

# Htek Phone Provision Tool

## Quick Guide

Version 1.3.5 beta 20201015



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## Brief Intro

Htek Provision Tool (HPT) is a software used on windows os to manage HTEK phones. It is well designed to make provision Htek phones conveniently and easily by providing many useful functions, such as configuration file (cfg file) visual edit, cfg files batching, online devices discovery, manual provision, PNP, cfg file server, firmware server, etc. It is a complete tool to provision Htek phone in the LAN.

## Operating Environment

System	Windows 7 and later versions
Display	Minimum: 1280 X 800 pixels
Network	The computer running the software needs to be in the same local area network as the phone to be provisioned

## Pages Introduction

### 1. Visual edit (Phone Configuration page)

The configuration of the phone can be specifically edited in this page. Most of the configurable items can be found in this page.

Htek Provision Tool 1.3.5beta  
 HTTP Server: **Stop**    PNP Server: **Stop**    Cfg file: Load a Template | Save | Save as | uc501\_2.0.4.6.16\_en

Phone Configuration | Cfg Batch | Devices Discover | Servers/Settings | Tool

Profile\_Basic  
   Profile\_1  
 Profile\_Codec  
 Profile\_Advance  
 Account\_Basic  
   Network\_Basic  
   Network\_PC\_Port  
   Network\_Advanced  
 ProgrammableKey  
 Preference  
 Features  
 BLFSettings  
 DateTime  
 Tones  
 SMS  
 ActionURL  
 SoftkeyLayout  
 TR069  
 SIP  
 RemotePhonebook  
 LDAP  
 NetworkDirectory  
 MulticastPaging  
 Password  
 AutoProvision  
 Configuration  
 Trusted\_CA  
 Server\_CA  
 Tools

Primary SIP Server  
 Failover SIP Server  
 Second Failover SipServer  
 Prefer Primary SIP Server  
 DHCP SIP Server  
 Outbound Proxy  
 Backup Outbound Proxy  
 SIP Transport  
 NAT Traversal  
 DNS Mode  
 Call Message Format  
 Transfer Release Trigger  
 SIP Registration  
 Unregister On Reboot  
 Register Expiration  
 Outgoing Call Without Registration  
 RPort  
 RFC 2543 Hold

**UC501**

## 2. Configuration files batching (Cfg Batch page)

On this page you can batch generating cfg files (bin or xml format) by importing an appropriate CSV file.

Htek Provision Tool 1.3.5beta  
 HTTP Server: **Running**    PNP Server: **Running**    Cfg file: Load a Template | Save | Save as | uc501\_2.0.4.6.16\_en

Phone Configuration | Cfg Batch | Devices Discover | Servers/Settings | Tool



Mode  
 Mac Mode  
 PIN Mode

Load CSV File    Save as

Edit  
 Add    1    Row(s)

Batch File Format  
 BIN    Not Encrypt  
 XML     Encrypt

Autofill  
 Autofill Server Path  
 This function only works while Built-in http server running. It will automatically changes config file path and firmware path of the cfg files to be those in Built-in http server respectively when batching.

Batch    Batch to Built-in Server

### 3. Device discovery and manual provision (Devices Online page)

HPT will list all the online Htek Phones in the same local area network after scanning on this page. By right click, you can provision more than one phones at same time.

Online[+]	Vendor[+]	Model[+]	IP Address	MAC	Version[+]
ON	Htek	UC924	10.2.2.18	00-1f-c1-1c-1a-8d	2.21.4.6.30
ON	Htek	UC923	10.2.2.34	00-1f-c1-1d-2c-d1	2.0.4.8.11
ON	Htek	UC912	10.2.2.40	00-1f-c1-1e-51-0d	2.0.4.8.10
ON	Htek	CIP 250	10.2.2.43	00-1f-c1-1f-35-11	2.0.4.6.33
ON	Htek	Infinity5010	10.2.2.33	00-1f-c1-1d-87-41	2.21.4.6.29
ON	Htek	UC924	10.2.2.79	00-1f-c1-1b-fe-fe	2.0.4.6.41
ON	Htek	Desk Phone DP12	10.2.2.87	00-1f-c1-1e-be-22	2.0.4.8.13
ON	Htek	UC926 2.20.11.24.unoffic	10.2.2.184	00-1f-c1-1f-34-c1	00:12:00:unofficial
ON	Htek	UC926 2.20.11.23.153(2)	10.2.2.200	00-1f-c1-1f-34-ce	00:12:00:153
ON	Htek	Infinity5004	10.2.2.199	00-1f-c1-1e-be-17	2.0.4.6.21
ON	Htek	UC926 2.20.11.24.unoffic	10.2.2.203	00-1f-c1-1f-34-bb	00:12:00:unofficial
ON	Htek	UC924	10.2.2.243	00-1f-c1-1d-2d-0e	2.0.4.8.11
ON	Htek	UC924	10.2.2.233	00-1f-c1-1c-64-44	2.0.4.8.9

