 | PUMP ASSEMBLY | 902 | 11/18/78 | 12/23/78 | 250 | | |
| - | COMPONENT | - | DESCRIPTION | - | REQ DATE | REQ QTY | ALL ORDERS | COMPLETE ONLY | |
| 03904-A | | | PUMP SHAFT ASSEMBLY | | 1 11/18/78 | 250 | 100 | 100 | SHORT *** |
| 02892 | | | LOCK CLIP | | 4 11/18/78 | 250 | | | |
| 03010 | | | PLATE | | 4 11/18/78 | 250 | | | |
| 03011 | | | THROW-OFF COLLAR | | 4 11/18/78 | 250 | | | |
| 03012 | | | SPRING | | 4 11/18/78 | 250 | | | |
| 03025 | | | PUMP HOUSING ASSEMBLY | | 1 11/18/78 | 250 | | | |
| 03370 | | | MOTOR | | 4 11/18/78 | 250 | | | |
| 03901 | | | SET SCREW | | 4 11/18/78 | 250 | | | |
| 03903 | | | IMPELLER | | 2 11/18/78 | 250 | | | |
| 03905 | | | WEAR COLLAR | | 4 11/18/78 | 250 | | | |
| 34140-A | | | CLAMP WITH NUT | | 4 11/18/78 | 250 | | | |
| 4 ORDERS ON REPORT | | | | | | | | | |

Quantity on hand minus manufacturing and customer allocations (manufacturing allocations include the required quantity for this order)

Allocated quantity exceeds on-hand quantity

Item shortage report

Also, an item shortage report can be printed showing each component item that is short and all the orders affected by the shortage. This report is especially useful in helping a material planner resolve conflicting shortages.

If the Production Control and Costing application is installed, the manufacturing routing and miscellaneous cost records can be entered through the work station. If Product Data Management is also installed, the routing records can be automatically copied from the Routing file. The shop packets, containing the picking lists, and, if Production Control and Costing is installed, the manufacturing operations sheets (routings) may be printed either at order release or at a later time.

| GATEWAY MFG CO | | ITEM SHORTAGE REPORT | | | | DATE 12/11/78 | TIME 19.52.28 | PAGE 1 | AMI401 | |
|--------------------|----------|------------------------|----------------------|-------|----------|---------------|---------------|----------|------------|------------|
| - COMPONENT | - WHS | - | DESCRIPTION | - TYP | PLANNER | ON HAND | ALLOCATED | PICK REQ | PUR ORDERS | MFG ORDERS |
| 02892 | 1 | LOCK CLIP | | 4 | 907 | 5,000 | 0 | 0 | 0 | 0 |
| ORDER | - ITEM | - | DESCRIPTION | - | REQ DATE | DUE DATE | REQ QTY | | REMAINING | |
| M000200 | 27003-20 | | PUMP ASSEMBLY | | 11/18/78 | 12/23/78 | 250 | | 4,750 | |
| - COMPONENT | - WHS | - | DESCRIPTION | - TYP | PLANNER | ON HAND | ALLOCATED | PICK REQ | PUR ORDERS | MFG ORDERS |
| 03010 | 1 | PLATE | | 4 | 907 | 7,266 | 0 | 0 | 0 | 0 |
| ORDER | - ITEM | - | DESCRIPTION | - | REQ DATE | DUE DATE | REQ QTY | | REMAINING | |
| M000200 | 27003-20 | | PUMP ASSEMBLY | | 11/18/78 | 12/23/78 | 250 | | 7,016 | |
| - COMPONENT | - WHS | - | DESCRIPTION | - TYP | PLANNER | ON HAND | ALLOCATED | PICK REQ | PUR ORDERS | MFG ORDERS |
| 03011 | 1 | THROW-OFF COLLAR | | 4 | 907 | 15,643 | 0 | 0 | 0 | 0 |
| ORDER | - ITEM | - | DESCRIPTION | - | REQ DATE | DUE DATE | REQ QTY | | REMAINING | |
| M000200 | 27003-20 | | PUMP ASSEMBLY | | 11/18/78 | 12/23/78 | 250 | | 15,393 | |
| - COMPONENT | - WHS | - | DESCRIPTION | - TYP | PLANNER | ON HAND | ALLOCATED | PICK REQ | PUR ORDERS | MFG ORDERS |
| 27006-70 | 1 | TANK BOTTOM 8 INCHES | | 2 | 905 | 209 | 0 | 0 | 0 | 0 |
| ORDER | - ITEM | - | DESCRIPTION | - | REQ DATE | DUE DATE | REQ QTY | | REMAINING | |
| M000170 | 26006-20 | | TANK 8 BY 12 INCHES | | 11/07/78 | 12/17/78 | 2,000 | | 1,791- | SHORT *** |
| - COMPONENT | - WHS | - | DESCRIPTION | - TYP | PLANNER | ON HAND | ALLOCATED | PICK REQ | PUR ORDERS | MFG ORDERS |
| 27006-80 | 1 | TANK BOTTOM 10 INCH | | 2 | 905 | 107 | 0 | 0 | 0 | 0 |
| ORDER | - ITEM | - | DESCRIPTION | - | REQ DATE | DUE DATE | REQ QTY | | REMAINING | |
| M000180 | 26006-21 | | TANK 10 BY 18 INCHES | | 11/01/78 | 12/16/78 | 1,500 | | 1,393- | SHORT *** |
| - COMPONENT | - WHS | - | DESCRIPTION | - TYP | PLANNER | ON HAND | ALLOCATED | PICK REQ | PUR ORDERS | MFG ORDERS |
| 27006-90 | 1 | TANK BOTTOM 12 INCHES | | 2 | 905 | 110 | 0 | 0 | 0 | 0 |
| ORDER | - ITEM | - | DESCRIPTION | - | REQ DATE | DUE DATE | REQ QTY | | REMAINING | |
| M000190 | 26006-22 | | TANK 12 BY 24 INCHES | | 11/14/78 | 12/24/78 | 1,000 | | 890- | SHORT *** |
| M000190 | 26006-22 | | TANK 12 BY 24 INCHES | | 11/14/78 | 12/24/78 | 1,000 | | 1,890- | SHORT *** |
| - COMPONENT | - WHS | - | DESCRIPTION | - TYP | PLANNER | ON HAND | ALLOCATED | PICK REQ | PUR ORDERS | MFG ORDERS |
| 34140-A | 1 | CLAMP WITH NUT | | 4 | 907 | 7,432 | 0 | 0 | 0 | 0 |
| ORDER | - ITEM | - | DESCRIPTION | - | REQ DATE | DUE DATE | REQ QTY | | REMAINING | |
| M000200 | 27003-20 | | PUMP ASSEMBLY | | 11/18/78 | 12/23/78 | 250 | | 7,182 | |
| 20 ITEMS ON REPORT | | 10 ITEMS WITH SHORTAGE | | | | | | | | |

Final assembly order release

This release is similar to normal order release with the following exceptions. It is used to release final assembly manufacturing orders for products which have standard options. The Product Data Management application must be installed before this function can be used. In addition to the data entered in the first step of normal order release, the user enters the "S-number" to select the product options. The system then uses the bill of material to generate material allocation records and prints picking lists according to the set of options specified by the "S-number".

If the Order Entry and Invoicing application is installed, the user can enter the sales order number and the system generates a final assembly order for each line item in that sales order which has an option selection number.

Data Collection System Support considerations

If the Data Collection System Support application is installed and if you elected to use the "turnaround" file, the system creates turnaround records for materials and operations. These detailed records contain a unique 8-digit number, which is system-generated, that relates the turnaround record to the material and operation detail records in the open order files. These turnaround numbers are printed in the shop packet to simplify entry of transactions through the IBM 5230 Data Collection System.

Printing the stock status report

You can print the stock status report during the period-end closing cycle or the stock status review any time during the period. The stock status reports are a summary of inventory activity for the period, sequenced by item number or item number within item class.

The report can be printed showing all or selected warehouses, items, or item classes.

Month-end closing activity

At month-end closing, current-period fields in the master files are set to zero for the start of a new period. We recommend that a stock status report be run as part of closing activity so that an audit trail is available reflecting current-period activity.

Report sequence selection

Report content selection

Can be standard, average, or last cost

| GATEWAY MFG CO | | PERIOD END INVENTORY STOCK STATUS | | | | DATE 12/11/78 | | TIME 13:46.17 | PAGE 1 | AM16C | | | | | | | |
|----------------|-------------|-----------------------------------|----------------------|-----|----------|------------------|-----------|---------------|-------------------------|-------|-------------|--------------|------------|------------|-------------------|--------------|------------|
| ALL WAREHOUSES | | SEQUENCE BY ITEM | | | | ITEMS FROM 27002 | | TJ 27006-80 | | | | | | | | | |
| | | ALL CLASSES | | | | ALL VENDORS | | | | | | | | | | | |
| ITEM CLASS | ITEM NUMBER | ITEM TYPE | ITEM DESCRIPTION | U/M | WHSE NO. | VENDOR NUMBER | BEGIN BAL | ISS/SALE | PERIOD TO DATE RECEIPTS | ADJ. | QTY UN-HAND | QTY ON-ORDER | QTY ALLOC. | QTY AVAIL. | AVERAGE UNIT COST | ON HAND COST | BASE PRICE |
| 70 | 27002-01 | 4 | ADAPTER PLATE | EA | 1 | 036657 | 0 | 0 | 0 | 0 | 3256 | 9000 | 225 | 11031 | .2400 | 781.44 | .000 |
| 20 | 27003-20 | 1 | PUMP ASSEMBLY | EA | 1 | | 0 | 0 | 0 | 0 | 267 | 250 | 225 | 292 | 27.9500 | 7,462.65 | 49.000 |
| 50 | 27004-01 | 2 | HANDLE | EA | 1 | | 0 | 0 | 0 | 0 | 316 | 0 | 0 | 316 | 2.6000 | 821.60 | 6.250 |
| A | 27005-A | 1 | PUMPING UNIT | EA | 1 | | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 13 | 37.7368 | 490.57 | 75.000 |
| I | | | | | | | 0 | 0 | 0 | 0 | 144 | 225 | 0 | 369 | 38.0150 | 5,474.16 | 75.000 |
| | | | | | | | 0 | 0 | 0 | 0 | 3996 | 8475 | 450 | 12021 | | 15,030.42 | |
| A | 27006-F2 | F | TANK SIZE FEATURE | EA | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .0000 | .00 | .000 |
| I | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .0000 | .00 | .000 |
| | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | .00 | .000 |
| A | 27006-00 | 2 | TANK TJP 8 INCHES | EA | 1 | | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 2.4316 | 29.17 | .000 |
| B | | | | | | | 0 | 0 | 0 | 0 | 187 | 0 | 0 | 187 | 2.4316 | 454.70 | .000 |
| I | | | | | | | 0 | 0 | 0 | 0 | 216 | 0 | 2200 | 1984- | 2.3905 | 516.34 | .000 |
| | | | | | | | 0 | 0 | 0 | 0 | 415 | 0 | 2200 | 1785- | | 1,000.21 | |
| 50 | 27006-10 | 2 | TANK TOP 10 INCHES | EA | 1 | | 0 | 0 | 0 | 0 | 1392- | 0 | 0 | 1392- | 3.0050 | 4,182.96- | .000 |
| 50 | 27006-20 | 2 | TANK TOP 12 INCHES | EA | 1 | | 0 | 0 | 0 | 0 | 99 | 0 | 1000 | 901- | 4.7200 | 467.28 | .000 |
| A | 27006-70 | 2 | TANK BOTTOM 8 INCHES | EA | 1 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5103 | .00 | .000 |
| B | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5103 | .00 | .000 |
| I | | | | | | | 0 | 0 | 0 | 0 | 209 | 0 | 2200 | 1991- | 2.0102 | 420.13 | .000 |
| | | | | | | | 0 | 0 | 0 | 0 | 1084- | 0 | 3200 | 4284- | | 3,295.55- | |
| 50 | 27006-80 | 2 | TANK BOTTOM 10 INCH | EA | 1 | | 0 | 0 | 0 | 0 | 1393- | 0 | 0 | 1393- | 1.6005 | 2,229.49- | .000 |
| | | | | | | | | | | | | | | | | | |
| REPORT TOTAL | | | | | | | | | | | | | | | 10,505.59 | | |

Printing key management reports

The inventory analysis report can be run in several sequences and in two formats to provide inventory and financial information. The following fields can be used both to sequence the report and to select items to be printed.

- Item-number
- Vendor number
- Date of last use
- Profit amount
- Profit percent
- On-hand cost

In addition to the various sequences available, the operating personnel can request the information in either financial format (dollar values) or stock movement format (quantity values).

Analysis of your high-investment items in terms of stock and dollar flow can lead to reduced handling and better use of storage space. Obsolescence costs can be reduced by spotting trends before large supplies of an item are accumulated.

How much to order

When to order

| GATEWAY MFG CD | | INVENTORY ANALYSIS REPORT - STOCK MOVEMENT | | | | | | | DATE 12/11/78 | TIME 8.39.49 | PAGE 1 | AMI2K2 | |
|----------------------------------|-------------|--|---------------|-----|-------------------|----------------------|---------------|--------|---------------|--------------|--------------|-------------|----------|
| SEQUENCE BY ITEM NUMBER | | | | | | | | | | | | | |
| ITEM NUMBERS FROM 26006 TO 27006 | | | | | | | | | | | | | |
| RANK | ITEM NUMBER | WH NO. | VENDOR NUMBER | U/M | DATE OF LAST SALE | ESTIMATED ANNUAL USE | AVERAGE USE | E.O.Q. | ORDER POINT | PTD ISSUES | PTD RECEIPTS | PTD ADJUSTS | PTD USED |
| ITEM DESCRIPTION | | | | | DATE OF LAST USE | AVERAGE TURNOVER | AVERAGE LEVEL | | | YTD ISSUES | | | YTD USED |
| 1 | 26006-20 | A | | EA | 0/00/00 | .00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TANK 8 BY 12 INCHES | | | | | 0/00/00 | .0 | 0 | | | 0 | | | 0 |
| 2 | 26006-20 | B | | EA | 0/00/00 | .00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TANK 8 BY 12 INCHES | | | | | 0/00/00 | .0 | 0 | | | 0 | | | 0 |
| 3 | 26006-20 | 1 | | EA | 0/00/00 | 2268.00 | 174 | 456 | 402 | 1,500 | 1,589 | 0 | 1,575 |
| TANK 8 BY 12 INCHES | | | | | 0/00/00 | 24.5 | 92 | | | 1,000 | | | 18,900 |
| 4 | 26006-21 | 1 | | EA | 0/00/00 | 1322.64 | 102 | 273 | 210 | 875 | 905 | 0 | 919 |
| TANK 10 BY 18 INCHES | | | | | 0/00/00 | 15.4 | 86 | | | 10,500 | | | 11,022 |
| 5 | 26006-22 | 1 | | EA | 0/00/00 | 945.36 | 73 | 176 | 165 | 625 | 716 | 0 | 656 |
| TANK 12 BY 24 INCHES | | | | | 0/00/00 | 15.7 | 60 | | | 7,500 | | | 7,878 |
| 6 | 27000-02 | 1 | 060421 | EA | 0/00/00 | 4500.00 | 346 | 283 | 1,119 | 3,042 | 0 | 0 | 3,125 |
| COMPRESSOR | | | | | 0/00/00 | 6.2 | 725 | | | 36,500 | | | 37,500 |
| 7 | 27001-01 | 1 | 036657 | EA | 0/00/00 | 4380.00 | 337 | 5,192 | 556 | 0 | 0 | 0 | 3,042 |
| ADAPTER GASKET | | | | | 0/00/00 | 4.5 | 966 | | | 0 | | | 36,500 |
| 8 | 27002-01 | 1 | 036657 | EA | 0/00/00 | 4380.00 | 337 | 1,478 | 608 | 0 | 0 | 0 | 3,042 |
| ADAPTER PLATE | | | | | 0/00/00 | 4.5 | 972 | | | 0 | | | 36,500 |
| 9 | 27003-20 | 1 | | EA | 0/00/00 | 4500.00 | 346 | 300 | 108 | 0 | 3,334 | 0 | 3,125 |
| PUMP ASSEMBLY | | | | | 0/00/00 | 12.4 | 363 | | | 0 | | | 37,500 |
| 10 | 27004-01 | 1 | | EA | 0/00/00 | 4368.00 | 336 | 935 | 575 | 3,300 | 4,099 | 0 | 3,034 |
| HANDLE | | | | | 0/00/00 | 9.0 | 485 | | | 36,000 | | | 36,400 |
| 11 | 27005-A | A | | EA | 0/00/00 | .00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PUMPING UNIT | | | | | 0/00/00 | .0 | 0 | | | 0 | | | 0 |
| 12 | 27005-A | 1 | | EA | 0/00/00 | 4380.00 | 337 | 117 | 108 | 3,000 | 4,105 | 0 | 3,042 |
| PUMPING UNIT | | | | | 0/00/00 | 9.0 | 488 | | | 36,000 | | | 36,500 |

NOTE- * MANUALLY ENTERED
TOTAL SUMMARY RECORDS 12
PTD AND YTD USED INCLUDES SALES

Calculates EOQs by the following formula:

$$EOQ = \sqrt{\frac{2AS}{I}}$$

- S = cost of setup and order writing in dollars
- A = annual usage
- I = cost of carrying one unit in stock for one year (unit cost x carrying rate)

Calculates order points by the following formula:

$$OP = \frac{XY}{Z} + \text{safety stock}$$

- X = estimated annual usage
- Y = lead time in days
- Z = number of business days in year

Includes manufacturing and miscellaneous issues

Represents all usage, including customer sales

Printing the physical inventory reports

Inventory is a major company asset. Therefore you need to periodically reconcile your computer records with the quantities you have in the stockroom or warehouse. Procedures are supplied in this application which can simplify the task of reconciliation. With the valuation and variance report, you can quickly and easily spot all discrepancies and adjust inventory levels accordingly. More important, this report can help you analyze (or determine) the reasons for discrepancies and take steps to avoid recurrence.

The cycle-counting feature provides the same reports for items that are to be cycle-counted.

In order to take a physical inventory, whether through cycle count or physical count, a report is printed in item number within warehouse location within warehouse number sequence. This list provides a turnaround document for warehouse personnel to record actual counts.

The quantity on hand of each item can be listed, but is usually omitted from the copy sent to the counters, so it does not influence the resulting counts. All inventory items can be listed, or a group of items can be selected in one or all warehouses, and/or a range of item numbers or locations can be selected within one warehouse.

Printing LIFO/FIFO reports

Two reports are associated with maintaining either LIFO or FIFO inventory values. The first is the purge report which is run as needed. It provides an audit trail of the transactions no longer part of the on-hand quantity of an item, and which are therefore removed from the LIFO/FIFO file. If you use an annualized LIFO system, all receipt transactions for the year will be saved, and should be purged only prior to doing the actual inventory valuation.

The second report is the actual valuation report. This report can be prepared in item type or item class or warehouse sequence. After this report is run, only the LIFO or FIFO transactions which print are saved for the start of the next accounting cycle.

