OPW®

FUEL MANAGEMENT SYSTEMS

PV3500®

Fuel Site Controller

HelpDesk Utility

Operator's Manual

Software version 1.13C

OPW Fuel Management Systems -
System and Replacement Parts Warranty Statement
Effective September 1, 2002

System and Replacement Parts Warranty

OPW Fuel Management Systems warrants that all OPW Tank Gauge and Petro Vend Fuel Control systems supplied by OPW Fuel Management Systems to the Original Purchaser will be free from defects in material and/or workmanship under normal use and service for a period of 12 months from the date of installation or 15 months from the date of shipment. Additionally, OPW Fuel Management Systems warrants that all upgrades and replacement parts (new and remanufactured) supplied by OPW Fuel Management Systems will be free from defects in material and workmanship under normal use and service for a period of 90 days from the date of installation or for the remainder of the system's original warranty, whichever is greater, as set forth in the first sentence of this statement. The foregoing warranties will not extend to goods subjected to misuse, neglect, accident, or improper installation or maintenance or which have been altered or repaired by anyone other than OPW Fuel Management Systems or its authorized representative.

The buyer's acceptance of delivery of the goods constitutes acceptance of the foregoing warranties and remedies, and all conditions and limitations thereof.

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Introduction to HelpDesk

What is HelpDesk?

HelpDesk is a software application that allows remote programming and control of PV3500 site controllers.

Using a personal computer and a modem, you upload or download database files to and from the PV3500. These database files run on the PV3500, and control everything from how the PV3500 talks to the network to what pumps and terminals are attached to the PV3500.

Complete details about the PV3500 are in the PV3500 Installation Manual.

About the PV3500 Site Controller

Your *PV*3500 Site Controller with the Proprietary Card File feature offers the following:

- Site control for both retail and commercial clients
- Works with Gilbarco, Tokheim, Wayne, Schlumberger and Petro Vend PCT/COPT pumps and terminals
- Works with multiple brands of terminals and pumps simultaneously
- Site can be attended, unattended or offline
- Built-in Unitec® car wash interface
- **P**roprietary **F**leet **C**ard (PFC) for local authorizations
- Customers can pay for gas at the pump or at the indoor POS register
- PCF Setup File dialog box makes positive card creation a breeze
- Product and quantity restrictions can be assigned on a card-by-card basis
- Create prompts by card type or by individual proprietary cards
- Define up to four entry verifications for each PFC
- Local automatic card invalidation for wrong user entry capability
- Pre-defined, and ten user configurable, scripts for custom prompting

- Vehicle, Driver and Single PFC card types

- Card account capability

- Receipts are configurable for both inside POS and outside terminal

- Credit card transaction reports can be created either on POS printer or journal printer

The PV3500 PCF HelpDesk application running on your PC makes programming or operating the remote PV3500 site controller easy.

Installing HelpDesk

1. Insert the HelpDesk software CD-ROM into your computer's drive. The installer should start automatically.

- If it does NOT start automatically, select **Start** > **Run**. Click the **Browse** button, then navigate to the D: drive (or whatever letter you are using for your CD-ROM drive). Double-click the setup.exe icon to start the installer.

2. Answer **Yes** to the Install? confirmation. After program extraction, the InstallShield Wizard begins prompting you through the installation process.

3. Click **Next** after reading the Welcome screen.

4. CAUTION -- Note the default Operator and Password names on the next screen! If you forget these, you will NOT be able to log into Help-Desk.

- Item 2 in this screen tells you there is currently no online help in Help-Desk. Use this manual.

5. Follow the remaining steps, clicking **Next>** after reading each installation screen.

- The final InstallShield screen lets you either view a "readme" file and/ or launch the HelpDesk application. Click either, neither or both. If you click neither, the installer simply exits.

Starting the HelpDesk Application

1. If you did not select **Launch** in the InstallShield final screen, double-click the PV3500 HelpDesk icon.

2. Click **File**, and select **Common Directory**.

3. Choose a common directory (typically, C:\PV3500\COMMON) and click **Ok**.

4. Select a site directory: Choose **Open Directory** from the File menu.

5. Select **File** again. Choose the path to the common directory you defined in Step 2.

6. Enter your operator name and password.

7. Press Enter or select Login.

Exiting from HelpDesk

Disconnect from Remote Controller before exiting HelpDesk.

1. Click **File**.

2. Click **Exit**.

Getting Around in HelpDesk

Main Menu

The menu bar below appears after successful login. Each pull-down is detailed elsewhere in the book or help system.

Figure 1: PV3500 HelpDesk Main Menu Bar

File Menu
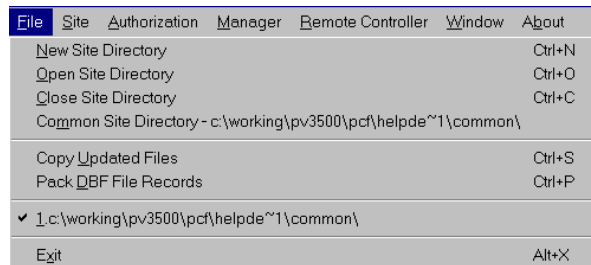
*Figure 2: **File** Drop-Down Menu*

Use the File pull-down to log in, to switch site and common directories.

- **New Site Directory** lets you create other data directories in which to store databases by site group, product and dispenser, or terminal ID. See *Page 103* to create a new directory.

- **Open** or **Close Site Directories**. Open logs you into a site directory. Close logs you out of that site directory.

- **Common Site Directory.** Storage location for files shared by all sites.

- **Copy Updated Files**. Copies all files on your local hard drive modified during current HelpDesk session to your choice of destination (a floppy disk for example).

- **Pack DBF File Records**. This is a disk housekeeping feature that removes empty space from database files to speed access time and free up hard drive space.

- The **check-marked pathname** shows the path to the currently open directory. Highlight this path as a shortcut to start HelpDesk from your last used directory.

- **Exit** closes the HelpDesk utility and returns you to Windows.

Site Menu

Use **Site** for most site set-up functions. Most operators have site privilege.

*Figure 3: **Site** Drop-Down Menu*

- **Site Setup** (name, address, phone numbers, etc.)

- **Site Options** (receipt availability, transaction counters, hard drive definitions, site operation mode, UPS options)

- **Site Configuration Report**. (Prints out site data like defined pumps and products).

- **Products** (group and individual product definitions)

- **Tanks** (name, product, totalizers, volumes).

- **Pumps** (model, PV3500 port, PPU, pump sentry, pump timers, hose definitions, groups)

- **Payment Terminals** (prompts, promotional message text, device scripts, receipt format, receipt header and footer creation, terminal types, and terminal keyboard lights)

- **Diagnostic Messages** (revise and choose destinations for error messages generated by various system devices).

- **Ports** (PV3500 port ID, task ID - if any - tied to this port, baud rate, word format)

- **Modems** (set up modem profiles, including port and task assignment)

- **Journal Printers** (journal printer ID, name, control sequences)

- **Operators** (assigning ID #s and names to HelpDesk operators, view Operator Log, place operators in Permission Groups and change their passwords)

- **Transactions** (All or Proprietary). Lets you manually select a database – "DBF" - file for viewing or printing all transactions or just those authorized in the proprietary card file (see *Page 113*).

- **Logfile** (BINary and text). Directly select a local record of all recently logged PV3500 activity. Text files are viewable, binary files must be converted before viewing.

Authorization Menu

The **Authorization** drop-down menu controls all aspects of card and network definition. It only appears for operators with sufficient privilege.
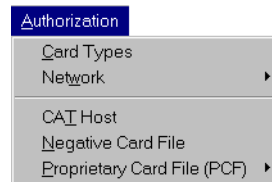
Figure 4: Authorization Drop-Down Menu

- **Card Types** (ID, limits and totals, magstripe format, tracks read, ISO and PIN, authorization type, card handling at fuel terminal)

- **Network**. For setting up the interface to the dial-up networks. Currently supporting Concord/Buypass and the Visanet network.

- **CAT Host**. Change parameters of a Card Activated Terminal hardware link (if present).

- **Negative Card File**. Copy, paste add or remove individual negative cards from the file.

- **Proprietary Card File (PCF)** Set up PCF templates for card groups, and edit individual cards.

Manager Menu

The **Manager** drop-down (*Figure 5*) only appears for operators with manager privilege.
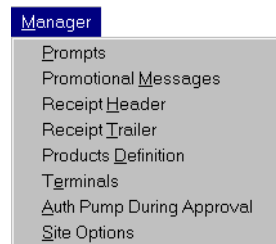
Figure 5: Manager Drop-Down Menu

- **Prompts** (Manager-changeable fuel terminal messages).

- **Promotional Messages** (messages displayed on terminal during fueling).

- **Receipt Header** (create or edit message at top of normal and car wash receipts).

- **Receipt Trailer** (create or edit messages at bottom of normal and car wash receipts).

- **Product Definition** (edit pre-defined car wash and product configuration names).

- **Terminals** (choose CAT terminal and/or Attended Terminal type for each fueling terminal on the system).

- **Auth Pump During Approval**. Allow customers to gas up before on-line authorization for their card is received.

- **Site Options**. Enable or disable Auto-Authorize (no-clerk-required authorization) and Nozzle Activated (transaction start is signaled inside) features.

Remote Controller Menu

The **Remote Controller** drop-down menu (*Figure 6*), like the Manager menu, only appears for operators with sufficient privilege.

Figure 6: Remote Controller Drop-Down Menu

When connected to the remote controller, you can manipulate files, stop and start the system, modify the operator list and run simple diagnostics on the remote hardware.

- **Connect** (starts dial out process to connect to PV3500)

- **Disconnect** (breaks connection with remote PV3500)

- **Link Setup** (defines a port on your PC so it can talk with the PV3500)

- **System Management** (a real-time "snapshot" of the remote PV3500, and controls for freezing, initializing, and stopping the system remotely)

- **Directory Upload** (move entire directories from local HelpDesk to the remote PV35000)

- **Files Management** (copy, rename or transfer files to and from local HelpDesk and remote PV3500)

- **Operator Management**. (Upload and reload operators from your Help-Desk computer to the remote site controller)

- **Upload Promotional Messages** (move new promo messages from local HelpDesk to the remote PV35000)

- **System Diagnostic** (gives real-time status and accumulated errors for various remote devices - terminal, pumps, controller disk, UPS, and others; remote terminal readers, remote serial ports and a locally stored log file).

- **Transaction File** (detailed information on individual, remotely stored transactions).

- **Negative Card File** (view or edit contents of remote file containing "bad" cards)

- **Proprietary Card File** (view or edit contents of the site file containing proprietary (user-defined) cards.

- **Operator**. This is whomever is currently logged into the HelpDesk application.

List Control Buttons

Figure 7: List Control Buttons

New. Creates a new list entry for the currently displayed window. For example, in the Products window, **New** lets you create a new product definition.

Edit. Edits an existing list item, typically the one highlighted. You can also edit a list item by double-clicking on it.

Copy. Copies all data in the highlighted list item to the Windows Clipboard. Used with Paste button. Use this to create new entries without having to re-enter data common to both entries again.

For example, say **1 Unleaded** is an existing product in the Product Definition list. Highlight **1 Unleaded**, then click Copy to place all of its settings (ID, Name, Product Group, Units, Department #, Tax Rate, Blend, etc.) onto the Clipboard. Next, use **Paste** (below) to begin adding the new item to the list.

Paste . Places items copied with the **Copy** button into the list. You must change AT LEAST the unique ID of the item before it is added to the list (for example, with a new product, you must change AT LEAST the "ID").

After clicking Paste, use the Edit button to make your new item unique. Click **Edit** to modify the item, or **Update** to overwrite the existing item with your copied item.

Delete. Deletes the highlighted item from the list.

CAUTION: *Deleting certain items may have a "ripple effect" in other screens and databases! For example, deleting a particular product group ID may cause problems in other functions, because Product Group is referenced from many places in the PV3500 program.*

Close. Closes the current window and returns you to the previous window.

Showing or Hiding the Toolbar

Check or un-check to show or hide the icon toolbar.

The toolbar gives one-click access to the following (from left to right) HelpDesk functions:

- Create new site directory
- Select a site directory
- Close a site directory
- Copy files to a specified directory
- Open the Site ID window
- Open the Pump Setup window
- Open the Terminal Setup window
- Open a Dial Setup window for modem properties

Window Management

Use to tile, cascade, minimize/maximize, and the other usual Windows screen and icon management commands.

Also select Window to turn ON or OFF the DBF Control Panel and the Main Menu Toolbar.

Filtering Information

DBF Control Panel

The database file (DBF) Control Panel moves you around in a database, lets you find a record within the database or saves changes on the fly.
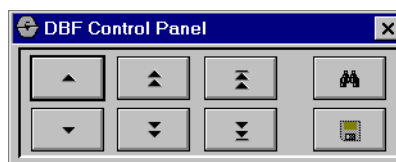
Figure 8: DBF Control Panel

Filtering a List

Many "list windows" let you filter data for ease of viewing and to reduce information overload.

To activate or change a list filter, place your cursor anywhere in most list dialog boxes and click the right mouse button to open the pop-up that's shown in *Figure 9*.
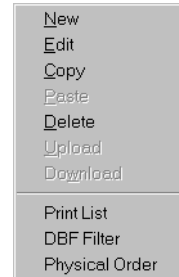
Figure 9: List Filter Pop-Up Menu

DBF Filter

Opens the Records Filter dialog box (*Figure 10*) for advanced list management. The DBF Filter lets you sort records using logical operators such as "greater than" or "less than."
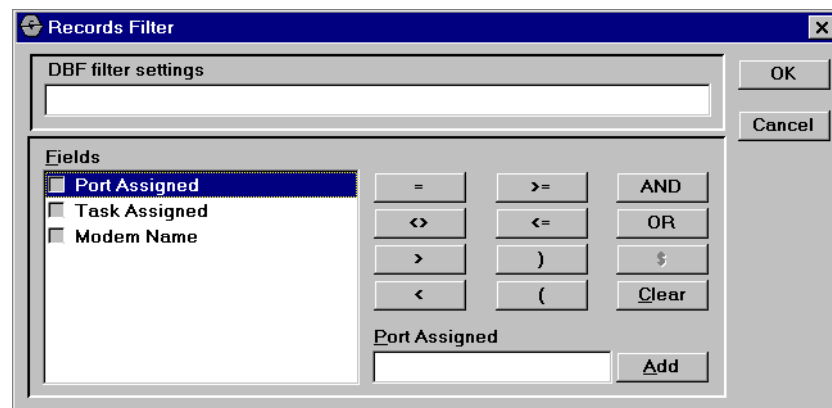
Figure 10: Records Filter Control

About the Records Filter dialog box

1. Right-click within any list dialog box.

2. Select **DBF Filter** to open the Records Filter dialog box.

You can enable the Control Panel to pop up above every list dialog box in HelpDesk.

1. Select **Window** from the main menu.

2. Check the **DBF Control Panel** option.

- Click on the "single arrows" to advance one database item up or down at a time.

- Click on the "double arrows" to advance up or down within the database approximately 10 items at a time.

- Click on the "double arrows with lines" to go to the beginning or the end of the displayed database list.

- Click on the "binoculars" button to open a Find Record dialog box. Search for records by whatever "key values" appear in the related list window. Highlight one of the values in the "Search Key Values" list and the relevant value or a drop-downappears in the area at the bottom of the window.

- Click the "floppy disk" button to save information in the current list window to the database and keep the window open. After clicking the "floppy disk" you can enter information for another record without having to click "OK" or "CANCEL."

Fields list

Whichever columns appear in the current list dialog box are shown here.

DBF Filter Settings

Each time you click one of the Filter Argument buttons, it appears in this field, allowing you to view your entire custom filtering scheme before running it.

Filter Argument buttons

In the Records Filter dialog box, the following conditions narrow your filtering scheme.

- Equal to X (all of a value)

- NOT equal to X (all except a value)

- Greater than X (all over a value)

- Less than X (all under a value)
- Greater than or equal to X (the value and all above it)
- Less than or equal to X (the value and all beneath it)
- Close parenthesis. Use to close your filter expression.
- Open parenthesis. Use to start your filter expression.
- Must meet BOTH of two conditions.
- Must meet EITHER of two conditions.
- Clear DBF Filter Settings field.

ID Field/Add button

After selecting each condition, click Add to place the logical symbol for that condition into the ID field.

Printing a Dialog Box List

1. Open a dialog box containing a list of items (example, Product Definition).
2. Right-click anywhere within the list.
3. Select **Print List** to open the Print Preview dialog box.

- To print the list directly to your Windows default printer click **Print**.
- To change printers or printer settings click **Setup**. See next page.
- To change the magnification of the view (not the printed form) select the Zoom drop-down.
- To move through the list pages click the arrow left or right buttons.

List Printer Setup

After you select **Print List** from the right mouse pop-up menu, click **Setup** in the Print Preview dialog to open the Print Setup dialog (*Figure 11*).
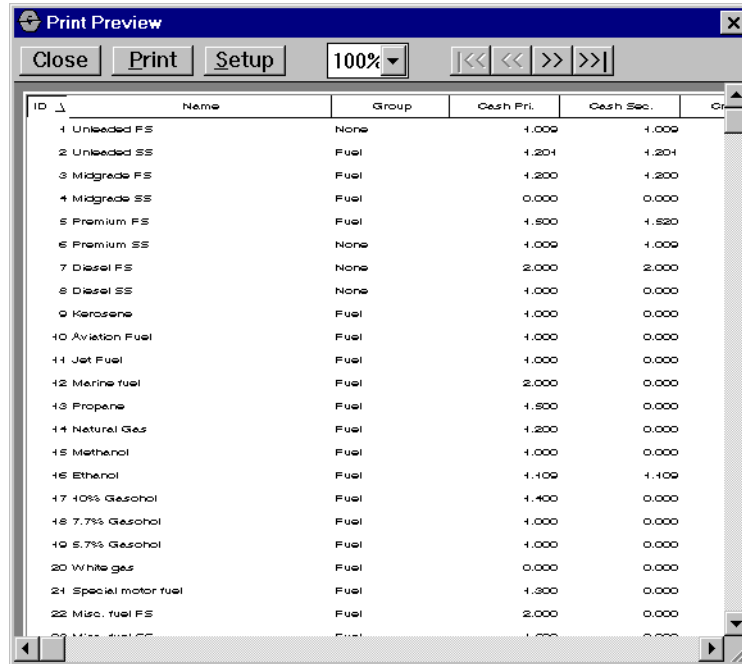
Figure 11: Printing Setup

1. Choose a printer with the pop-up. Modify its **properties** if needed.

2. Check **Print to File** to create a binary print file instead of hard copy.

3. Check **Print page number** for page numbers on the hard copy.

4. Rows on page sets automatically to fill page with 64 rows. Enter less if desired. This setting does not change font size.

5. Check the columns you want in your printout. Column width is fixed; selecting fewer columns does not increase column width.

6. Enter number of copies. For multi-page docs check **Sort** to collate the output.

7. Click **Print** to begin or **Ok** to close and save your settings.

Quick-Start Guide

To do the Quick-Start, you should have a working knowledge of the PV3500.

- This Quick-Start is NOT a complete configuration guide!

For more detail, see the section referenced by highlighted phrases in the step-by-step procedure.

Step-By-Step Quick-Start

Refer to the highlighted section of the HelpDesk manual for more information.

1. Select **Site**, **Site Setup** to enter general site information.

2. Select **Site**, **Site Options** to enter the more site-specific settings.

3. In Site Options check **Pump Restrictions** if certain cards will be restricted to certain *pumps* (NOT products).

4. Select **Site, Ports, Definition** to set up the PV3500 serial ports.

5. Select **Site**, **Operators**, **Definition** to view or change operator access to the PV3500.

6. Select **Site**, **Products**, **Definition** to edit or create product definitions.

- Products include fuel, merchandise and car washes. To avoid mistakes, modify the generic product database ("product.dbf") instead of creating a new one. For fast setup, all the products in the factory supplied product database are set to work with the system with NO user adjustments.

7. Select **Site**, **Products**, **Groups** and define the following product groups.

8. "**Fuel**" group. Assign all USED fuel products (regular unleaded, diesel, etc.) in here. Give all used fuel products ID numbers less than 100.

9. "**Unused Fuel**" group. Assign all unused fuel product definitions to this group. Give unused fuels IDs of over 100.

10. "**Merchandise**" group. Assign non-fuel goods like tires or batteries to this group. Give merchandise IDs above 100.

11. "**Car Wash**" group. All car wash products must go in Product Group 900. If you make new wash IDs, the ID number must be over 62.

12. Select **Site**, **Products**, **Restrictions**, **By Type**. REQUIRED if card uses product restrictions.

13. Select **Site**, **Products**, **Restrictions**, **By Quantity**. These are quantity restrictions for single transactions from within a proprietary card type. Select **Site**, **Pumps, Definition** to set up all pumps at the site controlled

by the PV3500. Click the **New** button to make new pump definitions. Make sure you choose Attended or Unattended Operation in the Pump Setup window for each pump.

14. Select **Site**, **Pumps**, **Groups** to define groups according to the site layout. You can reference these groups in the PCF card type as well.

15. Select **Site**, **Payment Terminals**, **Messages**, **Prompts**. The default prompts usually do NOT have to be modified.

16. Select **Site**, **Payment Terminals**, **Scripts**, **Definition**. Save modified scripts (only limited editing is allowed) as user-defined. You can add up to ten user-defined scripts. User-defined scripts must have ID numbers above 900.

17. Select **Site**, **Payment Terminals**, **Receipts**, **Definition**. Network card receipt formats are determined by the network provider. If separate formats are needed, define a separate format for all outside terminal and POS types.

18. Select **Site**, **Payment Terminals**, **Definition**. Define outside terminals. Assign prompts to them. If terminal controls one pump, make sure "CAT" and "Attended" flags are properly set.

19. Select **Site**, **Payment Terminals**, **Scripts**, **Sets**. Use to group scripts for PCF card use. Scripts within the set are then executed sequentially during card authorization.

20. Select **Authorization**, **Card Types**. All network cards must have correct network-assigned ID. Define PCF card types and Network card types.

21. Select **Authorization**, **Proprietary Card File (PCF), Record Setup**. Define which PCF fields are valid for each PCF card type. Also define default values for these fields.

22. If network cards are used, select **Authorization**, **Network** and your network to set up the parameters.

Of course, you may have other special setup needs depending on your system. This Quick Start only gives you an outline of a typical setup.

Site Information

Site Information Setup

About the Site Information Window

Select **Site**, **Site Setup** to open the Site Setup window, *Figure 12*. See the relevant section of this book for more information.

Figure 12: Site Information Window

Site ID
A number from 000 to 999, it can match the Location ID or be completely unrelated. Use your own numbering scheme if desired.

Site Name
Up to 25 letters or numbers, printed on receipts. Only the first 17 characters are visible in the Name field.

Site Address, City, State, Etc.
This information is printed on receipts along with the Site Name (above). Each of these fields can hold up to 30 characters, letters or numbers. The **Zip** field can hold up to nine numbers and a hyphen (for the "ZIP+4" format).

Sales Tax
Enter only if applicable to this site. The site manager should know the sales tax (or tax ID) number.

Site Telephone Numbers

The **Site Phone#** is the voice phone number at the site. The **Dialup#** is the number for HelpDesk's modem uses to connect to the site.

Languages

Both primary and secondary languages are limited to what this site is configured for. There is no translation capability in your PV3500.

Location ID

An optional number for reports or other purposes. Use it to further define this site along with the "Site ID."

End of Day

The time the site closes for reconciliation purposes, called "logical end of day". The check box enables or disables the logical end of day feature. DISABLE when a Point-Of-Sale terminal is used -- the POS performs the end of day function.

Site Contact Name

Here, fill in the site manager, or whomever the HelpDesk person making contact with the site should talk to. This does not have to be someone actually physically at the site. It might be a regional manager, or anyone who can answer questions about the site.

