



RSSI Subscriber Software

User Manual

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Email Address: appmanager@hytera.com

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Documentation Information

This section describes the conventions and revision history of this document.

Documentation Conventions

Instructional Icons

Icon	Description
 Tip	Indicates information that can help you make better use of your product.
 Note	Indicates references that can further describe the related topics.
 Caution	Indicates situations that could cause data loss or equipment damage.
 Warning	Indicates situations that could cause minor personal injury.
 Danger	Indicates situations that could cause major personal injury or even death.

Notational Conventions

Convention	Description
“ ”	The quotation marks enclose the name of a software interface element. For example, click “OK”.
Bold	The text in boldface denotes the name of a hardware button. For example, press the PTT key.
->	The symbol directs you to access a multi-level menu. For example, to select “New” from the “File” menu, we will describe it as follows: File -> New.

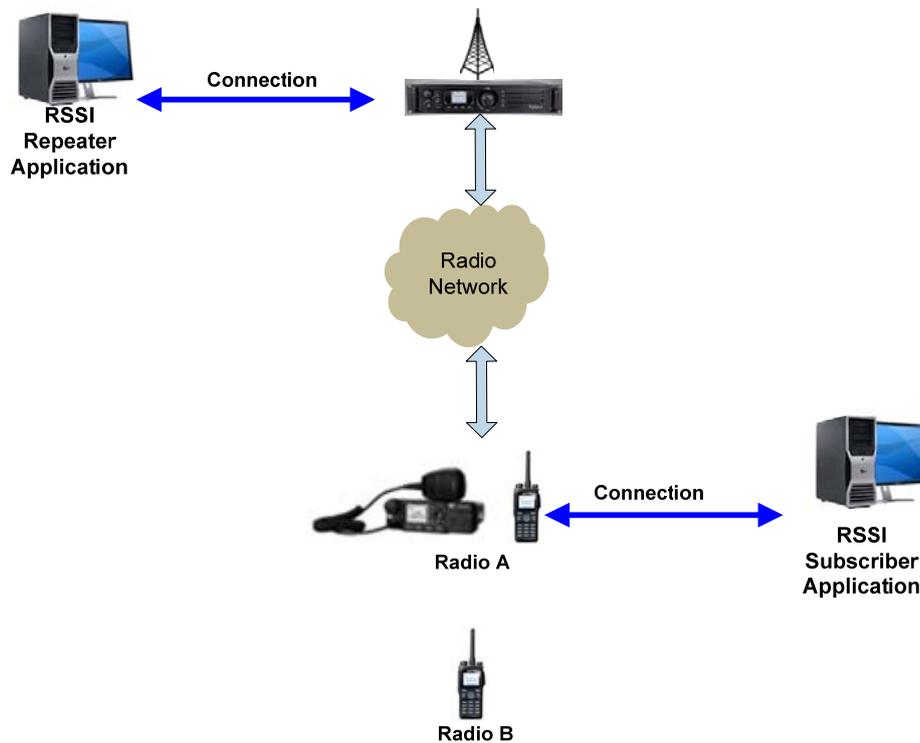
Revision History

Version	Release Date	Description
V1.0	03-2014	Initial release

1. Brief Introduction

This tool supports streaming of the RSSI value associated to the received signal. It is useful especially in the use case of RF signal strength measurement during site setup. GPS coordinate reporting is also a feature embedded into this tool to further assist the site setup personnel to know the signal strength of the downlink with a precise location coordinate.

1.1 Typical application scenarios



Step 1. Environment to build and install the software, please refer to the documentation of software installation and use.

Step 2. Radio B call Radio A, RSSI Repeater will get the RSSI value, RSSI Subscriber will get RSSI value with GPS coordinate of Radio A.

Note: The repeater only supports slots 1; Radio A and Radio B shall communicate in slot 1.

2. Before Use

2.1 Prerequisite

Please prepare the resources in the following list for actual requirements before receiving the RSSI and GPS data.

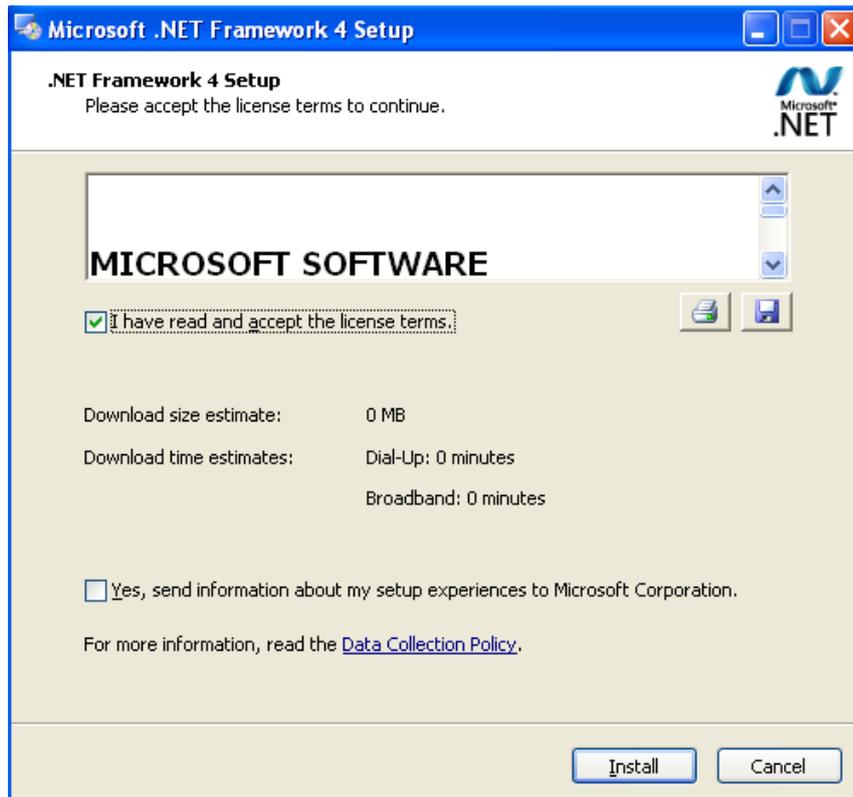
Item	Description
PC	Operating System: Windows XP/ Windows 7 This guide takes Windows 7 as the example. the USB driver first, with reference to the <i>Hytera USB Driver Installation User Guide</i> of V5.30.42.0.
CPS	The RSSI software is included in the program of CPS R5.5 or above. Please make sure the CPS is installed properly before using this software. In this guide, we take CPS V5.05.xx.xxx as the example.
Radio	The RSSI Subscriber software is applicable to the radio of R5.5 or above. The terminal has a GPS module.
Repeater	The RSSI Repeater software is applicable to the repeater of R5.5 or above.