You should consult with your auditor on the use of this LIFO/FIFO method to determine whether it satisfies the requirements of all applicable taxing authorities.

| GATEWAY MFG CO | | LIFO INVENTORY VALUATION REPORT | | | | DATE 12/11/78 TIME 15:01:02 PAGE 1 AM16E | | | |
|---|--------------|---------------------------------|----------------|-----------|----------|--|--------------------|--------------|---------------|
| SEQUENCE BY WAREHOUSE | | | | | | | | | |
| MH | ITEM NUMBER | DESCRIPTION | ITEM CLASS | ITEM TYPE | U/M | QUANTITY ON HAND | STANDARD UNIT COST | ON HAND COST | VARIANCE |
| A | 03023 | DISCHARGE FERRULE | 80 | 4 | EA | 220 | .1500 | 33.00 | *** NO AMOUNT |
| | ORDER- P0060 | REF- A-8 | VENDOR- | DATE- | 0/00/00 | QTY- | 100 | AMOUNT- | |
| | ORDER- P0060 | REF- A-101 | VENDOR- | DATE- | 12/11/78 | QTY- | 100 | AMOUNT- | 15.00 |
| ***** COST ADJUSTMENT TRANSACTIONS ***** | | | | | | | | | |
| *** RECEIPT TRANSACTION EXISTS WITH NO AMOUNT - ITEM NOT VALUED | | | | | | | | | |
| WAREHOUSE TOTAL- | | | | | | | | .00 | .00 |
| 1 | 05325 | CONNECTOR | 80 | 4 | EA | 12719 | .0775 | 985.72 | |
| | ORDER- P0086 | REF- | VENDOR- 036657 | DATE- | 6/05/78 | QTY- | 4000 | AMOUNT- | 208.00 |
| | ORDER- P0086 | REF- | VENDOR- 036657 | DATE- | 6/29/78 | QTY- | 4000 | AMOUNT- | 240.00 |
| | ORDER- P0086 | REF- | VENDOR- 036657 | DATE- | 8/02/78 | QTY- | 4000 | AMOUNT- | 278.00 |
| | ORDER- P0086 | REF- | VENDOR- 036657 | DATE- | 9/01/78 | QTY- | 719 | AMOUNT- | 52.12 |
| ITEM/WAREHOUSE TOTAL- | | | | | | | | 778.12 | 207.60 |
| ITEM/WAREHOUSE TOTAL- | | | | | | | | 95.00 | 93.24- |
| WAREHOUSE TOTAL- | | | | | | | | 21,848.12 | 402.94- |
| REPORT TOTAL- | | | | | | | | 21,848.12 | 402.94- |

Last transaction is adjusted so that sum of saved transactions equals quantity on hand

Printing the ABC analysis report

This report is designed to highlight inventory items which represent the largest dollar investments. It lists items by annual usage expressed in dollars, with the higher value items shown first. In most inventories, a few items account for most of the dollar value of annual usage. Knowledge of those items can influence your decisions concerning order quantity, order point, safety stock, or cycle count frequency.

The report may be printed for all or one warehouse and all or one item class.

Report sequence, descending, calculated by annual units times primary unit cost

On-hand cost is the quantity on hand times the unit cost

| GATEWAY MFG CO | | A-B-C ANALYSIS REPORT | | | | DATE 12/11/78 | TIME 8:32.35 | PAGE 1 | AM12H | | | | |
|----------------|-------------|-----------------------|-----------------------|-----|------------|---------------|--------------|--------------------------------|-----------------------------------|----------------------|-------------|-----------------------|------------|
| ITEM TYPES 1 | | | | | | | | | | | | | |
| WH NO | ITEM NUMBER | ITEM TYPE | ITEM DESCRIPTION | U/M | ITEM COUNT | CUM % ITEMS | ANNUAL UNITS | -----PRIMARY AVERAGE UNIT COST | CALCULATION----- ANNUAL USAGE AMT | CUMULATIVE USAGE AMT | CUM % USAGE | SEC CALC UN-HAND COST | CUM % COST |
| | | | | | 37 | 100.0 | | | | 700,455 | 100.0 | 270,246 | 100.0 |
| 1 | 99001 | 1 | SPRAY UNIT | EA | 1 | 2.7 | 2160 | 85.2000 | 184032 | 184032 | 26.3 | 42600 | 15.8 |
| 1 | 27005-A | 1 | PUMPING UNIT | EA | 2 | 5.4 | 4380 | 38.0150 | 166506 | 350538 | 50.0 | 5474 | 17.8 |
| 1 | 27003-20 | 1 | PUMP ASSEMBLY | EA | 3 | 3.1 | 4500 | 27.9500 | 125775 | 476313 | 68.0 | 7463 | 20.6 |
| 1 | 03424 | 1 | TREADLE ASSEMBLY | EA | 4 | 10.8 | 4380 | 9.2222 | 40393 | 516706 | 73.9 | 1365 | 21.1 |
| 1 | 27007-A1 | 1 | BASE ASSEMBLY | EA | 5 | 13.5 | 4320 | 8.2300 | 35554 | 552260 | 78.8 | 2453 | 22.0 |
| | 03025 | 1 | PUMP HOUSING ASSEMBLY | EA | 6 | 16.2 | 4500 | 7.5000 | 33750 | 643110 | 91.7 | 2153 | 22.8 |
| | | 1 | TANK 12 BY 24 INCHES | EA | 7 | 18.9 | | | | | | | 34.6 |
| B | 27005-A | | | | | | 0 | 37.7368 | 0 | 700455 | 100.0 | 491 | |
| A | 27007-A1 | 1 | BASE ASSEMBLY | EA | 35 | 94.6 | 0 | 8.2675 | 0 | 700455 | 100.0 | 0 | 34.9 |
| A | 34250-A | 1 | TANK COVER ASSM | EA | 36 | 97.3 | 0 | 3.8723 | 0 | 700455 | 100.0 | 15 | 34.9 |
| A | 99001 | 1 | SPRAY UNIT | EA | 37 | 100.0 | 0 | 84.9622 | 0 | 700455 | 100.0 | 175957 | 100.0 |
| TOTAL | | | | | 37 | | | | | 700,455 | | 270,246 | |

Printing order status reports

Two reports are available to reflect current status of either purchase orders or manufacturing orders. The report shown is the purchase order status report. The reports are used to assist in planning receipt activity from either outside vendors or the shop floor.

Either report can be printed in due-date, start-date, or item sequence. The purchase report can also be run in vendor sequence. By selecting orders within ranges of due dates, or follow-up dates, you can identify orders where action might be needed.

| GATEWAY MFG CO | | PURCHASE ORDER STATUS REPORT | | | | DATE 12/11/78 | TIME 8:29.41 | PAGE 1 | AM12D | | | | |
|----------------------------------|------------|------------------------------|----------|--------------|-------------------|----------------|--------------|-------------|-------------------|-------------|---------------|-----------------------------|---------------|
| SEQUENCE BY ITEM | | | | | | | | | | | | | |
| ORDER NUMBER | ITEM CLASS | ITEM NUMBER | WH NO | ORDER STATUS | ORDER DATE | LAST TRAN DATE | DUE DATE | VENDOR U/M | VENDOR CATALOG NO | QTY ORDERED | SCRAP TO INSP | FOLLOW-UP RECEIVED TO STOCK | STK LOC |
| HINGE | PIN | 80 03419 | 1 | 00907 20 | 12/11/78 | 12/11/78 | 12/01/78 | 012893 1-EA | | 10,000 | 10,100 | 0 | 12/01/78 P115 |
| PIN | 80 03593 | 1 | 00907 10 | 12/11/78 | 12/11/78 | 11/05/78 | 2/20/79 | 012893 1-EA | YH-58731-P | 15,000 | 0 | 2/20/79 P12+ | |
| | | | | RELEASE-01 | 12/11/78 | 11/05/78 | | 1-EA | | 2,000 | 0 | | |
| | | | | RELEASE-02 | 12/11/78 | 11/20/78 | | 1-EA | | 2,500 | 0 | | |
| SCREW | P0050 | 80 79098 | 1 | 00907 10 | 12/11/78 | 12/11/78 | 1/20/79 | 012893 1-EA | | 24,000 | 0 | 1/20/79 P152 | |
| | | | | PURCHASE U/M | CONVERSION FACTOR | | 50.00 | 2-BX | | 480 | 0 | | |
| | | | | RELEASE-01 | 12/11/78 | 11/20/78 | | 1-EA | | 8,000 | 0 | | |
| | | | | RELEASE-02 | 12/11/78 | 12/20/78 | | 2-BX | | 160 | 0 | | |
| | | | | RELEASE-03 | 12/11/78 | 1/20/79 | | 1-EA | | 8,000 | 0 | | |
| | | | | | | | | 2-BX | | 160 | 0 | | |
| HANDLE SCREW | P0050 | 80 89182 | 1 | 00907 10 | 12/11/78 | 12/11/78 | 12/01/78 | 012893 1-EA | | 10,000 | 0 | 12/01/78 P15+ | |
| | | | | PURCHASE U/M | CONVERSION FACTOR | | 12.00 | 2-DZ | | 833 | 0 | | |
| TOTAL NUMBER OF RECORDS SELECTED | | | | | 9 | | | | | | | | |
| NOTE- * -SELECTED FOR CLOSEOUT | | | | | | | | | | | | | |

Printing reorder reports

Supply levels of many items can change weekly, but only a few may be significant to you. On request, you can get a reorder exception report, with reorder data that includes detail stock data and order quantities in both purchasing and stocking unit of measure where different.

You can review one or all of your warehouses, a range of vendors, or a range of item classes. With this report, you can see items which require action based on current availability. Lead times, average usage, order point and order quantities are shown.

| GATEWAY MFG CO | | INVENTORY REORDER REPORT | | | | DATE 12/11/78 | | TIME 8.42.07 | PAGE 1 | AMI2M | | | | | |
|----------------------------------|------------|--------------------------|----------|-----|-------------|---------------|---------------|---------------|-------------|----------|--------------|-----------|---------|--------------------|-------|
| SEQUENCE BY VENDOR | | | | | | | | | | | | | | | |
| VENDORS FROM 001011 TO 096267 | | | | | | | | | | | | | | | |
| DESCRIPTION | | | | | | | | | | | | | | | |
| VENDOR NUMBER | ITEM CLASS | ITEM NUMBER | WH NO | U/M | QTY ON-HAND | QTY ON-ORDER | QTY ALLOCATED | QTY AVAILABLE | ORDER POINT | E.O.Q. | SAFETY STOCK | LEAD TIME | L/T ADJ | AVERAGE PERIOD USE | |
| NUT | 001011 | 80 | 07243 | 1 | EA | 5,087 | 0 | 0 | 5,087 | 7,000 * | 10,182 * | 0 | 030P | 02 | 665 |
| PLATED CYLINDER 12 IN | 006592 | 30 | 99239-RM | 1 | EA | 1,017 | 0 | 0 | 1,017 | 2,500 * | 109 * | 0 | 120P | 10 | 76 |
| CASTING | 015772 | 30 | 99990-RM | 1 | EA | 11,247 | 0 | 0 | 11,247 | 15,000 * | 414 * | 0 | 150P | 10 | 357 |
| HINGE WASHER | 018834 | 80 | 03587 | 1 | EA | 12,631 | 0 | 0 | 12,631 | 72,000 * | 6,961 * | 0 | 015P | 02 | 665 |
| HINGE WASHER | 018834 | 80 | 03640 | 1 | EA | 4,871 | 0 | 0 | 4,871 | 6,000 * | 12,000 * | 0 | 015P | 02 | 665 |
| ROUND STOCK 5/8 DIA - CRS | 024775 | 30 | 99544-RM | 1 | FT | 5,327 | 0 | 0 | 5,327 | 8,000 * | 1,476 * | 0 | 030P | 02 | 712 |
| 1/8 SHEET METAL | 024775 | 30 | 99750-RM | 1 | SF | 10,851 | 0 | 0 | 10,851 | 20,000 * | 1,435 * | 0 | 060P | 02 | 1,201 |
| IRON PLATE 1/4 IN - HRS | 024775 | 30 | 99910-RM | 1 | LB | 6,445 | 0 | 0 | 6,445 | 10,000 * | 902 * | 0 | 060P | 02 | 567 |
| BAR STOCK 1 X 3/8 - CRS | 024775 | 30 | 99950-RM | 1 | FT | 1,261 | 0 | 0 | 1,261 | 15,000 * | 1,209 * | 0 | 090P | 02 | 526 |
| VALVE | 030716 | 80 | 03021 | 1 | EA | 93- | 0 | 0 | 93- | 1,063 | 9,000 | 0 | 060P | 02 | 332 |
| CONTROL BOX | 042598 | 70 | 33480-A | 1 | EA | 4,898 | 0 | 225 | 4,673 | 6,000 * | 544 * | 308 | 060P | 05 | 342 |
| WRENCH | 072303 | 80 | 03385 | 1 | EA | 7,927 | 0 | 0 | 7,927 | 9,500 * | 1,208 * | 0 | 030P | 02 | 337 |
| RUBBER TUBE 1 X 3 | 096267 | 80 | 34180-A | 1 | EA | 3,143 | 0 | 0 | 3,143 | 6,000 * | 2,977 * | 0 | 030X | 05 | 332 |
| RUBBER TUBE 3/4 X 2 | 096267 | 80 | 34180-R | 1 | EA | 3,267 | 0 | 0 | 3,267 | 6,000 * | 3,220 * | 0 | 030X | 02 | 332 |
| RUBBER TUBE 1/4 X 4 | 096267 | 80 | 46800-C | 1 | EA | 5,232 | 0 | 0 | 5,232 | 7,000 * | 2,629 * | 0 | 030X | 02 | 332 |
| TOTAL NUMBER OF RECORDS SELECTED | | | | | 15 | | | | | | | | | | |
| NOTE- * -MANUALLY ENTERED | | | | | | | | | | | | | | | |
| M -LEAD TIME MANUFACTURING | | | | | | | | | | | | | | | |
| P -LEAD TIME PURCHASING | | | | | | | | | | | | | | | |
| X -OTHER LEAD TIME | | | | | | | | | | | | | | | |

Inquiries

The Inventory Management application allows you to inquire into the status of items and orders that are in the master files even while running another procedure. Five basic inquiries are available.

Item balance

This inquiry displays some relatively static information about the item, then details quantity information about the warehouses containing the item.

```

DATE 12/11/78      ITEM BALANCE DETAIL ALL WAREHOUSES      AMI1A1 E1
ITEM 03385          WRENCH
ENG DWG            CLASS 80 WT .500 STND COST      U/M EA TYPE 4
                    6.000 5.000 4.000 3.000 2.000 .3500
MKUP CODE M PCTS 7.000
TAX CODES 0 1 0 0 MAINT DATE 12/11/78

W  ON HAND  ALLOCATED  AVAILABLE  ON ORDER  ORD PT  SAF STK  AVG UNIT COST
1  7927      0             7927      0          9500    0        .3000
A  13        0             13        0          0       0        .3500

*** END ***
CK24 END OF JOB
    
```

Sum of manufacturing and customer requirements

Sum of manufacturing and purchase orders outstanding

Item allocation

This inquiry shows the manufacturing allocations against the requested item. It also shows the current status of those allocations.

```

DATE 12/11/78      ITEM BALANCE INQUIRY - MFG ALLOCATIONS      AMI1B1 E1
ITEM 27003-20      WHSE 1 PUMP ASSEMBLY
ENG DWG AX00390    CLASS 20 WT 10.0  AVG COST      U/M EA TYPE 1
                    27.9500
QTY ON HAND 267 MFG ALLOC 225 CUST ALLOC 0 NET AVAIL 292
QTY ON ORDER 250 MAINT DATE 12/11/78 MRP FLAG 1

ORDER NO  ALLOC QTY  ISS QTY  UNISSUED  REQ DATE  LAST ISS  CUST/JOB
M000220    225      0       225     12/06/78  0/00/00  107

*** END ***
CK24 END OF JOB
    
```

Item balance history

This inquiry displays the current quantity information regarding the selected item and also displays sales and use activity against the item.

| DATE 12/11/78 | | | | | | | | | | ITEM BALANCE INQUIRY - SALES HISTORY | | | | | | | | | | AMIIC1 E1 | | | | |
|---------------|--|-----------|--|-----------|---------------|------------|--|----------|--|--|--|----------|--|--------|--------|----------|--|--------|--|------------------------------|--|------------|--|--|
| ITEM 03385 | | | | | | | | | | WHSE 1 WRENCH | | | | | | | | | | U/M EA TYPE 4 | | | | |
| CLASS 80 | | | | | | | | | | WHSE STOCK LOC P110 | | | | | | | | | | PACKING CODE 25 | | PLANNER 00 | | |
| MKUP CODE M | | | | | | | | | | PCTS 7.000 6.000 5.000 4.000 3.000 2.000 | | | | | | | | | | | | | | |
| BASE PRICE | | | | | AVG UNIT COST | | | | | TAX CODES | | | | | WEIGHT | | | | | DATE OF LAST | | | | |
| .690 | | | | | .3000 | | | | | 0 1 0 0 | | | | | .5 | | | | | SALE 12/10/78 USAGE 12/05/78 | | | | |
| ON HAND | | ALLOCATED | | AVAILABLE | | ON ORDER | | ORD PT | | SAF | | STK | | | | | | | | | | | | |
| 7927 | | 0 | | 7927 | | 0 | | 9500 | | 0 | | 0 | | | | | | | | | | | | |
| P-T-U | | SALES QTY | | SALES AMT | | AVG PERIOD | | SALES | | EST ANNUAL USAGE | | QTY USED | | | | | | | | | | | | |
| 42 | | 30.72 | | 57.18 | | | | 4.380.00 | | 36500 | | | | | | | | | | | | | | |
| Y-T-D | | 500 | | 365.70 | | | | | | | | | | | | | | | | | | | | |
| LEAD TIME | | CODE P | | MFG LT | | 0 | | PURCH LT | | 30 | | VENDDR | | 072303 | | COST DEV | | CODE 0 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

Lead time
in days

Normal vendor
associated with
this item

Open orders

This inquiry provides up-to-date information regarding current status of all outstanding orders for the requested item.

| DATE | OPEN ORDERS INQUIRY | | | | | | | | | | AMI101 E1 | |
|----------|---------------------|--------|---------------|---------------------|------------|------------------|---------------|-----|--|--|-----------|--|
| 12/11/78 | ITEM 27003-20 | WHSE 1 | PUMP ASSEMBLY | CLASS 20 | WT 10.0 | AVG COST 27.9500 | U/M EA TYPE 1 | | | | | |
| | ENG DWG AX00390 | | | MFG ALLOC 225 | CUST ALLOC | 0 | NET AVAIL 292 | | | | | |
| | QTY ON HAND 267 | | | MAINT DATE 12/11/78 | MAINT SW 1 | | | | | | | |
| | QTY UN ORDER 250 | | | | | | | | | | | |
| ORDER NO | VEND/JOB | STAT | ORD QTY | QTY OPEN | DUE DATE | HOURS REM | CURRENT OPER | W/C | | | | |
| M000200 | 105 | 40 | 250 | 250 | 12/23/78 | .00 | | | | | | |

*** END ***

CK24 END OF JOB

Code 40 = activity has been reported against this order

Used for manufactured items

Item availability

This inquiry allows the operator to see current and future requirements against an item, as well as all open purchase and production orders. Operator-entered date parameters add the element of "time-phasing" both demands and receipts. For example, purchase orders due more than six months from today are not pertinent when you are considering next week's shipping schedule. When used in conjunction with Order Entry and Invoicing, this inquiry allows an operator to respond to telephone inquiries regarding availability of an item.

| DATE 12/11/78 | | | | ITEM AVAILABILITY | | AM1E1 E1 | |
|--------------------|----------|------------------------|----------|-------------------|----------|----------|------------------|
| ITEM 27003-20 | WHSE 1 | PUMP ASSEMBLY | | QTY ON HAND | 267 | DATE 1 | MMDDYY 121578 |
| | | PRODUCTION ALLOCATIONS | | | 225 | DATE 2 | 123078 |
| SCHEDULED RECEIPTS | | | | DATE 1 | DATE 2 | ALL | |
| ORDER NO | VEND/JOB | STAT | DUE DATE | 12/15/78 | 12/30/78 | OTHER | |
| M000200 | 105 | 40 | 12/23/78 | | 250 | | |
| *** END *** | | | | NET AVAILABLE | 42 | 292 | 292 |
| CK24 END OF JOB | | | | | | | |

Item availability between
date of inquiry and
DATE 1 parameter

Operator enters the
date parameters

Interfaces

The Inventory Management application supports the following MAPICS applications if installed:

- The Order Entry and Invoicing application updates the inventory records of shipped or returned goods during invoicing. It also associates individual item orders to the appropriate inventory record.
- The Sales Analysis application receives sales transactions from Inventory Management.
- Inventory Management supplies Material Requirements Planning with inventory balances and the status of released orders. It also works with Material Requirements Planning to perform the order release function.
- If Product Data Management is installed, Inventory Management can use the bill of material for an item to determine how many of what components are needed to manufacture that item, and allocate them as an order is released. Also, if inventory is valued at standard cost, the cost calculated by Product Data Management can be used as the new standard cost at the end of an accounting period.
- Inventory Management supplies Production Control and Costing with the materials used in manufacturing orders, and the two applications work together to handle order release, the printing of shop packets, material scrap, and order closeout.
- Inventory Management works with Data Collection System Support to handle inventory transaction reporting via the IBM 5230 Data Collection System.