Site Options Setup

About the Site Options Window

Select **Site**, **Site Options** to open the Site Options window, *Figure 13*. Most fields are explained elsewhere in this manual.
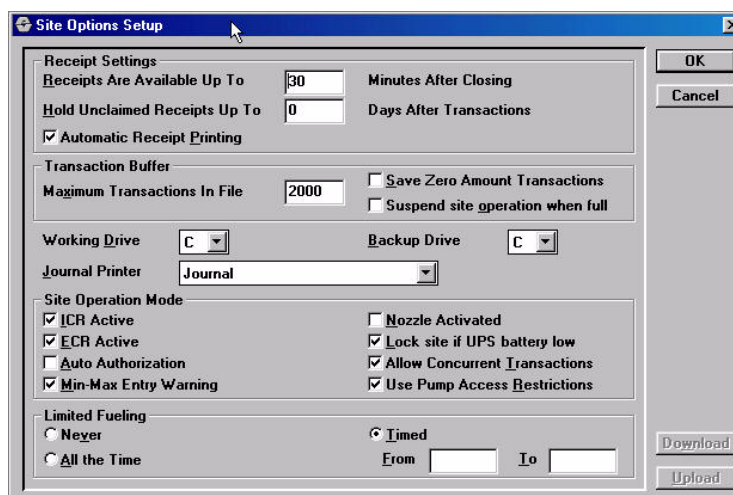
Figure 13: Site Options Window

Check the Use Pump Access Restrictions check box if the site's PV3500 will use the Pump Access feature.

Receipts Available up to...

For your last-minute customers, fueling at station close. Enter 1-999, this is how many days after the Physical End of Day that customers can request a receipt. ONLY APPLIES if Automatic Receipt Printing (below) is DISABLED.

Hold Unclaimed Receipts up to...

PV3500 saves receipts. Customers can return and get a receipt of old transaction from the payment terminal. *Receipts cannot be printed out after this time has expired*.

- Set to "0" for retail sites.
- Try a week (seven days) at first.
- Applies only if Automatic Reciept Printing (below) is DISABLED.
- Number of days is by DATE, not 24-hour periods. For example, setting to "2" makes receipts available for the rest of today, and until midnight tomorrow.
- DO NOT set the Hold Unclaimed Receipts field to "1 day." A customer could finish fueling at 11:59 pm, then come back at 12:01 am for a receipt and not be able to get the receipt because it is already the "next day." If set to "0 days," customers can never come back for a receipt.

Automatic Receipt Printing

If enabled, receipts are always printed, without customer prompting. Overrides the "Hold Unclaimed Receipts" and "Receipts Available up to" options.

Maximum Transactions in File

Transactions accumulate on your PV3500 hard drive up to this quantity. Then, if Overwrite Transactions is ON, oldest transactions are deleted as new ones come in.

Save Zero Amount Transactions

Saves all transactions, including those with a quantity or dollar value of "0.00". Zero amount transactions result from a pump handle being lifted, then replaced with no fuel dispensed. This often signals a bad pump. If Zero Amount Transactions is OFF, the transaction buffer contains only transactions in which fuel was actually pumped.

Overwrite Old Transactions

If checked, the oldest transactions in the buffer are erased to make room for new transactions. If NOT checked, a "buffer full" message appears instead; no further transactions are permitted until older transactions are manually deleted.

Working Drive

NOT ALL SYSTEMS. In OPTIONAL mirrored-disk systems, transactions are written to both the working drive and backup drive simultaneously. Letters A to Z are available; as with most desktop computers, "C" is default for the internal hard

drive. Select a valid drive letter to be the "working" (primary) drive. *NOTE: In some systems the drive letters may already be determined, and are not adjustable.*

Backup Drive

For *NON-mirrored* systems with two hard drives, assign the backup drive a different letter from the working drive (for example, "D").

In single-drive systems, you can define a backup directory (for example, a backup database directory could be labeled "BASE.BAK"). Of course, if the single hard drive fails, there is no guarantee the BAK directory will remain intact.

The only nearly foolproof way to back up data is with dual hard drives.

Journal Printer

Not all PV3500s support a journal printer, regardless of this setting. Use only if a journal printer is attached. Choices are NONE or JOURNAL.

ICR Active

ICR = Island Card Reader. Enable if this site has island card readers (Petro Vend's FIT or OPT, or any terminal with card readers built into the pump device).

ECR Active

ECR = Electronic Cash Register. Enable if this site uses electronic cash registers (like Petro Vend's PetroPRO).

Auto Authorization

Available only when "ECR Active" (above) is enabled. When enabled, pumps do NOT need a clerk's authorization to begin fueling after a customer starts a "pay inside" transaction.

Min/Max Entry Warnings

Number of mis-keyed entries permitted. If checked, and customer enters too few or too many characters, a script generates an error message such as `You Have Entered Too Many/Too Few Characters... Please Re-enter`. If box is NOT checked, original script is simply repeated after a time-out.

Nozzle Activated

If enabled, and a customer lifts a hose without pressing a "PAY INSIDE" key, the transaction's beginning is signaled to clerk inside station. **NOTE**: *If you change this, also change it in the* Manager *drop-down. Even if "ECR Active" is DIS-ABLED, the POS (ECR) receives a call when the pump handle is lifted.*

Lock Site if UPS Battery Low

This is how the PV3500 reacts to a low UPS (uninterruptable power supply) battery:

- **If Lock Site box IS checked**, the PV3500 enters an Internal Frozen state when battery voltage falls to a low set point. In this state, all data-

bases are closed, the site is locked, and all fueling terminals connected to the affected PV3500 display SYSTEM CLOSED (or equal message). The system remains in this state until the UPS battery is charged or is replaced with a fresh, fully charged battery.

- **If the Lock Site box is NOT checked**, the site remains open, but may not respond properly during a power failure. The UPS battery must have enough power to bring the PV3500 in for a "soft landing" during a power failure.

Allow Concurrent Transactions

Lets a single card be used for several transactions at the same time. For example, two drivers in separate vehicles could fuel at the same time using one card. Driver 1, after using the card to begin fueling his or her vehicle, would pass the card to Driver 2 who could then start a new transaction for his or her vehicle.

Use Pump Access Restrictions

Enables or disables pump restrictions set up in that part of Pumps setup.

Limited Fueling

The Limited Fueling area of the dialog box defines how so-called "club cards" (to define, see *Club Card Setup* on page 93) handle limited fueling:

- **Never** - Limited Fuel cards can ALWAYS fuel. This setting essentially overrides all limits on the club card.

- **All The Time** - Limited Fuel cards can NEVER fuel.

- **Timed** - Limited fuel cards only allowed to fuel daily between these times.

Site Configuration Report

A site configuration report is a hard copy summary of a site's defined products, tanks, pumps, hoses, terminals and other site parameters.

1. Select **Site**, **Site Configuration Report** to open the Print Preview window, *Figure 14*.
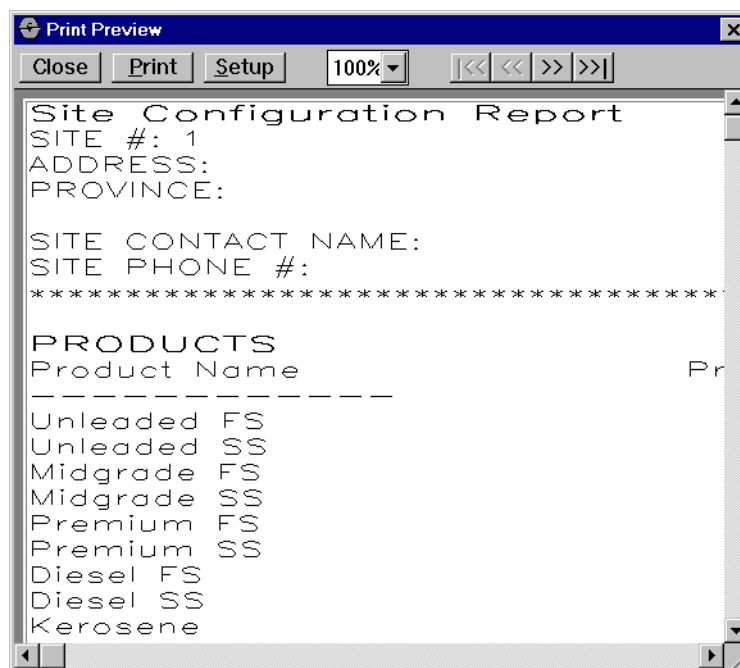
Figure 14: Print Preview Window

2. To print immediately to your Windows default printer click **Print**.

3. To choose a different printer or change other print settings (number of copies, etc.), click **Setup** to open the Print Setup box.

• Make changes as needed, then click **Print** to send the report to the printer or **Ok** to close the Print Setup box and save your changes.

Product Setup

Product Groups

About Product Groups

A product group is simply an ID number from 001 to 999, and a name. The Group number is a kind of "chapter" for your products; you can group together related products under a single group name. For example, Group ID 900 is reserved for car washes. All grades and price levels of car wash are within Product Group 900.

Important Notes about Product Groups

• Only the ID number must be unique.

• When executing a price change, all products with an ID of under 100 are sent to the Petro Vend PetroPRO POS device (if attached).

• Most applications use two groups (for example, "restricted" and "not restricted"), but some use four groups. A particular site determines the number of restrictions and groups.

• With some fuel networks, groups are EXTREMELY important for proper system operation. If Group IDs are supplied, USE THEM. Otherwise, the default groups are acceptable.

Car Wash Group

In the CAR WASH product group, a Car Wash ID is assigned to "car wash products" (Basic Wash, Super Wash, Ultra Wash, etc.) with different Discount Levels. See *Figure 15*.

For example, if you have three discount levels programmed for a Basic Wash, there are three "car wash products." Assign all three a single Car Wash ID.

Figure 15: Car Wash Product Group Window

DISCOUNTS

If **Group** is selected, Program is grayed out. Group Discount applies a selected "flat" Discount Level. **Program** lets you "fine tune" discount levels by Options that are programmed in the car wash controller hardware.

Creating a New Product Group

1. Click **Site**, then **Products**, then **Groups**.

2. Click the **New** button to open the Product Group Setup dialog box.

3. Enter a name and a unique ID number in the Group ID field.

4. If the new group is car wash-related, it MUST be Group 900. This is the only group with a fixed number. You are free to choose any unique three-digit number for all other groups.

5. Click **Ok**.

After groups are defined, assign products to the group. For example, after creating a "Fuel" group 1, you could assign product definitions "Unleaded," "Regular" and "Premium" gasoline products to Group 1.

Editing a Product Group

Editing a product group may involve more than changing a name or number change. Changing a product group ID may affect other screens in the Help-Desk program. If in doubt, create a new product group.

1. Click **Site**, then **Products**, then **Groups**.

2. Select a group from the list.

3. Double-click the item or click **Edit** to open the Product Group Setup window.

4. Change group name or ID, then click **Ok**.

Deleting a Product Group

CAUTION. *Deleting a product group may involve more than simply removing a name or number change. Removing a product group ID may affect other screens in the HelpDesk program.*

1. Click **Site**, then **Products**, then **Groups**.

2. Select a group from the list.

3. Click **Delete** to remove the Product Group from the system.

Product Definitions

About Product Definitions

This PV3500 database contains all default and user-defined products. The site customer typically supplies the product codes.

After product groups are defined, products are assigned to groups. For example, products like gasoline and diesel fuel could be put in a "Vehicle Fuels" group, while aviation gas or racing fuel could go in a "Special Fuels" group.

You could even give full-serve and self-serve modes of the same product different ID. This typically is done for billing purposes - when you create the product definitions, unit price is one variable.

About the Product Setup Dialog Box

Select **Site**, **Products**, **Definition** and then **New** or **Edit** to open the Product Setup box (*Figure 16*). Use this dialog box to either create a new product definition or edit an existing product definition.

Figure 16: Product Setup Dialog Box

Creating a New Product Definition

1. Select **Site**, **Products**, **Definition** to open the Products list window.

2. Click **New** to open the Product Setup dialog box.

3. Set up all products used at the site. This includes fuel, merchandise and car wash "products." Make all your changes to the generic product database. DO NOT attempt to create an entirely new database file.

*   *All needed products for some sites are pre-programmed in a database.*

Follow these rules for product ID numbers:

*   "**Fuel**" products. Assign all USED fuel products (regular unleaded, diesel, etc.) in here. Give all used fuel products ID numbers less than 100.

*   "**Unused Fuel**" products. Assign all with IDs of over 100.

*   "**Merchandise**" products. Treat as non-fuel goods. Give merchandise IDs above 100.

*   "**Car Wash**" products. All car wash products must be placed in Product Group 900.

Editing a Product Definition

1. Select **Site**, **Products**, **Definition**.

2. Double-click a product in the list to open the Product Setup window.

3. Edit any field as needed, then click OK.

Deleting a Product Definition

1. Select **Site**, **Products**, **Definition**.

2. Highlight the unwanted product in the list.

3. Click **Delete**.

Product ID
This three-digit number in the Product Setup dialog box is the unique code for this product. Use your network product codes here, if they are provided.

Product Name
Up to 25 letters and/or numbers for the product. Use a factory set name or your own.

Product Group
The group that this product belongs to. Before a group can be selected, it must be defined in the Product Groups function.

Units
Click and hold on this Product Setup pull-down to choose a unit of measure, currently Gallons, Liters, Pieces, Quarts, etc.

Department Number
For POS devices, set Department # to the same value as in the POS device.

Tax Rate
The PV3500's flexibility lets you define tax rates by individual product. If there is no specific product tax for this entry use the state sales tax for the state where the PV3500 is operating.

Blend Rate
Two-digit number is the percent of primary product in a blender scenario. For example, "30" means 30% primary product and 70% of a secondary product.

Blend Mix
Primary/Secondary. These fields activate when the Blend Rate field (above) is filled in. The Primary and Secondary pull-downs are product names.

Price Change Window

Select **Site**, **Products**, **Definitions**. Then, click **New** or double click a definition to open the Product Setup window. Finally, click the **New Prices**… button.

Primary/Secondary Prices

Because prices are usually set in the POS device, these fields can be left blank.

Product Totals Window

Select **Site**, **Products**, **Definition**, **New** or **Edit** and then the **Product Totals** button.

Figure 17: Product Totals Window

Choose a Price Tier, and change the totalizer settings as needed.

Totalizers

- **SHIFT BEGINNING TOTALIZER** is updated with the TOTALIZER value (below) each time a new shift is started.
- **DAY BEGINNING TOTALIZER** is updated with the TOTALIZER value (below) each time a new day is started.
- **TOTALIZER** is the "running total." It is updated after each transaction. Totalizer value is used as a baseline for the Shift Beginning and Day Beginning fields, above.

Price Tiers

You can set up to four "tiers" (levels) for product pricing. Selecting a tier tells the PV3500 to apply the chosen level to all transactions involving that product.

- **Tier 1** is Primary Cash.
- **Tier 2** is Secondary Cash.
- **Tier 3** is Primary Credit.
- **Tier 4** is Secondary Credit.

Factory set names

For many applications, you will NOT need to change these factory set names.

Product Restrictions

Product Restriction by Type of Product

Product restriction definitions are REQUIRED if the proprietary card uses any form of product restriction. Create product restrictions FIRST, and then assign them to proprietary cards.

1. Select **Site**, **Products**, **Restrictions**, **By Type**.

2. Click **New** to make a new restriction. Double-click a list item to edit it.
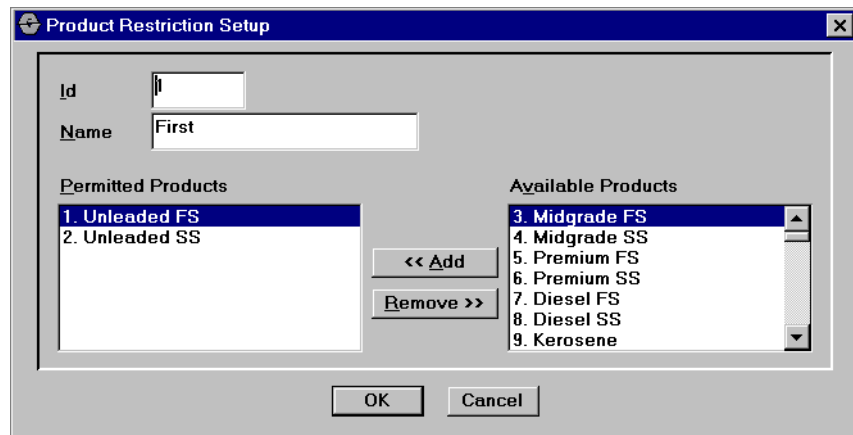
Figure 18: Product Restriction Setup Window

3. Scroll through Available Products.

4. Number preceding the product is the product ID.

5. To PERMIT Product: Highlight it in Available Products list and click **<<Add**.

6. To RESTRICT Product: Highlight it in Permitted Products side and click **Remove>>.**

- *In the example, the Product Restriction "Unleaded Only" contains only gasoline products.*

Product Restriction by Quantity of Product
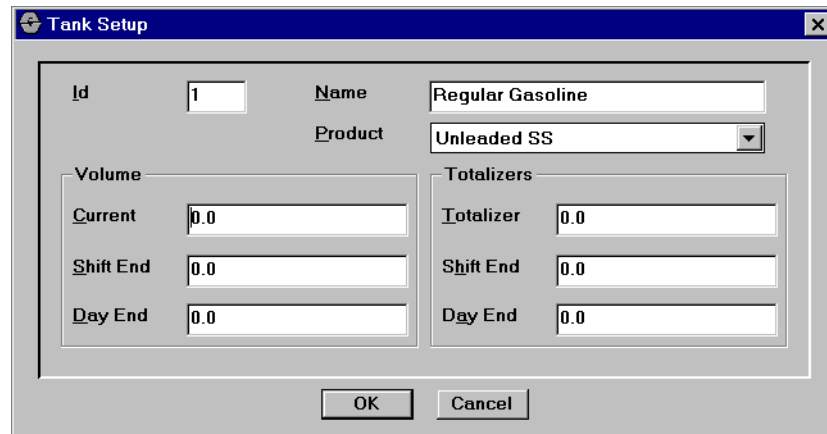
Some proprietary cards are programmed to restrict the quantity of a product dispensed within a single transaction. Use this HelpDesk function to let the PV3500 know quantities and products involved.

1. Select **Site**, **Product**, **Restrictions**, **By Quantity** to open the list window.

2. Click **New** to make a new quantity restriction. Double-click a list item to edit it.

3. Give the restriction a unique one or two-digit ID number.

4. Enter a Max. quantity. This is in whatever unit is defined for this product.

5. If restriction is by currency amount, check the **Currency** box.

- *For example, if units are gallons and currency is dollars, the sample dialog box above limits a single transaction for this card to 100 gallons or $100.00.*

Tank Setup

About the Tank Setup Dialog Box

Select **Site**, **Tanks**. Then, click **New** or double-click a tank in the list to open the Tank Setup dialog box.

Use the Tanks dialog to create a new tank definition or edit an existing tank definition.

Creating a New Tank Definition

1. Select **Site**, **Tanks**.

2. Click **New** to open the Tank Setup dialog box.

3. Enter a unique three-digit tank ID.

4. Give the tank a descriptive name (25 characters maximum).

5. Choose the pre-defined product that's in this tank.

6. Enter tank volumes.

7. Enter totalizer readings.

8. Click **OK** when done.

Editing a Tank Definition

1. Select **Site**, **Tanks**.

2. Double-click a tank definition in the list to open the Tank Setup dialog box.

3. Enter a unique three-digit tank ID.

4. Change the tank's name (25 characters maximum) if needed.

Deleting a Tank Definition

NOTE: *Tanks may be referenced from several places in the site controller application. Be sure you know what deleting a tank definition will do BEFORE you delete it!*

1. Select **Site**, **Tanks**.

2. Highlight a tank in the list.

3. Click **Delete**.

4. Answer YES or NO.

5. Click **OK**.

Tank ID

The Tank ID field in the Tank Setup dialog box is a unique three-digit number from 1 to 999. This is the tank number actually referenced by the PV3500 system.

Tank Name

The Tank Name field in the Tank Setup dialog is for your reference; this name is NOT used by the PV3500 system.

If the same product is in several tanks, give unique names to each tank. For example, Premium Unlead 1, Premium Unlead 2, etc.

Tank Product

The Product pull-down in the Tank Setup dialog lists all user- and factory-programmed product types. Select one product with the pull-down.

Before you can select them, products must be created with Product Definition.

Pump and Hose Setup

Pump Setup

About the Pump Setup Window

Select **Site** > **Pumps** to open the Pump list box (*Figure 19*).
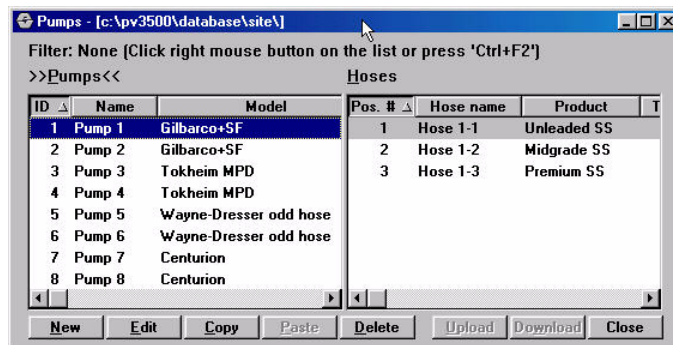
Figure 19: Pump List Window

Creating a New Pump Setup

1. Select **Site**, **Pumps, Definition**.

2. If you get a prompt asking "Unlock?" answer Yes.

3. Highlight the left pane of the list window.

4. Click **New** to open the Pump Setup dialog box.
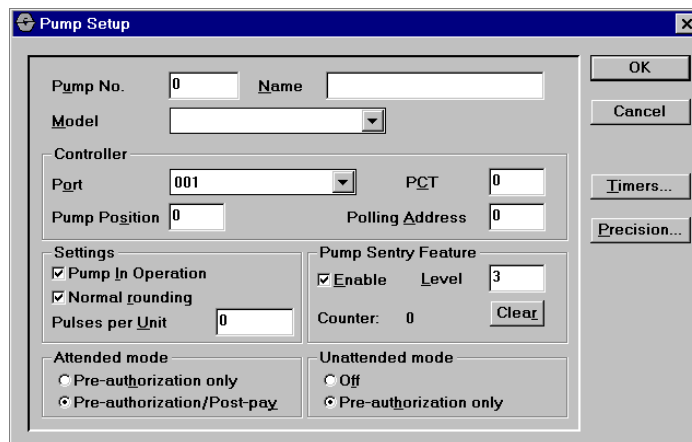
Figure 20: Pump Setup Window

5. Choose if this will be a line in a header, body, or trailer (footer) of the report.

6. If this is final line in the report, check the **Page Break After This Line** check-box.

7. Click the **Add Item** button to add variables to the line.

8. Select variables and other items from the **Add Variables** pull-down.

9. Click **OK** until you return to the first window.

10. Give the pump a unique ID number and name.

11. Select a pump model from the pull-down.

12. Choose the PV3500 port, position, PCT ("1" if only one PV3500) and polling address this pump uses to talk with the site controller.

13. Check **Pump in Operation** if pump will be active.

14. To round three-decimal-place prices to two decimals, check **Normal Rounding**. To truncate the third decimal clear the box.

15. Enter Pulses Per Unit.

16. If Pump Sentry is used, check the box.

17. Choose **Attended Mode** or **Unattended Mode**.

18. Set Pump Timers (fueling time limits) by clicking **Timers**.

19. Click OK when finished.

Editing a Pump Setup

1. Select **Site**, **Pumps, Definition**.

2. Double-click on a pump in the left pane of the list window.

3. Give the pump a unique ID number and name.

4. Select a pump model from the pull-down.

5. Choose the PV3500 port, position, PCT ("1" if only one PV3500) and polling address this pump uses to talk with the site controller.

6. Check **Pump in Operation** if needed.

7. Check **Normal Rounding** for third-place decimal round up or down. Clear to simply truncate third-place decimal value.

8. Enter Pulses Per Unit.

9. If Pump Sentry is used, check the box.

10. Choose **Attended Mode** or **Unattended Mode**.

11. Set Pump Timers by clicking **Timers**.

12. Click OK when finished.

Deleting a Pump Setup

CAUTION: *Pump definitions may be referenced from other parts of the HelpDesk application. Know the affect BEFORE you delete a pump definition.*

1. Select **Site**, **Pumps**.

2. Highlight a pump in the left pane of the list window.

3. Click **Delete.**

4. Answer Yes or No to the confirmation.

5. Click OK when finished.

Pump Number
In the Pump Setup dialog box, Pump No. is a unique (to this PV3500) three-digit ID for this pump.

Pump Name
In the Pump Setup dialog box, this is an up-to-25-character descriptive name for the pump. Typically, this is the product dispensed by one or more of the hoses attached to the pump (for example, "Unleaded, Premium."

Pump Model
The Model pull-down in the Pump Setup dialog box contains all available models of pumps programmed in this site controller. Click on the pull-down and select a model from the list. Current manufacturers in the model database include Gilbarco, Logitron, Wayne-Dresser, HOC, Gilbarco, Tokheim and Wayne (supported pumps may change without notice).