Configuration options on the right:

- Network: 10.3.5.177
- Scan Timeout Per IP (msec): 3000
- Subnet Mode:  Enable
- IP Address: 10.2.2.0
- Subnet Mask: 255.255.255.0
- Mac Filter:  Predefined (Htek(00-1f-c1-))
- Provision Mode:  Mac Mode
- Action Url CMD [Experimental]: Protocol:  Http
- Discover Progress: Nothing to do.
- Discover Devices button

Mainly have the following functions:

#### 1. Scan timeout adjustment

Scan Timeout Per IP (msec):

Configuring this option will affect the timeout waiting for the response of each destination IP during scanning. The smaller the value, the faster the scan. When the network is unblocked, you can set this value to a small point.

#### 2. Subnet Mode

Subnet Mode

Enable

IP Address:

Subnet Mask:

Using this mode, you can scan the network that the computer can access, such as scanning between different VLANs. When enabled, fill in any legal address in the target network in the IP Address column, and

fill in the subnet mask of the target network in the Subnet Mask column.

For the MAC address information that you want to get feedback from the phone, the phone itself needs to support it.

### 3. Click on IP to access phone webpage

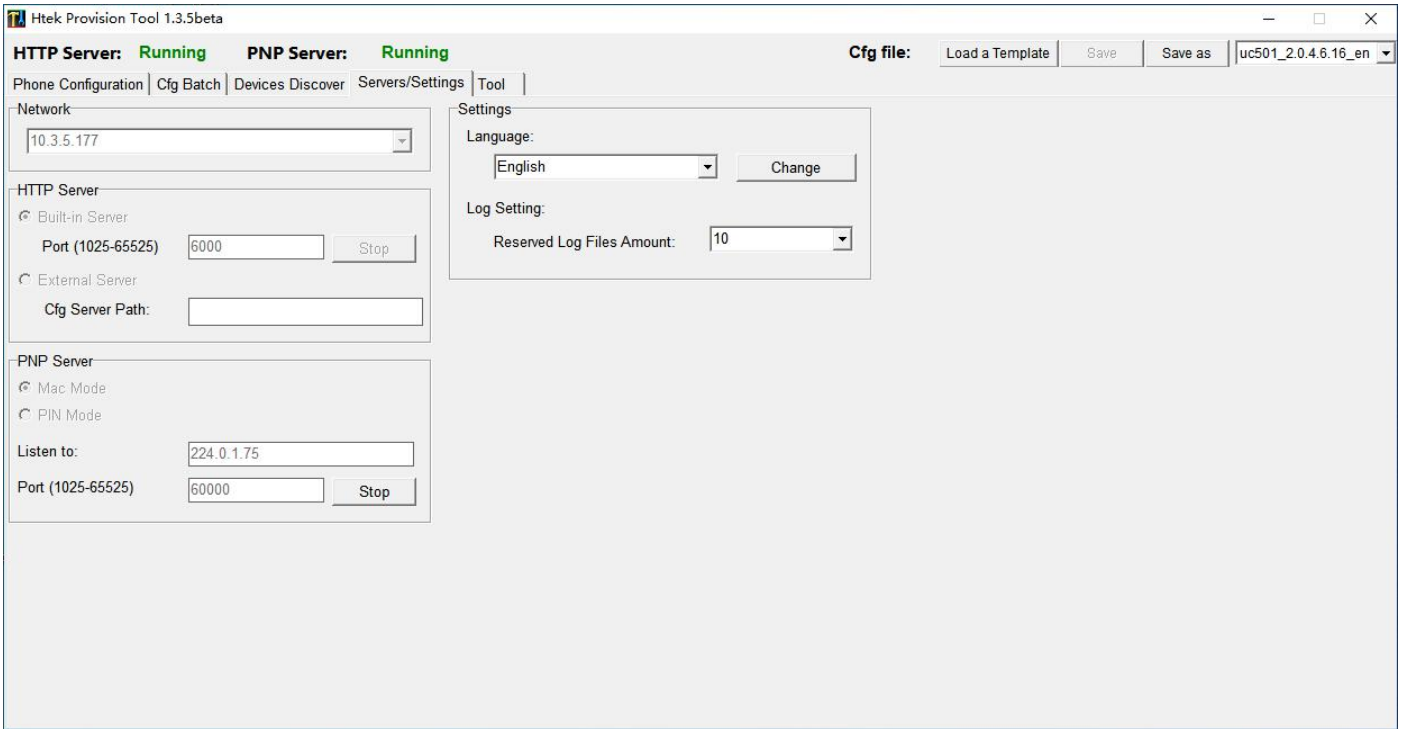
	Online[+]	Vendor[+]	Model[+]	IP Address	MAC	Version[+]
1	ON	Htek	UC903	10.3.2.14	00-1f-c1-1e-4d-aa	2.0.4.6.12
2	ON	Htek	UC924E	10.3.2.34	00-1f-c1-1d-a2-9f	2.0.4.8.11
3	ON	Htek	UC902	10.3.2.51	00-1f-c1-1d-f8-a8	2.14.4.6.3
4	ON	Htek	UC924	10.3.2.91	00-1f-c1-1d-f8-bc	2.0.4.8.9
5	ON	Htek	UC503	10.3.2.92	00-1f-c1-1e-51-5b	2.0.4.6.34
6	ON	Htek	UC923	10.3.2.125	00-1f-c1-1d-87-3d	2.0.4.8.7
7	ON	Htek	UC924E	10.3.2.135	00-1f-c1-1d-a2-9a	2.0.4.6.32
8	ON	Htek	UC926	10.3.2.134	00-1f-c1-1f-35-12	2.21.4.6.29
9	ON	Htek	UC923	10.3.2.131	00-1f-c1-1e-51-7d	2.18.4.4.61
10	ON	Htek	UC926E	10.3.2.139	00-1f-c1-1c-bb-2e	2.18.4.4.61
11	ON	Htek	UC926E	10.3.2.161	00-1f-c1-1c-66-cb	2.0.4.8.11
12	ON	Htek	UC503G	10.3.2.164	00-1f-c1-1e-be-1e	2.0.4.6.32
13	ON	Htek	UC924E	10.3.2.173	00-1f-c1-1e-51-0e	2.0.4.8.11
14	ON	Htek	TW-110	10.3.2.171	00-1f-c1-1e-be-1d	2.21.4.6.26
15	ON	Htek	TW-150	10.3.2.201	00-1f-c1-1d-f8-bd	2.21.4.6.26
16	ON	Htek	UC924E	10.3.2.219	00-1f-c1-1c-b1-87	2.0.4.8.11
17	ON	Htek	UC503G	10.3.2.230	00-1f-c1-1e-be-4f	2.0.4.6.41
18	ON	Htek	Desk Phone DP12	10.3.2.236	00-1f-c1-1e-be-57	2.0.4.6.39
19	ON	Htek	UC924E	10.3.2.234	00-1f-c1-1d-a2-a1	2.0.4.8.11

