

ER750 Application Note Rev.B

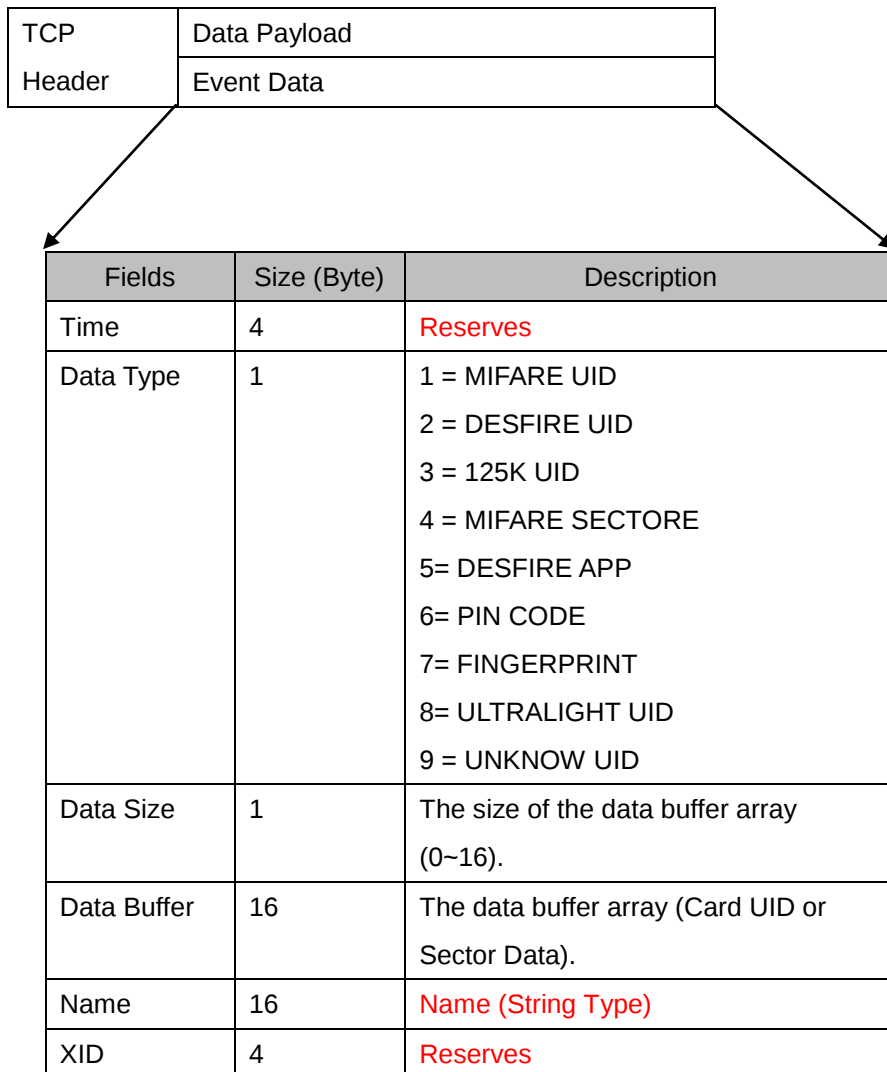
Table of Content

1. About the ER750 Event Data Structure	2
2. Event Server Record File Format.....	3
3. Event Server Record File Print Out	4
4. Record File Path	6
5. EventServer WinSock Scheme (in VB6).....	7
6. EventServer Socket Scheme by Using EventServer.dll (in VB.net).....	8
7. The Properties, Methods & Events of EventServer (.dll)	9
7.1 ClientEvent Properties, Methods and Events	10
7.2 MyTCPClient Properties, Methods and Events.....	12
7.3 MyTCPListener Properties, Methods and Events	13
7.4 TimeZoneInfo Properties, Methods and Events	14
8. The Properties, Methods & Events of ERReader (.dll)	15
8.1 ERReader Properties, Methods and Events	15

1. About the ER750 Event Data Structure

TCP Port Number: 2168 (Default)

TCP Data Payload (Event Packet) :



