

# PC EFTPOS

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Electronic File Interface Reference



## REVISION HISTORY

Version	Comments	Amended by	Date
1.0	Initial Release	Alan Brighthouse	24/11/2009
1.1	Revised Release Support for Field48Data, AllowCredit, DialogX, DialogY, DialogPos fields	Alan Brighthouse	01/04/2011
1.2	Revised Release <ul style="list-style-type: none"> <li>Updated Field48Data field and removed section 7</li> </ul>	Al Wyeth	8/4/2011
1.3	<ul style="list-style-type: none"> <li>Updated field values</li> <li>Removed unused methods, properties and events</li> </ul>	Alan Brighthouse	31/05/2012
1.4	Updated Transaction Request example	Paul Spark	03/06/2016
1.5	Updated Card Type values	Paul Spark	18/01/2017
1.6	Corrected DialogPosition property values.	Paul Spark	02/02/2017
1.7	<ul style="list-style-type: none"> <li>New InfoEvent to advise POS of truncated PAN on entry</li> <li>New field to support Credit Only/Disabling Debit account selection</li> <li>Added DoCancel method</li> </ul>	Paul Spark	23/03/2017

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# 1.OVERVIEW

Support for EFTPOS File Interface applications is provided for by PC EFTPOS Client.

This document describes how to interface to PC EFTPOS integrated EFTPOS via a file interface.

POS applications supporting EFTPOS capability need to support the following features:

- Transactions (Purchase, cash & refund)
- Receipt Printing
- Power Failure Recovery

Optional:

- Terminal Logon
- Cheque Verification
- Terminal Settlement Enquiry & Cutover

PC EFTPOS does not print receipts directly – please see the section on Receipt Printing for more details.

The following sections describe the tasks that need to be implemented by the POS developer.

All EFTPOS functions are performed by the POS application doing the following steps for each task:

1. Population of required EFI properties (e.g. setting value of **AmtPurchase**)
2. Calling of required EFI request (e.g. calling **Transaction Request**)
3. Waiting for appropriate EFI response (e.g. **Transaction Response**)
4. Retrieval of results from required EFI properties (e.g. **ResponseCode**)

PC EFTPOS supports multiple merchants. Most methods therefore require a merchant to be specified prior to initiating the request.



**NOTE:** Most requests require a corresponding response to be received before properties can be updated.

Ensure that the POS application receives the associated response before populating outcome properties. e.g. When calling **GetLastTransaction Request**, wait for a **GetLastTransaction Response** and then use the properties contained within the response

**Note:** The EFI Interface is an alternative means to using the PC EFTPOS ENZEFT.OCX ActiveX control interface. This document is derived from the OCX documentation and method calling conventions may be used (e.g. “Call **Transaction Request**”). In these instances it should be assumed that a Transaction Request file is created containing the required properties.

Please refer to the Examples section for examples of EFI request and response file formats and content.

## 1.1. OPERATION

The POS application initiates an EFTPOS transaction, financial or otherwise by creating a file with a defined filename in the EFI file directory. By default, the EFI file directory is "\EFTPOS" and is located on the boot drive. Note that the boot drive is not always the "C" drive of a PC. PC EFTPOS Client may be configured to use a different directory on any drive by altering a registry entry. The following registry entry specifies the directory:

<b>Key:</b>	HKLM\Software\ENZ PC EFTPOS\EFTCLIENT\CLIENT
<b>Value Name:</b>	EFIFILEDIR
<b>Value Type:</b>	REG_SZ

This value may be modified using the REGEDIT.EXE utility which is typically installed with all versions of Microsoft Windows.

When a transaction request file is found, PC EFTPOS Client renames the file to indicate that the transaction is in progress and the file remains locked for the duration of the transaction. When PC EFTPOS has completed the transaction, the file is filled with the results of the transaction (referred to as "Properties") and is further renamed to indicate to the POS that the transaction is complete.

The input filename created by the POS application must be named "TXN.INP". The PC EFTPOS Client renames the file to "TXN.BSY" to indicate a transaction in progress and finally to "TXN.OUT" to indicate the transaction is complete. The contents of TXN.INP vary according to the transaction requested.

It is imperative that PC EFTPOS Client has write access to this folder. The registry key specified above assumes that one instance of PC EFTPOS Client is running on the POS PC. On multi-instance (thin client) systems, the input and output files will be located under a subfolder within the EFI file directory, named according to the current user that is logged on to the PC.

## 1.2. RECEIPT PRINTING

The EFTPOS Certification process requires customer and merchant receipts to be produced for all EFTPOS transactions. A merchant receipt is used to capture the customer's signature and is retained by the merchant for signature verified transactions. When a PIN is entered, the merchant receipt is not printed, but is stored in the electronic transaction journal within PC EFTPOS. A customer receipt is always printed for every transaction.

Receipt printing **must** be implemented by the POS application. The PC EFTPOS Client sends the POS any receipt data which it is required to print. **PrintReceipt** responses will be sent to the POS application whenever a receipt print is required. PC EFTPOS pre-formats required receipts and sends them to the POS application expecting the POS application to print receipts on

demand. It is assumed that the receipt text will be printed using a fixed character width font. The receipt data will be available in the **Receipt** property.

The POS can optionally add headers, footers, indenting etc, but the content of the EFTPOS receipt should be left intact and printed in full.

The POS must check for RECEIPT\_1.RPT and RECEIPT\_2.RPT files on start-up. This is required in case there are power failure receipts to be printed.

After each transaction PC EFTPOS Client will produce a receipt for the POS to print. In all cases there will be RECEIPT\_1.RPT file, but on some rare occasions that a receipt has not been printed by the POS and PC EFTPOS Client wants to print another receipt it will produce a second file (RECEIPT\_2.RPT). The POS should remove the receipt file after printing the contents so that a receipt is not printed twice.

### 1.3. AUTO-LOGONS & REVERSALS

PC EFTPOS may perform an automatic terminal logon or reversal at any time.

Reversals will occur in the event of a power failure or communications failure. A reversal reverses the financial transaction that potentially took place on the ANZ switch.

Reversals and auto-logons are handled in the background by PC EFTPOS. If the POS application makes an EFT request during auto-logon or reversal processing the following will occur:

- The “PROCESSING NOW” pop-up window will appear indicating that PC EFTPOS is currently busy.
- The requested action will be queued and executed once the background processing is complete.

### 1.4. VERSION CONTROL

The PC EFTPOS system supports its own version control checking where necessary.



**NOTE:** It is imperative that POS developers do not restrict POS applications to work with particular PC EFTPOS software versions. Failure to do so will make it impossible for ENZ to upgrade/support PC EFTPOS without requiring changes to the POS application software.

