

NCR NeighborhoodPOS 2.0

NCR NeighborhoodPOS
Solution Overview
Release 2.0

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NCR NeighborhoodPOS - Solution Overview

The NCR NeighborhoodPOS Solution, Release 2.0, is designed to provide a comprehensive, low cost Retail Store Automation solution for independent and smaller chain operations in both the hospitality and retail checkout environments. This is a highly parameterized solution (More than 5000 parameters or programmable mnemonics) designed to provide a flexible, yet easily maintained solution for customers.

This solution consists of NCR POS Solution software, designed to run on NCR's RealPOS 70, 80c, 30 POS Workstations, which support a choice in human Interfaces (SVGA Touch Screen or Checkout Keyboard / SVGA Display) and a full suite of NCR Retail peripherals, and is supported by an optional PC Applications: NCR NeighborhoodPOS Manager's Workstation (MWS) and NCR NeighborhoodPOS Corporate Workstation (CWS). To provide a more comprehensive, total NCR base solution, also available are NCR Services and NCR Solution Provider offerings to provide additional customer solution options.

NCR NeighborhoodPOS is an NCR POS application, which runs under Microsoft's XPe® or Microsoft XP® Pro Operating Systems. This solution is designed to operate in clusters from 1 to 16 terminals, and does not require a PC Server for normal POS functionality. NeighborhoodPOS can optionally be connected to a PC, either in-store, (or remotely via modem or dedicated IP connection) to better facilitate communications, reporting, and system maintenance, utilizing either NCR or 3rd party PC application products. The solution also supports a variety of peripherals and subsystems which are described in more detail in the following sections of this Solution Document including: NCR barcode scanners and scanner\scales, printers, Coin Changer (Telequip Transact), Electronic Payment Interfaces, remote printers, Kitchen Display Devices, 3rd party scales, etc.

The NCR NeighborhoodPOS Manager's WorkStation (MWS) and Corporate WorkStation (CWS) applications provide an optional PC manager's platform for providing more of a total in-store solution for many of the NeighborhoodPOS targeted end users. Both products support either Ethernet or RS-232 communications, Reporting of NeighborhoodPOS financial information using

Crystal Reports®, and maintenance of NeighborhoodPOS parameter files.

In addition to the NCR PC applications, several NCR Solutions Partners and Providers provide added value solutions to complement the NCR offers, and to that end, NCR NeighborhoodPOS provides a 32bit PC interface API interface to better facilitate and support those offerings.

Rounding out the NeighborhoodPOS solution is a suite of NCR Services offers designed to complement the hardware and application offering with post-sale support offerings from NCR Customer Services, and NCR Professional Services.

**NCR System Hardware –
NCR RealPOS 70 POS
Touch Screen Workstation**



The NCR RealPOS 70 terminal’s design is based upon providing a small footprint integrated terminal concept with a high degree of functionality, and design that emphasizes serviceability. In addition, the capabilities of the terminal are easily expanded or reduced to adjust to various end-user requirements by ordering the correct features or kits.

- Tool-free service maximizes availability
- Powered USB 2.0 and serial ports eliminate power bricks
- Full multi-media enables POS, kiosk and training device all Embedded ATX extends lifecycle
- Metal construction enhances durability
- Easily integrated upgrade modules

Configuration Options

The basic NCR RealPOS 70 terminal configuration, used by NCR NeighborhoodPOS, includes features and functions end-users will need to perform the various operations and customer transactions unique to both hospitality and general retail environments. The hardware modules that form the basic configuration include:

Main Terminal unit which includes processor unit with Integrated touch screen, main processor board (MPB) including the following key features:

Processor:

- ♦ Intel Celeron 2.0 GHz

OS (Those supported by NHPOS)

- ♦ Microsoft Windows XPe®
- ♦ Microsoft Windows XP® Professional

Integrated Peripheral Options:

- ◆ Integrated 12.1” or 15” LCD display (clear, bright LCD with dual bulb technology and rated at 350 NITS)
- ◆ Resistive or Capacitive Touch Screen technology
- ◆ Integrated 2x20 Customer Display
- ◆ Integrated MSR (3 track ISO or JIS)
- ◆ Integrated Peripheral Tray
- ◆ Fingerprint Recognition (Optionally used by NHPOS for Sign-in or Timekeeping) - DELAYED AVAILABILITY

Expansion Options

- ◆ Hard Disk Drive
 - ◆ Required by NHPOS
- ◆ Flex Disk Drive (External option)
- ◆ CD / DVD ROM Drive (External option)

System Memory:

- ◆ 128MB - 1GB DDR Memory
 - ◆ NHPOS requires 128-256Mb in most configurations
- ◆ 2 DIMM Sockets

Connectivity:

- ◆ 3 Powered RS-232 Ports (12 or 5 volt)
 - ◆ One is used if Integrated Customer Display is configured
- ◆ 2 Optional RS-232 Ports (None powered)
- ◆ 5 USB 2.0 Ports (1-24 volt; 2-12 volt; 2-5 volt)
 - ◆ Future use by NHPOS
- ◆ Cash Drawer Kickout
- ◆ 10 / 100 Ethernet LAN
- ◆ SVGA (Analog CRT/LCD)
- ◆ PS/2 Keyboard Port
- ◆ PS/2 Mouse Port

Please review the NCR RealPOS 70 Order & Configuration and Overview documents, for more complete RealPOS 70 information

NCR System Hardware – NCR RealPOS 80c POS Workstation



In today's competitive market, retailers require flexible and innovative solutions that accommodate present and future business needs. The NCR RealPOS 80c is designed to drive tomorrow's high-performance applications while meeting today's real-world needs for low-cost, rugged construction and investment protection.

POS performance and value

The NCR RealPOS 80c combines advanced technology and retail-and value for demanding retail environments. With high-powered Intel® processors, multimedia capabilities and high-speed LAN connectivity, the NCR RealPOS 80c goes beyond being only a transaction device. It allows retailers to harness the power of the Web and implement the latest POS applications to better serve your customers and store associates.

Open, scalable platform expands software choices

The versatile NCR RealPOS 80c is offered with a range of performance levels, expansion options, and peripherals, supporting both thin and thick-client architectures. This open and scalable platform provides maximum flexibility, allowing retailers to run proven applications, or select from best-of-breed POS solutions available for Microsoft®Windows®.

Space is money

The NCR RealPOS 80c provides the ideal combination of small size, integration options, performance and POS functionality. The compact design and unique peripheral tray option reduce clutter and allow you to use your valuable counter space for merchandising. Moreover, ample expansion options are available with additional slots and bays to accommodate future needs.

Retail-hardened design

Reliable and secure, the NCR RealPOS 80c is designed to withstand the demands of harsh retail environments and provide years of dependable operation. The system features a durable metal enclosure and employs multiple physical and electronic means to secure data. The RealPOS 80c cable garage and positive latching peripheral connections also make your POS system more reliable.

Technical specifications

Processor:

- Intel Celeron 566 MHz
- Intel Celeron 850 MHz
- Intel Celeron 1.2 GHz

System Memory:

- 64MB – 512MB PC-133 SDRAM
- Two DIMM sockets

Video Memory:

- 2MB – 8MB
- Shared with system memory

Expansion:

- Two PCI slots
- Hard disk drive (Ultra DMA)
- 1.44MB flex disk drive
- Integrated CD-ROM drive
- Compact flash memory
- Internal battery backup

Connectivity:

- Four powered USB Ports (1-24V/3-12V)
- Four external RS-232 ports (3 powered)
- One internal RS-232 port (UPS interface)
- DVI-I (Digital Visual Interface)
- SVGA (analog CRT/LCD)
- Stereo audio out / Mic In (model dependent)
- Ethernet 10/100 (onboard LAN)
- Parallel port
- PS/2 keyboard port (supports mouse with 'Y' cable)
- Cash drawer port (supports 2 drawers with 'Y' cable)
- Wireless ready

Operating Systems (Supported by NHPOS)

- Windows XP Professional
- Windows XP Embedded

Peripherals (Supported by NHPOS)

Printers:

- NCR RealPOS 7167/7158 Thermal Receipt Printers w/ Impact Slip
- NCR RealPOS 7197/7194 Thermal Receipt Printers

Displays:

- NCR RealPOS 5953 12.1" Color DynaKey
- NCR RealPOS 5942 12.1" Color LCD display
- 15" Color SVGA CRT
- NCR RealPOS 5972 2 x 20 VFD/LCD displays
- NCR RealPOS 5973 International VFD display

Retail Keyboards:

- NCR RealPOS 5932 64-key POS keyboard

Cash Drawers:

- Compact
- Mid-range
- Full-size

Terminal Dimensions:

- Width 12.6" (32 cm)
- Depth 15.8" (40.1 cm)
- Height 4.25" (10.8 cm)

Electrical Requirements:

- Auto Switching Power Supply
- 100-127 VAC or 200-240 VAC
- 50-60Hz

Please review the NCR RealPOS 80c Order & Configuration and Overview documents, for more complete RealPOS 80c information

NCR System Hardware –
NCR RealPOS 30 POS
Workstation



The NCR RealPOS 30 terminal's design is based upon providing a very small footprint integrated terminal concept with a high degree of functionality, and design that emphasizes serviceability, and provides for configuration flexibility.

Compact, Space-Saving Design

- Flexible Configuration Options
- Enhanced Peripheral Connectivity
- Superior Investment Protection

Today's competitive retail environment requires flexible, reliable and stable point-of-service (POS) solutions that enable retailers to improve productivity and customer service while lowering costs. The NCR RealPOS 30 is an affordable POS solution optimized for retail, supporting a broad range of certified NCR peripherals and applications.

Small Yet Powerful

The NCR RealPOS 30 is a compact POS solution that combines the reliability and security of a retail-hardened POS terminal with the performance and flexibility of industry-standard PC technology. With an open architecture and powerful Intel® processor, the NCR RealPOS 30 supports the latest POS applications to help you service your customers quickly and efficiently. And, it all fits in a small footprint that helps conserve valuable space at the checkstand.

Superior Connectivity for Retail

With a generous supply of RS-232 and USB interfaces, the NCR RealPOS 30 enables you to protect your investment in legacy serial devices or choose from the growing list of USB peripherals. The powered peripheral ports and 24V printer interface simplify cable management and reduce potential points of failure.

NCR RealPOS 30 Technical Specifications

- Intel 1.2GHz Celeron® processor
- Intel 815E chipset
- 128MB – 512 MB memory

Connectivity

- Four powered RS-232 (5V/12V)
- Four USB ports (future use by NHPOS)
- Parallel port
- PS/2 keyboard and mouse port
- 24V printer power port
- Cash drawer port
- 10/100 Ethernet
- Stereo audio out

Expansion

- Hard disk drive
- Flex disk drive
- Compact Flash memory
- One full-height PCI slot
- External USB CD-ROM

Operating Systems

- Microsoft® Windows XP Embedded, XP Professional and Windows 2000 (NHPOS supports XP Embedded and XP Professional only)

Operator & Customer Displays (Supported by NHPOS)

- 5942 12" LCD
- 15" color CRT
- 2x20 customer display (remote or integrated)

Keyboards (Supported by NHPOS):

- 5932 64-key POS keyboard
- 78-key POS keyboard

Printers (Supported by NHPOS)

- 7167 multi-function thermal receipt/slip printer
- 7197 thermal receipt printer

Cash Drawers

- 2189 full-size cash drawer
- 2183 mid-size cash drawer
- 2182 compact cash drawer

Terminal Dimensions

- Width 24 cm (9.5")
- Depth 34 cm (13.5")
- Height 8 cm (3.25")

Please review the NCR RealPOS 30 Order & Configuration and Overview documents, for more complete RealPOS 30 information

**NCR System Hardware -
NCR Key Peripherals**

- ♦ Printer Choices
 - High speed thermal receipt printer (NCR 7197)
 - High Speed Combination Slip/Receipt Printer (NCR 7167)
 - Impact Remote Preparation Printer (Epson TM 200B)
- ♦ Cash drawer (various sizes)

The NeighborhoodPOS terminal can be utilized as a Master Terminal, Backup Master Terminal, a Satellite Terminal, or a

Freestanding Terminal within a System, depending on how it is configured within software.

