chapter **15**

Restaurant Technology

Learning Objectives

After reading and studying this chapter, you should be able to:

- Identify the main types of restaurant industry technologies.
- List and describe the main types of software programs.
- Identify factors to consider when choosing technology for a restaurant.

TECHNOLOGY IN THE RESTAURANT INDUSTRY

Ask any restaurant operator about the alphabet soup known as ASPs, WAN, LAN, SAN, VPN, SQL, and POS, and you may get a puzzled look or a response that adds to your restaurant technology vocabulary. We have come a long way from the mom-and-pop operators and their proverbial cigar box. Independent operators may not require—or be able to afford—the sophistication of technology that chain operators are using. However, it is hard to overlook the progress in making technology available and affordable for independent restaurants. This chapter will examine some of the better-known systems used and identify their applications in the restaurant industry.

Most restaurants divide their technology into two parts: back and front of the house. Many systems integrate these so that operators can input and draw on the information from both programs.

Back-of-the-House Technology

Back-of-the-house, or *back-office,* restaurant technology consists of product management systems for purchasing, managing inventories, menu management, controlling labor and other costs, tip reporting, food and beverage cost percentages, human resources, and financial reporting.

Purchasing and Inventory Control. Product management allows managers to track product through each stage of the inventory cycle and to automatically reorder when an item falls below the par stock level. The ingredients for recipes are costed to calculate cost and selling prices. If the purchase price of an item increases, it is easy to enter this information and get the new selling price. Software solutions like ChefTec and Chef Tec Plus include options such as importing purchases from vendors' online ordering systems and comparing vendors' pricing from purchases or bills. Additionally, the software allows restaurants to automate ordering with user-set par levels and generate customized reports detailing purchases, bids, and credits. See Figure 15–1.

Inventory Control. Back-office systems aid inventory control by quickly recording the inventory and easily allowing new stock to be added. Calculations are done rapidly and monetary tools are given for each item, plus a cumulative total. The software programs prompt when inventory falls below the reorder point. When new menu items are added to the system, they are costed and priced according to the mark-up.

Date: 11/6/2003
Time: 10:42 AM

ChefTec

Spinach Pasta Crepes With Mushroom Filling
Culinary Software Services

Categories Cycle 1, Main Course, Pasta/Rice
Tools French Knife
Locations
Plate/Store

			Prep
Yield	24	ea	**Cook**
Portion	3	ea	**Finish**
Ilum Portions	8		**Shelf**

Ingredients			Cost	% of Total
1	lb	Basic Pasta	$0.95	10.6%
0.75	lb	Mushroom Duxelles	$1.41	15.7%
1.5	cups	Veloute Sauce	$1.60	17.9%
1.5	cups	single cream	$0.63	7.0%
5	ea	tomatoes	$2.08	23.2%
1	cup	capers	$2.29	25.5%
			$8.97	

	Single Portion	**Entire Recipe**
Cost	$1.12	$8.97
Price	$3.44	$27.53
[%]Cost	32.6%	32.6%
Margin	$2.32	$18.56

Figure 15–1a
ChefTec from Software Solutions for Foodservice Operations has recipe and menu costing, inventory control, and nutritional analysis programs. Copyright © 1995–2004 by Culinary Software Services, Inc. All rights reserved

Food Costing. When calculating the food (and beverage) cost percentage, a handheld device (PDA) can enter the inventory amounts into the system. Laser bar-code scanning technology is speeding up the inventory-taking process and making it more accurate. When the data are entered into the system, a variance report is generated and any significant variances are investigated. Technological improvements have made it possible to do a restaurant's food cost percentage in about one-third of the time it used to take and with more accuracy.

ChefTec and ChefTec Plus software solutions integrate programs with recipe and menu costing, inventory control, and nutritional analysis capabilities. See Figure 15–2. The recipe and menu costing program can cost, scale, and store an unlimited number of recipes; write recipe procedures using cut and paste, customizable fonts, colors, and a culinary spellchecker; instantly analyze recipe/menu cost by portion and yield; attach photos, diagrams, videos, or company logos to recipes; print out kitchen-

Date: 11/6/2003
Time: 11:08 AM

Spinach Pasta Crepes With Mushroom Filling
Culinary Software Services

Author
Categories Cycle 1, Main Course, Pasta/Rice
Tools French Knife
Locations
Plating

			Prep
Yield	24	ea	Cook
Portion	3	ea	Finish
Num Portions	8		Shelf

Nutrition Facts

Serving Size 3 ea
Servings Per Container 8

Amount per Serving	
Calories 397	Calories From Fat 125
	% Daily Value
Total Fat 14g	21%
Saturated Fat 6g	29%
Cholesterol 139 mg	45%
Sodium 105 mg	4%
Total Carbohydrates 55g	18%
Dietary Fiber 4g	17%
Protein 13g	
Vitamin A 22%	Vitamin C 38%
Calcium 7%	Iron 23%

* Percent Daily Values are based on a 2000 calorie diet.