In the IP Address column of the scanned result, hold down the CTRL key and click to access the phone management page.

### 4. HTTP and PNP servers (Servers/Setting page)

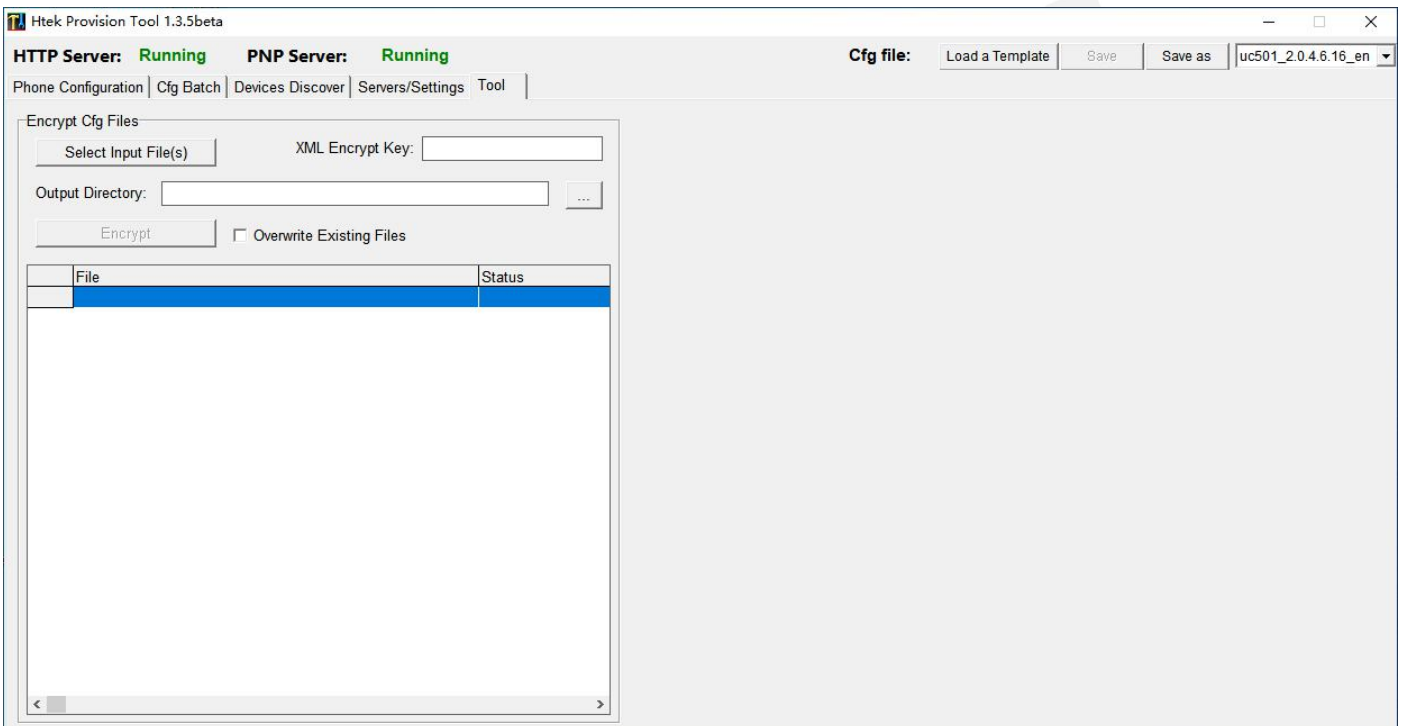
On this page, you can turn on an HTTP server and use it as a configuration file server and/or firmware server. Also you can turn on the PNP server to automatically provision phones.