With the NeighborhoodPOS application's built in interfaces, adding any of the following optional peripherals to the basic configuration can expand the functionality of NCR NeighborhoodPOS:

- ◆ Combination Slip printer \ Receipt Printer (NCR 7167)
- ◆ Scanner or Scanner/Scale (NCR 7837 / 7875 / 7880 / 7870 / 7872)
- ◆ Scale (NCI WeighTronix 6710, 6720)
- ◆ Media drawer
- ◆ Telequip Transact+ (3rd Party) coin dispenser
- ◆ Second cash drawer (when supported by POS Workstation)
- ◆ Keyboard attached MSR
- ◆ RS-232 attached 3rd party electronic payment terminal or payment subsystems (e.g. DataCap or VeriFone), or other 3rd party payment terminal operations such as Debittek.

NCR NeighborhoodPOS - Key Solution Functions

Freestanding or "Standalone" System - A NHPOS terminal can be configured as a freestanding terminal without satellite terminals. All features, except cluster capability, are available on the freestanding terminal configuration. A freestanding terminal can connect to a PC via Ethernet or via RS-232 modem (or direct connect).

Cluster System - The NCR NeighborhoodPOS cluster system is configured with a master terminal and up to 15 satellite terminals. A backup master terminal can be included in the system in lieu of a satellite terminal. All system terminals are connected with the In-standard Ethernet 10/100BaseT networking. A master and back-up master will support up to 14 satellite terminals.



Master Terminal - The master terminal is the center of the cluster system. It has the same functionality as a satellite terminal but also has the capability to manage data from satellite terminals and maintain shared files within the cluster.

The master terminal accommodates all Total files. Transaction data, generated at satellite terminals, is sent to the master terminal at the end of each transaction where the associated Total files are updated.

Shared files, such as the PLU file, also reside in the master terminal. Records created in any system terminal are stored in the shared files of the master terminal. However, each terminal keeps its own electronic journal (EJ). The EJ may be reset and printed at each terminal or from the master terminal as part of the end-of-day process. Supervisory operations such as most Action Codes and Program Mode functions are also accomplished at the master terminal.

The master terminal has the capability to communicate with a personal computer. Management can easily customize NeighborhoodPOS by entering the various parameters on an in-store or remote personal computer, then download the parameters to the master terminal back-up and satellite terminals. Depending on the PC application, the files may be uploaded from the master terminal to an in-store or remote PC. The user may develop programs or purchase NCR's Manager's WorkStation (MWS) or Parameter Entry Program (PEP) to accomplish additional supervisory or parameterization functions from the PC.

Backup Master Terminal - The backup master terminal is installed in a cluster system to guarantee data integrity by preventing complete system failure if the master terminal should ever fail. All Shared Files (including PLUs) that are in a Master terminal, are also contained within a Backup Master to provide the user with PLU and totals redundancy.

Throughout normal operation, the total/counter files and shared files that are maintained in the master terminal are also automatically maintained in the backup master. If one of these two terminals should fail, the files in the active terminal are automatically updated. If the master failed, the supervisor can switch the functionality of the master terminal to the backup master.

When the failed terminal is restored, the supervisor can copy the files from the active terminal to the restored terminal and return the system to the normal master/backup master configuration. This is accomplished by a simple supervisor function (Action Code 42).

Even if something should happen to the master while communicating with a satellite, for example, an operator accidentally turns the mode switch of the master terminal to the "Off" position while it is communicating with a satellite, the backup master protects data integrity. In other words, the probability of losing data is minimized because it is duplicated on both the master and backup master.

Satellite Terminals - Satellite terminals are connected to the master terminal through the In-House Communication link. Transaction data generated at a satellite terminal is sent to the master terminal upon completion of the transaction. This data is also sent to the backup master terminal if one has been provided.

Although no totals (except Electronic Journal Data) and counters are retained in these terminals, parameter files such as global program options, keyboard programming, and the department parameter file are present in each satellite terminal.

Memory

RealPOS Disk Storage of NHPOS Files - The Microsoft XPe and XP Pro operating systems and NCR NeighborhoodPOS application software use a secure Disk device to securely store all OS,

Application, Parameters, and System totals to a non-volatile media for user security and protection. Disk is automatically updated at the end of each transaction to reflect all current totals. It can also be backed up by the user using optional disk devices (Such as USB external Disk Media), such as those made by Sandisk. These devices can be used to simplify, upgrades and loading of NHPOS application enhancements, for those customers who do not also have installed the optional NHPOS Manager's Workstation, which also provides LAN methods of loading and recovery.

RAM Memory Chips - RAM memory is used as the working area for the running application, and for temporary storage of current transaction data, until transaction finalization occurs. The NCR NeighborhoodPOS terminal solution is available with the following memory sizes: 128Mb or higher.

RS-232 Communications

The NCR RealPOS 70, 80c, or 30 standard RS232 ports may be used to interface with the following possible devices

Master Terminal	Backup/Satellite Terminal
<input type="checkbox"/> 2x20 Customer Display	<input type="checkbox"/> 2x20 Customer Display
<input type="checkbox"/> Receipt or Guest Check Printer (Thermal or Impact), or Combination Slip/Receipt)	<input type="checkbox"/> Receipt or Guest Check Printer (Thermal or Impact), or Combination Slip/Receipt)
<input type="checkbox"/> Scanner (Or Scanner\Scale)	<input type="checkbox"/> Scanner (Or Scanner\Scale)
<input type="checkbox"/> Scale	<input type="checkbox"/> Scale
<input type="checkbox"/> Coin dispenser	<input type="checkbox"/> Coin dispenser
<input type="checkbox"/> Electronic Pmt Terminal I/F	<input type="checkbox"/> Electronic Pmt Terminal I/F
<input type="checkbox"/> Charge Post I/F	<input type="checkbox"/> PC or Modem *1
<input type="checkbox"/> PC or Modem *1	<input type="checkbox"/> Remote Preparation Printer(s)
<input type="checkbox"/> Remote Preparation Printer(s)	<input type="checkbox"/> Beverage Interface
<input type="checkbox"/> Beverage Interface	

Note*1: Normally, a PC connected in-store will connect via Ethernet, not RS-232, but RS-232 is supported as an alternative, and is also normally used for connecting to an external modem.

In-House Communications

The NCR RealPOS 70, 80c, or 30 terminal utilizes standard 10\100BaseT LAN Communications wiring, with each terminal or LAN device connecting to a 10/100BaseT Hub, with the recommended Category Type 5 Wiring. The possible devices that can be connected for each unique store via this LAN can be identified as shown below:

- ◆ 1 master terminal
- ◆ 1 backup master terminal (optional)
- ◆ Up to 14 satellite terminals
- ◆ Up to 8 NCR 2757 Ipad Kitchen Display Controllers (when using the NHPOS Optional Enhanced KDS software)
- ◆ An optional NCR PC that is used as Manager's Workstation (or 3rd party application)

Peripherals

- **Operator Display Options**

RealPOS 70 12.1" LCD SVGA (800 x 600) Color Touch

Interfaces: provides a graphical Multi-Line Display, and user interface. The NHPOS application provides a customizable touchscreen layout manager (part of the PEP or MWS NHPOS application components). This design tool allows customers or their service's providers with the ability to create the specific



touch screen user interface, containing the menu items and functional keys, needed for a wide variety of customer environments. The screen can also be optionally programmed to display a triple

column area to display up to three orders at a time, which is useful for Hospitality store/recall operations like a Drive-Thru fast food restaurant.

- **Keyboard Options**

RealPOS 80c or RealPOS 30 terminals can be implemented by NHPOS for those customers who require a checkout keyboard (64 key) style interface, along with either a CRT or Flat Panel SVGA (800 x 600) Operator Display. All keys have a light and tactile feel to increase itemization accuracy and productivity. Utilizing NHPOS's parameter customization tools (PEP or MWS) up to 9 definable keyboards can be defined per system.

– **Combination Systems**

It is a planned NHPOS 2.0 deliverable that a combination of both Touch Screen terminals (RealPOS 70, 20) and Checkout Keyboard Terminals (RealPOS 80c, 30) can be implemented by NHPOS 2.0 customers to provide flexibility to customers who require both Touch Screen and Keyboard methods of user interface for POS terminals, providing flexibility to customers.

• **Printer Options**

- **Thermal Printer:** NeighborhoodPOS supports the NCR 7197 thermal printer, which can be utilized as receipt, electronic journal print, and report printer. The printers can plug into one of the RS-232 ports of the terminal.
- **Combination Printer:** NeighborhoodPOS supports the NCR 7167 printer, which provides both a Thermal Receipt Printer, similar in design to the 7197 integrated with a full station Slip printer, to support ease of validation, and slip printing requirements. (Check Flip, MICR features are NOT supported by initial release of NHPOS 2.0)
- **Remote Preparation Printer:** NeighborhoodPOS supports the Epson TM 200B printer, an impact printer which provides the ability to print remote preparation items to other locations within the store, such as a preparation area of a restaurant or a customer pick-up area. For those customers who wish to utilize a thermal printer as a preparation printer, may also configure the NCR 7197 printer for that purpose.

- **Cash Drawer Options** - NCR NeighborhoodPOS may also be configured with compact (Standard) , mid-range, and large Cash Drawers. The cash drawer may be integrated to the NCR RealPOS terminal by using the terminal tray option (for those

RealPOS terminals which support this option), which also can be used to integrate with some of the supported Receipt Printers. Each NCR RealPOS 70 or 80c terminal can support up to two cash drawers connected at one time, by utilizing the Dual Cash Drawer Cable. The NCR RealPOS 30 supports a maximum of one cash drawer.

- **Scanner Interface** - The NeighborhoodPOS Solution can operate 1-2 scanners simultaneously. For example, a hand-held scanner and slot scanner may be configured with the same terminal, if enough RS-232 ports are available. Bar codes supported include UPC-A, RSS-14, EAN/JAN-13, EAN/JAN-8, E-Version enhanced EAN random weight labels.

Scanner configuration options include:

- 7837 Hand-Held Scanner
 - 7892 Presentation Scanner
 - 7880 Scanner and Scanner/Scale
 - 7870 Scanner and Scanner/Scale
 - 7872 Scanner and Scanner/Scale
 - 7875 Scanner and Scanner/Scale
- **Scale Interface** - The NCR will satisfy application environments where a scale is used to weigh items - including tare weights. Scale operations are allowed for PLU items and departments that have been set to allow use of the scale. The Scale interface is based on interface to the widely available NCI Weightronix Models 6710, 6720.
 - **Coin Dispenser Interface** - NeighborhoodPOS interfaces to the Telequip Transact+ coin dispenser which can be connected to the NeighborhoodPOS terminal (Via available RS-232 port) for the automatic dispensing of the customer coin change. The coin dispenser will enforce the correct recording of transactions; provide accuracy in the dispensing of change while improving transaction throughput and customer service and satisfaction.



- Electronic Payment Terminal Interface** - A 3rd Party Payment terminal or Payment software subsystem (e.g. Datacap / LanTran which uses the VeriFone PNC 330 interface) may be attached to an RS-232 port on the NCR RealPOS terminal. Credit authorization is initiated with the depression of the corresponding tender key, and NHPOS interfaces can then send the payment request to one or more payment partner applications for processing. All required transaction information is electronically transferred to the electronic payment terminal which handles all communications with the credit network. If approved, the NCR NeighborhoodPOS terminal automatically finalizes the transaction and may optionally print duplicate receipts with signature lines. If not approved, the operator display will show a pre-programmed message. This feature requires a third party Credit/debit application, to be interfaced to the NHPOS Payment interface.
- Terminal-Attached MSR** - A MSR may be attached to the right side of the keyboard for the purpose of reading Track II cards. The card data may then be routed through the NCR NeighborhoodPOS master to an application that resides on a computer, such as: property management system, chargepost accounting interface, **frequent buyer system**, PC-based electronic payment system, etc.