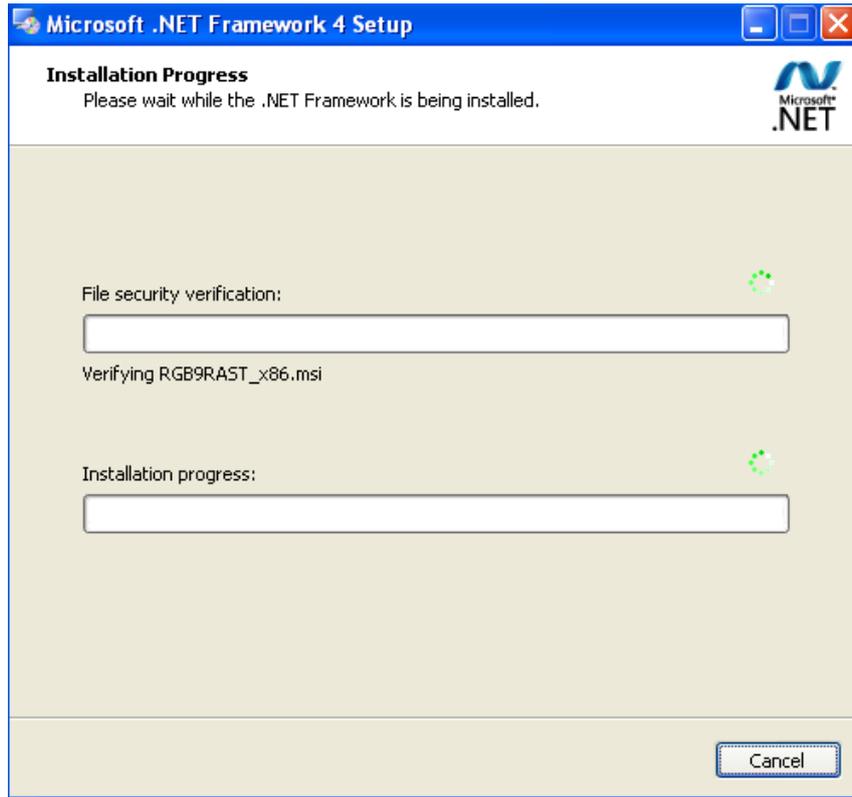
3. Software Installation

3.1 .Net Framework 4.0 installation

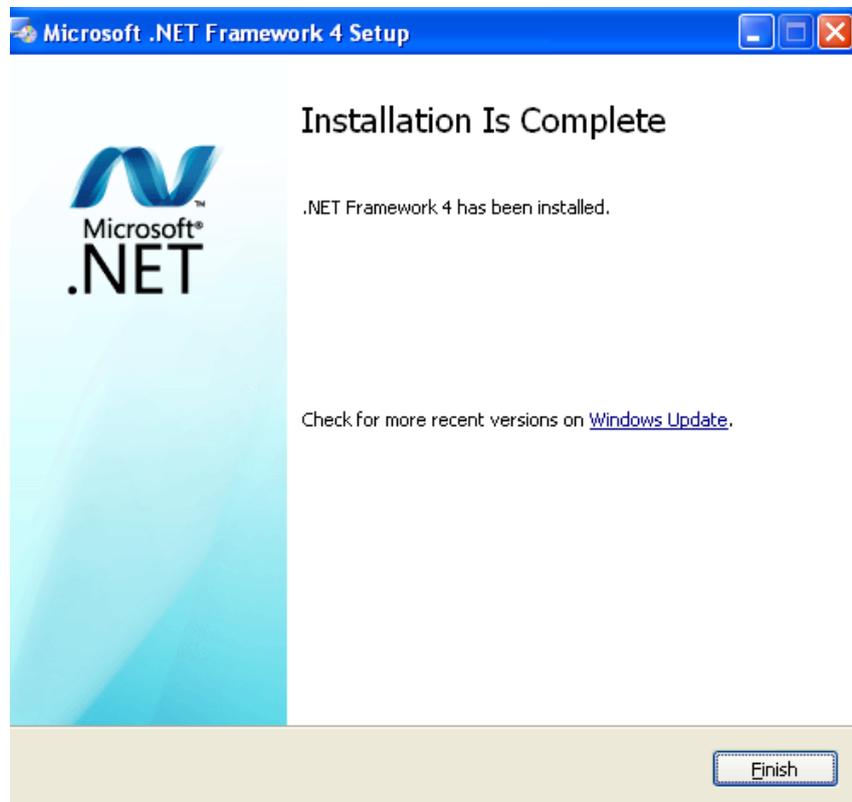
Step 1. In the archive directory to find dotNetfx40.exe “third_party_tools” file, double-click Net Framework 4.0 installation package.  dotNetfx40.exe .

Step 2. Continue installing Net Framework 4.0, click "Install".





Step 3. Click "Finish" to complete the Net Framework 4.0 installation.