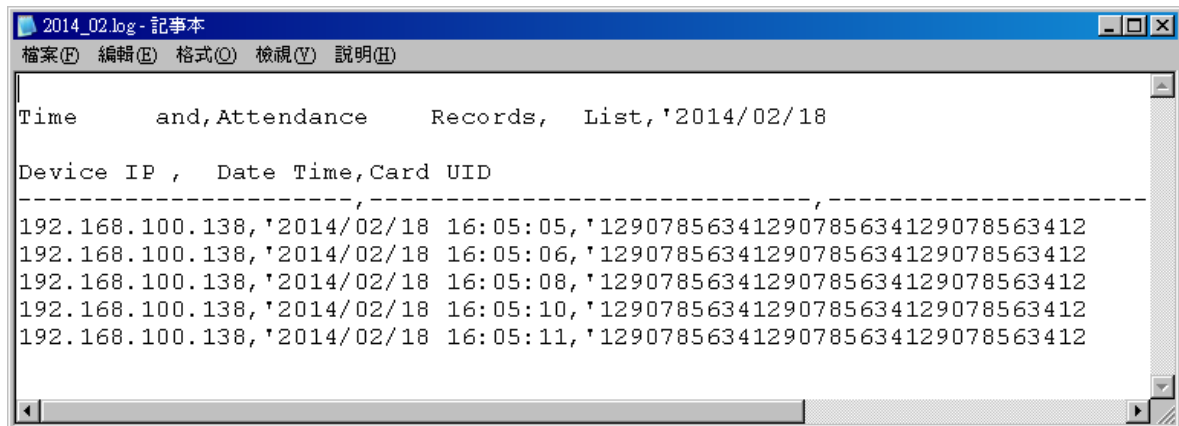
2. Event Server Record File Format

File Name:

[Year]_[Month].log

File Content:

[Device IP Address], & [Date Time], ' & [Card UID]

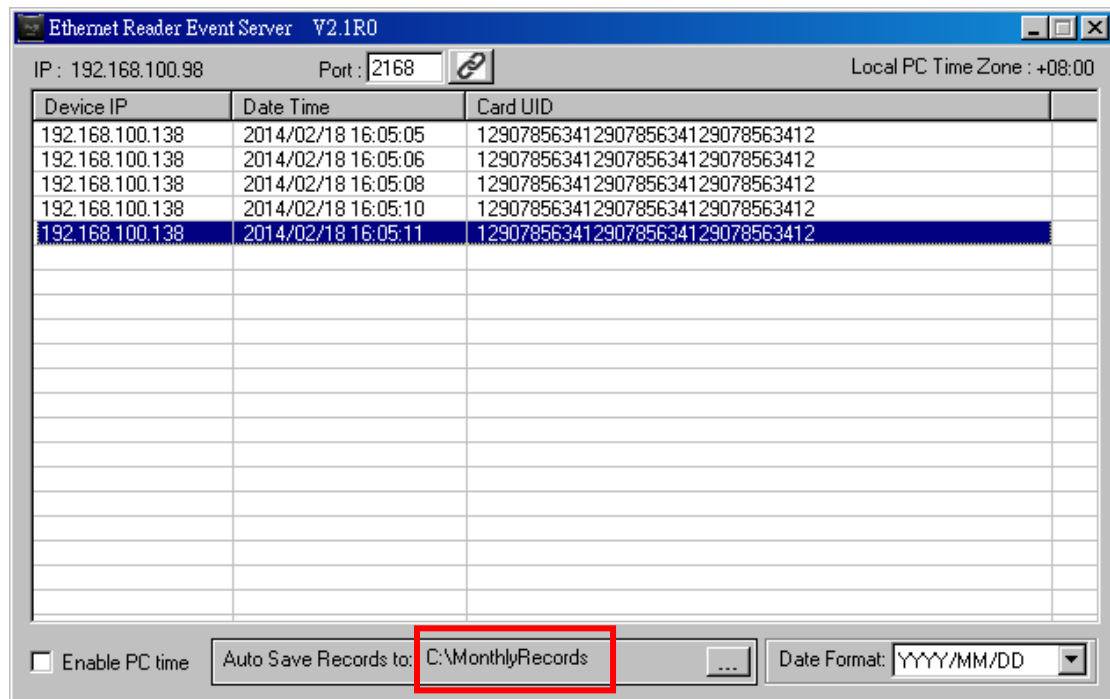


```
Time and, Attendance Records, List, '2014/02/18
Device IP , Date Time, Card UID
-----,-----,-----
192.168.100.138, '2014/02/18 16:05:05, '12907856341290785634129078563412
192.168.100.138, '2014/02/18 16:05:06, '12907856341290785634129078563412
192.168.100.138, '2014/02/18 16:05:08, '12907856341290785634129078563412
192.168.100.138, '2014/02/18 16:05:10, '12907856341290785634129078563412
192.168.100.138, '2014/02/18 16:05:11, '12907856341290785634129078563412
```

* Remark: There has an apostrophe symbol in front of the card UID makes large number change its type to string.