### 1.5. TXNREF PROPERTY - PURPOSE

The POS must maintain a transaction reference that is **unique** for consecutive EFTPOS transactions. The POS must store this transaction reference in “non-volatile storage”. There isn’t really a true “non-volatile storage” means on typical hardware, but by simply creating a file to store information, file contents are often lost at the time of a power failure because Windows buffers/caches file storage within memory. Data typically isn’t written immediately to hard disk



storage. Steps can be taken to request that Windows does flush data back to disk if possible but this varies depending upon the development environment being used.

The Windows registry is a convenient storage medium to use as it is easy to store values and have them flushed back to disk using the RegFlushKey() API. Care must be taken to flush the registry after writing the transaction reference to ensure it is written to disk before an EFT transaction is started. The stored transaction reference can then be used for power failure recovery processing.

## 2. TRANSACTION FLOW

POS	PC EFTPOS Client
Delete TXN.*	
Create and write TXN.INP	Waiting for Input
Waits for TXN.BSY or TXN.OUT	Opens TXN.INP, reads transaction request
	Renames TXN.INP to TXN.BSY
	(Processes transaction request).
	Creates and writes TXN.TMP containing output data
	Renames TXN.TMP to TXN.OUT Deletes TXN.BSY
Opens and reads TXN.OUT Deletes TXN.OUT	
	<ul style="list-style-type: none"> <li>• Check if RECEIPT_1.RPT exists, if not create it and add the receipt data to this file.</li> <li>• If it does exist check if RECEIPT_2.RPT exists. If not, rename RECEIPT_1.RPT to RECEIPT_2.RPT then create RECEIPT_1.RPT and add the receipt data to this file.</li> <li>• If RECEIPT_1.RPT &amp; RECEIPT_2.RPT do exist, remove RECEIPT_2.RPT and rename RECEIPT_1.RPT to RECEIPT_2.RPT then create RECEIPT_1.RPT and add the receipt data to this file.</li> </ul>
Waits for RECEIPT_1.RPT & RECEIPT_2.RPT.	

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Check if RECEIPT_2.RPT exist first, if so print the contents.</li> <li>• Delete RECEIPT_2.RPT file.</li> <li>• Then check if RECEIPT_1.RPT exist, if so print the contents.</li> <li>• Delete RECEIPT_1.RPT file.</li> </ul> |  |
|---|--|



**Important Note:** PC EFTPOS Client will wait for the TXN.INP file. Once it has this file it renames the TXN.INP file to TXN.BSY and then to TXN.OUT. The POS must be prepared to look for either TXN.BSY or TXN.OUT after creating a TXN.INP file. The purpose of the TXN.BSY file is to provide an indicator to the POS that the PC EFTPOS Client is indeed running. PC EFTPOS Client guarantees to rename the TXN.INP file within 5 seconds maximum. Therefore, if the POS does not see either a TXN.BSY or TXN.OUT within 5 seconds of creating a TXN.INP file, it may assume that PC EFTPOS Client is offline and it should delete the TXN.INP file. If a TXN.BSY file is successfully found within this time limit, the POS must continue waiting\* until a TXN.OUT file is seen.

\* A POS may give up waiting after 5 minutes. This may seem a long time but completing certain EFTPOS transactions may take a while. For example, transactions requiring a cardholder to sign a receipt could take considerable time.

## 3. TRANSACTION PROPERTIES

All property values are ASCII unless stated otherwise. For example, Alphanumeric properties contain ASCII numeric characters such as "001" (0x30, 0x30, 0x31 in hexadecimal).

### 3.1. ACCOUNTTYPE [ALPHA]

Format: Up to 6 characters.

Customer account type selected for the transaction - can be: "CHQ", "SAV", or "CRD" which equates to the Cheque, Savings, or Credit accounts respectively.

Note: If this property is used by the POS, the POS should also be able to handle "CHEQUE", "SAVING" and "CREDIT" as these may be returned instead of the 3 character values.

**APPLICABLE REQUEST and or RESPONSE:** Transaction Response

### 3.2. ACTIVEMERCHANTS [ALPHANUMERIC]

Call **GetMerchants** to load this property with a list of all the merchants set up in PC EFTPOS. This property has the following structure:

Parameter	Size	Description
Number of Merchants active	3 chars	Indicates the number of merchant records following (Merchant Number and Merchant Name are repeated for each one)
Merchant Number	3 chars	Number of this merchant - this is what needs to be set in the Merchant property
Merchant Name	13 chars	Description as entered in the PC EFTPOS Client. This can be used to aid the user in selecting a merchant from the POS.

For example four merchants active, merchants 1, 3, 4, 8, might look like this:

```
004001MERCHANT ONE 003MERCHANT TWO 004MERCHANT
FOUR008MERCHANT EIGHT
```

**APPLICABLE REQUEST and or RESPONSE:** GetMerchants Response

### 3.3. ALLOWCREDIT [NUMERIC]

Format: 1 = Enable or 0 = Disable.

Before calling **Transaction Request**, set **AllowCredit** to '1' to inform the Client that the POS wants to AllowCredit account selection during a transaction. If the POS wants to restrict the cardholder from using the credit account, set this flag to '0'. If this property is not set, the Client will default the transaction to AllowCredit account selection.

**APPLICABLE REQUEST and or RESPONSE:** Transaction Request

### 3.4. AMTCASH [NUMERIC]

Format: Up to 12 digits.

Amount of cash out transaction.

**APPLICABLE REQUEST and or RESPONSE:** Transaction Request, Transaction Response

### 3.5. AMTPURCHASE [NUMERIC]

Format: Up to 12 digits.

Purchase amount.

**APPLICABLE REQUEST and or RESPONSE:** Transaction Request, Transaction Response

### 3.6. AUTHCODE [NUMERIC]

Format: 6 characters.

Authorisation code. Returned by **Transaction Response** if the EFTPOS Acquirer returned the AuthCode field.

**APPLICABLE REQUEST and or RESPONSE:** Transaction Response

### 3.7. CAID [NUMERIC]

Format: Up to 15 characters.

Card Acceptor ID.

**APPLICABLE REQUEST and or RESPONSE:** GetLastTransaction Response, Logon Response, Transaction Response

### 3.8. CARDNAME [ALPHANUMERIC]

Format: Up to 20 characters.

Returned by **Transaction Response**. Indicates the card type used for the transaction.