3.2 vcredist_2010_x86 installation

Step 1. Find the vcredist_2010_x86 file from “third_party_tools” directory and unzip it.

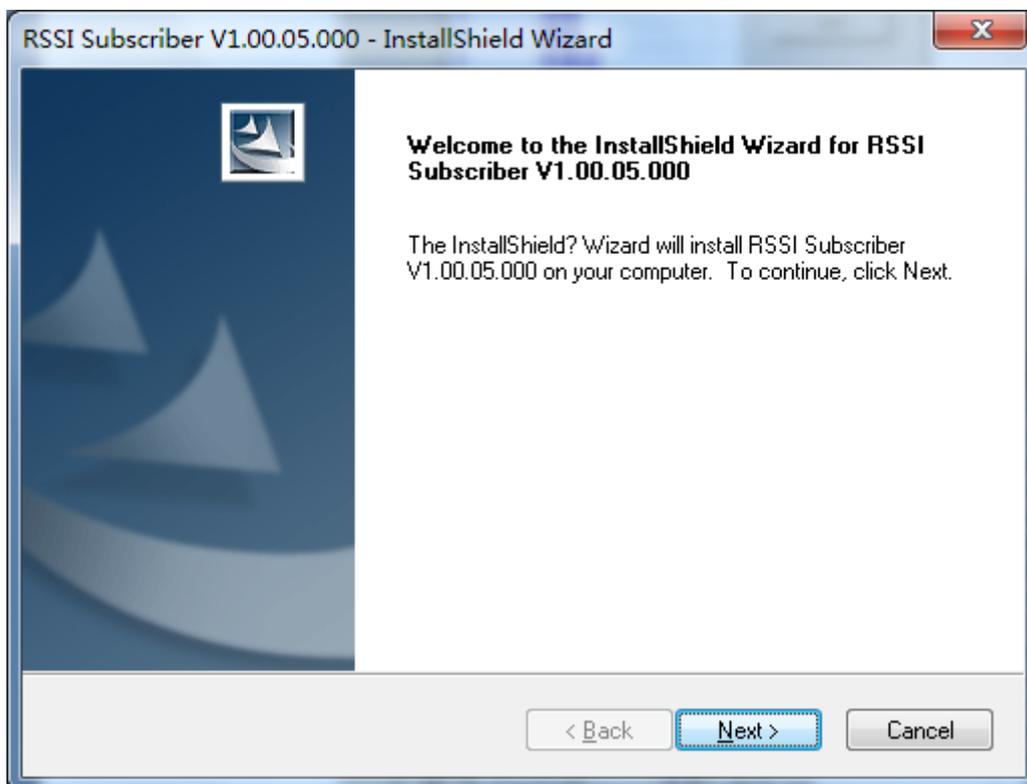
Step 2. Double-click the installation “vcredist_2010_x86.exe”. Install it by default.

 **Note:** Win XP need to install vcredist_2008_x86.exe and vcredist_2010_x86.exe, in Win 7, simply install vcredist_2010_x86.exe.

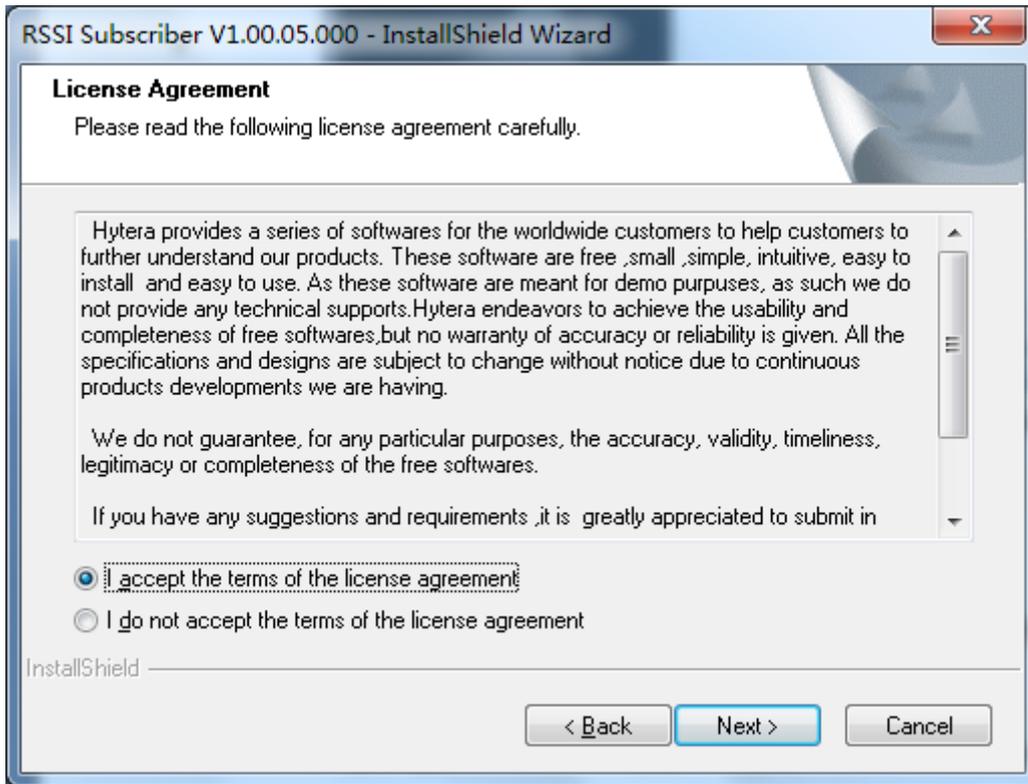
3.3 RSSI Subscriber installation

Step 1. Find Setup.exe in the compressed package, double-click the installation Setup.exe.

