Unitech

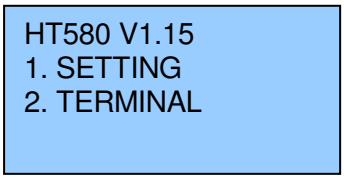
HT580 Operation Guide

Version 1.3

Overview

HT580 operation guide will cover more detail on F/W setting and software development tool APG580 (Application Generation for HT580)

After power on HT580, it will show **main menu** as below



There are 2 options – Setting and Formaching

Note : The 3rd option "3. RUN APG580" will be showed is there is Easy Job program inside. Please refer to EasyJob manual for detail information.

1. Setting

Setting menu do 2 major functions – User mode setting and Supervisor setting. In HT580 User Guide, it already explains user mode operation. This document will also repeat it again from below section.

Note : Due to no barcode scanning requirement on Setting menu, SCAN key will also be treated as ENTER key during Setting operation. So, user can use below 2 ways to select any Setting item

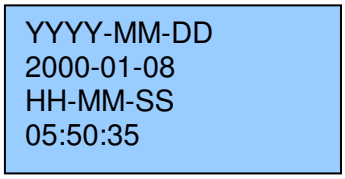
- ***Press MENU key to move cursor to target item and then press SCAN(or ENTER) key***
- ***Direct press item number (without combining with ENTER) to enter setting item***

After pressing "1" key from main screen, there are four setting options which include the following:

1. DATE & TIME
2. DEVICE
3. MODEM
4. SUPERVISOR

1.1. *DATE & TIME*

Press "1" (or press "**MENU**" key to move cursor to item 1) to enter **DATE & TIME** category so that you are able to set the correct date and time. The page will appear as it is shown below:



Press numeric keys to input correct date & time. Once complete, press **[ENTER]** to save the revised settings. To go back to previous menu, press **[ESC].**

1.2. Device

Use MENU key to move cursor to one of item and then press **ENTER** (or **SCAN** key) or directly press "1" ~ "3" to select target item:

1. BACKLIGHT
2. SCANNER
3. AUTORUN
4. BUZZER
5. MEMORY

1.2.1. BACKLIGHT

HT580's backlight can be automatically on after key pressed and it will automatically off after predefined period time if there is no more key pressed. Timeout period will be reset if any key is pressed. In HT580, timeout period can be set to 10/20/30 or 60 seconds. Or backlight can be set as always OFF or ALWAYS on.

To set up the backlight, press **MENU** to adjust the setting. There are below options for choice

Item	Description
On 10 SECS	Turn on backlight after key-pressing, and then automatically turn off after **10** seconds
On 20 SECS	Turn on backlight after key-pressing, and then automatically turn off after **20** seconds
On 30 SECS	Turn on backlight after key-pressing, and then automatically turn off after **30** seconds
On 60 SECS	Turn on backlight after key-pressing, and then automatically turn off after **60** seconds
Always	Always turn on backlight
Off	Always turn off backlight

BACKLIGHT selection : ON 10 SECS/ ON 20 SECS/ ON 30 SECS/ ON 60 SECS/ Always/ OFF

Selecting your preference and press **[ENTER]** to save the change. To go back to previous menu, press **[ESC].**

1.2.2. SCANNER

SCANNER selection: **ON NORMAL/ON FLASH/OFF.** Press **[MENU]** key to select your preference and press **[ENTER]** (or **[SCAN]** key) to save the changes. To go back to the previous menu, press **[ESC].**

Below are explanation for those 3 options

ON NORMAL	**Standard operation way (one trigger on scan), scanning beam will be emitted when press SCAN key and scanning will be off when releasing SCAN key. Scanning beam will be also off when it successfully read barcode**
ON FLASH	**Press SCAN (and then immediately), scanner will automatically continuously emit scanning beam and off scanning beam until Enter flash mode after press SCAN key (and then release SCAN key). User can press SCAN key again to stop Flashing.**
OFF	**Turn off scanner. Scanning beam will not be emitted after press SCNA key**

1.2.3. AUTORUN

AUTORUN is defined to automatically run pre-define **FORMCACHING or APG580** program after power on. Or setup HT580 to back to previous running point before power off. There are below 4 options for choice.

Formcaching	**Always run Formcaching from beginning after power on HT580**
APG580	**Always run APG580(EasyJob) from beginning after power on HT580**
RESUME	**Back to previous running point before power off. This option is default setting.**
OFF	**Always warm-start after power on. It will back to start menu.**

1.2.4. BUZZER

Adjust Buzzer volume

1.2.5. Memory

To display total memory and free memory space.

1.3. MODEM

Unitech provide modem cradle as HT580's accessory. So, user can get data through modem if HT580 is plug into modem cradle.

In general, system administrator need to setup host PC to automatically dial to modem cradle and then issue command from host to do data communication or remote control. For such configuration, it is necessary to setup modem to automatically pick phone when host call modem. So, it provides option "**AUTO ANSWER**" to setup modem from HT580.

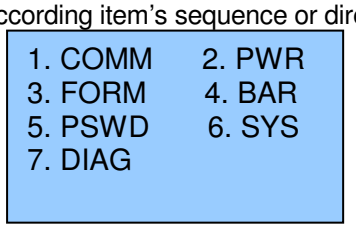
User can also directly call to remote host PC from modem cradle via HT580. So, it is necessary to setup remote PC's phone number, and then dial out, and then hang up phone if user need to stop modem communication.