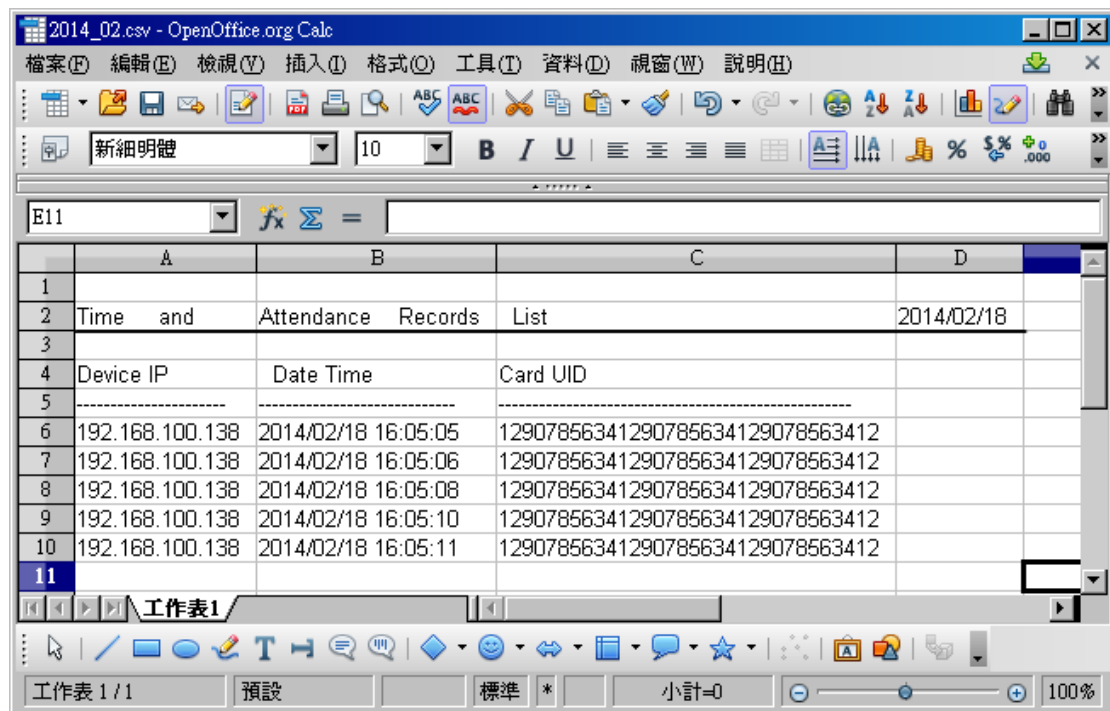
3. Event Server Record File Print Out

Step 1: Funded the attendance records file at the save path.

