

IP30 RFID Handle Application User Guide Version 0.13

0.0 Disclaimer

This application is meant for demonstration purposes only. It should not be used in a production environment. **To run this application you will need to install Microsoft's Compact Framework 2.0 on the CK6x/CN3.** The application is written in Microsoft C# using Visual Studio 2005. To edit source you must have Windows Mobile 5.0 SDK installed on your development PC.

1.0 Installation

- Copy the IP30App.cab file to the CK6x/CN3.
- From the CK6x/CN3 screen click on the CAB file to execute it. It will install the program as well as create short cuts.
- Go to Start and select Programs, you will see the IP30App shortcut if the installation is successful.

2.0 Starting Application

- Go to the START->Programs and select the IP30App short cut.
- **If the application fails to open, in particular, you do not see the WAIT icon then you need to install Microsoft's Compact Framework 2.0 on your CK6x/CN3.**
- Select USB or Bluetooth connection. The default connection is Bluetooth.

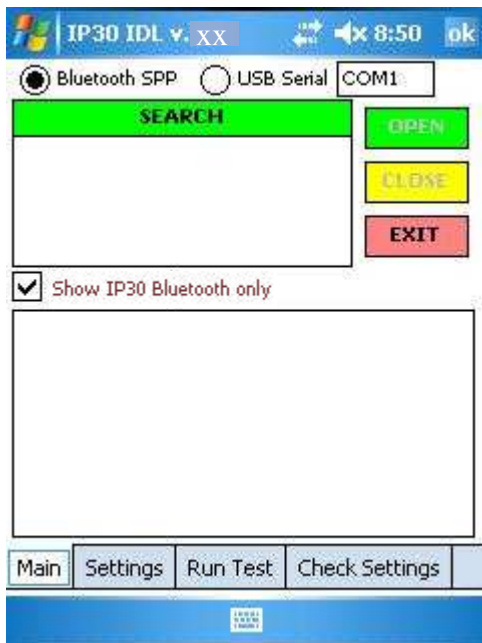


Figure 1: Main Menu

2.1 Open Connection

Bluetooth

- Make sure the Bluetooth SPP radio button is selected and click the **SEARCH** button.
- The application will search for all Bluetooth devices, but **only** IP30 Bluetooth devices will be displayed on the screen. If the **Show IP30 Bluetooth only checkbox** is unchecked, all Bluetooth devices will be shown.
- Select a Bluetooth device from the list and click **OPEN** button.
- The Bluetooth connection is established.



Figure 2: Bluetooth connection established

USB

- Insert USB cable to IP30 and CK6x/CN3.
- Select USB Serial radio button.
 - For CN3, the default COM port is COM1.
 - For CK6x, the default COM port is COM2. If the driver version is older than version 200build96, use COM1.
- Click **OPEN** button.
- The USB serial connection is established.

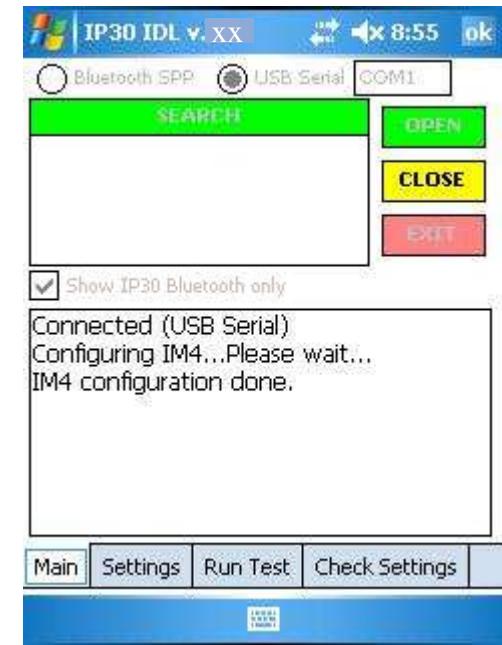


Figure 3: USB connection established

2.2 Troubleshooting Reader Connection

- For USB connection, make sure the CK6x/CN3 is connected to IP30 via a USB cable.
- For Bluetooth connection, make sure that the **USB cable is not inserted** to the IP30 unit.

3.0 Settings Tab

Use the Settings Tab to configure the test mode.