There are below 4 options on MODEM

1.PHONE NUMBER	**To setup remote modem's phone number**
2.AUTO ANSWER	**Send ATS0=1 [enter] to modem cradle. So, modem cradle will automatically pickup phone after one ring tone. You will get error message if HT580 is not plugged into cradle or modem cradle is power off.**
3.DIAL OUT	**Dial out according "Phone number" setting. It will send "ATDT" + phone number**
4.HANG OUT	**Hang up phone (send "+++" and then "ATH")**

1.4. SUPERVISOR

When entering into **"SUPERVISOR"** mode, you will be required to input password. The default password is **"580"** and press **< ENTER >** to view the following settings, you can press **MENU** key to move cursor according item's sequence or directly press item number by **"1" ~ "7"** key.



1.4.1. COMM

To setup all of communication port, option or protocol. You can press **MENU** key to select proper option or press ENTER key (or SCAN key) to confirm it and jump to next item. Below are all of items and their options

Item	Options	Default
PORT	RS232/USB , BLUETOOTH, MODEM	RS232/USB
BAUD RATE	9600bps, 19200bps, 38400bps, 57600 bps	38400 bps (Fixed on 38400bps for Bluetooth)
PARITY	NONE, ODD, EVEN	NONE
DATA BITS	8, 7	8
STOP BITS	1, 2	1
ADDRESS	"A" ~ "Y" or "0" ~ "6"	A
PROTOCOL	MULTI, NONE	Multi

- **PORT :**
  Actually, those 4 interface are connected to the same serial port within HT580. If any of modem/RS232/Modem is selected, any output data from HT580 will be sent to any of those port. (If user select USB and HT580 send out character "A", user can get "A" from RS232, USB and Modem port. For Bluetooth, please refer to SECTION **Communication**, it will guide user how to setup Bluetooth communication.
- **Address**
  It is necessary to set unique address if user want to identify differential for each terminal from communication. Currently, there are 32 different address "A" ~ "Y" and "0" ~ "6".
- **Protocol**
  To backward compatible with Unitech's PT series with the same communication protocol, HT580 also provide Multi-protocol. Please refer to SECTION **Communication** and **Multi-Ptotocol** to learn more detail information.

Remark : HT580's built-in Bluetooth modem is fixed on 38400bps, so it will automatically change baud rate to 38400bps if user change port option to Bluetooth.

1.4.2. TERMNAL

The **TERM** command enables the HT580 to run a built-in Terminal emulator. The HT580 will operate as a dumb ASCII terminal when the user select this feature and disable the **FormCaching** menu.

When the TERM SETUP menu appears on the HT580 LCD, proceed to set up the portable terminal communication parameters. When finished go to the **Ready Mode** menu and press 2 (2.TERMINAL) → 1 (TERMINAL MODE) to make the HT580 operate as a dumb ASCII terminal.

- **Terminal ID** Each HT580 "Terminal" can be identified by an 8-character string *Terminal ID* assigned by the user. Initially, the default *ID* is "HT580". Valid characters for assigning *Terminal ID* are alphanumeric characters ('A'-'Z', '0'-'9'). Hit [ENT] to make the selection.

- **Online** Use the [→] key to toggle between below 3 modes, then hit [ENT] to make the selection.

  LOCAL The HT580 does not transmit gathered data to RS232/USB/BlueTooth.
  REMOTE NONE The HT580 will output data gathered from the bar code port or keypad to its RS-RS232/USB/BlueTooth with None protocol.
  REMOTE MULTI The HT580 will output data gathered from the bar code port or keypad to its RS-RS232/USB/BlueTooth with Multi-Protocol.

- **Echo** Use the [→] key to toggle between ON and OFF, then hit [ENT] to make the selection. The collected data will be displayed on the HT580 LCD when *Echo* is set to ON, otherwise data will not be displayed when it is set to OFF.

- **AutoLF** Use the [→] key to toggle between ON or OFF, then hit [ENT] to make the selection. When *AutoLF* is set to ON, the HT580 will append a LF (10 hex) character to the input data block.

- **Mode** Use the [→] key to toggle between BLOCK and CHAR, then hit [ENT] to make the selection.

- **Line/Page** Use the [→] key to toggle among LINE, PAGE and BOTH, then hit [ENT] to make the selection.

1.4.3. FORMCACHING

FormCaching is a built-in application generator on HT580 which allows users to create a data entry application from HT580 by specifying field prompt, field length, data type, input method and delimiter, etc. without writing a program and loading it (download or manually) to the HT580. Entry data can be processed as batch mode or real time mode.

For batch mode, it will store data (according setting) into "FORM.DAT". User can use communication program to get this file into PC.

For real time mode, HT580 provide 2 options – None protocol or Multi-protocol.

- **On line None**: It will directly send record data via RS232/USB or Bluetooth (according port setting) after finish record data entry. However, data will still be stored into "FORM.DAT" (like batch mode).
- **On line Multi**: It will follow Unitech Multi-protocol. Data will be stored on system area and wait for remote polling command.

To provide convenience way to distribute Formcaching setting allow user to export current Formcaching setting from one HT580 to another one.