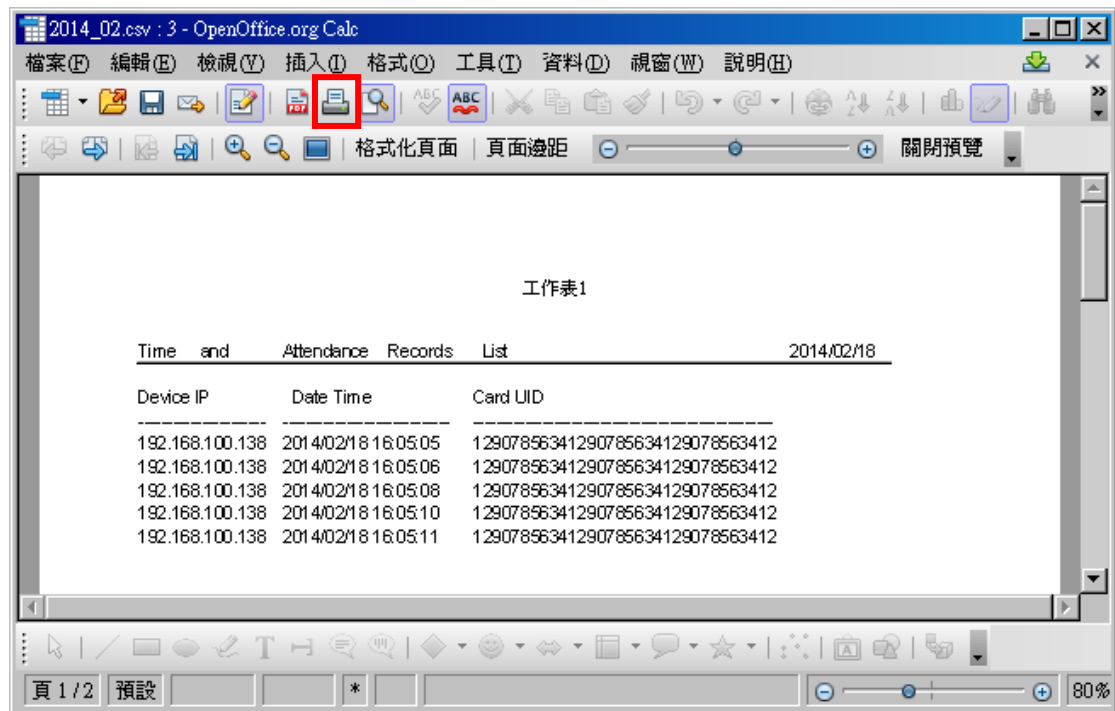


Step 2: Change the extension “.log” to “.csv”.

Step 3: Open the file, adjust the attendance list format for print out. And underline the title string for easy to read.

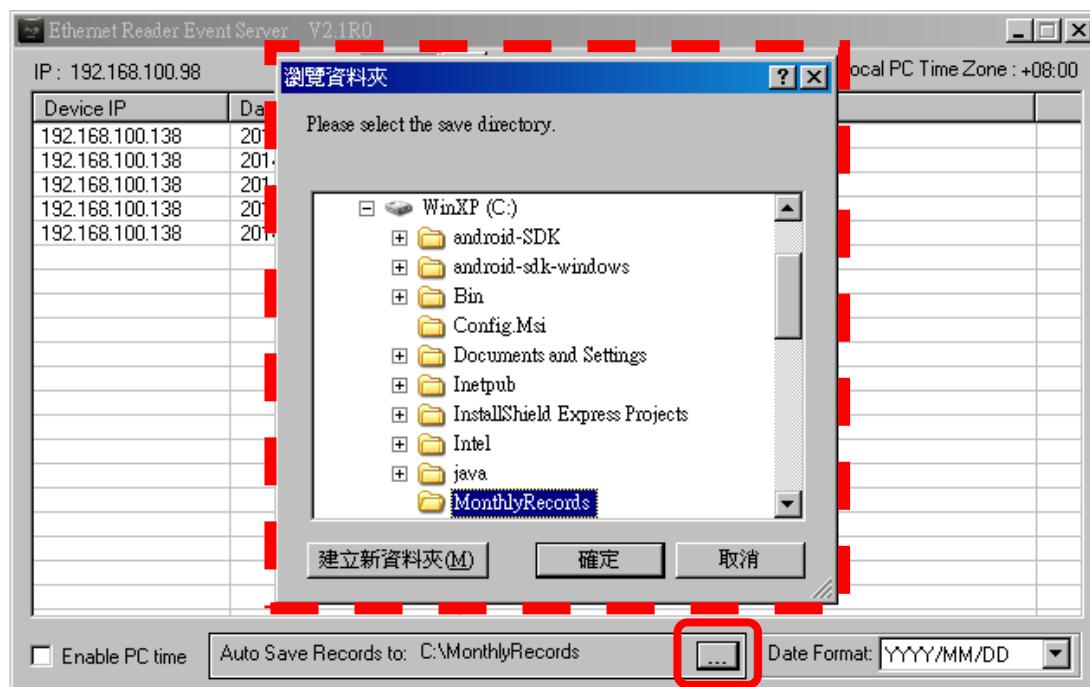


Step 4: Finally, check the print preview, and then print out the attendance records list.

