

product
application

CENTRONICS remote
printer and controller
with IBM system 7
computer...



CENTRONICS



ONE OF THE MANY ZAYRE CORP.
DISTRIBUTION CENTERS.

A TYPICAL CARTON LABEL.

FROM: N.E. TRADING CORP. 305 FORBES BLVD MANSFIELD MA 02048				TO: ZAYRE # 378 7845 MENTOR AVE. MENTOR, OHIO 44060			
CARTON NUMBER				DEPT EVENT			
4504-5163 52 115 J84E							
MFG QTY.	RETAIL	II	DISTR	STYLE	030 LBS	#378	03/01/73
371 0001	039.99	B	54810	008824	20IN	GIRLS	HI RISE



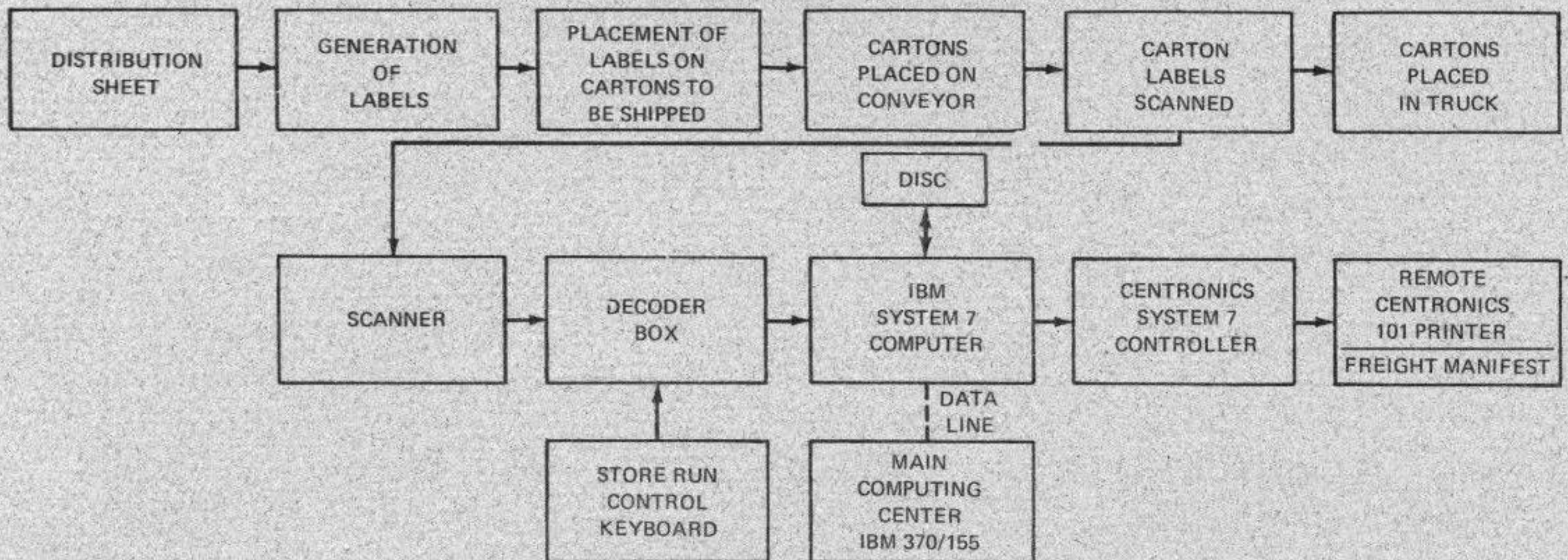
The Zayre Corp., a company with over 200 retail stores, is using a Centronics 101 printer at its Mansfield, Mass. distribution center to print freight manifests with an IBM 7 computer system. The 165 character per second, 132 column printer is located remotely (1,000 feet) from the computer near the truck loading platform. Centronics also supplied the System 7 Controller which interfaces the printer to the computer. The controller can also have another printer connected to it so that a local printer can be used in the System 7 computer room. The printer utilizes a Centronics RS-232 serial interface. Future installations at other Zayre distribution centers will involve replications of this IBM System 7 computer system.

Merchandisers at any location can write distributions of goods from any distribution center to any store. A communication network using the Zayre main computer center as its clearing house enables generation of appropriate carton labels, picking slips, bills, etc. A planner writes a distribution of goods that will be shipped to given stores. From these sheets special bar coded labels are generated and placed on the cartons to be shipped. The information on each label contains the identity of the shipping distribution center, store destination, and carton contents. The label and carton contents are identified by a numbering system called an Identcon Number. These cartons are placed on a moving conveyor line which runs past an optical scanner which scans the carton label. Data is fed to a decoder box and then to a disc-based IBM System 7 computer. The cartons are selected and automatically moved within the marshaling area for the specific store destination and end up at the loading platform of the particular truck for that store. The computer sorts the carton numbers that have been scanned and sends this output to the remote Centronics printer which prints the carton Identcon Number on a manifest form in numerical order. The manifest also shows the total number of cartons, weight, store destination, and the shipping distribution center address. After the manifest has been printed, the driver is ready to travel to his destination.

Many store locations can be handled in the marshaling area at any given time, therefore, cartons

with different store destinations appear on the conveyor for sorting. An alphanumeric keyboard with ten numbers and six characters is located next to each scanner. The special character keys are used for control. The keyboards initiate the store run, provide a truck trailer number, and signal the computer that the end of a store run has been completed. Data from each store shipping line in the marshaling area is sorted onto separate tracks on the disc. A separate keyboard/scanner is used for non-conveyable cartons of unusual oversized material.