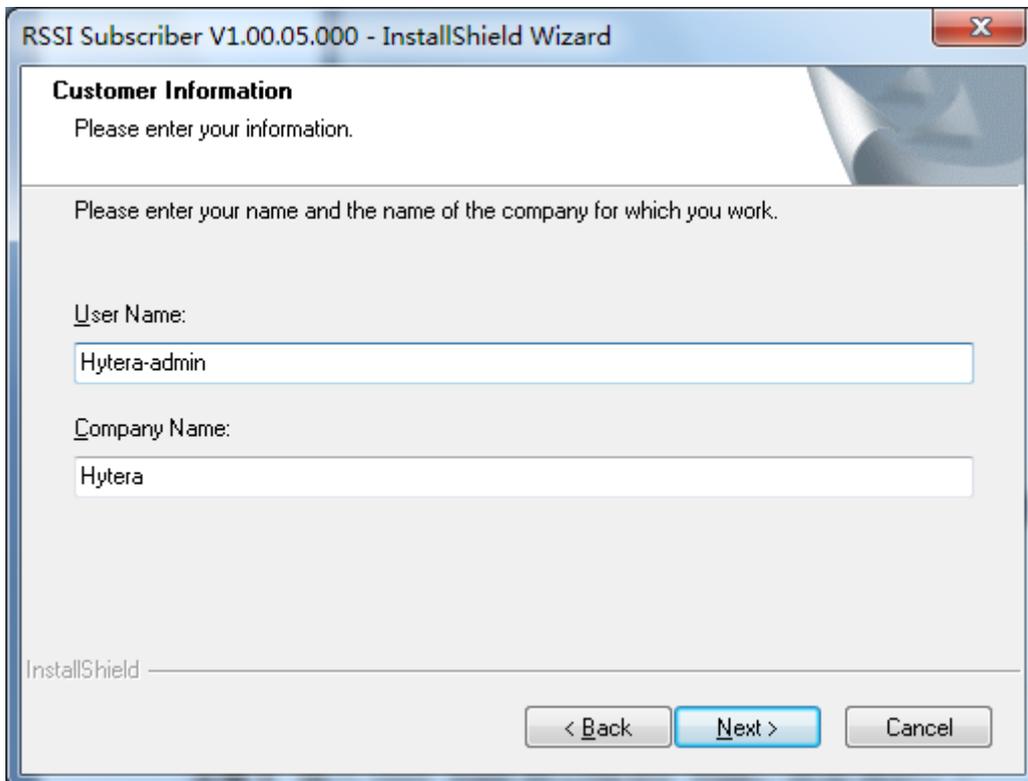
Step 2. Click on "Next".



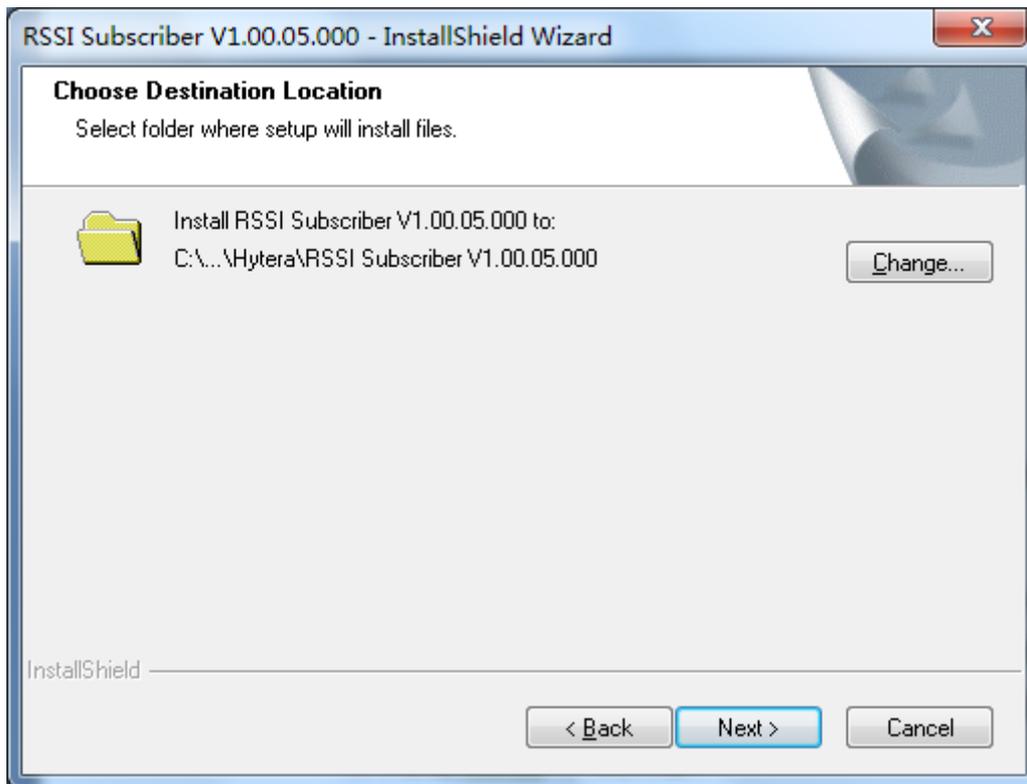
Step 3. Choose consent statement, click on "Next".



