

## Setting Up the Environment

Step 1: Download and Install PIC Middleware Windows App from the website

Step 2: Login to PIC Middleware App from the desktop shortcut using the test credentials below

Username: testname

Password: \*\*\*\*

\*\* Request for credentials from PIC Support Team

Step 3: Register the Device on the PIC Windows App (Special characters are not compatible)

Step 4: Configuring the Payment Settings on the PIC App

- Select the processor from the list
- Select the terminal model and communication type (Currently we only have one option, so leave them on the default option)
- Enter the Static IP address and Port that will be configured on the Credit Card Terminal

Step 5: Configure the Credit Card Terminal to Semi Integration Mode,

- Setup the Terminal to Semi-Integration Mode (For ICT 250, press # key then 9 to enable semi-integration)
- Choose communication type to Ethernet (For ICT 250, press # key then 9 for Semi-integration, 2 for communication type, 3 for Ethernet)
- If you wish to print the receipt from the POS and suppress the receipt on the credit card terminal then choose ECR under receipt options (For ICT 250, press # key then 9 for Semi-integration, 3 for receipt options, 1 for ECR)
- Configure a Static IP for the terminal (For ICT 250, press # key then 3 for Setup Menu, 2 for Communications, 3 for Ethernet, 2 for Ethernet Setup, 2 for Static IP. Enter a IP address within the local network. Credit Card terminal will reboot after this change)
- Turn on Invoice option on the terminal (For ICT 250, press # key then 3 for Setup Menu, 4 for Trans Options, 3 for Prompts, 1 for Invoice, 2 for Invoice)

Great! You have setup the terminal to semi-integration mode successfully.

Note: The POS software and the PIC WIN App should be installed on the same Windows device

## PIC Win App Integration API

(Example C# Code has been provided at the end of the document)

### REST API URL for Second Terminal:

<http://localhost:8000/PICServiceLibrary/SecondTerminalIntegration>

### Input Parameters:

Parameter Name	Data Type	Example
<b>TransType *</b>	String	00 – Purchase, 03 – Void, 05 – Return/Refund
<b>InvoiceNumber *</b>	String	123456 (Max 6 char)
<b>Amount *</b>	String	\$10.25 * 100 = \$1025 <i>(Amount sent to PIC Middleware should be sent as 1025 if the actual amount is 10.25)</i>
<b>ClerkID</b>	String	Optional

\*Mandatory parameters

## Sample Transaction Responses

### Don't forget these two tags on all responses

<TransactionType>Purchase</TransactionType>

<TransactionStatus>Approved</TransactionStatus>

#### 1. Sale or Purchase

```
<TransactionType>Purchase</TransactionType><TransactionStatus>Approved</TransactionStatus><TransactionDate>160730</TransactionDate><TransactionTime>151221</TransactionTime><TransactionAmount>1000</TransactionAmount><TotalAmount>1529</TotalAmount><InvoiceNumber>inv101</InvoiceNumber><ReferenceNumber>15</ReferenceNumber><ClerkID>777</ClerkID><CustomerCardType>Visa</CustomerCardType><CustomerCardDescription>Visa</CustomerCardDescription><CustomerAccountnumber>*****0010</CustomerAccountnumber><CustomerLanguage>English</CustomerLanguage><CustomerCardEntryMode>Insert (Chip)</CustomerCardEntryMode><EMVAID>A0000000031010</EMVAID><EMVTVR>0080008000</EMVTVR><EMVTSI>F800</EMVTSI><EMVApplicationLabelOrPreferredName>Visa Credit</EMVApplicationLabelOrPreferredName><CVMresult>1</CVMresult><AuthorizationNumber>072978</AuthorizationNumber><HostResponseCode>AA</HostResponseCode><HostResponseText>APPR
```