You can also change HPT user interface language and log setting on this page.



## 5. Tool page

HPT provides an encrypt tool to encrypt readable cfg file of both BIN and XML format.





## Quick Use

**NOTE:** All operations shown below are proceed in “Mac Mode”. “Pin Mode” is not supported right now.

### Step 1. Open servers

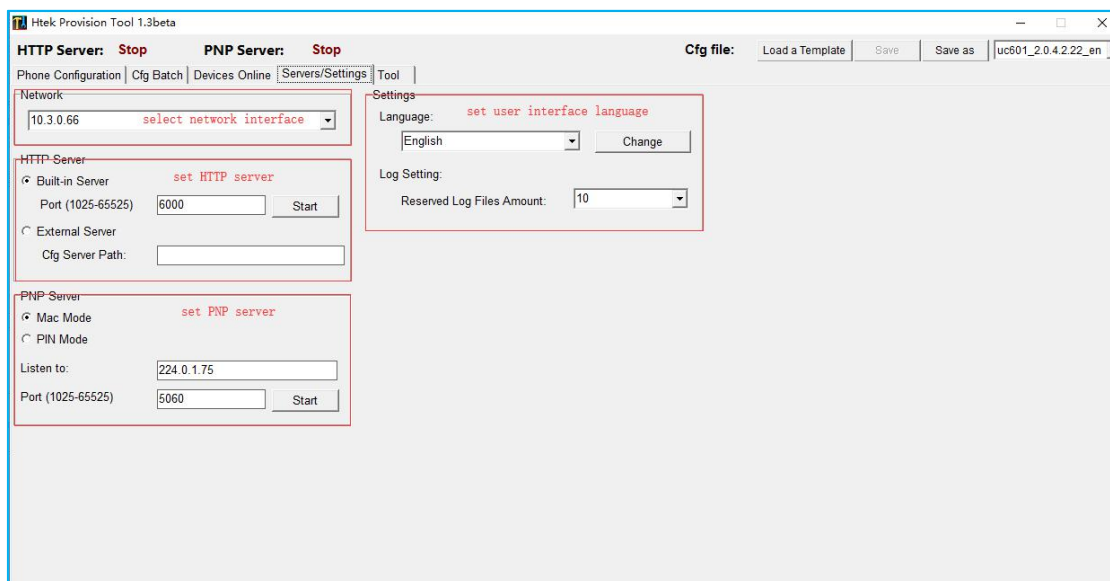
In general, to fully use all of the capabilities of this tool, you need to configure and start relevant servers first (Skip this step only when you just want to edit cfg files ).

- Switch pages to "Servers".
- Select the right network interface, which can be accessed by other devices on the same network segment.

**NOTE:** For HTTP servers, you can choose build-in or external one.PNP server cannot be turned on until you selected the external HTTP server or started built-in HTTP server.