Accounts Receivable

Information flow

Application functions

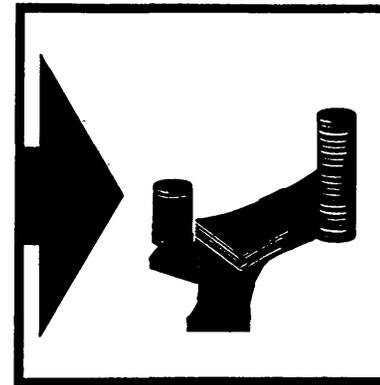
- Balance-forward/open-item accounting
- Accounts receivable aging
- Service charges
- Credit limit checking
- On-demand aged trial balance for management review
- Statement printing
- Multiple statements for consolidated companies
- Multicompany support
- 3740 support

Operations

- Entering cash and adjustment transactions
- Entering invoice summaries
- Printing transaction registers
- Taking a trial balance
- Purging open items and printing the paid open item proof
- Printing statements
- Printing delinquency notices
- Printing the customer account status report

Inquiry

Interfaces



ACCOUNTS RECEIVABLE

Accounts Receivable

Information flow

Figure 2-5 shows how information flows through the Accounts Receivable (A/R) application. The numbers in the following discussion refer to this figure.

In the Accounts Receivable transaction processing cycle, invoice summaries for invoices not produced through Order Entry and Invoicing, payments, and adjustments are entered into the system **1**; a cash receipts and adjustments journal, transaction register, and invoice register are printed. **2**.

At month-end closing, accounts are aged, and statement records are created for later printing **3**.

On request, aged trial balances, delinquency notices, paid item lists, and customer account status reports are printed **4**.

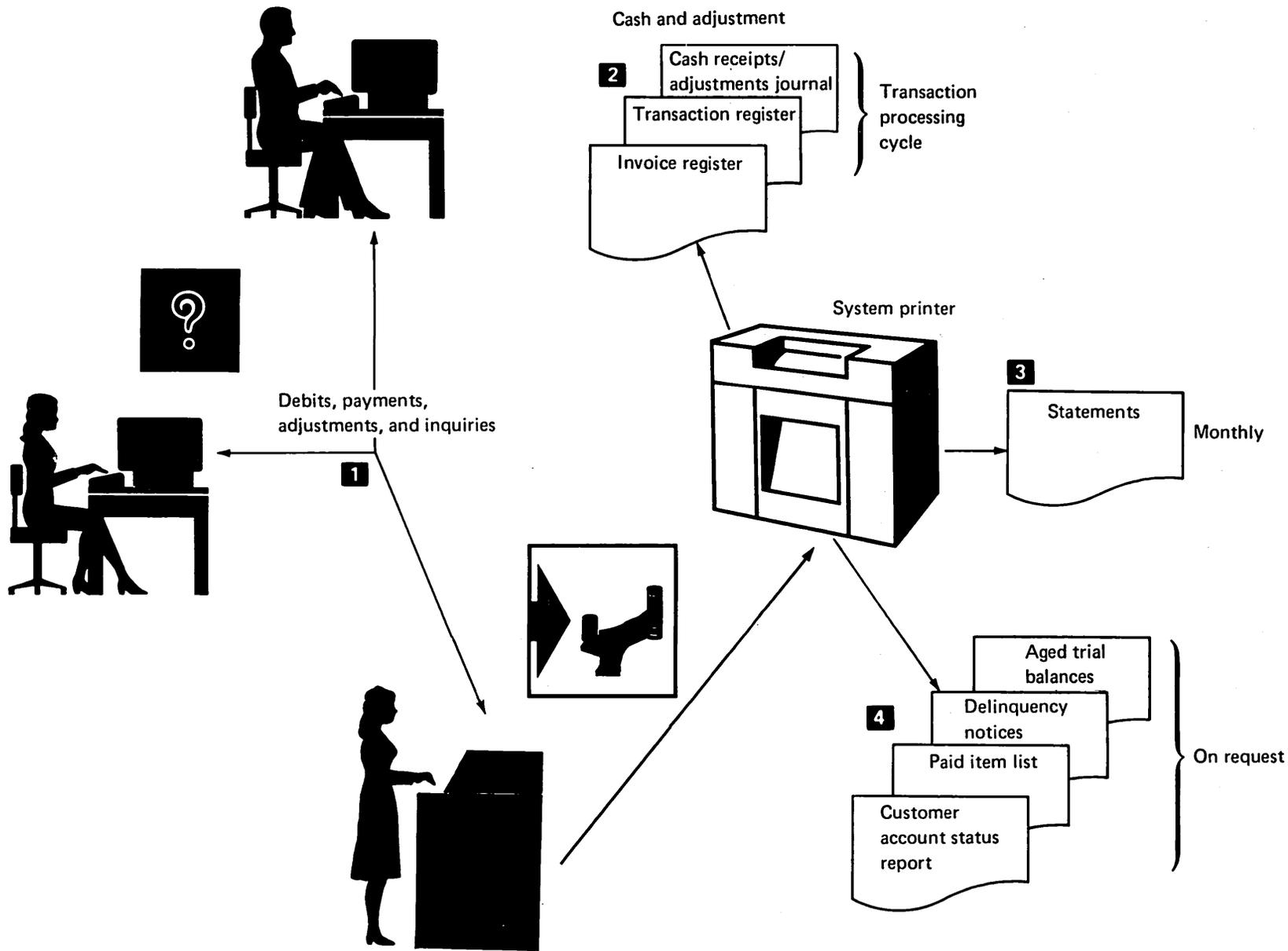


Figure 2-5. Accounts Receivable information flow

Application functions

Balance-forward/open-item accounting

Accounts Receivable supports both the balance-forward and open-item methods of receivables accounting. Furthermore, it is possible to classify some of your customers as open item and others as balance forward. Because the method of processing is controlled by a code in the customer master record, it is also possible to change a customer's classification forward at the end of an accounting cycle.

Open-item method. In the open-item method, the unpaid (open item) invoices are maintained as separate transactions until cleared by a cash receipt and/or adjustment transaction. Statements sent to customers show each open invoice (no matter how old it is). The system can display the unpaid invoices to assist the operator in applying cash and entering adjustments to customer accounts.

Balance-forward method. In the balance-forward method, detailed transaction records are kept only for the current period and are printed on the customer's statement as in the open-item method. However, at the close of the accounting period, all transactions are summarized into the aging period amount fields. Unless an age code is entered to apply the entry to a specific age period, a debit or invoice summary is applied to the current period.

Accounts Receivable aging

The Accounts Receivable application classifies balances due in four aging periods. These are usually used to reflect monthly aging periods of 30, 60, 90, and 120 or more days.

Monthly aging. If a customer buys goods in mid-June, the charge goes into his account and is current as of the next statement date. His aged trial balance and the June 30 statement shows the amount as current. After month-end close, the amount is aged into the age period 1 amount, and an aged trial balance report printed on July 1 shows the invoice amount in the age period 1 column. It retains this status until the end of July or until statements are printed when it is then moved (rolled) into the age period 2, 60 days. This rolling of unpaid amounts continues until the amount is paid or until it reaches age period 4, which contains an accumulation of all amounts 120 or more days old.

| | Current balance | Age period 1 balance (+30) | Age period 2 balance (+60) | Age period 3 balance (+90) | Age period 4 balance (+120) | Total amount due |
|--|-----------------|----------------------------|----------------------------|----------------------------|-----------------------------|------------------|
| Month-end account status before statement time (6/30/77) | \$480.98 | 5/31/77 \$120.98 | 4/30/77 \$85.95 | 3/31/77 \$40.48 | 2/28/77 \$20.13 | \$748.52 |
| Account status after statements | \$0.00 | 6/30/77 \$480.98 | 5/31/77 \$120.98 | 4/30/77 \$85.95 | 3/31/77 \$60.61 | \$748.52 |

Future aging. Future aging is the advance dating of invoices. Under future aging, the customer is not required to pay for merchandise for several months after the goods are delivered. For example, you may want to even out the demand for seasonal items (such as toys) by extending interest-free credit to the purchaser. You can print an invoice at the time of sale (September, perhaps) showing that it will become current at some future time (such as January). If this customer has an amount due in the future, it prints on the statement following the words DEFERRED CHARGES. An invoice can be aged up to nine periods into the future.

Service charges

In Accounts Receivable, service charges are computed at month-end close for those customers who are designated to be assessed charges. You must indicate which customers are not liable for service charges by entering a code in the service charge code field in the customer record. The service charges assessed are saved from the last statement period in the customer record for balance-forward customers, and in a separate service charge record for open-item customers.

The service charge percentage is stored in the customer master record and is applied to the overdue balances of the customer coded as liable for service charges. You must also indicate the service charge point (the first age period subject to late charges) as a tailoring option. You can establish a minimum service charge as a tailoring option, in which case the larger of either the minimum or calculated amount is applied. Both these figures can be changed as business conditions warrant.

At the bottom of the statement for both open-item and balance-forward customers, the newly calculated service charge amount appears after the notation, "charge on amount overdue," notifying the customer that he has incurred a service charge. For each open-item account, the individual unpaid service charges from prior statements appear. Previous service charges for each balance-forward account have been incorporated into one or more age periods and, thus, into the total amount due; they are not tracked separately. In the service charge record, the transaction date is the same as the statement date of the statement on which it first appeared. If you elect to age service charges, the system ages the service charge each month until it is cleared. Service charges that remain unpaid are included in the amount subject to further late charges, and eventually are consolidated into one service charge amount in the oldest aging period.

Note: The system can actually compound service charges. Such charges must, under certain laws, be considered finance charges and, as such, are limited in their scope of usage. It is your responsibility to evaluate all laws to which compliance is required, and to determine the applicability of the service charge method, its limits and disclosure requirements.

Credit limit checking

Each customer has his own assigned credit limit. As invoice summaries are entered into the system, the application displays the current Accounts Receivable balance, the credit limit assigned, and displays EXCEEDED for those customers who have gone over their assigned credit limit.

On-demand aged trial balance for management review

You can print the aged trial balance without updating the customer records; this makes it possible for you to analyze the effect of aging the accounts at any time during the accounts receivable cycle. The actual aging process occurs during the month-end closing procedure.

Statement printing

During the month-end closing procedure, a statement file is created for those customers coded to receive statements. The statements can then be run at any time: by company number, range of customers, only those with past due balances, only those considered delinquent, or all customers in the file who have not been printed.

Multiple statements for consolidated companies

The application uses the last two digits of the customer number to identify subsidiaries of a consolidated company. Statements are prepared for each subsidiary, but are addressed to the headquarters location. A consolidated statement, showing total amounts due, is also prepared for the headquarters location. If you service contractors, this feature can also be used for contractor job accounting, treating the contractor customer as a headquarters and each of his individual contract jobs as a subsidiary.

Multicompany support

The Accounts Receivable application is designed to support up to 20 separate companies for reporting purposes. Totals by company are available on the aged trial balance and the cash receipts and adjustments journal. As noted earlier, statements can be selected by company number.

3740 support

The Accounts Receivable application is designed to operate in an interactive mode. However, due to peak load requirements or off-site manual invoicing, you may require diskette entry of invoice summary records. The invoice summary records are recorded on the IBM 3740 Data Entry System.

The summary records entered from diskette are processed in a batch environment for editing purposes. The diskette data is transferred to the IBM System/36, and a batch edit is performed. Error correction is handled either by the 3740 Data Entry System or through a display station. Once the entries are error-free, they can be used to update the master files.

The diskette entry function in Accounts Receivable provides the same level of function as the interactive invoice summary entry. No provision is made for entry of cash or adjustments through diskette. Also, master file maintenance must be performed at a display station.

Operations

All operations for the Accounts Receivable application start with the main menu. This menu provides flexibility in selecting the job to be performed.

Security coding, if established, interacts with the main menu and subsequent operations to ensure that only those individuals designated to have access to specific data are permitted to continue processing.

```
COMMAND                                MENU: AMRM01                                WI
                                     A C C O U N T S   R E C E I V A B L E

1  ENTER/EDIT/UPDATE RECEIPTS/ADJS      9  DISKETTE INVOICE EDIT - LIST ALL
2  ENTER/EDIT INVOICE/CREDIT MEMOS     10  DISKETTE INVOICE EDIT - ERRORS ONLY
3  PROCESS UNPOSTED TRANSACTIONS       11  CUSTOMER MASTER FILE MAINTENANCE
4  MONTH OR PERIOD CLOSE                12  EDIT CUSTOMER MASTER
5  STATEMENTS                          13  PRINT CUSTOMER MASTER
6  DELINQUENCY NOTICES                 14  OPEN A/R REORGANIZATION - PURGE
7  AGED TRIAL BALANCE                  15  CLEAR OLD STATEMENT FILES
8  CUSTOMER INQUIRY

READY FOR OPTION NUMBER OR COMMAND
```

Entering cash and adjustment transactions

Cash application

When cash and adjustments are processed, the operator enters the customer number and the system displays the customer name and address for verification. The operator then enters the cash receipt transaction.

The reference field (REF) determines the method of cash application for this particular receipt. Three entry methods are available, based on information entered in the reference field:

1. Operator enters ALL—the system compares the GROSS RECVD to the total due field from the customer master record. If they are equal, no further operator action is required. The application distributes the cash received to each unpaid item in the detail file. The operator can then proceed to the next cash receipt transaction.
2. Operator enters a specific invoice number—the system searches the detail file for the referenced invoice and when found, verifies that the GROSS RECVD entered equals the invoice amount. If so, the cash is applied to the invoice, and the operator proceeds to the next cash receipt transaction.

| | | | | | | |
|---------------------|-------------|--------------------------|----------|--------------------|--------|---------------|
| DATE | 8/31/78 | CASH RECEIPT ENTRY | | ENTER | AMR203 | 04 |
| COMPANY | 1 | APPOLLO SUPPLY CU. | | OPEN ITEM | | |
| CUSTOMER | 100 | 025 WEST OGLETHORPE AVE. | | STATE GA ZIP 30301 | | |
| | | ATLANTA | | | | |
| SERVICE CHGS - | 47.57 | CURRENT - | 47.57 | | | |
| CURR CHGS - | .00 | 30 DAY - | .00 | | | |
| CURR PMTS - | .00 | 60 DAY - | .00 | | | |
| CURR ADJS - | .00 | 90 DAY - | .00 | | | |
| FUT DUE - | .00 | 120 DAY - | 3,171.54 | | | |
| TOTAL DUE - | 3,219.11 | CREDIT LIMIT - | 0 | | | |
| CASH RECVD(2) | DISCOUNT(2) | GROSS RECVD(2) | DATE | REF | CHECK | DEPOSIT SLSMN |
| 15129 | 2500 | 17629 | 82778 | | 16332 | 203 31701 |
| CK08 ENTER CUSTOMER | | | | | | |

Possible entries:

- ALL — pays entire customer account
- invoice no. — pays the specified invoice
- blank — operator selects invoices to be paid

3. Operator leaves the reference field blank—this method is most likely used since the customer might pay several invoices with one check, but not pay off the entire balance due. Under this method, the system displays the five oldest items outstanding for this customer. After transaction posting is completed for the first five open items, the system selects the next five open items and so on until the transaction is complete. These items are invoices and service charges for open-item customers, or for balance-forward customers; one line is displayed for each age period containing a balance.

| DATE | | CASH RECEIPT POSTING | | ENTER | | AMR205 C4 | |
|-------------|------------------------------|----------------------|---------------|--|----------|----------------------------------|-----------|
| COMPANY | 1 | APPOLLO SUPPLY CO. | | OPEN ITEM | | | |
| CUSTOMER | 100 | | | | | | |
| GROSS RECVD | DISCOUNT | ADJUST | LINE REF | DATE | AMT DUE | ORIGINAL DUE | DISC ALLW |
| | | | | DATE <td></td> <td>DR/CR TO DATE <td>DISC PCT </td></td> | | DR/CR TO DATE <td>DISC PCT </td> | DISC PCT |
| | | | 1 | 085225 | 170.29 | 170.29 | 25.00 |
| | | | 2 | 085664 | 861.09 | 861.09 | 25.00 |
| | | | 3 | 086669 | 800.31 | 800.31 | 25.00 |
| | | | 4 | 086671 | 266.77 | 266.77 | 25.00 |
| | | | 5 | 086681 | 1,067.08 | 1,067.08 | 25.00 |
| | | | | 8/24/77 | | | 2.000 |
| LINE CODE | GROSS RECVD(2) | DISCOUNT(2) | ADJUSTMENT(2) | CASH UNAPPLIED | | | |
| 1 | 1 | | | 151.29 | | | |
| 1 | FULL PAY WITH DISCOUNT | | | | | | |
| 2 | FULL PAY WITHOUT DISCOUNT | | | | | | |
| 3 | PARTIAL PAY WITH DISCOUNT | | | | | | |
| 4 | PARTIAL PAY WITHOUT DISCOUNT | | | | | | |
| 5 | ADJUSTMENT ONLY | | | | | | |
| | | | | CK04 END OF TRANS. | | | |
| | | | | CK05 RE-APPLY TRANS. | | | |
| | | | | CK06 RE-ENTER RECPT. | | | |

Operator enters the line number (from those above selected for payment) and the payment code

Amount entries are required with these codes

Keeps track of cash left to be applied

Entering invoice summaries

Invoice summary records are required only for invoices not processed through the Order Entry and Invoicing application. The invoice summary entry verifies the customer number prior to accepting the transaction. This entry allows the operator to enter a credit memo and apply it directly to a particular invoice for that customer.

```

DATE 8/27/78                               ENTER   AMR153 03
                                INVOICE ENTRY

COMPANY 1                                APPOLLO SUPPLY CO.    OPEN ITEM
CUSTOMER 100                            625 WEST OGLETHORPE AVE.
                                           ATLANTA
                                           STATE GA  ZIP 30301

INV/CR MEMO 100    DATE 82778
AGE CD 0          SALE CD R          TAX 1(2) 600    TAX 2(2)
INV AMT(2) 28450  TAX 3(2) 400    TAX 4(2)
DISC ALLD(2) 272  NET SALES(2) 26250  SPC CHG(2)  FRT CHG(2)  TRADE DISC(2)  INV COST(2)
                                           1200
SALESMAN 31701  WEIGHT(1)  INV REF  RECEIVABLE DUE MONTH

                                CK01 = RESUME ENTRY
                                CK03 = ENTER CUSTOMER
                                CK17 ACCEPT W/ LK-U
                                CK24 DISPLAY STATUS
    
```

Printing transaction registers

The operator selects the batches of entered transactions (both cash/adjustment and invoice summaries) that are to be processed for the transaction registers. It is at this point that the invoice summary data is added to the master file and the detail file.