**CardName** will be one of the following string literals:

Card Description	ANZ EFI Value
AA Rewards	AAREWARDS
AA Smartfuel	AA SMARTFUEL
American Express	AMEX
ATS Card (Canterbury co-operative)	ATS

ASB active	activa
Bankcard	BANKCARD
BP Fuel Card	BP Fuel Card
BP GIFTCARD	BP GIFTCARD
Bartercard	BARTERCARD
Card link	CARD LINK
Card net	CARD NET
Combined Rural Traders (CRT)	CRT
Diners	DINERS
Ecard	ECARD
Ecardz	ECARDZ
Elders	EVIA
Ezipay	EZIPAY
Farmers (Amcal, Placemakers)	FF CARD
Farmlands	FARML
Finzsoft Solutions Ltd	FINZSOFT
Flexipay	FLEXIPAY
Fisher & Paykel Finance	FPPGIFT
Gift Card (Finzsoft Solutions Ltd)	GIFT CARD
Hells Pizza	HELLS PIZZA
Indue Ltd	INDUE
Japan Credit Bureau	JCB
Leftfield	WIN*WIN
Marketsmart	SLOYAL
Mastercard	MASTERCARD
MTA Giftcard	MTA GIFTCARD
RD1.COM	RD1.COM
Shell	SHELL CARD
Superpoints	SUPERPTS
Transactor Technologies	TRANSACTOR
True Rewards	True Rewards
Fisher & Paykel Qcard	QCARD
Indue Ltd	VII
UnionPay International	UnionPay
Visa	VISA
Vodafone Top Up	VODAFONE
Westfield Gift Card	WGIFT
W&I PAYMENT (WINZ)	W&I PAYMENT
All other credit cards	CREDIT
All other debit cards	DEBIT

**APPLICABLE REQUEST and or RESPONSE:** Transaction Response

### 3.9. ACCOUNT [NUMERIC]

Format: Up to 10 characters.

Cheque Account Number.

**APPLICABLE REQUEST and or RESPONSE:** ChequeVerification Request

### 3.10. BRANCH [NUMERIC]

Format: Up to 8 characters.

Cheque Branch Number.

**APPLICABLE REQUEST and or RESPONSE:** ChequeVerification Request

### 3.11. SERIAL NUMBER [NUMERIC]

Format: Up to 6 characters

Cheque Serial Number.

**APPLICABLE REQUEST and or RESPONSE:** ChequeVerification Request

### 3.12. DATE [NUMERIC]

Format: Up to 8 characters (DDMMYYYY)

Date of transaction (as returned by host).

**APPLICABLE REQUEST and or RESPONSE:** GetLastTransaction Response, Logon Response, Transaction Response

### 3.13. DATESETTLEMENT [NUMERIC]

Format: Up to 8 characters (DDMMYYYY)

Used as input to **Settlement Enquiry Request** to specify date for which settlement details are to be retrieved. **DateSettlement** should be left blank if the current day's totals are to be retrieved.

**APPLICABLE REQUEST and or RESPONSE:** Settlement Request (SettleType = E)

### 3.14. DIALOGPOSITION [ALPHANUMERIC]

Format: Up to 12 characters.

Positions the EFTPOS operator panel. For **DialogPosition** to be recognized ensure that **DialogX** and **DialogY** properties are both set to zero. The operator panel is positioned with a 20 pixel gap to between dialog frame and the edge of the screen.

To position the dialog panel at a specific X-Y screen position, use **DialogX** and **DialogY** parameters instead. The following relative screen positions are valid for **DialogPosition**:

Value	Description
Centre	Centre of the screen
BottomLeft	Lower left hand corner
BottomCentre	Centred 20 pixels from bottom edge
BottomRight	Centred 20 pixels from bottom right edge
MidLeft	Middle left of screen
MidCentre	Same as Centre
MidRight	Middle right of screen
TopLeft	Top left of screen
TopCentre	Centred at the top of the screen
TopRight	Top right of screen

**APPLICABLE REQUEST and or RESPONSE:** ChequeVerification Request, Logon Request, QueryCard Request, Settlement Request, Transaction Request

### 3.15. DIALOGX [NUMERIC]

Format: Up to 4 digits.

Positions the EFTPOS operator panel at a specific screen location. Used in conjunction with **DialogY** property to specify the absolute screen coordinates for the top left corner of the selected operator dialog panel. Set **DialogX** to a non-zero value less than the screen width minus the width of the selected dialog. PC EFTPOS will not permit the operator panel to be positioned with any part of the panel off-screen. If the value supplied in **DialogX** is too large, it is automatically reduced to place the rightmost edge of the operator dialog at the edge of the screen. **DialogX** value of 1 represents leftmost edge of screen.



**Note:** It is recommended that the **DialogPosition** property is used for all new POS integrations. POS applications should no longer use **DialogX** and **DialogY** properties where possible.

**APPLICABLE REQUEST and or RESPONSE:** ChequeVerification Request, Logon Request, QueryCard Request, Settlement Request, Transaction Request

### 3.16. DIALOGY [NUMERIC]

Format: Up to 4 digits.

Positions the EFTPOS operator panel at a precise screen location. Used in conjunction with **DialogX** property to specify the absolute screen coordinates for the top left corner of the selected operator dialog panel. Set **DialogY** to a non-zero value less than the screen height minus the height of the selected dialog. PC EFTPOS will not permit the operator panel to be positioned with any part of the panel off-screen. If the value supplied in **DialogY** is too large, it is automatically reduced to place the rightmost edge of the operator dialog at the edge of the screen. **DialogY** value of 1 represents topmost edge of screen.



**Note:** It is recommended that the **DialogPosition** property is used for all new POS integrations. POS applications should no longer use **DialogX** and **DialogY** properties where possible.

**APPLICABLE REQUEST and or RESPONSE:** ChequeVerification Request, Logon Request, QueryCard Request, Settlement Request, Transaction Request

### 3.17. FIELD48DATA [ALPHANUMERIC]

Format: Up to 999 characters.

Proprietary field – For use by prior arrangement of ENZ only

**APPLICABLE REQUEST and or RESPONSE:** Transaction Request

### 3.18. MERCHANT [NUMERIC]

Format: Up to 4 digits.

Indicates the active merchant (1-8). Call **GetMerchants** Request to determine which merchants are available.

Before calling one of the following methods, set the merchant required. If no merchant is set then PC EFTPOS Client will default to merchant 1 to process the transaction.

**APPLICABLE REQUEST and or RESPONSE:** ChequeVerification Request & Response, GetLastReceipt Request & Response, GetLastTransaction Request & Response, Logon Request & Response, QueryCard Request & Response, ReprintReceipt Request & Response, Settlement Request & Response, Transaction Request & Response

### 3.19. MESSAGETYPE [NUMERIC]

Format: Up to 4 digits.

Last Transaction message type.

Value	Description
210	EFTPOS Financial transaction
510	Settlement



810	Logon
-----	-------

EFTPOS Message Type, this property is set by the PC EFTPOS Client.

**APPLICABLE REQUEST and or RESPONSE:**     **GetLastTransaction Response, Transaction Response**

### 3.20. PAN [NUMERIC]

Format: Up to 32 characters.

Primary Account Number. Loaded with customer card number for manually entered transactions. Only credit card details may be manually entered. Due to Scheme restrictions first 6 and last 4 digits will only be populated for this property if present.

**APPLICABLE REQUEST and or RESPONSE:**                     **Transaction Response**

### 3.21. POSNAME [ALPHANUMERIC]

Format: Up to 10 characters.