- To start build-in HTTP server, you need to fill in the port edit area with appropriate port, and then click "Start" to run.If the port is not available, it needs to be modified.
- While choosing external Server, you need to fill in a configuration file server address (Cfg Server Path), such as "http://192.168.0.150:80/cfg" (without "/" at the end). Make sure that this path is accessible.
- Start PNP server. For the Htek phones, fill “Listen to” box with “224.0.1.75” and fill “Port” box with “5060”. **Do Not Change These Two Parameters If You Do Not Know What These Mean.**

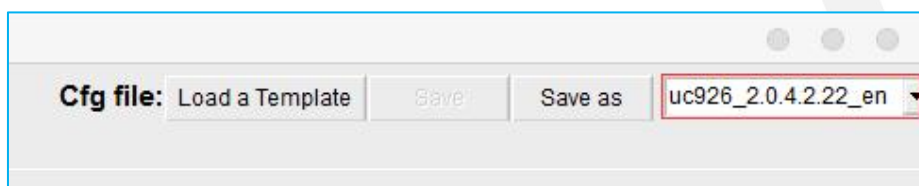




**NOTE:** Step 2 ~Step 5 can be skipped if cfg files already generated.

## Step 2. Select Device

Click the drop-down box to select the device for visual editing.



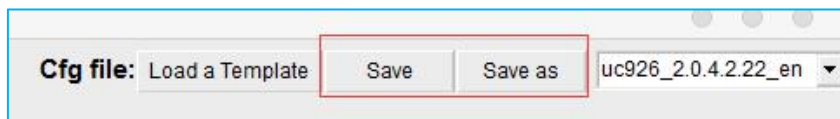
## Step 3. Load the configuration file template

By default, the software automatically selects the default cfg file of the current device (Default cfg file of a device is in the device directory, named as "\$devCfg.bin").

You can also click "Load a Template" button to load a bin/xml format cfg file as template. After loading, loaded cfg file will automatically rewrite the information in the Phone Configuration page.



After edit the contents of the Phone Configuration page, the "Save" button will be available. By clicking "Save" button, loaded cfg file will be modified. By clicking "Save as" button, you can save the current modification as another file without modifying the loaded file. Or just let them alone.

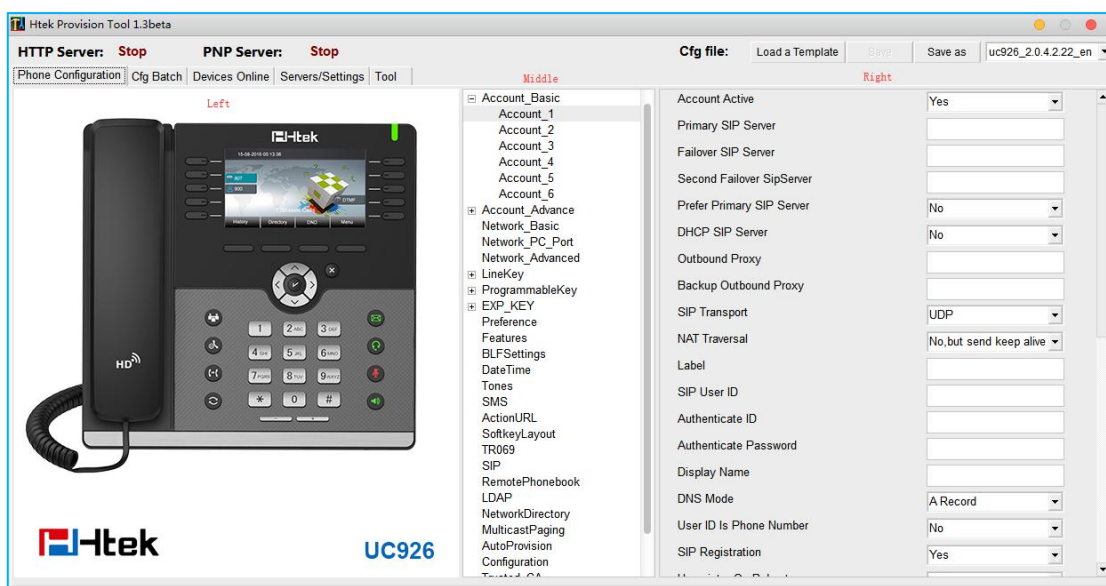


## Step 4. Visual edit

Switch to "Phone Configuration" page.

This page is divided to 3 areas. Left area shows the phone image, keys that can be set can be clicked.

Middle area is the outline of all the configurable items. Right area shows details where you edit the exact configuration here.



In the process of editing, the software will automatically remember changes, so you can switch directly among the outline items. All the changes are kept temporarily. You can click "Save" or "Save as" button to save these changes. Or let them alone.

## Step 5. Bulk generate configuration files

Switch pages to "Cfg Batch" page.

HPT can batch generate cfg files in a **Keyword-replace** manner.