An A/R cash receipts and adjustments transaction register is printed for each batch of cash and adjustment transactions. In addition, an individual line is printed detailing the affected invoices. The batch total balances are also printed.

| A/R CASH RECEIPT AND ADJUSTMENT TRANSACTION REGISTER | | | | | | | | | | DATE 7/27/78 | TIME 18.12.20 | PAGE 1 | AMR401 |
|--|--------------|------------|-----------------------|--------------------|------------|------------|-----------------|-------------|-------------------|--------------|---------------|--------|--------|
| | | | | | | | | | | BATCH 2 | | | |
| DEPOSIT NO | CHECK/ADJ NO | CD/CUST NO | NAME | SLSMN NO | TRAM TYPE | A/R AMOUNT | DISCOUNT AMOUNT | CASH AMOUNT | ADJUSTMENT AMOUNT | | | | |
| -REF- | -DATE- | -A/R- | -DISC- | -CASH- | ADJUSTMENT | | (ORIDE G/L) | (ORIDE G/L) | (ORIDE G/L) | | | | |
| 85664 | 7/27/78 | 100000100 | APPOLLO SUPPLY CO. | 31701 | 6 | 861.09- | .00 | 861.09 | .00 | | | | |
| | | 361.09- | .00 | 861.09 | .00 | | 7120 | 1050 | | | | | |
| 86669 | 7/27/78 | 100000100 | APPOLLO SUPPLY CO. | 31701 | 6 | 800.31- | .00 | 800.31 | .00 | | | | |
| | | 800.31- | .00 | 800.31 | .00 | | 7120 | 1050 | | | | | |
| | | 100000200 | AL'S CLEANING SERVICE | 31706 | 6 | 1,313.48- | .00 | 1,313.48 | .00 | | | | |
| | | | | | .00 | | 7120 | 1050 | | | | | |
| | | | | | | | .00 | 2,214.10 | | | | | |
| FINAL TOTALS | | | | | | | | | | | | | |
| TRANSACTION TOTALS | | | COUNT | * DISCOUNT EXCEEDS | | | | | | | | | |
| A/R CREDITS | | 5,188.98- | 4 | | | | | | | | | | |
| DISCOUNTS | | .00 | | | | | | | | | | | |
| ADJUSTMENTS | | .00 | | | | | | | | | | | |
| CASH RECVD | | 5,188.98 | | | | | | | | | | | |
| UNAPP CASH | | .00 | | | | | | | | | | | |
| ADJUSTMENT | | .00 | 0 | | | | | | | | | | |
| UNAPP ADJ | | .00 | | | | | | | | | | | |
| TOTAL APPLIED | | 5,188.98- | | | | | | | | | | | |

The invoice register lists each new invoice summary entered and provides totals for items such as net sales, taxes added, freight, special charges, and invoice cost.

Cash and COD invoice summaries are printed on the register but are not added to the master or detail files. If Sales Analysis is installed, all sales information is passed for all new invoice summary records.

| INVOICE REGISTER-ACCOUNTS RECEIVABLE | | | | | | | | | | DATE | 7/25/78 | TIME | 15.12.10 | PAGE | 1 | AMV451 |
|--------------------------------------|------|------------------|------------|-----------|--------------------------|----------------|---------|----------|-------------|---------------|-----------------|---------------|----------|------|---|--------|
| INV. NO. | NAME | COMP-CUST NUMBER | SLSMAN NO. | INV. DATE | FUT DUE NO. SALES AMOUNT | SPECIAL CHG/CR | FREIGHT | DISCOUNT | TOTAL TAXES | INVOICE TOTAL | INVOICE PROFITS | PROFIT PERCNT | | | | |
| APPOLLO SUPPLY CO. 100 | | 0100000100 | 31701 | 12/10/78 | 285.00 | 0 .00 | .00 | .00 | 15.00 | 300.00 | 85.00 | 29.8 | | | | |
| AL'S CLEANING SERVICE 201 | | 0100000200 | 31706 | 12/24/78 | 599.70 | 0 .00 | .00 | .00 | 30.50 | 630.20 | 599.70 | 100.0 | | | | |
| AL'S CLEANING SERVICE 84570 | | 0100000200 | 31706 | 12/18/78 | 570.00- | 0 .00 | .00 | .00 | 30.00- | 600.00- | 140.00- | 24.6- | | | | |
| AMERICAN WOOD PRESERVING 300 | | 0100000300 | 31706 | 10/25/78 | 250.00 | 0 10.00 | 15.00 | 35.00 | 25.00 | 300.00 | 85.00 | 34.0 | | | | |
| AMERICAN WOOD PRESERVING 301 | | 0100000300 | 31706 | 12/23/78 | 810.00 | 0 .00 | .00 | .00 | 40.00 | 850.00 | 810.00 | 100.0 | | | | |
| BICKERS & WHITE 84955 | | 0100000400 | 31901 | 12/29/78 | 887.05- | 0 .00 | .00 | .00 | .00 | 887.05- | 887.05- | 100.0- | | | | |
| SOUTHSIDE WELDING & 2100 | | 01000002100 | 31702 | 12/25/78 | 2,000.00 | 0 .00 | .00 | .00 | .00 | 2,000.00 | 2,000.00 | 100.0 | | | | |

| FINAL | TOTALS | A/R | COUNT |
|---------------|-----------|-----|-------|
| SALES - | 14,612.65 | | |
| SPECIAL - | 10.00 | | |
| FREIGHT - | 15.00 | | |
| DISCOUNT- | 35.00 | | |
| TAX 1 - | 80.50 | | |
| TAX 2 - | .00 | | |
| TAX 3 - | .00 | | |
| TAX 4 - | .00 | | |
| INVOICES- | 14,718.15 | | 14 |
| INV.COST- | 65.00- | | |
| GROSS PROFIT: | | | |
| AMOUNT- | 14,677.65 | | |
| PERCNT- | 100.4 | | |

Taking a trial balance

Before you print your statements each month you can take a trial balance on your accounts for audit purposes. The aged trial balance contains descriptive information on each customer, such as name, address and telephone number. It also lists current amount, total amount due, future amount, and amounts due in age periods 1 through 4 (open-item accounts show each open item, regardless of age), and service charges. The amounts are listed by customer and totaled at the end of the report.

The operator can select from several formats (run-time options) in order to provide you with an aged trial balance specifically suited to your needs.

| ARMAX COMPANY 1 NO. 1 | | AGED TRIAL BALANCE REPORT | | | | DATE | 8/31/78 | TIME | 9.49.14 | PAGE | 1 | AMR021 |
|--------------------------------|------------|--|---------|-----------|----------|----------|----------|----------|---------|------|---|--------|
| ALL CUSTOMERS | | AGED AS OF CURRENT STATEMENT-SINGLE LINE | | | | | | | | | | |
| | FUTURE A/R | TOTAL DUE | CURRENT | OVER 30 | OVER 60 | OVER 90 | JUNE 120 | | | | | |
| 100 APPOLLO SUPPLY CO. | .00 | 3,171.54 | .00 | .00 | .00 | .00 | 1,037.38 | 2,134.16 | | | | |
| 200 AL'S CLEANING SERVICE | 328.37 | 2,626.96 | .00 | 2,298.59 | .00 | .00 | .00 | .00 | | | | |
| 300 AMERICAN WOOD PRESERVING | .00 | 2,488.53 | .00 | 2,488.53 | .00 | .00 | .00 | .00 | | | | |
| 400 BICKERS & WHITE | .00 | 2,922.20 | .00 | 172.50 | 2,749.70 | .00 | .00 | .00 | | | | |
| 500 BRANCH EQUIPMENT CO. | .00 | 5,541.01 | .00 | 5,541.01 | .00 | .00 | .00 | .00 | | | | |
| 600 CAMERON COMPANY | .00 | 913.27 | .00 | 913.27 | .00 | .00 | .00 | .00 | | | | |
| 700 CRANE, OVERTON, & CULVER | .00 | 1,788.00 | .00 | 1,788.00 | .00 | .00 | .00 | .00 | | | | |
| 800 DEKALB CHEMICAL CO. | .00 | 11,815.91 | .00 | 11,815.91 | .00 | .00 | .00 | .00 | | | | |
| 900 FLYNN INDUSTRIAL SUPPLY | .00 | 4,290.50 | .00 | 1,717.17 | 2,573.33 | .00 | .00 | .00 | | | | |
| 1000 FOREMOST MACHINE SHOP | .00 | 5,405.06 | .00 | 2,049.01 | 2,893.90 | 461.55 | .00 | .00 | | | | |
| 1100 GORDON'S PRINT SHOP | .00 | 3,155.77 | .00 | 2,896.40 | 259.37 | .00 | .00 | .00 | | | | |
| 1200 JACKSON & MEYERS CO. | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | | | |
| 1300 JONES STEEL SUPPLY | .00 | 338.00 | .00 | 338.00 | .00 | .00 | .00 | .00 | | | | |
| 1400 LAKESIDE IMPLEMENT | .00 | 1,024.39 | .00 | 1,060.50 | .00 | .00 | .00 | 763.89 | | | | |
| 1500 MCHILLAN, TURNER | .00 | 4,120.59 | .00 | .00 | 2,127.11 | 1,993.48 | .00 | .00 | | | | |
| 1600 MEEHAN MANUFACTURING | .00 | 1,098.73 | .00 | .00 | 1,098.73 | .00 | .00 | .00 | | | | |
| 1700 PHILLIPS & SONS | .00 | 15,182.39 | .00 | 12,319.45 | .00 | .00 | 2,862.94 | .00 | | | | |
| 1800 POOLE HARDWARE | .00 | 4,721.96 | .00 | .00 | 3,553.70 | 1,168.26 | .00 | .00 | | | | |
| 1900 QUAKER STATE SERVICE INC. | .00 | 998.10 | .00 | 998.10 | .00 | .00 | .00 | .00 | | | | |
| 2000 SHARPE STEEL | .00 | 2,438.65 | .00 | 2,438.65 | .00 | .00 | .00 | .00 | | | | |
| 2100 SOUTHSIDE WELDING & | .00 | 7,845.40 | .00 | .00 | 2,718.10 | 5,127.30 | .00 | .00 | | | | |
| 2200 STEVENS BUILDING SUPPLY | .00 | 3,819.71 | .00 | 482.16 | 3,337.55 | .00 | .00 | .00 | | | | |
| 2300 TARA SUPPLY COMPANY | .00 | 1,253.88 | .00 | 231.80 | 1,022.08 | .00 | .00 | .00 | | | | |
| 2400 THOMAS, INC. | .00 | 5,076.13 | .00 | 5,076.13 | .00 | .00 | .00 | .00 | | | | |
| 2500 WELTON INDUSTRIES | .00 | 3,388.86 | .00 | 3,388.86 | .00 | .00 | .00 | .00 | | | | |
| 2600 WINSTON PAKK INC. | .00 | 3,684.84 | .00 | 3,684.84 | .00 | .00 | .00 | .00 | | | | |
| 2700 YATES BRUS. CO. | .00 | 1,747.12 | .00 | 1,747.12 | .00 | .00 | .00 | .00 | | | | |

| ARMAX COMPANY 1 COMPANY NO. 01 TOTALS | | AGED TRIAL BALANCE REPORT | | | | DATE | 8/31/78 | TIME | 9.49.14 | PAGE | 2 | AMR021 |
|---------------------------------------|-----------|---------------------------|---------------|------------|----------------|------|---------|------|---------|------|---|--------|
| PREV BAL | CURR CHGS | CURR PMTS | CURR ADJMENTS | TOTAL DUE | FUTURE A/R DUE | | | | | | | |
| 112,754.24 | .00 | 11,096.21 | .00 | 101,658.03 | 328.37 | | | | | | | |
| CURRENT AMOUNT | OVER 30 | OVER 60 | OVER 90 | OVER 120 | LATE CHGS | | | | | | | |
| .00 | 63,447.13 | 19,792.24 | 12,329.30 | 5,709.99 | .00 | | | | | | | |
| UNAPPLIED PAYMENTS- | .00 | UNAPPLIED ADJUSTMENTS- | .00 | | | | | | | | | |

The report can be printed:

- With the aging periods current or projected as of the next accounting period
- In summary (totals by age period) or in detail (each item)
- All customers (with or without a balance)
- Only customers with balances (a minimum amount can be specified)
- Only customers with past-due balances (a minimum amount can be specified)
- Only customers with delinquent balances

Additionally, by using the range printing feature, you can receive a separate aged trial balance on certain groups of customers. For example, if you have two operators handling receivables collections, one of them can call for a report of the first 1000 customers and the other can call for a report of the last 1000. If the aged trial balance covers the same range of customers as the statements you are going to print, the trial balance totals will agree with the control totals generated during statement printing.

With this flexibility in printing, the aged trial balance can be run as frequently as necessary to help you maintain tight control over an important asset—accounts receivable.

Purging open items and printing the paid open item proof

Open-item customers can be coded so that fully paid transactions are purged on request or only at month end so they appear on the customer statements.

The paid open-item proof can be printed on request showing all open items that have been cleared by payments or adjustments.

Month-end closing

This procedure: ages master and detail records; calculates service charges for customers coded to receive service charges; creates a data file from which statements are printed; and finally, eliminates all fully paid items from the detail file.

During this procedure, the operator can select the various control totals, record counts and listings to be printed.

| COMPANY NO 2 | | NO. 02 | | PAID OPEN-ITEM PROOF | | | | DATE 9/01/78 | TIME 10.45.27 | PAGE 4 | AMR551 |
|--------------------------|-------------------|-------------|----------|----------------------|----------|-----------------|-------------------------------|--------------|---------------|--------|--------|
| CUSTOMER NUMBER | INVOICE NUMBER | TYPE | DATE | A/R AMOUNT | DISCOJNT | AMOUNT RECEIVED | ADJUSTMENT NUMBER | | | | |
| PRGE | 2800 84760 | 1 | 11/22/77 | 382.64 | | | | | | | |
| PRGE | 2800 PAYMNT | 2 | 9/01/78 | 382.64- | 20.00 | 362.64 | | | | | |
| PRGE | 2800 84819 | 1 | 11/29/77 | .37 | | | | | | | |
| PRGE | 2800 ADJMNT | 3 | 9/01/78 | .37- | | | ADJ005 | | | | |
| PRGE | 2800 84821 | 1 | 11/29/77 | 4,100.00 | | | | | | | |
| PRGE | 2800CM 2821 | 1 | 9/01/78 | 100.00- | | | | | | | |
| PRGE | 2800 PAYMNT | 2 | 9/01/78 | 4,000.00- | .00 | 4,000.00 | | | | | |
| COMPANY PURGED AR TOTAL | | | 4,383.01 | | | | | | | | |
| COMPANY 02 TOTALS | | | | | | | | | | | |
| | * BALANCE FORWARD | * OPEN ITEM | * TOTAL | | | | | | | | |
| | COUNT | AMOUNT | COUNT | AMOUNT | COUNT | AMOUNT | | | | | |
| FUTURE AR DUE - | 0 | .00 | 0 | .00 | 0 | .00 | | | | | |
| BALANCE FORWARD - | 1 | 1,853.08 | | | 1 | 1,853.08 | | | | | |
| SERVICE CHARGES - | 0 | .00 | 0 | .00 | 0 | .00 | | | | | |
| INVOICES - | 0 | .00 | 11 | 12,728.93 | 11 | 12,728.93 | TOTAL CASH DISCOUNT ALLOWED - | 265.00 | | | |
| PAYMENTS - | 0 | .00 | 2 | 4,382.64- | 2 | 4,382.64- | | | | | |
| ADJUSTMENTS - | 0 | .00 | 2 | 589.70 | 2 | 589.70 | | | | | |
| ACTIVE ACCOUNTS - | 1 | 1,853.08 | 2 | 8,935.99 | 3 | 10,789.07 | | | | | |
| RECORDS PURGED - | 7 | | | | | | | | | | |

Printing statements

Statements serve two important purposes: they can speed payment collection by reminding the customer of amounts due, and they help maintain customer goodwill by providing an accurate picture of the customer's transactions.

The application produces statements for customers coded to receive them.

These statements include any service charges applied to the account. For customer records coded as no-statement accounts (those who usually pay by invoice and prefer not to receive statements), statement printing is bypassed.

Statements can be printed any time after month-end closing and prior to the next period close. You can elect to print all statements at one time or selectively within limits by customer number; or if you selected multicompany support, you can print by company number.