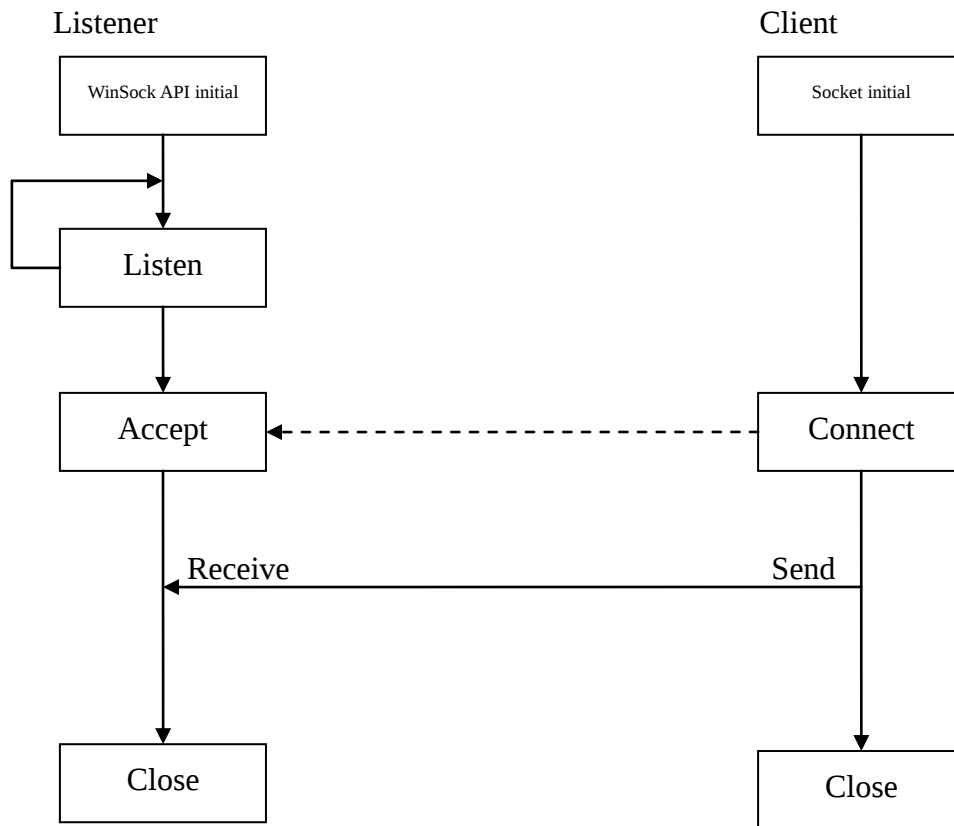


4. Record File Path

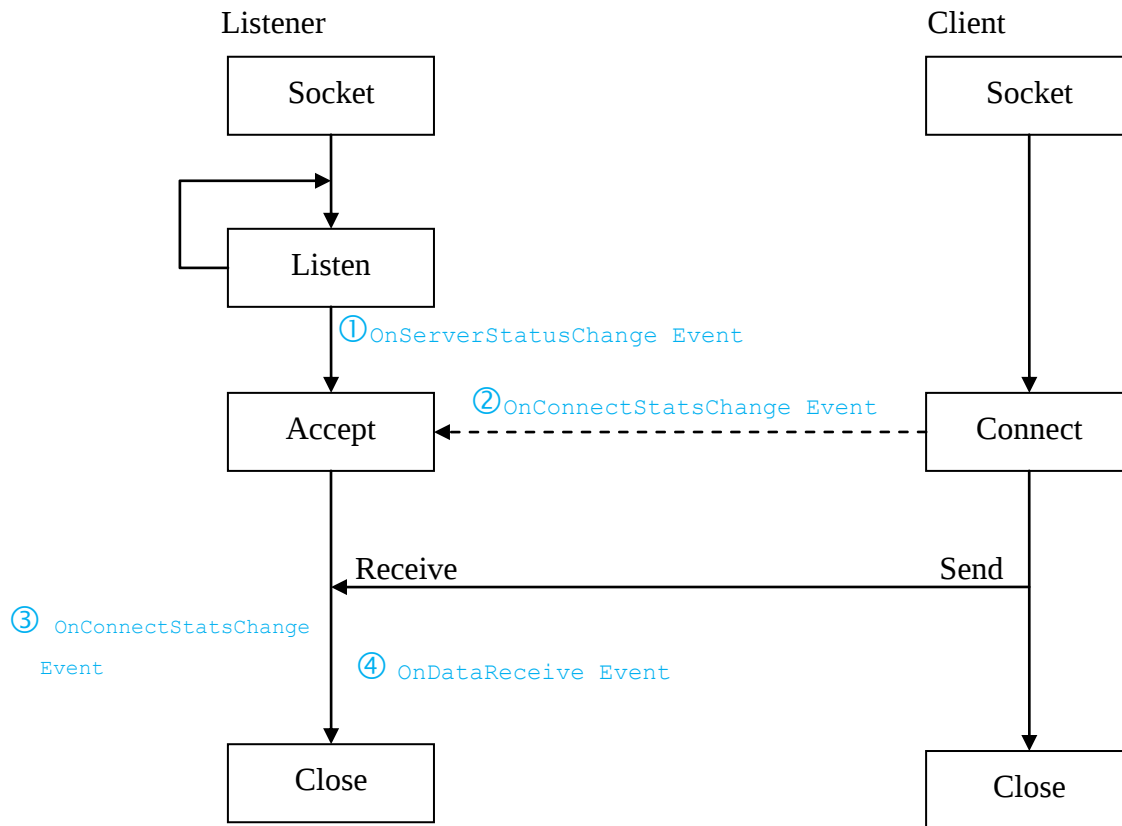
You can change the path by clicking  and then assign a specified path that you want. The records will be saved as a log file automatically in this folder every month.