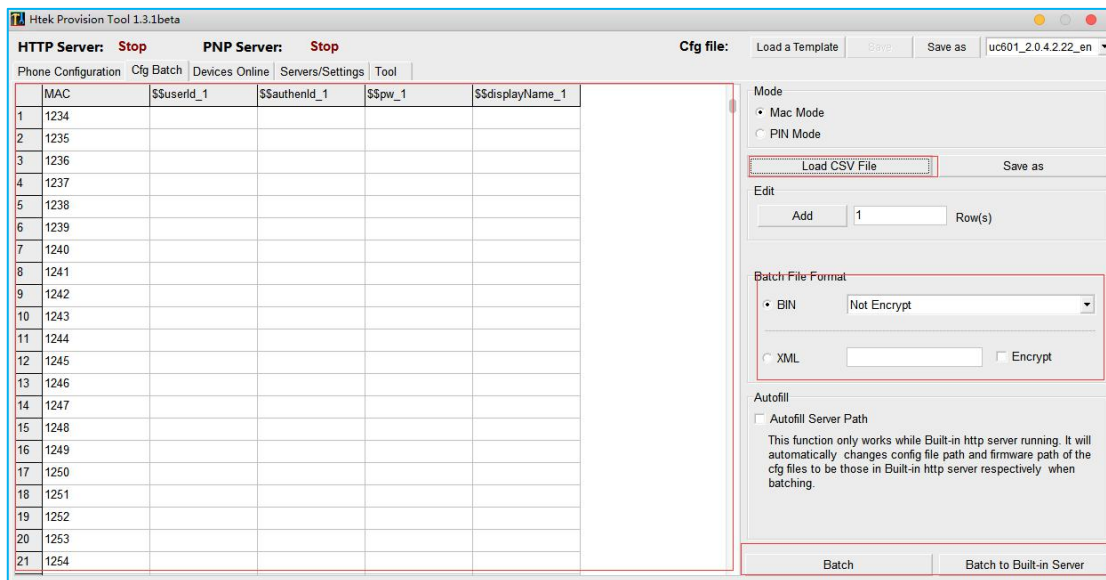
In MAC mode, the first column must be "MAC" column, where only MAC addresses allowed in the form like "001fc1aabbcc" (lowercase).

"**Keyword-replace**" means to replace the item content (P value) by the exact keyword. To do this, the item

to be replaced need to set its content (P value) to a unique string, such as "\$\$userId\_1". If the CSV file contained a column whose head is just "\$\$userId\_1", then all cfg files generated will substitute "\$\$userId\_1" with the string in the cell of the column (specific row is determined by the MAC column).

- Prepare a CSV file (Sample path: \samples\MacModeSample.csv. Two rows at least needed. ).
- Make sure you have fill the right items with the right keywords in step 4.
- Click "Load CSV File" to load CSV file. All the content will be shown on the table.

**NOTE:** For many CSV editor, opened file is exclusively occupied. You need to close this file first, then load it with HPT.



- Modified csv file if need. You can add rows, edit content or save this table as another file.
- Choose batching file format: BIN or XML.
- Choose to encrypt the generate files or not. For XML format, if encrypt key is empty and "Encrypt" check box is checked, then generated XML files will be encrypted with default key.
- If built-in HTTP server started, you can check "Autofill Server Path" to autofill the cfg server path and firmware server path.
- Click "Batch" to generate cfg files and save them in the desired directory, or click "Batch to Built-in Server" to generate and store them in the built-in HTTP server file directory (\server\htdocs\cfg and \server\htdocs\fw).

## Step 6. Search and provision online devices

Switch pages to "Devices Online".

On this page, you can search for devices in the same LAN and provision them.

- Select the right network interface, which can be accessed by other devices in the same local area network .
- Select a Mac address filter or input one (Input filter format: 00-1f, 00-1f -, 00-1f - c, 00-1f - c1-11-22 - , etc.).
- Click "Discover Devices" to start search. When the desired content has been found, click this button to end search, or wait for it to end on its own.

Network: 10.3.5.177

Scan Timeout Per IP (msec): 3000

Subnet Mode

Enable

IP Address: 10.2.2.0

Subnet Mask: 255.255.255.0

Mac Filter

Predefined: Htek(00-1f-c1-)

Input

Provision Mode

Mac Mode  PIN Mode

Action Url CMD [Experimental]

Protocol:  Http

Name:  Password:

Discover Progress: Nothing to do.

