

Point-of-Sale

A Beginners Guide to Computerized POS Software

Prepared by
The Small Business Depot
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Introduction

Most large retail stores have migrated from the old trusty cash register to more modern computerized point of sale (POS) systems. This Application Guide explores computerized POS technology and provides a roadmap for anyone contemplating acquiring POS systems for their own business.

Who needs this Application Guide?

Do you own a retail store? Do you currently use a cash register to ring up sales? If so, you may want to explore the feasibility of converting to a computerized point of sale system. POS systems are finding their way into all sorts of businesses large and small. It may be just the right ingredient to jumpstart your salon or childcare business. A POS system can help your business grow to the next level.

If the thought has crossed your mind while waiting in the checkout line at your local food chain “Can one of those POS systems help my business?”, then this guide is for you.

What is a POS System?

Definition of a POS

Point of Sale (POS) -- The physical location of a transaction, but usually refers to any device or system that is used to record the transaction for the retailer. Sometimes used to classify all of these together. (I.e. the POS industry); e.g. the grocery store checkout register or the retail checkout counter.

For the sake of this guide, POS systems will refer - not to the traditional mechanical cash register, but to the newer class of computer-based POS systems. The term “cash register” will refer to the traditional mechanical or electronic cash register that is not based on a computer.

Benefits of a POS System

Most people type on computers these days. For a long time, the typewriter manufacturer’s tried to resist the tide by touting the new features of their products. Some added memory and LCD displays to make their typewriters more “computer like”. In the end, they lost the battle. While typewriters can still be found, by and large computer word processing has won the battle.

Why? Because word processing provided much more: Spell checking, different fonts, graphics, pagination, etc. Typewriters couldn’t compete.

We’re seeing the same battle now between mechanical cash registers and computer-based POS systems.

A Cash Register is dumb. It tells you only how much money your business has taken in during the day. It can tell you that you took in \$350, but it can't tell you how much of that money is profit. It can't tell you how much inventory you have on the shelf or what it's currently worth. It can't tell you how many bottles of soda your business sold today or which favors are more popular. A computerized POS can instantly tell you that you have \$350 in your cash drawer. It will tell you that \$225 of that \$350 is profit. It can tell you that you sold 123 bottles of soda today and that you still have 246 bottles on the shelf. It can tell you that your customers favor Coke over Pepsi. It can also tell you what items you should order today because your stock is low.

While cash registers are improving, they're still being out paced by the rapid development of POS.

According to Gartner Inc., a research and advisory firm, in a study released in 2002, of 300 retailers surveyed, 81 percent expected to see POS upgrades pay for themselves within two years.

Here are just a few benefits of POS over mechanical cash registers.

	POS Systems	Cash Registers
Inventory Control	Yes	No
Invoicing and Receiving	Yes	No
Interfacing with Accounting	Yes	No
Reports	Yes	Z-Out
Enforced accuracy	Yes	No
Integrated CC handling	Yes	Limited
General Ledger	Yes	No
Accounts Payable	Yes	No
Accounts Receivable	Yes	No
Preferred by tax consultants	Yes	No

Table 1: POS - Cash Register Comparison

POS Components

Computer-based POS systems consist of a computer platform, a variety of special peripheral devices, and a POS software application which ties it all together.

Software

Software makes the world go 'round, or in this case, controls the behavior of any POS. The software can be divided into four categories: The operating system (OS), the POS application software, the credit card authorization software, and the accounting software.

Operation System

If you have a computer at home, it is most likely classified as a Windows machine, or a Mac. There are other types, of course, but these comprise the majority of computers in the home market. Microsoft Windows is the leading operating system for home computers.

In the POS environment, Microsoft Windows is one of many players. In 2001, Microsoft dominated the POS Terminal shipments with 69% of the market with Windows NT/2000/XP (46%) and Windows 9x/CE (23%). IBM's 4690 is strong, particularly in the Mass Merchants and Supercenter/Warehouse Clubs where it garnered 80% of all shipments. Linux represented 2% of shipments.

If yours is a small business, you'll find the largest selection of POS applications if you stay within the Windows or DOS environment.

We all know about computer crashes. Most are caused by software bugs. Early versions of Windows were especially susceptible. So much so that many POS experts still recommend DOS based POS solutions.

WindowsXP is probably the most crash-resistant operating systems Microsoft has produced. Unfortunately, many POS software vendors have not released WindowsXP versions of their software.

POS

The POS application software adds the retail functionality to the POS system. It provides the user interface and all the features that you'll use during the operation of your business. Later in this guide, will enumerate those features and tell you which ones we think are important.

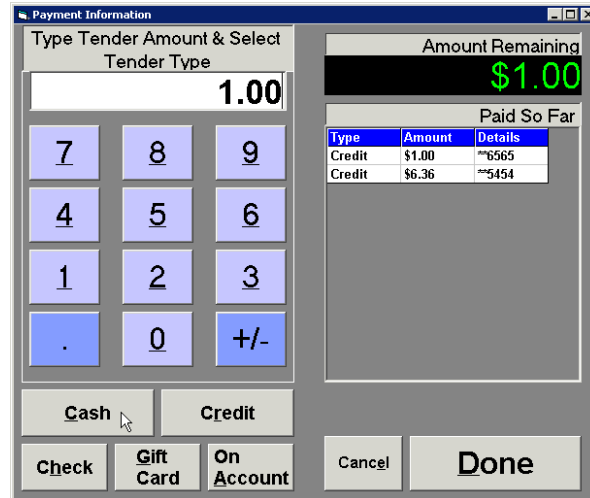


Figure 1 Cash Register Express

Credit card processing

Most retail businesses accept credit cards as payment for purchases. You may currently use a retail payment terminal with a card swipe to verify credit authorization. POS systems often implement this feature with software using a simple mag stripe reader as a computer peripheral. Integrating the credit card payment function can save steps and time during the checkout process.

You will have three options for credit card authorization.

1. A POS software package with integrated credit card authorization.
2. An add-on credit card authorization software application
3. Continue to use your card payment terminal.

Accounting

If you use a mechanical cash register, you're probably familiar with the z-out cash register tape. This paper tape receipt printed out by the register at the end of the day is used to transfer the day's transaction information to your accounting software or your ledger book.

This is the single most useful feature in POS systems - the elimination of this error-prone and time-consuming, yet necessary step. POS systems can transfer the day's receipts to your accounting system easily, normally with a few keystrokes or mouse clicks.

There are many accounting software packages on the market, many targeted toward small to medium-sized businesses. Three popular ones are:

1. Peachtree Accounting
2. Microsoft Great Plains Accounting
3. QuickBooks Accounting

The Intuit QuickBooks accounting software product is probably the leading retail accounting package for small businesses. Many if not most POS software packages offer QuickBooks data exchange functionality which keeps your retail transaction data and your accounting data synchronized.

