

A Datapro Report on

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**CONCEPT SYSTEMS INC.  
AUTOMATED RETAIL MERCHANDISING**

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# Concept Systems

## Automated Retail Merchandising System

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The Automated Retail Merchandising System developed and marketed by Concept Systems, might well be included in the section describing integrated point of sale systems. The system functions in an on-line environment, captures data as sales are recorded, transmits that data to a minicomputer, and provides immediate updating of sales, inventory, and other accounting data for a retail establishment. Moreover, there is more than just software involved, for the company markets the system as a complete turnkey package including all of the hardware elements necessary to complete the configuration.

The system is implemented in three versions or releases—the Retail Specialty System (2.0), The Military Post Exchange System (3.0) and the Chain/Department Store System (4.0). The Retail Specialty System (2.0) has been installed nationally since 1977 and targets the apparel and the junior department stores. The Military (3.0) System has been installed worldwide since 1977 and is a highly customized version meeting the Post Exchange System requirements. The Chain/Department Store System (4.0) was released in 1980 to manage the style requirements and size/color distribution work load of chains, discounters and full line department stores. For the very large retailers, certain applications within the 4.0 System can be installed as distributed processing front-end systems which link to the user's own mainframe. Purchase order management is an example of such an application.

### Software

The system is arranged in modular form so that the user can implement a program in stages according to his/her needs. Following are the major functions of the system:

- **Planning and Open-to-Buy**—provides the tool to generate planned purchases for each month of the season (each season may contain any number of months and any number of seasons may be concurrent). Plans are generated as a result of weighted historical performance and they can be displayed/reported and adjusted. Once the plan is made permanent, it becomes the Open-to-Buy. Open-to-Buy tracks concurrent seasons at the department or class level and/or store level. Unit and/or dollar OTB can be tracked and unit OTB, if tracked, can be pricelined.
- **Purchase Order Management**—initiated with the entry of descriptive data about merchandise, it allows for both pre- and post-distribution of goods and provides for the generation of OCR-A encoded merchandise tickets for pre-ticketed or pre-distributed drop shipped goods. It also provides for generation of a hard copy purchase order and receiver document; updates Open-to-Buy; and provides procedures to cancel or adjust an

**The Automated Retail Merchandising System is a set of software programs designed to provide a fully integrated system for various retail environments. The programs are designed to run on specific hardware products manufactured by other vendors but supplied with the system by Concept Systems as a complete turnkey project.**

existing purchase order and to display the status of any purchase order on the CRT terminal or printer.

- **Point of Receipt**—matches orders to arrivals, adjusts the current inventory level, updates the Open-to-Buy files and creates ticket file entries for on-line printing of OCR-A encoded merchandise tickets.
- **Merchandise Control**—provides total unit and dollar control of merchandise from point of receipt, through distribution and shipping, to the receipt of merchandise at the stores; returns to the vendors; and price changes and transfers. Audit listings of these transactions, style, class, and departmental reports are provided in addition to the monthly stock ledger, monthly operating results and Quarterly Vendor Analysis Reports.
- **Point-of-Sale**—provides remote or on-line polling of POS terminals; processes sales, store receipt of goods, store transfers and price changes; updates inventory, accounts receivable, payroll and general ledger files; and provides for complete sales audit, register balancing and sales analysis reports.
- **Accounts Payable**—provides for processing of expense and merchandise payables, and processing or recurring expenses; matches invoices to actual reports of merchandise; provides batch listings, trial cash disbursement listing, checks, check register, and lists of reconciled and unreconciled checks, open payables listing with summary cash requirements, a detailed paid history report, vendor listing and CRT vendor inquiry; and updates the general ledger.
- **Accounts Receivable**—receives transactions from POS or on-line entry to provide customer profiles on CRT displays with previous history and all current transactions; check-digit account numbers; multiple credit plans such as budget, revolving, and 90-days; tracking of layaways; and the ability to compute and apply finance charges at the user's discretion. Accounts are maintained on a balance forward basis with corresponding detail transactions for the current month. Statements can be produced for all customers selectively, and they can contain personal and dunning messages and descriptive billing. Dunning cards/ labels are also produced for follow-up. An aged trial balance is produced for individual stores or all stores. A/R also provides the data necessary to take advantage of an IRS plan for deferring the tax on gains from the sale of merchandise sold on installment plans and those