5. EventServer WinSock Scheme (in VB6)



6. EventServer Socket Scheme by Using EventServer.dll (in VB.net)



7. The Properties, Methods & Events of EventServer (.dll)

Class Name	Statement	Member
ClientEvent	Properties	DateTime
		DataType
		DataSize
		DataBuffer
		Name
		Data
	Methods	ToClientEventList
		ToClientEventList.ToString
	Events	
MyTCPClient	Properties	ConnectTo
	Methods	getClientMacAddress
	Events	
MyTCPListener	Properties	MaxConnectionCount
		IsServerStarted
	Methods	Close
		Listen
	Events	OnConnectStatusChanged
		OnDataReceive
		OnError
		OnServerStatusChanged
TimeZoneInfo	Properties	CurrentTimeZone.StandardUtcOffset
		CurrentTimeZone.StandardUtcOffsetNumeral
	Methods	
	Events	

7.1 ClientEvent Properties, Methods and Events

Property	DateTime (Read Only)
Description	Return the Time field of event data structure.
Syntax	<i>Date = ClientEventList(ListIndex).DateTime</i>
Parameter	
Note	

Property	DataType (Read Only)
Description	Return the DataType field of event data structure.
Syntax	<i>Byte = ClientEventList(ListIndex).DataType</i>
Parameter	
Note	

Property	DataSize (Read Only)
Description	Return the DataSize field of event data structure.
Syntax	<i>Integer = ClientEventList(ListIndex).DataSize</i>
Parameter	
Note	

Property	DataBuffer (Read Only)
Description	Return the DataBuffer field of event data structure.
Syntax	<i>Byte = ClientEventList(ListIndex).DataBuffer</i>
Parameter	
Note	

Property	Name (Read Only)
Description	Return the Name field of event data structure.
Syntax	<i>String = ClientEventList(ListIndex).Name</i>
Parameter	
Note	Except ER750 series.

Property	Data (Read Only)
Description	Return the DataBuffer field of event data structure in string type.
Syntax	<i>String = ClientEventList(ListIndex).Data</i>
Parameter	
Note	Except ER750 series.

Method	ToClientEventList
Description	Get Event Data as List (of GIGATMS.ClientEvents) type.
Syntax	<i>List(of ClientEvents) = List.ToClientEventList(bIsEnablePCTime, _ bIsUID_MSB_first,bytBuffer(), iLength, iTimeZoneOffset)</i>
Parameter	<i>bIsEnablePCTime: Boolean, True - Local PC time; False - Standard UTC time</i> <i>bIsUID_MSB_first: Boolean, True – Data Buffer (Card UID) in MSB first order;</i> <i>False - Data Buffer (Card UID) in LSB first order</i> <i>bytBuffer(): Byte, the package of event</i> <i>iLength: Integer, the package length</i> <i>iTimeZoneOffset: Integer, the local PC's time zone offset</i>
Note	