Controller Port
The Controller Port field in the Pump Setup dialog box is the PV3500 port number through which this pump operates.

The following table gives typical port assignments. Actual assignments may vary, depending on your exact configuration.

See the PV3500 Installation Manual for more details.

Pump Position
The Pump Position field in the Pump Setup dialog box is the relative order of this pump within this PCT.

PCT

PCT means Pump Control Terminal, a Petro Vend device that ties multiple pumps to one Petro-Net output. The PCT field in the Pump Setup dialog box specifies the PCT this pump is attached to.

Polling Address

Polling Address field in the Pump Setup dialog box relates to both pump number and the physical "pump head" address. Polling address depends in part on how many pumps are at the site, but the following guidelines generally apply:

- For sites with 16 or fewer pumps, all pumps are in one "loop". In such sites, Pump Number equals Polling Address equals Pump Head Address.

- For sites with over 16 pumps, the relationship is more involved. But remember: Polling addresses are reserved for specific loop locations and do not change.

- Polling addresses 1-16 are reserved for Loop 1. Polling addresses 17-32 are reserved for Loop 2

See the PV3500 Installation Manual for more information on loop setup.

Pump In Operation check box

Check the Pump in Operation check-box in the Pump Setup dialog if the pump can be accessed. To manually *disable* the pump, clear this box.

When Pump in Operation is checked, this pump's "Installed" status in the Pump list is "YES." When un-checked, Installed status is NO.

Normal Rounding check box

Some pumps (notably Gilbarco) use three-decimal precision (example $1.234) for prices, though only two decimal places display and print. The Normal Rounding check box is what the PV3500 does with these three-place values: If checked, the value is rounded normally; that is, 1.234 becomes 1.23, while 1.237 becomes 1.24. If cleared, the third place decimal is ignored: 1.234 OR 1.237 becomes 1.23.

Pulses per Unit

The PPU field in the Pump Setup dialog applies only to mechanical pumps. PPU is the number of pulses emitted by the pump's pulser for each unit of fuel delivered (for example, 100 pulses per gallon). The default is 100.

Attended Mode

A pump in Attended Mode can accept either "Pre authorization Only" or "Pre authorization and Post-Pay". Check either of those radio buttons in the Pump Setup dialog box.

- **Pre-Authorization Only** - If this radio button in the Pump Setup dialog box is ON, the site will allow NO FUELING until authorization on this card is received.

- **Pre-Authorization/Post-Pay** - Use pumps with cards or POS (pre- or post-pay). ENABLE for retail sites with POS.

Unattended Mode

Defines pump behavior for unattended sites. Unattended Mode can either be OFF (no pre-authorization allowed), or set to use "pre-authorization only."

- **Off** - The pump cannot be used any time the system is in Unattended Mode.

- **Pre-Authorization** - Pump can be used with cards (credit or proprietary) whenever system is in Unattended Mode.

Pump Sentry

The Pump Sentry area in the Pump Setup dialog box contains the following sub-controls:

- **ENABLE**. Check the Enable box to enable Pump Sentry. Deactivates the pump if the number of "zero" transactions set with LEVEL (below) appears back-to-back. A high number of consecutive "zero" transactions may mean pump or pulser problems.

- **LEVEL**. The number of consecutive "zero" transactions required to activate the Pump Sentry and deactivate the pump. Default is three.

- **COUNTER**: The total number of "0" transactions on this pump since last reset with CLEAR COUNTER button.

Pump Timers

Click the Timers button in the Pump Setup dialog box to open the Pump Timers dialog box.

The following transaction times are adjustable.

- Total Transaction Time

- Time Limit For Nozzle Up

- Time Limit For First Pulse

- Max Time Between Pulses (Missing Pulse Detect)

Max Time Between Pulses

The "Max Time Between Pulses" field in the Pump Timers dialog box maximum time allowed (in seconds) between fueling pulses. If a customer is fueling and for some reason stops (releases the handle), this is how long before the pump deauthorizes.

Total Transaction Time

The "Total Transaction Time" field in the Pump Timers dialog box is the time in seconds the customer has to fuel. Total Transaction Time begins the instant the

pump is authorized (activated). The pump is deactivated when this time is reached. No default; start at 360 seconds (six minutes).

Time Limit for Nozzle Up

The "Time Limit for Nozzle Up" field in the Pump Timers dialog box is the maximum time permitted (in seconds) for a customer to lift the pump handle after the pump is authorized. If the handle is not lifted within this time, the pump de-authorizes.

Time Limit for First Pulse

The "Time Limit for First Pulse" field in the Pump Timers dialog box is the longest time permitted (in seconds) to detect the first pulse (product flow) after the pump handle is lifted. If product flow is not detected within this time, the pump is deactivated.

Hose Setup

About the Hose Configuration Window

Select **Site**, **Pump**. Highlight the right pane of the window. Then, select either **New** or **Edit** to open the Hoses window, shown in *Figure 21*.

Figure 21: Hose Setup Window

The PV3500 "sees" a pump as a collection of hoses. Each hose dispenses a unique product. A single-hose pump (to the PV3500, a pump is a "black box") is literally a pump with one hose.

You can either create a new hose definition or edit an existing hose.

Hose Name

The Hose Name field in the Hose Configuration window gives this hose a name (example: "Mid-Grade Unleaded." The name can be up to 25 characters.

Creating a New Hose Setup

1. Select **Site**, **Pumps, Definition**.

2. Highlight the pump for which you want to define hoses in the left pane of the list window.

3. Highlight the right pane (Hoses) of the list window.

4. Click **New** to open the Hose Configuration dialog box.

5. Give the hose a Name (25 characters max).

6. Give the hose a unique Position number (01-99).

7. Choose a Product for this hose from the pull-down.

8. Enter a Container code for this hose.

9. Choose the Tank1 to supply this hose. If blended product, choose Tank2 also.

10. Enter Money Totals and Volume Totals if needed.

11. Enter an Offset in percent.

12. Click OK when done. Repeat for all hoses and all pumps.

• *Hose Status is shown at bottom.*

Editing a Hose Setup

1. Select **Site**, **Pumps, Definition**.

2. Highlight the pump for which you want to edit hoses in the left pane of the list window.

3. Double-click the hose in the right pane to open the Hose Configuration dialog box.

4. Give the hose a Name (25 characters max).

5. Give the hose a unique Position number (01-99).

6. Choose a Product for this hose from the pull-down.

7. Enter a Container code for this hose.

8. Choose the Tank1 to supply this hose. If blended product, choose Tank2 also.

9. Enter Money Totals and Volume Totals if needed.

10. Enter an Offset in percent.

11. Click OK when done.

Deleting a Hose Setup

Caution

Hoses may be referenced from several places in the site setup. Be sure you know what deleting a hose will do BEFORE you delete it.

1. Select **Site**, **Pumps, Definition**.

2. Highlight the pump from which you want to delete hoses in the left pane.

3. In the right pane, highlight a hose and click **Delete**.

4. Answer the confirmation YES or NO.

5. Click **OK** when done.

• *Pumps must have at least one hose defined.*

Hose Position

The Hose Position field in the Hose Configuration window is the relative placement within this pump for this hose. Enter a unique value from 01 to 99.

Hose Money Totals

• **Shift Beginning Totalizer** is updated with the TOTALIZER monetary value (below) each time a new shift is started.

• **Day Beginning Totalizer** is updated with the TOTALIZER monetary value (below) each time a new day is started.

• **Totalizer** is the "running total" of revenue and product volume. It is updated after each transaction. Totalizer value is used as a baseline for the Shift Beginning and Day Beginning fields, above.

Hose Volume Totals

• **Shift Beginning Totalizer** is updated with the TOTALIZER quantity value (below) each time a new shift is started.

• **Day Beginning Totalizer** is updated with the TOTALIZER quantity (below) each time a new day is started.

- **Totalizer** is the "running total" of product volume. It is updated after each transaction. Totalizer value is used as a baseline for the Shift Beginning and Day Beginning fields, above.

Container Code

Not used at all sites, use only if supplied. A unique number from 01-99 identifying fuel source.

Offset

The Offset field is not used in this HelpDesk version.

Hose Status

If the pump is on-line, all hoses are "Active."

Pump Group Setup

About Pump Groups

Pump groups allow you to group a site's pumps by product or grade similarity. For example, you can create an "Automobile Fuel" group containing only pumps for unleaded (or leaded) gasoline.

Define your site pump groups according to the layout of the site. You can then enter the group in the PCF card definition to specify which pumps can be accessed by the card.

You can either create a new pump group or edit an existing pump group.

About the Pump Group Setup Dialog Box

Select **Site**, **Pumps, Groups**. Then, click **New** or double-click a group in the list to open the Pump Group Setup dialog box.
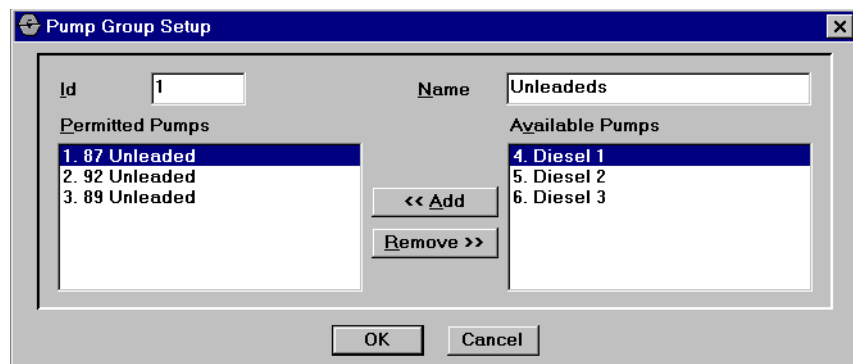
Figure 22: Pump Group Setup Window

Creating a New Pump Group

1. Select **Site**, **Pumps, Groups**.

2. Click **New** to open the Pump Group Setup dialog box.

3. Enter a unique ID (1-9) in the ID field.

4. Give the group a descriptive name.

5. Highlight pumps for the group in Available Pumps and click **<<Add**.

• *Up to 24 pumps can be included in the group.*

6. To remove pumps, highlight in Permitted Pumps and click **Remove>>**.

7. Click **OK** when done.

Editing a Pump Group

1. Select **Site**, **Pumps, Groups**.

2. Double-click a group in the list to open the Pump Group Setup dialog box.

3. Give the group a unique ID (1-9).

4. Give the group a name.

5. Highlight pumps for the group in Available Pumps and click **<<Add**.

• *Up to 24 pumps can be included in the group.*

6. To remove pumps, highlight in Permitted Pumps and click **Remove>>**.

7. Click **OK** when done.

Deleting a Pump Group

CAUTION: *Pump groups may be referenced from several locations in the PV3500 program. Make sure you know the repercussions to deleting a pump group BEFORE you delete it.*

1. Select **Site**, **Pumps, Groups**.

2. Highlight a group in the list.

3. Click **Delete**.

4. Answer YES or NO to the confirmation.

5. Click **OK** when done.

Print Transactions Every...Seconds

If a time in seconds is entered in the "Print Transactions Every…" field, the journal printer waits this long to check for new receipts before printing them all at once.

Print Transactions...None, All, From ICR, From ECR

Click one to say which transaction source is included in the printout:

- NONE. No transactions will print.

- ALL -Transactions from all sources will print.

Payment Terminal Setup

Terminal Setup Window

About the Payment Terminal Setup Window

Select **Site**, **Payment Terminals**, **Definition**. Then, choose **Edit** or **New** to open the Terminal Setup dialog box.
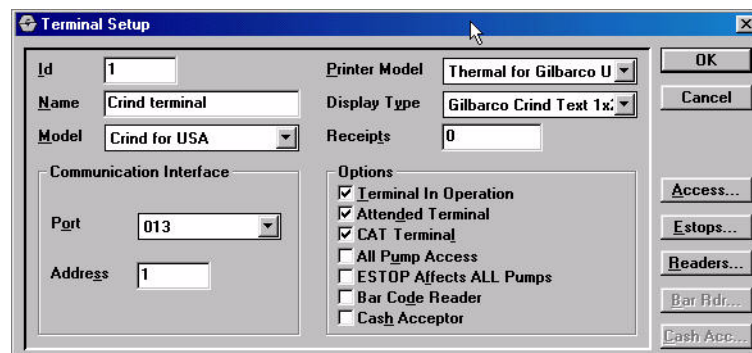
Figure 23: Terminal Setup Window

Terminal ID
The Terminal ID is the unique three-digit number that identifies the terminal within this PV3500 controller.

Terminal Name
The name is up to 25 characters, for descriptive use only. Not used by system.

Terminal Model
Select the terminal model (as close as possible) from the Model pull-down. Currently, choose from CRIND® USA, Terminal Tokheim, OPT or Wayne.

Printer Model
Use the Printer Model pull-down to choose the receipt printer installed in this terminal. Currently, choose a generic "ECR Printer", or more specific thermal printers for Gilbarco, Tokheim, OPT or Wayne.

• *If the terminal printer is not in the list, contact Petro Vend.*

Display Type

Use the Display Type pull-down to choose the LCD or other display screen installed in this terminal. Currently, choose displays for Gilbarco, Tokheim, OPT or Wayne.

Receipts

Number of receipts issued by this terminal.If new this is zero (0).

Communication Port

Select the PV3500 port this terminal uses from the pull-down.

Communication Address

Polling addresses 1-16 are reserved for Device Loop 1. Addresses and terminal IDs in single-loop sites is a one-to-one relationship. Polling addresses 17-32 are reserved for Device Loop 2. See the PV3500 Installation Manual for more details.

Terminal in Operation check box

When this box is NOT checked, the terminal is disabled and is not recognized by the PV3500.

Attended Terminal check box

Checking the Attended Terminal check box lets a customer begin a transaction with no authorization from inside the station. If this box is NOT checked, a clerk must manually start the transaction.

CAT Terminal check box

"CAT" means Card At Terminal. Checking the CAT Terminal box lets a customer start a POS (point-of-sale) transaction with their credit card at the pump.

All Pump Access check box

If the All Pumps Access check box is checked, all system pumps can be accessed from this single payment terminal.

ESTOP Affects ALL Pumps check box

ONLY APPLIES TO SYSTEMS WITH EMERGENCY STOP BUTTON. Check this box and all pumps will shut off if an emergency stop is performed.

Bar Code Reader

Check this if the terminal has a bar code reader built into it. When the box is checked, the **Bar Rdr...** button is enabled.

Cash Acceptor

Check if the terminal is equipped with a cash acceptor. When the box is checked, the **Cash Acc...** button is enabled.

Pump Access Setup

The **Access…** button in the Terminal Setup dialog box limits what pumps can be authorized from this payment terminal. Click **Access** to open a Pump Access Setup dialog box.

- Make pumps "permissible" by highlighting them on the **Available Pumps** (right) side of the list. Click on **<<Add** to put them on the **Accessible Pumps** (left) side of the list.

- Make pumps un-accessible by highlighting them on the Accessible Pumps (left) side of the list and clicking on **Remove>>**.

Card Reader Selection

The **Readers** button sets up readers and also tallies good and bad reads.

1. Select **Site**, **Payment Terminals**, **Definition**.

2. Double-click a terminal in the list, or click **New**.

3. Click **Readers…** to open the Card Reader Selection dialog box (*Figure 24*).

Figure 24: Card Reader Selection

4. Choose a reader model from the pull-down for Reader 1 and (if equipped) Reader 2.

- **Good Reads**. Card reads resulting in a completed transaction.

- **Triple Bad Reads**. Times that the same card failed three times in a row to be read.

- **Single Bad Reads**. Number of times that any card failed a read.

- **Failure Threshold**. Increments each time a bad read of any kind occurs. Decreased by one each time a good read is logged.

Bar Reader

The Bar Rdr button, enabled when the Bar Code Reader button is checked in this same dialog box, opens the window in *Figure 25* (for CRINDs) or *Figure 26* (for Wayne devices).
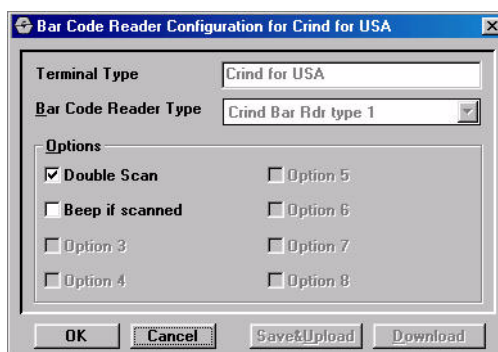
Figure 25: Bar Reader Configuration Window - CRIND
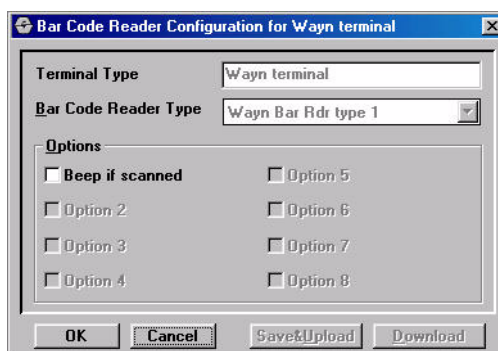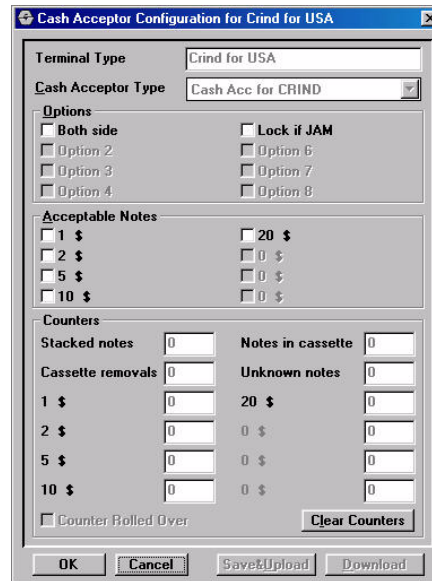
Figure 26: Bar Reader Configuration Window - Wayne

Cash Acceptor

The **Cash Acc...** button, enabled when the Cash Acceptor box is checked in this same dialog box, opens the window in *Figure 27*

Figure 27: Cash Acceptor Window - CRINDs

Figure 28: Cash Acceptor Window - Wayne

Prompts

Anatomy of a Prompt

The prompt is actually a small computer program, with control characters and text mixed together. The non-text symbols (", ^, etc.) are control codes that format the message and specifies how and where it will appear on the display.

```
~^4^p\x1ffSMS\x1fg16220Press here for help - - >\x1fg29019Cancel - -
>\x1ffMMS^J ENTER PIN:
```

This prompt produces the screen shown in *Figure 29* on a Petro Vend OPT:

Figure 29: Sample Screen Display

The "control codes" in the prompt:

~   Clear the display

^4   Insert pre-loaded picture #4

^p   Associate a help screen ("a" - "t") with this prompt[1].

\x1f   Start a new control code.

fSMS   Font size. Width/height/surface:

WIDTH: S = small (40 char per line)

---

1. There is a direct relation between letter and help screen number (a = 1, b = 2, etc.). In this example, help screen #16 will be used. The help screen "program" itself can contain this code; in this way, "chains" of help screens can be accessed by customer.

M = medium (20 char per line)

L = large (10 char per line)

X = extra large (5 char per line)

HEIGHT:

S = small (30 lines per screen)

M = medium (15 lines per screen)

L = large (7 lines per screen)

X = extra large (3 lines per screen)

SURFACE:

R = rough (little or no "smoothing" but memory saved)

S = smooth (edges rounded, but more memory used)

\X1f   Start new control code.

g16220   Go to this X/Y position[1].

First two digits (16) is horizontal position. Value can be from 00-39. Remaining three digits (220) is vertical position. Value can be from 000-239.

\1ffMMS   Font size 20 char per line, 15 lines per screen. Smooth.

Other Codes not in sample as below. Note that some single-letter codes replace codes on previous page for font style.

^A - ^O Go to line 1 -15.

^T   Display time at location specified

^V   Font size 40 char per line, 30 lines per screen. Smooth.

^Y   Font size 20 char per line, 30 lines per screen. Smooth.

\n   Line break ("RETURN" character)

1.

About the System Prompt List Window

Select **Site**, **Payment Terminals**, **Messages**, **Prompts**. Programmed prompts appear in the list window, shown in *Figure 30*.
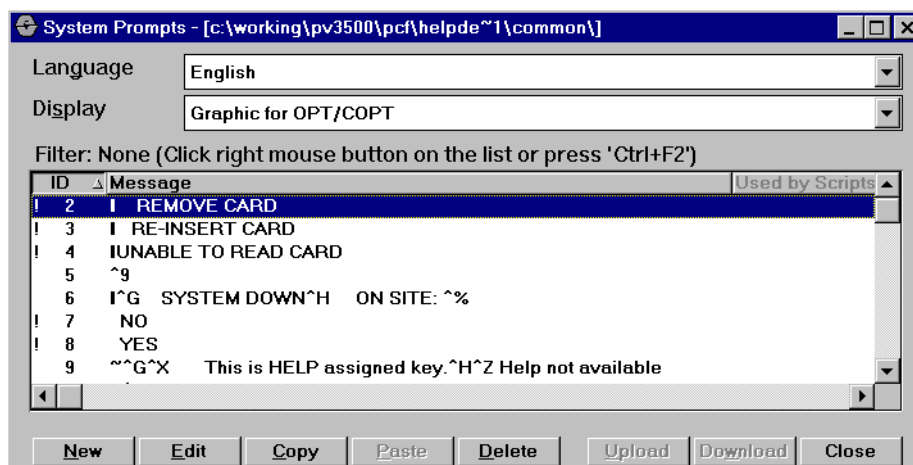
Figure 30: System Prompts List Window

The rectangular characters in the strings are condensed control characters; to view them or edit other parts of a prompt, double-click a prompt or click New to open a System Prompt Setup dialog.

About the System Prompt Setup Window

Select **Site**, **Payment Terminals**, **Messages**, **Prompts**. Double-click a prompt in the list or click **New** for the System Prompt Setup dialog box (*Figure 31*).
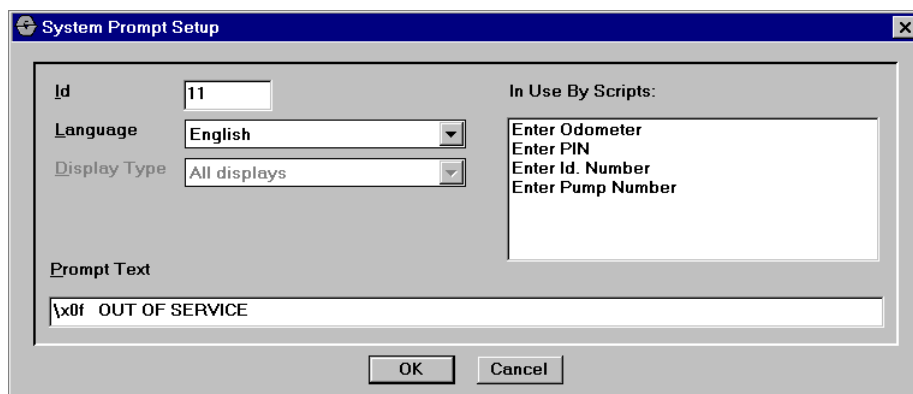
Figure 31: System Prompt Setup Window

You can either edit an existing prompt in the list, or create a new prompt.

Creating a Display Prompt

1. Select **Site**, **Payment Terminals**, **Messages**, **Prompts**.

2. Click **New** to open the System Prompt Setup dialog box.

3. Give your prompt a unique ID.

4. Choose the language group where this prompt will be stored.

5. Choose the kind of display where this prompt will "run."

6. Enter text and control characters for the prompt.

The "In Use By Scripts" list is read-only. It references you to scripts which use this prompt. For new scripts, of course, you must edit your script to include this prompt.

Editing a Display Prompt

1. Select **Site**, **Payment Terminals**, **Messages**, **Prompts**.

2. Double-click a prompt in the list to open the System Prompt Setup dialog box (*Figure 31* on *page 54*).

3. Give your prompt a unique ID.

4. Choose the language group where this prompt will be stored.

5. Choose the kind of display where this prompt will "run."

6. Enter text and control characters for the prompt.

The "In Use By Scripts" list is read-only. It references you to scripts which use this prompt. For new scripts, of course, you must edit your script to include this prompt.

