Back in 1979, when many restaurateurs still used mechanical cash registers – or even just shoeboxes – New York deli owner, Gene Mosher, adapted an early Apple computer to take orders as customers arrived, transmitting them instantly to a kitchen printer to speed service. Just over 30 years later, EPOS is widely used to send orders to kitchens, but is still perhaps, most associated with customer-facing functions such as running tabs, real time table management, totalising and itemising transactions, splitting bills, calculating tax and add-ons such as reservations.

However, systems can play an equally important part, directly or indirectly, in a host of back-of-house requirements, from food inventory control, wastage analysis (by comparing supplies received with dishes served), recipe management, management of goods ordering, processing of received goods, staff scheduling, monitoring of staff attendance, payroll management and inter-staff messaging. And most systems should be able to link in a coordinated way with accounting packages to produce daily business statistics.

This Bistro fast food unit at an Ikea store is a candidate for self-ordering terminals, which would reduce counter staffing at off-peak times as well as eliminate queues of customers with trolleys.

Extending EPOSsibilities to the kitchen

By Bruce Whitehall

Today’s EPOS (electronic point of sale) systems handle a wide range of front-of-house tasks at affordable cost, but many operators still don’t make optimum use of all the communication opportunities, such as the conversion of live data from tills into formats which allow kitchen staff to schedule meals more productively.
Continuing the process started by Gene Mosher, “ticketless” kitchens which use screens at kitchen workstations rather than communicate guest orders on slips of paper, can also contribute significantly to both productivity and meal quality. “A cook sees from an incoming order slip that he has to do, say, a well-done steak, a chicken breast and a fish,” comments Tim Brown, vice-president, strategic accounts at hospitality automation specialists Micros-Fidelio. “All these items have different cook times but many cooks will stick them all on immediately and then pull off different items at different times. Result: the food is not always in optimum condition when it hits the pass.” A preprogrammed EPOS system communicating with kitchen screens can resolve that, restricting the information passed to kitchen staff so that they start cooking items only when necessary.

One major user of this kind of system in Europe is the TGI Friday’s casual dining chain, which started using KDS (Kitchen Display Screens) linked to hand-held waiter order terminals in the mid-2000s. Guest satisfaction scores of meal quality, as registered by mystery diners, rose by up to five percent while complaints about food not being hot enough dropped by 70 percent. In the back-of-house, an important productivity gain resulted from eliminating the need for a window-man to deal with orders entering the kitchen, which helped cut four employees per store.

In the front-of-house, the hand-held EPOS terminals helped slash at least 20 minutes off the total guest experience time, meaning less of a wait between starter and main course and greater flexibility for guests in managing their time. One knock-on effect has been an increase in seat availability at busy times.

Menu scheduling systems can also pave the way for better kitchen production forecasting. In an outlet such as a pizza restaurant, analysis of order flow can lead to forecast lists showing how much dough needs to be defrosted and proofed and how much can be pre-topped.

Programming for a wider menu
EPOS scheduling can offer equal possibilities on wider menus. The menu at the Parlour bar and kitchen, which since October 2009 has traded from 8 a.m. through to midnight daily in the Canary Wharf business district of London, emphasises fresh, seasonal dishes, with up to 350 meals served during busy lunchtimes. The owner, Drake and Morgan, is pursuing an ambitious...
policy of new outlet opening in London hotspots, and has a stated commitment to use the latest restaurant technology. They opted for a system programmed with timings for all cooked items on the menu. It receives all order data as soon as it is input by waiters into terminals within the restaurant’s EPOS system and converts this into prioritised cook sequences for each chef station. Touchscreens in the kitchen tell chefs which dishes to prepare and when, including individual requirements such as how rare meat should be cooked. Result: all food for a table’s order is ready at the same time, with holding eliminated. The US system, called ConnectSmart, was supplied through UK-based Call-Systems Technology, a specialist in restaurant communication systems. The screens tell each chef what to cook next. “It means they don’t have to think about the timings of each dish, and are alerted when they need to start cooking,” comments general manager Taskin Muzaffer. If they need a reminder, they can touch the screen to bring up specification cards that give the recipe and images of the dish. While many chefs have been used to paper-based order communications, they soon adapt.

Controlling coffee bar counters

For the growing number of “third place” outlets focused on beverages and over-the-counter grab-and-go snacks, constant, through-the-day sales activity makes staff productivity and stock control important. The compactness, appearance and easy operation of tills also matters for Costa Coffee, which operates more than 1300 Italian-style coffee bars around the UK and in 24 other countries, providing a smart but comfortable environment with tills visible on the service counter.

Simon Vardy, with nine franchised Costa Coffee stores in Manchester, UK, chose a Toshiba system, supplied through Belgium-based Toshiba TEC Europe. The compact till on each counter has a spill-proof “picture-frame” design with bright touch-screen and intuitive customised layouts aiding staff usage and training. “We aim to serve customers as quickly and professionally as possible,” Vardy comments. Before the new solution, his maximum sales per store per hour was £300 in 40 transactions. Installation of the new system has pushed this up to £450 in 60 transactions.

With a constant procession of small purchases, transactional security is important and the EPOS solution allows Vardy to dip into data remotely via modem connection. Fingerprint signing-in of staff on each terminal means that staff cannot sign on using another staff member’s card. Closed-circuit TV cameras over terminals also help monitor till activity while the cashier reports, available through back-office software, make it possible to monitor staff attendance times and ensure that stores are opened on time.