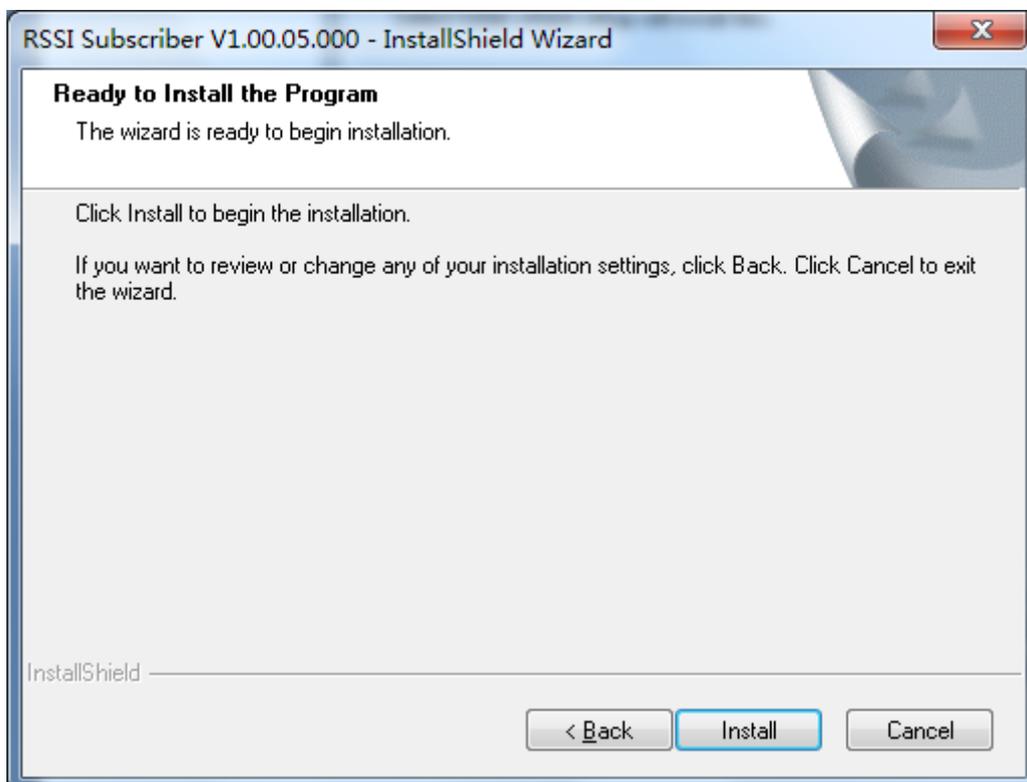
Step 4. Enter the User Name and Company Name, click "Next".



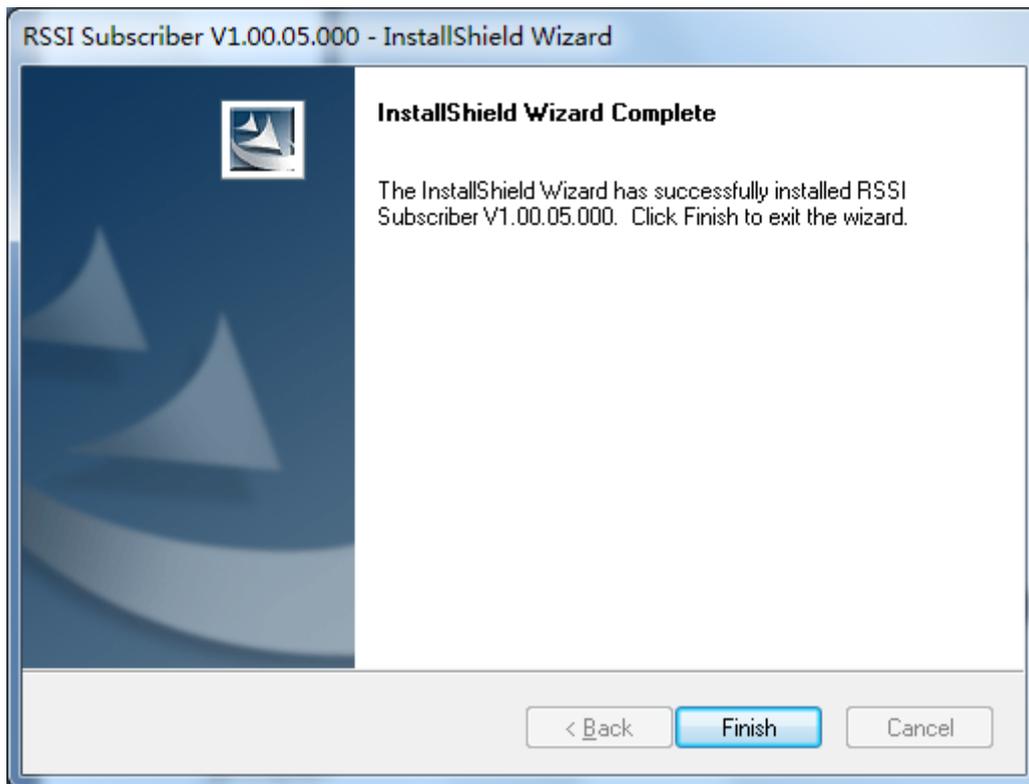
Step 5. Select the installation path, click "Next".



Step 6. Click "Install".



Step 7. Click "Finish" to complete the installation.