NCR NeighborhoodPOS - Application Feature-Set Overview

POS Transaction Features

Transaction Buffering Options

NCR NeighborhoodPOS provides several different options regarding transaction buffering. First, a user solution can be design to send items to the Receipt Printer in an Un-buffered mode, whereby items print to the receipt after being selected on a POS keyboard. This “unbuffered” mode is actually buffered one-item, to allow users to correct an item before being printed. Basically, if PLU#1 and PLU#2 are entered (or scanned), when PLU#2 is entered, PLU#1 prints, etc. The benefit of unbuffered transactions is that they print relatively quickly to the receipt, which is especially important if a non-thermal receipt printer is configured. Some transaction options related to item consolidation will not work in an unbuffered mode so this is an important question to consider when planning your system.

Most users will probably select a buffered receipt print option with NeighborhoodPOS, which provides very acceptable customer printing speed, especially if either of NCR’s high speed thermal printers are configured: NCR 7197 or NCR 7167. With buffered

print, advanced features like Item Consolidation, or not printing of Voids to receipt may be selected. This is also typically selected for hospitality or other customers who desire to print a detail “soft” guest check, or itemized transaction receipt, allowing add-on of items for server-type operations (see Guest Check section for more). Another advantage of a buffered transaction is that the Cursor Void function is supported, allowing users to scroll through the “buffered” transaction with the “arrow” keys and “void” items by then pressing Cursor Void. Likewise, the “repeat” key can likewise be employed to add additional quantities of previously ordered items in an easy to use, intuitive manner.

Another feature that can be configured for certain buffered type systems is to allow up to 999 Stored transactions to be “stored” by the system, allowing an operator the ability to suspend a transaction, recalling it later for adding of additional items, or the tendering of payment. This is also used in hospitality systems for drive-thru stores where an order is taken usually when the person is at the “speaker”, then recalled when they are at the payment window (see Hospitality Features for more).

Department Control

NCR NeighborhoodPOS can provide up to 250 departments for added control and sales analysis purposes. Department's totals may be combined with other departments in Major Department group reports (30 Major Departments are available).

All departments can be directly accessed by indexing amounts to the department keys on the keyboard, or preset on the keyboard. Department totals are also affected by the NeighborhoodPOS Price Look-Ups (PLUs) that are assigned to specific department totals.

There are many characteristics associated with each department. These can be defined in the department parameter file present in each terminal within a cluster system. Within this file, the following characteristics can be defined:

- ♦ Major department number
- ♦ High Amount Lock-Out (HALO)
- ♦ Mnemonic
- ♦ Multiple Control Codes

(These file characteristics are explained below.)

Major Department Number - Used to group individual departments into one of 30 Major Department groups for summary reporting.

High Amount Lock-Out (HALO) - The field indicates the highest amount which can be entered for this department. Amount entries exceeding this limit result in error messages.

Mnemonic - The mnemonic field accommodates up to 20 characters to be displayed or to be printed on receipts or reports to identify departments

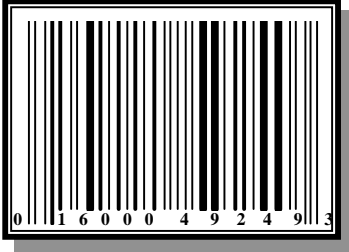
Department Control Codes

The control code field is where the various attributes of each department are determined. Each bit of the control code field is associated with a specific attribute. Of all attributes, only those selected are effective. Selection of attributes may differ record by record dependent on programming.

Of the many attributes set in the control code field, the following two determine the main characteristics of the department.

- ♦ PLUs/Minus (Normal/Credit): This attribute defines whether the department accumulates a positive total (merchandise) or a negative total (credit, coupon, etc.).
- ♦ Normal/Hash: This attribute defines whether the department is a normal department (item purchase) or a non-sales department and is used to accumulate totals for items such as gift certificates and lottery tickets. It is a programmable option that will add the sales totals of these departments to the Daily/Current Gross Group total and/or Hourly Activity total.
- ♦ Other Attributes Set in the Control Code Field
 - Compulsory Validation
 - Scaleable Item
 - Not affect or affect taxable itemizers #1 to #3
 - Not affect or affect discountable itemizers (1 or 2)
 - Request Supervisor Intervention
 - Age Audit

Department sales data recorded on each terminal within a system cluster is sent to the master terminal where it is accumulated under the corresponding department number in the department total/counter file. Two sets of totals and counters may be provided in this file; one for daily and the other for PTD.



PLU Control

The NCR NeighborhoodPOS solution may accommodate up to 100,000 PLU items. PLUs can be assigned to keys on the keyboard.

There are many characteristics associated with each PLU. These can be defined in the PLU parameter file present in each terminal within a cluster system. Within this file, the following characteristics can be programmed:

- ◆ PLU Number
- ◆ Adjective Number
- ◆ PLU Description
- ◆ Department Number
- ◆ Preset Price (unless defined as an open PLU)
- ◆ Package Quantity
- ◆ Report Code
- ◆ Link Number
- ◆ Sales Restriction Code
- ◆ Link PPI
- ◆ Bonus Total
- ◆ Age Restriction Code
- ◆ Order Entry Table Number (See Order Entry Feature Description)
- ◆ Order Entry Group Number (See Order Entry Feature Description)

The PLU characteristics are explained below:

PLU Number - The NeighborhoodPOS Solution accommodates the following type of PLU numbers and labels: UPC-A, RSS-14, EAN/JAN-13, EAN/JAN-8, E-Version, UPC Type 2 (variable price\wt) and UPC Type 5 (Coupon Scanning), and enhanced EAN random weight labels.

For customers desiring to use, non-scannable PLUs for look-ups or for preset purposes, a 1 to 4 digit PLU code can also be used. Example PLU#123 = White Zinfidel Wine.

Adjective (Price-Modifier) PLU - This type of PLU can have five price levels, such as Level1 (\$0.50), Level2 (\$0.75), Level3 (\$1.00), Level4 (\$1.25), or Level5 (\$1.50). When entered during a transaction, the operator chooses one of the levels via adjective

descriptor keys such as Level1, Level2, Level3, etc (or small, medium, etc). Sales data for an adjective PLUs are maintained by each price level. Price-level (Adjective) PLUs records do not require any more memory space than does a non-adjective PLU.

If Adjective Prices are used, the application allows the user to predefine THREE different methods of DEFAULT Price Levels, a SYSTEM default, a KEYBOARD Default, and a TRANSACTIONAL default. For example, using the above example, if a Sandwich plu is defined with a SYSTEM default of Level3, a Keyboard #2 default of Level4 and a Transactional default of Level1, different prices can be charged, based on which user keyboard is the current "base" keyboard (e.g. Happy Hour or SALE), or perhaps use the transactional method (operator presses a key to set level 4 as current level) to enable a special customer price that you may offer to certain customers (perhaps your best customers are offered a special price on adjective based items). A user can always modify the default level to other levels by pressing the appropriate Modifier Key on the keyboard, prior to the item.

PLU Description - The mnemonic field accommodates up to 20 characters to be displayed or to be printed on receipts or reports to identify the PLU.

Department Number - This field indicates the number of the department to which the PLU record relates, and can be any number from 1-9999. The sales total of the PLU record is added to the associated department.

Preset Price - This field contains the price of the item which will be selected automatically when the item is entered. For Open PLUs, this field will require a manual price entry.

Package Quantity - This field enables sale of the item at a reduced price when a package quantity is purchased, such as 40 cents each or 3/\$1.00.

Family Code - This field contains the Manufacturer's Family code value that can be used to validate (in conjunction with Coupon Scanning) whether or not the correct items are in the transaction to allow for auto coupon amounts to be valid.

By program option with NeighborhoodPOS, the user can allow\ not allow NeighborhoodPOS to validate family code values that are set in each PLU record, or not. If the option is set to not validate Family codes, NeighborhoodPOS will still validate coupons at the Manufacturer Code level.

Background information on UPC Coupon Label is as following:

5MMMMMFFVVC - UPC Coupon label always starts from "5". "MMMMM" is the "Manufacture's code" of UPC-A, UPC-E Source marking, "FFF" is the "Family code" that is set on the PLU record, "VV" is the "Value code", and C is the check digit. The "Value Codes" are a list of set discount amounts (\$.10 off or \$.50 off), and special discounts (like 2 for 1, and 3 for 1) that can be encoded based on Uniform Code Council rules.

Coupon Search within the NeighborhoodPOS application is executed using "Manufacture's code" and "Family code" as following:

1. Search PLU item which has the same "Manufacture's code", and "Family Code (if Family code option = ON).
2. Compare family code of UPC Coupon label and the target PLU Record, and if correct PLUs were sold in the transaction, then:
3. Execute discount by value code of UPC coupon.

Notes: UPC Coupon Search is valid only for PLUs that conform to the UPC type 5 standard. In order to use this feature, NeighborhoodPOS application will only search for PLUs that it has retained. For example, if you should attempt to use this feature in a non-retained Guest Check system, it would only search the current PLUs that were just rung prior to the coupon, not be capable of searching previously service totaled parts of the check. However if your system were configured as a POST (Retained) system, or Store\Recall, then all items in the transaction could be coupon verified.

Report Code - The report code is used to categorize the PLU into one of 10 groups for summary reporting. This allows all PLUs with the same report code to be printed in the same report. For example, you may assign the same report code number for all items that are on sale during the week.

Link Number - This field enables one PLU to be linked to a second PLU. When the first PLU is entered the second PLU is automatically rung up, such as a deposit on a bottle. A maximum of 9999 link PLUs are possible. The PLU number of the PLU being linked "to", can be in the range of 1 to 9999.

Restriction Code - This field links the PLU to a restriction code table which restricts the sale of the item at certain times of the day/week, such as no alcohol sales on Sunday.



Promotional Price Index - Link PPI - The Promotional Price Index (PPI) Table is used to automatically charge different item prices based upon the quantity of items purchased.

This field links the PLU to the PPI table. The PPI table allows different prices to be charged based upon the quantity purchased. For example, 50 cents each, 6/\$2.50, 12/\$4.00. This function can also be used to provide mix/match type of functionality, as long as the different items are all set to the same PPI group.

For example, if you are trying to sell 3 items for \$1.00, and you wanted to sell the first item for \$.34 and the second and third for \$.33 each, you could set your PPI index for Qty 1 = .34, Qty 2 = .33 and Qty 3 = .33.

There are 300 different PPI tables, each with up to 20 different price levels in each table.

The PPI table may also be used to make a single price change on a group of identically-priced items, such as baby food.

Bonus Total - This field identifies the PLU as a Bonus Total. This is a way to track key category sales by various NCR NeighborhoodPOS financial totals and counters. The amount and quantity sold by each Operator, By terminal, and by the entire System is reported on the respective financial reports for Operators, Terminals, and for the entire system. In addition, the 48 activity time block totals also keep track of bonus category sales for each of the 48 definable time blocks.

PLU Control Codes - The control code field (which is similar to the department control code field) is where the various attributes of each PLU are determined. Each bit of the control code field is associated with a specific attribute. Of all attributes, only those selected are effective. Selection of attributes may differ record by record dependent on programming.

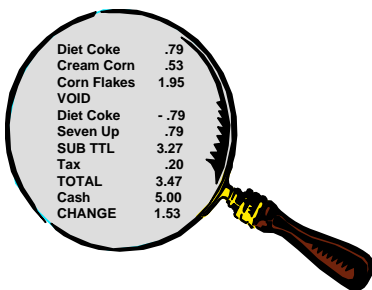
- Compulsory Validation
- Scaleable Item
- Not affect or affect taxable itemizers (1-3)
- Not affect or affect discountable itemizers (1-2)
- Request Supervisor Intervention
- Age Audit (three age groups supported)
- Sales Restriction (restrict by day of week or hours)
- Use\Not Department Control Code
- Adjective (for multiple price PLUs) Group Selection

- Adjective Default price level (for system)
- Condiment \ Not Condiment PLU status
- Require \ Not Require Condiment PLU status
- Send PLU Items to Remote Preparation Printer (or CRT Kitchen Display) Devices 1-8
- Special Print PLU to Remote Printer Status Flag

PLU transaction data generated on each terminal within a system cluster is sent to the master terminal (and backup master if one is provided) where it is accumulated under the corresponding PLU number in the PLU total/counter file. Two sets of totals and counters may be provided in this file; one for daily and the other for PTD.

