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Product Description
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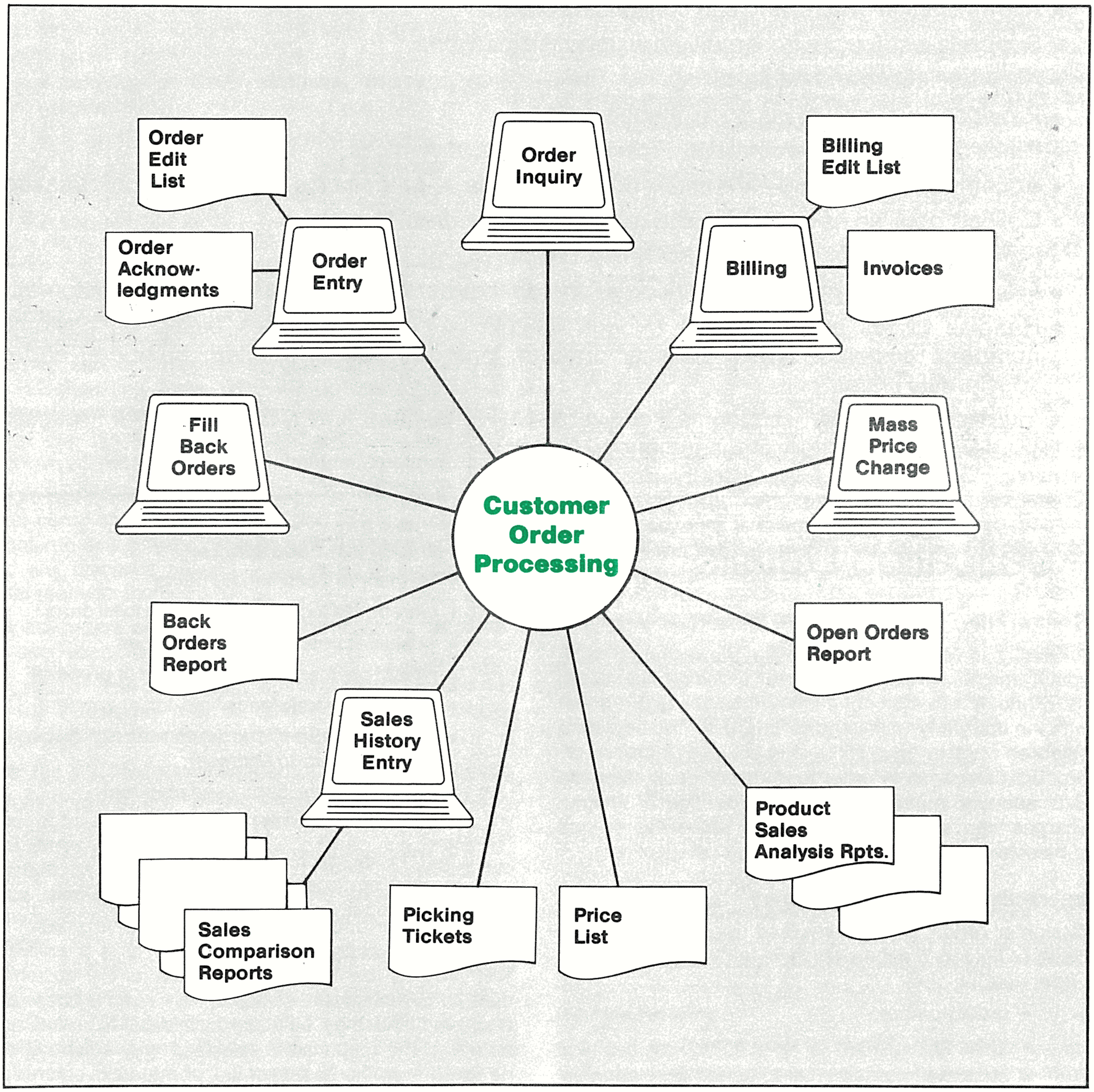
CUSTOMER ORDER PROCESSING
in Texas Instruments COBOL (ANSI '74)



Application Overview

Customer Order Processing (COP) provides both single-pass customer invoicing and two-pass customer order entry with separate billing. It integrates with MCBA's multiple-warehouse Inventory Management package and Accounts Receivable package, and has capabilities that will interest both distributors and manufacturers. COP's special features include:

- Displays information on the screen which can be printed at the touch of a button.
- Accesses customers by either customer number or by name; allows ordering of inventory either by item number or by description.
- Checks availability, and allocates inventory at entry time.
- Performs on-line credit check.
- Allows blanket orders, and can consolidate orders.
- Supports distribution from multiple warehouse locations.
- Allows selective and partial billing.
- Provides automatic mass price change ability.
- Prints *Order Acknowledgments, Picking Tickets,* and invoices.
- Accepts user-specified parameters on most reports, to pinpoint the exact desired information.
- Collects detailed sales history, and reports in five different formats.
- Prints three different product sales analysis reports.
- Fills back orders; prints both back order and open order reports by item and/or by customer.
- Handles prices and discounts through flexible user-defined codes based on customer numbers, customer types, quantity ordered, product categories, item numbers, and/or special sale prices.
- Interfaces to MCBA's Accounts Receivable (A/R), General (G/L), Bill of Material Processor (BOMP), and Inventory Management (I/M) packages.