After enter this setting, there are 3 options – SETTING, IMPORT and EXPORT.

- **EXPORT** **:** To save Formcaching's configuration as file "**FORM.SET**".
- **IMPORT** **:** To change Formcaching configuration from external setting file "**FORM.SET**".
- **SETTING** **:** To configure Formcaching's operation flow.

  When **SETTING** is selected, the HT580 will first ask the user to specify data fields in four categories including *field prompt, data length, and data type* and *device type*. After defining all data fields, the user must [**ESC**] key to end the setup of the data field. Below are table to describe all of setting function for Formcaching.

FormCaching Specification

DATA FIELD DEFINITION: maximum field number=8			
	Category	***Range***	***Description***
1.	FIELD PROMPT	Max.16 characters	set field prompting
2.	MIN/MAX Field LENGTH	1-48	set minimum field length and maximum field length
3.	Field type	1.NUMERIC 2.ALPHANUM	numeric data (0~9) or alphanumeric data (20H~FCH)
4.	DEVICE TYPE	1.KEY ONLY 2.SCAN ONLY 3.BOTH	input by keyboard only, bar code scanning only or both
DATA RECORD DEFINITION			
	Category	***Range***	***Description***
5.	Between Field	1.Append Screen 2.Clear Screen	1. Append Screen: Prompt will be displayed on next line according previous cursor place. If cursor is already on the last line, it will scroll one line up. 2. Clear Screen: It will clear screen and then display
6.	FIELD DELIMITER	1. , 2. ; 3.SPACE 4.TAB 5. FIXED LENGTH	Assign field delimiter, "Fixed Length" mean to store data according maxi length setting, it will automatically append spaces to end of field data if length of input data are less than maxi. length
7.	RECORD DELIMITER	1.CR 2.LF 3.CRLF	assign record delimiter
8.	DATE STAMP FIELD	1.NONE 2.MMDD 3.YYYYMMDD 4.DDMMYY 5.YYYYMMDD 6.DDMMYYYY	assign date stamp and specify the format of date stamp
9.	TIME STAMP FIELD	1.NONE 2.HHMM 3.HHMMSS 4.SSMMHH	assign time stamp and specify the format of time stamp
10.	Trasn. Mode	1. Batch 2. Online None 3. Online Multi	T
11.	FIELD DELAY	0-6	specify time delay between each record input in second

When FormCaching is enabled, a data file named FORM.DAT will be created in the HT580. FORM.DAT stores the data as entered by the user after FormCaching is invoked. The HT580 will not allow the user to redefine the data fields in FormCaching once the FORM.DAT has been created. The file FORM.DAT must be deleted in order to implement any change in the configuration of FormCaching.

Running The Resident FormCaching Application Program

Enable the FormCaching, the HT580 built-in application can be ran by switching the portable terminal to the **main menu** of operation and selecting "**2.TERMINAL" → "2.FORMCACHING**". The FormCaching application program will follow the setting (as previously defined by the user) as it displays prompts, requests input, and stores data in the FORM.DAT file. Pressing ***[ESC]*** key will abort the current record inputting action.

HT580 FormCaching Defaults

The HT580 enables FormCaching by default, the following settings also apply:

DATA FIELD DEFINITION: field number=2	
Category	***Setting***
Field #1 FIELD PROMPT	ITEM:
DATA LENGTH	20
DATA TYPE	ALPHANUM
DEVICE TYPE	BOTH
Field #2 FIELD PROMPT	QTY:
DATA LENGTH	8
DATA TYPE	NUMERIC
DEVICE TYPE	KEY ONLY
DATA RECORD DEFINITION	
Category	***Setting***
FIELD DELIMITER	,
RECORD FELIMITER	CR
DATE STAMP FIELD	NONE
TIME STAMP FIELD	NONE
FIELD DELAY	1

1.4.4. PSWD – Password

Change **Supervisor** password – The default password is "**580**"

1.4.5. POWER

Use the [**MENU**] key to set auto-off timeout from **1,2,5,10,15** minutes or **DISABLE** without power off terminal.

1.4.6. BAR

This option is use to configure individual symbologies for each barcode. After enter configuration menu, the LCD will display the BARCODE Setup as shown below.

```
< BARCODE SETUP>
CODE 39
ON
```

Press [**MENU**] key to toggle between settings. Press [**SCAN**] or [**ENTER**] key to set.