3.4 RSSI Repeater installation

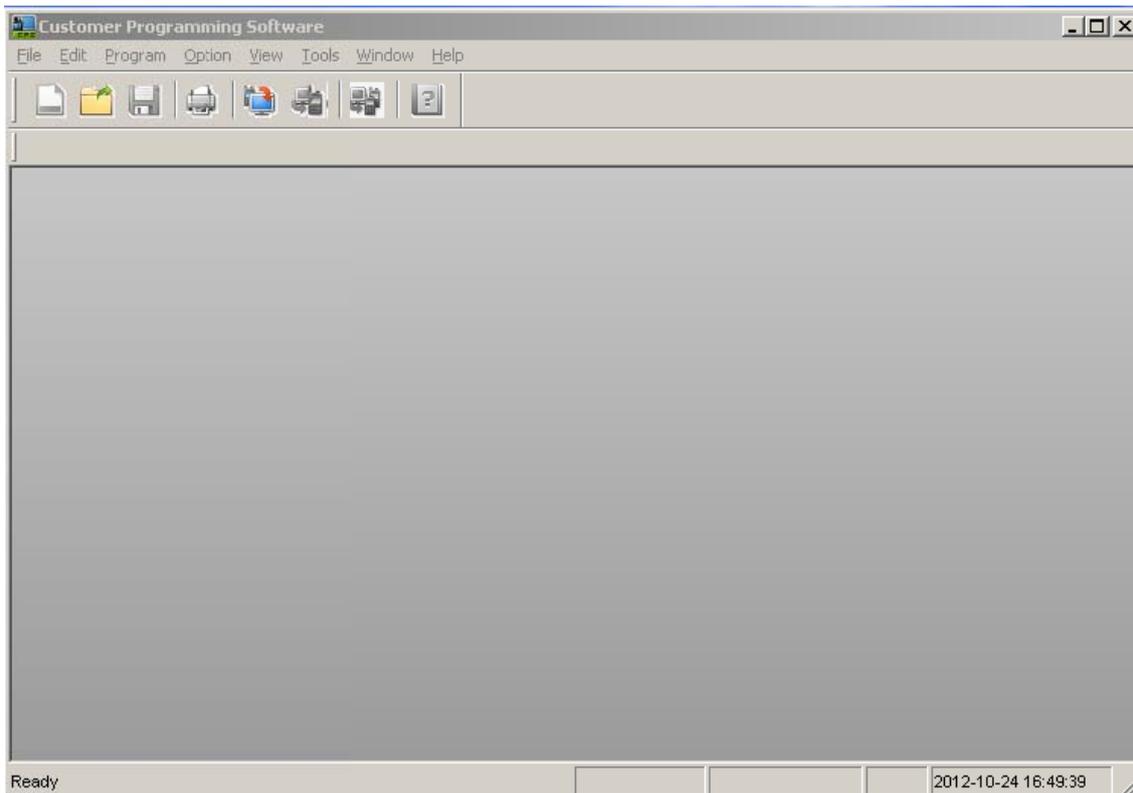
Reference "RSSI Subscriber" installation steps.

4. Terminal configuration

4.1 RSSI Subscriber configuration

4.1.1 Dispatch Station (portable or mobile) configuration

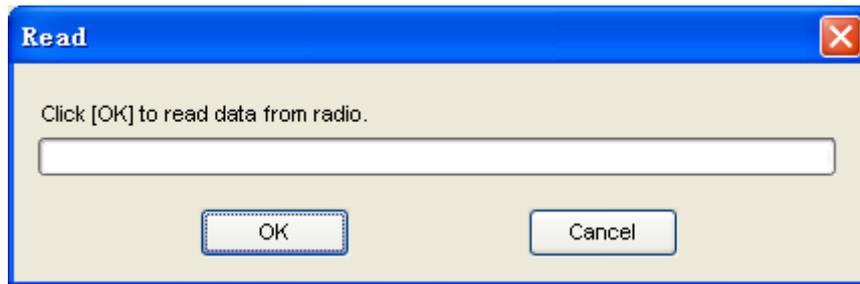
Step 1. Run the CPS and enter its main interface as shown below.



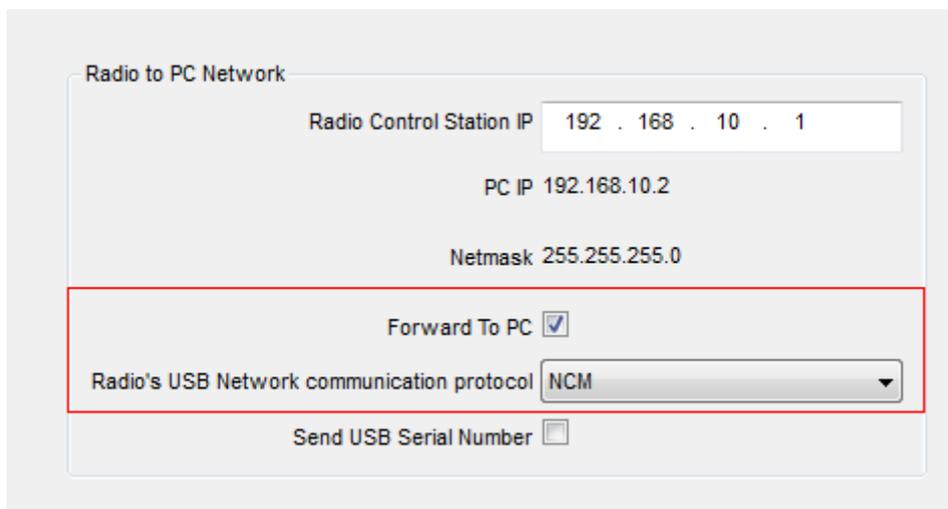
Step 2. Select "Program -> Read From Radio" or click , you will see the pop-up "Communication Port" dialogue box as follows.



Step 3. Select the corresponding USB port (e.g.: USB1) for the PD78X, and click "OK" to enter the "Read" dialogue box as follows.



Step 4. Select "Conventional -> General Setting -> Network", in the "Network" area check the box "Forward to PC", "Radio's USB Network communication protocol" select "NCM".