Deleting a Display Prompt

NOTE: *Prompts may be referenced from several places in the site controller application. Be sure you know what deleting a prompt will do before you delete it!*

1. Select **Site**, **Payment Terminals**, **Messages**, **Prompts**.

2. Highlight a prompt in the list.

3. Click **Delete**.

4. Answer YES or NO to the confirmation.

Prompt Language

The Language pull-down in the System Prompt Setup dialog is a list of "groups" where this prompt or promotional message can reside. Choosing a language tags this prompt or promotional message to only be available in other parts of the site controller when this language is chosen.

A good use for Prompt Language is at a bilingual site; for example, a single controller will display English-language prompts or promos for one type of card and French-language prompts or promos for a different type of card.

Note there is no translation ability in the PV3500 or HelpDesk application.

Prompt Display Type

Prompts and other messages appear differently depending on the display on which they appear. Use the Display Type pull-down in the System Prompt Setup dialog box to match the display type in the terminal to the prompt or promo.

Adding Prompts to a Script

The "Used in Scripts" list in the System Prompt Set-up dialog is read-only. To add this prompt to a script, first create the prompt. When done, use the HelpDesk Script function to add the prompt.

Prompt Restrictions

You can limit who sees system prompts. Limiting is done by operator Permission Group.

1. Select **Site**, **Payment Terminals, Messages, Prompt Restrictions**.

    The System Prompt Restrictions dialog box opens. Each prompt has a check box. Inside each box is a key letter identifying who (as defined in Permission Groups) can view this prompt:

    X   Managers and Technicians can view

    M   Only Managers can view

    T   Only Technicians can view

    Blank- neither Managers nor Technicians can view.

2. Click repeatedly on a check box to toggle through all the letters.

To apply the same restriction to ALL prompts, toggle the check box near the **Apply to All Prompts** button and them click the button.

Click OK when done.

Now, only prompts matching an operator's permission group will be visible when that operator logs in to HelpDesk.

Promotional Messages

About Promotional Messages

Promotional messages are displayed during fueling sessions, while the driver is filling up the vehicle. You can program advertisements for your station's other products (see below), or other enticements.

For example, if your station has a car wash you could offer a free wash with the purchase of fifteen dollars worth of gas. This would convince some customers to fill up their tank, instead of just putting in a few dollars worth.

About the Promotional Messages List Window

Except for the title bar at the top of the windows, Promotional Message list and setup windows are the same as the System Prompt List and System Prompt Setup windows.

If a promotional message in the Promotional Messages list dialog box has an exclamation point to the left of it, it's for ALL display types.

Creating a New Promotional Message

Creating Promotional Messages is similar to creating System Prompts.

1. Select **Site**, **Payment Terminals**, **Messages**, **Promotional Messages**.

2. Click the **New** button.

3. Give the new promotional message a unique ID.

4. Select the language group where this message will go with the Language pull-down.

5. Choose the terminal's display type from the Display Type pull-down.

6. Enter your promotional message in the Prompt Text field. Control codes used are the

7. same as those for prompts.

8. Click **OK** when done.

Editing a Promotional Message

Editing Promotional Messages is similar to editing System Prompts.

1. Select **Site**, **Payment Terminals**, **Messages**, **Promotional Messages**.

2. Double-click a promo in the list to open the Promotional Message Setup dialog.

3. Give the promotional message a unique ID.

4. Select the language group where this message will go with the Language pull-down.

5. Choose the terminal's display type from the **Display Type** pull-down.

6. Enter your promotional message in the **Prompt Text** field.

7. Control codes used are the same as those for prompts.

8. Click **OK** when done.

Deleting a Promotional Message

NOTE: *Promotional messages may be accessed from several different controllers or terminals. BEFORE you delete a message, make sure you know where it's used.*

1. Select **Site**, **Payment Terminals**, **Messages**, **Promotional Messages**.

2. Highlight a prompt for deletion.

3. Click **Delete** and answer the confirmation.

4. Repeat as necessary; click **OK** when done.

Scripts

Caution

Incorrectly changing a script can cause the system to malfunction or stop working altogether. ONLY change scripts with the guidance of Petro Vend Technical Support.

About Event Scripts

Scripts are NOT user-created or edited. They are essentially instructions to the PV3500 on how to display or read media; for example, the script of a mag-card tells the PV3500 all about that particular type of card.
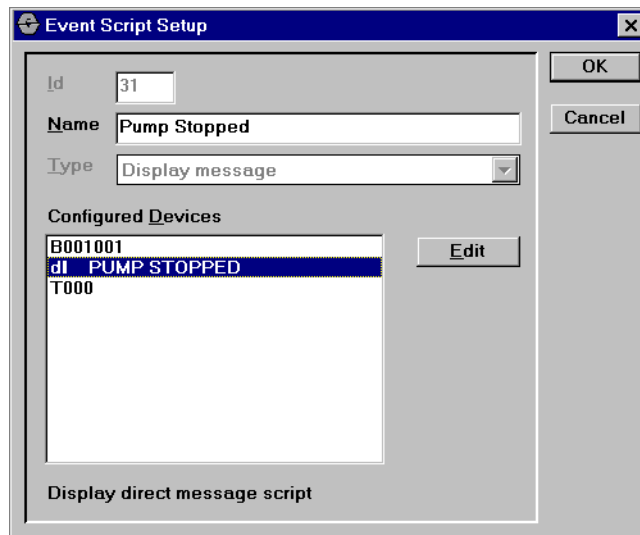
Figure 32: Event Script Setup Window

Scripts are stored in the application's database, and are downloaded to the PV3500 over the network. All you need to do is select one from the list.

Kinds of Scripts

There are Display, Keyboard, Beeper and Time-out scripts.
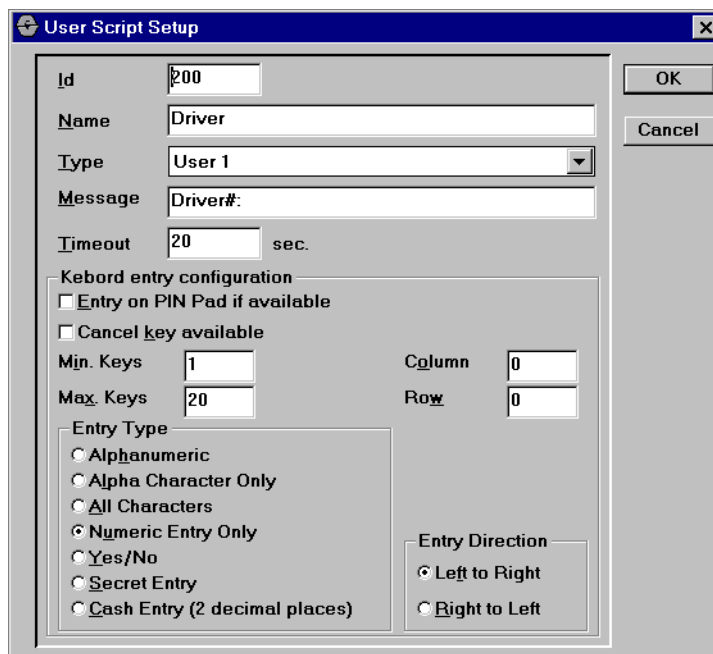
Script Sets

Script Sets are used to group scripts assigned to PCF cards. Scripts from the assigned script set are executed one by one during card authorization

(through PCF). Use the Script Set dialog box (Authorization, Script Sets) to add or remove scripts from script sets.

About the User Script Setup Dialog Box

Select **Site**, **Payment Terminals**, **Scripts, Definition**. Then, click **New** or double-click a USER script in the list.

The User Script Setup dialog appears ONLY for user-defined scripts, NOT factory scripts. Change factory-set script NAMES (not IDs or type) with the Event Script Setup dialog.

About the Event Script Dialog Box

Select **Site**, **Payment Terminals**, **Scripts, Definition**. Then, double-click a FACTORY-DEFINED script in the list.

- The Event Script Setup dialog appears ONLY for factory-defined scripts, NOT user scripts. User scripts are defined with the User Script Setup dialog box.

- Only the *name* of factory defined scripts can be changed.

Creating a User Script

User-defined scripts must have an ID of "100" or above.

1. Select **Site**, **Payment Terminals**, **Scripts, Definition**.

2. Click **New** to open the User Script Setup dialog box.

3. Give the script a unique ID number over 100.

4. Name the script.

5. Choose a script type.

6. Enter a "direct message" in the **Message** field if desired.

7. If time-out is used enter time-out in seconds.

8. The remainder of this procedure is only for keyboard scripts.

9. Enable PIN pad entry or a **CANCEL** key if needed.

10. Enter the fewest and most keystrokes for a valid entry.

11. Custom keyboards only: Enter a keypad column and row.

12. Choose an entry type with a radio button.

13. Choose the entry direction.

Editing a Script

Factory assigned scripts can only have their name changed. Factory script ID and type are fixed.

1. Select **Site**, **Payment Terminals**, **Scripts, Definition**.

2. Double-click a script in the list to open the Event Script Setup box (factory scripts) or the User Script Setup dialog box (user-defined scripts).

3. Rename the script.

4. Click **OK**.

Script ID

A **Script ID** is a unique code given the script during its creation. ID cannot be altered in this window. Also see the list of Factory-Assigned Scripts.

Script Name

The Script Name is a descriptive name of up to 25 characters. A name defining the action is best (example: "Enter ID"). It can be changed. This is the name you see in the "Used By Scripts" field in prompt set-up dialogs.

There are factory assigned scripts pre-programmed in the site controller.

Script Type

The Script Type field in the Event Scripts dialogs reflects the device or action on which this script will "play". Scripts are grouped into *types*. For example, the factory "Display Message" script type contains a "Remove Card" and "Pay Inside" script.

Script Message

The Script Message field in the Event Script dialog is a "direct" message displayed when the script is executed. Use the message with variables: for example, a direct message of "Your limit for this transaction is X" where "X" is the variable.

- *Do NOT use direct messages in multi-language applications.*

Script Time-out

The Script Time-out field in the Event Script dialogs is measured in seconds. Depending on script, time-out can be:

- How long a script is allowed to execute
- How long to wait for user input
- How long to display a message.

Zero here means infinity -- script will never stop executing, user input is never shut off, or message displays "forever."

PIN Pad Entry

Some electronic cash registers (ECRs) have an additional PIN pad for customers to enter their personal identification numbers and other confirmation data. Checking this box enables those PIN units.

Min Keys/Max Keys

The **Min. Keys** field in the User Script Setup dialog box is the minimum number of keystrokes a customer must press on the fueling terminal keypad to make the current entry valid. Similarly, **Max. Keys**. Is the most keystrokes a customer can press on the fueling terminal keypad for this entry before the entry is ruled bad.

Column/Row

The **Column** field in the User Script Setup dialog box is the left-to-right position in the terminal display matrix. The **Row** field is the top-to-bottom position in the terminal display matrix.

Entry Type for Scripts

The Entry Type radio buttons in the User Script Setup dialog box let you limit the entry data as follows:

- **Alphanumeric**. Allows only letters and numbers.
- **Alpha Character Only**. Permits only letters (upper/lower-case).
- **All Characters**. Permits all keyboard characters, including punctuation.
- **Numeric Entry Only**. Permits entry of 0 - 9 only, and rejects letters.
- **Yes/No**. Allows only Y or N (or YES or NO keypad) as a response.
- **Secret Entry**. For PIN numbers, these entries are echoed back to the screen as asterisks.
- **Cash Entry**. Auto-formats entries with two decimal places (0.00).

Entry Direction for Scripts

To specify how characters "flow" onto the terminal display, click the **Left-to-Right** or the **Right-to-Left** radio button in the Entry Direction area of the User Script Setup dialog box.

Encoding Method

Which Encoding Method radio button you choose in the Keyboard Script Setup dialog box depends on the Entry Type:

- For type "Secret Entry", select Petro Vend System2.
- For all other entry types, select None.
- "DES" is not supported in this software version.
- Encoding Method is how keyboard entry is translated between the payment terminal and the PV3500. Encoding Method DOES NOT specify PIN card encoding!

Beeper Scripts

ID #	Displayed message
1	Insert Card
2	Insert Card - time-out
9	Enter Odometer
11	Use Pump
14	Enter Id. Number
15	Enter PIN
16	Re-enter PIN
17	Driver Number
18	Vehicle Number
19	Sale Trans
20	Do You Want Car Wash
21	Can Not Void Car Wash
22	Receipt With Car Wash
23	Return Transaction
24	Authorize, Call Center
25	Card For Void Trans.
26	Use pump - handle lifted
27	Not used.
28	Print receipt
29	Authorizing...
32	Card Invalidated
33	Bad Card
34	Invalid Card
35	Restricted Product
36	Daily Limit
37	Transaction Denied
38	Transaction Canceled
39	Incorrect Card
40	Incorrect Use of Card
41	Re-enter Driver
42	Re-enter sale trans
43	Print Coupon
44	Fueling - inside payment
45	Fueling - With Car Wash
46	Use pump 'no time-out'
47	Cannot Start Pump
48	Pay inside or insert card
49	Remove nozzle wait auth

50	Wait for auth
51	Remove nozzle
52	Remove nozzle - beep
53	Pay inside
54	Pay in side
55	Receipt beep
56	System close
57	Enter product
58	Buffer full
59	Pickup card
60	Call credit center
61	Bad entries
62	Card expired
63	No valid products
64	Host failure
65	Voice auth
67	Bad Pin
68	Reprint Receipt
69	Card Disabled At The Cat
70	Invalid Account
71	Unauthorized Fuel Type
72	No Velocity Entry
73	Gas Only
74	Enter Restriction Code
75	Batch Already Closed
76	Transaction Prev. Voided
77	Credit Not Available
78	Not The Same Card
79	Denied - See Attendant
81	Enter Card Type
82	Invalid Vehicle
84	Prepay Not Used
85	Beep for insert card
86	Beep pay inside or insert
87	Limit reached
88	Merchandise Warning
89	Pay Inside w/Time-out
90	Fueling - Pay Outside
91	Thank You
92	Enter Card Type 1

93	No Manual Entry
94	Use Imprinter
95	Extended Terms
96	Discount Info
97	Car wash Menu
98	Local Approval
99	Bad Car Wash Selection

Beeper scripts sound a beep when certain conditions (like incorrect entry or keypad activation) occur.

- **Type**. In this software version, choose Normal beep or General beep.

- **Duration**. Beep time in seconds from 1 to 999 milliseconds.

- There is also an Optional Field (Length/Data) entry available.

Display Scripts

Select **Site**, **Payment Terminals**, **Scripts, Definition**. Click **Edit**. Then, double-click an event script that begins with the letter "D" (for display).

- **Direct (non-prompt) Message**. A direct message is a message created in a script that will be displayed when the script is executed. Use this along with a variable: for example, a direct message of "Your limit for this transaction is X" where "X" is the variable. Normally this box is cleared. *It is suggested you do NOT use direct messages in multi-language applications*.

- **Direct Message Text**. When Direct Message is ON, type your non-scripted message for display here.

- **Language**. Choose an available language from the pull-down.

- **Display Type**. *Not active in this version, leave at ALL DISPLAYS.*

- **Entry Prompt**. An entry prompt is a regular message or prompt that is displayed once a script is executed.

- **Repeat Prompt**. A repeat prompt can be set to alternate with the entry prompt. Example: the entry prompt could be "Welcome to Fuel World." The repeat prompt could be "Please insert card."

- **Error Prompt**. This is the prompt displayed if there is a card reader enabled and the retries specified in "Keyboard enabled after N number of retries" have been used up.

- **Time between "Entry" and "Repeat"**. After the Entry Prompt appears (in the previous example: "Welcome to Fuel World") this is the time, in seconds, before the Repeat Prompt ("Please insert card") appears.

- **NOTE:** In receipt printing scripts, the Entry, Repeat and Error messages work as follows:

Entry   This message displays while receipt is printed.

Repeat   Displays when receipt is successfully printed.

Error   Appears if printer malfunctions (paper out, jam).

TimeBetween The maximum time to display repeat or error message.

There is also an Optional Field (Length/Data) you can add your own parameters.

Keyboard Scripts

1. Select **Site**, **Payment Terminals**, **Scripts, Definition**.

2. Click **Edit**.

In the "Configured Devices" list, double-click on a device script that begins with the letter "K" (for keyboard) to open the Keyboard Script Setup dialog box.

3. Select **Site**, **Payment Terminals**, **Scripts, Definition**.

4. Click **Edit**.

5. In the "Configured Devices" list, double-click on a device script that begins with the letter "K" (for keyboard) to open the Keyboard Script Setup dialog box.

6. Decide if Entry on PIN Pad if Available.

7. Define the valid length of a keypad entry with the **Min. Keys** and **Max. Keys** fields.

8. Choose display "position" (left/right and top/bottom) with the **Column** and **Row** fields.

9. Click one of the **Entry Type** radio buttons.

10. If other custom entries will be allowed, use the three **Optional Field** areas.

11. Choose from which side of the display a prompt will appear with **Entry Direction.**

12. Depending on your Entry Type, choose an **Encoding Method.**

13. Click OK when done.

Time-out Scripts

Time-out is measured in seconds.

Depending what type of script the time-out affects, time-out is:

- How long a script is allowed to execute

- How long to wait for user input

- How long to display a message.

If zero is entered, script will never stop executing, user input is never shut off, or message displays "forever."

Optional Field

Select **Site**, **Payment Terminals**, **Scripts**, **Edit** or **New**. The Optional Field entries are available only for "**K**" type (keyboard) Configured Device scripts.

Optional Field contains three components: TYPE, LENGTH and OPTIONAL DATA. FIELD NAME = F.

XXXX.XXXX (left "X" is bit 8, right "X" is bit 1)

OPTIONAL DEVICE BITMAP

BIT	SETTING/FUNCTION
1	CANCEL key
2	Primary language
3	Secondary language
4	HELP key
5	*Not used.*
6 and 7	Always ON (1)
8	Always OFF (0)

Example: F!k - k = 0x6B = 0110 1011 - enable: cancel key, primary language, Help for IOL, Pay Inside Key, Start Key, Pay Outside Key.)

Receipts

About Receipts

Receipts must be defined for ALL systems that have in-pump card readers, as well as for ECR (electronic cash register) setups.

Defining a receipt involves giving it an ID, a name, assigning it to a printer type, defining its language, and most importantly, connecting a "Format File" to the receipt.

Receipt configurations are used in scripts and other places in the system.

About the Receipt Setup dialog box

Select **Site**, **Payment Terminals**, **Receipts, Definition**. Then, click **New** or double-click a receipt in the list to open the Receipt Setup dialog.
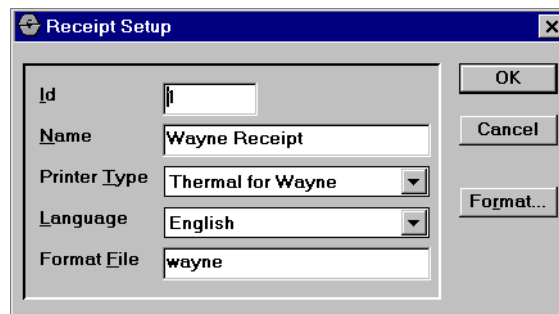
About the Receipt Header Dialog Box

Select **Site**, **Payment Terminals**, **Receipts, Header** to open the Receipt Header dialog box.

About the Receipt Trailer dialog box

Select **Site**, **Payment Terminals**, **Receipt Trailer** to open the Receipt Trailer dialog box. This box, except for its title bar, is identical to the Receipt Header dialog box.

Creating a Receipt Definition

1. Select **Site**, **Payment Terminals**, **Receipts, Definition**.

2. Click **New**. This opens the Receipt Setup dialog box.

3. Give the receipt a unique three-digit ID.

4. Descriptively name the receipt with up to 25 characters (example: "Wayne Thank You").

5. Select the receipt printer that will print these receipts (example: "Thermal for Wayne")

6. Select a receipt language group for this receipt.

7. Choose the format file where this definition will be kept.

8. Click **OK** when done.

Editing a Receipt Definition

1. Select **Site**, **Payment Terminals**, **Receipts, Definition**.

2. Double-click a receipt in the list to open the Receipt Setup dialog box.

3. Give the receipt a unique three-digit ID.

4. Descriptively name the receipt with up to 25 characters (example: "Wayne Thank You").

5. Select the receipt printer that will print these receipts (example: "Thermal for Wayne")

6. Select a receipt language group for this receipt.

7. Choose the format file where this definition will be kept.

8. Click OK when done.

Receipt ID

The Receipt ID is a unique number that defines receipt format and content. You assign this number in the Receipt Setup dialog box (**Site**, **Payment Terminals**, **Receipts**).

Receipt Name

Enter up to 25 letters or numbers in the Receipt Setup's Name field. This name should describe the terminal and the message; for example, for a Wayne CAT thermal receipt printer, call the receipt "wayne_thermal."

Receipt Printer

The Printer Type pull-down in the Receipt Setup dialog box lists all receipt printer drivers currently installed on the PV3500 hard drive. Choose the terminal receipt printer from the list.

Receipt Language

The Language pull-down in the Receipt Setup dialog box lists language groups currently programmed on the PV3500 hard drive. There is no translation capability on the PV3500. This selection merely groups the receipt in a group for viewing by terminals defined to show this language.

For example, if some of the site's terminals are French-language, you'd put all French-language receipts in the "French" group.

Receipt Format File

Use the Format File field in the Receipt Setup dialog box to enter the filename on the PV3500 hard drive where receipt definitions are stored. In many cases this filename matches the receipt name.

Receipt Headers

A receipt header is an image, saved as a file with a ".pic" extension (example, HEADER1.PIC). PIC image files in the currently selected site directory. You can view the "pic" files in the Receipt list dialog box (**Site**, **Payment Terminals**, **Receipts**).

With sufficient operator privilege, you can edit the header. If you edit the header (either the regular or the car wash header (example: "This receipt good for one wash") is printed on the receipt when a wash is authorized The authorization could be automatic (free wash with 10 dollar purchase for example), or manually entered as a sold "item" on the POS.e car wash header), save your changes by clicking the **Save** button.

From the Receipt Header dialog box you choose a receipt filename, and then create a header and a separate car wash header.

If you want, enter this information as a receipt trailer (footer) instead.

Receipt Trailers

A receipt trailer is an image, saved as a file with a ".pic" extension (example, TRAILER1.PIC). PIC image files in currently selected site directory.

Many trailers can simply be the phrase "THANK YOU."

With sufficient operator privilege, you can edit the trailer. If you edit the trailer (either the regular or the car wash trailer), save your changes by clicking the Save button.

From the Receipt Trailer dialog box you choose a receipt filename, and then create a header and a separate car wash trailer. The car wash trailer (example: "This receipt good for one wash") is printed on the receipt when a wash is authorized The authorization could be automatic (free wash with 10 dollar purchase for example), or manually entered as a sold "item" on the POS.

If desired, you can enter this information as a receipt header instead.

Keyboard Lights

Keyboard Lighting

If the terminal supports external lighting control, use this Payment Terminal feature to tell your system what time the back-light in the display of your payment terminals will go on and off.

1. Select **Site**, **Payment Terminals**.

2. Select **Keyboard Lighting** to open the Keyboard Lighting Setup dialog box.
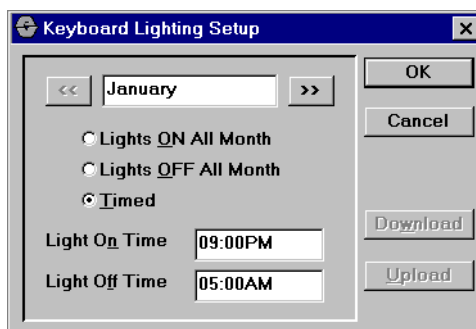
3. Using the month selector, specify ON and OFF times for each month.

Lights ON All Month.
If this is checked, the lights will be ON all during the month shown.

Lights OFF All Month.
If this is checked, the lights will be OFF all during the month shown.

Timed
If checked, the Light ON Time and Light OFF Time fields below the button activate, allowing you to enter a time for the lights to go on and off each day during the indicated month.

In the dialog box above, during the month of January, lights will come ON at 9 pm every day, and go OFF at 5 am the next day.

4. Choose the pre-defined product in this tank.

5. Revise tank volumes if needed.

6. Enter totalizer readings if needed.

7. Click **OK** when done.

Diagnostic Messages

You can edit what factory-assigned messages say, and change what actions occur when a message is summoned by an error condition.

Remote diagnostics are explained on *Page 138*.