A tailoring option permits you to suppress printing of statements for those customers with a zero balance, even if the customer had activity during the current period.

| | |
|------|---|
| PAGE | 1 |
|------|---|

| COMP | CUSTOMER | NAME | DATE |
|------|----------|--|----------|
| 1 | 400 | BICKERS & WHITE 8800 EAST 63RD ST. LOS ANGELES | 12/30/78 |
| | | STATE | ZIP |
| | | CA | 64133 |

| COMP | CUSTOMER |
|------|----------|
| 1 | 400 |

| DATE |
|----------|
| 12/30/78 |

THANK YOU FOR YOUR BUSINESS

| DATE | TRANSACTION | INVOICE NUMBER | CASH RECEIVED ADJUSTMENT NO. | DISCOUNT | AMOUNT | DATE | TRANS | INVOICE NUMBER | ADJUST NO. | AMOUNT |
|----------|-------------|----------------|------------------------------|----------|----------|----------|-------|----------------|------------|----------|
| 11/25/78 | INVOICE | 85079 | | 20.00 | 1,862.65 | 11/25/78 | INV | 85079 | | 1,862.65 |
| 12/27/78 | ADJMENT | | 111333 | | 300.00 | 12/27/78 | ADJ | | 111333 | 300.00 |
| 11/25/78 | INVOICE | 84731 | | 20.00 | 172.50 | 11/25/78 | INV | 84731 | | 172.50 |
| 12/27/78 | ADJMENT | | 111333 | | 500.00 | 12/27/78 | ADJ | | 111333 | 500.00 |
| 12/30/78 | SRVC CHG | | | .00 | 42.53 | 12/30/78 | SC | | | 42.53 |

| CURRENT | PAST 30 | PAST 60 |
|---------|----------|-----------|
| 42.53 | 672.50 | 2,162.65 |
| PAST 90 | PAST 120 | TOTAL DUE |
| .00 | .00 | 2,877.68 |

PLEASE PAY THIS AMOUNT

| TOTAL DUE |
|-----------|
| 2,877.68 |

Printing delinquency notices

Your operator can run delinquency notices whenever necessary. Depending on the delinquency point (age period), the amount delinquent can be the age period 4 amount only, or a total of the amounts in all age periods equal to, or older than, the delinquency point you specified.

Printing the customer account status report

The operator can request an account status report (for selected customers) at any time. This report provides the current status of a specific customer, showing payments, current balance, total amount due, and aged amounts due. For open-item customers, the report shows detail for all open items so that you have a record of the invoices to which unidentified cash has been applied. For invoices that are partially paid, the report shows the original amount due, the payment amount, and the amount still open or outstanding.

| | | |
|---|----------|-----------|
| DATE | | |
| 8/31/78 | | |
| CUSTOMER NUMBER | | |
| 100 | | |
| 1 | | |
| GA 30301 | | |
| APPOLLO SUPPLY CO. 625 WEST UGLETHORPE AVE. ATLANTA | | |
| CURRENT | PAST 30 | PAST 60 |
| .00 | .00 | .00 |
| PAST 90 | PAST 120 | TOTAL DUE |
| 1,037.38 | 2,134.16 | 3,171.54 |
| DELINQUENT AMOUNT - | | 3,171.54 |

IBM FORMS

Inquiry

The Accounts Receivable application provides inquiry into a customer's data files at any time. This request allows the operator to enter a customer number and receive from the system the customer master data and the unpaid total from the detail file. The operator can proceed from customer to customer without reinitiating the procedure.

Interfaces

The Accounts Receivable application interfaces with the following other System/36 MAPICS applications if installed:

- The Order Entry and Invoicing application uses Accounts Receivable data for credit limit checking. Order Entry and Invoicing also provides summary information for each invoice or credit memo processed.
- The Sales Analysis application receives from Accounts Receivable the customer and salesman sales information for those invoice summary records entered directly into Accounts Receivable.
- Accounts Receivable also provides information to the General Ledger application related to cash and adjustment entries, and service charges.

| | | | | | | | | | | | | |
|---------------------|-------------------------|---------------|---------------------------|----------|-------|-----|------|------|-------|----------|------|----------|
| DATE 8/16/78 | A/R INQUIRY - OPEN ITEM | | INQUIRY | AMR902 | Y1 | | | | | | | |
| COMPANY 01 | BICKERS & WHITE | | PHONE 781-341-6658 | | | | | | | | | |
| CUSTOMER 00000400 | 9800 EAST 63RD ST. | | STATEMENT CODE 0 | | | | | | | | | |
| | LOS ANGELES | | SVC CD 1 SVC PCT 015 | | | | | | | | | |
| | | | CA 64133 LAST PMT 0/00/00 | | | | | | | | | |
| SRVC CHGS - | 41.24 | CURRENT - | 41.24 | | | | | | | | | |
| CURR CHGS - | | 30 DAY - | | | | | | | | | | |
| CURR PMTS - | | 60 DAY - | 172.50 | | | | | | | | | |
| CURR ADJS - | | 90 DAY - | 2,749.70 | | | | | | | | | |
| | | 120 DAY - | | | | | | | | | | |
| TOTAL DUE - | 2,963.44 | CREDIT LIMIT- | | | | | | | | | | |
| REF NO | DATE | AR | TRAN | AMT | DR/CR | TJ | DATE | DISC | TAKEN | AR | DATE | LAST |
| 084955 | 10/06/77 | | | 887.05 | .00 | .00 | | | .00 | 887.05 | | 10/06/77 |
| 085079 | 10/13/77 | | | 1,862.65 | .00 | .00 | | | .00 | 1,862.65 | | 10/13/77 |
| 084731 | 11/21/77 | | | 172.50 | .00 | .00 | | | .00 | 172.50 | | 11/21/77 |
| SVCCHG | 1/01/78 | | | 41.24 | .00 | .00 | | | .00 | 41.24 | | 1/01/78 |
| ---END OF DETAIL--- | | | | | | | | | | | | |
| CK24 END OF DISPLAY | | | | | | | | | | | | |

Sales Analysis

Information flow

Application functions

12-month or 13-period processing
Report selections

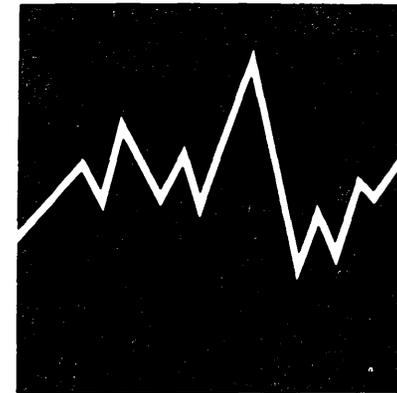
Operations

Profit analysis by item
Sales analysis by item
Sales analysis by item class
Interim item analysis reports
Profit analysis by customer
Sales analysis by customer
Sales analysis by customer class
Interim customer sales reports
Profit analysis by salesman
Sales analysis by salesman

Inquiries

Salesman
Item
Customer

Interfaces



SALES ANALYSIS

Sales Analysis

Information flow

Figure 2-6 shows how information flows through the Sales Analysis application. The numbers in the following discussion refer to this figure.

At month-end, sales statistics are printed in reports showing customer, item, and salesman performance **1**.

On request, a series of reports are available for customers, items, and salesmen showing current period and year-to-date information. Additionally, current period-to-date information is available for customers and items **2**.

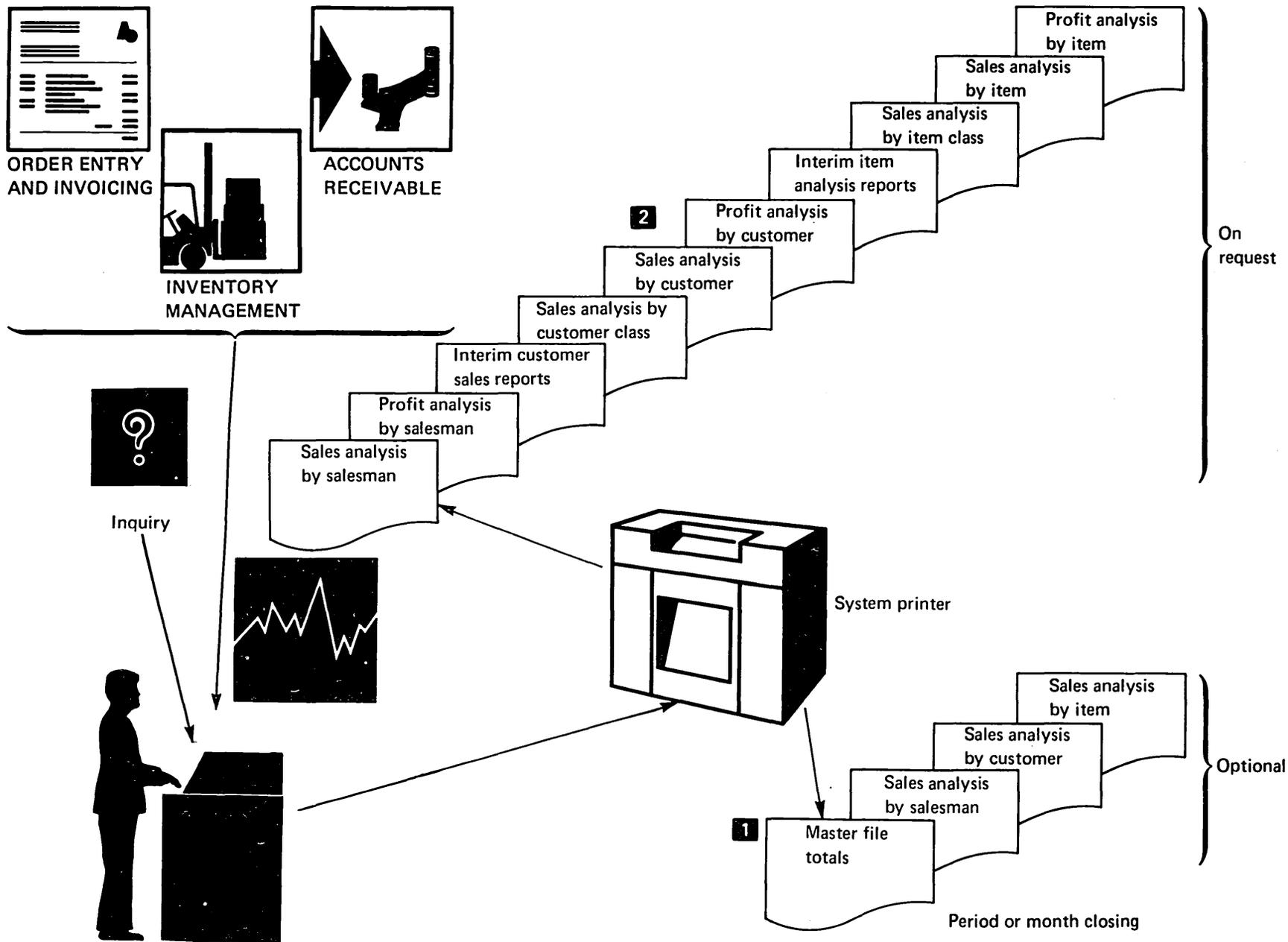


Figure 2-6. Sales Analysis information flow

Application functions

12-month or 13-period processing

The Sales Analysis application provides for either 12-month or 13-period processing. The selection is based on your methods of accounting. If Order Entry and Invoicing is installed, it controls when a period change takes place; otherwise, Sales Analysis controls the posting period in the system.

Report selections

When you install the Sales Analysis application, the tailoring option allows you to require the printing of the sales analysis by item, by customer, and/or by salesman at period close. If no selection is made, only master file totals for salesman, customer and item will print when the Sales Analysis application is closed for a period.

A tailoring option permits you to select whether to print items which have had no current sales activity.

Receipt of data

The Sales Analysis application automatically receives data from its interfacing applications if installed. At least one of these applications must be installed.

Operations

Profit analysis by item

The primary purpose of this report is to analyze the profitability of specific items. The report can help determine trends associated with items and classes of items. It is printed in item number within item class sequence. You can print all or a range of items within a class or item classes.

| NORTHCREEK IND. NO. 01 | | PROFIT ANALYSIS BY ITEM FOR PERIOD 2 PTD/YTD | | | | | | DATE 2/10/78 TIME 15.15.33 PAGE 1 AMS22 | | | | |
|------------------------|---------------|---|---------------|---------------|------------------|--------------|----------------|---|------------------|--------------|-------------|--|
| ITEM CL NUMBER | QUANTITIES | | QUANTITIES | | PROFIT | | AMOUNT | | PROFIT | | | |
| | SOLD P-T-D | LOST P-T-D | SOLD Y-T-D | LOST Y-T-D | G.P.AMT P-T-D | PCT P-T-D | SALES Y-T-D | COST Y-T-D | G.P.AMT Y-T-D | PCT Y-T-D | PCT L.YR | |
| 20 0499001 | | SPRAY UNIT | | | | | | | | | | |
| | 37 | 2 | 107 | 6 | 621.84 | 47.1 | 4,960.50 | 2,531.34 | 2,429.16 | 49.0 | 45.7 | |
| 20 1203385 | | WRENCH | | | | | | | | | | |
| | 40 | 2 | 110 | 8 | 518.22 | 50.4 | 4,667.53 | 2,027.38 | 2,640.15 | 56.6 | 45.7 | |
| 20 1403424 | | TREASLE ASSEMBL | | | | | | | | | | |
| | 70 | 0 | 210 | 1 | 407.74 | 50.0 | 2,447.65 | 1,225.01 | 1,222.64 | 50.0 | 55.5 | |
| CLASS TOTALS | 147 | 4 | 427 | 15 | 1,547.80 | 48.9 | 12,075.68 | 5,783.73 | 6,291.95 | 52.1 | | |
| 70 3203591-12 | | WHEEL 18 IN DIA | | | | | | | | | | |
| | 35 | 2 | 105 | 8 | 66.20 | 66.6 | 284.90 | 132.60 | 152.30 | 53.5 | 51.7 | |
| 70 3333480-A | | CONTROL BOX | | | | | | | | | | |
| | 17 | 2 | 52 | 5 | 100.49 | 31.2 | 876.48 | 621.36 | 255.10 | 29.1 | 39.9 | |
| 70 3427005-A | | PUMPING UNIT | | | | | | | | | | |
| | 35 | 0 | 105 | 1 | 20.09 | 22.3 | 275.62 | 190.39 | 85.23 | 30.9 | 51.7 | |
| CLASS TOTALS | 87 | 4 | 262 | 14 | 186.78 | 36.5 | 1,437.00 | 944.37 | 492.63 | 34.3 | | |
| 80 0203591-08 | | WHEEL 8 IN DIA | | | | | | | | | | |
| | 10 | 1 | 39 | 5 | 15.08 | 50.0 | 108.04 | 48.79 | 59.25 | 54.8 | 51.6 | |
| 80 0534250-A | | TANK COVER ASSM | | | | | | | | | | |
| | 83 | 0 | 209 | 1 | 11.25 | 10.7 | 357.55 | 206.80 | 150.75 | 42.2 | 49.9 | |
| 80 0603591-12 | | WHEEL 18 IN DIA | | | | | | | | | | |
| | 10 | 1 | 45 | 4 | 2.64 | 26.7 | 35.46 | 4.43 | 11.03 | 31.1 | 51.8 | |
| CLASS TOTALS | 103 | 2 | 293 | 10 | 28.97 | 20.0 | 501.05 | 280.02 | 221.03 | 44.1 | | |
| FINAL TOTALS | 337 | 10 | 982 | 39 | 1,763.55 | 46.2 | 14,013.73 | 7,038.12 | 7,005.61 | 50.0 | | |
| OPTIONS CHOSEN | | | | | | | | | | | | |
| ALL ITEM NUMBERS | | | | | | | | | | | | |

Sales analysis by item

This report compares present activity for an item with the previous year's activity. It can aid in determining demand pattern changes so that sales emphasis can be affected or that inventory levels can be altered. This report can be printed with the same options as the profit analysis by item report.

Sales analysis by item class

This report contains the same information as the sales analysis by item report, except that individual item data is not shown. The report prints one line per item class selected, showing the comparative information.

| NORTHCREEK IND. NO. 01 | | SALES ANALYSIS BY ITEM FOR PERIOD 2 PTD/YTD | | | | | | DATE 2/10/78 TIME 15.15.25 PAGE 1 AMS22 | | | | | |
|------------------------|------------|---|--------------------|----------|-----------------|-------------------|----------|---|--------------------|----------|-----------------|-------------------|----------|
| CL | ITEM NO. | P-T-D THIS YEAR | QUANTITY LAST YEAR | PCT DIFF | P-T-D THIS YEAR | AMOUNTS LAST YEAR | PCT DIFF | P-T-D THIS YEAR | QUANTITY LAST YEAR | PCT DIFF | P-T-D THIS YEAR | AMOUNTS LAST YEAR | PCT DIFF |
| 20 | 0499001 | | 37 | 23.3 | 1,320.31 | 1,060.16 | 24.5 | 107 | 1,006 | 89.4- | 4,960.50 | 57,949.88 | 91.4- |
| 20 | 1203385 | | 40 | 33.3 | 1,027.34 | 1,060.16 | 3.1- | 110 | 1,101 | 90.0- | 4,667.53 | 57,799.79 | 91.9- |
| 20 | 1403424 | | 70 | 16.7 | 815.25 | 699.20 | 16.6 | 210 | 1,990 | 89.4- | 2,447.65 | 27,221.34 | 91.0- |
| CLASS TOTALS | | 147 | 120 | 22.5 | 3,162.90 | 2,819.52 | 12.2 | 427 | 4,097 | 89.6- | 12,075.68 | 142,971.01 | 91.6- |
| 70 | 3203591-12 | | 35 | 16.7 | 99.40 | 79.66 | 24.8 | 105 | 1,108 | 90.5- | 284.90 | 2,891.99 | 90.1- |
| 70 | 3333480-A | | 17 | 13.3 | 322.13 | 235.41 | 36.8 | 52 | 550 | 90.5- | 876.48 | 8,918.00 | 90.2- |
| 70 | 3427005-A | | 35 | 16.7 | 90.12 | 79.00 | 14.1 | 105 | 1,108 | 90.5- | 275.62 | 1,286.97 | 78.6- |
| CLASS TOTALS | | 87 | 75 | 16.0 | 511.65 | 394.07 | 29.8 | 262 | 2,766 | 90.5- | 1,437.00 | 13,097.56 | 89.0- |
| 80 | 0203591-08 | | 10 | 16.7- | 30.13 | 33.78 | 10.8- | 39 | 466 | 91.6- | 108.04 | 1,230.11 | 91.2- |
| 80 | 0534250-A | | 83 | 53.7 | 105.12 | 108.36 | 3.0- | 209 | 1,994 | 89.5- | 357.55 | 3,978.71 | 91.0- |
| 80 | 0603591-12 | | 10 | 33.3- | 9.87 | 10.84 | 8.9- | 45 | 538 | 91.6- | 35.46 | 414.08 | 91.4- |
| CLASS TOTALS | | 103 | 81 | 27.2 | 145.12 | 152.98 | 5.1- | 293 | 2,998 | 90.2- | 501.05 | 5,622.90 | 91.1- |
| FINAL TOTALS | | 337 | 276 | 22.1 | 3,819.67 | 3,366.57 | 13.5 | 982 | 9,861 | 90.0- | 14,013.73 | 161,091.47 | 91.3- |
| OPTIONS CHOSEN | | | | | | | | | | | | | |
| ALL ITEM NUMBERS | | | | | | | | | | | | | |

Interim item analysis reports

Three reports are available on demand to show the current period activity:

1. Profit analysis by item—lists all items or a selected range of items or classes and shows sales volume in quantity and amounts, cost and gross profit amounts and percents.
2. Profit analysis by item class—prints item class information from all or a selected range of item classes. The information is the same as the interim profit analysis by item report.
3. Profit analysis by item sales amount—prints all items sequenced by descending sales amount. This report can relate high volume sales items to their profit contribution.