POS Hardware

If you are a computer user, you're no doubt familiar with the most common desktop peripherals - the keyboard and mouse. Computer-based POS systems are based on ordinary desktop computers and operating systems, but they have peripherals that are specific to retail POS.

Computer

POS systems are based on standard desktop computing technology. There are, however, manufacturers/integrators who specialize in producing computers specifically designed for the rigors of day to day retail operation by average retail workers. (see www.ultimatetechnology.com)



Figure 2 Touch Screen Retail POS Computer

If you decide to build your own, you'll want to pay special attention to the reliability aspects of your computer. POS computers often have larger but quieter fans to minimize heat and noise. Many will integrate a touch sensitive screen into the monitor's bezel. Heavy duty power supplies last longer than the standard items you'll find in

most desktop machines. Don't scrimp on your hard drive. It doesn't have to be huge, but it does have to be reliable.

You will also want to ensure that you're using a good surge protector and UPS (battery backup) to prevent power-related crashes.

Display

Counter top space is always precious. You'll want to minimize the footprint of your POS system.

Flat panel monitors are ideal for POS applications. They use far less power, generate far less heat and don't rob counter space better left to product displays.



Cash Drawer

A cash drawer is essential. It's the main peripheral in any POS system. This cash drawer opens when you ring up a sale, just like a cash register drawer. You can get locking cash drawers, plastic inserts to separate your bills and coins, plus a slot to stuff your credit card slips.



There are nominally two types of cash drawers:

1. Cash drawers that connect to your receipt printer
2. Cash drawers that connect directly to your computer

Receipt printer-driven

The first type connects to a special connector on your receipt printer. The receipt printer behaves much like any other computer printer (see below)

When you print a receipt, a signal is passed through the printer to the cash drawer to open it.

Direct-connect

The second type connects directly to your computer, either via an RS-232 serial port, the parallel port, or a USB port. The POS software sends a special code which opens the drawer.

Receipt Printer

As the name implies, this device prints your customer receipts. It can also print out a z-out tape if required.

There are numerous types of receipt printers, categorized - like any other computer printer - by its printing technology and its computer interface.

Technology	Features	Interface
Dot matrix	Tear bar	RS-232 serial
Thermal	Color	Parallel
Inkjet	Cash drawer I/F	USB



Table 2: Receipt Printer Technology

There are advantages and disadvantages of each type. Thermal printers never run out of ink or toner but they use special, more expensive, paper.

Inkjet and dot matrix printers can often print in two colors (*red and black*) which is useful for printing debits, returns, or special messages.

Some printers will automatically cut the receipt paper at the end, making it easier to provide a clean receipt to your customer. Others furnish a *tear bar*.

You will need to match the type of cash drawer you choose with the receipt printer. If you choose the 'printer connect' style of cash drawer, you will need to also choose a printer with the cash drawer interface feature.

Bar code Scanner

The most efficient - and accurate - way of ringing up sales at your checkout station is by using a bar code scanner. That's why all of the major food chains use them and why more and more small businesses are using them.



Many POS software applications have bar code label printing capability. You can print labels right from your inventory items database. For those POS packages that don't have this capability, you can acquire a low cost bar code label solution such as **Bars & Stripes** for under \$40. (www.barsnstripes.com) Also refer to the publication "*Retail Bar Coding Basics - a Tutorial*" at the same website.

Once you've applied labels to all your items, you can ring them up by simply scanning them with a bar code scanner saving time and reducing errors.

There are two categories of bar code scanners - attached, and portable.

Attached

As the name implies, attached scanners are attached to your computer via a cable. This is perfectly suited for checkout counter POS stations. Typically, these bar code scanners use a special 'Y' cable that allows you to share the keyboard and bar code scanner on the same computer keyboard port.

There are also USB and RS-232 serial interfaced scanners but these are rarer.

Portable

Portable bar code scanners have the advantage of not being tethered to a computer. While much more expensive, this allows you to take the scanner to where the items are instead of the other way around.



Portable data collection devices are extremely useful for taking inventory. These devices consist of a small computer, data storage, and bar code scanner integrated into a handheld unit.

Newer portables are frequently fashioned from a PDA (Personal Data Assistant) and an add-on or integrated bar code reader attachment.

Data that has been scanned and stored in one of these devices can be transferred to the POS system in one of two ways.

1. Docking station
2. Wireless radio transmission

Docking stations are generally connected to the POS computer's serial, keyboard, or USB port. The portable scanner is 'docked' or plugged into the docking station. Software transfers the collected data into the POS system's database.

Some scanners allow you to transmit the data at the time it is being scanned directly to a receiver interfaced to the POS computer. These devices normally have a range between 50 and 400 feet.

Label/Report Printer

POS systems can often print your bar code product labels. Most can format and print useful business reports. You do not want to try and print these on your receipt printer.

So you will need a printer to handle these other printing jobs. We recommend a good general purpose desktop printer. Bar code labels require at least a 300 dpi resolution. Choose a reasonably priced laser printer if possible. We like the Samsung ML1210. For around \$200 it's a great value. You will be printing:

- Bar coded product labels (Avery paper label stock)
- Invoices
- Purchase Orders
- Sales Reports (Some POS packages do graphs and charts)
- Shipping Labels & Postage is you ship items

Pole display

Customers frequently like to watch you ring up their items. (Customers can be a suspicious lot.) A Pole display is a LCD or LED sign which shows the customer each item that's rung up. It can even flash little advertising messages to those waiting with their purchases. Check your POS provider's documentation to see if they support pole displays.



Mag stripe reader

The mag (short for magnetic) stripe reader peripheral replaces the retail terminal. It provides a way of reading credit cards. The usual mag strip peripheral also has a keyboard interface. So a typical configuration has the keyboard, the bar code scanner, and the mag stripe reader connected together in a daisy chain configuration. When a card is swiped thru the slot, the card information is "typed" into the POS system.



A credit card's magnetic stripe on the back can contain 3 tracks of information.

Track 1	Track 2	Track 3
Normally encodes the cardholder's name, card number and card expire date.	Also contains the cardholder's card number and expire date. This provides data redundancy on the card.	Normally not used

Table 3: Mag Stripe tracks

POS keyboard

One refinement you can make to your POS system is to replace the standard computer keyboard with a POS keyboard. A POS keyboard more closely resembles a cash register key layout. The keys are programmable and can be setup to do one-key functions such as Total, Produce, Soft goods, Discount, etc.



Touch Screens

Many POS software applications support touch screen user interaction. A keyboard is not always a good solution and you'll see touch screens more frequently in environments such as bars and restaurants. You can buy add-on touch screens but these are not as good as the built in versions.



