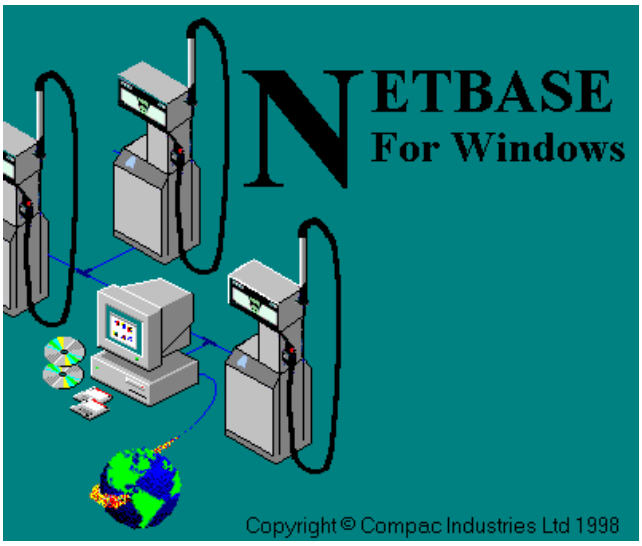
COMPAC

NETBASE for WINDOWS
User Manual



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1. About this Manual

1.1. Manual Layout

This manual is divided into eight sections.

1. **System Concepts**
   This section deals with the concepts relating to the operation of the NETBASE system. It should be read to gain an understanding of the options and configurations available.

2. **Installation**
   This section details the initial installation of NETBASE for Windows. This is normally part of NETBASE commissioning and if your NETBASE has been installed it will have been done for you.

3. **Using NETBASE**
   This section provides the user with insight into the logic behind the operation of the NETBASE program.

4. **Setting Up a NETBASE System**
   This section deals with the setup required to model your fuel distribution Network in NETBASE. This is normally part of NETBASE commissioning and if your NETBASE has been installed it will have been done for you.

5. **Configuring NETBASE**
   This is taken care during the commissioning of NETBASE but may be needed for referral.

6. **Routine Operation**
   This section details the routine operations the user will undertake using NETBASE to manage and control the sites in the fuel distribution Network.

7. **End of Period Operations**
   This section deals with utilising the data contained in NETBASE to reconcile fuel movements in and out of your fuel distribution network.

8. **Trouble Shooting**
   This is where you turn to first when things do not go as expected.

1.2. Manual Conventions

1. Text references to other parts in this manual appear in italics e.g. refer to the section *Maintaining Cards*
2. Menu and submenu selections appear in bold together. e.g. **File | New | Card**

2. System Concepts

2.1. What is 'The System'?

NETBASE is a PC software program that contacts sites with Compac site controllers, downloading card data and uploading transaction, event, site, vehicle and tank information. It processes this data and can print reports and export and import data to and from another system.

Sites are both local and remote installations where consumers are able to obtain fuel products. The transaction, event, site, vehicle and tank information is stored locally at each of these sites and is periodically updated and amalgamated with that from other sites in the network through the day to day operations of NETBASE .

2.2. How does it Work?

Located at each site is a Compac site controller [Communicator Controller, Central Controller or Futra] which controls the pumps, dispensers and tanks and records real time transaction information which is stored in its memory.

The site controller authorises transactions by a Card, Tag or Key system. People who use the sites are provided with Cards, Tags or Keys (and hence accounts) through which they have access to the fuel products on the networked sites. NETBASE or an external system to which NETBASE interfaces by way of card imports manages the Cards, Tags or Keys. Because the list of allowed cards is dynamic as new people are issued cards and existing cards are removed, a snapshot of the updated list is periodically sent to the networked sites via NETBASE. The use of a Card, Tag or Key to procure fuel at any site in the network results in a transaction, which is stored locally and known only at the site.

As the memory of a site controller is limited the transactions stored at the networked sites must be periodically fetched via NETBASE for analysis, reconciliation and billing purposes. The public telephone network is utilised to communicate with each site (comm's session) in the network to collect transactions and send a revised Card, Tag or Key file. Once the transactions are amalgamated within NETBASE they are able to be reported on or exported to external fuel reconciliation/billing system(s).

The Cards, Tags or Keys can be credit type where the customers are issued with a bill for the previous months use, or a prepaid type where the fuel is prepaid. When the prepayment amount is used up no more fuel can be taken until further payment is made.

2.3. Limited & Extended Card Validation Systems

Transactions can be authorised at Site(s) in one of two ways.

1. By validating the Card, Tag or Key presented against an internal list of acceptable cards stored in the Site Controller. This called a 'limited validation system'.
2. In larger networks where a large number of Cards, Tags or Keys may be utilised it is often more appropriate to validate the Card, Tag or Key presented against its access and security code and a list of Cards, Tags or Keys that are NOT acceptable. This is called an 'Extended Validation System'. Here NETBASE is used to update the site with a list of those Cards, Tags or Keys removed from circulation.

3. You need to know which mode of card validation is being utilised on your network so NETBASE can determine which card list to send to the site(s) (i.e. the list of valid cards or the list of invalid cards).

2.4. User ID Systems:

In standard systems the use of Cards, Tags or Keys can be traced only to the owner of the Card, Tag or Key. The user of the card is the card owner and his/her details are maintained in NETBASE. Note from here we refer to Cards, Tags or Keys as cards. The same options apply to Tags and Keys.

In fleet type operations we may have a number of people with access to a number of vehicles.

Cards may identify people or vehicles. There are two ways this can be used.

1. The card identifies a person and you have authorised vehicles they are allowed to refuel. The authorised vehicles have an identifying number that must be entered on a pump PIN Pad which is validated in the site controller against a list of authorised vehicles. The site controller memorises the vehicle that was refuelled with the transaction details plus the person who refuelled the vehicle.
2. The card identifies a vehicle and you have authorised people allowed to refuel the vehicle. The authorised people have a identifying number that must be entered on a pump PIN Pad which is validated in the site controller against a list of authorised people. The site controller memorises the vehicle that was refuelled with the transaction details plus the person who refuelled the vehicle.

NETBASE for Windows extends the concept of Vehicle and User ID to any number of user definable classes of ownership and/or use of the card (i.e. it does not limit this to just people and vehicles rather other classes may be defined such as Departments).

In this way reporting on transactions can be further categorised to include usage and user information.

2.5. How Do We Achieve This?

In NETBASE, a Card can be allocated a Cost Center.

A Cost Center has as a key attribute, a Type ('Person', 'Vehicle', 'Department', etc) which indicates the Class of cost center details recorded. The NETBASE user is able to define a Cost Center of Type 'Person' to have the attributes Name, Address, Phone No and a Cost Center of type 'Vehicle' to have the attributes Registration No, Make, Colour, Engine No, (7 user definable fields in all).

After the appropriate Cost Center type(s) has been defined & configured records can be entered and allocated to card(s). This enables Cards to be able to be allocated to people, vehicles, or departments etc.

To enable the transaction to be linked to the appropriate person or vehicle we record in NETBASE Card Users. A 'Card User' has as a primary attribute, a User ID, which is unique and is used for Identification purposes (PIN Pad entry at the dispenser). It is allocated to, a Card User (Cost Center) in the same manner as a Card is allocated to the card owner (Cost Center).

2.6. Single Site Prepay Systems

With a single Site Prepay system the Cards, Tags or Keys have a dollar amount, which is held in the site controller against the card file. Every time a card is presented, the remaining value of the card held in the controller becomes a preset maximum. The transaction cannot exceed this value. Once the transaction is completed the amount is subtracted from the balance held against that card in the controller until no balance remains.

Cards can be 'topped up' by presenting the card with money to the NETBASE manager.

As an incentive to get people to prepay for their fuel a cheaper fuel price can be applied to the card. When the card is presented the pump price changes by either a percentage amount or a cents per litre amount depending on which discount has been associated with the card. After the transaction the pump returns to the default price setting.

Whenever Prepay amounts are added to cards, the balance for each card has to be retrieved first. The extra money paid must be added to the existing balance and that new balance is sent to the site controller.

The risk associated with supplying fuel on credit is eliminated with the prepay system. The pump stops dispensing fuel when a zero balance is reached.

2.7. Multi Site Prepay Systems

A multi site Prepay system operates similar to that of single site prepay. However the prepay cards are able to be used at other participating sites in a fuel distribution network, and are not restricted to the one site. This is achieved by using “Smart Cards”, these store the prepay balance on the card as opposed to a single site prepay where the balance is stored in the memory of the Controller. Discounts can be applied to the “Smart Card” as in the single site prepay system.

2.8. Store & Forward Nature of NETBASE

NETBASE is a Store & Forward system, transactions accumulate in two places. First is the site controller, and second the NETBASE database. Regular house keeping is required to ensure the system operates efficiently. This requires regular deleting of transactions, which have already been processed.

Transactions that are stored in the memory of the site controller can be periodically fetched by NETBASE using a ‘Receive Transactions’ comm’s session. These transactions are then ‘tagged’ in the memory of the controller as being uploaded. These tagged transactions remain in the memory of the controller, and will continue to be uploaded during ‘Receive Transactions’ comm’s sessions. The memory buffer of the controller will eventually reach its capacity and will prevent the pumps from delivering fuel.