Setup decoding of HT580 supported bar code symbologies

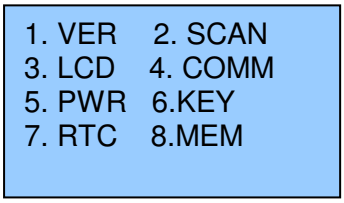
Symbology	**Function**	**Option**	**Default**
Code 39	Decoding	ON/OFF	ON
	full ASCII	ON/OFF	OFF
	Check Digit	ON/OFF	OFF
	Start/stop Character	Send/No-send	NO SEND
I 2 of 5	Decoding	ON/OFF	ON
	Check Digit	OFF/On&Not send/ON&Send	OFF
	First digit	SEND/NOT SEND	SEND
	Last digit	SEND/NOT SEND	SEND
Code 32	Decoding	ON/OFF	ON
	First digit	SEND/NOT SEND	SEND
	Last digit	SEND/NOT SEND	SEND
Matrix 2 of 5	Decoding	ON/OFF	ON
	Check Digit	ON/OFF	OFF
Industrial 2 of 5	Decoding	ON/OFF	ON
Codabar	Decoding	ON/OFF	ON
	Check Digit	ON / ON&Not Send / ON&SEND / OFF	OFF
CHINA POST	Decoding	ON/OFF	ON
	Check Digit	ON / ON&Not Send / ON&SEND / OFF	OFF
CHINA POST	Decoding	ON/OFF	OFF
	CHECK DIGIT MOD	SINGLE MOD 10/DOUBLE MOD 10/DOUBLE MOD 11+10	SINGLE MOD 10
	Check Digit	ON&Send / ON&NOT SEND	OFF
IDATA 2 of 5	Decoding	ON/OFF	OFF
	Check Digit	ON / ON&Not Send / ON&SEND / OFF	OFF
CODE 11	Decoding	ON/OFF	OFF
	Check Digit	ON / ON&Not Send / ON&SEND / OFF	OFF
EAN-13	Decoding	ON/OFF	ON
	ISBN	ON/OFF	OFF
	ISBN	ON/OFF	OFF
	Leading Digit	Send/No-send	Send
	Check Digit	Send/No-send	Send
EAN-8	decoding	ON/OFF	ON

	Leading digit	SEND/NOT SEND	SEND
	Check Digit	SEND/NOT SEND	SEND
UPC-A	decoding	ON/OFF	ON
	EXPEND to EAN-13	ON/OFF	OFF
	Leading digit	SEND/NOT SEND	SEND
	Check Digit	SEND/NOT SEND	SEND
UPC-E	decoding	ON/OFF	ON
	UPC-E0	ON/OFF	ON
	UPC-E1	ON/OFF	ON
	EXPEND TO UPC-A	ON/OFF	OFF
	Leading digit	SEND/NOT SEND	SEND
	Check Digit	SEND/NOT SEND	SEND
CODE 93	decoding	ON/OFF	OFF
Code 128	decoding	ON/OFF	ON
	EAN128	ON/OFF	ON
	EAN128 CODE ID	ON/OFF	OFF
	EAN128 FUNC CH	NOT SEND/SEND	NOT SEND
TELPEN	decoding	ON/OFF	ON
UK PLESSEY	decoding	ON/OFF	OFF
	Check Digit	SEND/NOT SEND	SEND

1.4.7. DIAG - Diagnostics

The HT580 has a built-in diagnostics program to test the terminal's hardware. The test routines are **data destructive**. Therefore, before running the diagnostic program, make sure you back up the data in the HT580.

Note : When a H/W or S/W service has been made on the HT580, such as maintenance, repair or upgrade, it is strongly recommended to run the diagnostic program.



At the **Supervisor Mode** menu:

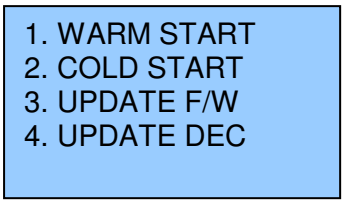
1.1 Press 7 (7.DIAG), then LCD will display the diagnostic menu as shown on the left. Select 1-8 to run the desired diagnostic routine

1. VER : Get F/W version for HT580 and Decoder.

2. SCAN : test bar code input by scanning bar code labels. Press ESC key to return to the diagnostics menu.
3. LCD : Darken the dots of the LCD screen and cycle power to the LCD backlight to check if the LCD functions OK
4. COMM : Connect to PC's communication testing program to test USB/RS232 communication
5. PWR : Testing Battery power
6. KEY : Test every key response
7. RTC : Show Current time/date is displayed
8. MEM : Test RAM condition

Note : Please refer to Service manual for more detail information.

1.4.8. SYS – Perform Cold/Warm Start or Update F/W



There are 4 options on this item – Warm Start, Cold Start, Update F/W and Update Decoder

- Warm Start : warm boot HT580
- Cold Start : All of data and setting will be set to system default
- Update F/W : Update F/W version. You can get the latest F/W image from supplier, F/W will be compressed as ZIP file. There are 8 files after unzip it – **bank0.bin** ~ **bank7.bin.** You can use communication program to send those 8 files into HT580 and then execute this option to update F/W. Please refer to Section **Communication** to know more detail information for communication program.

2. TERMINAL

The **TERMINAL** puts the HT580 in either Terminal Emulation operation or FormCaching operation. User will need to choose when the 2.TERMINAL was selected and the HT580 execute the operation.

2.1 Terminal Emulation Operation.

When EXEC transfers control to this EPROM-resident application program, the HT580 operates as a dumb ASCII terminal while exchanging data with a Host computer. Data input from scanning bar code labels or key-press will be sent to the portable terminal RS232/USB/BT port. In order to carry out a successful file transfer, communication parameter setting such as baud rate, data bits, parity, stop bits and flow control, must match the setting at the Host end. Data received from the serial port is displayed on the LCD screen.

The functionality of the HT580 in terminal mode depends on the format configured in the Terminal Control Table. The HT580 is either configured as free format processing or forms based processing. The HT580 examines the "data buffer" and determines if host data transfer is required. If a terminating condition exists by the reception of a terminating character, the HT580 outputs the buffer to its RS232/USB/BT port. Data transfer between the host machine and the HT580 is primarily controlled by the terminating conditions specified in the Terminal Control Table.