Personal Data Assistant (PDA)

As described earlier, a PDA-based portable data collection device can be very useful for entering and controlling inventory. Symbol Technologies married a Palm Pilot with bar code scanning capability and created a very credible data collection device. (www.symbol.com)



PDA's are also finding their way into restaurant's and lounges where wait staff take customer orders that are then instantly relayed to the kitchen, saving time and money.

Scales

If you own a grocery store, a recycling operation, or any other business where you need to weigh items at your checkout station, then this POS peripheral may be required. It transmits the items weight directly to the POS software which can total the amount based on your pricing information. POS scale peripherals come in all sizes. Check your POS software for compatibility first. Not all POS software packages support scales.



Check Readers/Printers

Using a technology called magnetic ink character recognition (MICR), check readers are capable of reading special characters printed on the bottom of a personal check. These characters are printed using magnetic ink to prevent check fraud. The check reader



uses the same connectivity as a magnetic strip reader, and also requires software. Check your POS software for support for this feature.

Some check readers also come with printing capability. This allows the POS system to fill out the amount on a blank check so the customer need only sign their name. Customers find this service extremely convenient.

Signature Pads

Signature pads are becoming a very popular addition to POS systems because they enable a paper-free environment.

Businesses gain the benefits of electronic receipts - no more storing or tracking paper, eliminating chargebacks from lost receipts, reducing paper expense, and speeding up the payment processing cycle. Customers view their signatures as they sign LCD window, mirroring the familiar pen and paper experience. Electronic signatures can simultaneously be viewed on a monitor, allowing for visual comparison with original card signatures.



Slip Printers

A slip printer is a printer with a slit along the side which allows the user to slide in a form, check, or wide document. It is used as a POS receipt printer or check printer, or to print on custom business branded receipts or forms. There are also devices which combine both a slip printer and a standard style receipt printer.



Wireless payment systems

A wireless POS terminal provides an ideal way for customers to pay for goods and services from anywhere at anytime - without having to keep cash on hand or visit a fixed POS location. Whether it's home delivery, field service personnel, taxis, kiosks or concessions at special events, a wireless POS solution allows a business to accept credit card and debit card payment easily and securely.



Are POS systems for you?

Do you use a software accounting package to manage your business? If not - if you still handwrite your entries into a ledger, then a computer-based POS system is not for you.

A POS system requires some computer literacy on your part. It's not a trivial investment in time or money to set up. If you don't own a home computer, then the technical requirements of a POS system may baffle you.

If you like to operate outside the box, ignoring normal accounting practices, then a POS system will confound and frustrate you.

The whole idea of a POS system is to enable you to run your small business like the big boys do. You'll need to follow the rules, learn accounting terminology, and become more disciplined.

If you do these things, a POS system can bring tremendous advantages. You will know exactly how your business is operating. It will show you where you are weak and where you are strong. And best of all, a good POS system will give you the information you need to make you a better business person and grow your business.

Your accounting tools	Accounting Software program	Pencil and ledger book
Your Computer Literacy	Home computer, Email user, Shop online, Installed software	Don't use one, Whose Bill Gates?
Business discipline	Aspire to do it the right way.	A maverick, free thinker, hate rules
How big is your business?	Use tax consultant	Do your own taxes.
Inventory?	Yes	No
POS compatible	Yes	Maybe not

Table 4: POS Suitability

Types of POS systems

One of the strengths of POS is that they can be tailored to your specific business. While you may be able to custom label the keys on a cash register, a POS system can be customized to a much greater degree.

In fact, you will no doubt be able to find a POS package written by someone who owns a business similar to yours and has faced the same issues you face. Here is a 'short' list of industry-specific POS systems available to you. We listed

one supplier in each category but there are many more from which to choose. A little searching on your part will find many choices in each industry. Many have downloadable demos.

Note: Inclusion on this list does not constitute a recommendation

Table 5: Types of POS Software

Industry	POS	Mfg Website	Typical Feature
General Retail	QuickBooks POS	Intuit.com	Integrates with QuickBooks financial
Auto Sound	TSS XP	Mobiletoys.com	Track performance of installers and salespeople
Book Stores	Book Wizard	thebookwizard.com	book fairs, book club, customer sales history, Club memberships
Childcare	Childcare 98	tkwik-check.com	Integrates photos of children for security
Cinema	VcsTimeless	vcstimeless.com	Fully configurable ticketing and concessions screen
Construction	Construction Pro	marathonsystems.com	monitoring of project progress and supply requirements
Fast Food	Restaurant Pro Express	pcamerica.com	waiter/waitress management
Fine Dining	NextPOS	nextpos.com	Table seating layout, takeout, drive through, Caller ID interface
Hotel/Motel	Lodgeware	lodgeware.com	Include room, telephone and sundry charges on a single invoice
Liquor Store	LiquorPos	liquorpos.com	Track bottle, keg, and tap deposits
Music Store	Musicware POS	musicwarepos.com/	Use electronic ordering based on the NARM standard EDI specs
Pharmacy	MMS Pharmacy	pharmacy-pos.com	Captures script # at POS. Produces audit report
Salon/Beauty Industry	Salon Advantage	aknaf.com/salon/	Color/Perm Formulas/Cut Code Information
Video Store	Star Tracer	startracer.com	View the recent rental history of a customer

POS Features

The following section highlights some typical POS features you will find in the various commercial POS products. Not every POS will have all of these features. Some will have features not listed here. Use this section to familiarize yourself with what types of features are available. Also, create your own list of POS features you want before evaluating POS products.

Standard POS features

Check-in / Check-out

A POS can help monitor transactions by employee by requiring a check-in and check-out procedure. This allows you to measure employee performance as well as reduce employee theft. Some POS products will integrate this data with your payroll.

Inventory control

Most POS products feature inventory control. It's the single biggest advantage POS has over cash registers. You use your POS to order products, do your invoicing, and managing inventory. When you sell items, your inventory levels are adjusted. When you get low quantities of an item, the POS lets you know to reorder. Here is a list of inventory related features:

- Maintains sales, costs of goods and inventory ledgers
- Inventory depletion based on sales
- Inventory shopping list triggered by inventory level falling below pre-defined threshold
- Inventory usage forecast capability
- Inventory depletion details report
- Create, review, & edit purchase orders
- Track historical inventory purchase cost
- Create barcode labels from inventory items

Label design/printing

Once you entered your inventory information into the POS database, you will be able to design and print out product and shelf labels. This is normally done on standard Avery label stock paper. Normally you can choose to create labels for all your items, or select a range of items. Avery label stock comes in a wide variety of sizes but many POS systems are limited to a single Avery size.



Example Item Label

Price levels

POS systems allow you to have multiple price points for your products. You can have:

- Normal List price
- Multiple sales prices
- Employee price discount
- Volume discount pricing

The POS screen will normally allow you to choose which price to use when you ring up a sale.