OVAL</HostResponseText><TraceNumber>15</TraceNumber><HostTransactionReferenceNumber>730191221</HostTransactionReferenceNumber><BatchNumber>18</BatchNumber><TerminalID>0089250008024701610012</TerminalID><MerchIDOrVisaIDOrMCID>8024701610</MerchIDOrVisaIDOrMCID><ReceiptHeader1>SITPSE SI TEST</ReceiptHeader1><ReceiptHeader2>7300 CHAPMAN HWY</ReceiptHeader2><ReceiptHeader3>OAKVILLE, ON. L6M 2X3</ReceiptHeader3><ReceiptHeader4>555-555-5555</ReceiptHeader4><ReceiptFooter1>THANK YOU / MERCI</ReceiptFooter1><EndorsementLine1>CARDHOLDER ACKNOWLEDGES RECEIPT OF GOODS</EndorsementLine1><EndorsementLine2>AND/OR SERVICES IN THE AMOUNT OF THE</EndorsementLine2><EndorsementLine3>TOTAL SHOWN HEREON</EndorsementLine3>

## Sale or Purchase with TIP Amount

<TransactionType>Purchase</TransactionType><TransactionStatus>Approved</TransactionStatus><TransactionDate>160730</TransactionDate><TransactionTime>151221</TransactionTime><TransactionAmount>1000</TransactionAmount><TipAmount>100</TipAmount><TotalAmount>1100</TotalAmount><InvoiceNumber>inv101</InvoiceNumber><ReferenceNumber>15</ReferenceNumber><ClerkID>777</ClerkID><CustomerCardType>Visa</CustomerCardType><CustomerCardDescription>Visa</CustomerCardDescription><CustomerAccountnumber>\*\*\*\*\*0010</CustomerAccountnumber><CustomerLanguage>English</CustomerLanguage><CustomerCardEntryMode>Insert (Chip)</CustomerCardEntryMode><EMVAID>A0000000031010</EMVAID><EMVTVR>0080008000</EMVTVR><EMVTSI>F800</EMVTSI><EMVApplicationLabelOrPreferredName>Visa Credit</EMVApplicationLabelOrPreferredName><CVMresult>1</CVMresult><AuthorizationNumber>072978</AuthorizationNumber><HostResponseCode>AA</HostResponseCode><HostResponseText>APPROVAL</HostResponseText><TraceNumber>15</TraceNumber><HostTransactionReferenceNumber>730191221</HostTransactionReferenceNumber><BatchNumber>18</BatchNumber><TerminalID>0089250008024701610012</TerminalID><MerchIDOrVisaIDOrMCID>8024701610</MerchIDOrVisaIDOrMCID><ReceiptHeader1>SITPSE SI TEST</ReceiptHeader1><ReceiptHeader2>7300 CHAPMAN HWY</ReceiptHeader2><ReceiptHeader3>OAKVILLE, ON. L6M 2X3</ReceiptHeader3><ReceiptHeader4>555-555-5555</ReceiptHeader4><ReceiptFooter1>THANK YOU / MERCI</ReceiptFooter1><EndorsementLine1>CARDHOLDER ACKNOWLEDGES RECEIPT OF GOODS</EndorsementLine1><EndorsementLine2>AND/OR SERVICES IN THE AMOUNT OF THE</EndorsementLine2><EndorsementLine3>TOTAL SHOWN HEREON</EndorsementLine3>

## 1. VOID

<TransactionType>Void</TransactionType><TransactionStatus>Approved</TransactionStatus><TransactionDate>160730</TransactionDate><TransactionTime>151221</TransactionTime><TransactionAmount>1529</TransactionAmount><TotalAmount>1529</TotalAmount><InvoiceNumber>3</InvoiceNumber><ReferenceNumber>15</ReferenceNumber><ClerkID>1</ClerkID><CustomerCardType>Visa</CustomerCardType><CustomerCardDescription>Visa</CustomerCardDescription><CustomerAccountnumber>\*\*\*\*\*0010</CustomerAccountnumber><CustomerLanguage>English</CustomerLanguage><CustomerCardEntryMode>Insert (Chip)</CustomerCardEntryMode><EMVAID>A0000000031010</EMVAID><EMVApplicationLabelOrPreferredName>Visa Credit</EMVApplicationLabelOrPreferredName><CVMresult>0</CVMresult><AuthorizationNumber>SALE</AuthorizationNumber><HostResponseCode>AA</HostResponseCode><HostResponseText>APPROVAL</HostResponseText>