Electronic Journal

The optional electronic journal (EJ) feature helps alleviate the need to visually scan paper journals for transaction analysis. Instead of recording transaction data on paper, the electronic journal stores this information in the memory of the terminal. All data except for the read/reset reports which are generated in the terminal are stored in the electronic journal file. The EJ may be reset and printed at each terminal, or reset and printed from the master terminal (as part of the end-of-day process). The electronic journal file is assigned in the flexible memory area in each terminal. A thermal printer is typically (but not exclusively) used in conjunction with EJ because of its speed and ability to print small fonts. Up to 1.5 MB of each terminal's Disk memory can be allocated for purposes of EJ file space. If this maximum value is allocated, a user could possibly store up to approximately 5000 (10 item) transactions, per terminal, which would allow the user to extract the EJ transactions (via PC) when convenient to the user (either by in-store PC or via Modem).



Scale Interface

The price for a PLU item sold by weight may be automatically or manually calculated with the scale interface. The terminal requests the gross weight of the item from the scale, calculates the net weight by subtracting the tare from the gross weight, and calculates the extended price by multiplying the net weight by the price per pound.

The tare table, consisting of 10 indicator numbers and their corresponding tare values, can be set in supervisor mode.

Training Mode

This feature provides management a perfect tool to train cashiers and clerks on the various operations of the NCR terminal. To indicate the operator is in training mode, a descriptor "Training" is displayed on the terminal and printed on the receipt.

Tax Control

U.S. Tax - The NCR NeighborhoodPOS System has programmable options to support tax requirements for U.S., International (VAT), and Canada commonly used tax systems. For special tax calculation requirements, please contact NeighborhoodPOS Product Management for customization estimates.

Three tax tables and/or tax rates are provided in the terminal to calculate tax amounts. The taxable total can be programmed to print on the journal. The tax table or rate to be applied to an item is determined by the taxable status of the item or the department to which the item belongs.

A Tax Exempt Modifier key can be used to provide tax exempt status. If pressed before the depression of a Total key, tax calculation that would normally be added to the total is omitted. The tax exempt total and counter are retained in the terminal financial file.

Value Added Tax (VAT) - Three VAT rates are provided in the terminal to calculate VAT amounts. "VAT Included" or "VAT Excluded" options are available. The VAT total can be programmed to print on the receipt. The rate to be applied to an item is determined by the VAT status of the item or the department to which the item belongs. Via program option, the user can program whether VAT is included or Not in Price, whether the VAT tax prints on receipt, and other VAT options.

A VAT Exempt Modifier key can be used to provide VAT exempt status. If pressed before the depression of a Total key, VAT calculation that would normally be added to the total is omitted. The VAT exempt total and counter are retained in the terminal financial file.

Canadian Tax - Special taxing requirements of Canada, including the PIG Rule, are provided and may be selected in the program parameters. A variety of itemizer options are available for our Canadian users to determine the applicability of GST and PST taxes, by item or department.

Retail Specific Functions

Retail Barcode Scanning Features - The NeighborhoodPOS solution supports the following bar code scanning codes:

- UPC-A (and EAN 8 & 13)
- RSS-14 (Note: Initial release works with base RSS-14 codes, not extended data codes)
- UPC-E (six digit codes that are translated and stored by as UPC-A PLUs)
- UPC Type 5 Coupon Scanning (including transaction verification of Manufacturers Code and (optional) Family Code verification)
- UPC Type 2 (Variable Price \ weight). For example, UPC Type 2 codes are often utilized for instore barcode marked merchandise or food , such as meat or produce.

Hospitality Specific Functions

Guest Check Features - NCR NeighborhoodPOS provides the capability to manage guest checks electronically. A guest check is an account prepared for each party, individual, or seat at a table. A guest check file record contains all order and sales tax information.

The number of guest checks that can be stored in the guest check file is controlled by flexible memory with the maximum being 5000 guest checks open at one time. This maximum depends on the size of the other files, such as department and PLU which share the same memory area, and the amount of the memory installed in the master and back-up master terminals.

Option 1: Precheck (print as you go) Guest Check

- Up to 5000 guest check balances can be retained within the NeighborhoodPOS system.
- The guest check is always printed and ready to present to the customer.
- Either buffered or non-buffered print operation can be utilized depending upon system program option setting. With the buffered option, guest check printing occurs when order entry is completed and the transaction is finalized. In non-buffered

operations, items print on guest check or receipt, one item behind entry.

- Either automatic check number generation or manual entry of check number (program option) can be utilized.
- Tracks key sales' details including taxable and discountable itemizer totals, tax, service total group accumulations, number of people, etc., until the check is settled.

Option 2: Post (Retained) Guest Check

- Similar to Precheck system, except NCR NeighborhoodPOS retains the item detail until it is printed on paper-based (non-thermal) guest check.
- Manual or system generated guest check numbers.
- Typically requires additional memory in master and back-up master terminals.

Auto Guest Check Number - The NCR NeighborhoodPOS Hospitality System is able to automatically generate guest check numbers (in option 2 & 3 above) during new order entry. Numbers are system controlled and sequentially assigned from 1-9999.

Guest Check Options

Guest Check Item Transfer - Using the SVGA full Screen, menu items are easily transferred to different seats.

Split Guest Check Payment - Using the SVGA full Screen, guest checks may be split and/or combined for payment during Add Check Operation. By pressing Add Check key, then Split Check, each seat may be individually settled or combined with others for finalization.

Adding Multiple Guest Checks - If a guest decides to pay for several others who have previously been recorded on separate guest checks by the same server, the NCR NeighborhoodPOS solution allows the option to merge up to five guest checks. The server who has managed the five checks simply presses the Total key after a guest check has been recalled and then enters the guest check numbers of the checks to be merged. Each entry of a guest check number should be followed by the depression of the Guest Check No. key and the Total key. Each corresponding guest check

form should be inserted in the slip printer so they can be closed with a check paid message. When all the guest checks to be merged have been entered and closed, the operator then performs a normal tender operation for the combined check.

Transferring Guest Checks - A check transfer operation may be performed to transfer guest checks between servers. This operation can be especially convenient at the end of a server's shift. To perform this operation, the server taking over the guest check signs in, presses the Check Transfer key, enters the check number to be transferred, and then presses the Guest Check No. key.

Quick Service Functionality

Flexible Drive-Thru - NCR NeighborhoodPOS is capable of being programmed as an ordering terminal, payment terminal, delivery terminal; or combination of the aforementioned. For example, one terminal can be assigned the role of order taking, another order payment. Or, one terminal is used for order taking and payment, while a second is used for delivery. The NCR NeighborhoodPOS terminal (with the 3-column SVGA optional display) tracks the order from one terminal to another until it is delivered. This feature is especially designed for the unique requirements of drive-thru operations, especially those that have multiple drive-thru windows.

Store/Recall System - The Store/Recall System permits the operator (cashier) to initiate a transaction at a terminal and "store" it in the store/recall file in the master terminal. The stored order may be recalled at the same terminal, or another terminal depending on programming option, for adding items or for performing a payment operation.

For double drive-thru operations, the store/recall file can be segmented into three separate files. For example, one store/recall file is assigned to one set of drive-up window terminals, another store/recall file is assigned to a second set of drive-up window terminals, and the third store/recall file is assigned to the counter terminal, each keeps track of orders in its own queue. The multiple store/recall files also provide unique store/recall numbers for each set of terminals.

Typical Store/Recall Operation Sequence

- **Taking and Storing Orders**

1. Operator sign-in

2. Enter items ordered
3. Press Store Total Key

- **Recall and Finalizing Order**

1. Press Recall Order Key
2. Press Drive-thru, Carry-Out or Eat-In Total Key
3. Press appropriate tender key to finalize

Order Entry Prompting

MLD Operator Display Order Entry Prompting - To increase order accuracy and reduce training time, PLUs, condiments, and modifiers for each item ordered can be displayed. Up to 90 order sequences can be programmed with, each with 10 group selections for each sequence and up to 90 PLU group sequences. Each group can have up to 80 members, to facilitate special prompt groups like wine lists, or sandwich groups. Order prompting allows a series of prompts to be displayed, for example, you can first prompt for Temperature (Rare, Med, etc), Then Salad Dressing Choice, then Veggie choice, etc. Some prompt groups may be optionally configured to prompt for 1, 2, or 3 specific “free” choices, then charge \$\$ for additional items selected. This is beneficial if your menu design allows for example, 2 free sides with an entrée.

Example of LCD Screen Order Prompting
(Enter 11, to pick Hamburger)

11	Hamburger	John Smith
12	Cheeseburger	
13	Roast Beef	

	Amt. TL
	5.75
ENTER / Skip 00	0.00

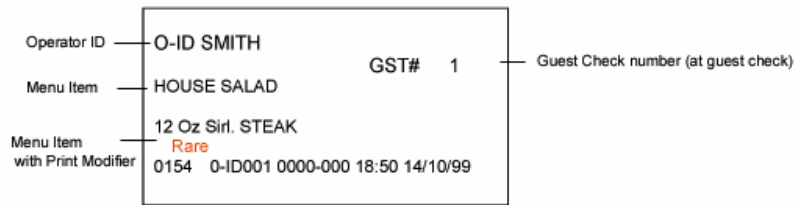
Remote Printing & Kitchen Display (KDS) Features

Remote Printers - Impact or thermal remote printers are used to print orders in a remote preparation location such as the kitchen or bar. Terminal attached thermal receipt printers may also be used as a remote printer, i.e.: bar terminal. However, the maximum number of remote print/display devices (impact, remote thermal, terminal attached thermal receipt or kitchen display CRT) is eight.

The NCR remote impact printer prints up to 40 characters per line using the NCR Thermal Receipt Printer or Epson impact printer. Certain order entries or transaction operations are printed in double wide and/or red color (Impact Printer Only) for added clarity to avoid costly order preparation errors. Server/cashier names may be optionally printed, and voided items can be programmed to print or not to print.

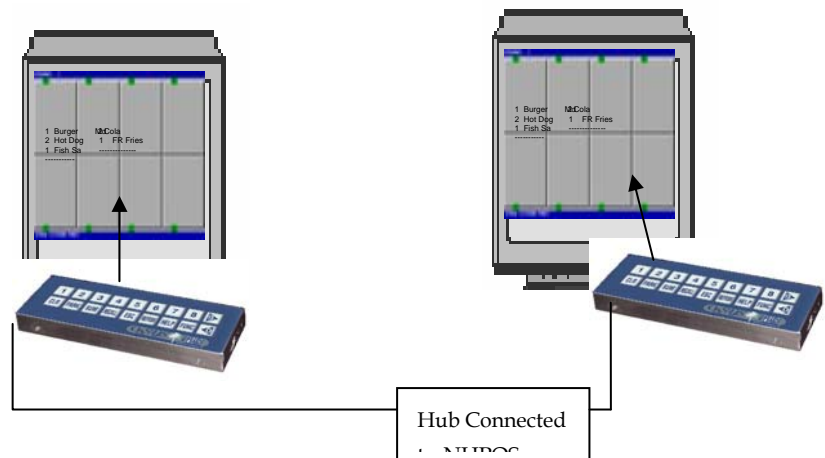
In addition to printing items at a remote printer, NeighborhoodPOS also supports interface to NCR's 2757 Kitchen Ipad Display Subsystem, which greatly extends the capabilities of the system for those food service operations that require remote display of items sold, to preparation areas of the kitchen, particularly for quick Service customers.

Whether a customer chooses remote printers or KDS, up to 8 logical kitchen devices can be configured, Kitchen CRTs, Remote Printers, or any combination of the two that is eight or less.