Sales Tax Calculations

In states that have sales taxes, this is invaluable feature. Your state may tax some types of items and not others. A POS can use the tax data you've entered to correctly apply the tax. You will normally have to indicate whether or not an item is taxable when you build your initial items list but after that it's automatic.

Ordering and receiving

Over and under-buying is the most common costly mistake in retail, yet is one of the easiest to reduce by the use of effective computerization. POS software can increase control over the many products carried by even a small business. POS software can help you create purchase orders and to track their status.

However, adding an item to your inventory is not as simple as typing it into your database. You will have to use normal accounting principles of purchasing and order entry.

Invoicing

Here is a list of typical invoicing features

- Invoice aging allows the option of charging interest or "late charge" on over due invoices
- The credit limit function specifies the maximum purchasing limit for an account
- Contract pricing for different customers
- Invoice printing and billing cycles
- Creating quotations without affecting inventory, customer account, or cash.

Suspend/Resume transactions

This feature allows you to suspend and hold an uncompleted transaction while you start another transaction with another customer. Un-holding a transaction lets you take up where you left off.

Networking/Multiple stations

If you have a store big enough to have more than one checkout station, you'll want them all to access the same database. Networking allows you to do this. Most POS vendors charge extra for multi-station versions of their software. Most off-the-shelf PC's today come equipped with a LAN (local area networking) card.

Security

All POS systems provide some level of security. Some offer a simple check-in and check-out feature so you know who's operating the system when a transaction occurs.

Other POS packages offer much more robust security with passwords and levels of security which control access to every menu and function. Analyze your security requirements and compare them to the various POS offerings.

Advanced industry-specific features

Because there are so many POS solutions tailored for specific industries, there are likewise a tremendous variety of POS features. This is by no means an exhaustive list but should serve as a guide to what may be expected.

Seating chart layout

This feature often presents a graphical representation of your dining area which allows you to assign wait staff to specific areas or tables. You can also see how long a party has occupied a table, and how long before or since they've ordered or been served.



Figure 3 NextPOS POS Software

Wait times

This feature lets you manage the length of time between order and delivery. This feature is also sometimes available for telephone orders and delivery as in pizza restaurants.

Staff assignment

This feature assigns staff to customers or cashiers to stations and orders and lets you track employee performance. Reports can show commission data, profitability by employee, and even thwart employee theft.

Kitchen displays

A combination of hardware displays and software shows kitchen staff what to prepare. This feature interfaces your restaurant area ordering with your kitchen area preparation. This helps automate your kitchen and ensures that orders don't get lost.

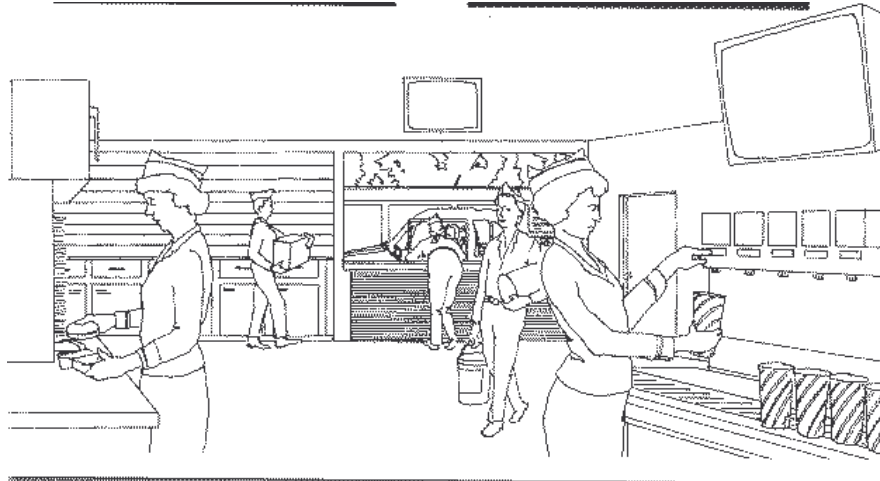


Figure 4 Kitchen POS displays

Foreign languages

Communication with staff can sometimes be a problem. This is a great POS feature - allowing the employee to choose what language to use for the POS display.

Telephone orders/Takeout

When you order a pizza, the order taker already knows your name, address and pizza preference. How? Their POS interfaces with the caller ID system. Some POS systems even includes GIS (Geographical Information System) information and map data for drivers.

Menu building

What inventory items comprise a deluxe burger? Restaurant POS software can often help you in building menus and tying those menus to your inventory control function. It can let you know when your burger joint is running out of pickles.

Gift Certificates

Gift certificates are becoming more popular. POS systems can track your gift certificate program and can use the customer contact data collected to facilitate future customer direct mail advertising.

Gift Cards

Gift Cards are becoming more popular with the growing use of POS. Customers can purchase blank gift cards from the retailer. These cards have a magnetic stripe on the back just like credit or debit cards. The customer purchases an amount or value to be loaded to the card's account. Typically, the value purchased is stored on a central database, not the card. Anyone can use the card as cash to purchase from

retailers connected to the system (i.e. can access the database with that card's account).

Repeat customer tracking

Good customers are hard to find but easy to lose. That's why you need to take care of them. A POS can record them, track them, advertise to them, and offer special pricing for them.

- Repeat customer
 - Tracking
 - Pricing
 - Terms
 - Advertising
- Personalize transactions
 - Greeting
 - Name on receipt
 - Christmas Card List
 - Specials

House Accounts

This POS feature gives you the ability to run up a tab for each of your regular customers, keeping track of what they've purchased and when they purchased it. A House Account is considered a payment method just like cash or check except that obviously the money is not in the drawer at the end of the day.

Bad Check file

This POS feature helps you prevent recurring bad checks at your business. Verify bad check by account number and driver license number or telephone number. The bad check feature gives you the possibility of collection at the next sale.

Security Camera Integration

This great feature from DGMax POS integrates the POS screen superimposed on the security camera video. This allows you to match the transaction with the video and the customer.



Warranty Tracking

Since your POS system knows when an item was purchased and who purchased it, it can also store warranty information.

Serialized Inventory

This feature allows you to capture serial number data at time of sale. This data can be used for warranty tracking, returns, repair operations, etc.

Kit Inventory Items

This feature can support quantity pricing - such as "3 for \$10.00" - when the price of an item changes by the quantity purchased. These price levels are established in the back office and take effect automatically at POS. Special pricing can also be set for kits or packages of goods containing pre-designated items, where the price of the kit may be less than the sum price of all the parts.

Layaways

POS software can support layaways and provide detailed payment history, balance and payment date. The merchandise on Layaway can be flagged as held inventory in the system. Special orders can be created for out-of-stock merchandise or a custom item. Overdue layaways and special orders are tracked and reported.

