SCANNING--SCHEDULING--COMPUTERS

by

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I. Background:

A. Stoll's Foods, Inc. is a four store independent operation.
B. Located in Canton - New Philadelphia Ohio area.
C. Corporation is ten years old.
D. Store sizes range from 12,000 to 22,000 S.F.
E. Sales for 1981 expected to be about $22 million.
F. Scanning in two largest stores.
G. Have been scanning for two years.
H. Only stores that were scanning in marketing area from June of 1979 till May of 1981.
I. Marketing area of scanning stores is small towns of about 9,000 to 15,000 people - mostly rural.
J. Major competition: Kroger, Buehler, Harts & I.G.A.
K. Main supplier - Associated Grocers, Inc. - Dennison, Ohio

II. Why we decided to install scanners:

A. Late 1978 decided to remodel two largest stores.
B. Needed to change store image to very progressive and modern.
C. Needed better front-end system in stores.
   1. Better accuracy to reduce shrink
   2. Better controls for cashiers and sales data.
   3. Better information on productivity and item movement.
   4. Better speed at checkouts
D. Original plan was to install electronic cash registers in only two stores and upgrade to scanning later.
E. Checked out available equipment in our area and found we could install DTS 540 system in all four stores plus scan in two stores for what other systems would cost just to scan in both larger stores - so we did!

III. Scanning stores general information

A. Began scanning June, 1979 - New Philadelphia and in October, 1979 in Uhrichsville.
B. Total of 15 scanning lanes:
   1. Eight in Uhrichsville and seven in New Philadelphia.
   2. Plus two (non-scanning) terminals in each store for office reports and courtesy functions.
C. Data terminal systems (DTS) scan-alone Model 540.
   1. No backroom computer - uses shared memory.
   2. Equipped with 640 CMOS memory for functions and 48K for scanning

D. Using spectra-physics series "E" scanners at present time but will be upgrading to series "F" model very soon to improve speed and greater "first-time" scanning.
E. In meat departments we are using Hobart UPC-3000 scales and labeling equipment to produce UPC label.
F. We are not scanning any produce, deli. or bakery.
G. Using DTS load-cell scales at the checkout for produce.
H. We have not gone into price removal at this time on grocery items, but will in the future.
I. Percent of items scanned - total store = 72 percent
   1. Grocery department = 78 percent
   2. Meat department = 75 percent
J. Average number of items scanned per week.
   1. Store #1 = 96,000
   2. Store #2 = 81,000
K. Average item value - combination of ring and scan = $1.12.
L. Investment per check lane = $9,800.

IV. What scanning data we are now using:

A. Carefully tracking cashier productivity - both ring and scan.
B. Average item values - ring = $1.25 Scan = $1.08.
C. Tracking some item movement:
   1. High priced and high shoplifted items - sunglasses, HBA.
   2. Review commodity movement reports - looking especially for slow moving items to eliminate.
   3. No tracking all item movement at this time - due to scanner breakdown - data is not completely accurate.
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D. Watch closely the percent of items scanned and percent of items rung by each cashier for security reasons.
E. Scanning has made us better grocers - file maintenance is a must - spend about 35 hours per store per week.
F. Must have 10 day lead time for item price changes - new items - pack and size changes.

V. Future scanning plans:

A. Plan to scan at all stores in near future.
   1. Our calculations - need $100,000 per week sales volume with todays interest rates to justify investment.
B. Expect to communicate sales, productivity, price changes and item movement from stores to host computer in main office.
C. Expect to use scanning data to monitor merchandising locations and shelf allocation as well as elimination of slow items.
D. Expect to use scanning system at point of delivery to verify direct store delivery authorized items and pricing.

VI. Scanning and our main office computer:

A. We have had a computer in our main office prior to going into scanning in the stores.
B. Equipment is a data general Nova 3/12 computer with 64 KB memory and two (10) Meghbyte disc drives.
C. Operating language is Blis/Cobal and we use the computer for the following:

1. Payroll - sales analysis scheduling - productivity and labor scheduling - accounts payable - DSD analysis - pension reporting - meat cutting tests - general ledger and financial statements - etc.

D. Computer has ability to communicate with DTS terminals via telephone lines.

E. Plan to have data transmitted to main office computer daily to update pricing program - authorization lists - sales data.

