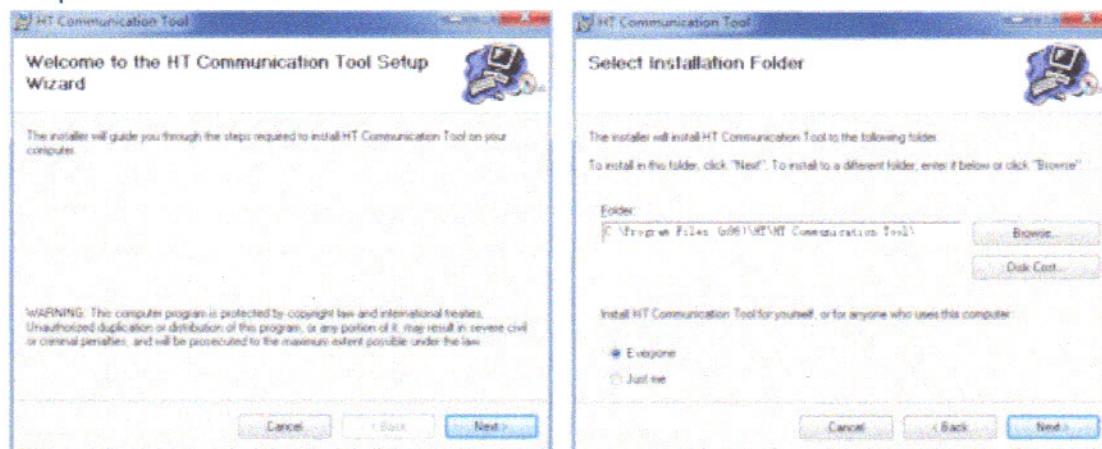


## HT Communication Tool Guide

Version 1.0 6/2013

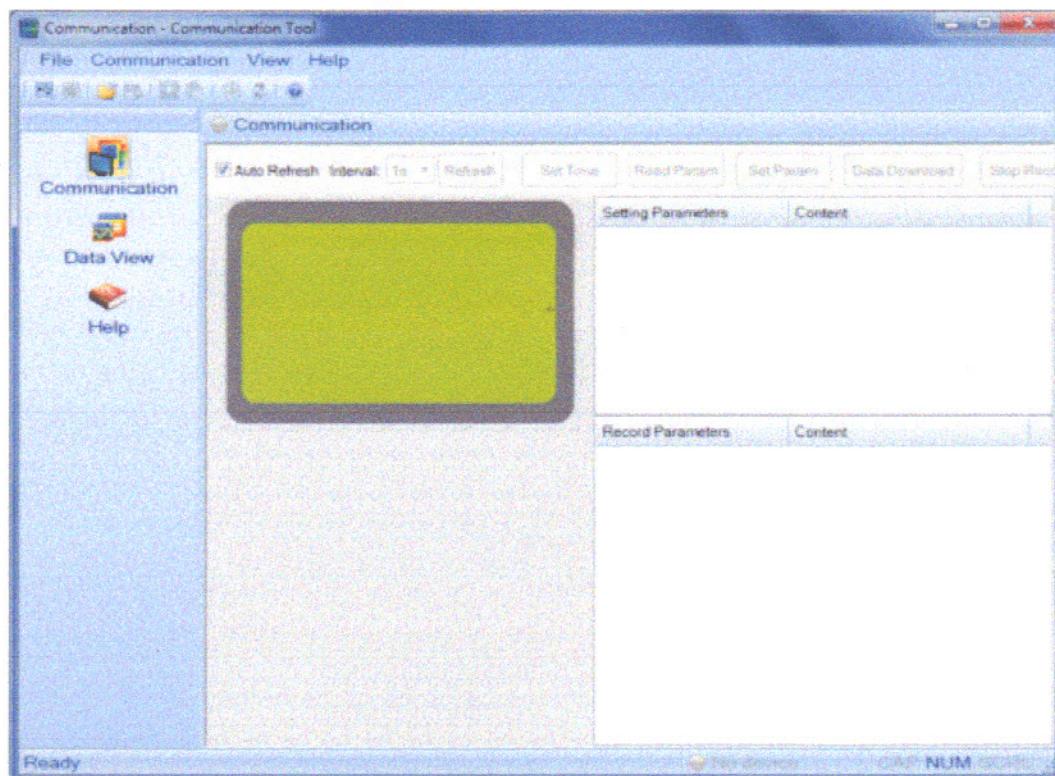
### 1. Installing Software

Run the Setup.EXE file in the folder "HT(Setup)" in the setup disk. Follow the on-screen prompts below to complete the installation.