Profit analysis by customer

This report shows at a glance the profitability of each customer. The report can be printed for all or a range of companies, if you selected multicompany support, or for all or a range of customers.

| NORTHCREEK IND. NO. 01 | | PROFIT ANALYSIS BY CUSTOMER FOR PERIOD 2 MTD/YTD | | | | DATE 2/10/78 TIME 15.12.53 | | PAGE 1 | | AMSL2 | |
|--|-----------|---|-----------|------|--------------------|----------------------------|-----------|--------|-------------|-------|--|
| CUSTOMER NAME CUSTOMER/SALESMAN NUMBER | SALES AMT | P-T-D COST | G.P. AMT | PCT | Y-T-D SALES AMT | Y-T-D COST | G.P. AMT | PCT | L.YR PCT | | |
| APPOLL SUPPLY CO. | | | | | | | | | | | |
| 01135000 31701 | 4,372.17 | 3,214.30 | 1,157.87 | 26.5 | 11,239.60 | 8,431.64 | 2,807.96 | 25.0 | 30.3 | | |
| ALMON SAFETY EQUIPMENT | | | | | | | | | | | |
| 01144000 31705 | 1,297.43 | 1,199.87 | 97.56 | 7.5 | 8,193.36 | 4,138.61 | 4,054.75 | 49.5 | 29.5 | | |
| AL'S CLEANING SERVICE | | | | | | | | | | | |
| 01154000 31706 | 2,437.52 | 1,989.74 | 447.78 | 18.4 | 7,287.47 | 4,558.47 | 2,729.00 | 37.4 | 26.9 | | |
| AMERICAN STEEL | | | | | | | | | | | |
| 01183000 31709 | 6,732.41 | 4,321.06 | 2,411.35 | 35.8 | 15,272.56 | 10,732.43 | 4,540.13 | 29.7 | 24.8 | | |
| BICKERS & WHITE | | | | | | | | | | | |
| 02007000 31901 | 4,316.41 | 1,273.82 | 3,042.59 | 70.5 | 11,269.23 | 4,271.79 | 6,997.44 | 62.1 | 24.8 | | |
| CAMERON COMPANY | | | | | | | | | | | |
| 03027000 31901 | 1,796.83 | 987.41 | 809.42 | 45.0 | 10,170.09 | 7,119.23 | 3,050.86 | 30.0 | 31.9 | | |
| DAY SUPPLIES, INC. | | | | | | | | | | | |
| 04015000 31705 | 3,117.92 | 3,009.43 | 108.49 | 3.5 | 10,338.99 | 9,129.15 | 1,209.84 | 11.7 | 22.7 | | |
| GOULD SUPPLY | | | | | | | | | | | |
| 07175000 31901 | 4,782.37 | 2,341.26 | 2,441.11 | 51.0 | 13,932.80 | 7,370.47 | 6,562.33 | 47.1 | 26.5 | | |
| GOLNER CONTRDL CO. | | | | | | | | | | | |
| 07181000 31702 | 6,312.41 | 3,156.20 | 3,156.21 | 50.0 | 14,238.26 | 7,670.93 | 6,567.33 | 46.1 | 31.7 | | |
| COMPANY TOTALS | 35,165.47 | 21,493.09 | 13,672.38 | 38.9 | 101,942.36 | 63,422.72 | 38,519.64 | 37.8 | | | |
| FINAL TOTALS | 35,165.47 | 21,493.09 | 13,672.38 | 38.9 | 101,942.36 | 63,422.72 | 38,519.64 | 37.8 | | | |
| OPTIONS CHOSEN | | | | | | | | | | | |
| ALL COMPANY NUMBERS | | | | | | | | | | | |

Sales analysis by customer

This report lists current period and year-to-date sales for each customer and compares them to the corresponding period in the last year. The report can help in highlighting changes in buying patterns that may warrant close management or sales attention.

Sales analysis by customer class

This report prints one line per customer class and shows the same information as the sales analysis by customer report.

Interim customer sales reports

Three reports are available on demand to show the current interim customer sales:

1. Customer sales report—lists all or a range of companies, if you selected the multicompany support, or all or a range of customers. The report shows the gross sales, cost and profit amounts plus profit percent for each customer selected.
2. Profit analysis by customer sales amount—shows the same information as the customer sales report, except that the customers with the highest dollar sales activity will appear first.
3. Customer class sales report—sales volume, cost and gross profit amounts are shown for each customer class with current period activity. The profit percentage is also calculated and printed.

| NORTHCREEK IND. NO. 01 | | SALES ANALYSIS BY CUSTOMER FOR PERIOD 2 PTD/YTD | | | DATE 2/10/78 TIME 15.12.47 PAGE 1 AMS12 | | | |
|------------------------|-----------------|---|---------------|-----------|---|---------------|------------|----------|
| CUSTOMER NUMBER | SALESMAN NUMBER | CUSTOMER NAME | P-T-D AMOUNTS | | | Y-T-D AMOUNTS | | |
| | | | THIS YEAR | LAST YEAR | PCT DIFF | THIS YEAR | LAST YEAR | PCT DIFF |
| 01135000 | 31701 | APPOLL SUPPLY CO. | 4,372.17 | 588.63 | 642.8 | 11,239.60 | 10,524.59 | 6.8 |
| 01144000 | 31705 | ALMON SAFETY EQUIPMENT | 1,297.43 | 591.08 | 119.5 | 8,193.36 | 7,637.09 | 7.3 |
| 01154000 | 31706 | AL'S CLEANING SERVICE | 2,437.52 | 415.71 | 486.4 | 7,287.47 | 7,411.85 | 1.7- |
| 01183000 | 31709 | AMERICAN STEEL | 6,732.41 | 732.01 | 819.7 | 15,272.56 | 13,092.03 | 16.7 |
| 02007000 | 31901 | BICKERS & WHITE | 4,316.41 | 595.95 | 624.3 | 11,264.23 | 11,060.47 | 1.9 |
| 03027000 | 31901 | CAMERON COMPANY | 1,796.83 | 717.70 | 150.4 | 10,170.09 | 12,571.95 | 19.7- |
| 04015000 | 31705 | DAY SUPPLIES, INC. | 3,117.92 | 618.44 | 403.8 | 10,338.99 | 11,173.50 | 7.5- |
| 07175000 | 31901 | GOULU SUPPLY | 4,782.37 | 784.32 | 509.7 | 13,432.80 | 14,131.42 | 1.4- |
| 07181000 | 31702 | GOLNER CONTROL CO. | 6,312.41 | 6,792.98 | 7.1- | 14,238.26 | 12,427.84 | 14.6 |
| COMPANY TOTALS | | | 35,165.47 | 11,836.92 | 197.1 | 101,942.36 | 100,130.79 | 1.8 |
| FINAL TOTALS | | | 35,165.47 | 11,836.92 | 197.1 | 101,942.36 | 100,130.79 | 1.8 |
| OPTIONS CHOSEN | | | | | | | | |
| ALL COMPANY NUMBERS | | | | | | | | |

Profit analysis by salesman

In contrast to the total sales, this report focuses on profit. Usually produced at the end of a period but available on demand, it shows gross profits, percentage and amounts. It recaps the year-to-date totals for the invoiced amounts and cost of goods. This report eases the evaluation of territory profitability and productivity, to highlight situations that may need management attention.

| NORTHCREEK IND. NO. 01 | | PROFIT ANALYSIS BY SALESMAN FOR PERIOD 2 PTD/YTD | | | | DATE 2/10/78 | TIME 15.17.22 | PAGE 1 | AMS32 | |
|------------------------|---------------------|---|-----------|-----------|------|--------------|---------------|-------------|-------|------|
| SALESMAN NUMBER | SALESMAN NAME | P-T-D | | G.P. | | Y-T-D | | L.YR PCT | | |
| | | SALES AMT | COST | AMT | PCT | SALES AMT | CUST | | | |
| 31701 | ROBERT G. ARRUN | 17,542.45 | 9,327.12 | 8,215.33 | 46.8 | 65,601.35 | 29,813.95 | 54.6 | 29.5 | |
| 31702 | BOBBY JOE ADAMS | 39,607.17 | 27,538.53 | 12,068.64 | 30.5 | 85,064.37 | 59,524.83 | 25,539.54 | 30.0 | 22.0 |
| 31705 | WILLIAM E. ANDERSON | 27,241.12 | 9,879.45 | 17,361.67 | 63.7 | 69,978.21 | 29,669.01 | 40,309.20 | 57.0 | 21.5 |
| 31706 | CHARLES W. ARNOLD | 27,142.43 | 10,012.22 | 17,130.21 | 63.1 | 75,410.52 | 33,483.63 | 41,926.89 | 55.0 | 25.5 |
| 31709 | JOE DON BAKER | 33,074.20 | 15,102.12 | 17,972.08 | 54.5 | 89,174.01 | 45,310.02 | 42,863.99 | 46.1 | 24.5 |
| 31901 | RAY PIERCE | 32,340.12 | 9,870.37 | 22,469.75 | 69.5 | 80,355.38 | 10,882.56 | 69,472.80 | 86.5 | 28.6 |
| FINAL TOTALS | | 176,947.49 | 81,729.81 | 95,217.68 | 53.8 | 465,643.84 | 209,684.02 | 255,959.82 | 55.0 | |
| OPTIONS CHOSEN | | | | | | | | | | |
| ALL SALESMAN NUMBERS | | | | | | | | | | |

Sales analysis by salesman

This report is especially helpful to both salesmen and management, in tracking both performance trends from year to year and progress towards increased annual sales. It compares each salesman's current period sales to his sales for the same period last year, and shows the percentage difference. It also compares year-to-date figures.

| NORTHCREEK IND. NO. 01 | | SALES ANALYSIS BY SALESMAN FOR PERIOD 2 PTD/YTD | | | DATE 2/10/78 | TIME 15.17.17 | PAGE 1 | AMS32 |
|------------------------|---------------------|--|-----------|-------------|---------------|---------------|-------------|-------|
| SALESMAN NUMBER | SALESMAN NAME | P-T-D AMOUNTS | | PCT DIFF | Y-T-D AMOUNTS | | PCT DIFF | |
| | | THIS YEAR | LAST YEAR | | THIS YEAR | LAST YEAR | | |
| 31701 | ROBERT G. ARRUN | 17,542.45 | 5,498.70 | 219.0 | 65,661.35 | 959,184.45 | 93.2- | |
| 31702 | BOBBY JOE ADAMS | 39,607.17 | 3,895.83 | 916.7 | 85,064.37 | 731,872.04 | 80.4- | |
| 31705 | WILLIAM E. ANDERSON | 27,241.12 | 3,659.90 | 644.3 | 69,978.21 | 634,757.33 | 89.0- | |
| 31706 | CHARLES W. ARNOLD | 27,142.43 | 4,136.89 | 556.1 | 75,410.52 | 738,850.06 | 89.8- | |
| 31709 | JOE DON BAKER | 33,074.20 | 48,082.72 | 31.2- | 89,174.01 | 846,511.89 | 89.5- | |
| 31901 | RAY PIERCE | 32,340.12 | 4,116.45 | 685.6 | 80,355.38 | 128,917.17 | 37.7- | |
| FINAL TOTALS | | 176,947.49 | 69,390.49 | 155.0 | 465,643.84 | 4,040,092.94 | 86.5- | |
| OPTIONS CHOSEN | | | | | | | | |
| ALL SALESMAN NUMBERS | | | | | | | | |

Inquiries

The Sales Analysis application permits inquiries into the status of customers, items or salesman data in its master files at any time. Three inquiries are available: salesman, item, and customer.

Salesman

After the operator enters the requested salesman number, the system responds with information related to the accounting cycle (current month, etc.) and displays the past 12 months or 13 periods of activity, based upon your accounting cycle.

```

DATE 9/08/78          SALES ANALYSIS INQUIRY          AMS381 04
                      SALESMAN SALES

SALESMAN NUMBER 31705      SALESMAN NAME WILLIAM E ANDERSON

CURRENT PERIOD   12      FIRST FISCAL PERIOD       1

SALES MTD/PTD   7,241.12      SALES YTD   49,400.90
COST MTD/PTD   3,879.45      COST YTD   29,669.01

SALES
PERIOD 1      4,273.70  PERIOD 2      3,659.90  PERIOD 3      4,273.71
PERIOD 4      5,494.88  PERIOD 5      4,879.92  PERIOD 6      5,457.71
PERIOD 7      3,659.93  PERIOD 8      4,879.26  PERIOD 9      6,105.34
PERIOD 10     6,716.55  PERIOD 11     6,105.31  PERIOD 12     5,494.73
PERIOD 13     2,748.35
    
```

CK24 END OF JOB

Item

The operator enters the item number requested, and the system responds with some static item data and the sum of the current period activity, along with the previous periods. Both dollar and quantity information is shown.

```

DATE 9/08/78          SALES ANALYSIS INQUIRY          AMS361 04
                      ITEM SALES
                      ITEM DESCRIPTION WHEEL 8 IN. DIA.

ITEM NUMBER 0203591-08      80
ITEM CLASS
CURRENT PERIOD   12      FIRST FISCAL PERIOD       1
SALES MTD/PTD   30.13      SALES YTD   446.95
COST MTD/PTD   15.05      COST YTD   248.79
QTY MTD/PTD    10      QTY YTD   169
LOST MTD/PTD    1      LOST YTD    5

QUANTITY
PERIOD 1      14  PERIOD 2      12  PERIOD 3      15
PERIOD 4      18  PERIOD 5      17  PERIOD 6      19
PERIOD 7      12  PERIOD 8      18  PERIOD 9      21
PERIOD 10     23  PERIOD 11     21  PERIOD 12     17
PERIOD 13     20

SALES
PERIOD 1      33.91  PERIOD 2      33.78  PERIOD 3      33.91
PERIOD 4      50.17  PERIOD 5      44.04  PERIOD 6      50.17
PERIOD 7      33.78  PERIOD 8      43.46  PERIOD 9      61.30
PERIOD 10     62.43  PERIOD 11     61.30  PERIOD 12     46.75
PERIOD 13     50.02
    
```

CK24 END OF JOB

Customer

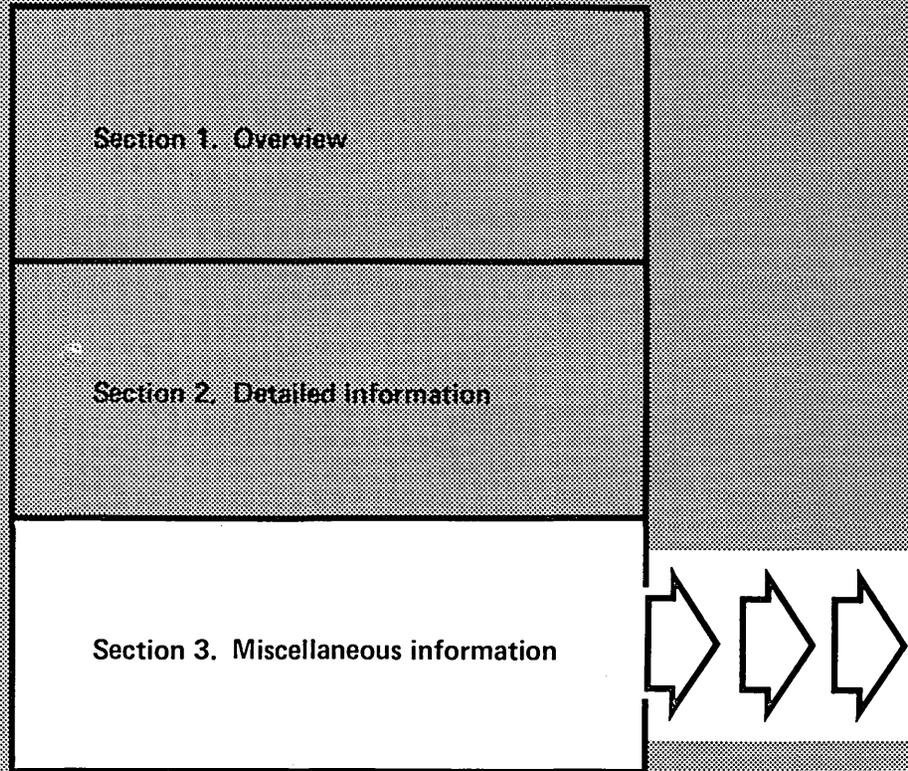
This inquiry displays the sum of all current period activity and the previous period's activity.

Interfaces

The Sales Analysis application interfaces with the following other System/36 MAPICS applications if they are installed:

- Order Entry and Invoicing provides sales and cost information related to customers, salesmen and items. A code is available in the customer record which allows you to maintain sales analysis information on only those customers you consider pertinent.
- Accounts Receivable provides customer and salesman information for those invoices or credit memos entered directly into Accounts Receivable.
- Inventory Management provides information related to individual item sales for those sales transactions entered directly into Inventory Management. A code is available in the inventory record which allows you to maintain sales analysis information on only those items you consider pertinent.

| DATE 9/08/78 | | SALES ANALYSIS INQUIRY | | AMS341 04 | |
|-----------------|-------------------|------------------------|----------|-----------|--------|
| | | CUSTOMER SALES | | | |
| CUSTOMER NUMBER | 1135000 | COMPANY NUMBER | 1 | | |
| CUSTOMER NAME | APPOLL SUPPLY CO. | CUSTOMER CLASS | 10 | | |
| CURRENT PERIOD | 12 | FIRST FISCAL PERIOD | 1 | | |
| SALES MTD/PTD | 4,372.17 | SALES YTD | 8,151.30 | | |
| COST MTD/PTD | 3,214.30 | COST YTD | 6,431.64 | | |
| INV MTD/PTD | 4 | INV YTD | 12 | | |
| SALES | | | | | |
| PERIOD 1 | 686.74 | PERIOD 2 | 588.63 | PERIOD 3 | 688.74 |
| PERIOD 4 | 882.95 | PERIOD 5 | 788.44 | PERIOD 6 | 984.06 |
| PERIOD 7 | 1,079.16 | PERIOD 8 | 981.06 | PERIOD 9 | 882.95 |
| PERIOD 10 | 588.63 | PERIOD 11 | 2,078.45 | PERIOD 12 | 882.34 |
| PERIOD 13 | 699.32 | | | | |
| CK24 END OF JOB | | | | | |



System requirements

The minimum system configuration for the applications discussed in this book is an IBM System/36 with:

- 29.1 million characters of disk storage (single disk)
- One system printer, can be either a line printer or serial printer
- One display station
- 128 bytes of main storage

Although there is nothing inherent in the design of MAPICS to prevent the use of the minimum system configuration stated above, the system configuration for a particular customer must be able to accommodate the expected business volumes, data base size, and operating requirements.

Consult your IBM representative for guidance. Refer to "Performance Considerations" on the next page for more details.