Integration with eCommerce solution

Unless you want to endure the hassle of multiple merchant accounts and two sets of books and an accounting nightmare, make sure your POS software is compatible with your ecommerce solution. Can your POS accept an online transaction and do all the things an in-store transaction does?

Currency converter

If you cater to the tourist trade or operate near the border, you may want to accept foreign currency. That means your POS should be able to easily convert item prices and totals to other currencies. You may even want separate price levels for each item to offset the expense of converting the currency at your local financial institution.

Reports

A good POS solution will be able to generate high quality reports to help you monitor and manage your business. These are just examples of Reports your POS system might provide. These are from the Cyberwiz POS system (www.cyberwiz.com)

Transaction Reports

- | | |
|---|---|
| <ul style="list-style-type: none"> • Back Order Report • Sales Commissions Report • Drawer Reconciliation • Exceptions Report • Itemized Listing • Register Recap | <ul style="list-style-type: none"> • Sales Tax Report • Transaction Summary Report • Transactions Export • Line Items Export • Accounts Export |
|---|---|

Account Reports

- | | |
|--|---|
| <ul style="list-style-type: none"> • Customer Listing • POS-index listing • Customer Detail Report • POS Index-detail • Account Aging • A/R Statements • Mailing Labels | <ul style="list-style-type: none"> • Vendor Detail Report • Vendor Listing • Customers Export • POS index Export • Vendor Export • Accounts Payable Reports |
|--|---|

Inventory

- | | |
|---|---|
| <ul style="list-style-type: none"> • Alert Report • Bonus and Commissions Report • Cross Reference Listing • Detail Report • Inventory Evaluation Report • Inventory History Report • Inventory Status Report • On Order Report | <ul style="list-style-type: none"> • Reconciliation Report • Pricing Labels • Price Listing • Sales Analysis Report • Sales History Report • Serial Numbers Export • Stock Levels Report |
|---|---|

Employee

- Commission Report
- Attendance

Purchasing

- Detail
- Purchase Orders
- Outstanding Orders

Implementation

If you've decided to invest in a POS system, make sure you have a plan. This may be the single most important decision you will make for your business. It's not a cash register. Installing a POS system takes time and effort and you won't want to start over if you've chosen the wrong one. Choose wisely. Take your time and ask questions. Evaluate a variety of packages. Don't be price driven. This can make or break your operation.

Requirements

What are your minimum requirements? Make a list of the features you don't think you can live without. You can have a second "nice to have" list as well. This guide should give you some ideas about what features are available to you. There are many more we haven't discussed. Explore

some of the references given at the end of the guide. These will provide even more information. Have your list ready before you call your first vendor. Download as many free demos as you can. It may be time consuming but it's the surest way of evaluating each package.

Ask each vendor for a couple of happy customers.

The Process

Running your business is a process. A POS system will enforce a process onto your operations - a way of doing business. Can your business operate the way the POS wants it to? Can you operate given those constraints?

A POS will enforce a set of disciplines on your day to day operations. Think about operating in that environment.

POS systems are based (typically) on accounting rules and regulations. If you are not familiar with accounting terminology, you may find learning a POS somewhat daunting. You may want to hire a POS consultant to set up your system for you.

Data Entry

You will need to invest a significant amount of time setting up the POS. A big part of this will be entering your item data into the POS. If you have 10,000 different items, you will need to enter each and every one into the system. Each will have an item number, a description, a price (multiple prices actually) and will either be a taxable or non-taxable item. (Think long nights after work). You can hire temporary help if the task is huge. It (should be) a one time task. When you're done, make a backup copy. Make several. Burn a CD and store it in a safe deposit box.

Most things we buy these days come with a UPC bar code. You may want to include this UPC number in your POS description. Some POS systems provide a field for the UPC data.

Consider acquiring a portable bar code data collection unit so you can enter your items without having to remove them from the store shelves. You can buy or rent these units.

To read more about UPC bar coding and its role in the retail supply chain, see the publication "Retail Bar Coding Basics - a Tutorial" available at www.barsnstripes.com/download_center.htm

Labeling

Once you've created your items database, you will be able to use that database to create bar code product labels. Typically, these are based on the availability of stock adhesive-backed label paper from suppliers such as *Avery Dennison*. You'll easily find Avery paper labels at your local office supply store.

Accounting

An important issue to consider when choosing a POS System is how (or if!) it will interact with your accounting software. Obviously, if you have already invested time and money in an existing accounting package, you will want to choose a POS that is compatible. If you are starting from scratch in setting up your business, you have more flexibility in choosing both accounting software and POS software. Simply put, POS software handles inventory and sales data; accounting software deals with money and how your sales data impacts your finances. You can get various types of reports from both types of software (see Reports)

What accounts you use in your business depend on your type of business. Most accounting packages include templates of general business accounts which can be edited as required. You probably won't need all your accounting accounts listed in your POS, but the ones you do use should match exactly. For example, "Accounts Receivable" in your accounting software should be "Accounts Receivable" -- not "A/R" or "Acct Rec" -- in your POS software. More than likely, you will be able to export your accounts from your accounting package to your POS (or vice versa).

Your inventory items may need to be entered in both places if you want item detail in your accounting. Again, these items should be effectively imported or exported to save data entry time. As stated elsewhere herein, the inventory control portion is the most valuable part of your POS system. A good handle on your inventory means a good handle on your business.

You may also need to consider setting up commission accounts, if you have commissioned employees. Payroll accounting is an entire encyclopedia-length subject, much too lengthy to be discussed here.

Accounting packages frequently require tax codes on all inventory/sale items and force you to set up tax accounts even if you do not charge sales tax. A discussion with your accountant on this issue, or some research into your state's requirements is advisable. If your business consists of a combination of brick and mortar sales, personal services and online products, you will have numerous tax issues to resolve: Are my services taxable? At what rate? When are my services NOT taxable? Are my products taxable? Is shipping taxable? Do I tax sales in other states?

Again, your tax accountant is a good place to start. Many tax accounts advise their small business employees to implement POS for their business. They find it works to make the business more efficient and tax preparation much easier.

ACCPAC Advantage Discovery Series

BusinessVision 32

BusinessWorks Gold
ePeachtree
MYOB Plus for Windows (MYOB Software)
Oracle Small Business Suite
One-Write Plus
Peachtree Complete Accounting
QuickBooks Online
QuickBooks Pro
Simply Accounting
Small Business Manager

Table 6: Windows Accounting Packages

Credit Card Authorization

For years, merchants have relied on special hardware for processing credit cards. This equipment is normally referred to as a point-of-sale terminal or authorization terminal. These devices typically combine a mag stripe reader, a receipt printer, a keypad, and a modem. The leading supplier of these machines is Verifone. These terminals are placed at each workstation along with a dedicated phone line to process the credit card transactions and print out the receipt.