Discover Devices

Htek Provision Tool 1.3.5beta

HTTP Server: **Running** PNP Server: **Running** Cfg file:    uc501\_2.0.4.6.16\_en

Phone Configuration | Cfg Batch | Devices Discover | Servers/Settings | Tool

	Online[+]	Vendor[+]	Model[+]	IP Address	MAC	Version[+]
1	ON	Htek	UC924	10.2.2.18	00-1f-c1-1c-1a-8d	2.21.4.6.30
2	ON	Htek	UC923	10.2.2.34	00-1f-c1-1d-2c-d1	2.0.4.8.11
3	ON	Htek	UC912	10.2.2.40	00-1f-c1-1e-51-0d	2.0.4.8.10
4	ON	Htek	CIP 250	10.2.2.43	00-1f-c1-1f-35-11	2.0.4.6.33
5	ON	Htek	Infinity5010	10.2.2.33	00-1f-c1-1d-87-41	2.21.4.6.29
6	ON	Htek	UC924	10.2.2.79	00-1f-c1-1b-fe-fe	2.0.4.6.41
7	ON	Htek	Desk Phone DP12	10.2.2.87	00-1f-c1-1e-be-22	2.0.4.8.13
8	ON	Htek	UC926 2.20.11.24.unoffic	10.2.2.184	00-1f-c1-1f-34-c1	00:12:00)unofficial
9	ON	Htek	UC926 2.20.11.23.153(2	10.2.2.200	00-1f-c1-1f-34-ce	00:12:00)153
10	ON	Htek	Infinity5004	10.2.2.199	00-1f-c1-1e-be-17	2.0.4.6.21
11	ON	Htek	UC926 2.20.11.24.unoffic	10.2.2.203	00-1f-c1-1f-34-bb	00:12:00)unofficial
12	ON	Htek	UC924	10.2.2.243	00-1f-c1-1d-2d-0e	2.0.4.8.11
13	ON	Htek	UC924	10.2.2.233	00-1f-c1-1c-64-44	2.0.4.8.9

Network: 10.3.5.177

Scan Timeout Per IP (msec): 3000

Subnet Mode:  Enable

IP Address: 10.2.2.0

Subnet Mask: 255.255.255.0

Mac Filter:  Predefined: Htek(00-1f-c1-)

Input:

Provision Mode:  Mac Mode  PIN Mode

Action Url CMD [Experimental]:  Http

Protocol:  Name:  Password:

Discover Progress: Nothing to do.

The results of the search are presented as shown in the table above. The head can be used for the screening of device model and version number.

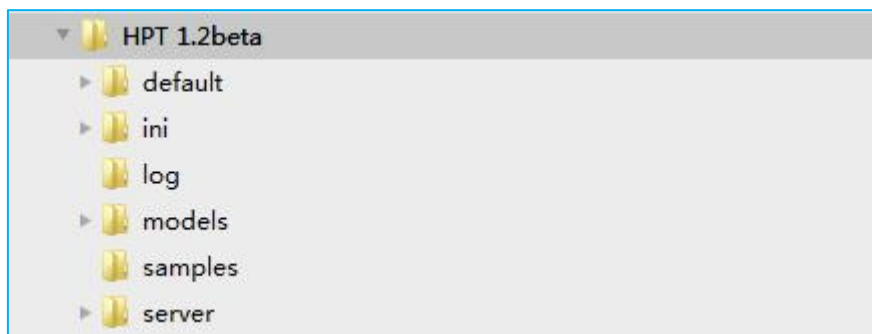
Click the most left num column, you can select a device, or you can select multiple devices by hold pressing left mouse key and dragging. Click the top left corner of the form to select all the devices of the current table. Left-click on the selected device, which will cancel the selection.

Right click, quick menu will pop up. There are four commands:

- "Provision": This command asks phones to fetch the cfg file from the HTTP server where you defined on Page "Servers".
- "Upgrade": Same as "Provision" on current HPT version.
- "Refresh": Check if the phones selected are still online.
- "Reboot": This command restarts the phone.

All the selected phones will execute the command.

## Files Hierarchy



The files hierarchy of the software is shown in the figure (only the folder type is displayed).

The root directory of the software folder has "default", "ini", "log", "models", "samples" and "server".

The "log" folder shows once you run this app. It stores log files.

The "default" folder contains the "\$json" folder and the "\$cfg.bin" file. When the "models" folder is empty, the software reads the files in that folder. Do not delete.

There is currently "\$default.ini" configuration file in the "ini" folder, which holds the default configuration of the software. After the software is turned off for the first time, the "setting.ini" file will be generated in this folder. If the user does not modify the configuration, the file will be consistent with the "\$default.ini" file, otherwise changes will be stored in this file. The "\$default.ini" file cannot be deleted. Deleting "setting.ini" will restore the software to the default configuration.

The "models" folder contains information about different devices. By adding and subtracting and updating this folder, you can add or subtract or update device information. You can't rename the folder at will, which will cause the image to be invalid.

The samples folder currently has a CSV template for batch generation configuration files. This folder is not required.

The "server" folder contains the "htdocs" folder, which contains the "cfg" (for cfg files store) and "fw" (for firmware files store) folders. Built-in HTTP server need these folders.