Nutrition Descriptors
Low Sodium

Figure 15–1b
(Continued)

readable recipes; calculate costs based on highest or most recent prices paid for ingredients; save recipes in HTML, and share the data via the Internet.[1]

Menu Management. There is a definite link between food costing and menu management, an example being San Diego–based Cambridge Investments, operator of 60 Arby's and five Baja Fresh units. They use MenuLink to evaluate managers' produce purchasing, test proposed recipe and pricing changes, and compare actual to expected food usage. The menu management function is used to determine what offers work best, so that coupon building may be directed toward those items. Since MenuLink use began, food costs have dropped 2 percent and labor costs have also dropped.[2]

Date: 11/6/2003
Time: 12:04 PM

ChefTec

Overall Percentage Food Costs
Culinary Software Services

Start Date: 4/1/2003 **End Date:** 4/15/2003
Total Sales: $5,342.25
Cost calculated using: Theoretical End

Meat

Item	Units	Cost	% Cost
back fat	lb	$4.80	0.1%
bacon fat	lb	$2.98	0.1%
bacon, lean	lb	$5.16	0.1%
bacon, slab	lb	$2.86	0.1%
bacon, sliced	lb	$37.60	0.7%
beef bones	lb	$3.00	0.1%
beef brisket	lb	$4.75	0.1%
beef rib, #109	lb	$35.70	0.7%
beef ribeye, boneless lip on	lb	$559.44	10.5%
beef shortloin, boneless, 1X1	lb	$41.65	0.8%
beef top round	lb	$8.89	0.2%
lamb chop, loin	lb	$17.34	0.3%
lamb chop, rib	lb	$224.35	4.2%
lamb shank	lb	$13.76	0.3%
pork butt, boneless	lb	$13.47	0.3%
pork chop, center cut	lb	$78.75	1.5%
pork loin, boneless	lb	$10.49	0.2%
pork loin, smoked	lb	$54.75	1.0%
pork shank	lb	$1.21	
prosciutto	lb	$2.20	
sausage, andouille	lb	$4.80	0.1%
	Total Cost:	$1,127.94	
	Total Sales:	$5,342.25	
	% Food Cost:	21.1%	

Figure 15–1c
(Continued)

Labor Management. Labor management systems interface with both front- and back-of-the-house employee working hours, plus they handle human resources information. Labor management systems include a module to monitor applications (which can now be online and paperless), recruitment, personnel information, I-9 status, tax status, availability, vacation, and benefit information.

Labor management systems also do the scheduling based on the forecasted volume of business for each meal period, and managers monitor the schedules to control costs. The actual time worked is recorded, the data on tips are entered and later reported per IRS guidelines, the pay scale and the calculation of paychecks are made, and the check is in the mail!