To prevent this from happening, once the transactions have been uploaded from the site controller, a ‘Delete Transactions’ comms session is required. This comm’s session deletes all transactions that have been tagged in the controller memory as being uploaded. This won’t delete transactions that have not been uploaded.

Transactions that have been received from site are stored in the NETBASE database. From the database they can be exported to other software packages for reconciliation ie Microsoft Excel or they can be used for reporting using NETBASE reports. Once again these transactions remain in the database until such a time as the NETBASE user purges unwanted transactions from the database. It is useful when exporting transactions to use the ‘Tag Transactions' & ‘Exclude Tagged Transactions’ options, this is so transactions are not re-exported.

3. Installation

3.1. Installing NETBASE for Windows.

The NETBASE for Windows you are installing is a 16bit version. It uses a 16bit Local Interbase Server Manager together with Borlands Database Engine and SQL links to store the NETBASE data. First install the Local Interbase Manager by inserting disk 1 and running setup.exe and follow the on screen prompts, accepting the defaults. Once this is complete install the NETBASE for Windows by inserting disk 1 and running setup.exe following the same procedures. Once both of these have been installed you should have a program group containing the NETBASE for Windows icon and an entry on the task bar from which to operate it from (if running a Win 95 platform).

3.2. Registering NETBASE for Windows

When running NETBASE for Windows for the first time you will be prompted for an unlock code. Simply phone the Compac Industries Help desk (+64 9 571 1877). You will be asked to provide information on your site and the Product Id, which is generated by NETBASE for Windows. The product Id is 16 characters long and consists of numbers and letters. Once this is provided you will be given an unlock code, once again this will be 16 characters long. This is only required the first time when opening NETBASE for Windows or if NETBASE is moved to another PC.

3.3. Logging into NETBASE for the first time

After registering the NETBASE for Windows you will be prompted to log on to NETBASE for Windows. You will be asked to supply a Name and a Password. As this would be the first time your NETBASE has been used there would be no users set. You will need to log on for the first time using the name ‘Support’. When first registering the NETBASE you will be given a ‘Support Password’, use this password for logging on. Please note that the Support Password changes daily.

Once logged into NETBASE as Support select **File | User Setup | Maintain Users** the list of users will be blank. Press the ‘Add’ button and enter a user name, and a password for that user (be it yourself or a specific NETBASE operator). This first user should have Manager Access privileges. Manager user access can only be granted whilst logged into NETBASE as Support so all users to have the Management Privileges must be entered during this initial stage

4. Using NETBASE for Windows

4.1. Navigating NETBASE

NETBASE for Windows uses a Browser for letting you locate and extract the records that you require from the NETBASE for Windows database.

Records that are of interest to the NETBASE operator can be located quickly by using the appropriate Browser selected from the view menu. All Browser's are similar in appearance and operation, minimising the learning and time required navigating around the NETBASE database. Any number of Browser's can be opened at one time.

Each Browser consists of 3 areas or panels. The first is the Search Criteria, this is used to narrow down (or filter) the search for the record. Second is an action panel where there are various buttons assigned for various actions ie-opening records, deleting records, adding records etc. The third is the result set, this is where the results of the search are displayed

There are a number of actions available with the results once a search has been completed. Either by right mouse clicking or selecting **Actions** from the main menu, the results can be exported to a CSV file type ie MS Excel or printed (only the visible columns will be printed). In addition to these there are other actions available depending on the object being browsed ie Cards or Transactions.

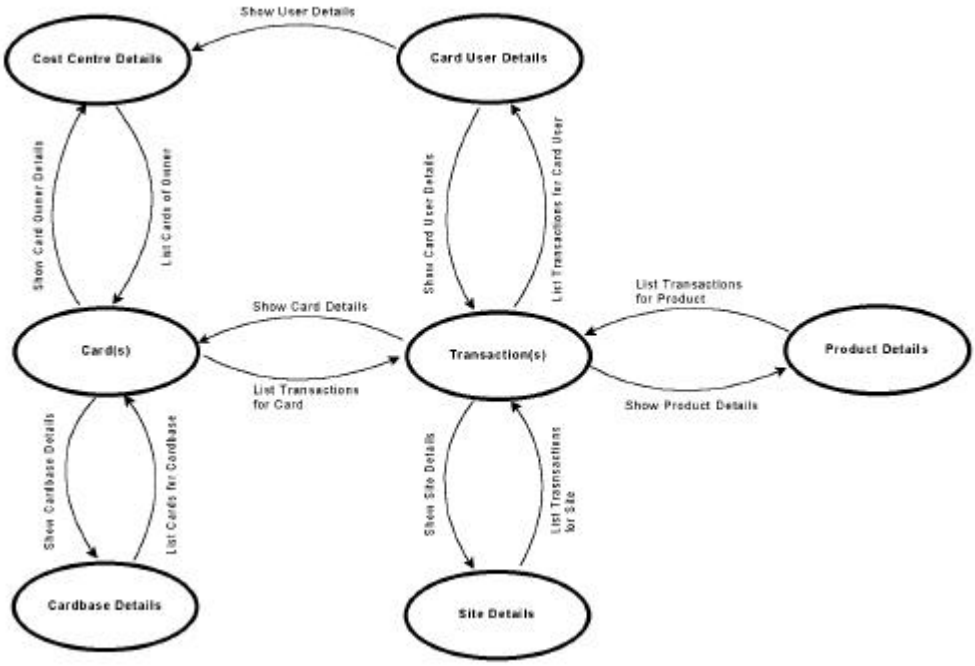
Although records can be quickly and accurately located using the Browser, these records can not be updated in the Browser. To update details of a record, the record must first be opened. Records can be opened in the Browser by one of the following means.

1. Double clicking on the record
2. With the record highlighted, pressing enter
3. With the record highlighted pressing the open button in the Browser

As stated earlier any number of Browser's can be opened at any one time. In particular if you are mid way through an operation and require a record that has not been created ie allocate a person to a card. Simply minimise the operation that you are currently working on and from the main menu select **File | New**, create the new record and then return to the previous operation and continue.

In some applications the NETBASE dictates that you must assign (or allocate) a record to an existing entity ie a card must be assigned to a Cardbase. In these situations an Assign button will be allocated for the task.

NETBASE Navigation Actions.



4.2.

4.3. Getting Help

This manual is not intended to provide a key-press by key-press detail on how to operate NETBASE for Windows. NETBASE for Windows does have an on line help if you require information on a particular operation.

If the on line help is unable to answer any questions you may have to consult this manual. If you still have problems there is a trouble shooting section at the rear of this manual, if that does not fix your problems then please call the Compac Help-Desk on +64 9 571 1877.

Remember!

1. Press F1
2. Consult the manual
3. Call the help desk.

5. Setting Up a NETBASE system

With the exception of common data to NETBASE ie comms actions etc, the database is void of any data when the NETBASE is first installed. You will need to enter the details specific to your Network.

5.1. Create the Products your Network will be utilising

Compac site Controllers use product codes to identify the applicable products for a site and the transactions that occur, ie product code 3 may be used to identify Diesel. These product codes are used to place fuel restrictions on cards and for setting product prices at site(s). If you have multiple sites on your Network, then it is important to ensure that the product codes are consistent at all sites.

To create a Product, from the main menu select **File | New | Product**, alternatively from the product Browser select new. Enter a numeric ID for the product you are entering and then add the corresponding product name. Finally press enter or OK to save the product. Repeat this for the remaining products used on your network. Please see table below for standard product codes used on Compac Installations.

Product Code	Product
01	Super
02	Unleaded
03	Diesel
04	Premium Unleaded
05	LPG
06	Oil
07	Kerosene
08	Avgas
09	JET A1
10	Water
11	Not Used
12	Multi Product Dispenser
13	Oil 1
14	Oil 2
15	Oil 3

5.2. Create the Cardbase(s) you will be using.

If you are using cards that do not belong to an Oil Company/Distributor (these may already be in your Cardbase Browser)ie cards made specifically for your site(s), you will need to create your own Cardbase. The Cardbase information is specialised, when a card is swiped at a pump, the site Controller when validating the card refers to the Cardbase for which the card belongs to. It is therefore important when creating a Cardbase that all the information is entered correctly.

To create a Cardbase, select from the main menu **File | New | Cardbase**, or from the Cardbase Browser select **New**. Enter a unique name for the Cardbase and then enter the ISO number and Access number (these should be supplied with the new cards, tags or keys, if not contact the Compac Help Desk). The 'Use ISO Map' should be unchecked and the ID should be '0' the card number generally should be set to 10.

Now that you have created your Cardbase you should make this your Default Cardbase. This will significantly ease data entry when creating cards. To do this, go to the Cardbase Browser search for the Cardbase that you have created and highlight it. Right mouse click on the highlighted Cardbase and select **Make Default Cardbase**. You are free to delete any Cardbases that you will not be using. To delete unwanted Cardbases, in the Cardbase Browser highlight the Cardbase to be deleted and press the delete button or the Delete key on your Keyboard. Please be cautious though, as all cards associated with the Cardbase that is being deleted will subsequently be deleted as well.

5.3. Create the Sites with which you will be Communicating

To create a site select from the main menu **File | New | Site** or from the sites Browser select **New**. There will be several fields and tabs in the Site Details, you need only to enter a Site Name, Controller Number and Passcode in order to save a site. If you have several sites on your network, then each Controller number must be unique. Once all relevant information is entered press the OK button or press enter on the keyboard to save the site.