View Existing Messages

1. Select **Site**> **Diagnostic Messages** to open the Diagnostic Messages Setup frame (*Figure 33*).
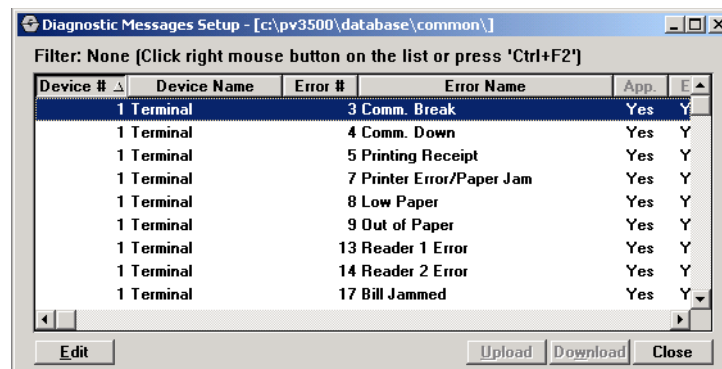
Figure 33: Diagnostic Messages Setup List Form

- To read the complete **Error Name**, point and drag the column header to the right to expand the column width.

- Default list is sorted by **Device #**. To sort by another column, click that column header. For example if you know the error message click on the Error Name header to sort the messages alphabetically.

- **App** column: If Yes, then this message's actions occur at Appearance (beginning) of an event.

- **End** column: If Yes, the message actions happen at end of the event (for example, Send to Network).

Note

Message actions can occur both at the appearance and at the end of events.

Editing Diagnostic Messages

1. Double-click a diagnostic message in the list to open the Diagnostic Message detail form (*Figure 34*).

Figure 34: Diagnostic Messages Detail Form

- When **Print on Journal** is checked, you can edit the text in the Print Message field, and the message is sent to the journal printer when the related error occurs.

- If the **Display** action check-box is checked, you can edit the text in the Display Message field. If the box is NOT checked, that field is read-only. The text will appear on the screens of POS devices, if the system is configured for POS.

- When **Write to Logfile** is checked, the system sends a binary version of the Display Message field to the HelpDesk software.

Note

If the site is NOT POS-equipped, be sure to check either (or both) the Print On Journal or Write to Logfile check boxes. If neither of these boxes is checked and your site does not have a POS, the error message will NOT be recorded anywhere.

- You *cannot* edit the **Device** or **Event** fields; these are factory set and cannot be changed.

- **Appearance** means what happens when the message first appears; **End** is actions to be taken at end of the duration of the diagnostic message.

2. Check desired actions and revise display or printed messages as needed.

3. Click **Save** to write your changes to disk and continue working in the window, or click **Close** when done.

Port Setup

About Ports

You *must* specify the communication settings and task assignment for each modem and serial port on your system. Use serial ports to connect POS (point of sale) systems, Payment Terminals, or pumps. Use modem ports to connect to networks.

Caution
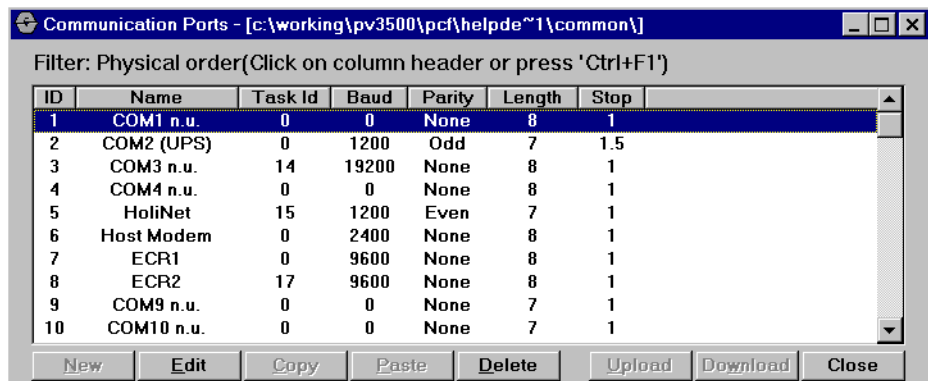
Improper port setup may cause system malfunction.

The settings you specify determine how information is transferred between the controller and the devices.

Ports also lets you view captured data scope files (.spe)

About the Communication Ports list window

Select **Site**, **Ports**, **Definition** to open the Communication Ports list.

Figure 35: Communication Ports Window

*   From this list you can either create a new port definition or edit an existing definition.

About the Comm Port Assignment Window

Select **Site**, **Ports, Definition** and then double-click a port in the list or click **New** to open the Communication Port Assignment window.
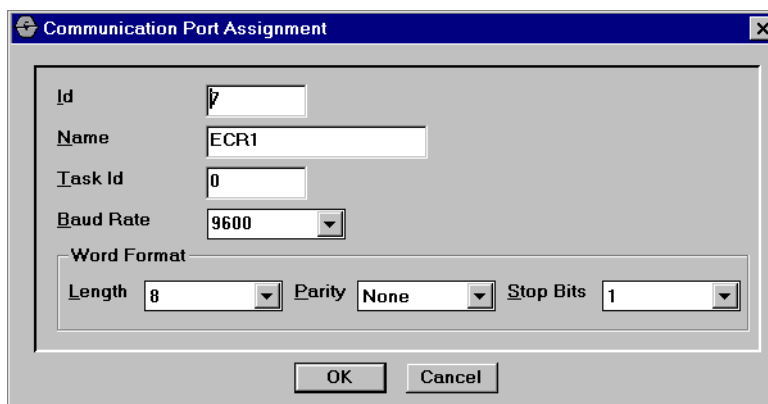
Figure 36: Communication Port Assignment Window

Define all active serial ports on the site's PV3500. Most fields are explained elsewhere in this manual.

Creating a New Port Definition

1. Select **Site**, **Ports**, **Definition**.

2. Click **New** to open the Communication Port Assignment window.

3. Enter a unique ID number from 1 to 24.

4. Enter a name (for description only, not used by system).

5. Enter a Task ID.

6. Select the attached device's baud rate from the pull-down list.

7. Enter other word formats for the attached device.

8. Click OK when done, then close the list window.

Editing a Port Definition

1. Select Site, Ports, Definition.

2. Highlight the port to edit in the list.

3. Double-click or click **Edit** to open the Port Assignment window.

4. Make your changes and click **OK**.

Deleting a Port Definition

1. Select **Site**, **Ports, Definition**.

2. Highlight the port definition to delete in the list.

3. Click **Delete**.

Port ID
Unique number from 0 to 24. This is the port number in the first Communication Port window.

Port Name
Up to 24 ports are available in the PV3500, depending on the number of cards installed in your unit. See your *PV3500 Installation Guide* for details. The port name is for information only; the system uses the ID when actually defining a port.

Task ID
The Task ID is the function that the selected port will perform. A Task ID table appears below.

Note these are general settings. Refer to the specific device to confirm proper baud rate and data format.

Task ID 2

Device	Baud Rate	Word Format
Gilbarco	1200 - 4800	E, 8, 1
Petro Vend OPT/FIT	1200 - 9600	N, 8, 1
Tokheim	See device specs	See device specs
Wayne	See device specs	See device specs

Task ID 3 - PUMP CONTROL

Device	Baud Rate	Word Format
Electronic	n/a	n/
Petro Vend PCT	1200 - 9600	N. 8, 1

Task ID 9 - Network Modem
Contact your network administrator.

Task ID 13 - Gilbarco Pump Control
Gilbarco proprietary5,687E, 8, 1

Task ID 14 - Host Protocol Communication
Host proprietary1,200 - 19,200N, 8, 1 (suggested)

TASK ID 17 - 20: POS DEVICES 1, 2, 3, 4

Device	Baud Rate	Word Format
C-Scann	1200 - 9600	N. 8, 1
PetroPRO	1200 - 9600	N. 8, 1

* Parity (Odd/Even/None), data bits, stop bits.

COMPLETE TASK ID LIST

Task ID number	What is the task?
1	System administrator
2	Payment Terminal administrator (see *Page 77*)
3	Pump administrator (see *Page 77*)
4	General database administrator
5	Transaction database administrator
6	Positive file administrator
7	Negative file administrator
8	Transaction administrator
9	Authorization/Network administrator
10	Journal printer administrator
11	Transaction printer administrator
12	UPS administrator
13	Gilbarco pumps
14	Local host administrator
15	Network session layer
16	**COMMAND HANDLER - DO NOT ALTER THIS ID!**
17	POS administrator
18	POS administrator
19	POS administrator

COMPLETE TASK ID LIST

Task ID number	What is the task?
20	POS administrator
21	POS administrator
22	POS administrator
23	Private card POS transactions
24	Private card POS transactions
25	Private card POS transactions
26	Private card POS transactions
27	Private card POS transactions
28	Private card POS transactions
29	System diagnostics administrator
30	Imperial Oil reports
31	Imperial Oil weigh scale controller
32	Local HelpDesk administrator
33	Local HelpDesk capture
34	CSI Network capture
35	CSI Network request
36	Site Sentinel task
37	Car wash administrator
38	Marathon auxiliary administrator
39	Holiday negative bank card file
40	IPC POS reports
41	CAT host interface
42	SSI main task administrator
43	SSI slaved task administrator

Baud Rate

This is the communication rate for the PV3500-to-device link. Click on the pull-down list and choose from 1,200; 2,400; 4,800; 5687 (proprietary); 5,787 (proprietary); 9,600; 14,400; and 19,200.

Start with the highest rate given in the Task ID Table. If errors appear, go to the next slower rate (for example, if you get errors at 9,600 baud, try 4,800. The 5687 and 5787 rates can ONLY be used with the indicated manufacturer's equipment!

Word Format Settings

Parity, Length and Stop Bit values appear automatically when you select a Task ID

- *Parity.* NONE, ODD, EVEN, MARK or SPACE.
- *Length.* Choose 8, 7, 6 or 5 bits.
- *Stop.* Choose 1, 1.5 or 2 bits.

Data Scope Viewer

1. Select **Site**, **Ports**.

2. Select **Data Scopes** to open the Select Data Scopes File dialog box.
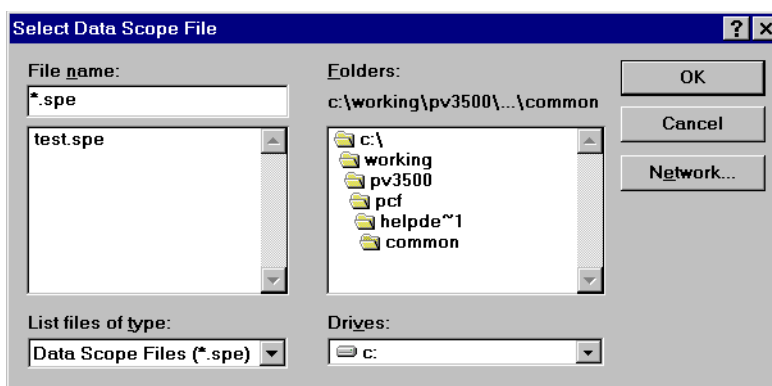
Figure 37: Select Datascope File

3. Navigate to an ".spe" type file and double click to open the viewer. By default both channels appear in one line:
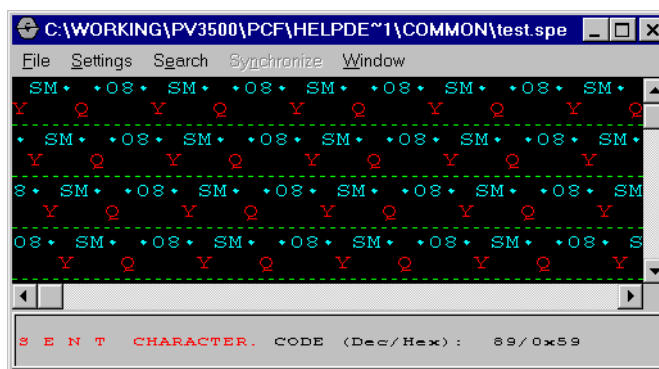
Figure 38: Datascope Output

- To show each channel on its own line select **Settings**, **View**, **Double Line**.

- For details on this viewer file, select **File**, **File Info** to open a dialog box.

- To view each "tick" in the viewer as hexadecimal values, select **Settings**, **View**, **Hexadecimal**.

- To change color of various viewer elements, select **Settings**, **Color** and then the element of the viewer to change. For example you can change sent data or received data color separately.

- To change the font of the displayed characters, select **Settings**, **Font** to open the Font Settings dialog box. Change font size (in points, 72 points equals one inch) and "weight" (darkness) of type.

- Turn the bottom status line in the viewer ON and OFF, place line at top or bottom, or justify the line center or left with **Settings**, **Status Line**, **Show** or **Alignment** options.

- Find data strings in the viewer file with **Search**, which opens a standard Find dialog box. Select **From File Beginning** to completely search the data scope file.

- The **Wraparound** and **Scroll** options only work during online data scope viewing. See the Remote Controller section for details.

Modem Setup

About Modems
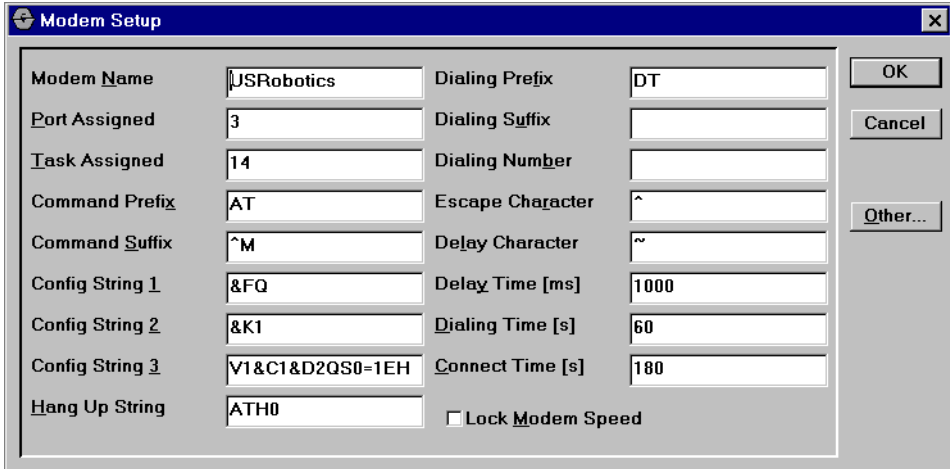
This feature is used in "local" PV3500-to-HelpDesk setups. It determines the communication link between the PV3500 and the HelpDesk PC.

This seldom-used function defines internal modem hardware in the PV3500 to the PV3500 software program. Unless you exchange either of the PV3500 internal modems for a different brand or model, there is no need to change the factory settings.

When the PV3500 is initialized, it first searches for a modem on its ports. If the modem is found in the list, the PV3500 initializes it with the content of the PV3500 MODEM.DBF file. If the modem is NOT found in the list, the default modem initialization string is used to secure a modem link even if an error is made by someone configuring the modem.

About the Modem Setup Window

Select **Site**, **Modems**. Then, double-click a modem setting or click **New** to open the first of two Modem Setup windows, *Figure 39*.

Figure 39: Modem Setup Window 1 of 2

Use this window to either create a new modem definition or edit an existing modem definition.

• If you are replacing the internal PV3500 modem, use your new modem's instructions to enter relevant values.

- The *Port Assigned* and *Task Assigned* fields MUST be as shown below, no matter what type of modem you are installing. Not all fields are used for all modems.
- Click **Other**… to change the modem response strings.

Creating a New Modem Setup

1. Select **Site**, then **Modem**.

2. Click on the **New** button to open the Modem Setup window.

3. Enter modem name, PV3500 port assignment, and a task assignment. These three are the minimum entries. Click **Ok** if no other modem settings need changing.

4. Click the **Other**… button to change modem response strings.

5. Click **Ok**, **Ok** to return to the main menu.

Editing a Modem Setup

1. Click **Site**, then **Modem**.

2. Choose a modem profile to edit from the list in the Modems window.

3. Double-click the profile or select it and click **Edit** to open the Modem Setup window.

4. Change any needed settings. Click **Other**… to change modem response strings.

5. Click **Ok** when done.

Modem Response Strings

Enter the Modem Response String window through the Modem Setup window **Other** button. Click **Site**, **Modem**, **New** or **Edit**, and finally the **Other**… button.

Settings below are factory defaults.

CAUTION: *Changing these settings may render the remote PV3500 incapable of connecting to a network through telephone lines. Be sure you know what you are doing before changing any modem setting.*

Deleting a Modem Setup

1. Select **Site**, then **Modem** to open the Modem list screen.

2. Select a modem profile to delete.

3. Click the **Delete** button.

Printer Setup

About Journal Printers

Journal Printer setup is supported only by certain versions of PV3500 software. Just because the Journal Printer window is visible does NOT mean a printer is available. See also the Transaction Layouts function.
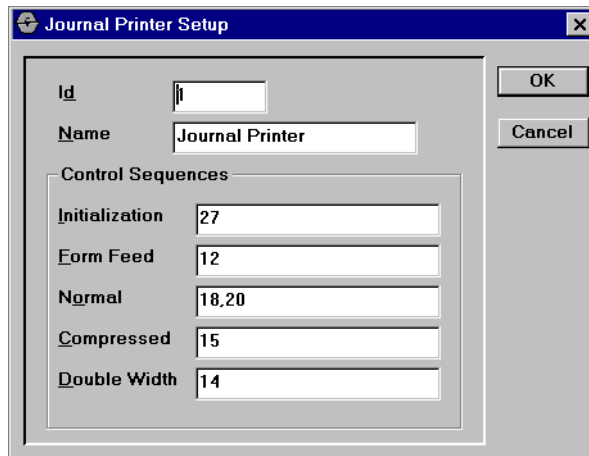
Use the Journal Printer Setup window to enter your printer parameters. The values shown are default for systems that are supplied with a journal printer.

Caution

Do not modify the printer definition without instructions from Petro Vend Technical Service. You may render the system inoperative if you incorrectly change the settings.

Creating a Journal Printer Definition

1. Select **Site**, **Journal Printers**, **Definition**.

2. Click **New**.

Figure 40: Journal Printer Setup Window

3. Fill in the fields in the Journal Printer Setup window (*Figure 40*).

4. Click **OK**.

Editing or Deleting a Journal Definition

1. Select **Site**, **Journal Printers**, **Definition**.

2. To edit a definition, double-click on it in the list. Alter needed fields in the Journal Printer Setup window.

3. To delete a definition, highlight it and click **Delete**.

4. Click **OK**.

About Printer Transaction Layouts

The Transaction Printing Setup dialog box controls all aspects of printed transactions - how often to print a header (for various paper types), the file where the journal printer format is stored, the source of transactions to print, and format file names.

Select **Site**, **Journal Printer**, **Transaction Layouts**, and then **New** or **Edit** for this dialog:

Creating a New Transaction Layout

1. Select **Site**, **Journal Printers**, **Transaction Layouts**.

2. Click **New** to open the Transaction Printing Setup dialog. Petro Vend defaults are shown.

3. Fill in your printer's settings. If it's a Petro Vend printer, no changes are required.

4. Click **OK**. Your new transaction file automatically receives a "PIC" extension.

Editing or Deleting a Transaction Layout

1. Select **Site**, **Journal Printers**, **Transaction Layouts**.

2. To edit a layout, double-click on it in the list.

3. Alter needed fields in Transaction Printing Setup window.

4. To delete a definition, highlight it and click **Delete**.

5. Click **OK**.

Journal ID
This unique three-digit number (1-999) identifies a particular printer. The list of printers you see when you first select **Journal** from the Site drop-down menu is sorted by this ID.

Journal Name
Up to 25 characters naming this printer. Descriptive only. This name appears after ID in the list of printers when you first select **Journal** from the Site drop-down. For new printers, you would enter the make and model of the printer here.

About Printer Control Sequences

To expand capability, many printer manufacturers use *control sequences*, strings of characters that tell the printer to do something. Unfortunately these codes are not standardized; each manufacturer applies its own.

For greater flexibility, the PV3500 lets you enter your printer's specific codes for initialization, form feed and text format (normal, compressed, double-width).

If you don't know these codes see your printer manual, or call the printer's customer service number.

The codes shown in the Journal Printer Setup window are for the "default" Epson dot matrix printer, supplied by Petro Vend as an option.

Initialization
An "initialization" code tells the printer how to initialize ("reboot") itself.

Form Feed
"Form feed" is the control code that, when received by the printer, will cause the printer to print the contents of its buffer, and then advance the print head to the next page.

Normal
The "normal" code turns OFF the compressed and double-width text modes and resumes normal-size type.

Compressed
The "compressed" code tells the printer to start printing compressed text; that is, text with a higher CPI (character per inch) count than "normal" text.

Double-Width
The "double-width" code tells the printer to begin printing enlarged characters with increased character spacing. This sometimes helps readability.

Print Header Line Every...Transactions
For different kinds of paper, you can vary the number of transactions that print before another header line is printed. Changing the "Print Header Line…" setting prevents the header from appearing in the middle of a sheet of paper.

- From ICR Only - only transactions from your site island card reader will print.

- From ECR Only - only transactions from your electronic cash register will print.

Print Format File Name

Usually the print format file names are in the TRANPRN.DBF database file. This file contains formatting data for the printer.

Select Language

At sites with multiple multi-lingual devices, use Select Language to filter by language which transactions get printed. *This does NOT translate languages in any way.* To print all transactions regardless of language, select All Languages.

Line Format Setup

Click the Format… button to create or edit the format of individual lines in the journal report printout. This format includes fixed text and variables for data.

Add New

Button creates a new transaction format line.

Edit

Button (or highlight double-click an item) lets you revise the selected line.

Delete

Button removes the line from the report format altogether. Other lines move up to fill the gap.

Creating a New Line in a Layout

1. Select **Site**, **Journal Printer**, **Transaction Layouts**.

2. Double-click on a layout in the list to open the Transaction Printing Setup dialog.

3. Click the **Format** button.

4. Click the **Add New** button.

Authorization

Card Types

About the Card Type Dialog Box

Select **Authorization**, **Card Types** to manage your system's card types.
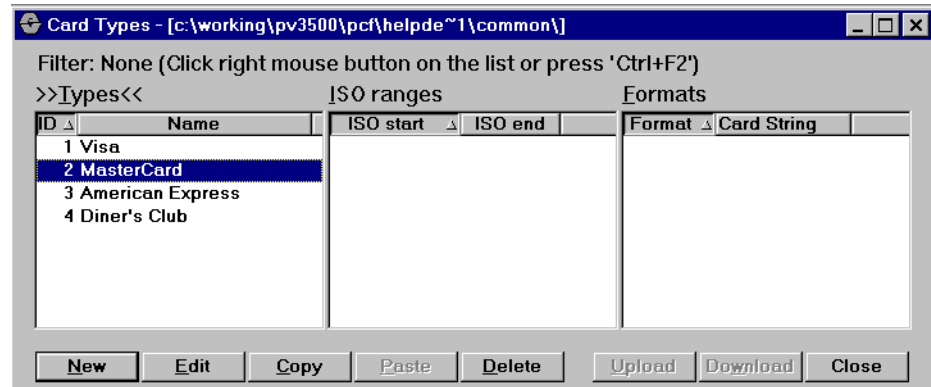
The Card Types window controls three card management functions:

- Types

- ISO Ranges

- Formats

Point at the "pane" you want to change or view, then use the New, Edit or Delete button on the dialog as you would for any other HelpDesk function.

About the Card Type Setup Dialog Box

Card Types often must be set according to particular network codes.

Select **Authorization**, **Card Types**, then point at the left pane of the Card Types window. Click **New** or **Edit** to open the Card Type Setup dialog box.

Figure 41: Card Type Setup Dialog Box

Creating a New Card Type

1. Select **Authorization**, **Card Type**.

2. Point and click the left pane of the Card Type dialog box.

3. Click **New** to open the Card Type Setup dialog box (above).

4. Enter all applicable values (explained below).

5. Click **OK** to close and place your new card type in the list.

Editing a Card Type

1. Select **Authorization**, **Card Type**.

2. Point and click the left pane of the Card Type dialog box.

3. Double-click a card type in the list to open the Card Type Setup dialog box.

4. Change any applicable values.

5. Click **OK**.

Deleting a Card Type

1. Select **Authorization**, **Card Type**.

2. Point and click to highlight a card type in left pane of the Card Type dialog box.

3. Click **Delete**.

4. Click **OK**.

Card Parameters

Card Type ID

Id is a unique number from 1-99999. This is the number in the "ID" column of the left pane of the Card Type list box.

Card Type Name

The 25-character name field is for your reference use only. This is the name in the Name column of the left pane of the Card Type list box.

Card Language

Select a language for this card type. When it comes time to print transactions on the journal printer, the transactions can be grouped by language.