Date: 11/6/2003
Time: 11:59 AM

Inventory On-hand
Culinary Software Services

Inventory Date: 4/15/2003

Meat

Item	Cost/Unit	Units	Open	Purchases	Sales	Produced	Used In Production	Theoretical End	Actual End	Actual Usage	Waste	Shrinkage	Problems
back fat	$0.60 lb		20	25	8			37		45		37	Open amount is theoretical
bacon fat	$0.60 lb		35	35	5			65	7	63		58	Open amount is theoretical
bacon, lean	$2.58 lb		15	15	2			28	2	28		26	Open amount is theoretical
bacon, slab	$2.15 lb		15	15	1			28.67	1	29	.33	26.67	Open amount is theoretical
bacon, sliced	$0.80 lb		15	15	47			-17		30		-17	Open amount is theoretical
beef bones	$0.50 lb		30	10	6			34		40		34	Open amount is theoretical
beef brisket	$0.53 lb		64	100	9			155	7	157		148	Open amount is theoretical
beef rib, #109	$7.14 lb		64	50	5			109	1	113		108	Open amount is theoretical
beef ribeye,	$6.66 lb		28	28	84			-28	5	51		-33	Open amount is theoretical
beef shortloin,	$5.95 lb		2	10	7			5	10	2		-5	Open amount is theoretical
beef top round	$1.78 lb		15	47	5			57	5	57		52	Open amount is theoretical
lamb chop, loin	$8.67 lb		22	22	2			42	4	40		38	Open amount is theoretical
lamb chop, rib	$14.96 lb		6	6	15			-3	5	7		-8	Open amount is theoretical
lamb shank	$3.44 lb		34	34	4			64	4	64		60	Open amount is theoretical
pork butt, boneless	$1.05 lb		60	60	3		7.692	107.169	105	15	2.138	2.169	Open amount is theoretical
pork chop, center	$3.75 lb		10	10	21			-1	3	17		-4	Open amount is theoretical
pork loin, boneless	$1.31 lb		40	40	8			72	52	28		20	Open amount is theoretical
pork loin, smoked	$1.05 lb		72	72	52			92	20	124		72	Open amount is theoretical
pork shank	$1.21 lb		30	30	1			59	4	56		55	Open amount is theoretical
prosciutto	$2.20 lb		25	25	1			49	2	48		47	Open amount is theoretical
sausage, andouille	$1.60 lb		25	25	3			47		50		47	Open amount is theoretical
				674	289					1,064		764,839	

Figure 15–2a
ChefTec's Inventory Control program has a number of features for restaurant operators.

Date: 11/6/2003
Time: 11:48 AM

ChefTec

Inventory Extensions Summary
Culinary Software Services

Inventory Date 4/15/2003

Account Category	Extension
Cheese	$169.98
Dairy	$55.55
Dry Good	$79.46
Fish	$93.97
Meat	$338.03
Poultry	$74.11
Produce	$672.56
Total	$1,483.66

Figure 15–2b
(Continued)

Windows-based labor schedulers make it easier for restaurant operators to stay on top of their biggest controllable expense. Says John Gloe, director of special projects for constellation Concepts, of Emeryville, California, "If you don't stay on top of it, it will make a big divot in your profit-and-loss statement."[3]

TimePro from Commeg Systems (*www.commeg.com*) has a time, attendance, and scheduling feature. Once the manager completes the schedule, associates cannot clock in more than ten minutes early or five minutes late without a manager's override. This prevents people from coming in early and taking a socializing break out back. Obviously, schedules are geared toward expected guest counts and sales. It is better to avoid copying a schedule from week to week because either the labor budget or the guests will suffer—since no two sales periods are identical. Forecasts are checked against actual performance, and both figures are checked against the ideal for the time period; then the numbers are tweaked for the next forecast. It does take more up-front work, but once done it not only yields savings, but also allows managers to focus on things like pleasing guests.

Savvy restaurateurs guestimate their sales for the next week and 28 days and compare the numbers with the budget, then update the numbers daily. Managers are frequently on a bonus plan, and meeting labor costs is a big part of the program. Managers can focus on productivity by the numbers, guests, per server, or by total sales.[4]

Financial Reporting. Back- and front-of-the-house systems may interface by transferring data to and from the central server. Profit (or loss) statements, budgets and variances, daily reports, and balance sheets are prepared with the aid of software programs.

The advantage of this technology is that information is provided in real time, enabling operators to make informed decisions quickly. Quicker decisions allow managers to "keep their fingers on the pulse" of the restaurant.

When the back- and front-of-house systems are interfaced, it is easier for management to monitor service times, POS food costs, labor costs, and guest counts. Again, this compilation of information helps managers make more informed decisions.

E-learning. Computer-based training delivered via the Internet or proprietary Internet sites is expanding knowledge in the workplace. Darden Restaurant managers and hourly paid workers have used it to learn a new software system. About 85 percent of Fortune 1000 companies have significant e-learning initiatives underway. Darden Restaurants, with more than 130,000 employees and 1,200 restaurants nationwide, recently introduced a PeopleSoft software system that employees use to access benefits and other information through its intranet site. "How do you train 135,000 people how to use PeopleSoft?" asks Randy Babitt, Darden's director of operations development. "In the old days we'd have to print up 135,000 manuals with different ones for different jobs. We'd have to send them out to all the restaurants."[5]

The National Restaurant Association Educational Foundation has several online courses, such as ServSafe Food Safety Training and ServSafe Manager Certification Online Course. There is also the Bar Code—Responsible Alcohol Service Program. All front-of-the-house employees should take the Bar Code and all back-of-the-house employees should take the ServSafe courses.