Data on daily shipments completed at each of the distribution centers is transmitted over a data line to Zayre's main computing center which uses an IBM 370/155 computer. During the fall of 1973, Zayre will replace its 370/155 computer with a 370/168. This computer maintains a master file for all of the Zayre distribution centers. At this headquarter's facility inventory control, inventory ordering, and billing for each store is processed. The Centronics printer and controller were selected because the printer can be operated remotely from the computer and provide fast, reliable data output on multicopy preprinted forms.



STORE MANIFEST – CARTONS IN SHIPMENT AND TOTAL FREIGHT

THIS SHIPPING ORDER must be legibly filled in in ink, in readable blocks or in carbon, and retained by the Agent. RECEIVED, subject to the classification and tariffs in effect on the date of the issue of this Shipping Order.

ZAYRE WAREHOUSE MANIFEST

FROM: 305 FORBES BLVD MANSFIELD MASS. 02048
 LOADER: DATE: 03/27/73 PAGE: 001 MANIFEST NO: 979-00001
 CALLER: TRAILER: CARRIER NO:
 LISTER: DELIVERING CARRIER: 0007 007

TO: ZAYRE # 107
 1064 BRIGHTON AVE
 PORTLAND, MAINE 04102

Subject to Section 7 of Conditions of applica-
 tion of bill of lading, if this shipment is to be de-
 livered to the consignee without recourse on
 the consignor, the consignor shall sign the
 following statement:
 The carrier shall not make delivery of this
 shipment without payment of freight and all
 other lawful charges.

CARTON NO. LISTING • CHECK CARTONS IN UNDER ARROWED COLUMNS

0900	0029	0300	0032	0100	0033	0100	0207	0000	0236	0800	0237	0900	0294	0200	0301
0300	0329	0800	0341	0000	0359	0500	0516	0500	0620	0000	0627	0600	0629	0100	0660
0600	0606	0600	0705	0600	0846	0200	0867	0300	0876	0100	0877	0100	0802	0900	0803
0100	1527	0000	1603	0600	1657	0700	1727	0300	1753	0700	1807	0600	1860	0905	2037
0105	2121	0100	2126	0900	2189	0400	2200	0000	2321	0900	2504	0300	2535	0905	2594
0400	2606	0205	2724	0305	2771	0305	2808	0905	2810	0705	2811	0505	2812	0800	2849
0005	2862	0000	2933	0000	3051	0000	3009	0500	3157	0900	3198	0700	3199	0300	3200
0100	3201	0200	3229	0500	3237	0700	3302	0400	3327	0100	3475	0900	3626	0300	3766
0700	3700	0700	3830	0500	3831	0200	3861	0000	3862	0800	3863	0600	3864	0300	3865
0100	3866	0900	3867	0700	3868	0500	3869	0300	3870	0900	3872	0500	3874	0200	3984
0200	4059	0100	4154	0800	4155	0700	4170	0205	4172	0400	4223	0500	4227	0300	4228
0900	4230	0700	4231	0500	4232	0300	4233	0100	4234	0500	4265	0300	4266	0505	4397
0305	4390	0505	4401	0305	4402	0105	4403	0000	4404	0605	4405	0205	4407	0005	4408
0500	4500	0800	4500	0300	4558	0105	4653	0905	4654	0605	4655	0705	4693	0800	4693
0600	4694	0905	4786	0400	4930	0200	4931	0900	4933	0500	4939	0200	4945	0900	4961
0700	4962	0800	5009	0600	5107	0300	5157	0600	5169	0900	5180	0900	5197	0700	5240
0600	5245	0200	5365	0600	5392	0700	5546	0300	5633	0000	5658	0800	5659	0700	5773
0000	5823	0800	5838	0000	5856	0000	5857	0600	5858	0400	5859	0800	5862	0400	5996
0600	6400	0300	6454	0600	6461	0600	6462	0400	6463	0700	6466	0500	6467	0900	6470

NO. OF PACKAGES DESCRIPTION OF ARTICLES SPECIAL MARKS WEIGHT (GROSS TO GROSS) CLASS OR RATE CHECK COL PERMANENT POST OFFICE ADDRESS

FOR TRANSPORTATION COMPANY
 CARRIER TOTAL CTNS RECEIVED
 DATE BY (DRIVER)
 X

ZAYRE CORP.
 Per: (Signature of consignor.)
 If charges are to be prepaid, write or stamp here: TO BE PREPAID
 Received \$ _____ to apply in prepayment of the charges on the property described hereon.
 Agent or Cashier
 Per: (The signature here acknowledges only the amount prepaid.)
 Charges advanced: \$ _____
 *Shippers imprint in lieu of stamp: not a part of bill of lading approved by the Interstate Commerce Commission.
 If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
 Note - When the rate is dependent on value shippers are required to state specifically in writing the agreed or declared value of the property.
 The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding: _____
 Per: ZAYRE CORP. SHIPPER

CARRIER SHIPPING ORDER COPY

U. S. patents and foreign patents pending

Printed in U. S. A. 7/73
 Number 2

centronics data computer corporation

Headquarters and Eastern Regional Office

One Wall Street
 Hudson, New Hampshire 03051
 Tel: (603) 883-0111
 TWX: 710-228-6505

Central Regional Office

Executive East Bldg., Suite 200
 1563 East Dorothy Lane
 Kettering, Ohio 45429
 Tel: (513) 294-0070
 TWX: 810-459-1784

Chicago Office

1132 Gail Lane
 Sleepy Hollow, Illinois 60118
 Tel: (312) 426-5532

Western Regional Office

2800 South Main Street
 Santa Ana, California 92707
 Tel: (714) 979-6650