As a key part of NETBASE operations is communicating with sites, the correct information must be entered in the Communications tab in the Site Details. If the Netbase is communicating via direct host ie computer is attached to site controller by a cable. The box marked Modem should be unchecked. The Com Port should be set to the Com Port of the computer, which the cable is connected to. Baud Rates vary depending on controllers and COM ports, start communications at a low baud rate then trial faster rates. If communications are done via a modem, then the modem check box should be checked and the correct phone number entered. Please note that baud rates are often lower when communicating through Modems, start off at the lowest baud rate and then work up.

For cards to work at site you will need to allocate the appropriate Cardbase(s) to the site. Allocating a Cardbase to a site, enables all cards belonging to that Cardbase to be accepted or not accepted at site depending on the mode which the site is setup for (Limited or Extended Validation, refer section *Limited & Extended Validation)*. To set the Cardbase, while in the Site Details turn to the Cardbase tab. Simply allocate the desired Cardbase for the site and press OK.

5.4. Create the Cards your Network will Utilise

To create a Card in NETBASE for Windows, from the main menu go **File | New | Card**, or from the card Browser select **New**. Enter the card number excluding the ISO number and Access number (these are stored in the Cardbase details). If you wish to assign it to another Cardbase other than that of the default Cardbase, click on the assign tab and select the desired Cardbase and press OK. Depending on your system you may wish to add fuel restrictions to the card or pin-numbers and expiry dates. You may wish to add a Prepay value to the Card if you have the appropriate NETBASE software (refer sections *Single Site Prepay Systems & Multi Site Prepay Systems* for more information).

If using a large number of cards it would be somewhat time consuming having to enter each card individually. Therefore with large numbers of cards with sequential numbers, it is possible to create these cards very quickly. Cloning a selected card does this. Go to the Card Browser and highlight the card to be cloned. Right mouse click on the card and select **Clone Selected Card**. Enter both a starting number and end number in a series of cards you wish to create and press OK. These cards will be created in seconds. Using this method it is possible to create cards and allocate them to the same cost centre if desired.

Netbase for Windows has been designed so that it can be used to manage both Limited Validation sites and Extended Validation sites (refer section *Limited & Extended Validation)* simultaneously. Cards are able to be stored in the NETBASE database with either a valid or invalid status. Valid cards are selected and sent to Limited Validation sites, and invalid cards are selected and sent to Extended Validation sites.

6. Configuring NETBASE

6.1. Configuring Cost Centres

In larger NETBASE's, cards often are managed by an external system, valid card numbers are imported in to NETBASE for Windows. It is therefore not necessary to record in NETBASE the details of people whom cards belong to (this is managed by the external system).

However when NETBASE for Windows is used as the primary means of managing cards or card users and their respective owners (be it people or vehicles), NETBASE utilises Cost Centres. A Cost Centre is a centre which cost can be attributed to.

There are 2 Cost Centres that are most commonly used, already loaded in the NETBASE (people and vehicles). People have characteristics such as Name and Address etc, whereas vehicles have Make and Registration number etc. By using these you can record personnel details of the person whom a card has been issued to or you can record the vehicle details to which a card has issued. Details of the Cost Centre can be deleted or changed in any way.

From the main menu select **File | Options | Cost Centres**, you will be presented with a list of cost centres known to the system. By highlighting a cost centre, then pressing 'Open' the details of the cost centre will appear. A Cost Centre can have up to 8 user definable fields, only the first field is mandatory (this is used to identify the Cost Centre). Once the required fields have been entered in your Cost Centre press 'OK' to save. Below is a sample on how a Departmental Cost Centre may be set out. These departments may have cards allocated to them at a later date.

Type: Department

Field 1: Department Name (mandatory field)

Field 2: Supervisor

Field 3: Cost Centre

Field 4: Phone Number

6.2. Maintaining NETBASE Users

NETBASE for Windows deals with sensitive and in some cases quite substantial financial information. It is therefore important to restrict the use of NETBASE to users who know the operation of NETBASE. As mentioned before when NETBASE is first installed there will be no users set and this first login is done using the support login (*refer section 3.3 Logging into NETBASE for the first time)*.

When logged in as 'Support' it is important to create uses with Manager Access Privileges (this can only be done when logged in as 'Support'). Users with Manager access privlages can only create users with 'User' access privileges. If at a later date more Managers are needed to be added to the NETBASE, contact the Compac Help desk for the support passcode of the day (this changes every day).

If you need to change your password, from the main menu select **File | User setup | Change password** and enter the new password you have chosen. You will need to varify your new password you have chossen. The next time you log into NETBASE, your new password will take effect.

6.3. Maintaining User Access Rights

As mentioned earlier NETBASE has two classes of NETBASE users, Managers and Users. The access rights (what functions they are able to perform) for these users are configerable. From the main menu sselect **File | Access Rights**. An Access Security dialog is displayed full of the various functions available in NETBASE. Simply check or un-check the appropriate boxes for the desired functionality and press OK.

The same principles are used when configuring Access Rights as to those used in creating new users ie Managers can only change the Access Rights of Users and users cannot change any Access Rights. This prevents users from inflating their own privileges. As in creating Managers, if the Access Rights of a Manager need to be changed, the Support loggin is required.

6.4. Configure NETBASE Browser Characteristics

The NETBASE Browser's (refer section 4.1 *Navigating NETBASE*) can be configured to help in the search of data. When in any Browser simply right mouse click or from the **Actions** menu select **Customise Dialog**. A dialog will be displayed **Dialog Options** with two options available.

Auto Refresh Query on returning to Browse Dialog

Auto Refresh ensures each time a Browser is returned to, the information displayed is up-to-date. This is the preferred option, if for instance you have records displayed in the Browser as the result of a search and a New record is needed ie in card Browser and a new card is needed. From the Card Browser click **New** and create the card. Upon return to the Card Browser this new card will automatically be displayed. The same applies to Delete and Open operations (where you may have changed the details of the selected card). However where large numbers of data is involved (big cardbases or transactions) this function should be disabled.

Performing Find on opening Browse Dialog.

This option automatically performs the search operation when opening the Browser and displays the results in one action. For small numbers of records (typically less than a few hundred) this would be the preferred method. The exceptions are cards and transactions, where there could be thousands of records and you would want to limit the criteria before performing a search.

6.5. Environment Settings

From the Main Menu select **File | Options | Environments** an environment dialog will be displayed with 4 options.

Log Comms, enables detailed (packet level) communications information about the files being transmitted and received to or from sites to be written to a log file (Commdbg.log) for analysis. While the NETBASE user is not expected to be familiar with the contents of this file, it is of benefit when communication problems are being encountered with sites. These files enable communication problems to be traced by qualified service personnel. Note a high-level communications information summary

file (CommInfo.Log) is generated every time communications with site(s) are carried out. This file can not be switched off.

Log SQL option enables summary and stored procedure operation information performed on the database to be written to a log file(s) SQL.log & Procs.log. Again while the NETBASE user is not expected to be familiar with the contents of this file, it is of benefit when database problems are encountered within the application and enables any of these problems to be traced by qualified service personnel.

Confirm Delete Operations a prompt 'are you sure you wish to delete this?' is displayed if deleting records along with 'OK' and 'Cancel' buttons. This option should be checked, as it is a safe guard against accidental deletion.

Warn of Unsaved Information on Cancel, if a record has been changed and you quit the record with out saving, a prompt will appear 'Please confirm quit without saving changes'. This safe guards against new information been lost when cancelling. Both Confirm Delete and Warn of Unsaved information should be checked, particularly in the case of new users how are unsure of the ramifications of there actions.

6.6. Configuring the Modem

Because of the variety of Modems that NETBASE users can utilise to communicate with sites, it is sometimes necessary to set NETBASE system wide Modem parameters (Init String). Note this is only necessary when communicating with remote sites via Modem. When communicating directly via RS232 (Direct Host) this is unnecessary and not utilised.

From the main menu select **File | Options | Modem** to view the modem configuration. There are a number of command strings and response strings that can be configured. Command string's mainly deal with the operation of the Modem. For specific information on the command strings to use refer to the Modem Owner/User manual. Response strings are used in the real time reporting of the various communications messages. These are displayed in both the Modem Message window of the Kermit Communications Dialog and in the Communications Information log (Comm_info.log). These settings should not need changing.

6.7. Configuring Statements & Invoices

NETBASE for Windows is able to generate both invoices and statements ready for sending to customers. These Invoices/Statements can be configured so as the Invoice/Statement will appear with Company details along with a Company logo if required.

From the main menu select **File | Options | Statement** to view the Statement/Invoice details. The user is able to specify the name of the Company, which will be issuing the Invoice statement and the appearance of the Company Name Field. A Custom logo (color bitmap file 500x150 pixels in size) may also be specified which is printed at the Top right hand corner of each Statement/Invoice. Also Invoice return address details and the Tax Number and tax-rate are able to be set here.

Separate invoices or statements are printed for each Card for which Transactions are found in the reporting period specified when the report (invoice/statement) is run. Each invoice or statement is given a numerical sequence number (which increments by one

from one invoice/statement to the next, starting from the corresponding invoice or statement number able to be specified in this dialog.

6.8. Custom DLL options

Although imports and exports are flexible and are able to be configured to a large degree in NETBASE for Windows there are some application where formats of either are not able to be configured in a suitable manner.