Front-of-the-House Technology

Front-of-the-house technology revolves around the point-of-sale (POS) system and wireless handheld devices.

POS Systems. The point-of-sale terminal is the workhorse of restaurant operations. It needs to be strong enough to withstand the rigors of daily restaurant use and versatile enough to achieve order-entry and guest-check efficiency.

Restaurant operators are increasingly demanding POS terminals that work within today's conditions while leaving room for expansion or adaptation. Today it's Windows, next month or next year it may be Linux. Today most operators are robust POS units, but soon they might want to run terminals remotely via the Web.[6]

Open platform architecture, a leading trend in POS, is giving restaurant operators more flexibility when it comes to choosing operating systems, peripherals, and applications, while improved design is reducing footprint and increasing reliability.

Selecting a POS System. Clyde Dishman, hospitality industry vice president of NCR, suggests that because a POS system can run into thousands of dollars, any new restaurant-level system should be pre-tested in "live" environments. Additionally, because restaurants of all shapes and sizes have varying sets of technology requirements, they need to be able to combine proven hardware with multiple software modules to create flexible and customizable solutions. NCR's Human Factors Engineering (HFE) team provides the quantitative data for evaluating current store performance levels and user interface designs. HFE concentrates on restaurant performance improvements that allow the restaurant operator to identify areas in which to increase revenues and improve operational efficiency and guest service. HFE has demonstrated the ability to assist the restaurateur in many facets of the business, whether in technology or in purely operational areas, such as work-flow design or ergonomic assessments. The two focus areas of HFE are store performance and user-interface design.

The store performance group measures key store-level metrics to assess productivity at the point of sale, as well as ergonomics and technology, and then compares that to other best-in-class restaurant practices. The resulting quantitative data are used to conduct cost/benefit analysis of recommended solutions.

The second focus area relates to the usability of the system. When a restaurant's employees are not productive and customer-service levels are not up to snuff, such problems can often be traced to the design of the POS interface, ranging from complicated screen layouts to inappropriately sized buttons and the poor use of colors for different menu items. HFE quantifies productivity levels of an existing system by surveying the needs of front-line restaurant employees to ensure that any recommended solution is easy to use. For example, HFE developed a series of more than 200 guidelines for touch-screen POS applications, which outline the best practices for designing software that improves productivity, reduces training times, and facilitates usability.[7]

Aloha has a popular POS full-range restaurant product that includes Aloha Table Service, which offers user-friendly ways of entering orders, managing guest checks, running promotions, and processing payments. The management function has a built-in

NCR's Real 70 POS System uses the Microsoft Windows 2000 platform and Intel Pentium IV integrated touch screen, magnetic stripe reader, and customer display. Courtesy NCR Corporation

Event Scheduler that lets managers program events that are automatically activated at a specific time. Special messages can be entered to appear on the screen, keeping staff informed. Managers can also access real-time sales results and reporting features like product mix reports, employee check-in stats, and server sales.

Aloha's virtual order processing communicates between the kitchen and waitstaff. For example, with the menu availability feature, staff are able to count down selected items or specials as they're ordered so servers never order out-of-stock items. Some of the features of Table Service include intuitive touch-screen interfaces, built-in redundancy, user-customizable screens and screen flow, menu management, integrated customized table floor plan, its Microsoft Windows–based performance measurement for servers, open architecture, off-the-shelf nonproprietary hardware, enterprise capabilities, extensive kitchen chit printing options, and simple check or item splitting and combining functionality.

Optional packages for Aloha's Table Service also include Aloha credit card, which authorizes, processes, and settles credit card transactions. The Aloha Customer Management includes a database to offer loyalty programs and track vital customer information. The Aloha Kitchen Display System gives the flexibility to route orders to video monitors in the kitchen. This package can increase productivity because it notifies each station in the kitchen of orders, instead of having someone standing at the pass shouting orders to each station.[8]