The name of the vendor of the POS application. This property must be populated by the POS application for all EFI requests.

**APPLICABLE REQUEST and or RESPONSE:**     **ChequeVerification Request, ControlPanel Request, GetMerchants Request, JournalViewer Request, Logon Request, QueryCard Request, Settlement Request, Transaction Request**

### 3.22. POSVERSION [ALPHANUMERIC]

Format: Up to 4 characters. Suggested format is xxyy where xx is major and yy minor version numbers. Eg: Version 1.23 would be set as 0123.

The version of the POS application that is using EFI Interface eg: "V1.23". This property must be populated by the POS application for all EFI requests.

**APPLICABLE REQUEST and or RESPONSE:**     **ChequeVerification Request, ControlPanel Request, GetMerchants Request, JournalViewer Request, Logon Request, QueryCard Request, Settlement Request, Transaction Request**

### 3.23. RECEIPTDATA [ALPHANUMERIC]

Formatted EFTPOS receipt information. The **ReceiptData** property is loaded with a pre-formatted EFTPOS receipt. This is only available in the GetLastReceipt Response. .

**APPLICABLE REQUEST and or RESPONSE:**     **GetLastReceipt Response**

## 3.24. RESPONSECODE [ALPHANUMERIC]

Format: Up to 2 characters.

Financial transactions may return a 00, 05, 08, Y1 or Y3 response code when they approved. All other response codes listed in the table below reflect financial transaction failure.

EFTPOS Response code.

Code	Description
A1	Recursive Call
A2	General Failure
A4	Invalid Merchant
A5	Invalid Dialog
A7	OCX Message too small
A8	Internal Error 101
A9	Internal Error 109
AA	PIN pad Already In Use
AX	Unknown Error
B1	Invalid Timeout
B2	Unsupported Operation
B3	Client Offline
B4	OCX Message too big
B5	Invalid Amount
B6	Invalid Dialog Params
B7	Invalid TxnType
B8	Invalid TxnRef
B9	Invalid Branch
BY	PIN pad busy
C0	Invalid Serial Number
C1	Invalid Account
C2	Invalid PanSource
C3	Client Version Mismatch
C4	Duplicate ENZEFT
C6	Client Not Installed
C7	WinCreate Failed
C8	Unable to connect to EFT Server
PF	PIN pad offline
T5	Declined the signature from an "Accept with Signature" transaction
T7	Customer cancelled transaction via PIN pad cancel key
T8	POS Operator cancelled transaction via operator cancel key
U9	Timeout awaiting host response
VO	OCX Version error

VS	Server Version
VP	PIN PAD Version
Y8	Declined Cheque Auth transaction. TEL always return an "00" for either an accepted or declined. The operator can control the fate of the final outcome of this transaction
Y9	Duplicate Transaction
X0	Timeout waiting for operator input - no rec
X1	Communications error (Server not present)
X2	Error during dial/connect
X3	Error during HDLC phase

**APPLICABLE REQUEST and or RESPONSE:** Cheque Verification Response, GetLastTransaction Response, Logon Response, QueryCard Response, Settlement Response, Transaction Response

### 3.25. RESPONSETEXT [ALPHANUMERIC]

Format: Up to 20 characters.

Response Text associated with the EFTPOS response code.

**APPLICABLE REQUEST and or RESPONSE:** GetLastTransaction Response, Logon Response, QueryCard Response, Settlement Response, Transaction Response

### 3.26. STAN [NUMERIC]

Format: Up to 6 digits.

EFTPOS Systems Trace Audit Number (STAN). Ranges from 1 to 999999.

**APPLICABLE REQUEST and or RESPONSE:** GetLastReceipt Response, GetLastTransaction Response, Logon Response, Settlement Response, Transaction Response

### 3.27. SUCCESS [NUMERIC]

Format: 1=TRUE or 0=FALSE.

Indicates success or failure of the relevant transaction.

**APPLICABLE REQUEST and or RESPONSE:** Cheque Verification Response, ControlPanel Response, GetLastTransaction Response, JournalViewer Response, Logon Response, ReprintReceipt Response, Settlement Response, Transaction Response

### 3.28. TIME [NUMERIC]

Format: Up to 6 digits, HHMMSS format. An empty string will be returned if a valid host response was not received. Otherwise the transaction time at which the transaction was completed by the Bank host will be returned.

**APPLICABLE REQUEST and or RESPONSE:**     **GetLastTransaction Response, Logon Response, Transaction Response**

### 3.29. TRACK2 [ALPHANUMERIC]

Format: Up to 37 characters.

Contents of magnetic card track 2 after calling **QueryCard**.



**NOTE:** This property will be returned only if card is present in the PCE\_CPTFILE.DAT file. This file is encrypted and is maintained solely by ENZ. If additional loyalty/gift/third party cards are to be supported using **QueryCard**, please request that ENZ add the required card details to the PCE\_CPTFILE.DAT.

**APPLICABLE REQUEST and or RESPONSE:**     **QueryCard Response**

### 3.30. TRACK1 [ALPHANUMERIC]

Format: Up to 128 characters.

Contents of magnetic card track 1 after calling **QueryCard**.



**NOTE:** This property will be returned only if card is present in the PCE\_CPTFILE.DAT file. This file is encrypted and is maintained solely by ENZ. If additional loyalty/gift/third party cards are to be supported using **QueryCard**, please request that ENZ add the required card details to the PCE\_CPTFILE.DAT.

**APPLICABLE REQUEST and or RESPONSE:**     **QueryCard Response**

### 3.31. TXNREF [ALPHANUMERIC]

Format: Up to 16 characters.

Application supplied reference. **TxnRef** can contain any ASCII character between the values 32<sub>decimal</sub> ( ' ', space character) to 127<sub>decimal</sub> ( '~' tilde character).



**NOTE:** Must be unique for consecutive **Transaction Requests**.

***APPLICABLE REQUEST and or RESPONSE:*** ChequeVerification Request, ControlPanel Request, GetMerchants Request, JournalViewer Request, Logon Request, QueryCard Request, Settlement Request, Transaction Request

## 4. TRANSACTION REQUESTS: “TXN.INP” FILE REQUEST FORMATS

All Transaction Requests have a corresponding Transaction Response. A Transaction Response will be generated when the Transaction Request processing is complete.

Both requests and responses consist of a concatenation of property values in the order stipulated for each type of request. Refer to the **Examples** section for examples of requests and response file data. Hexadecimal file content is also provided for clarity.

### Alphanumeric

Upper and lower-case alphabetic ASCII characters (A–Z, a–z) and the numbers 0 through 9.

Alphanumeric in this case does not include special characters (such as the symbols \$, #, and @, mathematical symbols, and punctuation marks).

### Numeric

Numeric ASCII characters supported (0–9).