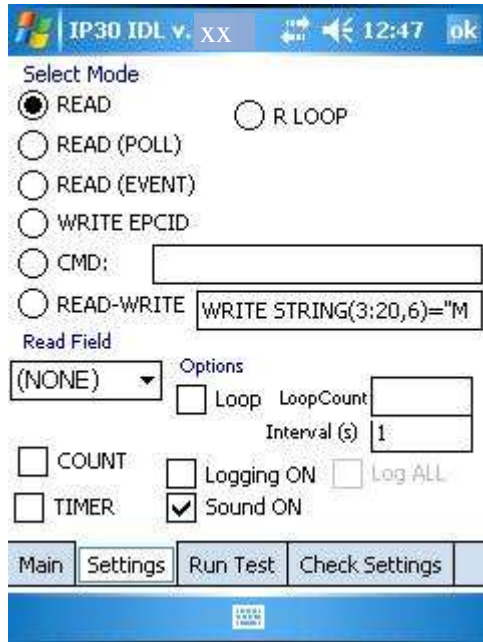


Figure 4: Settings Tab

3.1 Read Mode

User can select from three different read modes.

- **READ**
The application will send a READ command to the RFID reader. To send this command continuously, select the Loop checkbox and specify the loop interval (the default looping interval is 1 sec).
- **READ (POLL)**
The application will place the RFID reader into continuous read mode. The application will poll the RFID reader at a fixed interval specified by the loop interval.
- **READ (EVENT)**
The application will place the RFID reader into continuous read mode. The RFID reader will send every RFID tags it detected to the application as EVENT messages.
- **R LOOP**
The application will place the RFID reader into continuous read mode. All detected RFID tags will be sent to the application.

3.2 Write EPCID

The application will randomly generate a 12 byte EPC code and write it to the tag.

3.3 CMD

User can enter any command they want to execute.

3.4 Read-Write Test

This test mode is to send BRI Read and Write command alternately. The default BRI Write command is as displayed in the text box beside the radio button. Users are free to modify it. The default BRI Read command is “R”. Users may modify this command by appending optional read fields to it as specified in section 3.5.

3.5 Read Field

There are three optional Read Field.

- Tag ID Type
Select TAGID or EPCID.
- COUNT
The RFID reader will return how many times a tag has been identified. This option is only useful when using READ (POLL) mode.
- TIMER
The RFID reader will return the timer value of when the tag was last read.

3.6 Loop

This option will determine if the test runs one cycle or will run indefinitely until you press the STOP button. User can specify the looping interval and loop count. Looping interval must be specified before the user could start the test; whereas the loop count is not a mandatory field. If the loop count is not specified, the test will run until user press STOP button.

3.7 Logging ON and Log ALL

These options allow the user to log the test data as a text file. If **only** Logging ON is selected, the applications will record only the bad read data. To record all test data (including good read and bad read), user need to select Log ALL option. The file name of the text file created is IP30.txt and is located in IP30App root directory (\Program Files\IP30App\IP30.txt).

3.8 Sound ON

This option is default enabled; the application will generate a ‘beep’ whenever it encounters a good read.

4.0 Run Test

Select the Run Test tab to begin reading/writing tags.

The Timeout Enabled checkbox is for user to enable/disable the detection of Timeout error in looping mode. When Timeout is enabled, the test applications will check that if data has not been received before the next BRI command is to be sent out, a “Time out” message will be displayed and the test is stopped automatically. If this feature is disabled, the test applications will send a BRI command at the specified interval, regardless of the previous data has been received.

Click START and STOP button to start/stop a test.

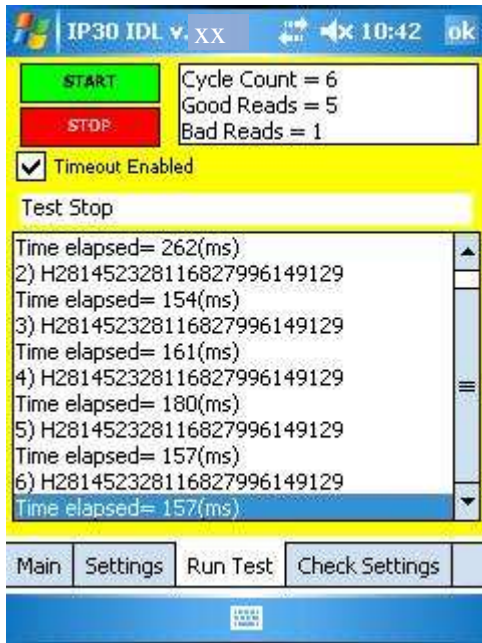


Figure 5: Read Tag

5.0 Check Settings

The Check Settings tab allows users to verify various information such as BRI version and attribute settings. Users can select commands from the pull down list or they can type in any command they want. Please note that READ and WRITE commands can be executed from this screen but the data will not show up.