In the terminal application, the program further distinguishes the character mode communication from block mode communication. Character mode communication dictates that the HT580 sends every key (one at a time) to the host. The input character may come from the keypad or barcode scanner, whichever comes first. Data characters sent over from the host system will always be displayed on the LCD screen. Host control commands, which have a special command header (ESC), will not be displayed on the LCD. The host commands are interpreted by the HT580 as they are received.

Block mode applications perform similar functions to character mode, except that the input characters will not be sent to the host one character at a time. Instead the HT580 holds the data in its internal buffer until a termination character is received. Specifying parameter linepage, lineterm, and pageterm in the terminal control table programs the termination character. The HT580 allows at most two termination characters.

2.2 FormCaching Operation.

When EXEC transfers control to this EPROM-resident application program, it allows the user to create a data entry application program by simply specifying field prompt, type, length, input method and delimiter, etc. without having to write a comprehensive application program. FormCaching is enabled or disabled while the HT580 is in the Supervisor mode of operation. Input data will be stored on “Form.DAT”.

3. RUN APG580

Unitech provide one program generator **EasyJob** (or "**APG580")** to help user to develop application program without program language background. You can get this S/W from HT580's CD. It will include online help to guide you how to make application.

After developed application from APG580, you can send your program to HT580. Then you can run your program on HT580 after select **"3. RUN APG580**" from main menu, please refer to technical binder for a detailed process.

To install EasyJob, you can get it from HT580 CD or Unitech Web site
http://adc.unitech.com.tw/pub/cs/software/apg580/EasyJob.zip

You will get on executable program "HT580SetupV***x.xx***.exe", you can directly execute it from your PC.

PS. EasyJob is developed to be run under Microsoft.NET framework. So, your PC should be Win98 2nd edition or later version and .NET framework should be pre-installed.

4. Communication

4.1. USB communication

To connect HT580 to PC via USB, you need to install USB driver which will redirect data to virtual COM port. You can get USB driver from HT580 CD.

Window OS will prompt new device dialog box when PC is the first time to be connected to HT580 via USB. Please re-direct driver folder to Unitech's USB driver folder and then follow its prompting to install driver.

Then you can check correct COM port number from Control Panet → System → Hardware → Device manager, then you can find correct COM number from "USB Serial Port" under option "Connection Port(COM and LPT)"

In HT580, you should change it default communication port to "RS232/USB" from Setting → Supervisor → Comm → Port

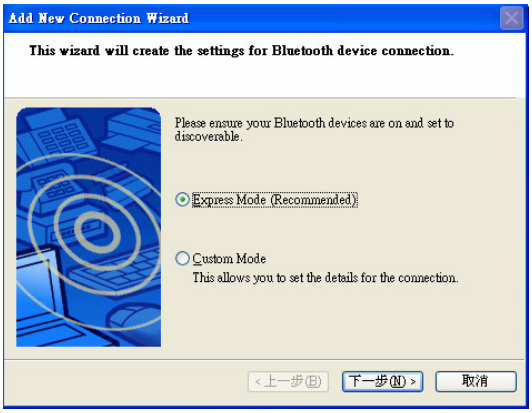
4.2. BlueTooth communication

To do BlueTooth communication, you should change HT580's port setting to BlueTooth from Setting → Supervisor → Comm → Port

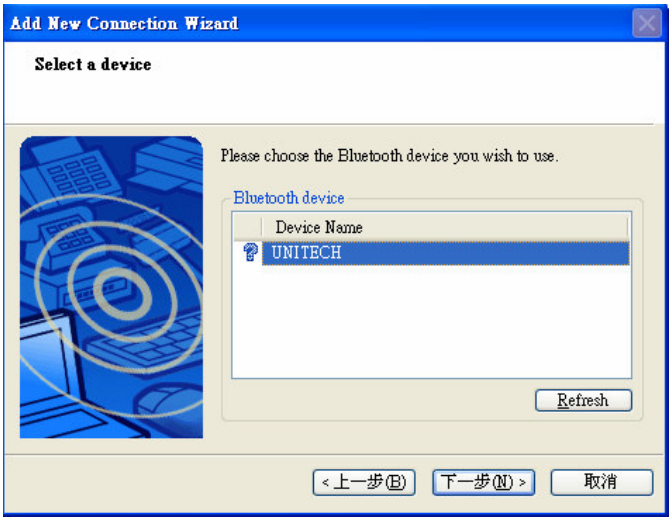
In PC, you should connect Bluetooth dongles if there is no Bluetooth support. And Bluetooth driver should be pre-install.
Then , you must follow up below steps on you rPC

1. Power on HT580 and then Run Bluetooth manager from PC

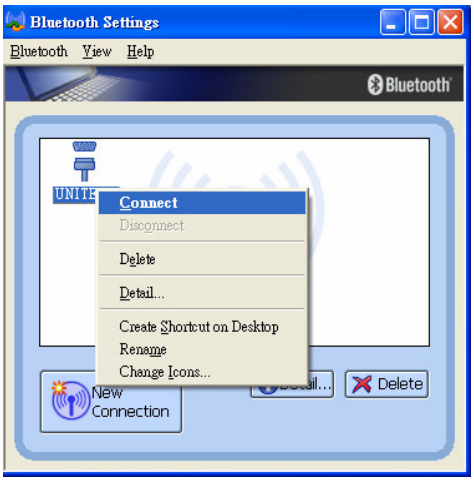
2. Click "New Connection" buttom
3. Select proper mode – Express Mode or Customer Mode. User can specify COM port number if select customer mode.