#### 4.1. CHEQUEVERIFICATION REQUEST

This request allows the POS to process a cheque auth transaction.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "C"
Merchant	3	Numeric	Merchant required to process cheque
POSName	10	Alphanumeric	POSName e.g.: "EFI-POS"
POSVersion	4	Alphanumeric	POSVersion e.g.: "0113"
Reserved	1		Must be blank
Branch	8	Numeric	Left Justified Branch Number
Account	10	Numeric	Left justified account number
Serial Number	6	Numeric	Left Justified serial number
Additional	9	Alphanumeric	Spaces
ManualEntry	1	Numeric	1 if ManualEntry 0 for MICR
Amount	12	Numeric	Leading zero amount, implied decimal place
DialogX	4	Numeric	Positions the EFTPOS operator panel at a precise X screen location.

DialogY	4	Numeric	Positions the EFTPOS operator panel at a precise Y screen location.
DialogPosition	12	Alphanumeric	Positions the EFTPOS operator panel. For DialogPosition to be recognized ensure that DialogX and DialogY properties are both set to zero.

## 4.2. CONTROLPANEL REQUEST

This request causes the PC EFTPOS Control Panel to be displayed, allowing the user to initiate EFTPOS operations and perform EFTPOS configuration (passwords are required for EFTPOS configuration).

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "X"
Merchant	3	Numeric	Merchant required or 001
POSName	10	Alphanumeric	POSName. Eg: "EFI-POS"
POSVersion	4	Alphanumeric	POSVersion. Eg: "0113"

## 4.3. GETLASTRECEIPT REQUEST

Retrieves last receipt produced by the PIN pad. Set **Merchant** property before issuing this request. A **GetLastReceipt response** is created when this operation completes or times-out.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "R"
Merchant	3	Numeric	Merchant required or 001

## 4.4. GETLASTTRANSACTION REQUEST

Retrieves details of the last transaction processed by PC EFTPOS Client PIN pad. This method could be used by the POS application to determine whether a transaction was successful or not following a power failure while an EFTPOS transaction was in progress. Refer to the **Exception Handling** section for further information.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "T"
Merchant	3	Numeric	Merchant required or 001

## 4.5. GETMERCHANTS REQUEST

Issue a **GetMerchants** request to retrieve a list of all the merchants set up in PC EFTPOS.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "I"
POSName	10	Alphanumeric	POSName e.g.: "EFI-POS"
POSVersion	4	Alphanumeric	POSVersion e.g.: "0113"

## 4.6. JOURNALVIEWER REQUEST

This request causes the PC EFTPOS Control Panel to be displayed. From here the user can get access to the journal screen.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "X"
Merchant	3	Numeric	Merchant required or 001
POSName	10	Alphanumeric	POSName e.g.: "EFI-POS"
POSVersion	4	Alphanumeric	POSVersion e.g.: "0113"

## 4.7. LOGON REQUEST

Initiates an EFTPOS Logon, regardless of whether PC EFTPOS Client is already logged on or not. Set the **Merchant** property before calling **Logon** request.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "L"
Merchant	3	Numeric	Merchant required or 001
POSName	10	Alphanumeric	POSName e.g.: "EFI-POS"
POSVersion	4	Alphanumeric	POSVersion e.g.: "0113"
DialogX	4	Numeric	Positions the EFTPOS operator panel at a precise X screen location.
DialogY	4	Numeric	Positions the EFTPOS operator panel at a precise Y screen location.
DialogPosition	12	Alphanumeric	Positions the EFTPOS operator panel. For DialogPosition to be recognized ensure that DialogX and DialogY properties are both set to zero.

## 4.8. QUERYCARD REQUEST

The PIN pad will prompt "ENTER CARD" and read the swiped magnetic card. Track1 & Track2 contents are returned.



NOTE: Only cards present in the PCE\_CPTFILE.DAT file will be returned in this response. This is an encrypted file maintained by ENZ. Please contact ENZ to include additional cards that are not supported.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "J"
Merchant	3	Numeric	Merchant required or 001
POSName	10	Alphanumeric	POS Name e.g.: "EFI-POS"
POSVersion	4	Alphanumeric	POS Version e.g.: "0113"
DialogX	4	Numeric	Positions the EFTPOS operator panel at a precise X screen location.
DialogY	4	Numeric	Positions the EFTPOS operator panel at a precise Y screen location.
DialogPosition	12	Alphanumeric	Positions the EFTPOS operator panel. For DialogPosition to be recognized ensure that DialogX and DialogY properties are both set to zero.

## 4.9. REPRINTRECEIPT REQUEST

Instructs the PIN pad to print a copy of the last financial receipt.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "P"
Merchant	3	Numeric	Must be set to 001

## 4.10. SETTLEMENT REQUEST

Performs an EFTPOS settlement. Set the **SettleType** property within this request (E=Enquiry or C=Cutover).

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "S"
Merchant	3	Numeric	Merchant required or 001
POSName	10	Alphanumeric	POS Name e.g.: "EFI-POS"
POSVersion	4	Alphanumeric	POS Version e.g.: "0113"
Settle Type	1	Alphanumeric	"E"=Enquiry, "C"=Cutover
DateSettlement	8	Numeric	DDMMYYYY (for settlement enquiry only)
DialogX	4	Numeric	Positions the EFTPOS operator panel at a precise X screen location.

DialogY	4	Numeric	Positions the EFTPOS operator panel at a precise Y screen location.
DialogPosition	12	Alphanumeric	Positions the EFTPOS operator panel. For DialogPosition to be recognized ensure that DialogX and DialogY properties are both set to zero.

## 4.11. TRANSACTION REQUEST

This request instructs PC EFTPOS Client to perform a financial transaction.

Field	Size	Contents	Description
Type	1	Alphanumeric	Must be set to "E"
Merchant	3	Numeric	Merchant required or 001
POSName	10	Alphanumeric	POS Name. Eg: "EFI-POS"
POSVersion	4	Alphanumeric	POS Version. Eg: "01.2"
TxnType	1	Alpha	EFT Transaction Type 'P' = Purchase / Purchase + Case / Cash Out 'R' = Refund
AmtPurchase	12	Numeric	Leading zero amount, implied decimal place
AmtCash	12	Numeric	Leading zero amount, implied decimal place
AmtCreditLimit	12	Numeric	(Old Interface, not populated)
TxnRef	16	Alphanumeric	POS supplied transaction reference
EnableTipping	1	Numeric	(Old Interface, set to "0")
PanSource	1	Alphanumeric	" "= Must be for PIN pad read, do not allow POS Manual PAN
Pan	32	Numeric	(Old Interface, fill with space characters)
CutReceipt	1	Numeric	Set to "1" if EFTPOS receipt should be cut.
DateExpiry	4	Numeric	(Old Interface, fill with space characters)
Track1	64	Alphanumeric	(Old Interface, fill with space characters)
Track2	64	Alphanumeric	(Old Interface, fill with space characters)
ReceiptAutoPrint	1	Numeric	1=EFTPOS must print receipt. Must be set to "1"
EnableManualPan	1	Numeric	1=EFTPOS will allow ManualEntry of card details at ENTER CARD prompt.
CashoutDuplicate	1	Numeric	(Old Interface, fill with space characters)
AllowCredit	1	Numeric	Set to 1 to inform the Client that the POS wants to AllowCredit account selection during transaction. If