Discount

Lets you give users of this card type a discount. Enter a percent here. Unless over-ridden at the local fueling terminal, the discount is applied to all cards of this type.

Cents/Unit check box

If checked, the value entered in the Discount field is in cents per unit of measure (for example, enter 10 to grant a ten-cent discount per gallon of unleaded). If box is cleared, discount is in percent (%) of transaction amount.

Card Price Tier

Not active in this software version.

Pre-Auth Amount

Pre-Auth is primarily for in-pump reader terminals. It is how much fuel a customer can dispense after inserting their card but before on-line authorization is received.

- *Many network downloads typically overwrite value in this field. Confirm this with remote site. Usually it is OK to leave Pre-Auth at "0."*

Offline Limit

Not used in this software version.

Monthly Limit

The Monthly Limit is the *quantity* limit for all cards of this type in current month. Check the Use Price for Limits check box if money, not volume, will decide limits.

- *Network downloads typically overwrite value in this field. OK to leave at "0."*

Monthly Total

The Monthly Total is the value, to date, of all product dispensed to this card type during the current month.

Safeguard Limit

For terminal-activated transactions. The Safeguard Limit is the maximum amount of fuel that can be dispensed for any card of this type during one transaction. This number is quantity; for limit as a monetary value, check the Use Price For Limits check box.

• *This limit can be overridden in the individual PCF card setup.*

Daily Total

The Daily Total is the value of all product dispensed to this card so far today.

Use Price for Limits check box

If the Use Price For Limits check box is checked, all limit fields show money value, not quantity. If this box is NOT checked, limit fields are in the unit of measure defined for this card.

Invalidated check box

Check the Invalidated box to temporarily prevent this type of card from being accepted at the site. This is usually done if the card issuer is experiencing problems of some kind.

Checking the box does not affect card or transaction records in any way. It simply turns off acceptance of a card type until box is cleared.

When box is checked, all users of this card type will see a CARD INVALID error when they try to use the card.

PIN Button

Click to define PIN format for this card type. PINs depend on card type, some use an algorithm, selected from a list of algorithms. Some are simply alphanumeric codes. To see what format a card's PIN is, highlight the card type, click **Edit** and then click the **PIN** button in the Card Type Setup window.

Script Sets

A script set is a group of scripts. Scripts are NOT user-created or edited. They are essentially sets of instructions that tell the *PV*3500 how to display or read media (in particular, displays and cards).

Club Card Setup

Select **Authorization** > **Card Type** > **Club Setup...** button. This window defines club card functionality.
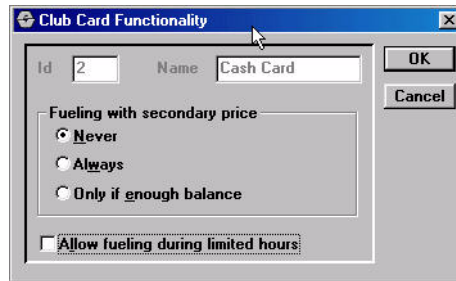
Figure 42: Club Card Functionality Dialog Box

ID and Name

These are the ID number and card name from the previous window.

Fueling With Secondary Prices

- **Never** - The system will always use the primary price for this card.

- **Always** - The system will always use the secondary price with this card type. Secondary prices are usually set in the POS device - see

- **Only if Enough Balance** - Secondary pricing will only be allowed if the card contains value.

Allow Fueling During Limited Hours

When checked this type of club card will allow fueling during the times specified in the Site Options dialog box (*Page 20*).

Opening the Card Authorization Setup box

1. Select **Authorization**, **Card Type**.

2. In the Card Types list box click **New**, or highlight a card and click **Edit** to open the Card Type Setup box.

3. Click the **Auth**... button.
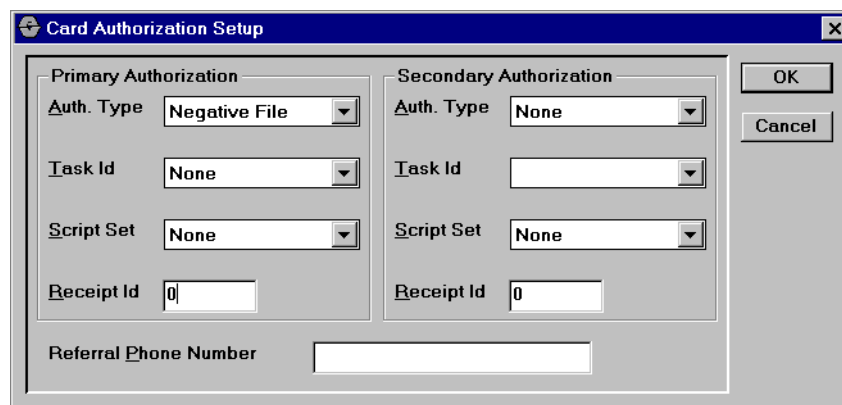
Figure 43: Card Authorization Setup Dialog Box

Card Authorization Fields

Auth. Type

For both Primary and Secondary authorization choose one of the following:

*   A "None" option is available for Secondary authorization.

*   If a dial-up network is available, Primary authorization should be Dial out Network.

Task ID

A Task ID is the "task" (action) a port is assigned to perform. For card authorization purposes, there are three IDs: None, Main, PCF (see *Page 113*) and CAT Host (see *Page 101*). A table of factory assigned task IDs is on *Page 78*.

Script Set

Choose a script (or leave the list box set to NONE) from the list. Read about scripts beginning on *Page 59*.

Receipt ID

The receipt ID is a unique number that identifies reciept format and content. You assign this number in the Reciept Setup window (*Page 69*).

Referral Phone Number

If POS authorization on the dial-out network fails, this "Referral Phone Number" is where the clerk calls for voice authorization.

Setup Procedure

To set primary and secondary (fallback) authorization for a card type:

1. Select **Authorization**, **Card Types**.

2. Double-click a card type in the left pane of the Card Type list window.

3. Click **Auth** to open the Card Authorization Setup dialog box.

4. Fill in values and click **Ok**.

Setup Options

Select **Authorization**, **Card Types** and then click the **Options**… button to open the Card Authorization Options dialog box.

Is Allowed in Unattended Mode check box

To allow authorization at unattended sites, check this box. To restrict authorization only to staffed sites, clear this box.

Capture Bad Reads check box

For outdoor terminals with motorized readers. If your card authorization scheme determines that a card should be captured (that is, retained inside the terminal because of incorrect PIN entry for example), then this check box is the final determination.

Auth. Pump Before Validation check box

For in-pump card readers only. When this box is checked, customers can pump fuel before their card has been validated.

Users Must Pay Inside check box

When checked, no "at-island" customer authorization is allowed.

Manual Card Entry Allowed check box

You MUST check this option for "card less entry" card types. When checked, user can enter their card number on the keypad if the island reader fails to read the card number magnetically or optically. A high number of "bad reads" (use the Remote Controller System Diagnostic feature to view bad reads) may indicate a reader on the verge of failure.

Secondary Authorization Allowed...check box

Check this box if you want manually entered (on the keypad) cards to use secondary authorization if the primary method fails.

Pump Group Available

Use this pull-down to limit card authorization to select groups of pumps or choose All Pumps if any pump on the site can authorize the card type.

For example, if the site groups diesel pumps into an "Truck" group, you could select Truck as a pump group available to a truck fleet card.

Network Authorization

About the Network Setup Windows

Select **Authorization**, **Network** to select a network setup window. This version of HelpDesk software supports the Concord-Buypass network (*Figure 44*) and Visanet (*Figure 45*).

Note

The network's administrator supplies the information you enter in these dialog boxes.

Concord-Buypass Network Parameters

Figure 44: Concord-Buypass Network Setup

You can enter only Download Phone, Merchant ID and the "Access Codes".

Download Phone
Here, enter the phone number the PV3500 uses to connect with the Concord-Buypass network, to download gathered transactions. Remember that "1" is required for long-distance access.

Merchant ID
Enter your Concord-supplied ID here. This field is used as an aid in identifying the merchant and/or terminal to the Concord network.

Maximum Offline Transactions

This is how many "local" transactions are allowed at this site when the PV3500 is not tied into the Concord-Buypass network.

Accepted Card Types

Read-only. Fairly self-explanatory, these are the credit or fleet cards accepted at this site's fueling terminals.

Dial Strings - Access Code

Typically, the access code is a single digit dialed for an "outside line" in a distributed phone system. If dialing from a single phone line leave this field blank.

Dial Strings - Phone Number

Both of these numbers are supplied by the Concord network and cannot be edited. Usually the same as the download phone.

End of Day - Cut Time

Network-supplied, cannot be edited. The time of day that network clears the daily totals and starts a new day.

Totals Processing - Password

This password is network-supplied information, you cannot change it.

Clear Data and Force Download Button

Does an "on-demand" (as opposed to scheduled) download of transactions to the network. Click this button to clear current data from the local PC and force a download to the network. Click **Cancel** to stop the process.

Download and Upload buttons

Only enabled when online with the network.

Visanet Network Parameters

Figure 45: Visanet Setup

Although Visa networks differ in setup requirements, here are a few common settings.

Primary Phone, Secondary Phone

Phone numbers to reach VisaNet for card authorization process. Secondary is used only if primary is not assessable.

Aquirer BIN

This field contains the NON-ZERO, Visa assigned, six digit Bank Identification Number (BIN). The acquirer BIN identifies the merchant signing member that signed the merchant using the terminal.

•   *The merchant receives this number from their signing member or processor.*

Merchant Number

This field contains a NON-ZERO twelve digit number, assigned by the signing member or processor. This field is used to identify the merchant within the member systems. This number must be unique within the acquirer system. The combined Acquirer BIN and Merchant Number are required to identify the merchant within the VisaNet systems.

Store Number

This field contains a four digit number assigned by the signing member, processor or merchant. This field is used to identify the merchant store within the member systems. The combined Acquirer BIN, Merchant Number, and Store Number are required to identify the store within the VisaNet systems.

Terminal Number

This field contains a four digit number assigned by the signing member, processor or merchant. This field is used to identify a specific terminal in a merchant store. This field must be unique across all terminals within a single store location.

Terminal Id

This field contains an eight digit code defined by VisaNet. The terminal ID is used to uniquely identify the terminal to the terminal support systems. This number is sometimes referred to as a "V" number by the Visa help desk.

Device code/Industry Code

This field is used to identify the device type which generated the transaction and the industry type of the merchant. Use 'DR' value as default.

Currency Code

This field contains a three digit number assigned by the signing member or processor from a list of currency codes defined in the VisaNet V.I.P. System Message Format Manuals to identify the merchant's settlement currency. In the U.S.A., use "840".

Country Code

This field contains a three digit number assigned by the signing member or processor from a list of country codes defined in the VisaNet V.I.P. System Message Format Manuals to identify the merchant location country. In the U.S.A., use "840".

City Code

This field contains the nine character code used to further identify the merchant location. This field is left justified and space filled. Within the United States, the five or nine digit zip code of the address of the store location is used. Outside of the United States, this field will be assigned by the signing member or processor.

Time Zone Code

This field contains a three digit code used to calculate the local time within the VisaNet authorization system. It is calculated by the signing member or processor, providing the standard local time zone differential from Greenwich Mean Time (GMT). The first digit specifies the direction of the differential and offset increment, and the last two digits specify the magnitude of the differential. For example, Florida would be 705, California would be 708 and Arizona would be 107.

MCC/SIC

This field contains a four digit number assigned by the signing member or processor from a list of merchant category codes defined in the VisaNet Merchant Data Standards Handbook to identify the merchant type.

Agent Number

This field contains a four digit number assigned by the signing member or processor from a list of category codes defined in the VisaNet Merchant Data Standards Handbook to identify the merchant type.

Chain Number

This six digit field contains a merchant chain identification number assigned by the signing member or processor. The member uses this number to identify the merchant chain within the member systems. The acquirer BIN, Agent, Chain, Merchant, Store, and Terminal numbers are required to uniquely identify a terminal within the VisaNet systems.

Merchant Name

This twenty five character sub-field contains the merchant name provided by the signing member or processor. The name must correspond to the name printed on the customer receipt. The name is left justified with space fill. The first character position can not be a space. This field must contain the same data used in the **Site Setup**.

Merchant City

This thirteen character sub-field contains the merchant location/city name provided by the signing member or processor. The name must correspond to the location/city name printed on the customer receipt. The name is left justified with space fill. The first character position can not be a space. This field must contain the same data used in the **Site Setup**.

Merchant Loc. No.

This five digit field contains a "location number", assigned by the signing member or processor. This field is used as an additional aid in identifying the merchant and/or terminal to the member's data capture system.

Merchant State

This two character sub-field contains the merchant state/province code provided by the signing member or processor. The abbreviation must correspond to the state/province code printed on the customer receipt and be one of the Visa accepted abbreviations.

Primary Batch Ph, Secondary Batch Ph

Phone numbers to reach VisaNet for the data capture process. Secondary is used only if primary is not assessable.

Batch Time

These are the times each day to do a batch transmission (data capture). Enter time in 24-hour format to create up to four batch times.

Off-Line Authorization Allowed

Check this box to allow this site controller to authorize a Visa transaction without receiving Visanet network authorization first.

CAT (Card Activated Terminal) Host Authorization

To use or set up a link to a Card Activated Terminal authorization device, select **Authorization**, then **CAT Host**. Factory default values in the dialog box are usually acceptable.
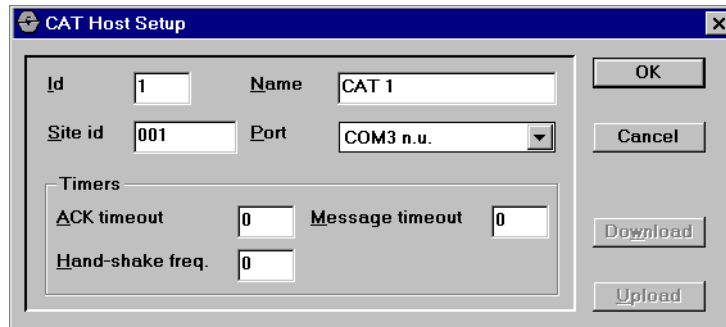

Figure 46: CAT Host Setup Window

- **ID** The CAT host ID, typically "1."

- **Site ID** The PV3500 site ID number.

- **Name** Site name, for reference only.

- **Port** The PV3500 port the CAT hardware is connected to.

- **ACK Time-out**Number of seconds the PV3500 waits for answer from CAT host.

- **Handshake Freq**Seconds between PV3500-sent "keep-alive" signals to CAT host.

- **Message Time-out**Seconds before communication failure is logged.

Negative Card File Authorization

What is a Negative Card File?

A negative file contains "bad" card numbers, cards that will not be authorized by the PV3500 for any of several reasons: the card was reported stolen, the card's credit limit was exceeded, and others.

Negative files are often downloaded from a network. The Negative Card File function simply lets you view the contents of the file after it has been downloaded. If your permission group permits, you can also delete or add card numbers from or to the file.

- *Card numbers can be up to 40 digits long (only digits).*

Adding or Removing Negative Cards

1. Select Authorization, Negative Card File.

2. Change the sort order or run the DBF Filter by right-clicking on the list.

- To add a negative card, click **New** and enter a card number of up to 40 digits.

- To delete a card from the negative file, select it in the list and click **Delete**.

3. Click **Ok** when done.

File and Directory Management

Choosing a Common Directory

1. From the main menu select **File**, then **Common Site Directory**.

2. Enter a directory or browse your way to one.

*   *The directory must contain the "dbf" database files.*

3. Double-click the directory to select it, then click **Ok**.

*   *If your selection does not contain database files you will get an error message.*

Site Directories

Making a New Site Directory

Create directories to store site-specific databases by site group, product and dispenser, or terminal ID.

1. From HelpDesk main menu select **File**, then **New Site Directory**.

2. Enter a new directory or browse to an existing directory and double-click it.

3. Click **Options...**. to open a Data Category window for choosing file types.

4. Click Ok.

Opening a Site Directory

*   *Opening a new site directory does not close the previous site.*

1. From HelpDesk main menu select **File**, then **Open Site Directory**.

2. Enter a directory name or browse to the directory and double-click it.

3. Click **Ok**.

Closing a Site Directory

*   *Opening a new site directory does not close the previous site.*

1. From HelpDesk main menu select **File**, then **Close Site Directory**.

2. Click **Ok**.

Copying Updated Files

1. Make changes to HelpDesk settings as needed.

2. Return to main HelpDesk menu.

3. Connect to the remote site with the Remote Controller function.

4. Select **File**, then **Copy Updated Files**.

5. If no modified files are found, a message tells you.

6. Browse to the directory where you want to save the new files. Note that **Upload** and **Download** buttons let you copy the files to the remote site.

7. Click **OK**.

Operator Setup

Creating or Editing Operator Profiles

About the Operator List Window

1. Select **Site**, **Operators**, **Definition** to open the Operator list window.

2. Double-click on an operator to edit the profile

3. Click **New** to create a new profile.

• *Before you create new profiles, the PV3500 must already contain Permission Groups.*

About the Operator Setup window

Select **Site**, **Operator, Edit** to open the Operator Setup window. Most fields are explained in other parts of the HelpDesk manual.

Creating a New Operator Profile

If you want to limit access to the PV3500, change the operator profile.

1. Select **Site**, **Operators**, **Definition** to open the Operator list window.

2. Click **New** to open the Operator Setup window.

3. Give the profile a unique three-digit ID.

4. Give the profile a name

5. Assign the operator to a **Permission Group**.

6. Select the system language for this operator.

7. Click **Change Password** to assign the operator a password.

Editing an Operator Profile

1. Select **Site**, **Operators**, **Definition** to open the Operator list window.

2. Double-click an operator in the list to open the Operator Setup window.

3. Change ID, Name, Permission Group, or Language as needed.

4. Click **Change Password** to create a new password if needed.

Operator Log

Using the Operator Log

The Operator Log keeps track of all site activity, and sorts it by date or by operator.

Events logged include: Starting or stopping the application; failed login attempts (incorrect name or password); updating, adding or deleting records to database files; and any other operation which changes or modifies files in the HelpDesk.

The **Clear History** button erases all operator activity from the log.

- *This action cannot be reversed!*

The **Refresh History** button rebuilds the log list to include any events occurring since you opened the log window.

Operator Permission Groups

About Permission Groups

Select **Site**, **Operator**, **Permission Groups**.

This feature lets you limit access to HelpDesk menu items on an operator-by-operator basis. The four groups in *Figure 47* are an example, and do not have to be listed as shown.
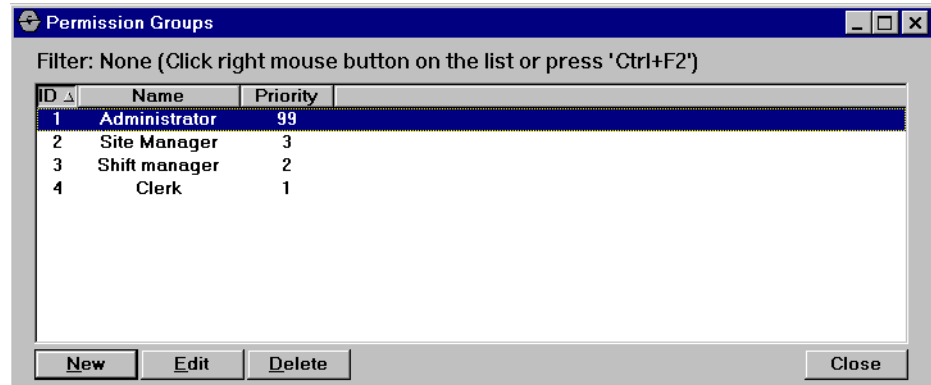

Figure 47: Sample Permission Groups List Window

The status bar (below) at the bottom of the screen explains how to change permission groups.

- An "X" check box means data can be viewed and changed.
- A "V" check box means item can be viewed, but not changed (read-only).
- Clearing a box *prohibits* any access to that item. For example, clearing SITE prevents viewing or changing *every* site-specific function.

You can create new permission groups, or edit existing groups.

Creating a Permission Group

1. Select **Site**, **Operators**, **Permission Groups** to open the Permission Group list window.
2. Click **New** to open the Permission Group Setup window.
3. Only menu items available to YOU will be shown in this dialog box.
4. Check items in the "Menus Available" list to allow or prohibit access to that menu item.
- *See About Permission Groups for complete details.*

Editing a Permission Group

1. Select **Site**, **Operators**, **Permission Groups**.

2. Double-click a list item to open the Permission Group Setup dialog box (*Figure 48*).
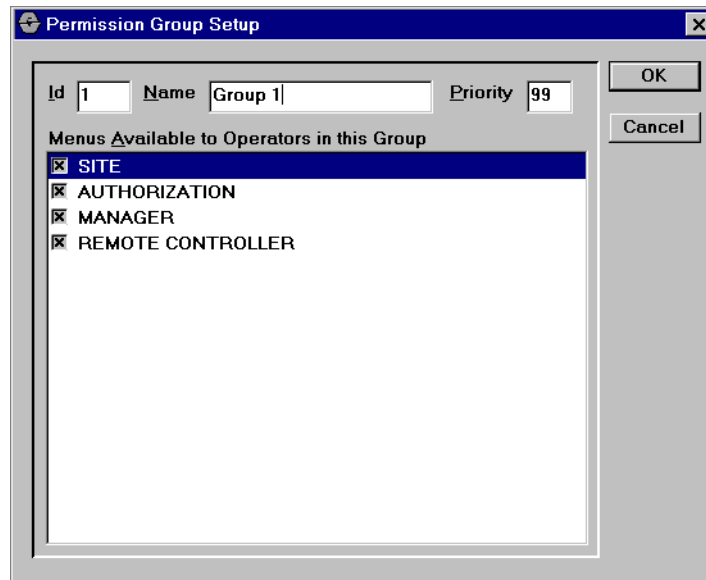

Figure 48: Permission Group Setup Window

See About Permission Groups for complete details.

1. Change ID, Name or Priority if needed.

2. Double-click a menu in the "Menus Available" list to open its sub-menus.

3. Check or clear menu items for this permission group.

Checking or un-checking the main menu check box checks or un-checks ALL submenu items in that menu. For example, checking Authorization automatically grants access to Card Types, Script Sets, Network, Negative Card File, PCF Record Setup and Positive Card Setup.

Priority

The Priority field in **Site/Operator/Permission Group/Edit** defines a two-digit "priority level" for the currently selected permission group. Here's how it works:

Example: Say three groups are configured with priority levels as follows:

Supervisor Priority - 10

Manager Priority - 05

Staff Priority - 01

A priority level can edit all the permissions granted by all *lower* priority levels. In this example, this means Supervisors (level 10) can edit Manager's priority level permissions (level 5) and staff permissions (level 1).

Next, let's place three operators in the permission groups:

- "**Bill**" in Supervisor group
- "**Betty**" in Manager group
- "**Bob**" in Staff group

You can only reconfigure permissions if YOUR permission group gives access to the Site/Operators/Permission Groups option.

In this example, Bill, Betty and Bob can configure their fellow operators (and permission groups) as follows:

- BILL (Supervisor priority, highest) using the **Site/Operator/Edit** function, can reconfigure himself, Betty and Bob. Bill can also reconfigure all three permission groups (**Site/Operator/Permission Group**), for Supervisors, Managers and Staff.

- BETTY (Manager priority) can reconfigure herself and staff member Bob, but not Manager Bill. Likewise, Betty can only reconfigure the Manager and Staff permission groups.

- BOB (Staff priority, lowest) can reconfigure only himself. Likewise, Bob can only reconfigure permission in the Staff group - and ONLY if he's been given access to Site/Operator/Permission Group by BETTY or BILL.

Operator Passwords

About Passwords

Select **Site**, **Operator**, **Change Password** to define a new password or change an existing password for the currently displayed operator.

Type in a password, press Tab, and retype to confirm.

Creating or Changing a Password

Select **Site**, **Operator**, **Change Password** to define a new password or change an existing password for the currently displayed operator.

Type in a password, press Tab, and retype to confirm.

Transaction File

Browse and print site transactions either offline or online. View all or limit your search to transactions authorized in the proprietary card file (PCF).