Many POS systems have the ability to accept payment via credit card without the need for a payment or authorizing terminal. This feature may be built into the software, or the POS may offer an interface to an add-on package. There are a number of credit card processing add-on modules.

PC Charge™
PC Authorize™
X-Charge™
Web Authorize™
IntelliCharge™
IC Verify™

Table 7: Credit Authorization Software

IntelliCharge, PC Charge and Web Authorize use the internet to authorize credit card payments. IC Verify requires a modem and a phone line. This is important if you have a number of POS stations. You can network multiple POS stations and have them share a single internet connection. Each station, therefore, would be able to process credit card payments without the need of individual phone lines and modems as in the case of IC Verify.

Merchant Card Services

You will also need a merchant account. A merchant account is a special bank account that allows a business to accept and process credit card orders. After processing a customer's card the transaction goes through a series of complex stages. The money transferred through the merchant account is then deposited into the business's checking account within 2 to 3 business days.

Selecting the right merchant account can be tricky. If you operate a web store along with your brick and mortar store, you may want to use the same merchant account for both. So you will need to match the compatibility of your POS, your online payment gateway, and your merchant account. For example, when this Guide was written, the QuickBooks POS product from Intuit only supported merchant accounts with Wells Fargo and Chase Manhattan.

Here are some of the items that may be required to get a merchant account.

- Business checking account
- A copy of a voided check
- Articles of incorporation, business license or reseller license.
- Pictures of business office and location
- Have a web site (if you want real-time processing)
- Photocopy of your return policy information
- Provide trade references
- Photocopy of recent tax returns (may or may not be needed)
- Site inspection
- A photocopy of your drivers license

Renting your POS

With the advent of the internet comes the concept of web-based POS and inventory control. The concept is as simple as it is powerful. The idea is this. Instead of installing POS and inventory software on your local computer, you access a remote server over the internet which performs those functions. You pay a monthly subscription fee to get POS and inventory control.

The service provider maintains the software and your database for you. They do the daily backups of the data and ensure that the software has the latest

updates, patches and bug fixes. All you have to worry about is the day-to-day operation of your business.

You access the POS using an application similar to a web browser. This application, in fact, uses web browser technology to display the various POS and back office screens you need to operate your business. The application employs XML, HTML, JAVA and TCP/IP protocols to communicate with the service provider's remote server and your database.

The advantages are significant. You don't have to be a computer guru to maintain your POS. You can concentrate, instead, on your core business.

Of course there are disadvantages as well. If your internet connection does down, you lose your POS. But of course that also could happen if you lost your local power. So nothing is foolproof.

Pitfalls to Avoid

The following sections highlight a few potential pitfalls you might encounter as you are installing your POS. There are others. If at all possible, speak to someone who has already done it. Ask your fellow business owners for their ideas and suggestions.

Protect your data - make backups

This is very important. Back up your database. It's not uncommon for computer software to crash. POS software is no different. Microsoft, with all its money, talented employees and years of experience cannot create problem-free software. POS vendors certainly cannot either. So, backup your databases every day. Many PC's today come with ZIP drives or writable CD drives. These are perfect for backing up your data.

Mouse vs. Mouseless

If you have a computer, you more than likely have a mouse. Mouse-driven computers are the norm. While some stubbornly cling to keyboard command-line DOS style systems, most of us have adopted the mouse as part of our daily lives.

Given the ubiquitous ness of the mouse, it is not necessarily the best choice for a POS system. Many POS software products were initially implemented on DOS computers and have since been "ported" to newer Windows-style operating systems. This has two effects:

1. A mouse will invariably make operating a POS slower
2. The overhead of a Windows OS will make your computer slower.

Given that a DOS, mouse-less POS system is faster, it's still recommended that you chose a Windows-based solution.

Why? Because you'll find that older DOS POS systems are quickly becoming orphans. Updates and bug fixes will be less frequent and you will have more compatibility problems. You will also have more difficulty interfacing your DOS POS with your Windows accounting package. Likewise, newer more robust networking solutions are Windows-based.

If you chose a Windows-based solution, make sure the POS fully utilizes hot keys. This means that you can use the keyboard rather than the mouse to do most things. This will greatly speed up the time your register operator takes to conclude a transaction.

What about Linux?

Linux-based POS solutions are starting to become more available. They offer some advantages over Windows-based solutions including performance and reliability. However, your choices will be far fewer. You

will also find it more problematic to create a well integrated POS/ accounting solution.

Practice

Many POS products have a practice mode feature. Use it. Practice mode allows you to ring up sales without affecting your database. Don't abuse your customer by fumbling around, trying to remember how to do one thing or another. Your customer's time is as valuable as your own.

POS Standards

The development of a variety of POS standards has allowed POS software developers the ability to support a wide range of POS peripheral devices and run on a wide range of computing platforms. This allows the user (you) to concentrate on the POS functions that match your business needs rather than on the technical details. Of course, this is a goal not always met.

There is also a Retail Solutions Providers Association (<http://www.rspassn.org/>) . Their mission says in part "We offer educational and business services programs to assist our membership in establishing and excelling in standards of business and customer service." Members also receive discounts for POS hardware and software.

OPOS

OPOS, one of the first POS standards, was initiated by Microsoft, NCR, Epson, and Fujitsu-ICL to help integrate POS hardware into applications for the Windows™ family of operating systems. OPOS uses COM technology, and is therefore language independent. This means POS developers can base their products on their choice of programming language and still program to a standard. The acronym stands for "OLE for POS", which is somewhat dated due to the renaming of "OLE" to "ActiveX" and "COM". But OPOS has been retained for historical and recognition reasons.

The first OPOS technical meeting was convened in January, 1995. The first production release, 1.01, was made in March, 1996. Its seventh release, 1.6, was in July, 2001

JavaPOS

JavaPOS was initiated by Sun, IBM, and NCR to help integrate POS hardware into applications for the Java language. JavaPOS is operating system independent.




















UnifiedPOS

UnifiedPOS was initiated by a consortium of retailers, and is led by the National Retail Federation.



















Beginning with release 1.5, both OPOS and JavaPOS have approved UnifiedPOS as the owner of language and operating system independent POS device interfaces. OPOS then maps these interfaces for COM within Windows, and JavaPOS maps them for Java.




















Vendor Guide
















You can find POS suppliers that will provide a turnkey system, training and support, or you can find suppliers who will provide the ingredients. The following list is a representative sample of POS Software suppliers.

