Kitchen Display System (KDS)

Industry Standard Components - The NCR 2757 Ipad KDS controller is actually a special purpose PC technology device that is especially designed to work as a kitchen controller and is connected to the NHPOS POS System via industry standard Ethernet 10BaseT wiring. Interface to the NHPOS Enhanced KDS System is especially designed to provide fault resistance to make sure that Kitchen orders are displayed accurately and efficiently. There is no single point of failure in the KDS design. If one NHPOS terminal should be turned off or otherwise become non-operational, all the other terminals can continue sending KDS data to the controller, Uninterrupted, unlike some competitive systems that may not continue to work if the specific terminal connected to KDS should fail. Standard 15" SVGA PC monitors are used for maximum cost effectiveness, and optional ceiling or wall brackets are orderable for your convenience.



Eight Configurable Screens - Up to eight screens may be configured within a cluster. Each screen may be uniquely programmed to display different information. Each screen may be divided into four columns with four order windows, or four columns with eight windows (four on top and four on the bottom). The top four and bottom four may represent different terminals, or counter vs. drive up, or the bottom may represent parked orders, etc.

Color - Color is used to capture the attention of the user. For example, the order header Elapsed timer changes color if predetermined period of time has elapsed (three different categories of time: Normal, Priority, and Rush). The KDS system will also change the color of those items that have been changed within an order, to indicate to your preparation people that a change has occurred. The intent of using color is to visually reinforce the urgency of exceeding acceptable time limits and facilitate recognition of changed order items. The objective is to reduce order delivery time while increasing order delivery accuracy.

Order Beeper - The bump bar will audibly notify the operator of a new order by beeping.

Summary Window - Each screen can have up to 10 key items that are continuously tracked across all pending orders. The sum quantity of each key item ordered is displayed in a window in the lower right corner of the screen. This window is easily toggled on and off by the user.

Stack/Recall - Up to 250 orders per store (or 50 orders per screen) may be stacked for preparation, and up to 10 paid (and bumped) **orders may be recalled for viewing.**

Routing - The KDS system expands the routing information of the system by adding additional routing criteria. Items may be sent to screens based upon the item, and/or register, and/or video screen. This flexible functionality is designed to meet the routing requirements of virtually all hospitality environments.

Preprogrammed Routing - Routing schemes may be preprogrammed and activated [on predetermined bump bar(s)] to support dynamic changes in demand and staffing. This allows a customer to pre-program up to four unique routing schemes, for

example: Breakfast, Normal Lunch, Busy Lunch (if the customer uses extra CRTs when Busy), Dinner . With the bump bar, the user can switch routing periods very easily.

Control Strings (Macros)

Control Strings simplify operations and expand the functionality of the NCR System. Multiple operations, including supervisor functions and terminal application changes, may be linked together and executed in up to 200 separate Control Strings - each with up to 200 entry sequences. For example, a control string may be created to automatically print a series of reports, ring up multiple PLUs, or even change a terminal's functionality with a single key depression.

Macros may call other macros. Macros may also pause up to five times prompting entry of data.

PC-Based Frequent Shopper

This option is 3rd party application dependent. All hardware and software requirements to interactively interface the NeighborhoodPOS system to a PC-based frequent shopper program are provided within the base functionality of the terminal. Essentially, a user can program a specific tender key, designated as Frequent Shopper. At depression of the tender, the NeighborhoodPOS terminal could communicate (Via RS-232 cable from NHPOS Master to PC) the Charge Post request message. The third-party Frequent Shopper program can then authorize a specific discount amount, and optionally print a message on the receipt trailer (this could be the name of the customer, accumulated points statement), etc. Please contact the 3rd party software solution provider for further information.

PC-Based Negative or Positive Check File

This option is 3rd party application dependent. All hardware and software requirements to interactively interface the system to a PC-based negative/positive check file is provided within the base functionality of the terminal. This option can use the NeighborhoodPOS charge Post function to verify an account number at the PC, and either reject the payment (forcing another payment method) or accept the account, optionally printing information on the receipt (for example, an approval #). Please contact the 3rd party software solution provider for further information.

PC Based Charge Post

Charge posting enables electronic updates of a customer's purchases (souvenirs, merchandise, etc.) to a room or ledger account to a 3rd party PC based Charge Posting software application (or a hotel property management system).

Identification may be accomplished by swiping the customer's track-II card on the attached MSR, or by scanning the account number or by manual entry of the account number. Please contact the 3rd party software solution provider for further information.

Operator and Transaction Control

The NeighborhoodPOS application may be programmed as an operator cashier system, an operator "server" type system, or combination operator cashier and operator server system, depending on customer unique requirements.

Operator (Cashier or Server functionality) System

NeighborhoodPOS memory may be allocated for up to 250 operators. Each operator may have a three-digit public number, two-digit secret number, and a twenty-character name. Individual media responsibility is maintained because all financial totals are automatically transferred when an operator cashier switches terminals (floating operator). Those customers who wish to assign an operator to a specific terminal can also do this by option in the Operator Assignment Supervisor function.

Training Mode

Training mode permits training of new operators without affecting system totals. Operator and/or clerks are identified by a flag when they are assigned to the system. The terminal automatically recognizes the training operator when they sign in and prints "Training Mode" on the receipt and journal.

Money Declaration

This feature allows an operator to Declare Drawer balance, by tender for added control when closing out a shift.

No Sale

The basic purpose of a no sale is to open the cash drawer. Controls include allow/disallow and supervisor intervention.

HALO

To minimize accidental over rings, a High Amount Lock Out (maximum allowable entry) may be set for department and function keys. The HALO may be overridden by the depression of a HALO over ride key and optional supervisor intervention.

ROA

The Received on account key provides the capability to enter a customer's payment for goods/services on account. Controls include supervisor intervention and validation (shared option w/ Paid Out).

Paid Out

The paid out key provides a means to record payment of invoices, services, etc., from the cash drawer. Controls include supervisor intervention and validation (shared option w/ ROA).

Error Tone

An error tone is emitted when an incorrect operational sequence occurs. The tone has four programmable levels – from no sound to high.

Error Correct

The error correct key is a quick and safe means for the operator to reverse the last entry. It may be used after a PLU entry, department entry, and entry of media amounts during a pick-up/loan.

Void Item

Allows user to void items or department entries. A separate Cursor Void is also available to only void items that are scrollable in the transaction. Additionally, Transaction void may be used to void items outside of a transaction.

Age Audit

The sale of selected PLUs, such as alcoholic beverages and tobacco, may require the entry of the customer's birth date. The system automatically calculates the age, allows or disallows the item sale, and stores the birth date (until the transaction is completed) for subsequent age audit items. Each PLU may be assigned to one of three different age groups.

Special Rounding

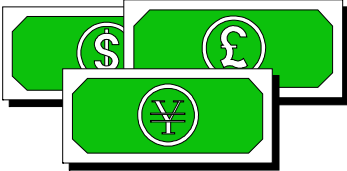
Special rounding facilitates unique international denomination requirements by enabling the minimum unit of currency to be less than one (0/5, 0/10, 0/25, etc.).

Item/Transaction Discounting

Two item and four transaction discount keys may be programmed to automatically (or manual amount override) subtract a percentage amount from an item or transaction. Controls include supervisor intervention and validation.

Four Preset Cash Tenders

Up to four keys may be assigned as preset cash tendered keys. Preset tendered keys speed cashier operations by allowing the entry of common tendered amounts with one keystroke. A Preset Tender can also be designated as "nearest tender" to speed up change calculation. For example, when the "nearest tender" is pressed for a transaction total of \$6.78, the system calculates change as if \$7 was tendered.



Eight Foreign Currencies

To accommodate international requirements, the NeighborhoodPOS system may be programmed with up to eight foreign currencies.

Money Declaration

The operator may enter a physical and financial count of the media (in the till) before taking a cashier report. The difference between the media declared and the system totals are reported in the over/short amount for each tender.

Bonus Totals

Up to 8 bonus totals may be used to track the total sales of specific departments and/or PLUs - by system, terminal, Operator.

NCR NeighborhoodPOS - Supervisor Functions

The supervisor functions of the NCR NeighborhoodPOS application provide the means to manage and maintain the system. The following supervisor functions are provided:

- Supervisor intervention
- Action Code operations
- Reports
- Read Reports
- Reset Reports

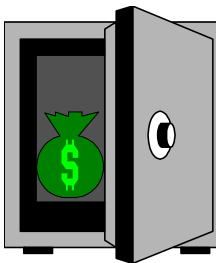
Supervisor Intervention Control

The supervisor intervention control function allows management to make certain register mode functions possible only with supervisor authorization.

When supervisor intervention is required in an operation, a tone sounds and a prompt message is displayed. The terminal does not accept any further operation until a supervisor intervention operation is performed. Supervisor intervention is accomplished by inserting the supervisor key in the control switch and turning it to the "Supr" position and then back to the original position.

The following Register Mode functions can be programmed to require supervisor intervention:

- | | |
|----------------------------------|----------------------|
| ♦ Coupon/credit department sales | ♦ Discount/surcharge |
| ♦ Void | ♦ Tax/VAT exempt |
| ♦ Error correct | ♦ Transaction cancel |
| ♦ No sale | ♦ Paid out |
| ♦ Negative sales finalization | ♦ Void transaction |



Pick-Up & Loans

Media may be loaned to cashiers when they begin their shift, or picked up when the amount exceeds the cash drawer limit. The total amounts of pick-ups and loans are included in the financial report, which eliminates the requirement to manually add or subtract media transfers.

Pick-ups and loans may be performed on any terminal within the cluster.

Action Codes

Supervisor functions, such as taking reports and performing system maintenance, are initiated with Action Codes specific to the function in the supervisor mode, most of which are designed to be performed at the NeighborhoodPOS system's master terminal.

This mode is entered by performing a supervisor sign-in. The supervisor enters the assigned three-digit ID number (within the range of 801 to 899) and a two-digit secret code and presses the Action Code key.

The following is a master list of all Action Codes that are provided, in order of AC number.

- 1) Guest Check Assignment
- 2) Guest Check report (Open Guest Checks or Stored Transactions)
- 3) Guest Check settlement
- 4) Set PLU Number on Menu Page
- 5) Set Menu Control Table
- 6) Manual alternation of Remote Printers
- 7) Operator A/B Key Assignment
- 10) Loan
- 11) Pick-up
- 15) Change Supervisor Secret Number
- 17) Set Date/Time
- 18) Store Reset Report (PTD)
- 19) Operator Settlement
- 20) Operator Assignment
- 21) Operator Report
- 23) System Financial Report
- 24) Hourly Activity Report
- 26) Department Report
- 29) PLU Report
- 30) Combination Coupon Report
- 33) Set Control String Table (Macros)
- 39) PLU Reset Report
- 40) Combination Coupon Reset Report
- 42) File Synchronization
- 63) PLU Maintenance
- 64) Change PLU Price
- 68) Add/Delete PLU
- 70) Read EJ Report
- 71) Create/Maintain PPI Table
- 72) PLU Programmability Report
- 75) Broadcast Terminal Parameter
- 78) Start/Stop Charge Posting

- 82) Change PLU Mnemonic
- 84) Set Rounding Table
- 85) Disconnect Master or B/U Master
- 86) Set Percent Rate
- 87) Set Trailer Logos
- 88) Set Sales Promotion Message
- 89) Set Currency Conversion Rate
- 97) CPM/EPT Tally Report
- 99) End-of-Day Reset Report
- 100) Electronic Journal Reset Report
- 103) Guest Check File Close
- 111) Set Tare Table
- 114) Department Maintenance
- 115) Set Department Number on Dept Key
- 116) Set Promotional PLU
- 119) Operator File Close
- 122) Major Department Report
- 123) Media Flash Report
- 124) Set Tax Table 1
- 125) Set Tax Table 2
- 126) Set Tax Table 3
- 127) Set U.S./VAT Tax Rates
- 129) Set Canadian PST3 Tax (Tax 4)
- 130) Set Item Count Table (Can. Tax)
- 131) Service Time Read Report
- 132) Service Time Reset Report
- 133) Set service Time Parameters
- 135) Run Custom Read Reports
- 136) Run Custom Reset Reports
- 137) Set Beverage Dispenser Parameters
- 150) ETK File Read Report
- 151) ETK File Reset Report
- 152) ETK File Assignment
- 153) ETK File Maintenance
- 154) Set ETK Wage Rates for Job Codes
- 160) Set Order Entry Prompt Table
- 161) Combination Coupon Maintenance
- 162) Set Drive-Thru Parameters
- 169) Adjust Tone Volume
- 170) Set Sales Restriction Table for PLUs
- 175) Broadcast Supervisor Mode Parameter
- 176) Run Oper/Chk Status Report
- 208) Set Boundary Age

ACTION 19	
CASHIER	
Reset 2 DAYZ 1	
DAY-GGT	783.23
I-Void	11
	- 25.02
T-Void	2
	- 9.00
E-Corr	5
	- 4.68
Memo-Dpt	2
	2.01
SUBTOTAL	744.53
Vndr-Cpn	25
	- 7.68
StrCred	5
	- 2.23
Return	1
	- 2.25
Itm-Disc	2
	- 1.75
SUBTOTAL	730.62
LOAN	1
	100.00
PICK-UP	3
	525.00
ON HAND	304.62
Over/Shrt	-1.00

223) Individual Terminal Financial (Read) Report

233) Individual Terminal Financial (Reset) Report

Users who install the LCD displays can display a list of All Action Codes on the LCD screen to provide an easy reference to users.