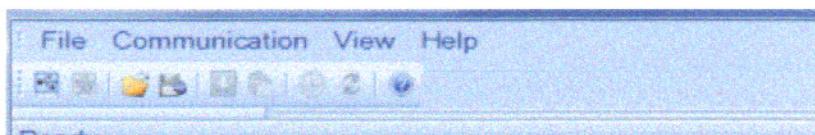
### 2. Running the HT software

With the meter connected to the PC, double click the "HT Communication Tool" icon to launch the program. The main software screen will appear with the MENU BAR icons described as below.

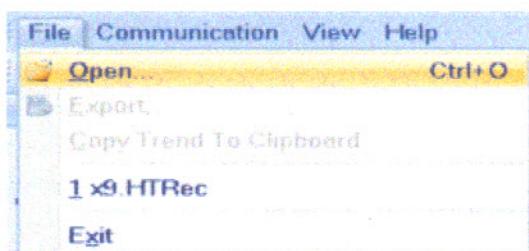


This application mainly has three function views: Communication, Data View and Help. Click the items on the left side of the function bar, switch to the corresponding view.

### 3. Menu Bar



#### 3.1 File Menu



##### (1) Open

Open the ".HTrec" data record file, and view it in the "Data View".

##### (2) Export

Export the current data to an Excel or text format file.

##### (3) Copy Trend To Clipboard

Copy the trend chart of data record to the clipboard, in order to use.

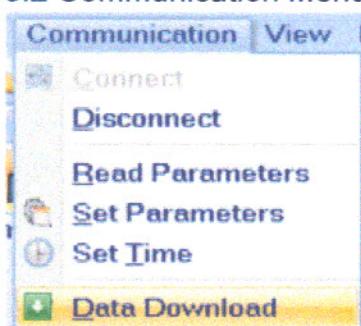
##### (4) Recent files

Open recently browsed data files.

##### (5) Exit

Exit and Close the software.

#### 3.2 Communication Menu



##### (1) Connect

After inserting the meter to the USB, click the menu item, software will connect to meter and switch to the meter communication view.

##### (2) Disconnect

After the software is connect to the meter, click the menu item, interrupt connection.

##### (3) Read Parameters

Read the setting parameters and record parameters from the meter, and display in the list of the Communication View.

##### (4) Set Parameters

Set up the parameters for data acquisition to the meter.

### (5) Set Time

The meter has no clock chip, it need to set the computer time to it.

### (6) Data Download

From the meter, download the data to the computer and save it, then switch to the Data View, in order to browse the data.

## 4. Communication

Software will run the default interface for meter communication view, or click the left item "Communication" to switch. After the meter connected, the interface will show as follow:



### 4.1 Connect to the meter

Click the "Connect" in the menu, or the button in the toolbar, it can automatically find the meter and connect it, then read the parameters, and refresh to the parameters lists. Meanwhile, the meter starts real-time sampling, and the software refreshes the display to the LCD screen of the simulation on the left.

If any communication failure, it will automatically disconnect the current connection. You can also click the button in the toolbar or the "Disconnect" menu item to disconnect.

### 4.2 Automatic refresh

When you check "Auto Refresh" item, the software will automatically query the meter, and displays the current meter information: current time, sample information such as temperature and humidity values. The refresh interval in seconds (s), range: 1-10 seconds.

If not checked, can click the "Refresh" button or the manually refresh icon in the toolbar.