Legend			
Auto Repair / Parts		Lounge	
Bar		Mobile	
Books		Music/Audio	
Childcare		Pet Store	
Construction		Pharmacy/Drug Store	Rx
General Retail		Pizza	
Gifts		Restaurant	
Golf Course/Pro Shop		Salon/Beauty Parlors	
Grocery/Supermarket		Theater/Cinema	
Hotel/Motel		Specialty/Other	?
Liquor Store			

POS Software Vendor Guide

POS Product Name	Web Address	
AdvanceRetail	advanceretail.com	
AGKSoft	Agksoft.com	
Atrex	Atrex.com	
Attitude POSitive	Attitudepositive.com	
Auto-Star	Auto-star.com	
BillPro 6	Abcs-international.com	
Book Wizard	thebookwizard.com	
CAM Commerce Solutions	Camcommerce.com	
Cash Register Express	Pcamerica.com	
Catapult	Ecrsoft.com	
Childcare 98	kwik-check.com	
CIAO POS	Ciaosoftware.com	
ComCash	Comcashpos.com	
Construction Pro	marathonsystems.com	
CoreSense Retail Solutions	Coresense.com	
CyberCash	Cybercash.com	
Datasym	Datasym.com	
DataTrakPOS	Datatrakpos.com	

DigitalDining	Digitaldining.com	
Executouch / Hotel	Execu-tech.com	
Fairway Systems	Fairway.com	
FoodMan	Foodman123.com	
Freeman Software	Freemanpos.com	
The General Store	Thegeneralstore.com	
InTouch POS	Softmatter.com	
IPOS	Ipostech.com	
ISS Retail	Issretail.com	
Keystroke POS	Keystrokepos.com	
LiquorPOS	Liquorpos.com	
Lodgeware	Lodgeware.com	
MainRetail	Mainretail.com	
MacPOS Pro	Macpos.com	
MicroBiz Easy Business	Microbiz.com	
MicroRegister	Microregister.com	
MicroTouch	Microworks.com	
MidasTouch	Midaspos.com	
MMS Pharmacy	pharmacy-pos.com	Rx
NCR Total Solution/RealPOS	Ncr.com	

NextPos	Nextpos.com	
PixelPoint	Pixelpointpos.com	
PlexisPOS	Plexispos.com	
Point of Success	Pointofsuccess.com	
Pos.com	Pos.com	
POSitive	Gopositive.com	
POSitively Business	Positivelybusiness.com	
POSSE	Possoeasy.com	
PowerPOS	Msonline.com	
Profitek	Infospec.com	
QuickBooks POS	Intuit.com	
QuickPOS	Nextpos.com	
QuickSell2000	Msonline.com	
Quickstore POS	Waspbarcode.com	
QwikRegister	qwikregister.com	
RecordTrak	Traksys.com	
RegistWare	Registware.com	
Regit POS	Aipos.com	
Restaurant	Ameranth.com	
RestaurantPlus	Restaurantplus.com	

Restaurant Pro Exoress	Pcamerica.com	
Retail-1	Gsi.ca	
Retail Plus	Retail-plus.com	
Retail Pro	Retailpro.com	 ?
Retail Solution	Nwns.com	      ?
Run It	Runit.com	
Salon Advantage	aknaf.com/salon/	
Speedline Pizza POS	Speedlinesolutions.com	 
SunSofTouch	Sunsoftouch.net	  
SureSell	Suresellpos.com	
Synchronics	Synchronics.com	 ?
Tomax Retail.net	Retail.net	 Rx ?
TransactionWare	Triversity.com	 
TSS XP	Mobiletoys.com	 
VersaPOS	Versapos.com	
The Wireless Waitress	Thewirelesswatress.com	 
VcsTimeless	VcsTimeless.com	 
Veloz	Velozsoftware.com	
WorkRetail	Worksoftwaresystems.com	
WorkTheatre	Worksoftwaresystems.com	

MAC POS Vendors

While not the primary platform in the POS industry, Apple's MAC does have a share. The following is a list of some of the vendors who offer MAC-based POS products.

Company Name	Products	Web Page
7Office Inc 7HomeBase	FileMaker Pro ® based system	www.7office.com
A. B. Computers	MacRegister	Unknown
Business Brothers	Custom Software	www.bbros.com
Computer Consulting Ass. Pty. Ltd.	ProBe Software	www.probesoft.com
DB:Solutions	Retailers Advantage	www.posbydbs.com
Deco Solutions Group SubSolution, Inc.	SubSolution	www.subsolution.com
E.E.S. Companies	POS/OE 4 Mac Classic POS	www.eesco.com
Ensign Systems	POSIM Express POSIM Premier POSIM Lite Posim*Share KL	www.posim.net
ExecUtron Development Corp	P.I.M.S. P.I.M.S. InterNet Module	www.executron.com
FlexWare International LLC	FlexWare	www.flexwareint.com
Houlberg Development	Retail Engine	www.lloyd1.com/larry/pos.html
James Integrated Technologies	theStoreKeeper	www.jitcorp.com
Kokopelli Solutions, Inc.	QuiltShop Pro □ RetailSMART POS □ QuiltShop Connection □ POSIM	www.kokopellisolutions.com
MData	PrintSmith	www.printsmith.com
Pacific Coast Software	Various Products	www.pacific-coast.com
Pacific Software Engineering	POS Register Mac Register	Unknown
Christian James, Inc.	PayGoPOS	www.paygopos.com/paygopos.html

P.O.S. Direct	Various Products Software & Hardware	www.posdirect.com
Pacific Solutions	Retail Floor Manager, Contract Floor Manager, FloorRight estimating software	www.carpetsoftware.com
PrintPoint	Name Unknown	
Ram Design	Product Rental and Consignment Sales and Inventory	www.ramdesign.net
Reliable Software and Consulting	Reliable Salon System	Unknown
S & S Systems Ltd.	Astra Desktop Accounting	www.AstraAccounts.co.uk
Simply Outstanding Software	MacPOS	www.macpos.com
Sixth Sense Software Co.	Sixth Sense POS	www.sixthsensepos.com
Shopkeeper Software	ShopKeeper Plus ShopKeeper FMP	www.shopkeeper.com
Synergy Business Solutions	Cash Cue MacTile Manager	Unknown
Systems Optima	Systems Optima Point of Sale, Systems Optima Inventory, etc.	www.systemsoptima.com
TEC Solutions	TEC POS	www.tecs.com
Tomifobia Valley Hi-Tech	Custom Software	www.together.net/~tvh/Index.html
ViewTouch	ViewTouch	viewtouch.com

Glossary

Bar code

Information encoded into a pattern of varying-width parallel bars and spaces. The most common symbologies used in the retail environment are UPC-A for merchandise marking and Code 128 for shipping labels. Other symbologies used include EAN-13, EAN-8 and ITF-14.