Read Reports

The following Action Codes are used to generate various reports to help management understand and control their business. These reports are all read reports, so no totals or counters in the records are affected. Users who install the LCD screen option can optionally display many of the reports on the screen if they choose to do so, rather than print, as a user option.

Operator Report (AC 21)

This Action Code generates a report of a cashier's accountability file which includes financial totals and counters such as net sales, loans, pick-ups, media tendered, and so forth.

Financial Report (AC 23/223)

This Action Code can be used to issue a daily or PTD report of all sales information by all terminals (#23) or individual terminal (#223). This report shows financial totals and counters such as net sales, loans, pick-ups, media tendered, and so forth.

Media Flash Report (AC 123)

Current media (tender) totals of the terminal financial file can be issued in a report with this Action Code. The totals and counters to be reported can be daily or PTD.

Hourly Activity Report (AC 24)

This Action Code generates a report showing all transaction data recorded in each time segment (up to 48 segments). The duration of each time segment can be determined by programming. This Action Code prompts the operator to choose a report type. Either a Daily or PTD Hourly Activity report can be chosen and the report can be for a specified time segment or for all time segments. In addition, the report can be programmed to omit all time segments where the total is zero. The starting time segments of the report can also be determined by programming.

Additional programs:

- ◆ Print control for time segments with zero sales
- ◆ Start and end times

Department Report (AC 26)

This Action Code can be used to issue a report of sales totals of:

- ◆ All department totals (within Major Dept Categories)
- ◆ Report by Individual Major Department
- ◆ Individual department total

When a report on all departments is generated, the departments where the sales totals are zero can be omitted from the report. The totals to be reported may be daily or PTD.

Additional programs:

- ◆ Print control for departments with zero sales
- ◆ Sales percent calculation based on counter or total value

PLU Report (AC 29)

This Action Code issues a read report of sales total and item movement of PLU items. Daily or PTD totals and item movement can be reported. In a cluster system, this is a consolidated report. PLU items to be reported can be specified by entering one of the following report type codes:

1. All PLU report: Reports all PLU items in the PLU file. The report can be programmed to omit all PLU items where the movement is zero.
2. PLU report by department: Reports all PLU items included in the specified department.
3. PLU report by report code: Reports PLU items that have the specified report group code.
4. Individual PLU report: Reports the total and item movement of the specified PLU item.

Additional programs:

- ◆ Print control if item movement is zero
- ◆ Sales percent calculation based on item counters or total value

Reset Reports

The following Action Codes are used to generate various reports to help management control their business.

1. Prints totals and counters of SAVED totals block, but does not reset
2. Prints and resets totals and counters
3. Resets totals and counters but does not issue a report

When types 2 and 3 above are selected, the terminal transfers the block currently being updated to a saving block and prints and/or resets the contents of the current block. Data in the saving block remains available until the next reset of that report.

Store Reset Report (AC 18)

This Action Code is used to issue a store reset report, usually to reset PTD totals. This report consists of multiple individual reports. Totals and counters, including the PTD totals and counters, associated with the reports can be reset by specifying the report type.

The store reset report can be programmed to include any or all of the following reports:

- ◆ Financial Report
- ◆ Department Report
- ◆ PLU Report
- ◆ Hourly Activity Report
- ◆ Operator Report
- ◆ Guest Check (Or Stored\Suspended Transactions) Report
- ◆ Combination Coupon Report
- ◆ Service Time Report

Operator Settlement (AC 19)

This Action Code can be used to issue a report and reset a cashier's totals and counters. The cashier secret code can also be programmed to be cleared with this Action Code. Productivity information such as total time scanning, tendering, idle, lock, and so forth, is included.

The option to print reports and reset totals and counters can be selected by entering the appropriate report type when performing this Action Code. When totals and counters are reset (report type 2 or 3), the corresponding cashier must be closed in the system.

An additional program is:

- ◆ Operator secret code clearance

PLU Reset Report (AC 39)

This Action Code issues a reset report of sales total and item movement of PLU items. Daily or PTD totals and item movement can be reported. In a cluster system, this is a consolidated report. PLU items to be reported can be specified by entering one of the following report type codes:

1. All PLU report: Reports and resets sales and total counters on all PLU items in the PLU file, and may omit all zero-movement PLUs.
2. PLU report by department: Reports and resets sales and total counters on all PLU items included in each of the specified department.
3. PLU report by report code: Reports and resets sales and total counters on all PLU items that have the specified report group code.
4. Individual PLU report: Reports and resets sales and total counter on the specified PLU item.

Additional programs:

- ◆ Print control if item movement is zero
- ◆ Sales percent calculation based on item counters or total value

End-of-Day Reset Report (AC 99)

All necessary settlement operations to be done at the end of a sales day can be accomplished by performing this Action Code. Operations to be included are determined by programming. Since this Action Code accomplishes a daily settlement, PTD totals are not reset. The following reports may be included:

- System Financial Report
- Terminal Financial Report (All/Individual)

- Department Report
- PLU Report (Sorted by Department)
- Hourly Activity Report
- Operator (all) Report
- Guest Check (Or Stored\Suspended Transactions) Report
- Service Time Report
- Electronic Journal Report (for Cluster)
- Combination Coupon Report

Eight Customizable Reports

Up to eight custom reports may be created that add, subtract, divide, or multiply report fields from other reports within the system. For example, revenue center reporting may be obtained by combining one or more terminals together within a customized financial report. Easily programmable in PEP, these reports may be included with the end-of-day and/or end-of-period report strings, and are executable on the NeighborhoodPOS System.

NCR NeighborhoodPOS - Optional Management Applications



NeighborhoodPOS (NHPOS) supports two unique optional software applications that extend the NeighborhoodPOS application into a full store solution applicable for many customers. NCR Manager's WorkStation (MWS) and NCR Corporate WorkStation (CWS) are the two products designed to provide a store manager or headquarters with three main functions: Communications, Reporting, and Maintenance. The key difference between the two applications is that MWS is designed as an optional in-store maintenance solution for a single cluster of NeighborhoodPOS terminals while CWS is designed as a multi-store (or multi-cluster) application for consolidating and maintaining multiple NeighborhoodPOS clusters. All system mnemonics are designed to be easily user changeable to address the customization needed by many customers, and also allows these products to be customized to meet many worldwide language requirements for NCR NeighborhoodPOS customers on a global basis. A more detailed description of each application follows.

NCR NeighborhoodPOS - Manager's WorkStation (MWS)

MWS is designed as a tool for store management to simplify maintenance of NeighborhoodPOS, to provide customizable reports, and to facilitate cluster communications to a single cluster via Ethernet 10\100BaseT connection, or via RS-232 (direct connect, or modem). The user interface of MWS is designed to facilitate easy navigation of its features, using the latest in Windows sidebar type navigation, yet provides multiple levels of Supervisor Security access to make sure that only the functions allowed to a supervisor level, are accessible. For example, you may only want to have some managers to access POS maintenance functions, while others are allowed to read reports only, etc. In addition, each security level can be set to allow its users access to only those specific reports (or NeighborhoodPOS specific communications actions) which are permitted.

This is a 32bit Windows application designed to run under Windows 2000 Professional or Windows XP Professional environments on the PC. The design of MWS incorporates a database architecture that enables the average store manager to

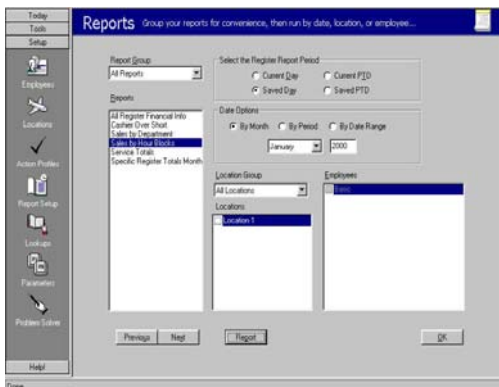
maintain the myriad options available for NeighborhoodPOS, without having to get down to the “byte” level.

MWS Communications

MWS provides an NCR base communications platform for communication to an cluster via Ethernet or RS-232 communications, depending which method is physically wired in the store. A user can set up a store’s characteristics (how connected, Store Name, type of cluster, number of terminals, etc).

In addition to communicating to the NeighborhoodPOS terminals, MWS will also provide an interface that allows other 3rd party applications gain access to the totals and data files. Specific interface documentation will provide generic documentation to aid third party applications, which desire to gain access to MWS, data.

The communications function of MWS also will write the results of all communications sessions to a communications log, so that a user may view all communications session log details, or communications errors (e.g. perhaps the modem did not answer). Using the task scheduler of Windows 2000 or XP Pro, a user can schedule MWS to perform various communication tasks at pre-scheduled times, or based on various business rules allowed by the scheduler.



MWS Reporting

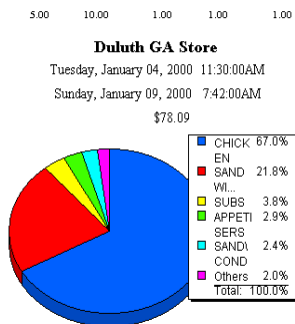
MWS provides a Crystal Reports 9.0 runtime report engine, embedded within the MWS reporting functionality. Included are a standard set of reports applicable to many NeighborhoodPOS customers, but it is recommended that most MWS installs will require some Crystal Reports customization be performed, prior to installation.

The report interface into allows users to interface into either current or PTD totals maintained by NeighborhoodPOS, including the unique feature of “Saved” Financial totals.

Included Standard Reports with MWS include:

- System Financial
- Operator
- Individual Terminal

Sales by Department 1/01/00 up to 1/31/00 Report



- PLU
- Department
- Major Department
- Activity
- Employee timekeeping

Some of the reports include embedded graphics, and some allow a user to click on subtotals which will then expand to show the user the specifics included in the subtotal. Most reports can be selected by Day, Month, and Period (Week, Quarter) or specified date range.

Users (or users can engage participating NCR Resellers or NCR Professional Services) who wish to modify or add to the custom reports can do so by purchasing the Crystal Reports Professional 9.0 from Crystal Decisions Software, Inc. Once a report has been modified or a new one created, it can be placed within the MWS application and become part of the MWS report structure. To ease customization of these reports, MWS includes a data translation file that allows a user to select the NeighborhoodPOS totals (including Electronic Journal) for easy insertion in custom reports.

Note: A method of ODBC interface is provided for advanced NeighborhoodPOS users who desire direct interface to MWS database totals.