4. Then it will search all of Bluetooth device within BT converge area and then list them down on the screen. You can find all of HT580s will be displayed as “UNITECH”. Then you can click “Next” button



5. Then it will prompt user to enter PIN code, HT580’s default PIN (Pass key) is “0580”, then you can find this HT580 is already on your Bluetooth list. Then click right mouse button to connect it.



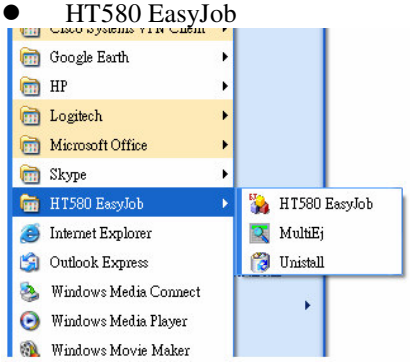
6. You can also check the correct PORT number from “Detail”

PS. HT580’s BT Device name is fixed on “UNITECH”, so you will see a lots of “UNITECH” on Bluetooth Manager if you want to connect several HT580s to single PC. And user can not identify which one is correct HT580 to map to list. So, it is suggested to power on one HT580 at a time when make connection and please note its MAC address from DETAIL.

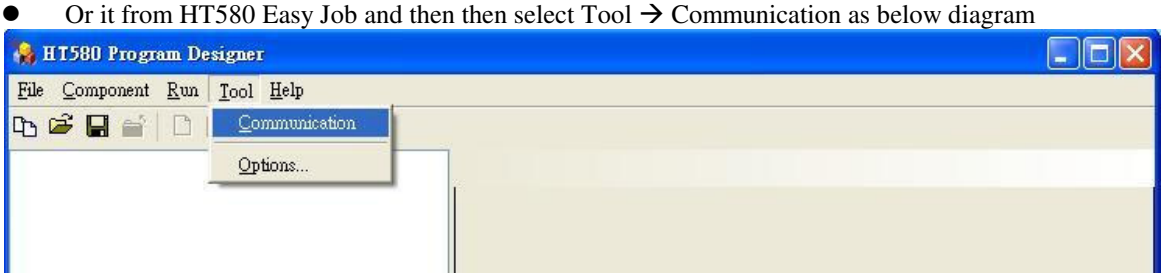
4.3. Communication program

In Easy Job, it also bundle one communication program named “MultiEj”. You can directly run it from