AL</HostResponseText><TraceNumber>15</TraceNumber><HostTransactionReferenceNumber>73019  
1221</HostTransactionReferenceNumber><BatchNumber>18</BatchNumber><TerminalID>008925000  
8024701610012</TerminalID><MerchIDOrVisaIDOrMCID>8024701610</MerchIDOrVisaIDOrMCID><Rec  
eiptHeader1>SITPSE SI TEST</ReceiptHeader1><ReceiptHeader2>7300 CHAPMAN  
HWY</ReceiptHeader2><ReceiptHeader3>OAKVILLE, ON. L6M  
2X3</ReceiptHeader3><ReceiptHeader4>555-555-5555</ReceiptHeader4><ReceiptFooter1>THANK  
YOU / MERCI</ReceiptFooter1>

## 2. Return/ Refund

<TransactionType>Return</TransactionType><TransactionStatus>Approved</TransactionStatus><Trans  
actionDate>160801</TransactionDate><TransactionTime>162722</TransactionTime><TransactionAmo  
unt>100</TransactionAmount><TotalAmount>100</TotalAmount><InvoiceNumber>INV605</InvoiceN  
umber><ReferenceNumber>20</ReferenceNumber><CustomerCardType>Visa</CustomerCardType><C  
ustomerCardDescription>Visa</CustomerCardDescription><CustomerAccountnumber>\*\*\*\*\*00  
10</CustomerAccountnumber><CustomerLanguage>English</CustomerLanguage><CustomerCardEntry  
Mode>Insert Chip</CustomerCardEntryMode><  
(EMVAID>A0000000031010</EMVAID><EMVApplicationLabelOrPreferredName>Visa  
Credit</EMVApplicationLabelOrPreferredName><CVMresult>2</CVMresult><HostResponseCode>AA</  
HostResponseCode><HostResponseText>APPROVAL</HostResponseText><TraceNumber>18</TraceNu  
mber><BatchNumber>18</BatchNumber><TerminalID>0089250008024701610012</TerminalID><Merc  
hIDOrVisaIDOrMCID>8024701610</MerchIDOrVisaIDOrMCID><ReceiptHeader1>SITPSE SI  
TEST</ReceiptHeader1><ReceiptHeader2>7300 CHAPMAN  
HWY</ReceiptHeader2><ReceiptHeader3>OAKVILLE, ON. L6M  
2X3</ReceiptHeader3><ReceiptHeader4>555-555-5555</ReceiptHeader4><ReceiptFooter1>THANK  
YOU / MERCI</ReceiptFooter1><EndorsementLine1>CARDHOLDER ACKNOWLEDGES RECEIPT OF  
GOODS</EndorsementLine1><EndorsementLine2>AND/OR SERVICES IN THE AMOUNT OF  
THE</EndorsementLine2><EndorsementLine3>TOTAL SHOWN HEREON</EndorsementLine3>

## Possible Negative Responses

### User Cancelled

1. <TransactionStatus>Cancelled by User</TransactionStatus>

### Invalid Invoice Number/Param not match

1. <TransactionStatus>Invalid ECR Param </TransactionStatus>

### Authentications/Authorizations/Declined by Host or Card

1. <TransactionType>Purchase</TransactionType><TransactionStatus>Declined by host Or by  
card</TransactionStatus><TransactionDate>160815</TransactionDate><TransactionTime>132156</Tra  
nsactionTime><TransactionAmount>100</TransactionAmount><TotalAmount>100</TotalAmount><Inv

```
oiceNumber>INV166</InvoiceNumber><ClerkID>879</ClerkID><CustomerCardType>Visa</CustomerCardType><CustomerCardDescription>Visa</CustomerCardDescription><CustomerAccountnumber>*****  
*****0010</CustomerAccountnumber><CustomerLanguage>English</CustomerLanguage><CustomerCardEntryMode>Insert  
(Chip)</CustomerCardEntryMode><EMVAID>A0000000031010</EMVAID><EMVTVR>0080008000</EMVTVR><EMVTSI>E800</EMVTSI><EMVApplicationLabelOrPreferredName>Visa  
Credit</EMVApplicationLabelOrPreferredName><BatchNumber>25</BatchNumber><TerminalID>00892  
50008024701610012</TerminalID><MerchIDOrVisalIDOrMCID>8024701610</MerchIDOrVisalIDOrMCID  
><ReceiptHeader1>SITPSE SI TEST</ReceiptHeader1><ReceiptHeader2>7300 CHAPMAN  
HWY</ReceiptHeader2><ReceiptHeader3>OAKVILLE, ON. L6M  
2X3</ReceiptHeader3><ReceiptHeader4>555-555-5555</ReceiptHeader4>
```