MWS Maintenance

A key feature of MWS is the ability to perform maintenance to the NeighborhoodPOS parameter files. MWS provides an easy to use, method of editing and changing all key aspects of the, and also performs the service of reloading the POS Operating System files, should that ever be required. Most of the parameter files are organized into drop-down lists of “choices” to make it easy to select the applicable choices. Some data fields are text based (for example: PLU Descriptions) to enable users to easily modify items.

A key feature of MWS is that PLU item maintenance is designed to facilitate quick maintenance of PLU items, given that PLU profiles are constructed to enable easy ongoing maintenance.

For example, when you setup the system, you will follow the MWS documentation to create various PLU Library “profiles” that allow you to group items into common profile groups. One example might be “Gift Cards”. You could create a “Gift Card” profile, that includes all the specifics of how those items are taxed, what department, major department categories apply, etc. Once a profile is created, you can copy it to another profile name and just change the fields that apply. Once all your profiles are created, you can build new PLUs by entering a PLU number, profile name (from drop down list) and enter the prices. Once your PLU file is built, you can also build various Price Profiles to change various prices (i.e. a logical subset of PLUs) simply by applying the new price profile to the store. The price profile feature also provides an easy way to implement sale or special prices, as well as a method to return on-sale prices to regular price.

Employee Maintenance in MWS allows the user to set up employees determines those, which are allowed to sign-in to (and what functions are allowed). Each employee can also be flagged for whether they are allowed to use the NeighborhoodPOS Timekeeping feature, and if so, at what job codes and wage rates. For Corporate WorkStation (CWS) customers, employee maintenance can also determine which store locations a particular employee is allowed to sign-in at, and also their POS Operator permissions, allowing multi-store operations the flexibility of managing "floating employees" who may work in multiple stores.

Since the full Parameter Maintenance is available to MWS, please see the following table for the highlights of MWS Parameter maintenance:

<u>Parameter Area</u>	<u>Description\Comments</u>
NHPOS Touch Screen Layout Designer Tool	Allows the user to design and edit individual Touch Screens that are deployed on NHPOS Touch Terminals. Includes the ability to size the individual buttons, change background or text colors, as well as assign icon files to display on buttons. Each Button can be assigned various POS functions, or special Screen functions like "Exit Window". The tool permits both the definition of main screens, and sub pop-up screens as well.
Keyboard Maintenance	Allows user to change functionality of all programmable key

	locations for either micromotion, or 80 key conventional keyboard. Uses drop-down list of functions so users do not need to look at technical documentation when reprogramming keyboard.
Item Maintenance (PLUs)	User can simply item maintenance by creating PLU Library profiles, also supports PLU Pricing profiles if just changing prices.
Functionality (MDCs)	Provides a categorized drop list interface to change functionality of key areas of program, broken down into key areas like tender keys, total keys, validation options, etc
Memory Allocation	User can allocate how terminal memory of the application is to be used: # of PLUs, Depts, EJ space, # of Coupons, etc
Mnemonics	User can change hundreds of Mnemonics (alphanumeric descriptions). Note: standard mnemonics are included in base software.
Order Prompting	Ability to easily change Order Entry prompt groupings and categories using drop down lists.
Coupon Groups	Edit\Modify smart in-store coupons
Employee Maintenance	Add\edit\delete employees, setup for timekeeping, operator status for sign-in, etc

Supported Base Configurations for MWS:

- NCR PC 3237 or comparable PC with:
- 1 Ghz Celeron CPU or greater
- 10Gb Disk or Greater
- 256MB Memory or greater
- CD ROM
- Windows 2000 Professional or XP Pro OS (preferred)
- SVGA compatible Monitor
- Integrated 10/100MB Ethernet

- Mouse
- Optional Data Backup & UPS

NCR NeighborhoodPOS - Corporate WorkStation (CWS)

CWS Overview

CWS is designed to provide ALL the functionality of MWS, plus provides the capability of communicating, maintaining, and reporting for multiple clusters. Base CWS software can actually only communicate with one cluster, but that capability can be extended to multiple clusters, by purchasing additional CWS add-on application licenses. This will enable to communicate to as many stores as are licensed (Please note that the total number of stores that may be configured and used within one CWS system will vary depending on the CWS hardware capability, memory, disk space, the method of CWS to communication (Intranet 10\100BaseT or slower modem) etc.

Key features of CWS:

- Includes NHPOS Touch Screen Layout Designer Tool
- Each Individual Store can be grouped by descriptive names, such as: Aspen Store#12, or Atlanta Arby's #10, etc
- Stores can be grouped by descriptive Location Group Names: (Colorado Stores, Georgia Stores, etc)
- Different stores can be maintained with different Parameter Sets, or sub-concept parameter sets. For example, you could have a concept called "XYZ Stores" and a configuration named "2 lane Scanning" or "Drive-Thru w/ 2 Counter" that is applied to a store location named Aspen Store#12. In this example,(assuming you have these concepts built) you could change Aspen Store#12 to another concept called "ABC Store", and its appropriate sub concept names, very easily,
- CWS Polling log can show polling results by Location group, or individual Store.

- Multiple polling tasks can be set up using task scheduler, with up to 4 communication sessions simultaneously (for rs-232 modem connections, this requires add-on serial port expander, and additional external modems).
- Multiple language sets can be maintained and applied to individual stores.
- Different stores can be set up to perform different actions (using Action Profiles), for example you can have different End-of-Day functions by store, each with different reports or totals being reset. Or a particular communication session can update PLU maintenance, or keyboard maintenance, etc.

Supported Base Configurations for CWS:

- 1 Ghz Pentium III CPU or greater
- 10Gb Disk or Greater
- 512MB Memory or greater (add XX Memory if Stores > XX)
- CD ROM
- Microsoft Windows 2000 Professional or XP Pro
- SVGA compatible Monitor
- Integrated 10/100MB Ethernet
- Optional Data Backup & UPS

It is assumed that most users with less than 20 stores should perform adequately with a single CWS configured as above. Specific customer certifications above this size (or those which require high performance Database integration (i.e. MS SQL server)) should engage NCR Professional Services to provide optimal certification for CWS custom integration.

Users who wish to perform local maintenance of NeighborhoodPOS, but utilize CWS for totals consolidation can do this by licensing MWS for each store location, in addition to the CWS licenses listed above. Hybrid solutions whereby each store cluster is polled by its individual MWS, and then poll files can be transmitted to the central CWS by using various industry standard

PC to PC communication methods. A much larger number of stores could potentially be supported by CWS in such a design since slower modem communications would not potentially create an issue of a short "polling" window, depending on user business hours, etc.

NCR NeighborhoodPOS - Tools

NeighborhoodPOS (NHPOS) supports several unique tools that are useful for NCR Partners, or in some cases end users, to provide some additional functionality in parameterization, particularly if the customer is implementing solutions other than using MWS or CWS.

NCR Parameter Entry Program (PEP)

The "Parameter Entry Program" is a PC software application developed to provide a fast, easy way to generate and maintain the NCR terminal parameters, in a lab or development environment. This program is designed to benefit both the system programmer and end-user by providing an easy-to-understand, user-friendly environment in which to modify the NCR software. With this program, the user can quickly make the desired alterations without any special training.

Major features of PEP are:

- ◆ Multi-Language capable of displaying user prompts and default mnemonics in the following planned languages:
 - ◆ Chinese (Simplified)
 - ◆ English
 - ◆ Spanish
 - ◆ German *
 - ◆ French *
 - ◆ Dutch *
- ◆ Easy-to-use interactive window menu screens and dialogue boxes
- ◆ Touch Screen Layout Designer Tool
 - ◆ Allows the user to design and edit individual Touch Screens that are deployed on NHPOS Touch Terminals. Includes the ability to size the individual buttons, change background or text colors, as well as assign icon files to display on buttons. Each Button can be assigned various POS functions, or special Screen functions like "Exit Window". The tool permits both the definition of main screens, and sub pop-up screens as well.
- ◆ Standard parameter files containing typical parameter settings

- ◆ Option to create a new parameter file or update an existing one
- ◆ Ability to save parameter file on flex or hard drive
- ◆ Ability to upload and download parameter files between a PC and (individual or all) NCR terminals within a cluster, either using RS-232 communications, or via Ethernet 10\100BaseT
- ◆ Familiar alphanumeric keyboard and mouse

Note: * Check with NHPOS Product Management as to the availability dates on planned languages

System Requirements

The following hardware and software will be required to operate the Parameter Entry Program:

Hardware

- ◆ NCR 3237 (or compatible) personal computer
- ◆ SVGA Graphics and CRT
- ◆ One hard disk drive (10 Gb or larger)
- ◆ CD-ROM drive
- ◆ Minimum of 256 MB RAM
- ◆ Mouse
- ◆ RS-232-C interface or Ethernet communications

Software

- ◆ Microsoft Windows 2000 Professional or XP Pro OS

PEP Functions

Create and/or Maintain Parameter Files

Allows the user to create a parameter file or maintain a file saved in the flex or hard drive of the PC. The original values/entries are displayed on the screen for confirmation.

Save/Load Parameter Files

Allows the user to save a parameter or data file to the flex or hard disk of the PC and load the saved parameters into the program.

Download Parameter Files

Allows the user to transfer a parameter or data file from the PC to the NCR NeighborhoodPOS master terminal via the Ethernet communications or RS-232-C communication port. Two transfer options are:

1. Transfer all parameters
2. Transfer selected parameters

Upload Parameter Files

Allows the user to transfer parameter files from the NCR NeighborhoodPOS master terminal to the PC via Ethernet communications or RS-232-C communication port. Two transfer options are:

1. Transfer all parameters
2. Transfer individually selected parameters

Supported Parameters

In addition to the major functions provided by PEP, the following list shows the various Action Codes and Program Numbers that can be defined using PEP.

Program Number

Prog 1 Machine Definition Code
 Prog 2 Flexible Memory Assignment
 Prog 3 Function Selection Code (FSC)
 Prog 6 Program Mode Security Code
 Prog 8 Supervisor Number Level
 Prog 9 Action Code Security
 Prog 10 High Amount Lock-Out (HALO)
 Prog 15 Preset Cash Amount
 Prog 17 Hourly Activity Block
 Prog 18 Print Lines on Slip
 Prog 20 Transaction Mnemonic
 Prog 21 Lead-Through Message
 Prog 22 Report Mnemonic
 Prog 23 Special Mnemonic
 Prog 29 Check Digit Verification Table
 Prog 30 Check Digit Verification Assignment Table
 Prog 54 Charge Post/EPT Parameters
 Prog 57 Header Message
 Prog 97 Set Terminal Characteristics

Action Codes

AC 1 Guest Check Assignment
 AC 2 Guest Check Report
 AC 3 Guest Check settlement
 AC 4 PLU Number on Menu Page
 AC 5 Menu Control Table
 AC 6 Manual Alternation Remote Printer
 AC 7 Operator A/B Key Assignment
 AC 20 Operator Assignment
 AC 33 Set Control String
 AC 63 PLU Maintenance
 AC 64 Change PLU Price
 AC 68 Add/Delete PLU
 AC 70 Set PLU Restriction Table
 AC 71 Set PPI Table
 AC 84 Rounding Table
 AC 86 Set Discount/Surcharge/Bonus % Rates
 AC 87 Set EPT Trailer Message
 AC 88 Sales Promotion Message
 AC 89 Set Currency Conversion Rates
 AC 111 Set Tare Table
 AC 114 Department Maintenance
 AC 116 Set Promotional PLU
 AC 124 Set US Tax Table 1
 AC 125 Set US Tax Table 2
 AC 126 Set US Tax Table 3
 AC 127 Set VAT Rates
 AC 128 Set Transaction Limits
 AC 208 Set Boundary Age
 AC 242 Transaction Status

Third Party Application Developer's Tool: PC Interface Software

The NCR NeighborhoodPOS PC Interface Software toolkit was developed to assist third party application providers in communicating with the NCR system. PC I/F S/W is an application development "tool" and is not required for terminal or PEP operation. The major functions provided for the PC Interface Software are:

- ◆ Provides physical and link-level protocol
- ◆ Parameter File Read/Write

- ◆ Operator File Read/Reset
- ◆ Total File Read/Reset
- ◆ Password Control
- ◆ Electronic Journal File Read/Reset

The following hardware and software products are required for the PC Interface S/W:

Hardware

- ◆ NCR 3237 (or compatible) personal computer
- ◆ NCR NeighborhoodPOS application & supported NCR RealPOS Terminals
- ◆ 10/100BaseT LAN and/or RS-232 Serial Connection
- ◆ For modem connection, US Robotics external 56kb modem

Software

- ◆ Microsoft Windows 2000 Professional or XP Pro OS (XP Pro recommended)
- ◆ Development tool set for application
 - ◆ Microsoft C (version 6.0) and linker or MS VB 6.0
 - ◆ PC interface software library:
 - ◆ PC stub library
 - ◆ Network driver (Async)

The software package comes with a sample program that can be used for reference purposes when developing application software.