Other facilities available though the EPOS system include full stock control, yield reports which help identify whether the correct level of stock is being ordered, and management reports giving detailed analysis of sales, allowing frequency and trend analysis. Monitoring of sales is by store, by product and by cashier and can also be by till, which can be helpful in staff scheduling by identifying particularly busy periods and altering staff shifts accordingly. Bringing in a member of staff an hour earlier has been found to speed throughput significantly.

Letting customers input their orders

Current economic trends suggest a key new component in many European EPOS systems over the next decade: the customer. Many large retail chains, particularly food supermarkets and convenience stores, have already installed terminals where customers self-scan the barcodes on their purchases and then pay for them by cash or card. However, similar systems have so far been used only to a limited extent by European foodservice outlets. An early example, in the 1990s, was the U.S. roast beef sandwich chain, Arby’s, which tried out peak time, queue-busting terminals at central London units, in tandem with on-counter till ordering.

More recently, busy branches of McDonald’s France have given customers the option of self-ordering terminals. There have also been a few unusual experiments at casual dining restaurants, most notably Inamo, a pan-Asian fusion eatery in central London where diners have an illustrated menu projected audio-visually onto the touch-sensitive top of their table. They also have the means to make menu choices and call up their bill, simply by touching the keypad projected onto their table. The technology which enables this is now generally available to the foodservice industry and was demonstrated at last September’s Restaurant Show in London.

However, cultural sensitivities suggest that operators need to tread carefully. Variations on the self-
ordering theme are cropping up everywhere that transactions are made, from complicated purchases like hotel to airline bookings to applications where customers initiate coffee-making and even food preparation. But in hospitality contexts which are normally serviced, guests still need to be given clear benefits – in speed, convenience, lower cost or improved freshness – in exchange for carrying out tasks normally done by staff.

Operators with foodservice activities in a number of countries also need to consider consistency of automation policy across different markets. Swedish retailer IKEA, with 270 of its walk-through supermarkets in 20 European countries, as well as operations in the US, Canada, China and Japan, sells furniture and home goods to tightly defined marketing specifications throughout the world. But it is also the operator of large (from 450 to 1200 seat) self-service restaurants in each store, plus Bistros at exit points which serve fast food to shoppers after they have completed their retail purchases.

The Bistros sell a restricted menu built around keenly priced hot dogs. Products are sold and paid for at a counter, except in Japan where local management has developed self-ordering machines which enable customers to select their food and pay for it by pressing a few buttons. Each touch-screen terminal, which transmits data to the counter for inventory progressing, then issues tickets which customers take to the counter to claim their order.

“This idea was brought to us at head office and everybody was quite enthusiastic about it,” comments Edward Mohr, managing director of IKEA Food Service (IFS). “But we also felt that we had to respect the way that people are used to this kind of system. In Japan, it is quite a common way of placing your order. In Europe, we are far behind that and people are not yet so used to it, and are probably still a bit confused by it.”

So IFS head office decided to distribute details of the solution on its management intranet and various country managements responded favourably to trying it out. Data collected from these tests suggested various potential benefits, including reduced counter staffing at off-peak times and removal of hygiene issues surrounding the simultaneous handling of food and money. The clincher, however, was the reduction of the problem of customers having to queue in line at counters with laden trolleys. Separating off the payment process to the self-order terminals made for more flexible layouts. So it is expected that the self-ordering solution will find its way into the global business. However, Mohr points out that Bistro has a very limited menu – only 14 items or less – and ponders whether self-ordering can
work so well with longer and more complicated transactions.

Smart-phone “apps”
A big frontier in self-ordering in recent years has been the Internet, with systems which enable customers at home or office feed takeout and home delivery orders complete with payment directly to kitchens or central ordering points. Taking matters further are “apps” encouraged by platform providers like Apple (with its iphone) and Nokia. These have been increasing at breathtaking speed as mobile phone users extend beyond voice and text, and use the new-style handsets for viewing entertainment and connecting with the Internet. According to one survey, more than half of UK internet users will access the Web via such equipment within three years.

Since handsets typically have built-in GPS (geographical positioning systems), a logical usage is booking hotels and restaurants or getting information about bars and nightclubs physically close to the phone-user, as deduced from his GPS location. And there are numerous apps relevant to food and dining. Recent European examples include Ibrew launched in January 2010 by UK brewery, Greene King, which enables fans of traditionally-brewed beer to learn about pubs which stock cask ales, complete with maps and games; and the bestselling “20 minute meals” cooking app branded to UK celebrity chef Jamie Oliver.

But there is also expected to be a rush of activity, as foodservice operators develop ways of letting customers place orders on-line through their smart-phones. By connecting directly with in-store EPOS systems, these can potentially take some of the pressure off staff manning telephones and can also interface directly with kitchen display systems. One early example is that of the Australian branch of Wagamama, a London-headquartered chain of Asian fusion “noodle canteens” in 16 countries. This enables customers to order dishes direct from their smart-phones, tailor their meal, request a pick-up time of their choice and pay via credit card or prepaid account. Users can set up an on-line account that keeps a record of their favourite meals and remembers payment details (if they are wary about credit card data security they can set up weekly or monthly spend levels).

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