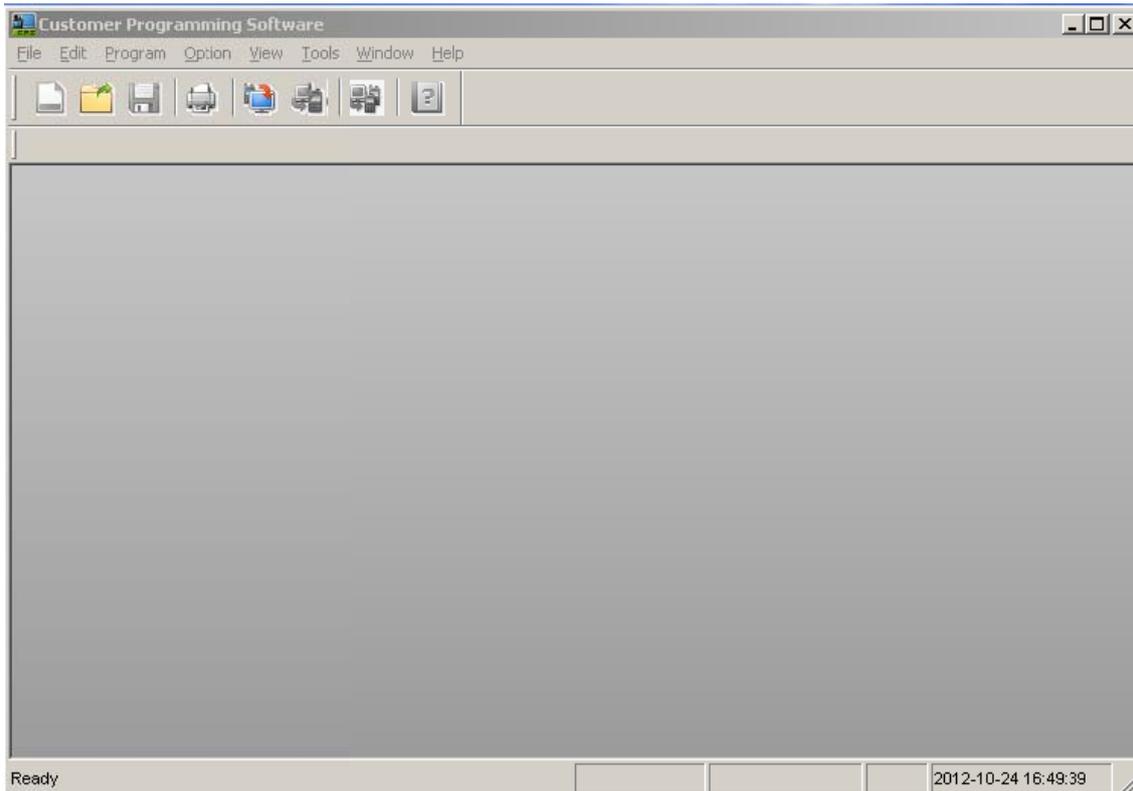
Step 5. Select "Program -> Write To Radio" or click , and the "Communication Port" box will pop up.

Step 6. Click "OK" to write the configure information into the PD78X. When the information is written, the PD78X will restart automatically to make the setting effective.

4.2 RSSI Repeater configuration

4.2.1 Repeater configuration

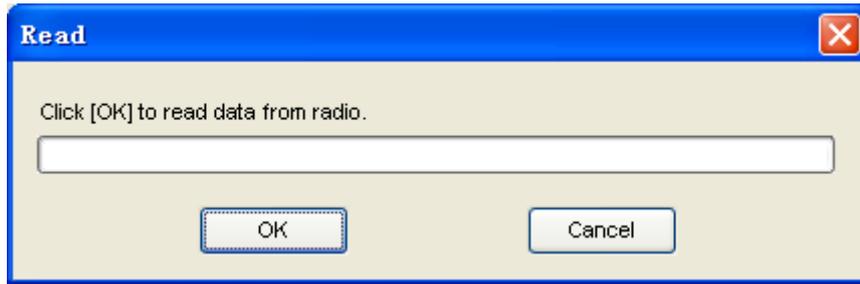
Step 1. Run the CPS and enter its main interface as shown below.



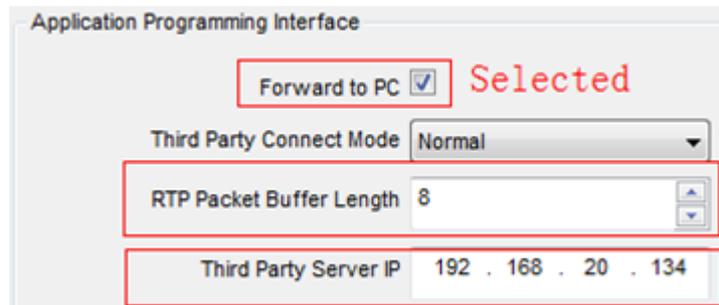
Step 2. Select "Program -> Read From Radio" or click , you will see the pop-up "Communication Port" dialogue box as follows.



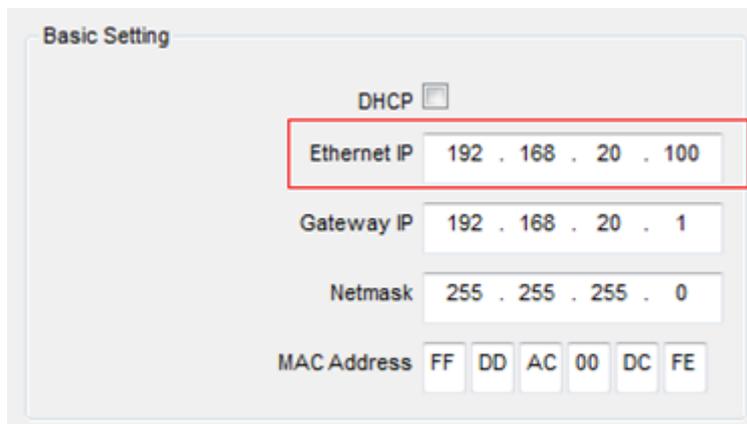
Step 3. Select the corresponding USB port (e.g.: USB1) for the RD98X, and click "OK" to enter the "Read" dialogue box as follows.



Step 4. Select "Conventional -> General Setting -> Network", in the "Application Programming Interface" area check the box "Forward to PC", the value of "RTP Packet Buffer Length" is 8, "Third Party Server IP" IP set consistent with the PC.



In the "Basic Setting" area, "Ethernet IP" is a repeater IP.