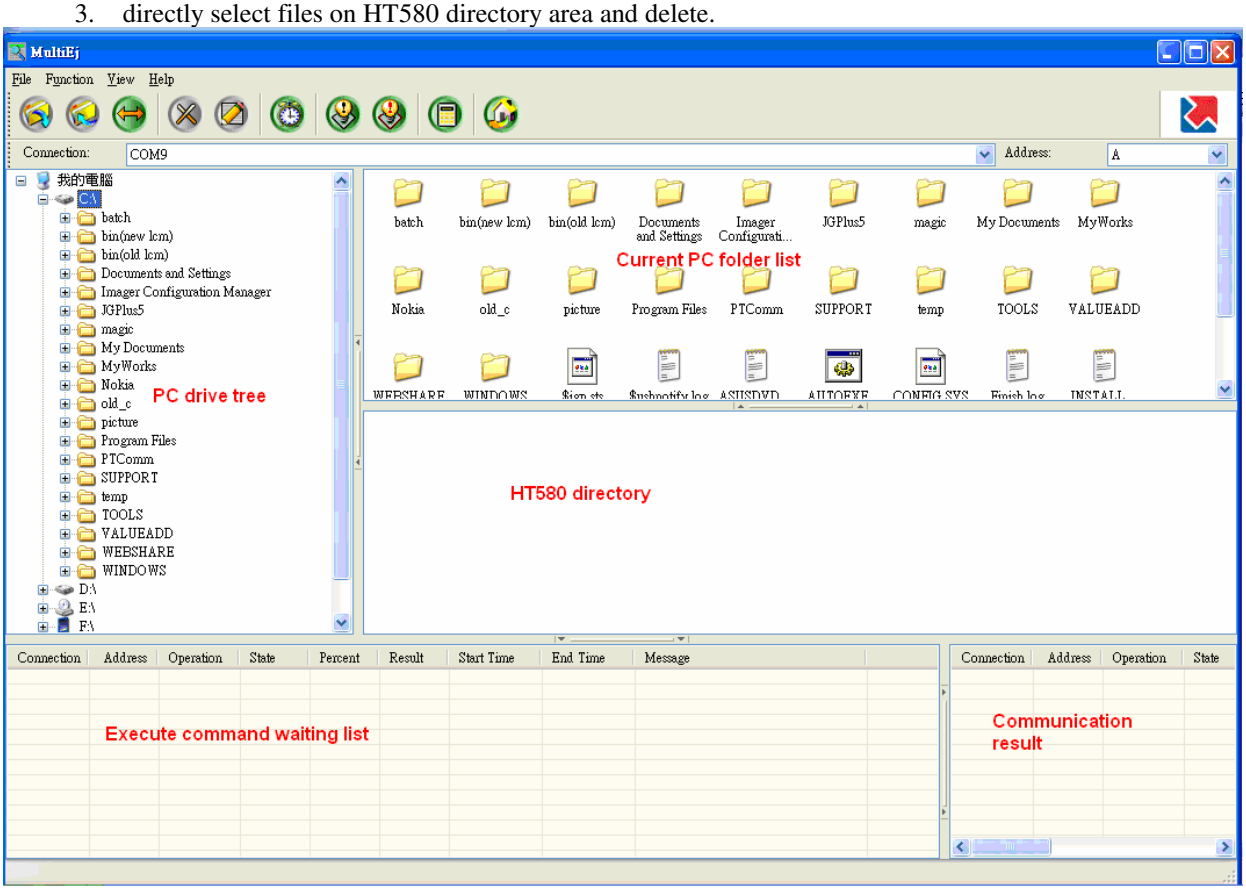
- HT580 EasyJob



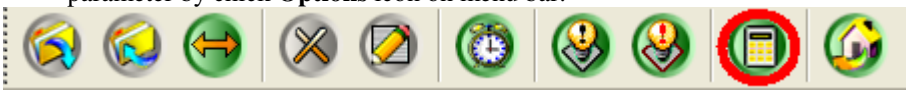
- Or it from HT580 Easy Job and then then select Tool → Communication as below diagram

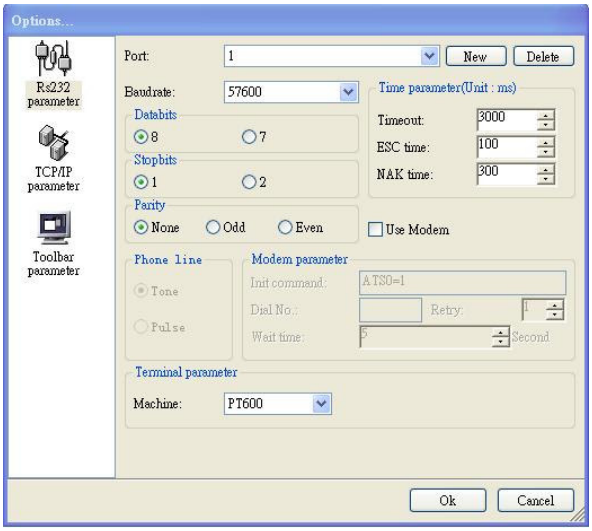


- Then it will launch **MultiEj** program as below screen, You can directly
  1. drag and drop files from PC folder to HT580 directory to execute download function
  2. drag and drop files from HT580 directory to PC folder to execute upload function
  3. directly select files on HT580 directory area and delete.

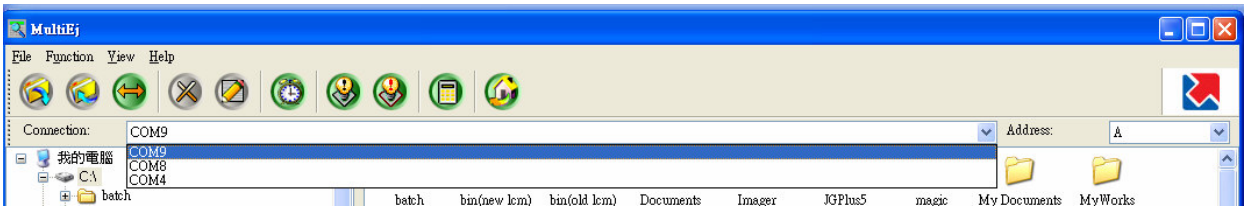


- Before using MultiEj to do communication, you should setup correct port number and communication parameter by chick **Options** icon on menu bar.

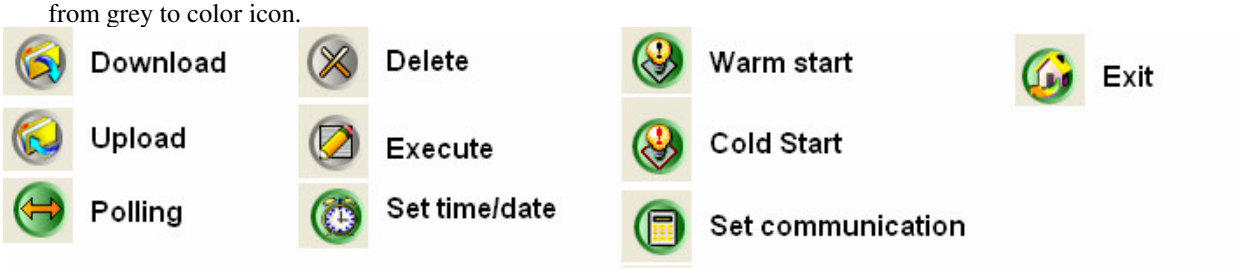




- Then click "**NEW**" button to select a new COM port, then configure its proper communication parameter and click **OK** button to finish setting. Then you can select proper port from Connection List Box



- After select proper COM port, you will find icons of Date/Time , WarmStart and ColdStart changed from grey to color icon.