## Verification Fails

```
1. <TransactionType>Purchase</TransactionType><TransactionStatus>Declined by host Or by  
card</TransactionStatus><TransactionDate>160815</TransactionDate><TransactionTime>132642</Tra  
nsactionTime><TransactionAmount>100</TransactionAmount><TotalAmount>100</TotalAmount><Inv  
oiceNumber>INV066</InvoiceNumber><ReferenceNumber>4</ReferenceNumber><ClerkID>879</Clerk  
ID><CustomerCardType>MasterCard</CustomerCardType><CustomerCardDescription>MasterCard</Cu  
stomerCardDescription><CustomerAccountnumber>*****0434</CustomerAccountnumber><C  
ustomerLanguage>English</CustomerLanguage><CustomerCardEntryMode>Insert  
(Chip)</CustomerCardEntryMode><EMVAID>A0000000041010</EMVAID><EMVTVR>4000008000</EM  
VTVR><EMVTSI>E800</EMVTSI><EMVApplicationLabelOrPreferredName>MasterCard</EMVApplication  
LabelOrPreferredName><AuthorizationNumber>009772</AuthorizationNumber><TraceNumber>4</Tra  
ceNumber><HostTransactionReferenceNumber>815172642</HostTransactionReferenceNumber><Batc  
hNumber>25</BatchNumber><TerminalID>0089250008024701610012</TerminalID><MerchIDOrVisalID  
OrMCID>8024701610</MerchIDOrVisalIDOrMCID><ReceiptHeader1>SITPSE SI  
TEST</ReceiptHeader1><ReceiptHeader2>7300 CHAPMAN  
HWY</ReceiptHeader2><ReceiptHeader3>OAKVILLE, ON. L6M  
2X3</ReceiptHeader3><ReceiptHeader4>555-555-5555</ReceiptHeader4>
```

## Possible Transaction Status

- a. Approved
- b. Partial Approved
- c. Declined by host or by card
- d. Communication Error
- e. Cancelled by User
- f. Time out on User Input
- g. Transaction Function Not Completed
- h. Batch Empty
- i. Declined by Merchant
- j. Invalid ECR Param
- k. Transaction Type is not valid
- l. Invalid Authentication

## Example Code:

### PIC REST API Calling using C#

```
string url = "http://localhost:8000/PICServiceLibrary/SecondTerminalIntegration";

HttpWebRequest req = (HttpWebRequest)WebRequest.Create(url);

string strTransType = "00";
string strInvNo = "Inv132";
string Amount = "100";
string ClerkID = string.Empty;

JObject json = new JObject();
json.Add("TransType", strTransType);
json.Add("InvoiceNumber", strInvNo);
json.Add("Amount", amount);
json.Add("ClerkID", ClerkID);
string data = json.ToString();
byte[] requestBytes = System.Text.Encoding.ASCII.GetBytes(data);
req.Method = "POST";
req.ContentType = "application/json; charset=utf-8";
req.ContentLength = requestBytes.Length;
Stream requestStream = req.GetRequestStream();
requestStream.Write(requestBytes, 0, requestBytes.Length);
requestStream.Close();
HttpWebResponse res = (HttpWebResponse)req.GetResponse();
StreamReader sr = new StreamReader(res.GetResponseStream(), System.Text.Encoding.Default);
string backstr = sr.ReadToEnd();
sr.Close();
res.Close();
return backstr;
```