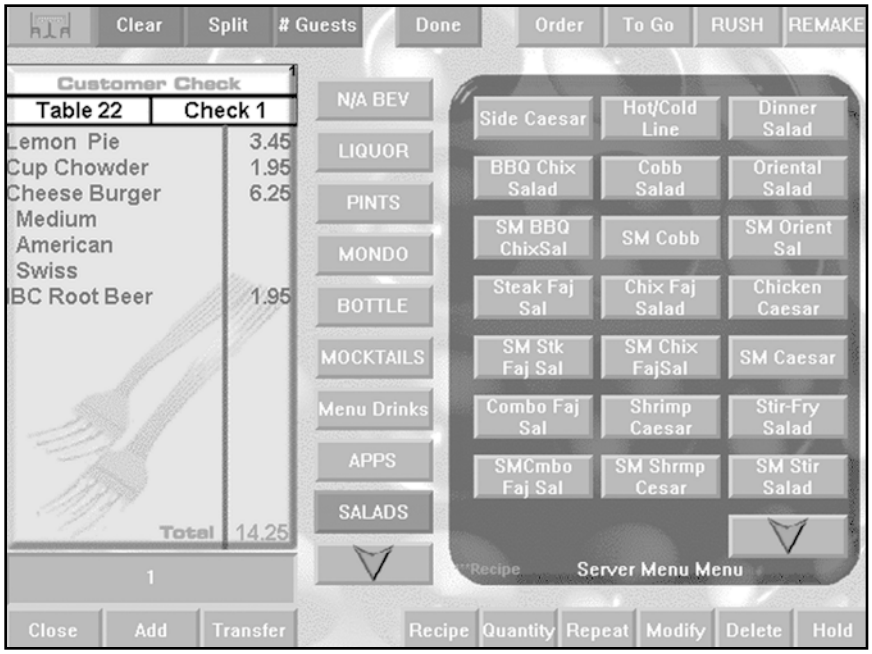
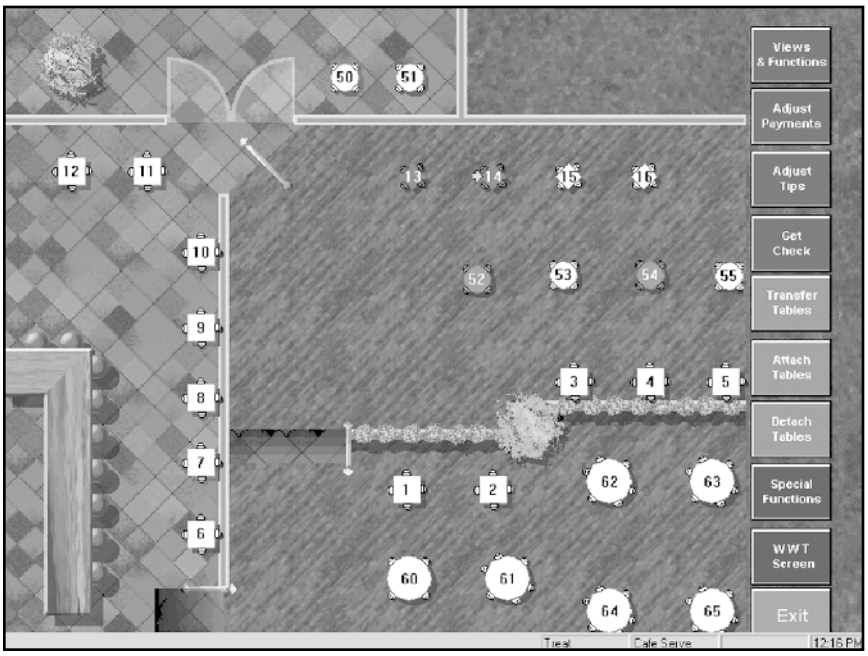


Figure 15–3a
Aloha's popular POS range of restaurant products includes Table Service, which offers several programs to make restaurants more efficient and effective. Art provided courtesy of Aloha Technologies