Typically this is where proprietary or independent systems/platforms are used as a primary means to manage card data and perform transaction/product reconciliation or billing. Here NETBASE is used only as a means to send the appropriate Cards to the site(s) and to extract the transactions from the site(s). The interface between NETBASE and the independent system is provide through a custom import or cards and/or a Custom export of transactions. To achieve this a DLL is provided specific in the way it functions to the individual application.

To set the various parameter required to utilise the Custom DLL provided with NETBASE for Windows in these instances from the main menu select **File | Options | Custom DLL**. Note that this option is only available to users who have purchased and been supplied with this option.

A Custom DLL Options dialog is displayed allowing the user to specify the name of the custom DLL file provided when the application was installed. Also the name of the card import file can be specified together with the path to save the exported Transaction file to. (note often the export filename is derived from some combination of characters from the date the export is generated, hence it is only necessary to specify a file path.

7. Routine Operations

7.1. Maintaining Cards

7.1.1. Maintaining Card Details

NETBASE facilitates the creation of cards via a number of methods. To enter a larger number of cards it is preferable to either import them or Clone an existing one.

To create singular cards in NETBASE though from the main menu select **File | New | Card** or from the Card Browser dialog press the New button. A Card Details dialog is displayed in which you are able to enter the details pertaining to the card you wish to create. You need only supply a unique card number (providing a default Cardbase has been assigned). Only the least significant digits of the card number have to be specified, (that is any leading zeros can be omitted).

You may also wish to assign the card to a different Cardbase (use the Assign button) or assign the card a PIN and/or expiry date. Like all date fields in NETBASE the expiry date field format is that defined in the Windows Control Panel. The PIN is a four digit numeric field. By default the cards created are valid. If however you will be utilising these cards at sites that are configured as extended Validation then you will need to invalidate the card.

If you utilise NETBASE to manage the cards and wish to record the card owners details then you will need to allocate the card to a Cost Centre. To do so simply check the Card Owner checkbox and select the Cost Center (Card Owner) you wish to allocate the card to from the dialog provided. If the Cost Center does not exist you may temporarily put the new card creation on hold and create the Cost Centre to which you will assign the card to. Simply from the main menu select **File | New |Cost Center** and select the type or class of cost center you wish to create and enter the relevant details in the dialog provided. Press OK to save the Cost Center then check the Card Owner Checkbox in the Card Details dialog to select the previously created Cost Center from the dialog provided.

Prepay cards (only available if your system has been configured for single or multi site prepay operation) have an additional tab displaying the prepay details of the card. Switching to that tab you are able to see the current balance of the card as determined by NETBASE (Note this may not be the actual prepay balance of the card. You will need to fetch transactions from all sites where the card has been used to obtain fuel to determine the up to date card balance if the card is used in a Multi Site Prepay System. Because the balance is stored on the card the card prepay balance in NETBASE is updated by the most recent transactions encountered). If the card is used in a Single Site Prepay System you will need to send the cards to site (which actually first fetches the cards and updates the card balance with that obtained from the site). Here you are also able to add prepay amounts to the card. Again these additional prepay amounts do not become effective until the cards are sent to site.

To update the details of an existing card simply open the selected card from the card browser. When the card details of a card are displayed either in the grid in the Card Browser dialog or in the Card Details dialog, right clicking or from the **Actions** menu **selecting View Card Owner Details**, enables the user to view and maintain the details of the Cost Centre allocated to the Card.

To delete a single card from NETBASE simply press the delete button or delete key on the selected card in the Card Browser dialog. To delete multiple cards from NETBASE you first need to isolate these cards using the search criteria in the Card Browser dialog

such that only cards you wish to delete appear in the grid. Then simply right click and select **Purge** to delete all the cards shown. In a similar manner multiple cards can be invalidated. That is isolate the cards you wish to invalidate using the search criteria in the Card browser then right click and select **Invalidate** to invalidate all the cards shown

7.1.2. **Importing Cards**

While the process described for creating singular cards is OK it is often necessary to create a larger number of cards. Here a cards import can be utilised. This is necessary where card details are maintained in external systems and NETBASE is used as a means to send the list of allowable cards to site.

From the main menu select **File | Import | Standard** and the Card Import dialog is displayed. You first need to first nominate the import file from which the card details are contained using the assign button. When this has been done the file is analysed to map the fields found in the file to those in the database, listing the fields it recognises. If NETBASE detects a User_ID field then the import file is treated as a User ID based import.

The Cardbase to which the Card belongs can be specified in each of the following ways;

By providing the Cardbase "ISO" field
By providing the Cardbase "Name" field
Or if neither of these is specified then the Cardbase is assumed to be the default NETBASE system Cardbase.

If NETBASE finds Cost Center (Card Owner or Card User fields) then it displays a drop down combo box prompting the user to select the type or class of Cost Centers that will be imported (note you can import cost centers of more than one type if you include the 'COST_CENTER_TYPE' field specifying for each record the type or class of cost center to import (i.e. vehicle person etc)

The file Must be a CSV format file and can contain a variable number of fields each which must be identified by the corresponding Field Names at the top of the file. A sample Card based import file is provided below
:
"CARD_NUM", "AMOUNT","FIELD_1"
"1',"12.34","John Smith"
"1234",56.78","Bob Jones"

This import file would create two cards allocate each to a unique Card Owner and assign a prepay amount to each card.

Note any Cards specified in the import file, if already existing in the database will be updated accordingly. Likewise if the import is User ID based then any User IDs already existing in the database will be updated with the information in the import file. In either case Cost Center Details which may optionally be included in either Card or User ID based imports to represent the Card owner or Card User respectively are always added regardless of whether the Card or User ID already existed and was allocated to an existing Cost Center (or not).

IMPORTANT Any Card Owner fields have to be identified by the respective base field name (i.e. FIELD_1, FIELD_2) and not the user defined fields names as designated in the Cost Centre profile for the respective class of Cost Centre.

7.1.3. **Cloning Cards**

Often it is necessary to issue a new range of cards sequential in card number but otherwise identical. To facilitate this NETBASE provides the user with the capability to clone a selected card. Here sequentially numbered cards can be created in a series each with the same attributes as the selected card upon which the clone process is based.

To do this simply select the card upon which you wish to base the cloning process in the Card browser, right click (or from the **Actions** menu) and select **Clone**. The Clone Card dialog is displayed prompting the user to supply a starting and ending Card Number. In addition you are able to optionally allocate all the cloned cards to the same Card owner as that of the base card. If your system is configured as a single or multi site prepay system you are able to clone the unavailable prepay balance of the base card (sum of the prepay amounts added to the card not yet sent to site). Press the OK button to confirm the options selected and start the cloning process. When completed the NETBASE database will reflect the newly cloned cards.

7.2. Maintaining Card Owners

7.2.1. **Maintaining Card Owner Details**

NETBASE facilitates the recording of Card Owner details through the allocation of card to a generic entity called a Cost Center. A Cost Centre (in this case a Card Owner) has as a key attribute a type or class. That is a Card Owner could be a Person (and therefore we would record personal details of the Card owner such as Name and address) or a Vehicle (in which case we would store details such as the Registration No, Make and model of the vehicle) or any other class of owner of the Card. To create a new singular Card Owner (Cost Centre) from the main menu select **File | New | Cost Center** and the type of Cost Center you wish to create, or from the Card Browser dialog with the appropriate cost center type designated in the selection criteria press the New button. A Cost Center Details dialog is displayed in which you are able to enter the relevant details pertaining to the class of Cost Centre you wish to create.

You need only supply a value for the first field. There is no field validation for the available fields defined for the particular class of Cost Centre chosen you are entering. Although you have recorded the details of the Card Owner you will still need to allocate the newly created Card Owner to a card. To do so, follow the procedure detailed in the section *Maintaining Card Details.*

To update the details of an existing Card Owner, open the selected card Owner in the Cost Centre browser. To delete a single Card Owner from NETBASE , press the delete button or delete key on the selected card Owner in the Cost Centre browser. To delete multiple Card Owners from NETBASE you first need to isolate these card Owners using the search criteria in the Cost Centre Browser dialog such that only Card Owners you wish to delete appear in the grid. Then simply right click and select **Purge** to delete all the Card Owners shown.

7.2.2.

7.2.3.

7.2.4. **Importing Card Owners**

Card Owners are only able to be imported when performing a Card import. Here the card is created as well as the Cost Centre (or Card Owner in this case) and the Cost Centre allocated to the Card. To do so, follow the procedure in Importing Cards.

7.3.

7.4. Maintaining Card Users

7.4.1. Maintaining Card User Details

Note the creation and maintenance of Card Users is only available for systems that have been enabled for Users Ids and in systems where this is not available these menu items appear grayed out.

NETBASE facilitates the creation of Card Users via a number of methods. To enter a larger number of Card Users it is preferable to import them. To create singular Cards Users in NETBASE though from the main menu select **File | New | Card User** or from the Card User Browser dialog press the New button. A Card User Details dialog is displayed in which you are able to enter the details pertaining to the card User you wish to create.

You need only supply a unique user ID number (that is the identifying 4 digit number entered at the pump to identify the User of the Card.