Note 1: This tool is designed for use by software developers, and is not intended as a end-user communications tool, and is not supported on that basis.

Note 2: When 3rd party PC interface applications connect to NCR NeighborhoodPOS Terminals, appropriate NCR NeighborhoodPOS PC Interface run-time licenses are still required.

Match/No Match Criteria

Opportunity Assessment Tool Key Market Areas	Solution Match Criteria for Offer	Feasibility of Continuing (High/Low)
Limited Menu Quick Service (Traditional Fast Food and Cafeteria)	Traditionally limited menu item complexity and requirements	HIGH
Retail Checkout	Requirement for scanning or key entry with low to medium complexity of transaction set	HIGH
Combination Retail / Hospitality Environments (Touch, non-Touch, Non-Dynakey)	NCR NeighborhoodPOS provides key functionality for many "combination" environments, since it supports either guest check or store\recall for hospitality, plus retail functionality with up to 100,000 PLU items, including scanning.	HIGH
Large Ticket \ Complex Retailers e.g. Furniture\Appliances\Electronics	Usually require customization for things like customized customer delivery options, in-store financing, negotiated prices, etc., where a more customized NCR Partner Solution may provide significant advantages, rather than NeighborhoodPOS	LOW
Soft Goods Retailer	May not be NeighborhoodPOS candidate if SKU entry, style, color entry required. If all that is required is POS checkout, using UPC\EAN Bar codes, NeighborhoodPOS may be a candidate for some smaller independent soft goods retailers.	LOW or MEDIUM

<p>Fine Dine Table Service (with Complex Menu\Ordering requirements)</p>	<p>NeighborhoodPOS Touch may be a "high" fit in this category for very small, independent table service restaurants, but a "LOW" fit in table service for large chains, especially those chains that require Table Management and/or Reservations capabilities.</p>	<p>MED</p>
<p>Table Service with Medium or low menu complexity</p>	<p>May be a good NeighborhoodPOS Solution fit, depending on the overall customer requirements. NeighborhoodPOS supports both "retained" soft check, and "print as you go" hard check.</p>	<p>MED-HIGH</p>
<p>Retail Stores that require Complex User Interface Requirements at POS (beyond typical checkout)</p>	<p>May want to investigate NCR branded and Partner Solutions that utilize Dynakey or Touch user interfaces.</p>	<p>MED</p>
<p>High or Medium volume food stores with more complex transactions and training requirements, or wholesaler B/O requirements</p>	<p>Customers in these environments may benefit from Solutions like Scanmaster, MTX, or ACS that utilize NCR's DynaKey interface.</p>	<p>LOW</p>
<p>Low volume, smaller food Stores (and niche food stores)</p>	<p>NeighborhoodPOS handles traditional checkout functionality typically used by these environments (coupon scanning, etc), and for some areas, especially outside the US, NHPOS may be a solution to consider. NeighborhoodPOS supports a variety of NCR scanners, scanner\scales, and also interface to the NCI Weightronics scale.</p>	<p>MED</p>
<p>Retail\Hospitality customers which are located in areas where the government requires Fiscal interface</p>	<p>Fiscal interface is not included in NeighborhoodPOS deliverable, but it may be considered as an area of future NCR development, depending on the business case, and availability of developmental resources.</p>	<p>LOW</p>

<p>Retail\Hospitality customers which require the POS solution to support Home Delivery features (Pizza Delivery, other types of Delivery)</p>	<p>The first out General Availability release of NeighborhoodPOS is NOT intended to address HOME DELIVERY, although future releases of NeighborhoodPOS may target this area.</p>	<p>No Current Fit</p>
<p>Retail\Hospitality customers which are located in areas that require Double Byte and other special character sets</p>	<p>The first out General Availability release of NeighborhoodPOS is inended to address these language sets within POS Functionality:</p> <ul style="list-style-type: none"> Chinese (Simplified) English French German Dutch (May be delayed availability) Spanish <p>Documentation in Release 2.0 will be available in English and Chinese (Simplified)</p> <p>Other language sets may be added, based upon business case.</p>	<p>MED to HIGH</p>

Specialty Stores (Checkout)	Examples of the types of potential users for the NeighborhoodPOS Solution	MED-HIGH
Food Courts		
Mall Kiosks/Stores		
Outlet Mall Stores		
Low Price Point Stores		
Hard Goods Retailers		
Tourist Merchandise Stores		
Concessions (Retail or Hospitality)		
Contract Feeders (Cafeterias)		
Traditional Quick Service, with KDS		
Independent Table Service		

Some of the Key functionality and programmability's are summarized below:

Application Configurability NCR NeighborhoodPOS allows an NCR PS or Partner to easily configure the application's resources in an efficient manner. Key parameters such as Number of Price Look-Ups (PLUs), Number of Operators, Electronic Journal Storage Area, etc are configurable. Some of these key programmable areas, along with Minimum/maximum values are listed below:

Configurable Features	<u>Min</u>	<u>Max</u>
Number of Terminals per NCR NeighborhoodPOS Cluster	1	16

Number of Operators (Cashiers or Servers)	0	300
Number of PLUs	0	100,000
Number of Programmable Keyboards (Menus) per system	1	9
Unique Touchscreens Definable per system	0	20
Number of POP-up Sub Screens definable per system (Touch Screen pop-up screens, for example a pop up that contains "beverages" or "side items"		No maximum, but each screen does use memory resources.
Number of Employees (for Timekeeping)	0	250
Number of Department Categories	1	250
Number of Combination (smart) Coupons (Dept # range: 1 to 9999)	0	300
Amount of Memory for Electronic Journal	0	1.5Mb*
Number of Stored (open) Transactions	0	999
--or -- Number of Guest Checks (open)	0	5000
Number of 200 line Macros Allowed	0	400
Number of PPI (Qty Based Discount Tables)	0	300

Size of Item Buffer for Transactions	30	200
Size of Guest Check or Suspend Buffer (Items), if used	30	200

Note:* This is amount allocable PER NHPOS POS terminal. 1.5Mb is approximately equal to 5000 10 line transactions.

Other Key areas of Programmability:

Transaction Types

Non-Buffered Transaction. This is the type of transaction where itemization is recorded to receipt and journal after each item is rung up.

Buffered Transaction. With buffered transactions, items are printed to Receipt\Guestcheck and journal at the end of the transaction. For most transactions, this means at payment (or Service Total, if stored Transaction).

Solution Feature List Summary: NeighborhoodPOS 2.0

FEATURE	NeighborhoodPOS 2.0
Transaction Types Supported (one type supported per cluster)	Store\ Recall (or Suspend\ Resume) {Up to 999 open} --or-- Guest Check {up to 5000 open} POST (Retained full-detailed GC) or Precheck (Balance only)
PLUs (max)	100,000
PLU File Structure	Indexed File and MSDE Database
PLU Scanning	Yes
Bar Codes Supported	UPC-A, UPC-E, EAN-8, EAN-13, including UPCType 2 (variable Price\wt), and UPC type 5 (coupon scanning) & RSS-14
PLU & Department Mnemonic Descriptors	20 Characters
PLU PTD Totals	Yes *1
Departments	250 (4 digits)
Major Departments	30
POS O/S	Microsoft XP Pro & XPe
PC Required in-store?	No

FEATURE	NeighborhoodPOS 2.0
Voids: Void Item Void Transaction Cursor Void Void Search	 Yes Yes Yes No (Cursor Void may be acceptable alternative for many users, since it requires item to be voided to be in the transaction)
Keyboards Supported	For RealPOS 80c and 30: 64 Key Checkout 78 Key Checkout (Delayed Deliverable) (DynaKey and Big Ticket are not supported)
Inter-register communication method	Ethernet 10\100BaseT, using TCP
Kitchen Display Subsystem	Yes, Ethernet using Select Ipad KDS Kitchen controller
Foreign Currency Support	8 Conversions (Incl EURO)
EJ Max File Size (per Terminal)	1.5Mb {>5000 trans}
Money Declaration	Yes
Pickup/Loan Feature	Yes
Auto Price-Levels (5) by System, Menu, (& by transaction)	Yes

FEATURE	NeighborhoodPOS 2.0
7158 or 7167 Printer Support (RS-232)	Yes (19,200 bps recommended)
Sales restriction (By Day\Hrs) & Age Audit	Yes
PPI (Qty Based Pricing)	Yes (300 PPI indexes)
Linked PLU	Yes (PLUs 1 to 9999 can be linked to)
Not in File PLU Build	Yes
Promotional PLUs	Yes (20)
US Food Store Features: Food Stamp, WIC, Coupon Scanning Double/Triple Cpn Mix/Match	Yes Yes <ul style="list-style-type: none"> • No <ul style="list-style-type: none"> • NeighborhoodPOS PPI may provide Mix/Match alternative

FEATURE	NeighborhoodPOS 2.0
<p>Food Features, not currently planned:</p> <p>Terminal Based:</p> <p>Frequent Shopper</p> <p>Negative Check</p>	<p>Planned Release 2x DELAYED Deliverable</p> <ul style="list-style-type: none"> • Electronic FS & NC by tender, IS supported in Rel 2.0 (3rd Party partner dependent) NeighborhoodPOS via EPT or Charge Post and 3rd Party Application Partners <p>Note: EPT\Charge Post Features do require Run-Time License (G370-1816)</p>
<p>Menu Levels Supported</p>	<p>9 (Keyboard Menues, plus up to 20 Touch Menues)</p>
<p>PCIF Communication Methods</p>	<p>Ethernet (Fixed IP addressable) or Serial</p> <p>3rd Party PC interface applications, do require NHP PCIF Run-time license.</p>
<p>Employee Timekeeping</p>	<p>Yes (and support sTime In/Out initiated from any terminal)</p>
<p>Item \ Transaction Return</p>	<p>Planned Release 2x future deliverable.</p>
<p>Paid Outs</p>	<p>Yes (1)</p>

FEATURE	NeighborhoodPOS 2.0
Transaction Scroll	Yes
Transaction Discounts \ Surcharge	Yes (6)
Item Discounts	Yes (two types)
Manual PB / CB	No (but use of Guest Check File or Online Charge Posting, may be superior alternative methods for customers requiring this feature.
Manual Validate Key	Yes (with option to have max# of validations per transaction)
"Clerk" Feature	No (Some users may wish to evaluate "Surrogate Sign-in feature, as a possible alternative)
Operator Interupt (Pub Feature)	Yes
Operator Sign-In Option with Biometric (Fingerprint recognition)	Yes, when using NCR RealPOS 70 terminal only. DELAYED Deliverable, Check with PM on availability
Single Item Sale	No (But alternative may exist by using Control String)
Max # Tender Keys	20
Max # Total Keys	20 (3 are fixed in type of total key)
Max # Unique Items buffered per transaction	200
Manager's Workstation Offering from NCR that provides Communications, Reporting, and Parameter Maintenance	Yes (and 32 bit Win Interface API's for NCR Providers)

FEATURE	NeighborhoodPOS 2.0
Combined Transaction Sets Supported? i.e. Allow Barcode Scanning in a hospitality situation, or hospitality features like Remote Printers \ KDS in Retail environments	Yes