- Download / Upload / Delete / Execute will also become color if you select click files on **local file area** or **remote files area**

4.4. Modem communication

For HT580, Unitech provide modem cradle to enable modem communication function between PC and HT580. So, user must connect phone line to cradle and HT580 still connect to cradle with RS232 interface.

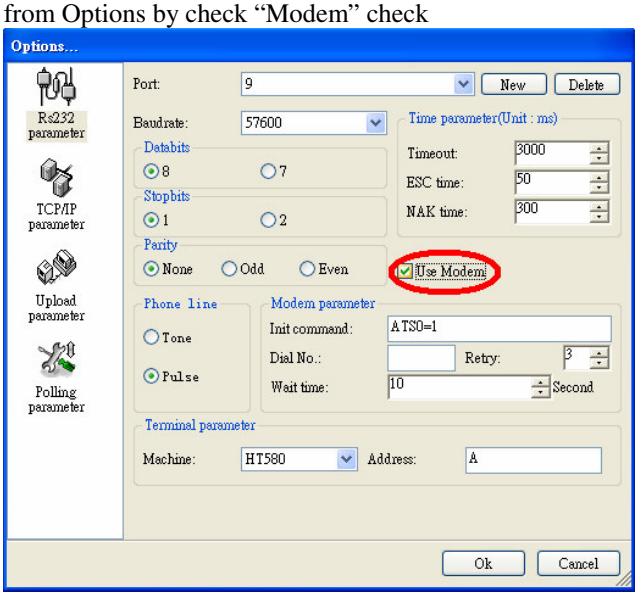
There are 2 ways to do connection.

1. Calling from PC
2. Calling from Terminal

- Call from PC

To call modem from PC, HT580's modem cradle should be set to automatically pick up external call. So, you should put HT580 into cradle (cradle should be connect to power) and execute Setting → Modem and then select "AUTO ANSWER" to let HT580 send "ATS0=1" to modem board (inside cradle). Then, cradle can automatically pick up external calling after one ring tone. **(After execute "AUTO ANSWER", it is not suggested to power off cradle, or "Auto Answer" function will be disappeared)**

In PC, you can use MultiEj to do modem communication with HT580, you can setup modem function from Options by check "Modem" check



Then setup to correct Initial command, dial number, and wait time.

- Call from HT580

Current, HT580 can support modem dial from F/W. We will provide modem function from EasyJob in the future.

In PC side, you can use Hyperterminal to setup modem Auto Answer. And please put HT580 into cradle and phone line should be connected to cradle. Then follow up below step

4. Execute Setting → Modem → Phone to input correct phone number
5. Then execute Setting → Modem → Dial out to connect to remote

After end of communication, execute Setting → Modem → Hang to hang up phone.

5. Update F/W

Unitech provide F/W as zip file which is named as "**HT580V*x.xx*.zip".** There are 8 files after unzip it – "bank0.bin" , "bank1.bin" ,"bank2.bin" ,"bank3.bin" ,"bank4.bin" ,"bank5.bin" ,"bank6.bin" and ,"bank7.bin".

You can use the MultiEj to download those 8 files into HT580. After 8 files have been download into HT580, just execute HT580's Setting → Supervisor → SYS and then select "3.UPDATE F/W". Then HT580 will automatically update F/W and then cold start terminal.

6. Technical Specification

Model	HT580
Dimensions	**123mm x 55mm x 25mm**
Weight	**150g**
Drop Specification	**1.2M free drop to concrete floor**
Display	**128 x 64 pixel; 16x8 characters or 12x4 characters**
Battery	**One 3.7V 600mAH Li-ion battery**
Environmental Sealing	**IP42**
Operation Temperature	**0℃~50℃**
Storage Temperature	**-20℃ ~70℃**
Humidity	**5% to 95% RH, ; not condensed**
Electrostatic Discharge (ESD)	**4 KV contact discharge 8 KV air discharge**
Back-Lit Display	**Yes**
Keypads	**18 alphanumeric keys including one scan trigger**
CPU	**ST UPSD3354DV**
Operating System	**Proprietary (C Language)**
Memory	**1 MB for main program & data storage**
Application Development	**EZ Job**
Communication	**RS232/USB1.1/ Bluetooth/Modem**
Battery Life	**Up to 8 hours**
Symbologies	**UPC/EAN, Code 39, Interleave 2 of 5, CODABAR, MSI, Code 128, Code 93, Code 32,China Postal Code**
Buzzer	**Yes, over 75 dB**
One LED	**Reading – green color**

6.1. Pin Assignment

The HT580 communicate via the RS232 communication port located on the bottom of the unit. You can connect the unit via the communication cable to PC RS232 jack for data transfer or connect through cradle for communication.

Pin	Name
1	US-POWER
2	GND
3	DC-IN
4	USB DP
5	CTS
6	RTS
7	DSR
8	GND
9	DTR
10	TXD
11	RXD
12	USB DP

7. Update Notes

- V1.21
  - Replace ”Fromcaching” with “Terminal” on Overview
  - Add “Term” setting on chapter 1.4.2
- V1.4
  - Add Buzzer setting under 1.Setting → Device