Method	ToClientEventList.ToString
Description	Get Event Data as string type.
Syntax	<i>String = List.Item(ListIndex).ToString()</i>
Parameter	
Note	Output string: [yyyy/MM/dd hh:mm:ss] [DataType] [Data Buffer (Card UID)] [Name]

7.2 MyTCPClient Properties, Methods and Events

Property	ConnectTo (Read Only)
Description	Return the IP address of client device.
Syntax	<i>String = Object.ConnectTo</i>
Parameter	

Method	getClientMacAddress
Description	Get device MAC address.
Syntax	<i>String = Object.getClientMacAddress(IPAddress)</i>
Parameter	<i>IPAddress: String, device IP address</i>
Note	Output string: [yyyy/MM/dd hh:mm:ss] [DataType] [Data Buffer (Card UID)] [Name]

7.3 MyTCPListener Properties, Methods and Events

Property	MaxConnectionCount
Description	Set or return the max connection count of server (listener).
Syntax	<i>String = Object.MaxConnectionCount</i>
Parameter	

Property	IsServerStarted (Read Only)
Description	Check if server is already in the socket flow.
Syntax	<i>Boolean = Object.IsServerStarted</i>
Parameter	

Method	Close
Description	Close the server socket.
Syntax	<i>Object.Close</i>
Parameter	
Note	

Method	Listen
Description	The server starts to listen.
Syntax	<i>Boolean = Object.Listen(iPort)</i>
Parameter	<i>iPort: Integer, the serve's port number.</i>
Note	

Event	OnConnectStatusChanged
Description	Action when the connection status changed within server (listener) and client.
Syntax	<i>sender: Object, the TCP client.</i> <i>iStatus: GIGATMS.MyTCPClient.ConnectStatusConstants, 0 – Closed;</i> <i>1 – Connecting;</i> <i>2 – Connected.</i> <i>szConnectTo: String, the client side IP address.</i>

Event	OnDataReceive
Description	Action when the server (listener) received the data from client.
Syntax	
Parameter	<i>sender: Object, the TCP client.</i> <i>iBytesToReceive: Integer, the length of the received data package.</i> <i>bytDataBuffer: Byte, received data package.</i>

Event	OnError
Description	Action when server or client occur error.
Syntax	<i>source: String, the error source.</i> <i>e: Exception.</i>

Event	OnServerStatusChanged
Description	Action when the server (listener) status changed.
Syntax	<i>sender: Object, the TCP server.</i> <i>blsServerStarted: Boolean, the server is started or not.</i>

7.4 TimeZoneInfo Properties, Methods and Events

Property	CurrentTimeZone.StandardUtcOffset (Read Only)
Description	Return the standard UTC offset as TimeSpan type of local PC.
Syntax	<i>String = TimeZone.ToString</i>
Parameter	

Property	CurrentTimeZone.StandardUtcOffsetNumeral (Read Only)
Description	Return the standard UTC offset as Byte type of local PC.
Syntax	<i>Byte = CurrentTimeZone.StandardUtcOffsetNumeral(index)</i>
Parameter	<i>Index=0: the hour of Time offset</i> <i>Index=1: the minute of Time Offset</i>

8. The Properties, Methods & Events of ERReader (.dll)

Class Name	Statement	Member
ERReader	Properties	PortOpen
		EnumCommPortEx
	Methods	AutoScan
		setRelay
		setLedBuzzer
		getCardStatus
	Events	

8.1 ERReader Properties, Methods and Events

Property	PortOpen
Description	Set or return the connection of device com port.
Syntax	<i>Boolean = Object.PortOpen</i>
Parameter	

Property	EnumCommPortEx
Description	Return available com ports.
Syntax	<i>String = Object.EnumCommPortEx</i>
Parameter	

Method	AutoScan
Description	Scan and connect to com ports.
Syntax	<i>Boolean=Object.AutoScan (iMType,iReadModal,szSetPort,bOnlySetPort)</i>
Parameter	<i>iMType: Integer, machine type constant (default: Any=-1)</i> <i>iReadModal: Integer, reader model constant (default: Any=-1)</i> <i>szSetPort: String, the assignment com port (the prior scan com port)</i> <i>bOnlySetPort: Boolean, True – only scan assignment com port;</i> <i>False –auto scan all available com ports</i>
Note	