			the POS wants to restrict the cardholder from using the credit account, set this flag to FALSE.
DialogX	4	Numeric	Positions the EFTPOS operator panel at a precise X screen location.
DialogY	4	Numeric	Positions the EFTPOS operator panel at a precise Y screen location.
DialogPosition	12	Alphanumeric	Positions the EFTPOS operator panel. For DialogPosition to be recognized ensure that DialogX and DialogY properties are both set to zero.
Field48Data	999	Alphanumeric	Proprietary field – For use by prior arrangement with ENZ only
CreditOnly	1	Numeric	Set to 1 to inform PC EFTPOS that the POS wants to force Credit account ONLY during account selection. Debit account options will not be presented. Default value if 0 (FALSE)
InfoEvent	1	Numeric	Set to 1 to inform PC EFTPOS that the POS wants to receive Information Events via the INFO.OUT file. Default value is 0 (FALSE)

## 4.12. CANCEL REQUEST: “CANCEL.IN” FILE REQUEST FORMATS

The POS can use this method to cancel the current transaction request. It **should not be assumed** this has been successful - completion of the original request may continue. However, if successful the Transaction Response will be sent with a ResponseCode of “T8”. No matching cancel response should be expected.

A file named CANCEL.IN should be created with the following content.

Field	Size	Contents	Description
Merchant	3	Numeric	Must be set to 001

## 5. TRANSACTION RESPONSES: “TXN.OUT” FILE RESPONSE FORMATS

Transaction responses are generated to indicate completion of Transaction request. A Transaction request always has a corresponding Transaction response and the Transaction response is always generated regardless of whether the Transaction request was completed successfully or not.

### 5.1. CHEQUE VERIFICATION RESPONSE

Generated upon completion of a **ChequeVerification Request**.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to 'c'
Merchant	3	Numeric	Set to "000"
Success	1	Numeric	'1' = successful '0' = failed
ReCo	2	Alphanumeric	Response Code
Field44Data	8	Numeric	Returned data to display

### 5.2. CONTROLPANEL RESPONSE

Generated when the PC EFTPOS Client Control Panel is closed.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to 'x'
Merchant	3	Numeric	Set to "000"
Success	1	Numeric	'1' = successfully displayed and dismissed, '0'=failed to display

### 5.3. GETLASTRECEIPT RESPONSE

Generated upon completion of a **GetLastReceipt Request**.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to "r"
Merchant	3	Numeric	Set to 001
Stan	6	Numeric	EFTPOS Systems Trace Audit Number
ReceiptData	2000	Alphanumeric	Formatted EFTPOS receipt. Each line is terminated with a CR LF pair. No other formatting is performed.

TxnRef	16	Alphanumeric	POS supplied TxnRef originally associated with this receipt
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## 5.4. GETLASTTRANSACTION RESPONSE

Generated upon completion of a **GetLastTransaction Request**.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to "t"
Merchant	3	Numeric	Set to 001
Success	1	Numeric	'1' = successful '0' = failed
ReCo	2	Alphanumeric	Response Code
ResponseText	30	Alphanumeric	Response Text
MessageType	4	Numeric	210 = EFTPOS Financial Transaction
Stan	6	Numeric	EFTPOS Systems Trace Audit Number
Date	8	Numeric	DDMMYYYY date of transaction
Time	6	Numeric	HHMMSS time of transaction
Catid	8	Numeric	CATID
Caid	15	Numeric	CAID
TxnRef	16	Alphanumeric	POS supplied TxnRef originally associated with this receipt

## 5.5. GETMERCHANTS RESPONSE

Generated upon completion of a **GetMerchants Request**.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to "i"
ActiveMerchants	2048	Alphanumeric	Refer to below.

The response for this process has the following ActiveMerchants content:

Parameter	Description
Number of Merchants active (3 chars)	Indicates the number of merchant records following (Merchant Number and Merchant Name are repeated for each one).
Merchant Number (3 chars)	Number of this merchant - this is what needs to be set in the Merchant property.
Merchant Name (13 chars)	Description as entered in the PC EFTPOS Client. This can be used to aid the user in selecting a merchant from the POS.

E.g. Four merchants active, merchants 1, 3, 4, 8, might look like this:

```
004001MERCHANT ONE 003MERCHANT TWO 004MERCHANT
FOUR008MERCHANT EIGHT
```

## 5.6. JOURNALVIEWER RESPONSE

Generated when the PC EFTPOS Client Control Panel is closed.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to 'x'
Merchant	3	Numeric	Set to "000"
Success	1	Numeric	'1' = successfully displayed and dismissed, '0'=failed to display

## 5.7. LOGON RESPONSE

Generated upon completion of **Logon Request**.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to "I"
Merchant	3	Numeric	Set to 001
Stan	6	Numeric	EFTPOS Systems Trace Audit Number
Date	8	Numeric	DDMMYYYY date of transaction
Time	6	Numeric	HHMMSS time of transaction
Catid	8	Numeric	CATID
Caid	15	Numeric	CAID
ReCo	2	Alphanumeric	Response Code
ResponseText	30	Alphanumeric	Response Text
Success	1	Numeric	'1' = successfully displayed and dismissed, '0'=failed to display

## 5.8. QUERYCARD RESPONSE

Generated upon completion of **QueryCard Request**.

NOTE: Only cards present in the PCE\_CPTFILE.DAT file will be returned in this response.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to "j"

ReCo	2	Alphanumeric	Response Code
ResponseText	30	Alphanumeric	Response Text
Track2	64	Alphanumeric	Card Track2 data
Track1	128	Alphanumeric	Card Track1 data

## 5.9. REPRINTRECEIPT RESPONSE

Generated upon completion of a **ReprintReceipt Request**. This response will be followed by file RECEIPT\_1.RPT or RECEIPT\_2.RPT being created ready for printing.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to "p"
Merchant	3	Numeric	Set to 001
Success	1	Numeric	'1' = successfully displayed and dismissed, '0'=failed to display

## 5.10. SETTLEMENT RESPONSE

Generated upon completion of a **Settlement Request**.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to 's'
Merchant	3	Numeric	Set to "000"
Success	1	Numeric	'1' = successful '0' = failed
ReCo	2	Alphanumeric	Response Code
ResponseText	30	Alphanumeric	Response Text
SettleType	1	Alphanumeric	Settlement type, 'E'=Enquiry or 'C'=Cutover

## 5.11. TRANSACTION RESPONSE

Generated upon completion of a **Transaction Request**.