You are able to utilise NETBASE to record the details of the person or vehicle corresponding to the User ID. To do so check the Card User checkbox and select the cost center (Card User) you wish to allocate the card to, from the dialog provided. If the Cost Center does not exist you may temporarily put the new card User creation on hold and create the Cost Centre to which you will assign the card to. From the main menu select **File | New | Cost Center** and select the type or class of cost center you wish to create and enter the relevant details in the dialog provided. Press OK to save the Cost Center then check the Card Owner Checkbox in the Card Details dialog and select the Cost Center from the dialog provided.

To update the details of an existing card User open the selected card in the card browser. When the card Users details of a card User are displayed either in the grid in the Card User Browser dialog or in the Card User Details dialog right clicking or from the **Actions** menu and selecting **View Card User Details** enables the user to view and maintain the details of the Cost Centre allocated to the Card User.

To delete a single Card User from NETBASE simply press the delete button or delete key on the selected card User in the Card User browser. To delete multiple Card Users from NETBASE , first select the Card Users using the search criteria in the Card User Browser dialog where the Card Users you wish to delete appear in the grid, right click and select **Purge**.

7.4.2. Importing Card Users

While the process described for creating singular Card Users is OK it is often necessary to create a larger number of Card Users. Here a Card Users import can be utilised.

From the main menu select **File | Import | Standard** and the Import dialog is displayed. You first need to first nominate the import file from which the card User details are contained using the assign button. When this has been done the file is analysed to map the fields found in the file to those in the database, listing the fields it recognises. If NETBASE detects a User_ID field then the import file is treated as a User ID (Card User) based import.

If NETBASE finds Cost Center (Card User fields) then it displays a drop down combo box prompting the user to select the type or class of Cost Centers that will be imported (note you can import cost centers of more than one type if you include the 'COST_CENTER_TYPE' field specifying for each record the type or class of cost center to import (i.e. vehicle person etc)

The file must be a CSV format file and can contain a variable number of fields each which must be identified by the corresponding field name at the top of the file. A sample Card User based import file is provided below.

:
"USER_ID", "FIELD_1"
"1234","John Smith"
"5678","Bob Jones"

This import file would create two Card Users allocate each to a unique Cost Center.

If the import is User ID based then any User IDs already existing in the database will be updated with the information in the import file. The corresponding Cost Center Details which may optionally be included to represent the Card User are always added regardless of whether the User ID already existed and was allocated to an existing Cost Center (or not).

IMPORTANT Any Card User, Cost Center fields have to be identified by the respective base field name (i.e. FIELD_1, FIELD_2) and not the user defined fields names as designated in the Cost Centre profile for the respective class of Cost Centre.

7.5. Maintaining Price Schedules

NETBASE facilitates the setting of pump/product prices at sites through the use of a Price schedule. To create a price schedule in NETBASE from the main menu select **File | New | Price Schedule** or from the Price Schedule Browser dialog press the New button. A Price Schedule dialog is displayed in which you are able to enter the prices for each of the products defined in your NETBASE system.

Like all currency fields in NETBASE the product price format is that of the currency format defined in the Windows Control Panel with one additional decimal place. You need only enter prices for the products which you wish to set. Products with no prices assigned to them are unaffected by the price file when sent to site. Although having created a price schedule for it to take effect you must first allocate that price schedule to the desired Sites(s). Refer to the section *Create the Sites with which you will be communicating*) then perform the communications action Send product prices for the new prices to take effect.

To update an existing price schedule simply open the selected price schedule in the Price Schedule browser. To delete a price Schedule from NETBASE simply press the delete button or delete key on the selected price schedule in the Price Schedule browser.

7.5.1.

By allocating a number of Sites to a single Price schedule you need only change the product prices in one place (the price schedule allocated to all the sites concerned) and resend the price schedule to the Site(s) for the price change to take effect.

7.6. Maintaining Discounts;

NETBASE facilitates the real-time discounting of fuel transactions by the allocation of Discounts to cards. Because of the architecture of the system together with trade

measurement requirements this feature is only available to Prepay cards as used in Single Site and Multi Site Prepay Systems. To create a Discount in NETBASE from the main menu select **File | New | Discount** or from the Discounts Browser dialog press the New button. A Discount Details dialog is displayed in which you are able to enter the discount amount and type (either cents per litre or expressed as a percentage Press OK to save the Discount entered. Although having created a Discount for it to take effect you must first allocate that discount to the desired Card(s) (refer to the section *Maintaining Cards)* then perform the communications action Send Cards.

To update an existing discount simply open the selected discount in the Discount browser. To delete a Discount from NETBASE simply press the delete button or delete key on the selected Discount in the Discounts browser. By allocating a number of Cards to a single Discount you need only change the Discount in one place and resend the cards to the Site(s) for the discount to take effect.

7.7. Communicating with Sites

7.7.1. Singular Manual Site Communications Operation

Much of the routine operation of NETBASE will be involved in the communicating with Sites. NETBASE provides powerful yet flexible functionality to perform this. All the communications actions available to users of NETBASE for Windows can be accessed through a user initiated singular site communications action using a feature called 'QuickComms'. Listed below is a list of the available communications actions together with a short explanation of what each is used for.

Receive Transactions	Used to fetch Transactions from the site controller subsequent to the last 'Delete Transactions Comms Action'.
Receive Transactions Buffer	Used to receive all transactions from the Site Controller regardless of whether they have been deleted.
Delete Transactions	Delete Transactions in Site Controller previously fetched using Received Transactions Comms Action.
Send Cards	Sends allowable cards (Limited Validation) or invalid cards (extended validation) to Site.
Get Date Time	Fetches from site the Date & Time as determined by the Site Controller (Note this Comms Action does not terminate until date time returned is acknowledged by user).
Set Date Time	Sets the date & Time of the Site Controller to that of the PC.
Send Product Prices	Sets the Product prices at the Site.
Send card ISO Map	Sends the Card ISO Map file to Site.
Send Site Parameters	Sends the Site Parameters to Site.
Get Site Parameters	Receives the Site Parameters from Site.
Set Site Password	Sets the Site Controller passcode (Note this Comms Action does not terminate until the user has supplied a new passcode).

To perform any of these communications actions simply select the Site in the Site Browser dialog or anytime when the Site Details dialog is open and right click (or from the **Actions** menu) and select **QuickComms** you are able to instantly perform any of the available comms actions on the single Site selected. This is most useful for retrying sites that for one reason or another were not able to be contacted after having conducted auto operation or a comms session as determined by the comms log file. Whenever communications take place with a site(s) the status of many of the various stages of the file transfer are summarised in a file called CommInfo.log. This is a high level status summary only and is not intended for low level debugging of communications operations when things do not go as planned.

7.7.2. **User Defined Communications Sessions**

It is often necessary to perform a number of communications actions on a single site or alternatively the same communications actions on a number of sites. Using QuickComms to achieve this would be tedious as the user would have to initiate each comms actions to each of the desired site(s). This would necessitate the user having to be present so that when one comms action to one site had finished the next could be initiated and so forth. NETBASE for Windows uses the concept of a Comms Session where any number of comms actions can be nominated to be performed on any number of Sites through a single user initiated action.

To create a new Comms Session from the main menu select **File | New | Comms Session** or from the Comms Session browser press the New button. The Comms Session Details dialog is presented to the user. Allocate the Site(s) and action(s) you wish to include in your Comms Session and also provide a name for reference purposes. Take care when incorporating multiple Comms actions as some of the Comms Actions require user interaction (Set Site Password, Get Date Time) to complete.

A Typical set of Comms Actions that may constitute a Comms Session is listed below

- Send Cards
- Receive Transactions
- Delete Transactions

In this manner the site or sites allocated to this comms session are contacted one by one. The list of allowable cards sent to site, the transactions received after the last 'Delete Transactions' operation are fetched from the site and these same transactions are deleted in the Site Controller (note this prevents these same transactions being transmitted when subsequent 'Receive Transactions' operations are carried out thus reducing transmission times).

If your Cardbase changes infrequently you may find it more prudent to extract the Send Cards from you normal daily operational Comms Session into another Comms Session that you would execute as required therefore reducing transmission times.

If the Receive Transactions operation fails in the above Comms Session for any reason then NO transactions will be deleted when the Delete Transactions operation is encountered. The Transactions will be able to be received on subsequent Receive Transactions until all the transactions are successfully transmitted before the next Delete Transactions operation is processed.

To execute any Comms Session double click the selected Comms Session from the Comms Session browser or press F12. The Kermit Communications FTP dialog is displayed showing communications statistics and a high level summary of the current operation.

To Update a Comms Session simply open the desired Comms Session and allocate/deallocate sites or Comms actions as required pressing OK to save your current specification.

7.7.3. **Automatic Site Communications**

NETBASE for Windows provides fully automated Site communications through the use of a concept refered to as an Auto Operation. An Auto Operation references a Communications Session (which defines a common set of communications actions to be performed on a number of nominated sites) and attaches to it a time and frequency of

operation. In addition to this an Auto Operation can incorporate an import of Cards and an export of Transactions.

By utilising an Auto Operation a complex set of operations can be executed regularly without the need for the user having to be present to initiate it. The NETBASE user need only monitor the CommInfo.Log file periodically to check to see which operations failed (if any) and manually (using Quickcomms) re execute the individual Comms Actions that failed until satisfactory completion.

To create an Auto Operation from the main menu select **File | New | Auto Operation** and the Auto Operation Details dialog is displayed. Nominate a comms session to be executed and check whether or not you require an import/export. Provide an identifying name for the Auto Operation and the frequency and time of operation. The time field like other time fields in NETBASE for Windows, utilises the same format as that defined in your Windows Control Panel Time setting.