VII. Summary:

A. Scanning has been a good investment and improved our operation.

B. Investment has been worthwhile - less shrink - better accuracy - faster and more information.

C. Need for more information for decision making and profits.

Sales-Thruput-Hourly Requirements

Store Number 3 Day Thursday Date 10/29/81

Checkstand Adjustment 1.13 Service Level Adj. 1.32

Time	Sales Hour	Cst. Hour	ATS Hour	Thr Put	Adj Thr	Line #1	Line #2
7:00- 8:00						.0	.0
8:00- 9:00	145	14	10.36	504	570	.3	.4
9:00-10:00	585	50	11.70	508	574	1.0	1.3
10:00-11:00	1,136	62	18.32	516	583	1.9	2.5
11:00-12:00	1,729	101	17.12	516	583	3.0	4.0
12:00-13:00	1,377	101	13.63	512	579	2.4	3.2
13:00-14:00	800	62	12.90	511	577	1.4	1.8
14:00-15:00	1,302	95	13.71	512	579	2.2	2.9
15:00-16:00	1,271	112	11.35	507	573	2.2	2.9
16:00-17:00	1,549	143	10.83	505	571	2.7	3.6
17:00-18:00	1,213	149	8.14	496	560	2.2	2.9
18:00-19:00	859	82	10.48	504	570	1.5	2.0
19:00-20:00	485	52	9.33	501	566	.9	1.2
20:00-21:00	656	59	11.12	506	572	1.1	1.5
21:00-22:00	585	63	9.29	501	566	1.0	1.3
22:00-23:00	192	27	7.11	487	550	.3	.4
23:00-24:00						.0	.0
**Total **	13,884	1,172	11.85			.0	.0

APPENDIX A

Current Equipment List

CPU

data general nova 3/12
64K bytes memory

DISK DRIVES

2 western dynex disk drives
5.6M bytes fixed and 5.6M bytes removable on each drive
total disk storage 22.4 million bytes

DISK PACKS

12 disk packs for storage and back-up

PRINTERS

printronix 300
300 lines per minute
9 x 7 dot matrix

okidata 125
125 lines per minute
5 x 7 dot matrix

CRT'S

3 soroc IQ 120 CRT terminals
24 x 80 display format
73 keys including numeric pad

MODEMS

2 universal data systems
- 1 UDS 201ACU
  - 2400 BPX synchronous data modem with auto call-up
- 1 UDS 201C
  - 2400 BPS synchronous data modem with auto answer

COMMUNICATIONS

1 synchronous line adapter - data general

OPERATING SYSTEM

Blis/cobol from IPI Inc.

ACCOUNTS PAYABLE

Detailed vendor master file list
Vendor name and address list (alphabetic or numeric)
Open accounts payable detail listing
Open accounts payable summary report by general ledger number
Open accounts payable summary report by category
Accounts payable checks
Check reconciliation report
Summary of accounts paid (weekly or by the period)
Summary of the purchases (weekly or by the period)
Detailed paid report (weekly or by the period)
Detailed purchase report (weekly or by the period)

PAYROLL SYSTEM

Detailed employee master file report
Weekly entry journal report
Payroll register
Payroll checks
Check reconciliation report
Turn-around document for the next pay cycle
Labor distribution report
Tax liability report (weekly, period, quarterly or annual)
Meat cutter's pension report
Retail clerk's pension report
Employees earnings recap (individually or all employees)
Deduction reports for all 10 miscellaneous payroll deductions
Rate review report
Employee directory (name and address, date of birth, or date of hire)

PAYROLL SYSTEM (Continued)

G-T-D and Y-T-D register
W-2 reports

FINANCIAL REPORTING SYSTEM

Detailed general ledger master file report
General ledger master file cross reference listing
Fixed standard entries journal
Sales ledger journal
Inventory worksheet journals
Purge miscellaneous journals
Transaction edit list
General ledger report (actual or edit run)
Income statement by store with current period to budget and Y-T-D to Y-T-D budget figures and percentages
Income statement consolidates with current period to budget and Y-T-D to Y-T-D budget figures and percentages
Detailed balance sheet
Summary balance sheet (current year to prior year)
Statement of retained earnings
Summary income statement Y-T-D (current year to prior years)
Net profit by department for each store and total company (by the period and Y-T-D with percentages)
Operating expenses for each store and total company (by the period and Y-T-D with percentages)
Administrative expenses (period and Y-T-D with percentages)
Other income and expenses (period and Y-T-D with percentages)
Amortization schedules for notes payable

SALES AND LABOR ANALYSIS

Detailed report on sales, budgeted sales, year-ago sales, labor (dollars and hours) current to budget and year-ago labor. Average wage per hour straight time and all hours. Perpetual inventory of the grocery department with turns. This report contains data for the week, period, quarter and annual information.
Report of supplies to sales ratio.
Graphic presentation of supplies to sales for an eight week timeframe or for the current year to date.
Cashier productivity report with items and dollars rung per department and average item value plus voids, coupons and bottle returns.
Average retail per item report by scanned and keyed data.
Hourly thruput requirements based on sales and customer count.
Operating ratio report.
Meat department operating ratio
Produce department operating ratio

MISCELLANEOUS REPORTS

Direct store delivery price sheets
Produce price lists
Meat department price lists
Meat department cutting tests (by employee, store & composite)
Deal and promotion price lists
Off deal price list
Timecard calculations (eventually to input directly to the payroll system)
Text editor (which produced this report)