Method	setRelay
Description	Set seconds or disable for the delay open period time. (Hardware Control)
Syntax	In VB.net: <pre>Boolean=Object.setRelay(<i>iPeriodTime</i>)</pre> In VB.net (only for ER750-10): <pre>Boolean=Object.setRelay(<i>iFunction</i>)</pre> In VB 6: <pre>Boolean=Object.Query(&H11, <i>bytPeriodTime</i>)</pre>
Parameter	<i>bytPeriodTime</i>: Integer, the period time to close relay (available in 0~255 seconds) for ER750-10: <i>iFunction</i> = 1, set the relay always On. <i>iFunction</i> = 2, set the relay Off.
Note	

Method	setLedBuzzer																																															
Description	Control LED/Buzzer (hardware I/O) . (Hardware Control)																																															
Syntax	<i>In VB.net:</i> <i>Boolean = Object.setLedBuzzer(sCommandNumber)</i> <i>In VB 6:</i> <i>Object.Output = STX & "J" & sCommandNumber & CR</i>																																															
Parameter	<i>sCommandNumber: String, Command Table as below:</i> <table><tr><th>NUMBER</th><th colspan="3">Descriptions</th></tr><tr><td>0 (30h)</td><td colspan="3">Red & Green LED Off, Buzzer Off</td></tr><tr><td>1 (31h)</td><td colspan="3">Green LED ON</td></tr><tr><td>2 (32h)</td><td colspan="3">Green LED OFF</td></tr><tr><td>3 (33h)</td><td colspan="3">Red LED ON</td></tr><tr><td>4 (34h)</td><td colspan="3">Red LED OFF</td></tr><tr><td>5 (35h)</td><td colspan="3">Buzzer Beep once</td></tr><tr><td>6 (36h)</td><td colspan="3">Buzzer Beep 3 Times</td></tr><tr><td>7 (37h)</td><td colspan="3">Green LED ON with Beep once</td></tr><tr><td>8 (38h)</td><td colspan="3">Red LED ON with Beep 3 Times</td></tr><tr><td>9 (39h)</td><td colspan="3">Red & Green LED ON</td></tr></table>				NUMBER	Descriptions			0 (30h)	Red & Green LED Off, Buzzer Off			1 (31h)	Green LED ON			2 (32h)	Green LED OFF			3 (33h)	Red LED ON			4 (34h)	Red LED OFF			5 (35h)	Buzzer Beep once			6 (36h)	Buzzer Beep 3 Times			7 (37h)	Green LED ON with Beep once			8 (38h)	Red LED ON with Beep 3 Times			9 (39h)	Red & Green LED ON		
NUMBER	Descriptions																																															
0 (30h)	Red & Green LED Off, Buzzer Off																																															
1 (31h)	Green LED ON																																															
2 (32h)	Green LED OFF																																															
3 (33h)	Red LED ON																																															
4 (34h)	Red LED OFF																																															
5 (35h)	Buzzer Beep once																																															
6 (36h)	Buzzer Beep 3 Times																																															
7 (37h)	Green LED ON with Beep once																																															
8 (38h)	Red LED ON with Beep 3 Times																																															
9 (39h)	Red & Green LED ON																																															
Note	1. LED/Buzzer control command set frame as below: <table><tr><th>STX</th><th>J</th><th>NUMBER (0~9)</th><th>CR</th></tr><tr><td>02h</td><td>4Ah</td><td>30h~39h</td><td>0Dh</td></tr></table>				STX	J	NUMBER (0~9)	CR	02h	4Ah	30h~39h	0Dh																																				
STX	J	NUMBER (0~9)	CR																																													
02h	4Ah	30h~39h	0Dh																																													

Method	getCardStatus						
Description	Get the status of card is inserted or removed.						
Syntax	<i>In VB.net (only for ER750-10) :</i> <i>bResult=Object.getCardStatus (ByRef iResponse as Integer)</i>						
Parameter	<i>bResult: Boolean, ACK after send the command set.</i> <i>iResponse = 0, Card Insert.</i> <i>iResponse = 1, Card Remove.</i>						
Note	1. command set frame as below: <table><tr><td>STX</td><td>.</td><td>CR</td></tr><tr><td>02h</td><td>E2h</td><td>0Dh</td></tr></table>	STX	.	CR	02h	E2h	0Dh
STX	.	CR					
02h	E2h	0Dh					