Note that creating Auto Operation(s) does not automatically schedule it. You will need to select (check) the **Auto Operation** menu item under **File** on the main menu for it to take effect at the next scheduled date/time. You are able to have as many Auto Operations as you wish. Care should be taken when scheduling to ensure that adequate time is allowed for one to complete before the next can begin.

Order of Precedence of operations:

- Import Card (if applicable)
- Comms Session
- Export (if applicable)

8. End of period Operations

Sending updated allowable cards to sites and receiving back from these sites the transactions that have taken place form the bulk of the NETBASE workload. However periodically (usually monthly) it is necessary to use the information obtained from the Sites to reconcile fuel/products usage.

Although previous versions of NETBASE used to incorporate reconciliation functions, these functions have been abstracted out of NETBASE for Windows. This is because there are numerous powerful and flexible tool in existence which can be used for these purposes. One such tool that NETBASE is designed to be used in close conjunction with is MS Excel. Reconciliation consist of the analysis & summary of data contained in the NETBASE database through special reports, charts etc.

8.1. Reporting on data

8.1.1. Standard Transaction Report

From the main menu select **Reports | Transactions** a Transaction Selection Criteria dialog is presented. The user is able to specify which transactions to report on based on date range, card range Cardbase, site range or card validity criteria. In addition, the user is able to specify the style of report to be generated by selecting/deselecting the various style/ report characteristics available. Once the transaction selection criteria and the report characteristics have been selected a report is built and previewed on the screen from where it can be sent to the printer and/or saved to a file.

8.1.2. Report Designer

Although the format of the standard Transaction report is fixed to a large extent and only the high level characteristics are able to be set, NETBASE users often find it necessary to incorporate additional/less fields or customise the formatting of individual fields or provide additional summary information etc. For these purposes NETBASE has built in a basic end user report designer where custom report specifications can be designed, run and saved.

From the main menu select **Reports | Report Designer** and the end user report editor is displayed in which the user can open an existing report specification or create a new one. The end user report designer is basic and is not a full featured report writer. Once created a report can be run by choosing the Report Preview icon where the report is presented on the screen. Using the Print buttons the report can be directed to the printer.

To create a new report specification press the data button and choose SQL expression (note that the option Database Table does not provide any means to join related tables), and select the database directory or alias NETBASE _DB.

In the memo control provided enter the SQL 'select' statement that will determine the database fields to display and the tables and means in which each will be joined (if applicable). Note that SQL language definition is beyond the scope of this document.

Next select the report bands desired and place suitable text objects at the desired positions in the appropriate band on the form using the text icon from the icon bar. For each of the text objects map the field to an appropriate database field name from the tables given in the select statement and provide any selection criteria as necessary. Use the Expression Builder dialog (button labeled 'fx') to achieve this.

When all the desired fields have been mapped preview the report with the Report Preview icon to check its accuracy. When you are happy with the accuracy of the report specification save it to disk using the save icon in the icon bar for future reference.

You are NOT able to include variables in your report designs like say a date range such that each time the report is run it will prompt to provide values for these variables with a dialog. To achieve this you will need to hard code the restrictions using the SQL editor and each time the report is run adjust the hard coded parameters in the SQL expression to reflect the values required.

8.1.3. **Third Party Report Writers**

If you are not able to satisfy your report requirements using either the standard transaction report or the report Designer then NETBASE provides an third alternative. Because NETBASE uses a SQL compliant database, third party report tools such as Report Smith or Crystal Reports can be used. NETBASE for Windows provides a read-only database login (Username NBREPORT password 'compac') for these purposes.

8.2. Exporting Data

8.2.1. **Standard Export**

NETBASE provides a user configurable export function to enable the data to be saved to a file for later input into other reporting/reconciliation packages/processes.

From the main menu select **File | Export | Standard** and the Export dialog is present. Two sorts of exports may be done here, either a Card based export (all cards in NETBASE regardless of whether there are any transactions for the card) or a transaction based export (all Transactions in NETBASE regardless of whether the corresponding cards exist). Select the export type using the controls provided and if you have not previously defined an export profile press the define button to specify one.

Pressing the define button presents the user with a Export Profile dialog allowing the user to select the desired fields to incorporate into the export specification from the various tables. Note the fields are NOT able to be custom formatted NOR can summary information (such as the sum of the amount) be included (refer to the section *Reconciliation using MS Excel*). Please refer to the on-line help or the appendix for the NETBASE datamodel describing the tables and fields present in the NETBASE database. Once an export profile has been specified it is available the next time an export of this type is done and does NOT have to be re specified each time. It may be modified at any time.

If conducting a transaction export you are able to exclude previously exported transactions and/or tag the transactions exported this time as having been exported using the check boxes provided.

On the record selection criteria tab you are optionally able to;
For a Transaction export restrict transactions to;

- Site Range
- Card Range
- Cardbase
- Date Range
- Card Validity status

Or for a card based export restrict cards exported to;

- Card Range

- Cardbase
- Card Validity status

Once the profile is defined, any selection criteria specified and also a filename and path (for the export file) provided, the export file can be generated.

8.2.2. **Custom Exports**

In systems where product reconciliation is performed by a dedicated system or process (typical of larger installations) a Custom export can be provided. This is necessary where the desired export specification can NOT be met using the user configurable export profile contained in the standard export. A custom export is performed in a similar manner to the standard export. Only the format of the data exported will differ together with possibly the record selection criteria. To perform a custom export from the main menu select **File Export | Custom** and the name of the custom export you wish to use (note multiple custom exports can be provided in a single Custom DLL file).

8.3. Reconciliation Using MS Excel

NETBASE when used in conjunction with MS Excel can be used to reconcile transactions and product usage.
Generate an export using NETBASE of the data you require. A helpful standard export profile is shown below

- FIELD_1 (assuming Field 1 represents some recognisable attribute of the Card owner say the Name or Vehicle Registration No)
- ISO_AND_CARD (card number as embossed on the card)
- SITE_NAME (name of the site where fuel was procured)
- DATE_TIME (date & time of the transaction)
- PRODUCT_NAME (product obtained)
- AMOUNT ($ value of fuel obtained)
- QUANTITY (litre value of fuel obtained)

Note include the field names in the export header and ensure the field separator is ‘,’ (comma) character.

After having generated an export file open the file using MS Excel.
Next select all the cells (select the top left most cell) and copy the data
Start a new work book copying the data previously selected to the first two work sheets.
On the first worksheet:

- Select all the cells then sort the data (select **Tools | Sort By**) by Product Name
- Perform subtotals on the amount and quantity fields on the selected data (**select Tools | Subtotals** and check the Amount and Quantity fields ensuring the SUM function is utilised.

There you have a summary of products and amounts by product together with all the transactions that constitute the summary.
On the second worksheet:

- Select all the cells then sort the data (select **Tools | Sort By**) by CARD_NUM as the primary sort columns and DATE_TIME as a secondary sort column.
- Perform subtotals on the amount and quantity fields on the selected data (**select Tools | Subtotals** and check the Amount and Quantity fields ensuring the SUM function is utilised.

There you have a summary of amounts by card together with all the transactions that constitute the summary.

You could choose to chart the summary information or perform formatting to provide a presentation style report. The possibilities are endless.

9. Trouble Shooting

9.1. Communications Errors

Symptom: Modem is not responding
Cause: No power to modem
Solution: Ensure Modem power connected and modem switched on.
Try augmenting the modem initialisation string to;AT&FL3\N1^M
(Set to factory default configuration)
(set speaker volume to loud)
(selects direct Asynchronous mode)
Try increasing the number of Initialisation retries

9.2. Processing Errors

Errors in processing data during a communications should occur very infrequently (almost never) and are a result of the data being processed not being of the expected type. During the file transmission, check sums and CRC are added to ensure data integrity. This can sometimes be observed in Receive Transaction Buffer Comms Actions where records fragments are encountered during the processing that indicate a full transaction record exists when in fact only a partial one exists. The routine operation of NETBASE though, should NOT utilise this Comms Actions hence only verified real transaction records are transmitted. Performing a memory clear of the site controller will fix this problem however this has to be done by qualified service personnel and any existing data is lost.

Sometimes processing errors have occurred during the processing of data to send to site(s). This was due to insufficient field validation being applied at the NETBASE level (during data entry) and the processing again encountering data of the wrong type. This sort of problem can only be resolved by contacting the Compac Help desk

9.3. Other

Symptom: Queries taking a long time to execute.
Cause: Insufficient selection criteria to limit the amount of records returned.
Database has become fragmented.
Solution: Specify addition selection criteria.
Use the Database Server Manager to Sweep the database to remove deleted records
or Back up and restore the Database to remove deleted records.

Symptom: Card files are being sent to Site with great speed even though there are lots of Cards in the system.
Cause: Incorrect or no Cardbase(s) have been allocated to the Site concerned.
Solution: Open the Site and allocate the appropriate Cardbase(s).

Symptom: Card exists in NETBASE but wont work at site.
Cause: Card belong to an unmapped Cardbase and that Cardbase is NOT listed as either the primary or the Secondary Unmapped Cardbase for the Site, or the card belongs to a mapped Cardbase and this Cardbase has inadvertently been entered as either a primary or secondary Unmapped Cardbase at the controller.
Solution: Correct Primary & Secondary Cardbase assignment and Send parameter file to site.