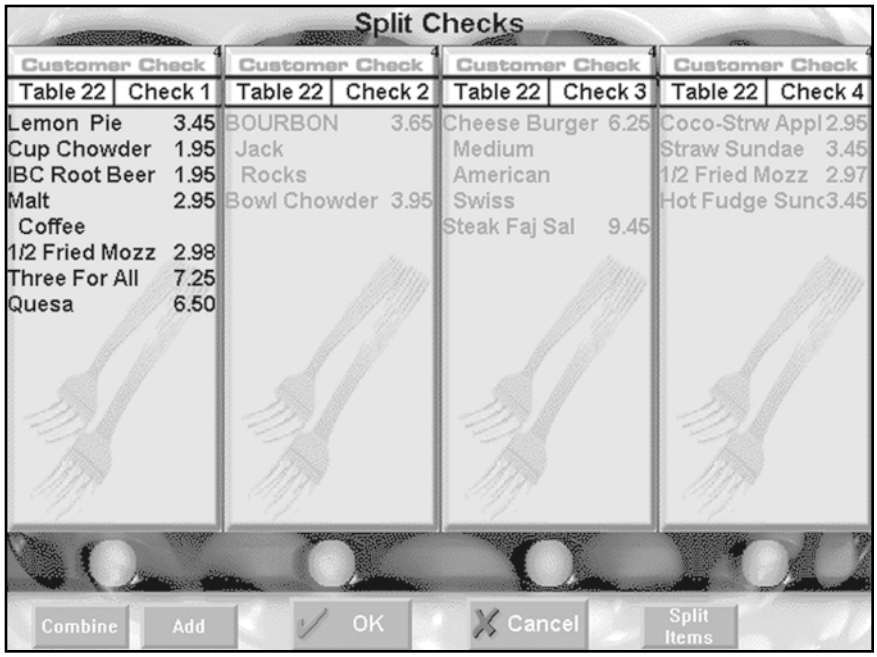


Figure 15–3b, c
(Continued)

ASI has the popular Restaurant Manager POS (see Figure 15–4), with easy-to-use training. This, coupled with the seamless integration between Restaurant Manager and the Write-On Handheld POS system, means that servers simply jot down guests' orders and send them to the kitchen with a tap of their stylus. The Write-On Handheld also gives servers easy access to wine lists, daily specials, and recipes. Handhelds can provide benefits to restaurants such as faster table turns, because servers no longer need to record each order twice. Another benefit is reduced errors—servers are reminded to ask for details like cooking temperature or salad dressing. The handheld system prompts servers to enter orders into the system starting with seat number one, and then moving around the table. It makes it easy to track specific items to the corresponding guest, which is especially helpful when a food expediter is needed on a busy night. This function also makes it less complicated to provide split checks—even after the order has been totaled. Yet another feature of handhelds is up-sells; because the entire menu is in the palm of their hand, servers can promote or up-sell items more easily. If an item is 86'd, it is displayed in real time so servers will know immediately and can offer an alternative.[9]

Figure 15–4a,b
A handheld device from ASI is increasingly in use at full-service restaurants. Courtesy of ASI

Restaurant Manager comes with a full complement of peripheral devices that include bar code scanners, cash draws, coin dispensers, caller ID devices, customer displays, Debitek card readers, fingerprint readers, kitchen display units, liquor control devices, magnetic strip readers, order confirmation displays, printers, weighing scales and video tracking monitors.

There are several suppliers of POS. IBM (*www.ibm.com*) offers Linux servers and Sure POS 700 series for restaurants. The Sure POS 700 open platform applications for both Microsoft Windows and IBM 4690 OS allow for customization of applications, peripherals, and displays; it also drives USB technology for plug-and-play setup and automatic configuration. The Sure POS 700 incorporates an onboard 10/100 ethernet local-area network (LAN) to handle both Internet and intranet applications.

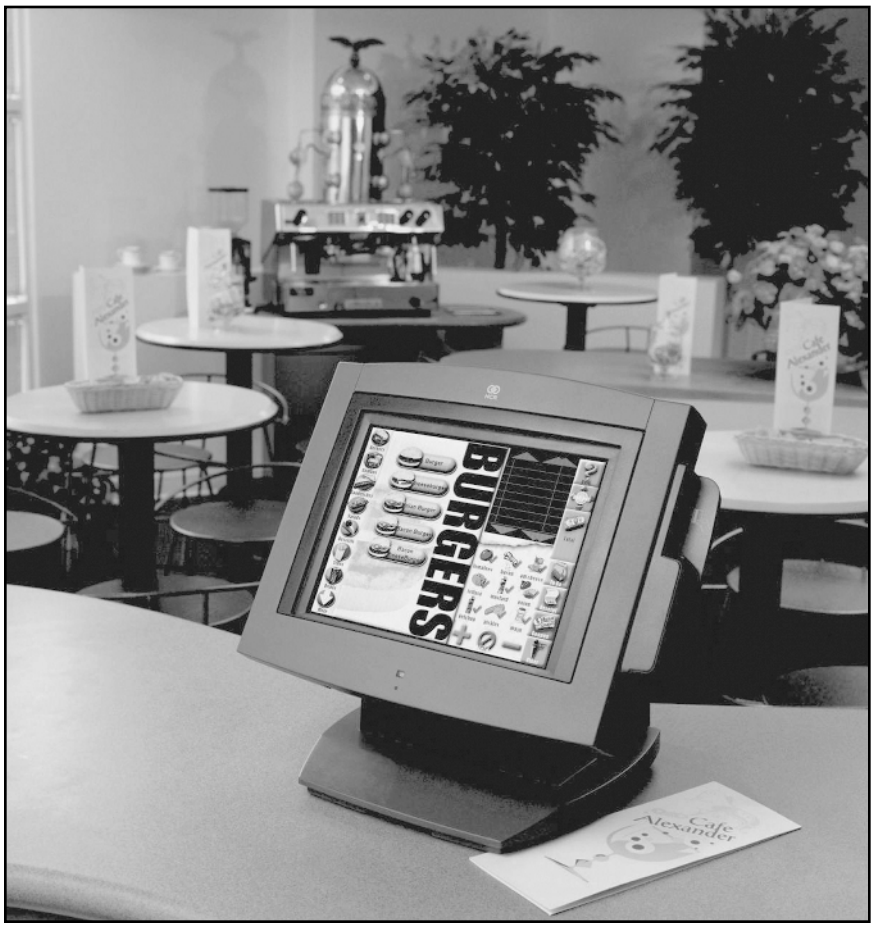
Sharp (*www.sharpusa.com*) has the UP-5900 system, which is also an open platform terminal and one that is combined with Maitre'D (*www.maitredpos.com*) Restaurant Management software, which can drive a variety of software modules and interfaces.