(For more information on bar coding, go to www.barsnstripes.com and download "*Retail Bar Coding Basics - a Tutorial*")

Bar code Printer

A printer used to produce bar codes on labels, tags and other paper materials. Printers used range from dot matrix, thermal printing and laser technology.

Bar code Scanner

Scans and reads bar codes. Types include wands, laser, CCD, fixed mount and in-counter scanners.

Batch scanner

A Portable data terminal that holds data internally so it can be downloaded later.

Cash Drawer

A box attached to a POS system that opens when directed to do so by POS software (i.e. at the completion of a sale). Similar to a cash register til.

CCD and CCD Scanners

A bar code reader that uses a CCD (Charge Coupled Device) chip to pick up the image of a bar code. These scanners can read bar codes without contacting the symbol much like a laser scanner, but they cannot usually read the symbol at distances greater than 4 inches. They are priced between contact scanners and laser scanners.

Check Reader

A peripheral device used to read encoded information on a check to be transmitted and processed by a computer or register for authorization and approval.

Check Printer

A peripheral device that can print sales total due and customer information onto a check at the POS.

Contact Scanner

A bar code scanner that requires physical contact between the encoded medium and the scanner.

Daisy Chained

A term used when one device is connected through another device. I.E. the cash drawer is daisy chained with the printer means that the printer is attached to the computer, and the cash drawer is attached to the printer.

Data Collection Terminal Fixed/Portable

A stationary or hand-held battery powered terminal with application software used to collect and process data from bar code readers, key entry, mag striped, radio or voice transmissions. Can be batch or online device.

Direct Thermal paper

Label stock that darkens when heated. Direct thermal printers require no ink or ribbon and are typically used when a bar code label needs to endure for a year or less. Direct thermal labels yellow over time and are not resistant to water or other harsh conditions.

Dots per inch (DPI)

Resolution of a printer or display. Higher DPI increases the quality of graphics and decreases the minimum size of bar codes a printer can produce

Flat panel display (FPD)

A class of computer display that does not use a cathode ray tube (picture tube) but instead used a technology such as liquid crystal.

Frequent Shopper Program (FSP)

Some retailers use promotional programs for encouraging customer loyalty and frequent revisits, or just to maximize client retention. Typically, a discount or some other incentive is used to encourage a consumer to make many repeat visits at a single store or chain.

Impact printer

Dot-matrix printer. A printer that forms characters or images using a matrix of pins that strike an inked ribbon. Cheaper, slower and noisier than thermal receipt printers.

Keyboard Wedge

A type of interface. A "Y" style cable capable of connecting a keyboard and a scanner into a single computer keyboard port. Also describes the encoding of the data sent to the computer by the scanner. Data is encoded as keystrokes. The computer receives data from the scanner

and keyboard in the same format. Scanner data is “typed” into the computers keyboard logic.

Laser Scanner

A scanner which uses laser technology to read bar codes. Capable of reading bar codes from short distances away (6" to a few feet).

Liquid Crystal Display (LCD)

The technology used for the display on most laptop computers.

Magnetic Ink Character Recognition (MICR)

The technology used for reading printing on checks.

Magnetic Strip Reader (MSR)

A device that reads the magnetic stripe on a credit card for account information to be processed for a transaction.

Membrane Keyboard

These programmable keyboards are most commonly found in fast food restaurants. The keys are flat and are covered by a plastic sheet that can be quickly changed to reflect price changes or different product offerings.

Programmable Keyboard

A keyboard that is capable of being configured and programmed in a variety of ways. Programmable keyboards allow keys to represent special departments, functions and products, etc.

Point of Sale (POS)

Can mean the physical location of a transaction, but usually refers to any device or system that is used to record the transaction for the retailer.

Pole display

A peripheral device consisting of a liquid crystal (or other technology) character display. Used to display information during a transaction where the customer can view it - for example, the price on each item as it is rung up.

Portable Data Terminal

Used to describe a variety of devices that are 1) portable and handheld 2) collect data, usually with a bar code scanner; and 3) relay that information to a central system - either through a serial cable, a modem, Infrared, or radio transmission. These are use primary for inventory counts, inventory control, warehousing, etc.

Receipt Printer (aka slip printer)

A class of POS printers used for printing sales receipts, credit card receipts, "kitchen" work orders, etc. Typically these feature 40 columns, dot matrix (although some are thermal), small footprint, serial interface (although parallel versions are also available). They print on blank rolls of paper. Some have 2 color ribbons, check imprinting (ability to print on the back of customer checks), etc. There are a variety of options tailored for various applications.

Stock Keeping Unit (SKU)

In inventory control and POS, each product is usually assigned an SKU or product number. This number is imprinted on the tag (see bar codes) and is used to look up price (see PLU) and also for replenishment, etc.

Touch screen

A video display terminal that also acts as an input device. You touch a portion of the screen to trigger a POS function. Used in situations where other devices - such as a keyboard or a mouse - are not practical or efficient.

Track1/2/3

Track one is a "track" of information on a credit card that has a 79 character alphanumeric field for information. Track two is a "track" of information on a credit card that has a 40-character field for information. Track three is a "track" of information on a credit card that has a 107-character field for alphanumeric information.

Thermal printer

A thermal printer uses special, chemically treated paper that changes colors when heated. The printer uses a set of pins which are electrically heated and in contact with the paper. As the paper is moved over the pins and the pins are selectively heated, the chemical turns dark and the bar code is formed. Sometimes called direct thermal printing.

Thermal transfer printer

Thermal printer that uses heat to bond a thin film of wax or resin coating onto a label. These printers can also print direct thermal labels, but the print head may wear out faster.

Uniform Code Council (UCC)

The standards entity in the U.S. responsible for issuing unique merchant codes to manufacturers for inclusion in UPC labeling. UCC membership fees are proportionate to sales. The UPC is a member organization of the global UCC/EAN system

Uniform Product Code (UPC)

The UPC is a standard bar code symbology used to label products. It is numeric only and is of fixed length (there are a couple of different

lengths, depending upon use), combining a merchant code with a SKU. Check digits are used in UPC decoding.

UPS (Uninterruptible Power Supply)

A UPS is primarily used as a back up power source for computers and computer networks to ensure ongoing operation in the event of a power failure.

Universal Serial Bus (USB)

A recognized computer bus standard used primarily for the interfacing of computer peripheral devices. USB frequently replaces serial and parallel connections for PC peripherals with a standard plug and cable carrying both data and power.

Value Added Reseller (VAR)

A classification of business that resells items and adds some value to the sale, either in training, support, integration services, etc. In the POS context, it is a loose term for the distribution channel for POS specific hardware and some general purpose POS software.

Value Added Tax (VAT)

Federal sales tax, as proposed in the U.S. and as exists in many foreign countries, i.e. U.K.