10. Appendices

10.1. NETBASE Architecture

NETBASE for Windows is a 16 bit application that is able to be run on Win 3.11 or Win 95. NETBASE utilises the Interbase Software Company- ISC's (formally Borland) 16 bit Interbase database management product to store the NETBASE data. It also utilises the 16 bit Borland Database Engine as the interface from the application to the database together with SQL Links.

The files that constitute NETBASE are the following and by default are installed to c:\ program files\compac\NETBASE for Windows;

NETBASE .exe	Application	
NETBASE .gdb	Database File	
NETBASE .ini	Configuration file	(non essential)
NETBASE .hlp	Help file	(non essential)

In addition to these files in the day to day operation of NETBASE a number of other files are generated that reside in the above named directory;

Log Files

Procs.log	Stored procedure log file (when enabled in NETBASE)
Sql.log	SQL statements log file (when enabled in NETBASE)
CommInfo.log	Site Communications log file (high level information)
Comdbg.log	Site Communications log file (low level data packet information when enabled in NETBASE)

FTP Files (where nnnnnn represents the numeric controller Number of the site)

nnnnnn.par	Parameter files created by NETBASE for transmission to sites
nnnnnn.car	Card files created by NETBASE for transmission to sites
nnnnnn.tra	Transaction Files created by NETBASE received from sites
nnnnnn.trf	Transaction Files created by NETBASE received from sites
nnnnnn.pri	Price files created by NETBASE for transmission to sites
nnnnnn.iso	ISO Map files created by NETBASE for transmission to sites.

Report Files

*.qr	Internal report designer saved report specifications

Import/Export Files (Various import and/or export file formats)

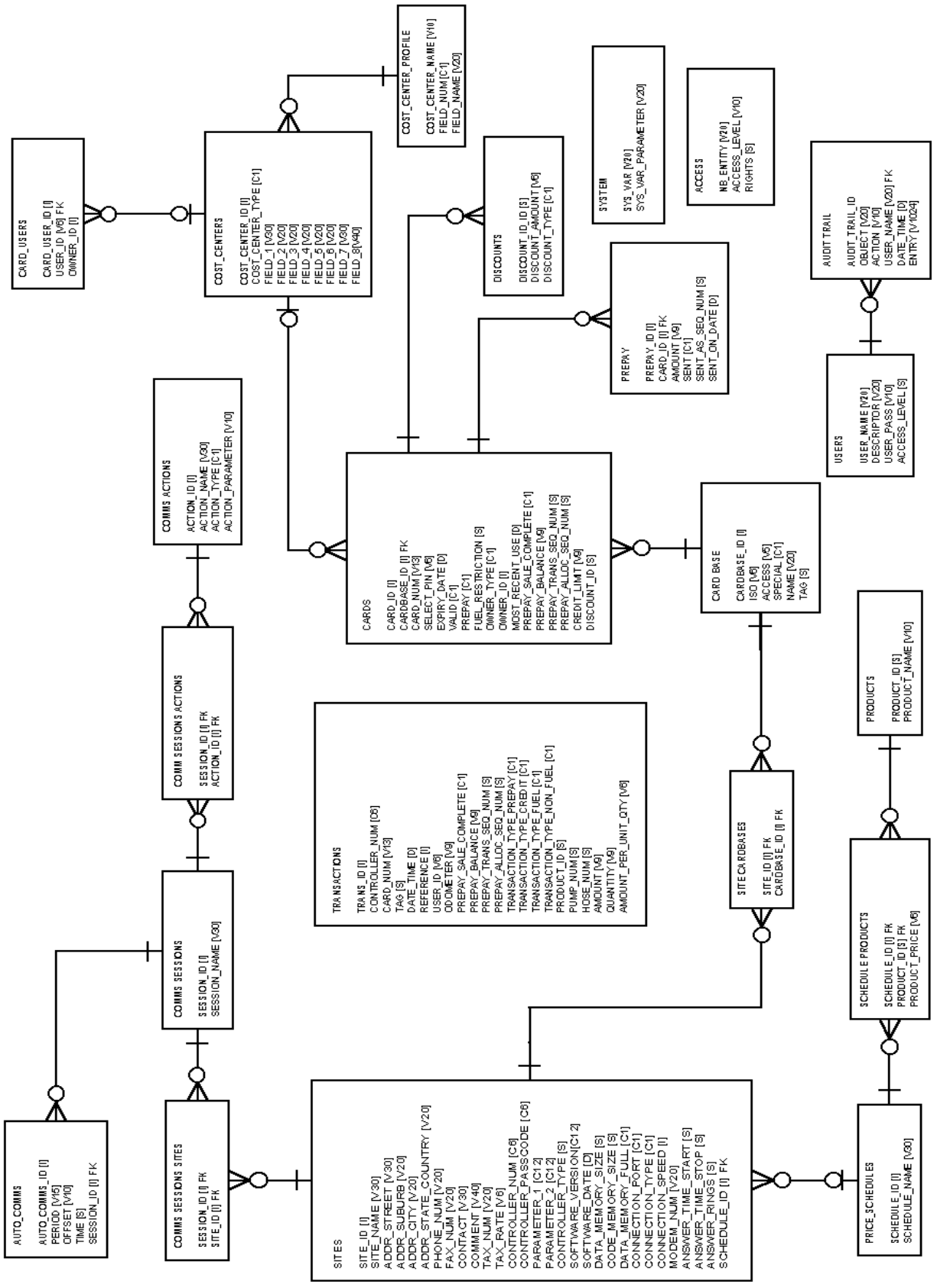
*.txt
*.csv
*.dat
*.ctl

By default Interbase is installed to the c:\iblocal directory. The executable Interbase tools such as the Interbase server Manager (Ibgr.exe) used to backup and restore the database and perform database sweeps etc are located in c:\iblocal\bin. By default the Borland database engine is installed to the c:\idapi directory.

Although NETBASE is used to read and write information to/from the database Other third party applications such as report writers (e.g. crystal reports) can be used to access data. For this a READ ONLY database log on is provided (user NBREPORT password

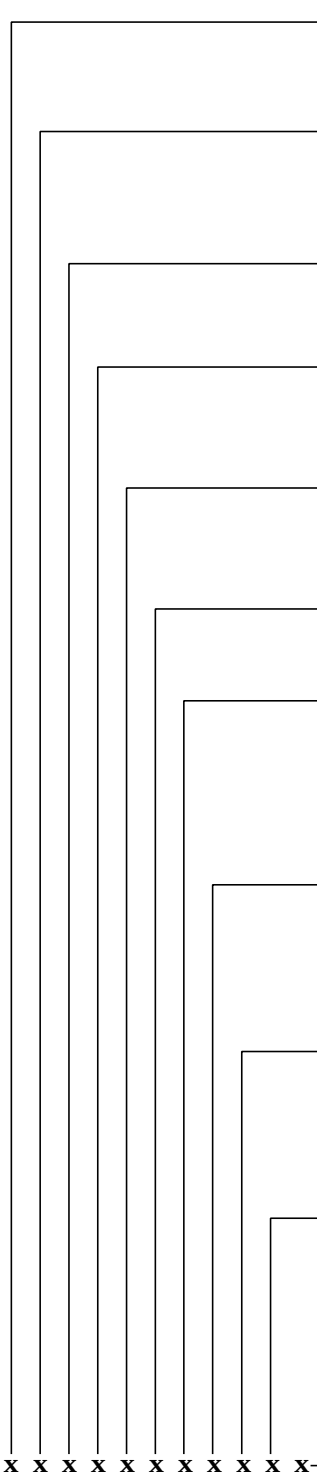
compac). This logon should also be used to backup and restore the NETBASE database using the Interbase Server Manger ibmgr.exe. Using the Interbase server manager to backup the NETBASE database file (NETBASE .gdb) will yield a compressed file. The operation is able to be performed while NETBASE is being run. Backing up the database file by copying it result in no compression and it has to be performed when NETBASE or any other database connections, (i.e. third Party Report Writers) are made.

NETBASE Data Model



10.2.