Application Details

Control File

An easily maintainable control file allows the user to specify the next order number and invoice number to be used and whether or not the invoices are pre-printed with the company name and/or address. The user can establish whether his profit centers are sales locations or product categories in order to correctly track sales by G/L account number. Miscellaneous and/or freight charges can be specified as fully, partially, or not subject to sales tax.

Interactive Customer Order Entry

Customer orders may be invoiced upon entry (single-pass) or held as open orders for later billing (two-pass). Order data includes:

- order number
- order date (defaults to system date)
- customer number (bill-to name and address display automatically but can be changed)
- ship-to name and address
- up to three salesman numbers
- warehouse location from which to fill order
- customer purchase order number
- freight payment method (collect or prepaid)
- job number (reference field-ten characters)
- sales tax percentage (automatically displayed based on ship-to address)
- order discount, terms, and ship-via
- invoice comments (105 characters)
- shipping instructions (80 characters)
- sales profit center

During order entry, a six-digit "order number" is automatically assigned to each order as it is entered. This may be manually overridden. After the customer number is verified, the customer name and address are displayed and may be used as the bill-to name and address. The responsible salesman may automatically be taken from the customer file, or manually entered. If the commission is to be split, up to three salesman numbers may be entered with the percentage of the commission each should receive.

A ship-to name and address may also be manually entered or automatically accessed from the ship-to file by use of a function key. The ship-via method, freight payment method (collect or prepaid), terms, and order discount will all default to the values assigned to the customer in the customer file.

Line items may be entered using either the item number or part of the item description. Comments of unlimited length may be inserted between line items.

Capability is provided for processing miscellaneous line items (items not on file) by allowing manual entry of the description, unit price, and unit cost.

The user can manually override prices. Each line item may be assigned a different discount percentage if necessary. Line item data includes:

- item number (with automatic display of item description)
- quantity ordered, quantity backordered
- unit price (automatically supplied based on flexible user-defined codes)
- line item discount

Inventory is automatically committed when orders are entered, and relieved when invoices are printed. Availability is checked for stocked items and if insufficient stock is available, the user is given the option to override, cancel, backorder all, or partial backorder. For non-stocked line items, COP will go down the bill of material and allocate components at the first stocking level. The quantity on-hand and allocated fields will correctly reflect shipments and changes to open orders.

Single-pass order processing may be used to directly enter complete orders. All order and billing information is entered at the same time, including money received and any discount allowed. This results in a complete order ready for invoice printing.

Blanket orders may be entered and kept on file to be released at appropriate times.

To avoid excess paper work, numerous open orders on file for a customer may be consolidated into a single order. This is entirely at the user's discretion.

After the first line item is entered during order processing, pressing a function key displays the item with the next highest number. If the user numbers his items so that items that are ordered together are grouped together, he can quickly flip through them and select the items needed for a particular order. In addition, this feature can easily handle the selection of product options.

After orders are entered, *Order Acknowledgments* may be printed on 8½"x 11" paper to be sent to customers. The *Order Edit List* may be printed on request for all or selected order types and for any range of entry dates. Optionally, all orders for customers who have exceeded their credit limit may be printed.

Flexible Pricing and Discounts

The pricing system is based on user-specified price break tables that define prices and/or discounts for various order quantities. There are eight different types of tables based on customer number, item number, customer type, product category, customer number and item number, customer number and product category, customer type and item number, and customer type and product category.

During order entry, these tables are searched in a user-defined sequence until a match is found for the customer and/or item being processed. This table is then used to calculate the line item price.

The tables can be used, for example, to maintain special negotiated prices for one or more customers. Different price breaks can be set for different types of customers or for different product lines. In addition, special sale prices with starting and ending dates may be entered for each item through MCBA's I/M package. Because overlap is allowed, different pricing policies may be used for various customers and sections of inventory. Due to the infinite variety allowed, the user can interactively maintain a custom pricing system.

Mass Price Change

An interactive module allows the user to change prices by a positive or negative percentage for all or a specified range of items in a product category.