Field	Size	Contents	Description
Type	1	Alphanumeric	Set to 'e'
Merchant	3	Numeric	Set to 001
Success	1	Numeric	'1' = Successful transaction '0' = Failed transaction

ReCo	2	Alphanumeric	Response Code
MessageType	4	Numeric	210 = EFTPOS Financial Transaction
Stan	6	Numeric	EFTPOS Systems Trace Audit Number
Date	8	Numeric	DDMMYYYY date of transaction
Time	6	Numeric	HHMMSS time of transaction
HostReCo	1	Numeric	Old Interface, not populated
ResponseCode	2	Alphanumeric	Response Code
ResponseText	30	Alphanumeric	Response Text
ReceiptWidth	2	Numeric	Not populated
Catid	8	Numeric	CATID
Caid	15	Numeric	CAID
PrCo	6	Numeric	Not populated
HostId	12	Numeric	Not populated
Acquirer	1	Alpha	Not populated
Elapsed	5	Numeric	Old Interface, not populated
FailReason	1	Alphanumeric	Old Interface, not populated
Pan	32	Numeric	Primary Account Number. Loaded with customer card number for manually entered transactions. Only credit card details may be manually entered. Manual PAN entry. Due to Scheme restrictions first six and last four digits will only be populated for this property if present.
AmtCash	12	Numeric	Cashout Amount
AmtCreditLimit	12	Numeric	Old Interface, not populated
AmtTip	12	Numeric	Old Interface, not populated
AmtPurchase	12	Numeric	Purchase Amount
EnableTip	1	Numeric	Old Interface, not populated
AuthCodePresent	1	Numeric	'0' or '1'
AuthCode	6	Numeric	Authorisation Code
Posc	2	Numeric	Not populated
Pose	3	Numeric	Not populated
RrnPresent	1	Numeric	Retrieval reference number present
Rrn	12	Numeric	Retrieval reference number
DateExpiry	4	Numeric	MMYY Expiry Date



DateSettlement	8	Numeric	Date payment will be settled to merchant account (if successful transaction)
TxnRef	16	Alphanumeric	POS supplied TxnRef originally associated with this receipt
NameLocLine1	20	Alphanumeric	Old Interface, not populated
NameLocLine2	20	Alphanumeric	Old Interface, not populated
NameLocLine3	20	Alphanumeric	Old Interface, not populated
CardName	20	Alphanumeric	Visa, Amex etc
EftTxnTypeStr	16	Alphanumeric	Old Interface, not populated
EftTxnType	1	Alphanumeric	Old Interface, not populated
AccountType	6	Alpha	"CHQ" Cheque account (Debit) "SAV" Savings account (Debit) "CRD" Credit account

## 5.12. INFORMATION RESPONSE : “INFO.OUT” FILE RESPONSE FORMAT

If InfoEvent is set within the **TransactionRequest**, the INFO.OUT file may be generated at various stages throughout transaction flow. Properties offer the POS various values as a transaction progresses. InfoEvents can be used to determine the card type used by a cardholder or account type selected.

Field	Size	Contents	Description
InfoType	1	Numeric	'1' – Card swiped, truncated PAN set in PAN property '2' – Account selected; Account set in AccountType property
PAN	14	Numeric	999999....9999
AccountType	3	Alphanumeric	"CHQ" – Cheque account (Debit) "SAV" – Savings account (Debit) "CRD" – Credit account

## 6. EXAMPLES

### 6.1. TRANSACTION REQUEST EXAMPLE

Field	Size	Data
Type	1	E
Merchant	3	001
POSName	10	ENZ Lite..
POSVersion	4	2.00
TxnType	1	P
AmtPurchase	12	000000002000
AmtCash	12	000000000000
AmtCreditLimit	12	(Old Interface, not populated)
TxnRef	16	0000000000000002
EnableTipping	1	0
PanSource	1	
Pan	32	
CutReceipt	1	1
DateExpiry	4	
Track1	64	(Old Interface, not populated)
Track2	64	(Old Interface, not populated)
ReceiptAutoPrint	1	1
EnableManualPan	1	1
CashoutDuplicate	1	1
Allow Credit	1	1
Dialog X	4	
Dialog Y	4	
Dialog Position	12	
Field 48 Data	999	





HostId	12	Not populated
Acquirer	1	Not populated
Elapsed	5	(Old Interface, not populated)
FailReason	1	(Old Interface, not populated)
Pan	32	5038710000127372
AmtCash	12	000000000000
AmtCreditLimit	12	(Old Interface, not populated)
AmtTip	12	(Old Interface, not populated)
AmtPurchase	12	000000002000
EnableTip	1	(Old Interface, not populated)
AuthCodePresent	1	1
AuthCode	6	183678
Posc	2	Not populated
Pose	3	Not populated
RrnPresent	1	
Rrn	12	
DateExpiry	4	1012
DateSettlement	8	(Old Interface, not populated)
TxnRef	16	0000000000000002
NameLocLine1	20	(Old Interface, not populated)
NameLocLine2	20	(Old Interface, not populated)
NameLocLine3	20	(Old Interface, not populated)
Card Name	20	DEBIT
EftTxnTypeStr	16	(Old Interface, not populated)
EftTxnType	1	(Old Interface, not populated)
AccountType	6	SAV

**Data 351 bytes**

Hex value	ASCII value
65 30 30 30 31 30 30 32 31 30 20 30 30 30 30 33	e000100210 00003
31 32 31 30 32 32 30 30 36 30 38 35 38 30 36 20	121022006085806
30 30 28 30 30 29 20 41 43 43 45 50 54 45 44 20	00(00) ACCEPTED
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	
20 20 31 38 37 38 39 31 30 31 31 38 37 38 39 31	18789101187891
30 31 30 30 30 31 20 20 20 20 20 20 20 20 20	010001
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	
20 20 35 30 33 38 37 31 30 30 30 30 31 32 37 33	50387100001273
37 32 20 20 20 20 20 20 20 20 20 20 20 20 20	72

20 20 30 30 30 30 30 30 30 30 30 30 30 30 20 20	000000000000
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	
20 20 20 20 20 20 30 30 30 30 30 30 30 32 30	0000000020
30 30 20 31 31 38 33 36 37 38 20 20 20 20 20 20	00 1183678
20 20 20 20 20 20 20 20 20 20 20 20 31 30 31 32	1012
20 20 20 20 20 20 20 20 30 30 30 30 30 30 30 30	00000000
30 30 30 30 30 30 30 32 20 20 20 20 20 20 20 20	00000002
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	
20 20 20 20 44 45 42 49 54 20 20 20 20 20 20 20	DEBIT
20 20 20 31 20 20 20 20 20 20 20 20 20 20 20	1
20 20 20 20 20 20 20 20 20 53 41 56 20 20 20	SAV