#### 4.3 Set Time

If the displaying time is different from computer time, click the “Set Time” button, or the menu item in the menu, or click the icon 

#### 4.4 Read Parameters

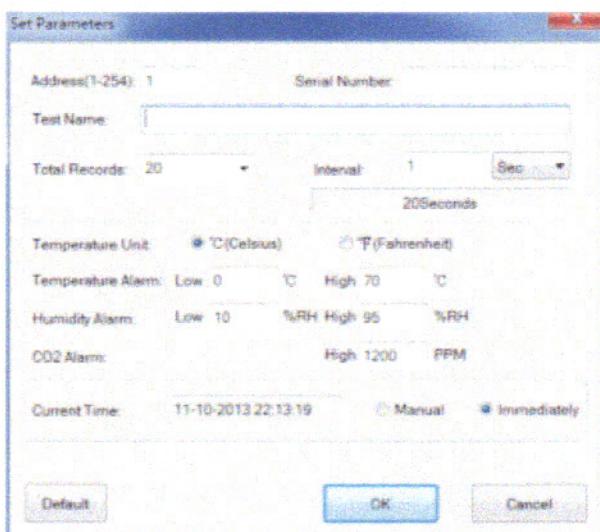
Click the button “Read Param” or the menu item “Read Parameters” to read the parameters of set and data hold record, and display them on the lists.

**Setting Parameters:** The parameter set to meter from the application.

**Record Parameters:** After meter collected the data, it will generate parameters from the setting parameters with some additional information.

#### 4.5 Set Parameters

Before recording new data, need to set parameters to the meter. Click the button “Set Param” or the menu item “Set Parameters”, or the icon  in the toolbar. Set parameter column as follow:



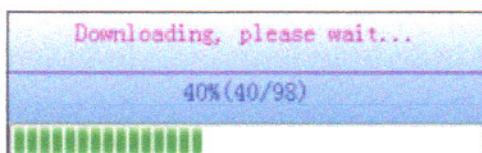
- (1) Address: Range:1-254,as reserved.
- (2) Serial Number: Up to 10 English letters or numbers.
- (3) Test Name: Used to identify test name, up to 10 characters.
- (4) Total Records: The most record numbers. Can choose from combo box, or input manually.
- (5) Interval: The time interval of sampling data record. Three gears: Secord:1~60sec. Minute:1~60min. Hour:1~24Hour.
- (6) Temperature Unit: Celsius (°C), Fahrenheit (°F).
- (7) Temperature Alarm: Range: -40~80°C or -40~176°F.
- (8) Humidity Alarm: Range: 0~100.
- (9) CO2 Alarm: Range: 1~9999.
- (10) Current Time: to set the time to the meter, use the current computer time.
- (11) Immediately/Manual Test: If select the “Immediately”, after setting parameters, the meter records immediately. When select the manual measurement mode, press the button once on the meter, the meter starts a new measurement.
- (12) Default: Click the button, use the default parameters.
- (13) OK (Set): Click the button; send the current edit parameters to the meter, then save the parameters to

the run directory.

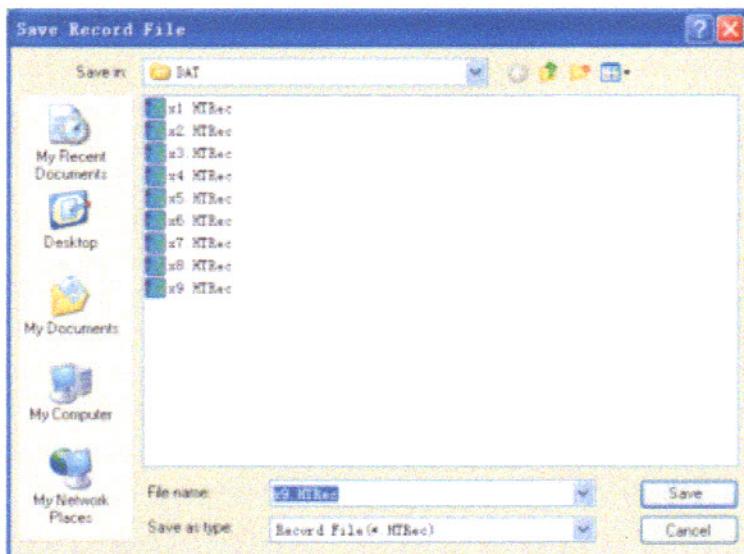
#### 4.6 Download data record

If there are data records in the meter, it can be downloaded to the computer. Click the “Data Download”

button, or the menu item “Data Download”, or the icon  in the toolbar, it will show the download progress.