All Transactions

1. Select **Site** >**Transactions**>**All.** This form (*Figure 49*) lets you browse transaction database files ("*.dbf*'s) stored in your local computer.
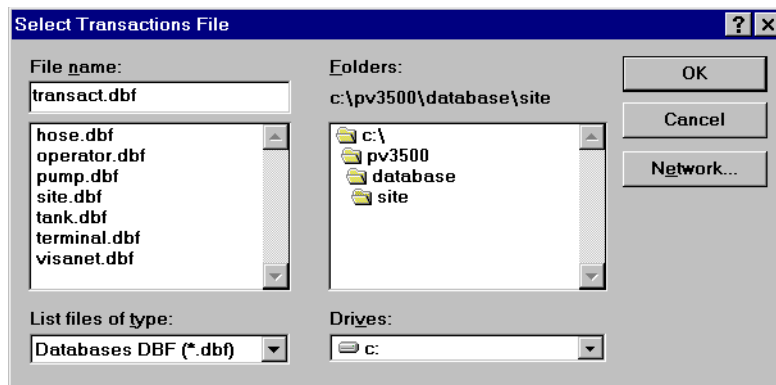

Figure 49: Select Transaction File Dialog Box

2. Double-click the file where transactions are stored (default is "transact.dbf"), or select a file and click **Ok**. Either opens the Transactions File list box (*Figure 50*).
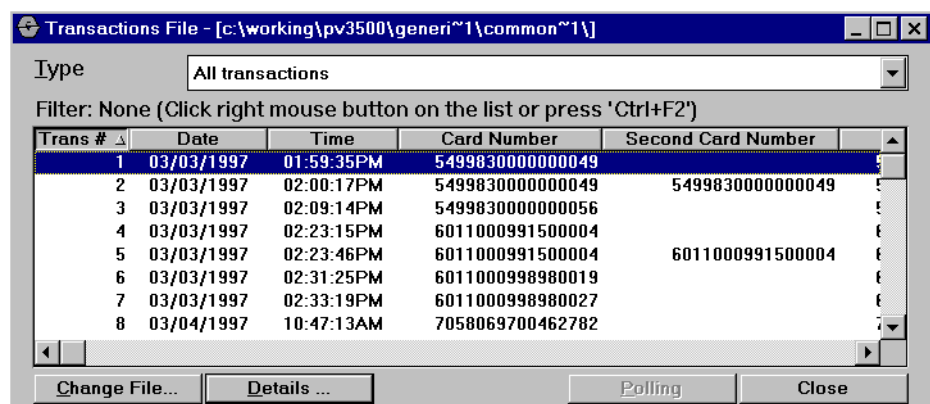

Figure 50: Transaction File Detail Window

*   Use **Type** to limit transactions displayed in the list to those authorized by a Network, Positive File, Negative File or CAT Host. Default is to list All Transactions.

3. For details of a transaction, double-click the transaction to open a Details box.

4. POLLING. If you are connected to a remote site, the **Polling** button is enabled and you can poll transactions from the site. Polling means getting transactions from a remote site and storing them on your local computer.

5. During polling you must enter a transaction range. By setting this range you can control the number of polled transactions.

•   *Transactions are polled one by one without compression.*

PCF Transactions

1. Select **Site** >**Transactions**>**Proprietary.** This menu lets you browse transactions stored in your local computer database.

Note

Dialog boxes are similar to "All Transactions", previous page.

2. Double-click the file where transactions are stored (default is "trpcf.dbf"), or select a file and click **Ok**. Either opens a list box.

3. For details of a transaction, double-click the transaction to open a Details box.

4. POLLING. If you are connected to a remote site, the **Polling** button is enabled and you can poll transactions from the site. Polling means getting transactions from a remote site and storing them on your local computer.

5. During polling you must enter a transaction range. By setting this range you can control the number of polled transactions.

•   *Transactions are polled one by one without compression.*

•   *When you press Add New button, the PV3500 will close this 'old file' and open a new one for storing next proprietary transactions. After this you can download (with compression) the 'old file' from PV3500 to the HelpDesk computer.*

•   *The Add Previous button lets you download an 'old file'. Both regular and proprietary transaction files can be managed by other tools for preparing reports etc.*

Online Transactions

1. Select **Remote Controller**, **Connect** and log into the remote site.

2. Select **Remote Controller**, **Transaction File** to open the Transaction File dialog (previous page).

3. The remaining steps are the same as for Offline viewing.

• *See the Remote Transaction File section for more online information.*

Offline or Online Transaction Printing

1. Open a transaction from the Transaction File dialog box into the Detail dialog box.

2. Click **Add to Printing** to add the current detailed transaction to a printable report.

3. View transactions in a Print Preview box with the **Print** button.

4. Add transactions to the print list by closing the Detail box, then double-clicking another transaction.

5. When ready to print your list click **Print** from the Print Preview box.

Proprietary Card File Option

About the PCF Option

PCF is a database file holding proprietary card records. The PCF database is automatically created with your *PV*3500 HelpDesk application. The database is then uploaded to the *PV*3500 Controller where it is used for authorization.

When the *PV*3500 Site Controller is first powered up, an empty PCF is created. You can upload proprietary cards one by one to the remote PCF. Or, you can create an entire file offline in HelpDesk with the PCF Record Setup function, and then upload the entire file to the remote controller, overwriting the old PCF with the new one.

Making PCF cards is a two-step process:

*   First, you create a PCF template (Type) in **Authorization**, **Card Types**. All PCF cards must have a "Positive Card" **Auth. Type** (set through the Auth button in Card Type Setup dialog).

*   Then, you create individual PCF RECORDS to specify which attributes on the PCF card will be used for authorization.

Authorizing PCF cards is also a two-step process:

*   When card is read, its pattern (template) is examined. If the pattern matches a stored PCF template, the card data goes to the PCF file for part two of the authorization process (below). If the pattern does NOT match a stored template, an `INVALID CARD` error is generated.

*   Next, a search is done in the PCF file for this card number. If the number is found, the card is authorized. If the number is NOT found, a `CARD NOT IN PCF FILE` error is produced.

The PCF Record Setup dialog box contains many fields. Not all of these fields may be used in your application.

The PCF "record" has a fixed length, but only fields relevant to a particular proprietary card are active.

About the PCF List Window

Select **Authorization**, **Proprietary Card File (PCF)**, **Cards Setup** to open the window shown in *Figure 51* (of course, cards must already exist to be listed).
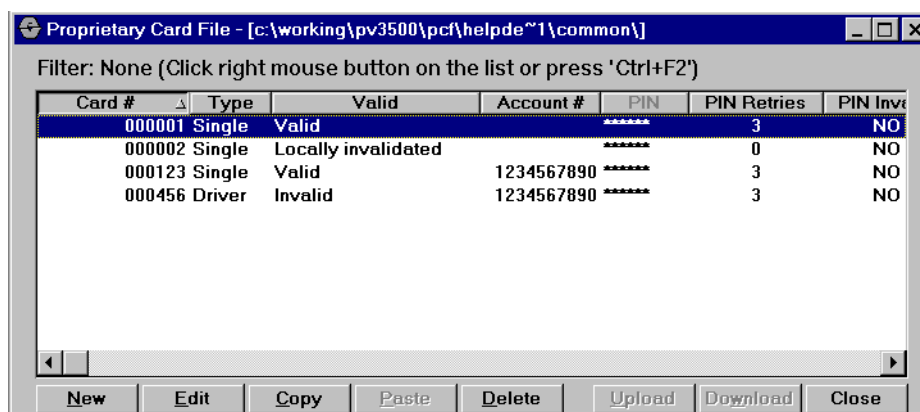

Figure 51: Proprietary Card File List Box

1. Click on the Card # column header to sort the records by card number.

2. Double-click a record to edit it.

3. Click the **New** button to make a new PCF record, and open the PCF Configuration dialog box

- If enabled, use the DBF Control Panel to search for a card number or activate a pull-down for card type.

About the PCF Record Configuration window

Select **Authorization**, **Proprietary Card File (PCF)**, **Record Setup** to open the window shown in *Figure 52*.

Figure 52: PCF Record Configuration Window

The check boxes to the left of each field shows whether that field is used to authorize these PCF cards. In the example Account Number, User Name, PIN#, Max Retry and Product Restriction are used to authorize this PCF card.

Card number, status and type are ALWAYS used.

* **Card number** (ALWAYS USED)

* **Card status** (ALWAYS USED: Valid, Invalid, Local invalid, Bad PIN invalid or Script invalid)

* **Card type** (ALWAYS USED: Single, Driver, Vehicle, Account or Manager)

* **Account number**

* **User name**

* **PIN** by number, maximum retries and action on bad PIN entry.

* **View PIN Number** - If this box is checked, the PIN for this card will appear (not encrypted) in the PCF List Window.

* **Language**

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- **Product restriction** (must be pre-defined, see Products section of this manual)

- **Quantity restriction** (must be pre-defined, see Products section of this manual).

- **Number of Transactions Allowed**. The maximum number of PCF transactions that can be stored in this PV3500. Set to "0" for no limit.

Creating a PCF Card

- Always use the system default (generic) card databases when creating new cards! These default databases are **cardtype.dbf**, **cardfmt.dbf**, and **cardiso.dbf**.

- All network-authorized cards must have a valid network-assigned ID

- If authorization is via positive file, do not change any receipts assigned to these cards.

- You must define not only card TYPE, but format and ISO range as well.

1. Select **Authorization**, **Proprietary Card File (PCF)**, **Cards Setup**.

2. Double-click a card in the list to open the Proprietary Card Configuration box.

3. Enter default values for whichever fields you chose. These values will be automatically "dropped" into new, blank PCF cards.

Creating a Petro Vend PCF Format

This example steps you through the creation of a Petro Vend card template. after creating this template and sample cards, Petro Vend cards will be recognized by the PCF.

Remember that creating a template only *enables* the PCF to recognize Petro Vend cards. A PV card with a card number you did *not* place in the proprietary card file will be rejected.

Other proprietary cards use a similar procedure. *Follow all steps in this procedure in the order shown.*

Creating the PV PCF Template

1. Select **Authorization** > **Card Types**.

2. Click within the Types area of the list box.

3. Click **New**.

4. Enter a unique ID number. Type Petro Vend (or related) for **Name**, then select the card language.

Proprietary Card File Option: Creating a PCF Card   *10/23/02*

- *All entries including and below Price Tier are not used in Petro Vend format cards.*

- *The **PIN** button is NOT used for Petro Vend cards.*

5. Click the **Auth...** button.

6. Select Positive File for **Authorization Type**.

7. Select PCF for **Task ID**.

8. Choose a script (view with **Site** > **Payment Terminals** > **Scripts** > **Sets**).

9. Enter a **Receipt ID**.

- *Receipt ID must match the Receipt ID programmed for PCF. Select **Site** > **Payment Terminals** > **Receipts** > **Definition** to view ID for PCF receipts.*

- *No other entries are needed in the Card Authorization Setup box.*

10. Click **OK** to go back to the Card Type Setup box.

11. Click the **Options...** button.

- *No option setting is required for Petro Vend cards. You may choose whichever options you need in the Card Authorization Options box.*

12. Click **OK** when done setting your options.

13. Click **OK** again to close the Card Type Setup box.

14. Click inside the **ISO Ranges** area of the Card Types list box.

15. Click the **New** button.

16. Enter 6 for **Length** in the Card ISO Range box.

- *The "ISO length" equals the length of the network number PLUS 2 LEADING ZEROS. Petro Vend network numbers contain four digits, add two to four for an ISO length of 6.*

17. Enter **Start Digits** and **End Digits**. These are the actual network number, preceded by two lead zeros. For example, if a range contains a single network numbered 0113, the Start and End Digit is 000113.

18. Click **OK** to return to the Card Types list box.

19. Click inside the **Formats** area of the list box.

20. Click the **New** button.

21. Enter the card type as the **Card Format Name**.

22. Count the digits in the card number (remember the two leading zeros) and enter this figure for **PAN Length**.

- *Skip all the **LUHN** fields. They are not used in PV cards.*

23. Select Scan **Track 2**.

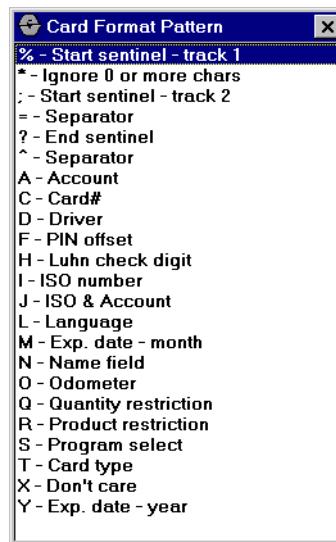24. Click the **View Pattern** button to open the Card Format pattern window, *Figure 53*

```
┌─────────────────────────────────────┐
│ ◉ Card Format Pattern           [×] │
├─────────────────────────────────────┤
│ % - Start sentinel - track 1        │
│ * - Ignore 0 or more chars          │
│ ; - Start sentinel - track 2        │
│ = - Separator                       │
│ ? - End sentinel                    │
│ ^ - Separator                       │
│ A - Account                         │
│ C - Card#                           │
│ D - Driver                          │
│ F - PIN offset                      │
│ H - Luhn check digit                │
│ I - ISO number                      │
│ J - ISO & Account                   │
│ L - Language                        │
│ M - Exp. date - month               │
│ N - Name field                      │
│ O - Odometer                        │
│ Q - Quantity restriction            │
│ R - Product restriction             │
│ S - Program select                  │
│ T - Card type                       │
│ X - Don't care                      │
│ Y - Exp. date - year                │
└─────────────────────────────────────┘
```

Figure 53: Card Patterns

• PV card templates are 40 characters long. When building the PV template, use the following PV card format guidelines:

Petro Vend CARD STRUCTURE

Position	Length	Data
1	1	Start sentinel
2-5	4	Network number
6-17	12	Card number
18	1	Field separator
19	1	Card type: 1 - Single; 2 - Driver; 3 - Vehicle 5 - Alternate language single 6 - Alternate language driver
20-23	4	Expiration date (month/year)
24-25	2	Pump restriction code
26-27	2	Quantity restriction code
28	1	Program select?
29	1	Field separator
30-38	9	NAME (ID or account) field
39	1	End sentinel
40	1	LRC?

- Build the card type template using characters shown in the Card Format Pattern list box (shown on previous page). Either type the character or double-click it in the list.

- A sample PV card based on the PV PCF template would read as follows:

  `;IIIIIIAAAAAAAAAAAA=TMMYYXXXXX=XXXXXXXXXXX?`

;Starts the template

IIISO leading zeros

IIIINetwork number

AAAAAAAAACard number

=Field separator

TCard type

MMYYMonth and year of expiration

XXXXXDon't care

=Field separator

XXXXXXXXXDon't care

?End of template.

25. Click **OK**.

The PCF will now recognize Petro Vend proprietary cards. Next, create some sample PV cards and store them in the PCF file.

Creating PV PCF Cards

1. From the HelpDesk main menu select Authorization > Proprietary Card File (PCF) > Cards Setup.

2. Click the New button.

3. Enter the PV card number in the Card number field.

- *Card number is the only required field.*

4. Choose a card status from the pull-down list (valid or several methods of invalidation). Default is *valid*.

5. Choose a card type (Single, Driver, Vehicle, Account, Manager). Default is *single*.

6. Enter account number if this is an account card.

7. Create PIN for this card if needed (PIN appears as asterisks in PCF list box).

8. Choose language, product restriction and quantity restriction if needed.

9. Click **Scripts** to associate a PCF script with the card. Complete up to three verification conditions, then click **Ok**.

10. Click **Ok** to close the Proprietary Card Configuration box.

• *Review your settings in the PCF list box. Scroll the horizontal scroll bar to view all columns.*

11. Click **Close** to close the PCF list box.

You've now set up both the template to recognize Petro Vend cards, AND a sample card in the PCF file.

Add more cards as needed. Whenever a PV card is read, its template will be recognized. Card data will be passed to the PCF file; if you've defined that card in the PCF file, it will be authorized.

Creating a "Cardless" PCF Type

1. Select **Authorization** > **Card Types**.

2. Click within the Types area of the list box.

3. Click **New**.

4. Enter a unique ID number. Type "Cardless" (or related) for **Name**, then select the card language.

5. Click the **Auth...** button.

6. Select Positive File for **Authorization Type**.

7. Select PCF for **Task ID**.

8. Choose a script (view with **Site** > **Payment Terminals** > **Scripts** > **Sets**).

9. Enter a **Receipt ID**.

• *Receipt ID must match the Receipt ID programmed for PCF. Select **Site** > **Payment Terminals** > **Receipts** > **Definition** to view ID for PCF receipts.*

• *No other entries are needed in the Card Authorization Setup box.*

10. Click **OK** to go back to the Card Type Setup box.

11. Click the **Options...** button.

12. Make sure the **Manual card entry allowed** check box is checked.

13. Click **OK** to close the Card Authorization Options box.

14. Click inside the **ISO Ranges** area of the Card Types list box.

15. Click the **New** button.

16. Enter the **Length** of the ISO string in the Card ISO Range box.

17. Enter **Start Digits** and **End Digits**.

18. Click **OK** to return to the Card Types list box.

19. Click inside the **Formats** area of the list box.

20. Click the **New** button.

21. Enter the card type as the **Card Format Name**.

22. Count the digits in the card number and enter this figure for **PAN Length**.

23. Select Scan **Track 2**.

• *ALL cardless types must scan Track 2 ONLY.*

24. Click the **View Pattern** button. Create the following template.

| Track Digits Template | View Pattern |

;IIIIICCCCCCCCCC=XXXXX=XXXXXXX?|
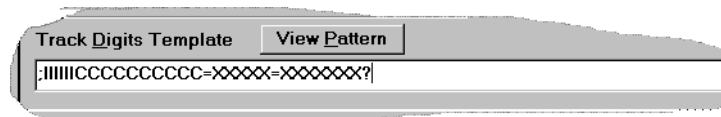
25. Click **Ok**.

Editing a PCF Card

1. Select **Authorization**, **Proprietary Card File (PCF), Cards Setup**.

2. Double-click on the card you want to edit.

3. Change any desired settings in the Proprietary Card Configuration dialog.

4. Click **Ok**.

PCF Basics

PCF Card Number

Up to 19 characters. The Card Number entry is required, no matter what the PCF format is. If this PCF card is assigned to an account, the Account field displays the account number.

PCF Card Status

A PCF card is authorized when its number is stored in the PCF file, and when it is marked as valid. The card may be invalidated remotely from HelpDesk, or locally by the *PV*3500 Controller (for instance, by a bad PIN entry).

You can mark a PCF card invalid using one of the following conditions:

- Valid
- Invalid (either remotely or locally)
- Locally invalidated (at the PV3500 controller)
- Bad PIN Invalidated (at the terminal)
- Script 1 Invalidated (click Script button to see these settings)
- Script 2 Invalidated (click Script button to see these settings)
- Script 3 Invalidated (click Script button to see these settings)

PCF Card Type

Card can be Single, Driver, Vehicle, Account or Manager.

- **Single**. Card is a stand-alone card.
- **Driver***. This card must be used with a Vehicle card to obtain authorization.
- **Vehicle***. This card must be used with a Driver card to obtain authorization.
- **Account**. Does not contain card data per se, but rather account data.
- **Manager**. Not implemented in current HelpDesk.

*For Vehicle and Driver cards, part 1 of pre-authorization requires both cards. The second part of pre-authorization can ONLY be done with the Driver card; the Vehicle card cannot be used to finish the process.

PCF Account

Optional, up to ten digits. If the PCF card number is assigned to an account, the account number goes here. An account is used during authorization to assign limits, or perform additional dialog with the card user.

User Name

Use this field to identify a driver, vehicle or company. If you want, define a receipt so that this name prints out on the receipt.

PCF PIN Setup

PIN

The up to six-digit personal identification number for this card. Numbers only. This field checks the user entered PIN value. When PCF cards are set up for PIN, only the correctly entered PIN value will authorize the card.

Max. Retry

This is the allowed number of bad pin entries per transaction before authorization is declined. Typically "3."

Invalidate on Bad PIN

If this check box is ON, the *PV*3500 automatically invalidates the card when the wrong PIN is entered 'Max Retry" times. This card can then be authorized at this site up to the moment when it is manually validated by HelpDesk operator with sufficient privilege.

View PIN Number

If this box is checked, the PIN for this card will appear (not encrypted) in the PCF List Window. This setting is good only for current session. You must check or clear the box each time you start HelpDesk.

PCF Language

This feature is not implemented in some HelpDesk versions. Currently choose from All Languages, English or French. This field limits the card to access only customer prompts and scripts written in the selected language. Remember that not only prompts, but all related scripts, must be in the language.

PCF Product Restriction

This value refers to a product restriction defined elsewhere with the Help-Desk program. Each restriction contains lists of up to 128 enabled and disabled products. Restrictions are defined with HelpDesk, then assigned to each PCF card.

PCF Quantity Restriction

This value refers to the ID number of a quantity limit, defined elsewhere in HelpDesk. Quantity can be monetary or volume.

When quantity restrictions are used, a quantity database determines transaction limits. The limit is by transaction, not product, so it applies to all allowed products for this PCF card. In multi-product systems, only a monetary limit can be used. As with Product Restrictions, Quantity Restrictions are defined with HelpDesk, then assigned to each PCF card.

Script button

Click the Script button in the PCF Record Configuration window to open a
PCF Record Configuration – Scripts dialog box.

Change the settings of up to three "Validation Scripts." You select one of
these three scripts with the PCF Card Status pull-down.

Manager-Only Functions

About "Manager Mode"

The Manager pull-down is often the sole access granted to site managers or technicians.

When an operator in a Manager-level permission group logs into HelpDesk, this and "Window" are the only main menu items available.

Many functions are simply less-powerful versions of the functions available to system administrators.

Selecting a Display

1. Select **Manager - Prompts** or **Manager - Promotional Messages**.

2. Click the **Display** pull-down for a list of supported displays.

When you select a display type the list of prompts or messages updates to show items formatted for this display type.

HelpDesk version 1.06 supports OPT/COPT, Gilbarco, Tokheim and Wayne displays.

Editing System Prompts

Managers can only edit existing prompts. Managers cannot create new prompts, or copy and paste information as you can in other levels of Site Controller access. Site managers also cannot delete prompts.

1. Select **Manager**, **Prompts** to open a limited-functionality System Prompts list window.

2. Double-click a prompt in the list to open a limited System Prompts dialog box.

3. Change prompt ID and/or prompt text.

4. Click **OK** when done.

Promotional Messages

- Manager-accessed promo message dialog box differs from the box accessed through Site/Payment Terminals/Promotional Messages.

5. Select **Manager**, **Promotional Messages** to open the dialog box.
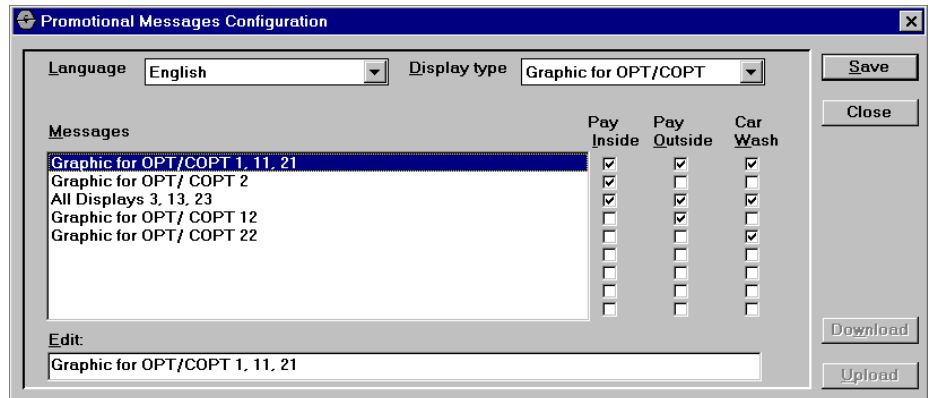
Figure 54: Promo Message Configuration Box

The Manager-Driven Promotional Messages function allows a site manager to edit or create messages displayed on the outdoor terminal during customer fueling. Promotions can be separately targeted at car wash customers, if desired.

- To **EDIT MESSAGES**. Highlight a message, then click in the Edit field at the bottom of the window. Make your changes. Be sure to use proper control codes for line breaks and other formatting changes.

- For **NEW MESSAGES**. Highlight a blank row under existing messages. Click in the Edit field and enter your message.

Use the boxes on the right side of the window to select or de-select messages based on fueling type. A maximum of three messages can be placed in each fueling type. The fueling types are:

- **Pay Inside**. A post-pay sale where the customer has pressed the Pay Inside payment key and will be returning to the kiosk after the sale to pay for fuel.

- **Pay Outside**. A pre-pay sale where the customer is paying for his or her fuel with a credit card swiped at the in-pump reader.

- **Car Wash**. Same payment as "Pay Outside", except that the customer has chosen a car wash on the in-pump reader.