Programming systems

These System/36 program products are required:

- The System Support Program program product (5727-SS1 or 5727-SS2)

The application programs are written in the System/36 RPG II programming language. Therefore, if you want to make modifications to the application programs, you must also have the RPG II compiler (5726-RG1) available and the Utilities program product (5727-UT1 or 5727-UT2).

Performance considerations

The features described in this section impact System/36 operational performance. If you plan to install several applications, you may need more than the minimum system configuration.

Main storage. Each application program is designed to execute within a particular minimum main storage size. (The minimum configuration is listed under "System Requirements" in this section.)

In some instances, a main storage capacity greater than the minimum required can improve performance. For example, performance can be affected by:

- The number of jobs operating concurrently
- The number of work stations the system allows to be operating concurrently on the same job
- The number of work stations concurrently on the same or different applications

Disk storage. The larger your disk storage, the more information you can store in the system. If you plan to store large volumes of data, you will need a disk storage capacity larger than the minimum required. Then you can expand your files readily, as your business increases.

Printer speeds. A line printer produces reports and listings at a significantly greater speed than a serial printer. If you anticipate heavy printing volumes, you will need a line printer to be used as your system printer. Further, selecting a printer speed higher than the minimum can also help increase performance. Keep in mind that all work station printers are serial printers.

Accordingly, consult your IBM representative for assistance in determining the optimum main storage capacity—as well as disk and printer selection—for your particular combination of applications and their related volumes.

Another approach you might consider . . . the IBM 3740 Data Entry System

If you have departments that need to enter source data but which are located off the premises (such as across a public thoroughfare), you might consider the addition of an IBM 3740 Data Entry System. This system permits a user department to key information offline onto diskettes. The diskettes can then be delivered to your system console operator for processing in batch mode.



IBM's educational programs . . .

To prepare you to use the applications, education is offered for installation managers, operators, and users of manufacturing applications.

For the installation manager

- *Computer Concepts*—Introduces the manager to computer concepts, controls, and procedures. This course lays the foundation for the transition from your present approach to a data processing system. This course is offered through the Guided Learning Center.
- *System/36 Installation Planning and Management*—To be taken after Computer Concepts. The basic planning tasks involved in preparing for a computer installation are discussed, as well as day-to-day system operations. This course is offered through the Guided Learning Center.
- *MAPICS Installation Seminar*—Discusses the various installation and planning activities required for installing MAPICS. This course is taught at the local branch office.

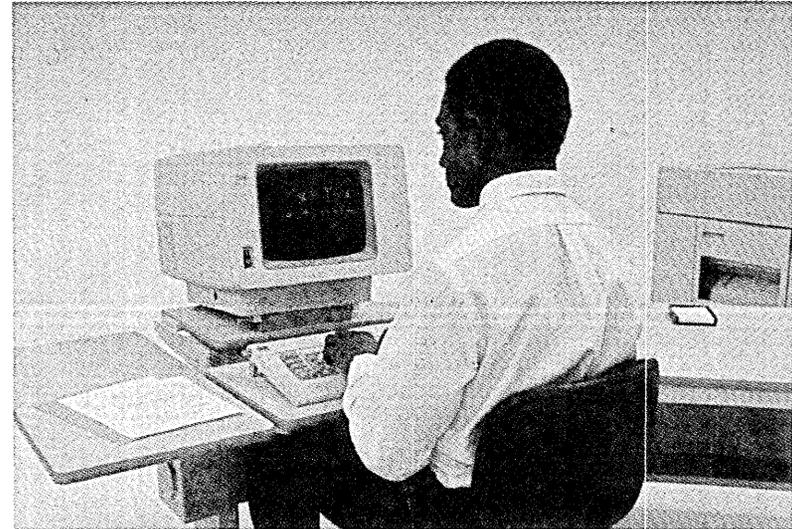
For work station operators

- *System/36 Work Station Operator Training*—This self-study course introduces the work station operator to the operating tasks of a work station. Exercises are included that demonstrate sign-on and sign-off procedures, selecting jobs, and entering data into the system.

For system operators

- *System/36 System Operator Training*—Introduces the system operator to the operating characteristics of a System/36 console. Exercises are included that demonstrate the use of spooling, multiprogramming, and system utilities. This course is to be taken after System/36 Work Station Operator Training and is offered through the Guided Learning Center.

Check with your IBM marketing representative for a complete list of Guided Learning Center courses. Your marketing representative can also provide a list of seminars conducted at the Branch Customer Support Center.



**. . . Help your staff learn to install
and use the applications**

Manufacturing Application Education

- **MAPICS Accounting**—For those customers installing the General Ledger, Accounts Payable, Accounts Receivable, Order Entry and Invoicing and/or Sales Analysis applications. This course is taught by the Manufacturing Industry Support Center and includes lecture, hands-on-training, review of documentary aids, and conversion techniques.
- **MAPICS—Manufacturing PDM/IM**—For the customer installing MAPICS Product Data Management and/or Inventory Management. This course is taught by the Manufacturing Industry Support Center and includes lecture, hands-on-training, function, interfaces, and implementation techniques.
- **MAPICS—MRP/PCC/DCSS/CRP**—For the customer who will be installing MAPICS Material Requirements Planning, Production Control and Costing, Data Collection System Support, and/or Capacity Requirements Planning. The course is taught at the Manufacturing Industry Support Center and includes lecture, hands-on-training, application function, interfaces, and implementation techniques.
- **MAST (Modular Application System Training)**—25 separate self-study modules covering all of the manufacturing applications from general executive overviews and concepts to the detail of implementation.
- **MAPICS Operator Training**—Included with each of the MAPICS applications is hands-on self-study operator training for both the work station operator and the system operator.

IBM's installation guidance . . .

An Installation Made Easy Application Workbook and an Application Reference Manual that describe planning and installation activities in detail will be available to you. Here is a brief description of the process.

Installation considerations

With complete understanding of the responsibilities of each participant in the installation process, installation planning can help make the installation and operation of your IBM applications smooth and successful. The system is designed to relieve you of many of the tasks normally associated with installing a data processing system.

You will receive installation guidance from IBM. However, certain tasks are your responsibility, such as accurate and timely conversion of your present data to the format required for your application. Paying close attention to these responsibilities is the key to a successful installation.

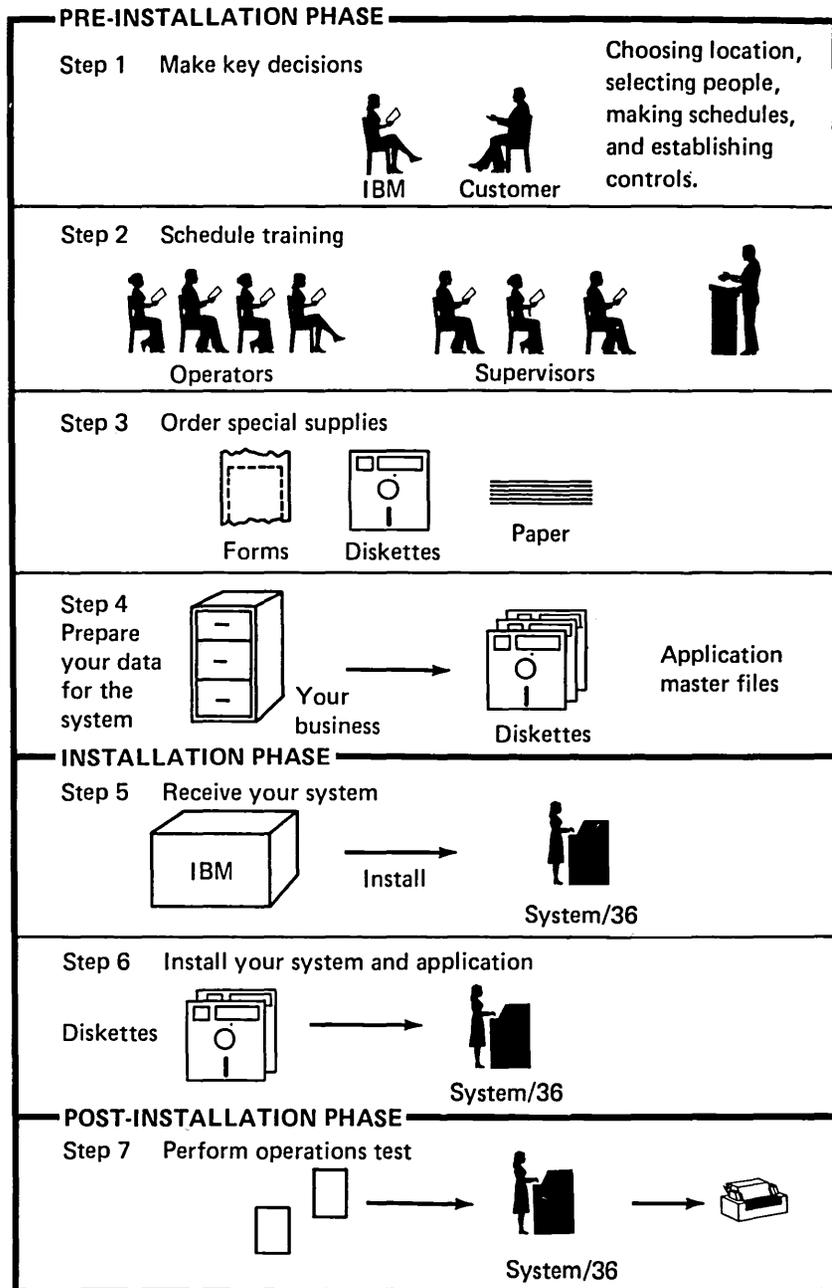
Installation and conversion aids

To make it easier to install your system and convert your present data into form required by the IBM System/36, the application includes these aids:

- A special procedure that loads into the System/36 the general-purpose procedures necessary for regular processing operations.

- File maintenance procedures that:
 - Load your master file data into the System/36
 - Edit the master file records and delete any erroneous ones. When editing is complete, the master files are available for processing
 - Let you print the contents of master file records for review at any time during the loading process
 - Let you enter data records into your system either directly through the System/36 display station or from diskettes prepared on an IBM 3740 Data Entry System
- File-sizing procedures that:
 - Allow you to specify the number of records in your master files (number of customers, items, invoices per day, and so forth)
 - Determine whether your files will fit in available disk storage. You receive a listing that shows how the available disk storage would be allocated if these sizes were used
 - Allow you to alter the sizes of master files whenever needed. A new listing is printed each time a new set of sizes is entered
- System tailoring procedures that:
 - Let you tailor the application to fit your needs, such as selecting costing factors and methods you want to use and printing report in detail

. . . Helps you get your system up and running quickly



Installation activities

System installation is divided into three phases: pre-installation, installation and post-installation.

Pre-installation consists of activity that must be done before your System/36 and the application(s) are installed. Key decisions must be made as to where to place the computer and work stations, who will operate them, who will provide the information for processing, and who will use the reports produced. Training must be scheduled for the operators, as well as for other people you will work with, so that the system will be used effectively. Supplies necessary for running the System/36 and your application must be ordered. Data must be collected and prepared for entry into the system.

The installation phase begins when the System/36 and the first applications are delivered, and ends when the last application is operational.

Post-installation consists of performing operations tests. When the testing is completed and you have proved that the system works in your operating environment, you can change over to total use of the new system.

IBM installation services

If your system operates in the Specified Operating Environment as described in the License Agreement for IBM Licensed Programs and Supplement, IBM will provide you with the services highlighted here.

Local service (available until discontinued by IBM):

- Assistance in problem determination and diagnosis

Central services (available until discontinued by IBM):

- Application of temporary bypasses of program problems, if necessary
- Application of corrections to unmodified code modules

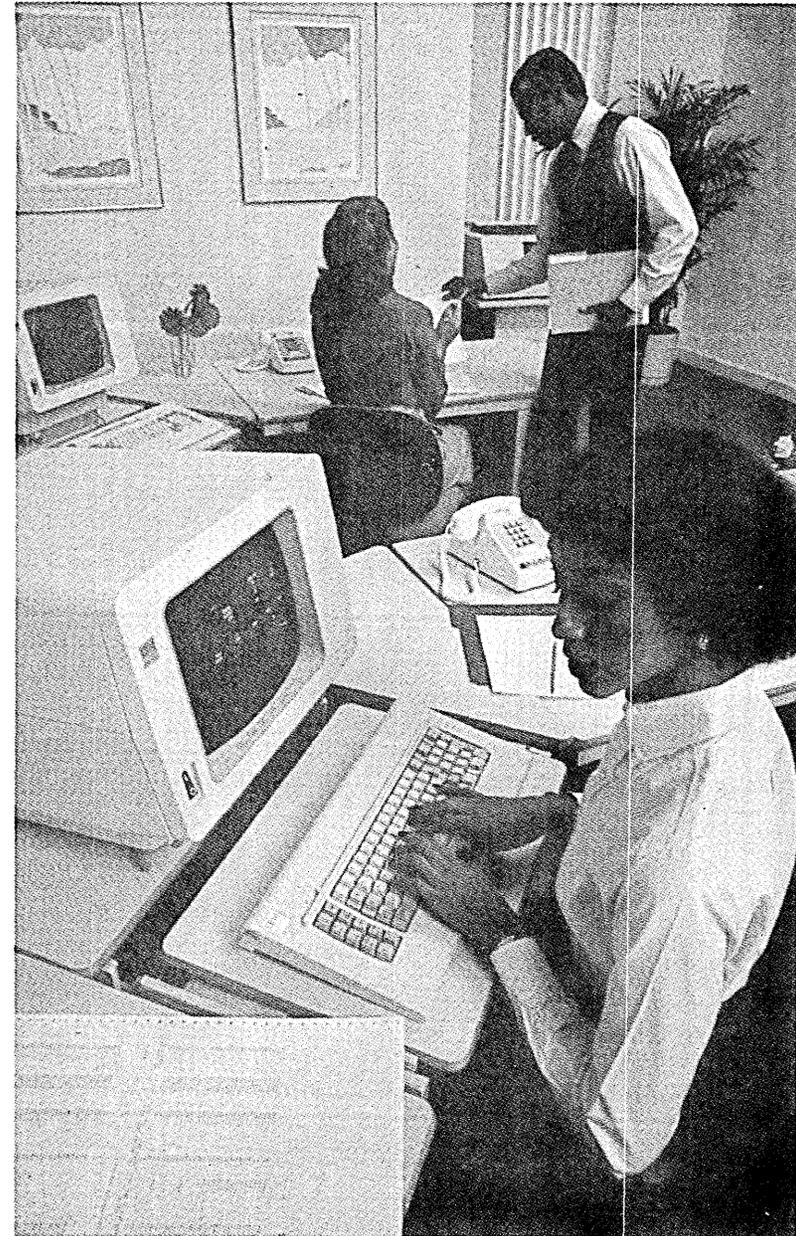
Central services (available until withdrawn by IBM):

- Assistance to local IBM personnel in problem diagnosis
- Distribution of corrections to unmodified code modules

In addition, your IBM representatives can assist you, as required, in:

- Planning for installation and conversion
- Providing technical guidance
- Guiding your operator in the use of self-study material
- Verifying the completeness of delivered materials

Assistance and services beyond those outlined above are available from IBM as described in the License Agreement for IBM Licensed Programs and Supplement.



Customer responsibilities

As an IBM customer, you will receive technical guidance both during and after installation of your system, but you are responsible for these activities:

Select and train system-related personnel

You need to select and train someone who will be responsible for coordinating all System/36 operations and the people who will operate the system on a day-to-day basis.

Select and plan for implementation of optional features

You must choose which applications to implement, and you determine the sequence of their installation. You must also select which optional features to use with the applications (system tailoring) and understand interaction between applications.

Develop installation schedule and checklist

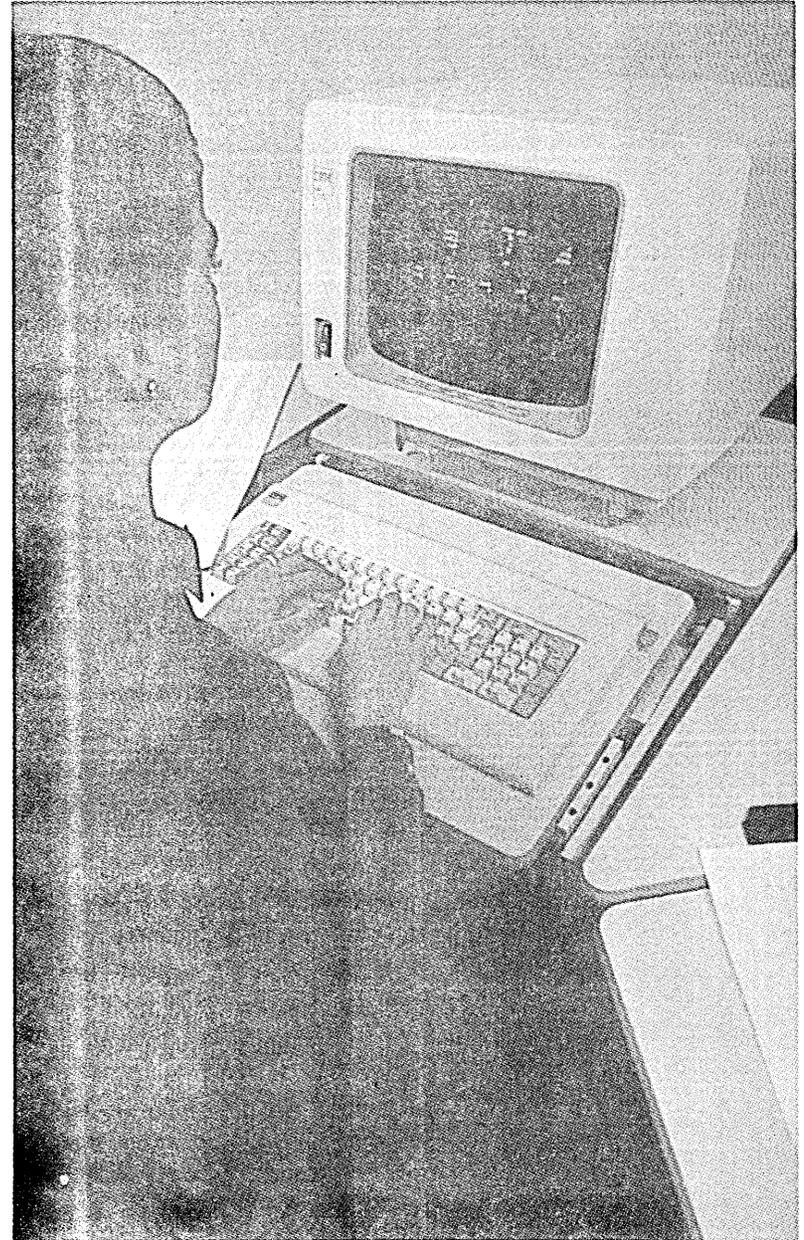
Once you have decided what must be done, it is a good idea to work out a schedule for starting and completing each installation activity. This schedule is useful in assigning tasks to individuals in your company.