Central Controller Setup Options

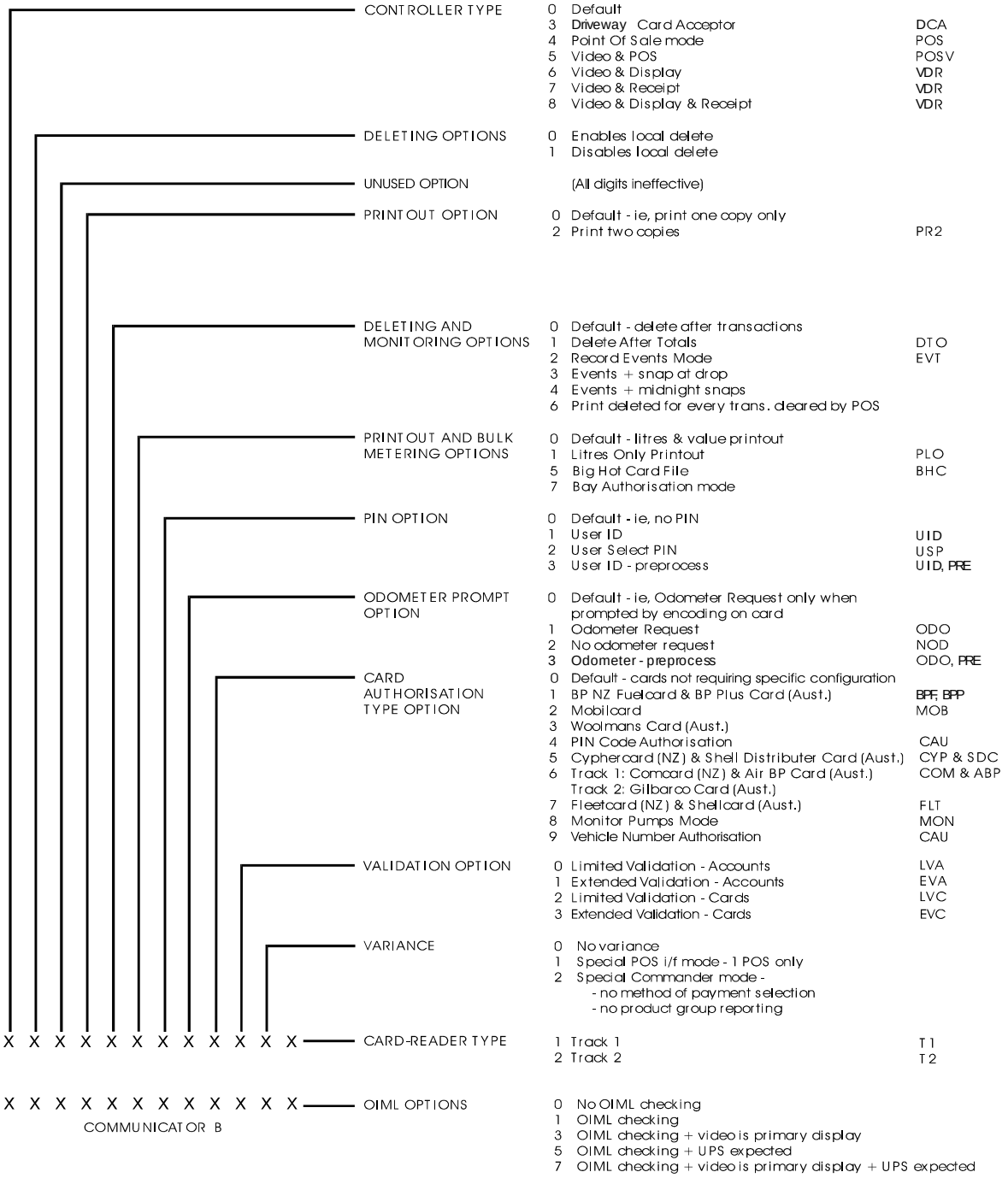


DELETING OPTIONS	0	Enables local delete	
	1	Disables local delete	
PUMP COMMS OPTION	0	Default - Standard (1200 baud)	
	1	4800 Baud pump comms	PC48
	2	2400 Baud comms	PC24
	3	Power Modem	POMOD
	4	CLAN pump comms	CPC
	5	CASU tank gauging	
PRINTOUT AND TANK GAUGING OPTION	0	Default - ie, print one copy only	
	1	Grouped Tanks Mode	GRT
	2	Print two copies	PR2
	3	Group Siphoned Tanks	GRT
	4	Grouped Tanks with Electronic Siphon	GRT
DELETING AND MONITORING OPTIONS	0	Default - delete after transactions	
	1	Delete After Totals	DTO
	2	Record Events Mode	EVT
PRINTOUT AND BULK METERING OPTIONS	0	Default - litres &value printout	
	1	Litres Only Printout	PLO
	2	Depot Mode	DEPOT
	3	Bulk Meter Mode	BULK
	4	High Bulk Meter Mode	HIBUL
	5	Big Hot Card File	BHC
PIN OPTION	0	Default - ie, no PIN	
	1	User ID PIN	UIP
	2	User Select PIN	USP
ODOMETER PROMPT OPTION	0	Default - ie, Odometer Request only when prompted by encoding on card	
	1	Odometer Request	ODO
	2	No odometer request	NOD
CARD AUTHORISATION TYPE OPTION	0	Default - standard cards (Shellcard, Starcard, Track 2 Comcard	
	1	BP NZ Fuelcard & BP Plus Card (Aust.)	BP
	2	Mobilcard	MOB
	3	Woolmans Card (Aust.)	
	4	PIN Code Authorisation	CAU
	5	Cyphercard (NZ) & Shell Distributer Card (Aust.)	CYP & SDC
	6	Track 1: Comcard (NZ) & Air BP Card (Aust.) Track 2: Gilbarco Card (Aust.)	COM & ABP FLT
	7	Fleetcard (NZ) & Shellcard (Aust.)	MON
	8	Monitor Pumps Mode	PAS
	9	Passive Pumps Comms Mode	
VALIDATION OPTION	0	Limited Validation - Accounts	LVA
	1	Extended Validation	EV
	2	Limited Validation - Cards	LVC
HOST MODE CONNECTION	0	Default to normal mode (Direct or Compac modem; 1200 baud)	
	1	Fast Host - Direct Mode	FASTH
	2	Unused	
	3	Comcor	HAYES
	4	Compuspec M2412	HAYES
	5	Worldport	HAYES
	6	Netcomm pocket faxmodem 24, Compuspec 224 modem	HAYES
	7	Datacraft 224E Mul	HAYES
	8	Dynalink 1414VE	HAYES
CARD-READER TYPE	1	Track 1	T1
	2	Track 2	T2
	3	Point of Sale Interface - Challenge Technologies	POS
	4	Point of Sale Interface - Standard	POS
	5	Track 1, Site Totals Monitor mode	T1, STM
	6	Track 2, Site Totals Monitor mode	T2, STM
	7	Solo Card Acceptor, Track 1	T1, SCA
	8	Solo Card Acceptor, Track 2	T2, SCA
	9	Island Card Acceptor, Track 1	T1, ICA
	0	Island Card Acceptor, Track 2	T2, ICA

X X X X X X X X X X X

10.3.

10.4. Communicator Controller Setup Options



10.5.

Mobil Custom Export Specification

Export Parameters:

- Site Range (optional first AND/OR last Site Controller Numbers)
- Card Range(optional first AND/OR last 10 digit Card Number. Default First card No is 4000000000 i.e. Mobil Cards)
- Date Range(optional start AND/OR optional end date)
- Network (optional Aviation or Commercial)
- Site Status: (optional Financial or Non Financial)

- Exclude Tagged Transactions: (Default True)
- Tag Transactions when Exported (Default True)
- Export filename (Default Previously exported filename to directory specified in NETBASE)

Summary:

Export consists of three files;

- Data (Filename**.dat**) file. This file incorporates the main body of transactions. It contains a file header then for each site a site header followed by the transactions for that site.
- Control (Filename**.ctl**) file. An accompanying summary file.
- Text (FileName**.txt**) summary file. A human readable summary file.

Note the export file(s) path is governed by that set in the Custom DLL options from within NETBASE .
Auto incrementing export and site sequence numbers are maintained in an INI file of the same name as the custom DLL file provided.

Data File Format:

- File Header

FH554*YYYY-MM-DDHH.NN***.00** (padded with space characters (ASCII 32) to 400 characters)
SBCN*5 digit Auto incrementing export Sequence No4 digit No of SitesYYYY-MM-DDHH.NN***.00MONZAVPC** (**MONZCOPC** if non financial) *(padded with space characters (ASCII 32) to 400 characters)*

- Site Header

ABCUSTNFINC (or **ABCUSTFIN C** if a financial Site not the 'space C')*4 digit auto incrementing site sequence NoYYYY-MM-DD15 digit site.Comment***999***4 digit Transactions count for site(padded with space characters (ASCII 32) to 400 characters)*

- Transaction Record

TR02(**TR78** if from a non financial site)*6 digit site.reference yyyy-mm-ddhh.nn***.00B***6 digit card.ISO10 digit card.card_num10 space characters (ASCII 32)* **01***13 space characters7 digit transaction.odometer88 space characters (ASCII 32)2digit transactions.product_id8 digit transaction.quantity8 digit Transaction.amount 000000000000000 repeated 7 times (note 2 space character prefix) (padded with space characters (ASCII 32) to 400 characters)EOF Character (ASCII 26)*

Control File Format:

554*YYYY-MM-DDHHNN***.00***6 digit count of number of records exported, note includes file & site header recordsEOF Character ASCII 26*

Text Summary File Format:

For each site for which transactions where exported
Mobil site No (site.comment) site.name transactions count
Total Transaction records exported

10.6. Mobil NZ Custom Import Specification:

Parameters
None

Summary
Prior to importing all 'Mobil' cards (card with a Cardbase.ISO of 780055) are invalidated. Card imported not previously found in NETBASE are created, existing cards are updated.
Note the import file name is governed by that set in the Custom DLL options from within NETBASE .
Import consists of a 10 digit card number (ISO exclusive) and optional comma delimited fuel restrictions optional Card validity and Card PIN.

Format
10 digit card number, comma delimited valid grades, card validity, Card PIN

Example

0000000023,1,2,3,Y,1234	Card 23 fuels 1,2,3, Valid, PIN 1234
0000000026	Card 26 Valid all fuels valid
0000000028,N	Card 28 Not valid
0000000030,Y,5678	Card 30 Valid, PIN 5678