Receive complete, prompt to save to a file:



Click the “Save” button, switch to the Data View, to browse the data records and trend chart of the saved file. If cancelled, the data records will not be saved.

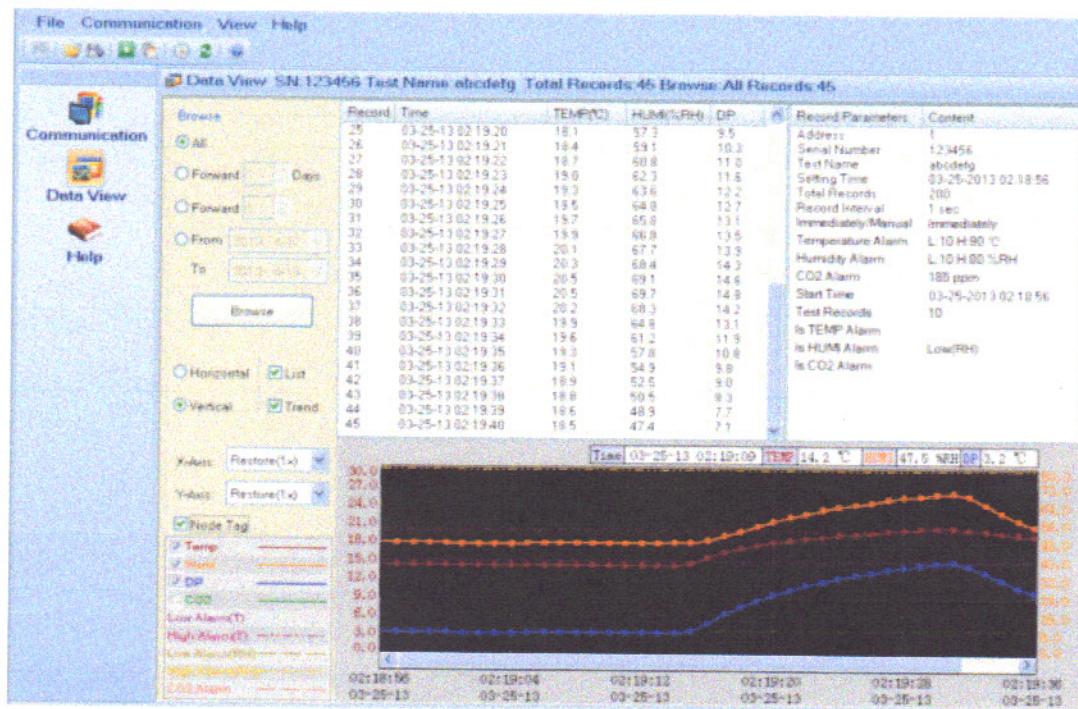
#### 4.7 Stop Recording

If the meter is recording, click the “Stop Recording” button to stop recording.

### 5. Record browse

Click the item “Open” in the “File” menu, or the icon  in the toolbar to open the data file (.HTRec), or you can directly download the data records to browse.

*HT160 data view:*



### 5.1 Browse time range

- (1) All: no filter condition, all data record.
- (2) Forward days: from current date forward to N days.
- (3) Forward months: from current month forward to N months.
- (4) Data range: from date1 to date2 range filter records.

### 5.2 Trend and list arrangement

- (1) Horizontal/Vertical: List and trend are arranged in left and right or top and bottom.
- (2) Show/Hide: Show or hide list or trend.

### 5.3 Operation of trend chart

- (1) X、Y axis zoom in/out: According to the item in the combo box to zoom in/out from X/Y axis.
- (2) Node flag: When checked, the curve of each record in the drawing position, with circle remark. If there are many records, the circle remark don't have much effect.
- (3) Show/Hide a curve: There are four curves: Temperature, Humidity, Dew point, CO2. If necessary, hide one or two curves. Check will show, don't check will hide.

### 5.4 Export records

Click the menu item "Export", can export the current browsing record to Excel file(.XLS) or Text file(.TXT).

### 5.5 Copy Trend to Clipboard

Copy the trend chart of data hold record to the clipboard, in order to use.

## 6. Help View

Click the "Help" on the left side of the function bar to switch to the Help View. Help document can also be found in the application installation directory, use browser to view it.