Order special supplies

You will need to obtain special supplies for your System/36: report binders, diskettes, ribbons, preprinted input (source) documents, stock paper, pre-printed (output) forms for invoices, acknowledgments, statements, and other miscellaneous items.

Train user departments

Those persons in your company who will be affected by the system, particularly those who will be entering data for processing and those who need to understand and use the reports produced, must be trained on its use.



Prepare physical site for computer

You will need to prepare space for the System/36, the work stations and system console, as well as provide storage space for computer output, a diskette library, and computer supplies.

Gather data for master files required for your applications and prepare for conversion

Gathering the data can include establishing employee or vendor numbers and preparing other master data for each master record required by the applications being installed. Be sure to check all data for completeness, accuracy, and correct formats.

If you intend to load the master file data into the System/36 using data entry diskettes prepared by the IBM 3740 Data Entry System, you need to make plans for such diskette preparation prior to system installation. If you intend to enter the master data file at the System/36 display station, have all the data input forms ready when the system arrives.

Plan for parallel or pilot operation

You should plan to conduct either a parallel or pilot run of your new system. In a parallel operation, both systems process current data. In a pilot operation, the System/36 processes data from a previous period while current data is being processed using the old system. In both methods, you compare the results against the controls for the appropriate processing period.

Direct all system operations

Both before and after the System/36 is installed, you will need to supervise all system operations, including reviewing input documents and directing your operators in their daily tasks—taking control totals, running the System/36, starting the application procedures, verifying results against control totals, and distributing system output.

Coordinate actual conversion and perform system test operation

After the system is installed, you should supervise the loading of master files, testing of system operations, and verification of processing results.

File loading and file maintenance operations

File loading and file maintenance are two separate and distinct functions that use the same procedures and facilities.

File loading, done initially when the system is installed and periodically as needed, lets you enter records into the master files.

File maintenance, done whenever necessary to change information in existing master files, lets you enter or change individual fields within records or add new master records.

Figure 3-1 shows how information flows through file loading and file maintenance operations. The numbers in the following discussion refer to this figure.

Loading and changing master files

You load files in one of two ways. The first way **1** involves keying the records onto diskette using an IBM 3740 Data Entry System, then processing the diskette on the System/36. The second way **2** involves entering the records through a display station. In the second method, file loading occurs online; as records are entered and edited, they are immediately added to the master files and made available for use by other jobs.

File maintenance (changing the files) is always performed using online data entry at a display station.

If you desire, listings can be printed **3** showing a "before" and "after" version of each record changed.

Reviewing contents of master files

On request, the system can print file lists **4** that you can use to make certain the information in the master files is accurate and up to date.

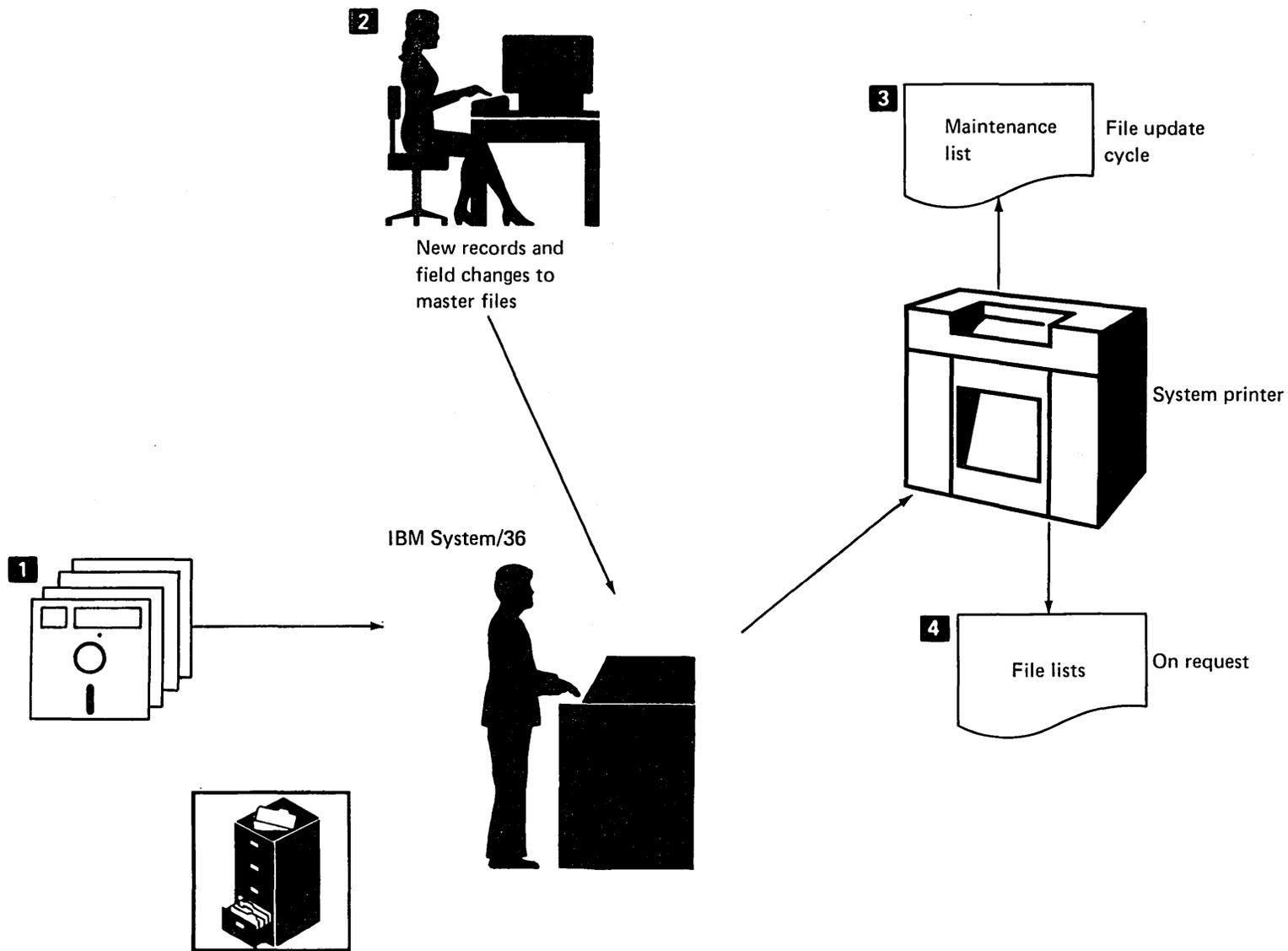


Figure 3-1. File loading and file maintenance information flow

The data base

An application system maintains and uses a number of system- and application-oriented files and records.

In this section, references are made to *fields*, *records*, and *files*. If you are unfamiliar with these terms, a brief explanation at this point might help:

Field: A place to store a discrete piece of information such as a name, a code, or a rate; for example:

Americus Steel

is the contents of a name field in your customer record.

Record: A group of related fields that contain data pertaining to one customer, one item. For example, a customer record may contain:

Americus Steel | 702 McGarrah St. | Americus, GA | and so on

File: A file contains one or more records of a similar type. For example, the customer file might contain master records for:

Americus Steel
R. S. Armstrong and Bros. Co.
Carlton Company

Master files

The master files required vary according to which applications are to be installed. Here are the major required files and some important characteristics of each.

Order Entry and Invoicing

Customer master file

- Contains one record for each customer
- Descriptive data: name, address, city, state, credit limit

- If Accounts Receivable is installed, contains control balances by age period; whether balance forward or open item
- Contains billing data; standard taxes, discounts available to this customer

Ship-to master file

- One record per standard ship-to address per customer
- Standard ship-to address, city, state

Contract price file

- One record per contract per item number
- Accumulated sales-to-date on this contract
- Expiration data—date, quantity limit

Quantity price file

- One record per item number with quantity price breaks
- Break quantity and discount percentages

Taxing body master file

- One record per billing taxing body
- Descriptive data; tax body name, tax rate expressed as a percentage

Open order summary file

- One record per order.
- Descriptive data about the order
- Points to detail data regarding the order in the material detail file

Open material file

- One record for each line item, comment and special charge item on an order; one record for each blanket purchase order release, and one record for each manufacturing material allocation
- Line item data includes item number, quantities, price overrides
- Records are "linked" to the appropriate item balance record if Inventory Management is installed; otherwise the records are "linked" to the item master

Inventory Management

Item master file

- Contains one record for each unique item number
- Descriptive data about the item (description, standard unit cost, base price, six markup or discount percents, item tax codes)

Item balance file

- Contains one record for each unique item number per warehouse
- Shows quantity information

Purchase Order Summary file

- Contains one record for each line item on a purchase order
- If item ordered is a blanket order item, the record points to release information in the Material Detail file

Accounts Receivable

Open AR detail file

- Contains one record for each unpaid invoice, cash and adjustment transaction and in the case of balance forward accounts, also contains a record for each age period with an amount due
- Invoice records show amounts, dates, cash discount allowed and percent, etc.
- Records are "linked" to customer master records and are also linked in sequence

Sales Analysis

Salesman master

- Contains one record per salesman
- Historical data about the salesman, dollar volumes

Customer summary file

- Contains one record for each customer
- Historical sales data regarding the customer

Item sales summary

- Contains one record per item selected for Sales Analysis
- Historical sales data regarding the item

Sales Analysis interface files

- One interface file each for customers, items and salesmen
- Each interface file contains a record for the current period activity for the customer, item or salesman
- Each record contains period-to-date sales and cost figures

| | Required (R) or Optional (O) Master Files | | | |
|--------------------|---|-----------|-----------|----------------|
| | <i>OE&I</i> | <i>IM</i> | <i>AR</i> | <i>SA</i> |
| Customer Master | R | — | R | R ¹ |
| Ship-to Master | O | — | — | — |
| Contract Price | O | — | — | — |
| Quantity Price | O | — | — | — |
| Tax Body Master | O | — | — | — |
| Open Order Summary | R | R | — | — |
| Open Material | R | R | — | — |
| Item Master | R | R | — | R ² |
| Item Balance | — | R | — | — |
| Open A/R Detail | — | — | R | — |
| Salesman Master | — | — | — | R |
| Customer Summary | — | — | — | R ¹ |
| Item Summary | — | — | — | R ³ |

Notes:

¹ Required if OE&I or AR is installed

² Required if IM is installed

³ Required if OE&I or IM is installed

System control file

The system control file provides a special place to store relatively unchanging information used by more than one procedure or program. This arrangement permits you to change such information as percentages.

Among the important contents of the system control file are:

- Internal control information needed to run your application system (ranges, dates, limits, percentages, and so forth)
- User-selected system tailoring options
- File-sizing data

Other files

You will use several transaction files for daily processing of data, and backup files to duplicate certain valuable data for storage in a safe place.

Many other files and records are for internal system use only (work and summary files, sort files). These are not described.

Permanent and temporary files required for an application procedure must be stored on the System/36 disk before that procedure can run. All master files and application files are part of the permanent disk storage area. The remaining disk storage is then allocated for temporary areas.

Major field sizes

The following is a list of the major data fields used in the four applications discussed in this book. For each field, its maximum size is indicated, as well as whether it is restricted to numeric information or may contain alphameric information. The number of decimal positions is shown for numeric fields. You can use this list to help determine whether these applications meet your data field requirements.

| | Size (including decimals) | Alphameric/ numeric | Decimals |
|---------------------------|---------------------------------|------------------------|----------|
| *Customer number | 8 | N | 0 |
| Customer name | 25 | A | — |
| Company number | 2 | N | 0 |
| Invoice amount/1 invoice | 9 | N | 2 |
| Extended price/1 item | 9 | N | 2 |
| Amount due/1 customer | 9 | N | 2 |
| Yearly sales/1 customer | 9 | N | 2 |
| Taxing body code | 2 | A | — |
| Salesman number | 5 | N | 0 |
| Item number | 15 | A | — |
| Item description | 30 | A | — |
| Item list price | 9 | N | 3 |
| Unit cost/1 item | 11 | N | 4 |
| Standard cost/1 item | 11 | N | 4 |
| Last cost/1 item | 11 | N | 4 |
| Warehouse | 1 | A | — |
| **On-hand quantity/1 Item | 7 | N | 0 |
| General ledger number | 7 | N | 0 |

*The last two digits of the customer number must be 00 or used to denote consolidated companies (see multiple statements for consolidated companies in Accounts Receivable functions).

**Separate fields are carried for each item in each warehouse.

Glossary

ANSI definitions courtesy of American National Standards Institute, Inc.
ISO definitions courtesy of International Organization for Standardization.

alphanumeric. A term encompassing alphabetic characters, numeric digits, or special characters.

application program. A program used to do a particular data processing task; for example, a program that prints invoices.

backup diskette. A diskette that contains information that was copied from another diskette or disk.

batch mode. A method of running jobs that do not require continuous operator attention; that is, processing that is not interactive. Contrast with interactive processing.

byte. The machine representation of a character.

call. The action of bringing a computer procedure into effect by specifying the required name and desired run-time option.

command function key. One of the keys in the top row of the display station keyboard, used with the CMD key, to request specific functions from the system or application program.

command key (CMD key). A special key on the display station keyboard that, when pressed, causes the system to recognize the command function keys in the top row. See *command function key*.

concurrent processing. A method of processing in which two or more jobs appear to be processing at the same time. Actually, the instructions of each job are processed one at a time, alternating to make the most efficient use of the system.

configuration. The group of machines, devices, and programs that make up a data processing system.

control command. A command statement used by an operator to control system or display station operation. A control command does not run a procedure.

data. (ANSI definition) A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or automatic means.

data base. A collection of stored data.

dedicated. One mode of operation of a privileged procedure; requires that it be the only procedure executing, because of system restrictions or function of the procedure.

default. An alternate value, attribute, or option that is assumed when none has been specified.

device. Synonymous with machine.

disk file. An organized collection of related records on disk that are treated as a unit.

disk storage. Direct access storage that uses one or two magnetic disks to store programs and data files.

display screen. The part of a display station on which data, messages, or other information is displayed.

display station. An input/output device that has a keyboard for data entry and a display screen on which data is displayed.

error message. (ANSI definition) An indication that an error has been detected. Contrast with informational message.

execute. To cause an instruction, program, procedure, or other machine function to be performed.

field. A place to store a discrete piece of information, such as a name or a code.

informational message. A message that is not the result of an error condition. Normally, an informational message gives the status of a job or operation. Contrast with error message.

initial program load. A sequence of events that loads the system programs and prepares the system for execution of jobs.

input data. (ANSI definition) Data to be processed. Synonymous with input.

input job queue. A list of jobs on disk that are waiting to be run by the system.

input/output. (ANSI definition) Pertaining to either input or output or both.

inquiry. The requesting of specific information from the System/36 via a display station. To make the request, the operator enters data that identifies the information. For example, a customer number is used to request the information contained in the customer's master record.

interactive. A mode of operating the System/36 in which information is entered through a display station, acted upon by the computer, and the computer returns a response to the display station.

interface. (1) The hardware and programs that permit exchange of information between computer systems or among devices. (2) The facility to allow information to pass from one application to another (for example, OE&I information to A/R).

keyboard. A systematic arrangement of keys, attached to a display station, by which commands and data are entered into the system.

library. An area on disk that contains programs and procedures.

line printer. A device that prints all characters of a line in one single operation.

load. (1) To enter data or programs into storage; for example, to load master files. (2) To prepare an input/output device for operation; for example, to load paper into a printer.

main storage. Storage available in the processing unit where all logical, arithmetic, and control operations take place under program control.

master file. A collection of permanent information; for example, a customer file that is often processed along with a transaction file.

menu. A displayed list of items from which the operator makes a selection.

message. A series of words or symbols appearing at the bottom of the display screen, designed to convey information to the operator about the accuracy of data being entered.

message identifier. A field consisting of up to four alphabetic characters, followed by a dash, followed by a four-digit number that appears on the display screen or on printed reports. This field identifies a specific message to the operator.

mode. Synonymous with method of operation.

numeric. Pertains to digits 0–9.

offline. Pertains to equipment or devices not under control of the central processing unit.

online. (1) Pertains to equipment or devices under control of the central processing unit. (2) Pertains to a user's ability to interact with a computer.

operation control language (OCL). A programming language used to identify a job and its processing requirements to the system support program product.

output. Data delivered or ready to be delivered from a device or program, usually after some processing.

paging. Displaying the records in a file in sequence on a display station. Using this facility, an operator can read through an entire file rather than just seeing one set of information, as is done when inquiry is used.

privileged procedure. A procedure that updates permanent files and is subject to strict procedure control. Contrast with general procedure.

processing unit. The parts of a computer that perform the processing and control functions for the system, perform operations on data, and control the output.

program. (1) A sequence of instructions to a computer, written in a special form the computer can interpret. A program tells the system where to get input, how to process it, and where to put the results. (2) A set of instructions that tells the system which operations are to be done and how to do them.

program product. An IBM-written, licensed program for which a monthly charge is made. A program product performs functions related to processing user data.

prompt. A message issued by a program that requests either information or an action by an operator to continue processing.

record. (Noun) A collection of related data, treated as a unit. For example, one line of an invoice could constitute a record.

record key. A field within a record that identifies the record in a file.

record length. The total number of characters (bytes) in a record.

serial printer. A device that prints characters one at a time. Contrast with line printer.

session. The elapsed time from user sign-on to sign-off.

session date. The date associated with a work station session. If a session date is not entered, the system assumes (defaults to) the system date. See *system date*.

shop order. A number that identifies a manufacturing or assembly order.

shop packet. The necessary documents for a shop order.

sign-off. The procedure used to end a session at a display station.

sign-on. The procedure used to begin a session at a display station.

special character. A character other than alphabetic or numeric; for example, * + % are special characters.

spool file. An area on disk where spooled printer output is stored while waiting to be printed.

spooling. A part of the system support program product that provides temporary storage of print data on disk, and allows printing to take place concurrently with other tasks.

system configuration. A process that specifies the various components and devices that form a particular operating system. System configuration combines user-specified options and parameters with IBM programs to produce a system having the desired form and capacity.

system console. A display station that performs as a work station at the central processing area, and is designated to activate certain system functions, and control and monitor system operations and other work station operations.

system date. The date assigned by the system console operator during the initial program load procedure. Generally, the system date is the same as the actual (today's) date. See *session date*.

system printer. A printer, either line or serial type, designated when the system is installed, that is used to print output, unless the output is specifically directed to a work station printer. Contrast with work station printer.

system tailoring. The process of selecting from available program options to satisfy the specific needs of your company.

transaction. An item of business. Customer orders and customer invoices are examples of transactions. Transactions saved in a transaction file are usually processed along with a master file by RPG II, WSU, or DFU programs. For example, in the Inventory Management application a transaction file could indicate the quantity received on an order and the master file could indicate the current on-hand position.

update. To modify a file with current information according to a specified procedure.

user ID. A special assigned number keyed in by each operator at sign-on. The System/36 checks this number against a security list to be sure that the operator is authorized to use the system.

work station. A device or component that allows communication between the user and the computer—a display station, a serial printer, or a combination of both constitutes a work station.

work station printer. A serial printer, designated when the system is installed, that is used to print work station output. Contrast with system printer.

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