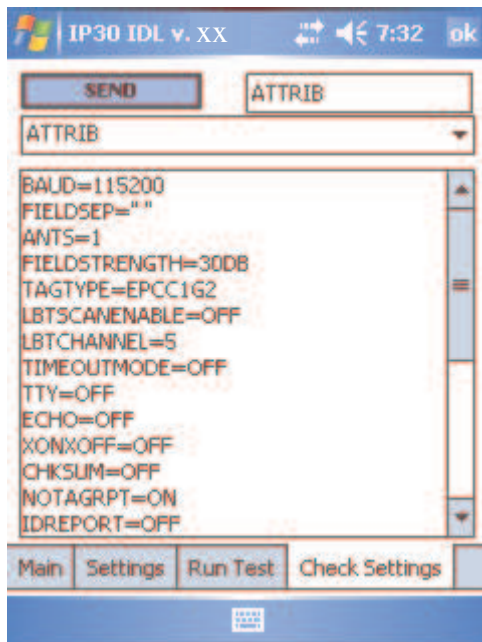


Figure 6: Attribute settings

6.0 Tag Data Log File

On the Settings Tab, you can enable logging of the tag data. A text file named IP30.txt will be created in the root directory of the IP30App. The log file will be overwriting with new data every time the user starts a test. If the user wants to start a new log file he/she must rename the current log file.

The log file contains the following:

- IM4 Version
- Connection used (USB or Bluetooth)
- IM4 Attributes
- Test data
- Test summary

The following shows the test settings and the log file content.

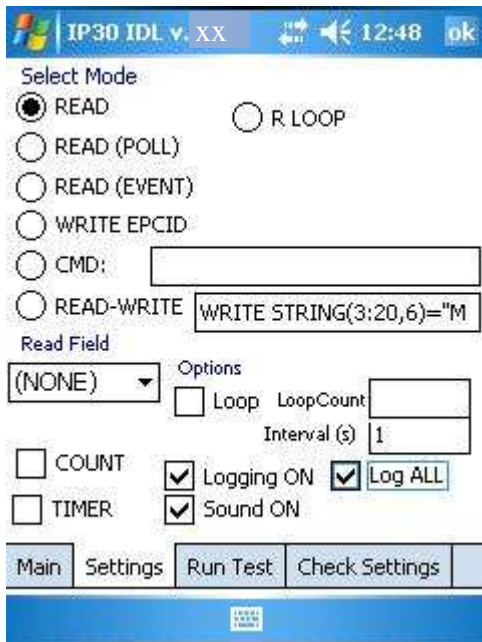


Figure 7: Test settings



```
IP30.txt - Notepad
File Edit Format View Help
IM4 RFID Reader Ver 8.00.08
Basic Reader Interface Version 5
FCC 915MHZ
Copyright (C) 2002-2007 Intermec Technologies Corp.

Connection : Bluetooth (Socket Module [086BC2] (00c01b086bc2))

IM4 Attributes
BAUD=115200
FIELDSEP=" "
ANTS=1
FIELDSTRENGTH=30DB
TAGTYPE=EPCC1G2
LBTSCANENABLE=OFF
LBTCHANNEL=5
TIMEOUTMODE=OFF
TTY=OFF
ECHO=OFF
XONXOFF=OFF
CHKSUM=OFF
NOTAGRPT=ON
IDREPORT=OFF
SESSION=2
INITIALQ=4
INITTRIES=1
IDTRIES=1
ANTTRIES=3
IDTIMEOUT=100
ANTTIMEOUT=50
RDTRIES=3
WRTRIES=3
LOCKTRIES=3
SELTRIES=1
UNSELTRIES=1
RPTTIMEOUT=0

Test Start Time: 11/10/2007 9:58:12
1) H281452328116827996149129 132ms Time: 11/10/2007 9:58:13
2) H281452328116827996149129 132ms Time: 11/10/2007 9:58:14
3) NOTAG 140ms Time: 11/10/2007 9:58:15
4) H281452328116827996149129 131ms Time: 11/10/2007 9:58:16
=====
Cycle Count = 4
Good Reads = 3 (75.00%)
Bad Reads = 1 (25.00%)
Test Stop Time: 11/10/2007 9:58:16
```

Figure 8: Sample log file