Picking Tickets

Picking Tickets may be printed for all or selected unbilled orders in bin number sequence for finished goods. If MCBA's BOMP package is installed, it can print the component items to be used in the assembly of non-stocked finished goods for shipment. To enhance customer service, items requested by the customer to be shipped after a specified cut-off date will not be printed. A warning is printed on the *Picking Ticket* if it is a duplicate or if the customer is over his credit limit.

Selective and Partial Billing

Using two-pass order processing, changes to quantities shipped and back ordered are easy, since line items are displayed in *Picking Ticket* sequence. Orders may be partially or fully billed upon entry of the following:

- invoice date (defaults to system date)
- net total and taxable total of order
- total weight of net order
- miscellaneous and freight charges
- sales tax (automatically calculated)
- sales commission percentage and amount

The Billing Edit List may be printed prior to invoice printing, showing all orders selected to be invoiced.

Invoice Printing

Invoices are printed for all appropriate orders using widely available pre-printed forms. Invoice printing may be restarted at any invoice in case of printer jam.

Multiple Ship-To Addresses

Multiple ship-to addresses may be maintained for each customer. These addresses can be easily accessed by code or by use of a function key during order entry. Each shipping address can have a different sales tax code. A *Ship-to Address Print-Out* can be requested for any range of customers.

Order Inquiry

For quick reference, any order can be displayed on the screen. The dates the order was entered, picked, and billed are displayed along with all line item information. To aid in finding the correct order, a screen listing all orders on file for a customer can be displayed after entering the customer's number or part of his name.

Fill Back Orders

When an item is available at a particular warehouse location to satisfy back orders, all customers orders for that item can easily be displayed. If there is enough to fill all back orders, they can be automatically filled at the touch of a function key. Otherwise, the user may selectively allocate the available inventory to certain orders.

Each transaction, together with the time of entry, is printed on the *Back Order Audit Trail Report.*

Customer Order Status Reports

Showing up-to-the minute status, the user may print the *Back Orders by Item, Back Orders by Customer, Open Orders by Item*, and *Open Orders by Customer* reports for any warehouse location. Optionally, the user may request the reports to show only stocked items or non-stocked items or both, where the requested or promised date is within a specified date range. These reports show quantities and dollars ordered or back ordered in addition to the normal reference information.

Detailed Sales History Reports

Detailed sales history is automatically recorded by user-defined history periods, yet it can be manually entered. The five reports generated compare the current year's period-to-date to last year's period-to-date quantity sold, dollar sales, and costs. Also, the current year-to-date figures are compared to those of the previous year's year-to-date. Profits are shown along with the target margins for items to aid in analysis.

The five reports are *Sales Comparison by Customer, Sales Comparison by Customer and Product, Sales Comparison by Product Category and Product, Sales Comparison by Product and Customer, and Sales Comparison by Salesman, Customer and Product.*

The reports have various selection options to print specific ranges of customers, items, product categories, and salesmen, together with useful subtotals and descriptions.

Sales Analysis Reports

Comparing period-to-date and year-to-date sales data, sales analysis reports show quantity sold, dollar sales, cost of sales, and profits by item, product category, and sales volume in three separate reports: *Sales Analysis by Item, Sales Analysis by Product Category, and Sales Analysis by Sales Volume.*

Special Functions

Additional features include the following:

- A special report management subsystem allows reports to be printed immediately or to be spooled on disk for later display or printing of one or more copies.
- A module is provided to set the period-to-date or year-to-date accumulation fields to zero.
- A simple module is provided that allows the user to specify the G/L account number to which sales should be posted for each product category.
- Whenever necessary, the allocation figures for the entire inventory can be automatically reset to reflect the orders actually on file.
- The *Price List* may be printed at any time showing prices and appropriate data for one, few, or all inventory items.

Coding Standards and Documentation

Complete source code is provided. It is written using Warnier-Orr structured coding techniques. Extensive use is made of copy library modules to make modification easy. The paragraph and data names are very descriptive, taking maximum advantage of COBOL's self-documenting feature. It is written to make changes and maintenance easy.

The *Software Reference Manual* provides complete technical documentation. The easy to understand *User's Manual* guides the user through the operation of each function. Each manual is provided in a neat three-ring binder with convenient thumb tabs.

Interfaces to Other MCBA Packages

When invoices and credit memos are printed, billing information is posted to MCBA's Accounts Receivable (A/R) package. All G/L distributions for sales, miscellaneous charges, freight, and tax are batched in A/R for later interface to MCBA's G/L package.

MCBA's Inventory Management (I/M) package and A/R are the only prerequisites for COP. The inventory item file from I/M is updated by COP as orders are entered and invoiced. COP can use MCBA's Bill of Material Processor (BOMP) to explode non-stocked line items and allocate stocked components.

I/M, BOMP, and COP are designed to smoothly function together.