## Tool

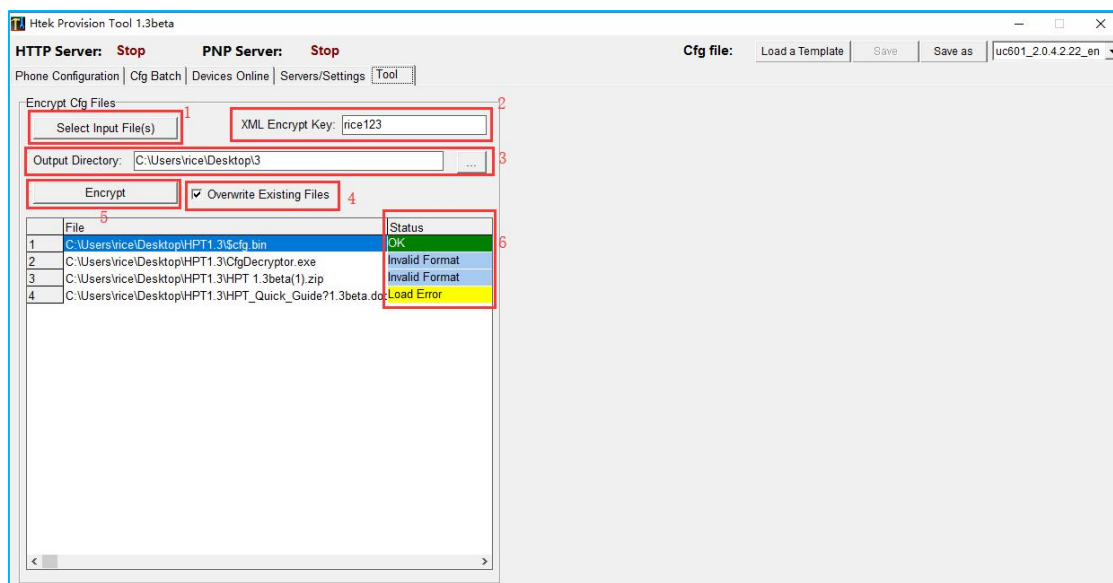
### Encrypt tool:

Encrypt tool is used to encrypt readable cfg files of BIN or XML format. With this tool, you can easily



encrypt cfg files those generated with HPT or other tools. Steps to use listed as below:

- Select readable cfg files. You can select multiple files of BIN or XML format at once.
- Input XML encrypt key or let it empty to use default key to encrypt XML files.
- Input or select the target output directory to put encrypted files in.
- Check “Overwrite Existing Files” to overwrite existing files in output directory if needed.
- Click “Encrypt” button to encrypt.



## Q&A

### 1. Why cannot PNP server be started?

Usually this is because of port occupied. For example, 3CX server exclusively occupies port 5060. You should not use HPT on this PC, or shut down 3CX services.

### 2. Provision command make phone reboot, but why doesn't phone configuration change?

This can be caused by many reasons. 1. Check if the cfg file name is right (Just like “cfg001fc1112233”).  
2. Check if the cfg server path is right. 3. Check if there is any router in the LAN has DHCP OPTION-66 defined. 4. Check if there is any other PNP server in the LAN.

### 3. Why the table is empty when I load a CSV file?

For many CSV editor, opened file is exclusively occupied. You need to close this file first, than load it with HPT.

### 4. Why doesn't Provision command work on 926E in WIFI environment?



Sorry, current version of HPT doesn't work well when phones in WIFI environment. We are working on this issue.

## Upgrade Note

2020-10-15:1.3.5beta

1. Added scan timeout adjustment;
2. Added subnet mode;
3. Added click on the IP to access the phone webpage;
4. Other details adjustment.

2019-12-05:1.3.4beta

1. Added a command to restart the phone via action url.

2019-11-07:1.3.3beta

1. Fix the bug that importing csv file field with spaces will cause the problem of grammatical errors

2019-07-11:1.3.2beta

1. Modify the mac filter name in the default configuration
2. Modify the problem of missing the last configuration value in the cfg template.

2018-09-27: 1.3.1beta

1. Add default key to encrypt XML files.

2018-09-13: 1.3beta

1. Support loading and generating XML format cfg file.
2. Add cfg file encrypt tool to encrypt BIN and XML format file.
3. Fix the bug that sometimes generated cfg file is not complete.

2018-01-17: 1.2beta

1. Fix the bug that provisioning phones with built-in HTTP server failed;
2. Fix the bug that "Discover Devices" failed to reset;
3. Add log mechanism;
4. Other fixes and changes.

2017-09-26: 1.1beta

1. Support multi-language user interface;
2. Improve stability of built-in HTTP server.

2017-09-07: 1.0beta

HPT first release.

Htek