### 6.3. CHEQUEVERIFICATION REQUEST EXAMPLE

Field	Size	Data
Type	1	C
Merchant	3	001
POSName	10	ENZ Lite..
POSVersion	4	2.00
Reserved	1	Not populated
Branch	8	123456
Account	10	7891234
Serial Number	6	123456
Additional	9	Not populated
ManualEntry	1	1
Amount	12	000000002000
<b>Data 65 bytes</b>		
<b>Hex value</b>		<b>ASCII value</b>
43 30 30 31 45 4e 5a 20 4c 69 74 65 00 00 32 2e		C001ENZ Lite..2.
30 30 20 31 32 33 34 35 36 20 20 37 38 39 31 32		00 123456 78912
33 34 20 20 20 31 32 33 34 35 36 20 20 20 20 20		34 123456
20 20 20 20 31 30 30 30 30 30 30 30 32 30 30		100000000200
30		0

### 6.4. CHEQUE VERIFICATION RESPONSE EXAMPLE

Field	Size	Data
Type	1	c
Merchant	3	000
Success	1	0

ReCo	2	12
Field44Data	8	
<b>Data 15 bytes</b>		
<b>Hex value</b>		<b>ASCII value</b>
63 30 30 30 30 31 32 20 20 20 20 20 20 20 20		c000012

## 6.5. SETTLEMENT REQUEST EXAMPLE

Field	Size	Data
Type	1	S
Merchant	3	001
POSName	10	ENZ Lite..
POSVersion	4	2.00
SettleType	1	E
Date	8	22022006
<b>Data 27 bytes</b>		
<b>Hex value</b>		<b>ASCII value</b>
53 30 30 31 45 4e 5a 20 4c 69 74 65 00 00 32 2e 30 30 45 32 32 30 32 32 30 30 36		S001ENZ Lite..2. 00E22022006

## 6.6. SETTLEMENT RESPONSE EXAMPLE

Settlement Response		
Field	Size	Data
Type	1	s
Merchant	3	000
Success	1	1
ReCo	2	90
ResponseText	30	(90) INSIDE SETTLEMENT WINDOW
SettlementType	1	E
<b>Data 38 bytes</b>		
<b>Hex value</b>		<b>ASCII value</b>
73 30 30 30 31 39 30 28 39 30 29 20 49 4e 53 49 44 45 20 53 45 54 54 4c 45 4d 45 4e 54 20 57 49 4e 44 4f 57 20 45		s000190(90) INSI DE SETTLEMENT WI NDOW E

## 6.7. LOGON REQUEST EXAMPLE

Field	Size	Data
Type	1	L
Merchant	3	001
POSName	10	ENZ Lite..
POSVersion	4	2.00
<b>Data 18 bytes</b>		
<b>Hex value</b>		<b>ASCI value</b>
4c 30 30 31 45 4e 5a 20 4c 69 74 65 00 00 32 2e 30 30		L001ENZ Lite..2. 00

## 6.8. LOGON RESPONSE EXAMPLE

Field	Size	Data
Type	1	I
Merchant	3	001
Stan	6	000038
Date	8	Not populated
Time	6	161123
Catid	8	(Old Interface, not populated)
Caid	15	187891010001
ReCo	2	00
ResponseText	30	(00) ACCEPTED
Success	1	1
<b>Data 80 bytes</b>		
<b>Hex value</b>		<b>ASCI value</b>
6c 30 30 31 30 30 30 30 33 38 20 20 20 20 20 20 20 20 20 20 31 36 31 31 32 33 20 20 20 20 20 20 20 20 20 20 31 38 37 38 39 31 30 31 30 30 30 31 20 20 20 30 30 28 30 30 29 20 41 43 43 45 50 54 45 44 20 20 20 20 20 20 20 20 20 20 20 20 20 20 31		1001000038 161123 187891010001 0 0(00) ACCEPTED 1



## 7.EXCEPTION HANDLING

A crucial aspect of EFTPOS implementations is correct handling of exception events such as equipment failure during EFTPOS processing. PC EFTPOS Client provides for checkpoints and full power fail recovery in accordance with EFTPOS requirements.

The POS application must implement power failure recovery to cope with the possibility that an EFTPOS transaction was accepted by the PIN pad. That is, the "point of no return" has been passed - funds have been transferred from customer account to merchant.

The POS application should maintain a non-volatile flag to indicate whether an EFTPOS transaction has been started or not. This flag should be reset after a response has been received from the corresponding request. In addition to maintaining this flag, the POS must be able to "tag" each EFTPOS transaction submitted for processing with a POS-unique transaction reference passed in the **TxnRef** property. Upon restarting, the POS should check the flag. If it is set, it indicates that an EFTPOS transaction may have been in progress. The POS may not assume that the EFTPOS transaction necessarily failed in this case. Instead, call **GetLastTransaction** to retrieve details of the last EFTPOS transaction processed by the EFTPOS subsystem. If the **TxnRef** property matches the **TxnRef** of the last POS transaction and the **Success** property indicates a successful transaction (set to True), then the POS application must proceed on the basis that the transaction that was in progress during system failure did succeed.

In addition to the above process the POS should have a print thread where it will start polling the set directory for receipts that need printing (RECEIPT\_1.RPT or RECEIPT\_2.RPT). In a power fail situation, power fail receipt will be generated on startup by PCEFTPOS Client. The POS will be required to print this receipt to comply with ANZ EFTPOS Standards.

### Process for Power-failure Recovery

The sequence below shows how to replicate a power-failure scenario.

#### Initiate the Transaction:

1. Once all the transaction details are gathered on the POS application, create an TXN.INP file with Transaction request properties set.
2. Enter all customer card details e.g. card number, account and PIN.
3. **Power fail the PC:**

Switch off the power to the PC. (Switch off the mains to the PC running the POS application and PC EFTPOS – this may seem somewhat brutal but the results under the event of a PC reset are different from a true power-failure.)

4. Power on the PC:

On start-up, PC EFTPOS will start as a service.

5. **RECEIPT\_1.RPT** or **RECEIPT\_2.RPT** will be created. This receipt will be the power-failure receipt. The POS on startup should print this receipt.
6. PC EFTPOS will then process the pending reversal from the power-failure.
7. On startup of the POS, call **GetLastTransaction** request.
8. Check the status of the **Success** property in the **GetLastTransaction Response**:
  - If set to "1"
    - The transaction was completed successfully and the **TxnRef** will be set. (The **TxnRef** number can be checked with the one in the POS registry)
  - Else
    - The **TxnRef** was not set. (You could display an exception error here accordingly)
9. Call **GetLastReceipt** request.
10. Check the **TxnRef** number with the one in the POS registry.
  - If they are the same:
    - Print the Receipt. (For current transaction)
  - Else
    - Discard the receipt. (From previous transaction)