## Concept Systems Automated Retail Merchandising System

- ▷ revolving credit sales that qualify. It also updates the general ledger files.
- Credit Authorization—call-up credit authorization is provided with the CSI system acting as the host computer where the authorization file is stored. The system also has counters to prevent run ups, and the latest reason for denial is maintained. The system can override certain limitations.
  - Payroll—provides for CRT terminal entry, calculation and maintenance of payroll data; processing of salaried, hourly (full or part-time) and commissions; processing of weekly, bi-weekly and monthly payrolls; production of input sheet and payroll register (includes earning, hours, deductions, current and YTD data), and processing of data for multiple states and cities.
  - General Ledger—accepts transactions automatically from the other modules or on-line entry, and provides detailed listings of these transactions. In addition, the General Ledger provides a detailed ledger, trial balance, P&L statements by store and consolidated with actual vs. budget and last year reporting, and natural division by profit center reporting allowing for allocation of expenses based on percentage of sales.

In addition to these functional software modules, the system provides for data base maintenance and miscellaneous utility routines to keep files current and operative. All of the applications are performed on-line to the central processing system. The system is designed to provide accounting and management information instantaneously through CRT displays and/or hard-copy printouts.

The status of open orders, cancellations, and adjustments can be displayed on CRT terminals. The system offers the option of ordering and receiving goods either at a central location or at any of the branch stores. Buyers can check the Open-to-Buy on a daily basis. If an order has been changed, and if merchandise has not been received by the completion date or does not meet the specifications, the buyer can accommodate the changes and adjust quickly to them.

When merchandise is received, the receiving document is used to answer a series of questions posed by the computer. For example, the system asks if the receiving sheet matches the purchase order number. Specified in the description are the size, color and style of the goods, and the department in which they will be sold. The system automatically adjusts the order if the goods received do not match the actual shipment.

Once merchandise is received, the tickets are automatically generated in appropriate format by the system. Ticketing is based on the information provided by the original purchase order, as modified when received. The buyer can now distribute the merchandise, by calling up pre-selected

distribution formulas which allocates to the stores by a ratio distribution; by entering detailed store-by-store allocations (by style, color, and size); or by entering a gross distribution by store and having the system automatically distribute the merchandise in detail. (A basic option permits "predistribution," accomplished at Purchase Order entry).

The ticket numberings, containing all information, are condensed into a short SKU of 8 digits according to the standard NRMA-adopted OCR-A format. These SKU numbers are entered into the register at the point of sale directly from the ticket, either through keying or wandling. A recording computer and tape unit collect and store data from each register. POS activity is controlled by a comprehensive daily sales audit track-back procedure that reconciles cash and charges received by the salespeople to the corresponding amounts recorded by the registers. In addition to sales data, the POS module also records changes in merchandise inventory (including store receipt of goods, interstore transfers and price changes), and customer accounts receivable.

Inventory is automatically adjusted with each sale. Daily and expanded weekly reports describe the merchandise both in units and dollars, in categories such as sales to stock ratios, markdown prices, markdown percentages, retail price, number of units on hand, latest receipt date, etc. Style data can be retrieved instantaneously for display on the CRT screen.

The system also supplies vendor profitability statements. These indicate the options of buying from one vendor or another in any season, the lines of goods that should be stocked by the vendor, and how they are selling. It also provides information on supplier payments and discounting terms.

### Hardware and Pricing

As a complete turnkey system, CSI includes all of the hardware components necessary to operate the system. These are provided by the vendor, but are the products of other manufacturers and may be subject to some degree of alteration or substitution. CSI provides, as part of a total installation or as a separate stand-alone system, an automatic auto-dialing polling unit with appropriate electronic POS terminals of vendors such as Data Terminal Systems, IBM, ICL, NCR, and TRW. The central processors on which the software runs include the Honeywell Level 6, Microdata Reality and SEQUEL, the DEC LSI/11 based U2000 and the IBM Series/1 based CDI/1000.

Prices are highly dependent on the configuration required and are therefore not amenable to the publication of a structured price list. Depending on the number of stores involved and the particular software modules selected, a complete system can cost from less than \$100,000 to well into six figures. A system can be purchased outright or on a lease/purchase arrangement, and maintenance is available through Concept Systems. □