NCR (*www.ncr.com*) offers the 7454 POS Workstation with open PC-based architecture that is certified for MS DOS and Windows for flexibility and even offers full-screen, full-motion video.

Hardware solutions from NCR and its partners include the fully integrated NCR Real POS 70. It combines the reliability of the Microsoft platform and the industry-leading technology of Intel with the innovation of Authen Tec. The Intel Pentium IV-based terminal sports an integrated touch screen, magnetic stripe reader, and customer display. It also features a newly designed motherboard that is based on Intel's standards-based specification. The motherboard, hard disc, and power supply are placed on user-friendly "sleds" allowing for tool-free access and servicing. That means a terminal that needs servicing can be up and running in seconds. NCR will also certify, support, and offer preloaded operating system images on the NCR Real POS 70 for Microsoft Windows 200, XP Pro, NT, and DOS.

NCR's Compris runs on the NCR 7454 hospitality point of sale system. The Compris solution includes a flexible POS application, a back-office component for managing restaurant operations, and corporate tools for remote database maintenance and consolidated reporting. The Windows-based Compris WinPOS is easy to use and has an Advanced Manager's workstation that includes Navigation—which allows inventory, operators to configure their interface with daily tasks and user-defined tabs like cash management or—view, print and balance all POS data at the back office.The Compris WinPOS also handles food cost control invoices, receipts, transfers, credits, and waste reports. Reporting includes both theoretical and actual usage and variance tracking. Labor includes controlling labor costs, tracking time and wages, generating timecards, and avoiding employees' clocking in too early or clocking out too late. It provides a full complement of reports: daily, weekly, and period labor costs, employee punches, hours worked, and server totals. This data can be extracted from and imported into a payroll system. Schedule builder generates simple-to-use schedules for each shift, highlights conflicts, and tracks variances.[10]

Micros (*www.micros.com*) has the Eclipse PC Workstation that combines a small footprint and seams designed to channel liquids off the unit. The Eclipse also sup-



NCR's Compris—a flexible POS application that includes a back-office component for managing restaurant operations. Courtesy NCR Corporation

ports a number of operating systems including MSDOS 6.22 and Microsoft Windows, as well as all Micros point-of-sale applications.

POS systems have come down in price and offer the independent restaurateur the convenience of providing information for financials that obviates the need for cash registers and spreadsheets, which are time-consuming and often have to be reformatted and reentered into the accounting journals by bookkeepers or accountants. Today, POS systems have credit-card integration and interface with payroll and financial systems. The information is consolidated and an automated profit-and-loss statement is produced.

Some operators choose a POS for its power beyond the point of sale. These multimedia workstations feature a large hard drive and can run customer promotions or employee training programs when not in use as POS terminals.

POS systems facilitate prompt service and control. Courtesy Micros Systems

For some smaller restaurants, there is the old standby electronic cash register (ECR), which is now offering some of the flexibility of POS. For example, the ECR can be used as a stand-alone unit for a small restaurant.

Wireless POS has been around for a few years, but it is getting better and smaller. So, how is wireless POS being used in the restaurant business? One example is the general managers at Red Robin, who use their wireless POS as a tool to notify them when team members go on overtime, to violations of under-age working rules, of birthdays and anniversaries, and of the need to void or comp a guest check.