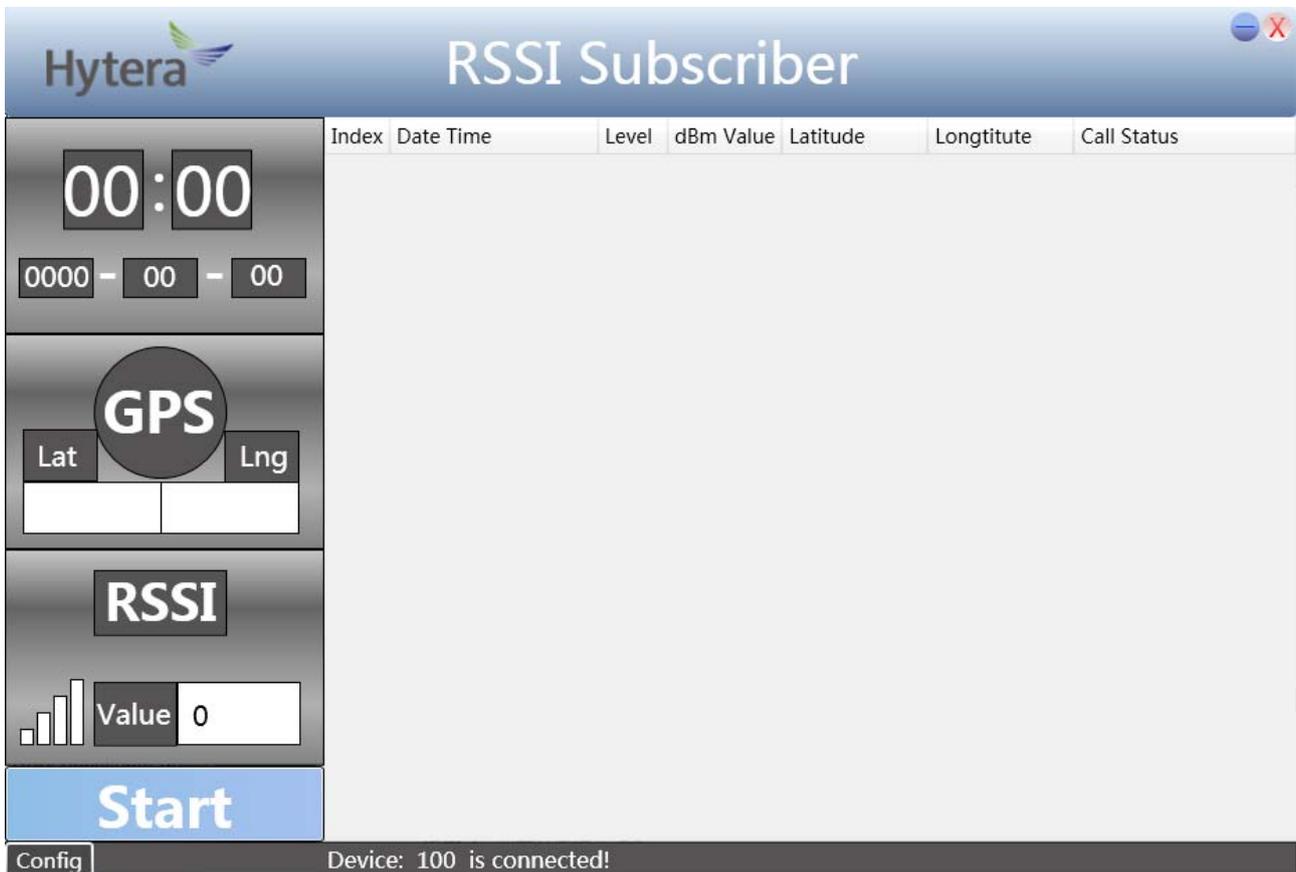
Step 5. Select "Program -> Write To Radio" or click , and the "Communication Port" box will pop up.

Step 6. Click "OK" to write the configure information into the RD98X. When the information is written, the RD98X will restart automatically to make the setting effective.

5. RSSI Subscriber

Step 1. Please connect the Dispatch Station to PC.

Step 2. Run the RSSI Subscriber and enter its main interface as shown below.



Step 3. The application will automatically connect the Dispatch Station. After it is online, it will prompt "Device: XX is connected". "XX" indicates the Dispatch Station ID.

Step 4. Click the "Config" configuration, you can set the export path and RSSI data query interval. If you do not set the export path, the default path for the installation directory under the Data file folder.



Step 5. After setting the path and RSSI query interval, click "Save".

Step 6. Click "Start" button to begin the query RSSI and GPS data.

Index	Date Time	Level	dBm Value	Latitude	Longitude	Call Status
1	2014/3/25 16:56:49	4	-60	0	0	Call RX Establish
2	2014/3/25 16:56:58	4	-61	0	0	Call RX Establish
3	2014/3/25 16:57:01	4	-60	0	0	Call RX Establish

Step 7. When a terminal calling the Dispatch Station, the Dispatch Station will report RSSI value and GPS coordinate to the Application, the data is automatically saved to a file path setting.

Step 8. Click the "Stop" button to stop the query RSSI and GPS data.

 **Note:** The latest list of saved only 100 data, if you want to see more data, open the “.csv” file.

6. RSSI Repeater

Step 1. Please connect the repeater to PC.

Step 2. Run the RSSI Repeater and enter its main interface as shown below.



Step 3. The application will automatically connect the repeater about 2 minutes. After it is online, it will prompt "Device: XX is connected". "XX" indicates the repeater ID.

Step 4. Click the "Config", you can set the export path. If you do not set the export path, the default path for the installation directory under the Data file folder.

Step 5. The application default start reporting the repeater's RSSI value when the RF signal strength change. Click on "Stop" button to stop reporting repeater's RSSI change.