Receipt Headers and Trailers

There are two types of receipts for both inside and outside sales:

- Receipts for car wash customers
- Receipts for all other customers

Car wash receipts are generated after a customer requests a wash during a transaction. A car wash receipt contains an Access Number. This number admits the customer to the car wash.

HelpDesk ships with these factory-defined receipt types:

- PCF
- CAT
- AMEX (American Express)
- VISA (Visa cards)
- MASTER (MasterCards)
- DISCOVER (Discover cards).

Each type contains several ".pic" files, "pictures" of receipt headers or trailer/footers. Separate headers and trailers are defined for each type of receipt.

1. Select **Manager**, then **Receipts Header** or **Receipts Trailer.**

2. Click on the File Name pull-down and select the receipt header or footer "pic" file you want to change.

- For a "pic" file definition list, close the Trailer or Header window, then select **Site** > **Payment Terminals** > **Receipts** > **Definition**.

3. Click in the Header or Trailer field and make your changes to a regular receipt.

4. ALTERNATE: click in the Car Wash Header or Car Wash Trailer field to change the receipts for car wash customers.

5. Be sure to use correct control codes. Receipts are similar to prompts.

6. When done modifying the header or trailer, click **Save** if you want to edit others, or click **Ok** to close the window and save the changes.

Renaming Products or Product Groups

Although many details make up a product definition, managers can only alter the name of a product, or the group to which the product belongs.

For example, to define fuel by octane instead of service level, use Product Definitions to change premium gasoline from *Premium FS* to *Premium 94*.

1. Select **Manager**, **Products Definition**.

2. Double-click on a product.

3. Note only the Name and Product Group fields are active.

4. Click in the **Name** field to edit the name of the product.

5. Click on the **Product Group** pull-down and choose a new group for the product from the list, if desired.

6. Groups are defined by system administrators, and cannot be altered by managers.

7. Click **Ok** when done.

The name change appears on receipts and reports.

Because it is a product's *ID number* that is used for accounting purposes, changing a product name or group has no effect on site inventory or accounting.

Managers cannot change a product ID number.

Terminal Control

This function lets managers define fueling terminals as Card Activated Terminals (CATs). If defined as a CAT, this function also defines the terminal as attended or unattended.

1. Select **Manager**, **Terminals** to display a pull-down list of dispensers.

The number before the terminal description is the terminal ID. Terminal ID can only be changed by system administrators.

• *If no terminals are defined you will NOT see a pull-down.*

2. Highlight the dispenser you want to change.

• *Another small pull-down opens to the right of the dispenser list.*

• *A check mark shows feature is enabled. This terminal is both card activated and attended.*

• If the terminal is NOT card activated, click on CAT Terminal to "turn the check mark off." Likewise, if the terminal will be unattended, click on Attended Terminal to turn that check mark off.

Turning BOTH conditions OFF deactivates the terminal and displays "SYSTEM CLOSED" on that terminal display.

Authorizing Pump During Approval

This feature is also called "INSTANT ON."

The Auth Pump During Approval feature lets managers decide, by card type, if fuel should be dispensed immediately after the card is inserted in the terminal, or only after authorization is received.

1. Select **Manager**, **Auth Pump During Approval**.

2. A list of defined card types (if they exist) pops up to the right of the Manager pull-down

- The card types and their corresponding ID numbers can only be renamed or edited by system administrators. Managers can only enable or disable the Instant ON feature.

3. Click on a card type to enable the Instant ON feature. Click on it again to disable the feature.

Although enabling **Auth Pump During Approval** eliminates the customer's wait for authorization, it can also allow a small amount of fuel to be pumped with a "bad" card.

When a check-marked card is inserted in the CAT, fueling begins immediately. When authorization is received (typically in less than 30 seconds), two things can happen:

- If **AUTHORIZATION DENIED**. Fueling stops immediately and "PLEASE PAY CASHIER" is displayed on terminal. To complete transaction, customer must go inside and pay cashier.

- If **AUTHORIZATION ACCEPTED**. Fueling continues normally.

Do NOT enable Instant ON for the following cards:

- Wright Express
- International Automated Energy Systems (IAES)
- Voyager
- VISA Fleet (IAES)

Remote Controller Option

About Remote Controller

Use the main menu **Remote Controller** drop-down to dial up and connect to the remote site.

When connected to the remote controller, you can manipulate files, stop and start the system, modify the operator list and run diagnostics on the remote hardware.

System Management

About the System Management Window

Select **Remote Controller**, **Connect**. After connecting to the remote site, select **Remote Controller**, **System Management** to open the Remote System Management dialog box (*Figure 55*).
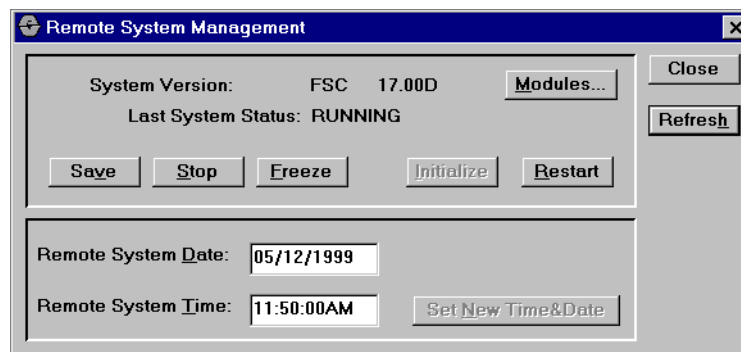
Figure 55: Remote System Management Box

System Version
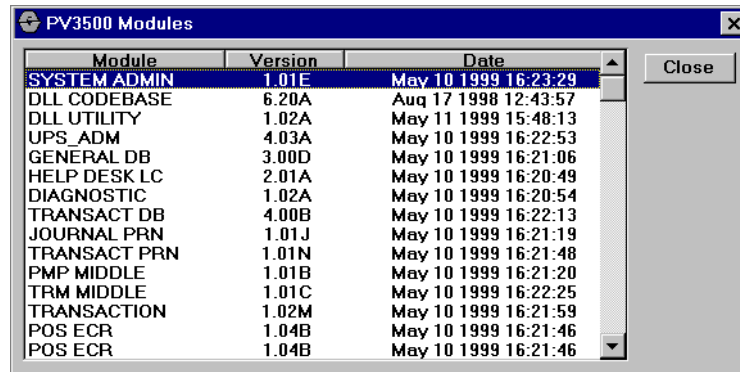
The System Version field in the Remote System Management dialog box shows the customer name and version number of the software that's running on the remote PV3500.

Last System Status

The Last System Status field in the Remote System Management dialog box shows the remote PV3500 status at the time you connected to the controller, or since you clicked **Refresh**. Click Refresh for an update. Typically, the PV3500 can be RUNNING, STOPPED or FROZEN.

Modules button

In the Remote System Management dialog, click the Modules button to display a list of all software "modules", small programs running on the PV3500 that let the controller recognize different pumps and terminals and other add-ons like printers and modems.

Figure 56: Software Modules List Box

Note the list dialog box in *Figure 56* gives you the name, version and date of all software modules.

Save button

When you click the Save button in the Remote System Management dialog box, the PV3500 takes a "snapshot" of all system database and configuration files and writes them to the hard disk. Any transactions in progress are NOT interrupted.

Use Save before downloading any files to the HelpDesk PC.

Stop button

Click the Stop button in the Remote System Management dialog box to halt controller operation. The Stop operation allows transactions in progress to finish within a specified time limit (default is five minutes). Then, a Save operation automatically occurs.

•   **NOTE**: To restart, you must disconnect from the remote controller.

Freeze button

Click the Freeze button in the Remote System Management dialog box to stop the PV3500 *immediately.* All database and configuration files are instantly saved to disk.

•   *Any transactions in progress will be interrupted!*
Once frozen, database configuration files can be safely moved to or from the PV3500. Always use Freeze before uploading directories to the remote site.

Initialize button

Click the Initialize button in the Remote System Management dialog box to stop all pending transactions within a defined time period (default is five minutes).

All configuration files are re-read.

Use Initialize to force changes you have made to any configuration or database files to take effect. The process should take no longer than about two minutes. The remote link is maintained during initialization.

Restart button

When you click the Restart button in the Remote System Management dialog box, you stop all pending transactions within a specified time limit (the default is five minutes).

The system then shuts down, logging you off. It will restart immediately after logoff, but you must reestablish the remote link yourself.

• *Wait 3-5 minutes before attempting to reconnect to the PV3500.*

Remote Date and Time

The editable Remote System Date and Remote System Time fields reflect the time and date in the remote PV3500.

If you change either field, you must click the Set New Time & Date button to write the change to the remote controller.

Refresh button

Because the Status field in the Remote System Management dialog only reflects status at link connection time, use the Refresh button to take another snapshot of the controller any time this dialog box is open.

Connecting or Disconnecting the Remote

Setting Up a Link to the Remote Site

If you can't connect to a remote PV3500, you may need to change Help-Desk communication settings:

1. Select **Remote Controller**.

2. Select **Link Setup** to open the Link Setup dialog box (*Figure 57*).
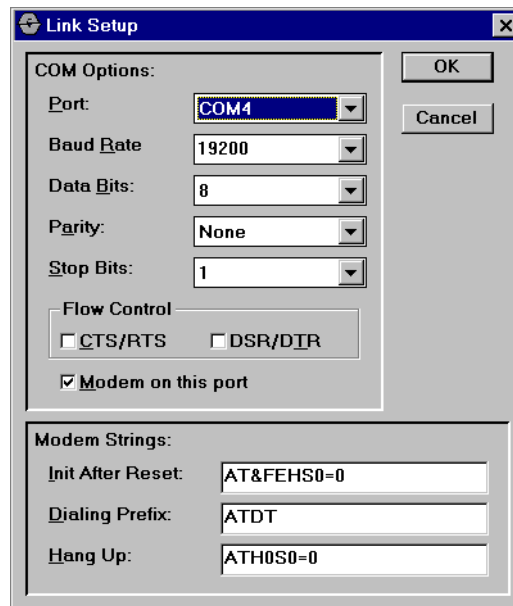
Figure 57: Link Setup Box

3. Select the HelpDesk PC port with the modem from the pull-down.

4. Choose the modem's baud rate, data bits, parity and stop bits.

5. Choose flow control method.

6. Check the "Modem on this port" box.

7. If you need to change default modem strings, do so.

8. Click **OK**.

9. Select **Remote Controller**, **Connect**.

Connecting to the Remote Site

1. Select **Remote Controller**, **Connect**.

2. Enter the remote site dial-up number in the Phone field.

3. If this is new phone number, check if you want it to be the new Primary or Secondary default number.

4. Click **Dial**.

•   *If connection is successful all Remote Controller functions in the pull-down are active.If unsuccessful, check your link setup.*

Disconnecting from the Remote Site

The lower-right part of the status bar on the bottom of your HelpDesk screen shows if you are connected to the remote site, and if so, at what baud rate:

Connected 14400		9:56 AM

1. Select **Remote Controller**, **Disconnect**.

2. Answer Yes to the confirmation.

Remote PCF Card Management

1. Select **Remote Controller**, **Connect**. After connection, select **Remote Controller**, then **Proprietary Card File (PCF)** to open a list dialog box.

2. Double-click a PCF record in the list to open the Remote PCF dialog box. The remote box is the same as the local PCF setup box shown on *Page 116*.

Remote File and Directory Management

Uploading Directories to the Remote Site

1. Select **Remote Controller**, **Connect**. Connect to the remote site.

2. Select **Remote Controller**, **Directory Upload**.

3. Navigate to the directory you wish to upload.

4. Click **OK**.

5. Click **Upload** for each file in the directory you want to upload.

6. Click Skip if you don't want this file to upload.

7. Check the **Upload All Other Related Files** check box to upload entire directory without prompting for each file.

8. To view the files you uploaded, use **Files Management** in the Remote Controller drop-down.

Managing Files at the Remote Site

1. Select **Remote Controller**, **Connect**. Connect to the remote site.

2. Select **Remote Controller**, **File Management**.

By default, the left side of the PV3500 Files Manager window (*Figure 58*) lists the local (HelpDesk PC) drive and directories. The right side shows the remote PV3500 drive and directories.
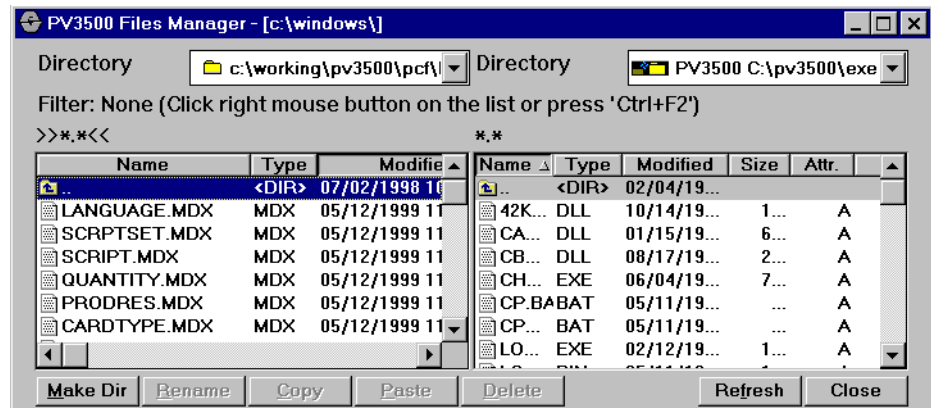
Figure 58: Remote Files Manager Window

About the PV3500 Files Manager Dialog

By default, folders and files have NO filter. To choose a filter, click the right mouse button anywhere in the list and choose **Advanced Filter** or **Wildcard Filter**. Follow the instructions in the Filter section of this manual, page 9. Both an Advanced Filter and a Wildcard Filter can be active simultaneously.

• You can use all normal Windows file and directory management functions. The **Make Dir** button creates a new sub-directory within currently selected directory. **Rename** allows changing a file or directory name.

• Use **Copy** and **Paste** to copy a file or folder from the local HelpDesk to the remote PV3500 (or vice-versa).

• **Delete** removes files or folders from either your local HelpDesk PC or the remote PV3500.

Remote Transaction File

1. Select **Remote Controller**, **Connect**.

After connecting, select **Remote Controller**, **Transaction File** to open the Remote Transactions List dialog.

Double-click a transaction in the list to expand its details:

Remote Negative Card File

Select **Remote Controller**, **Connect**. After connecting, select **Remote Controller**, **Negative Card File** to open the Remote Negative File dialog.

Uploading Promo Messages to the Remote Site

You can revise dispenser-displayed promotional messages (sales, free items with purchase, etc.) on the local HelpDesk PC, then upload them to the remote site.

1. Revise or create your promotional messages in the Promotional Messages dialog (**Site - Payment Terminals - Messages - Promotional Messages**).

2. Log into the remote controller with Remote Controller - Connect.

3. After login, select **Remote Controller - Upload Promotional Messages**.

During upload you'll see the message in *Figure 59*
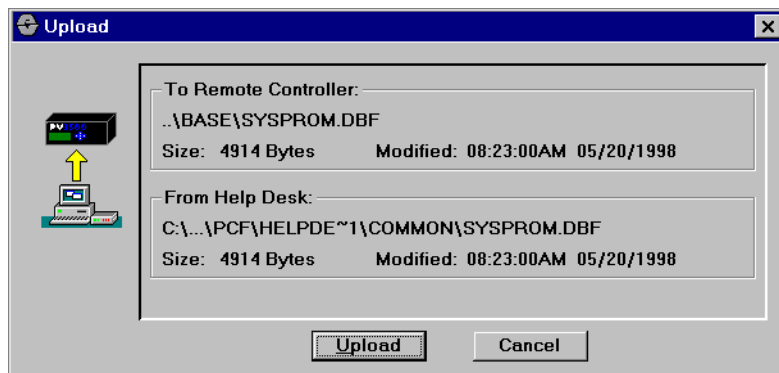
Figure 59: Upload Message

Remote Operator Management

Managing Remote Site Operators

1. Select **Remote Controller**, **Connect**. Connect to the remote site.

2. Select **Remote Controller**, **Operator Management**.

3. Click **OK**.

Figure 60: Another Upload Message

- The OPERATOR.DBF file is revised each time you add, change or delete an operator. Altering or creating passwords also modifies this file. Changes to OPERATOR.DBF are logged in the Operator Log.

- After uploading, time and date of the HelpDesk and Remote Controller OPERATOR.DBF should be the same.

Remote System Diagnostics

Select **Device Diagnostics**, **Reader Diagnostics** or **Serial Port Diagnostics**.

- **Device Diagnostic** lets you check status of all terminal controllers attached to the remote PV3500 (for example, C/OPTs).

- View the number of good and bad reads on the card readers in those terminal controllers with **Readers Diagnostic**.

- Check for communication errors with **Serial Ports Diagnostic**.

- Download the log file from the remote PV3500 for viewing or editing with **Logfile**.

Device Diagnostics

1. Select **Remote Controller**, **Connect**.

2. After connection, select **Remote Controller**, then **System Diagnostic**.

3. Select **Device Diagnostic**.

Selecting Device Diagnostic displays all terminal devices attached to the PV3500, and any errors these devices have generated.

Double-click on a device in the list (or click the **Select** button) for device status (*Figure 61*). Terminal status is shown.
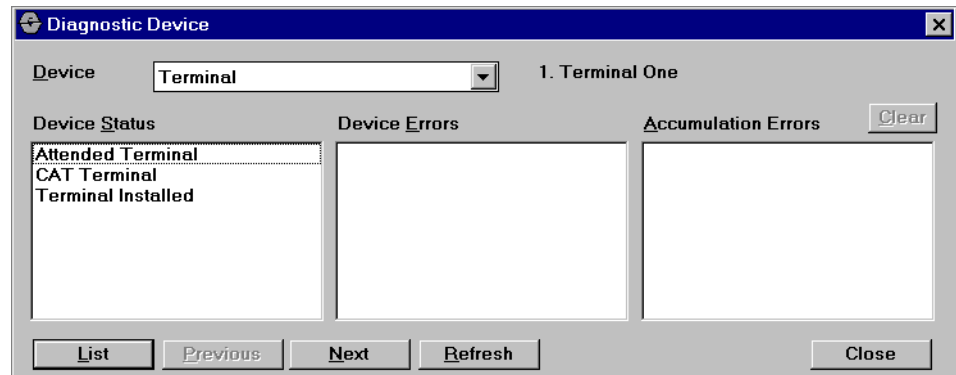
Figure 61: Diagnostic Window

View errors (if any) for the following devices
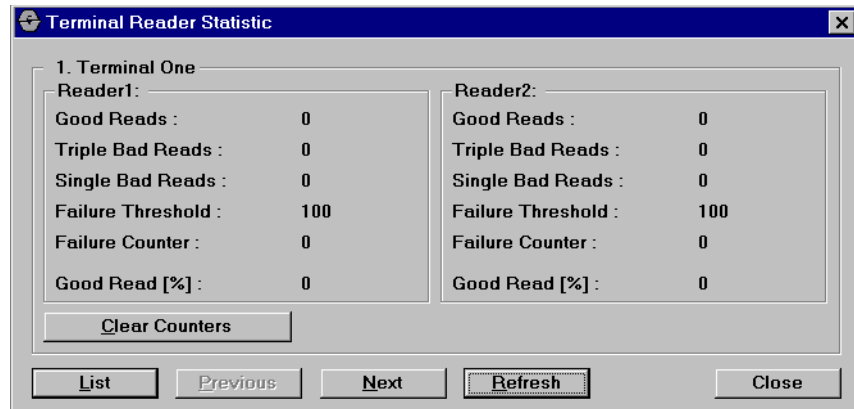
- Terminals
- Pumps
- Journal Printers
- Host PC
- Network
- Disk
- File Manager
- Gen. database administrator (GdbAdm)
- Trans. database administrator (TdbAdm)
- Positive Card File

Refresh updates the list, while **Clear All** clears all accumulated device errors.

Reader Diagnostics

1. Select **Remote Controller**, **Connect**.

2. After connection, select **Remote Controller**.

3. **Select System Diagnostic**, then **Reader Diagnostic**. A Terminal Reader Statistic list dialog box opens.

4. Double-click a reader in the list to open the Terminal Reader Statistic dialog box (*Figure 62*).

```
Terminal Reader Statistic                                    ✕

  1. Terminal One
   Reader1:                              Reader2:
   Good Reads :           0               Good Reads :           0
   Triple Bad Reads :     0               Triple Bad Reads :     0
   Single Bad Reads :     0               Single Bad Reads :     0
   Failure Threshold :    100             Failure Threshold :    100
   Failure Counter :      0               Failure Counter :      0

   Good Read [%] :        0               Good Read [%] :        0

   [ Clear Counters ]

   [  List  ]  [ Previous ]  [  Next  ]  [ Refresh ]          [  Close  ]
```

Figure 62: Terminal Reader Statistic Dialog Box

- Click **Refresh** for an "up-to-the-minute" count of reads. An excessive number of bad reads may indicate a defective reader or reader head.

- Click **Clear Counters** to clear all reads from the counters.

- Click **List** to return to the list of FITs, or use **Previous** or **Next** to move through the FITs without returning to the list.

- **Good Reads**. Number of reads processed successfully for this reader since Clear Counters was last clicked.

- **Triple Bad Reads**. Number of times three bad reads in a row occurred on this reader since last time Clear Counters was clicked. If programmed, three bad card reads in a row enables the FIT keypad for manual user entry of the card number. A high number here may indicate imminent reader failure.

- **Single Bad Reads**. Number of bad reads that were followed in fewer than two retries by a good read. If three bad reads occur in a row, the three-read sequence is recorded as one "Triple Bad Read."

Serial Port Diagnostics

1. Select Remote Controller, Connect.

2. After connection, select **Remote Controller**, then **System Diagnostic**.

3. Finally, choose **Serial Port Diagnostic**.
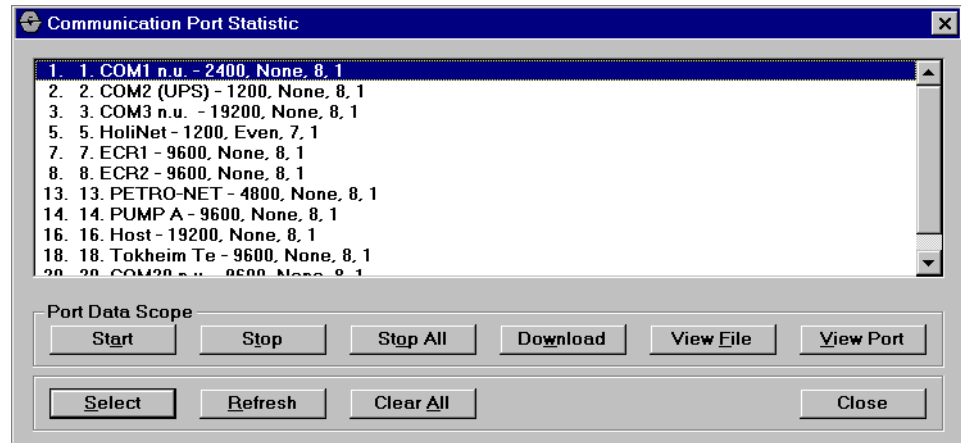
Figure 63: Communication Parameters Window

The window shown in *Figure 63* lists all defined comm ports in the remote PV3500, with a brief summation of communication parameters (for example: 19200, None, 8, 1) baud, parity, word size, stop bits).

Double-click on a port (or highlight and click **Select**) for more detailed information.

Port Data Scope Buttons

The **Start**, **Stop**, **Stop All**, **Download**, **View File** and **View Port** buttons control the data scope, a screen that lets you watch real-time data transmissions to and from PV3500 ports. The data scope also lets you capture the images of data flowing to and from the PV3500, for later reference and troubleshooting.

• **Start** initiates a data scope. First, you define how large a data scope file to retain while viewing, and how long the data scope should continue recording the port data to the file after you close the Communication Port Statistic dialog with the **Close** button.

After entering a file size (default is 100K) and close delay (default is zero), click **Ok** to begin the data scope.

- **Stop** halts the currently selected port's data scope.
- **Stop All** halts all currently running data scopes.
- **Download** (Remote File in some versions) downloads a "pre-recorded" data scope file from a remote PV3500. Data scope files have ".spe" file type extensions.
- **View File** (**Local File** in some versions) opens a data scope file (type ".spe") on the local Help-Desk PC.

You can also list data scope files by selecting **Site** - **Ports** - **Data Scopes**.

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FUEL MANAGEMENT SYSTEMS