Some restaurateurs are concerned about the quality of guest contact during the order-taking process and how that might be negatively impacted by a server doing a POS transaction while standing at the table.

Several restaurant-industry technology trends are becoming more prominent. The main one is increased integration of front- and back-office systems. New technology is constantly being introduced. There is new satellite or cable entertainment; age verification units to confirm a customer's age or ferret out fake IDs; and handheld PDAs that function as pagers, data-entry pads, and inventory control devices.

The cost of installing a POS system will depend on the number of stations required. A 125-seat casual dining restaurant could use two or three stations in the dining area, one in the bar, and printers in the kitchen, plus a managers' station. The total cost would be in the $18,000 to $20,000 range.

If you are opening a restaurant and do not have that kind of money, you can start with a simple cash register and work up to a more sophisticated system as business grows.

GUEST SERVICES AND WEB SITES

Restaurant technology has evolved to the point where a restaurant can store and recall guests' preferences for tables, menu items, wines, and servers. Tables may be booked over the Internet at any time by leaving a credit card as a form of deposit to secure the table, especially in the large cities at convention times. Hosts can use programs to allocate tables, allowing a certain time, say one and a half hours, before that table is booked again. Guest checks can be split for payment by several people, if need be. Guest bills even come with suggested tip amounts calculated.

Another form of guest services is offered by some coffeehouses, which provide high-speed Internet access for guests. Starbucks just may be the next place for your meeting. At least when it gets boring you'll be able to check your e-mail. Other restaurants are using wireless paging to help reduce wait time for guests and loss of pagers for restaurants. When guests give their names to the hostess, they are asked for their cell phone number. This is entered into the "Trinity" system. When the table is ready, a prerecorded message informs the guests that their table is ready.

Wireless surveys allow guests to give feedback before they leave the restaurant, and tabletop pagers let guests page their server when they need something.

Restaurant Web sites need an appealing, user-friendly design and functionality, including accessibility and interactivity. When Joe Public is trying to access your site, can it be done without fault? Other features that are helpful are menus, photos of the restaurant, how to get there, parking information, frequently asked questions (FAQs), and secure transaction capability. Among the higher-scoring restaurant Web sites are Red Robin, TGI Friday's, Outback Steakhouse, and Hard Rock Café.

Café Ba-Ba-Reeba, Chicago's first tapas restaurant, selected Nextology (*www.nextology.com*) as its software program because it could take care of a dream list of items. The restaurant has a number of special "reservation required" events such as cooking classes, wine tastings, and shows, so keeping those up to date was very important. It also needed the ability to list specials, menu changes, and other information of interest of its clientele. It now has a site that enables it to take reservations and receive payment for events online. It can also edit, change, and update information on the fly. Michael Cunningham, general manager, says that Café Ba-Ba-Reeba could not go with a generic Web site design due to the restaurant's reputation and image. Now his staff is on the phone less and bookings are up.

SUMMARY

The restaurant technology chapter reviews the technology and its applications for front- and back-of-the-house restaurant operations. POS systems and various software programs are discussed.

KEY TERMS AND CONCEPTS

Back-of-the-house technology
PDA
Menu management
Labor management
ASP (Application Service Provider)
POS
E-learning

REVIEW QUESTIONS

1. How would you decide which is the best POS system and restaurant system for your restaurant?
2. Are handheld devices worth the investment for independent table-service restaurants?

INTERNET EXERCISE

Which do you rate as the top three restaurant Web sites, and why?

ENDNOTES

[1] ChefTec brochures, courtesy of Culinary Software Services Inc.
[2] Lisa Terry, "Building a Better Menu," *Hospitality Technology, http://www.htmagazine.com/archive/june 2002/june2002_7.html*.
[3] Curt Harler, "Hard Labor Made Easy," *http://htmagazine.com/archive/april2002/april2002_2.html.*
[4] Ibid.
[5] Harry Weisel, *Bradenton Sunday Herald,* May 11, 2002, p. 3b.
[6] Adapted from Lisa Terry, "Hard Choices," *Hospitality Technology* 6, no. 7 (July/August 2002):16.
[7] Personal correspondence, Clyde Dishman, NCR Corporation, September 27, 2003.
[8] Amanda Foster, Aloha Technology, November 6, 2003.
[9] Personal correspondence, Christopher Wright, ASI Action Systems Inc., October 1, 2003.
[10] NCR Corporation brochures.