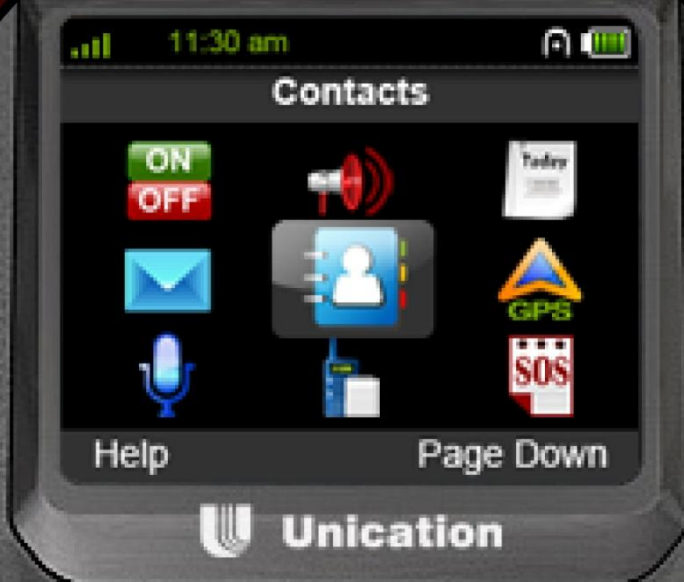




Unication



# PPS Guide U3

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## 1 PPS Release Note

### 1.1 Features

This Radio PPS (Product Programming Software) release supports the following features.

| No. | Feature Name                            | Description   | Availability |
|-----|---|---|--------------|
| 1   | PPS Introduction                        | Provide a brief introduction to RADIO PPS main features   | Available    |
| 2   | Create Profiles for Organization        | Edit a Profile and program into a radio   | Available    |
| 3   | Programming Radio with Existing Profile | Program radio with a saved Profile  | Available    |
| 4   | Clone Radios                            | Clone the parameter setting from a device to the others   | Available    |
| 5   | Read from Radio                         | <ol style="list-style-type: none"> <li>1. Read a device and export Profile from radio</li> <li>2. Revise the Profile</li> <li>3. Program a device with the revised Profile.</li> </ol>  | Available    |
| 6   | Profile Manager                         | Manage Profile in PPS   | Available    |
| 7   | Log                                     | History programming log.  | Available    |
| 8   | Options                                 | Settings for user accounts and display language.  | Available    |
| 9   | Online Registration                     | <p>Users can register online and after registration can enjoy the following services:</p> <ol style="list-style-type: none"> <li>1. To save the data to a central server;</li> <li>2. Online troubleshooting,</li> <li>3. New software version release notice.</li> </ol> | Coming soon  |

**1.2 Remark**

- (1) U3 PPS USB driver is NOT certified by Microsoft and user is required to confirm to install a non-certified driver.
- (2) Sometimes, the Programming Cable has to be reconnected to a PC in order to be detected by PPS. In this case, please power off the U3 device and power up it again.
- (3) If an exception error is encountered, please re-start the application.

**1.3 Supported Devices**

All Unication P3 & U3 radio series.

## 2 Installing U3 PPS

### 2.1 System Requirements

To use this software, the PC hardware and operating system requirements are listed below.

#### Hardware:

- ✓ CPU clock frequency: 266MHz, 1GHz is recommended.
- ✓ RAM: Minimum 256MB or above, 1GB is recommended.
- ✓ Hard disk space: Minimum 500MB, 1GB is recommended.
- ✓ USB port
- ✓ Mouse and keyboard
- ✓ Programming Cable for U3 & P3 series radio.


#### Operating system:

Windows 2000/XP/Vista/7 32-Bit (latest service pack)

### 2.2 PPS Installation

To install PPS, please follow instructions below.

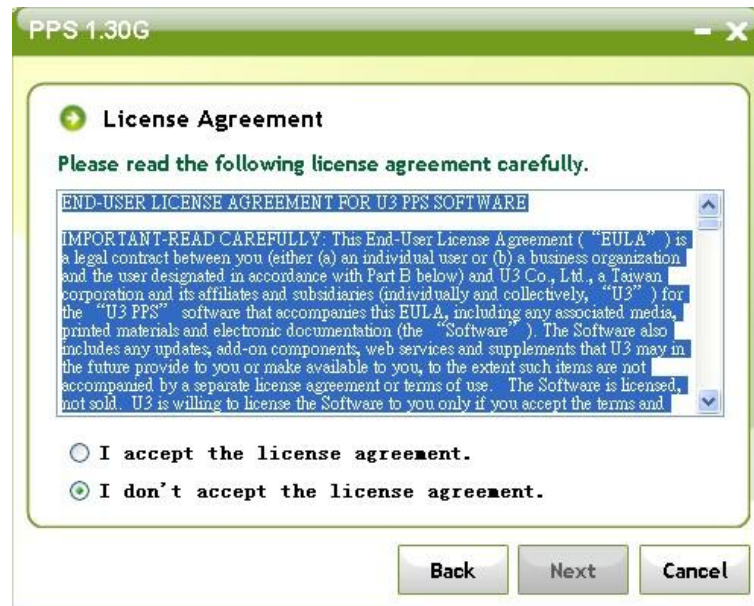
- (1) Exit all running programs before starting installation.
- (2) Insert the CD into the appropriate CD drive.

- (3) Double-click on the “setup.exe”  Setup.exe contained in the folder named “U3\_PPS\Software”.

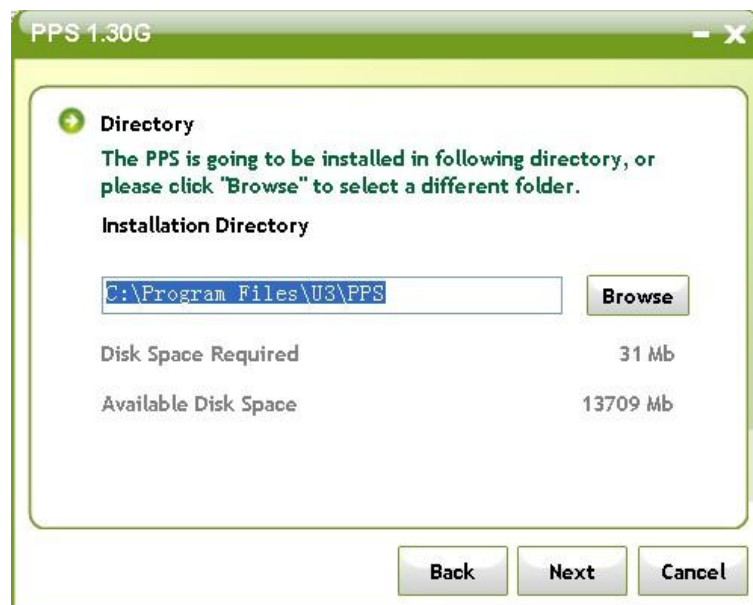
- (4) The welcome message appears. Click “Next”.



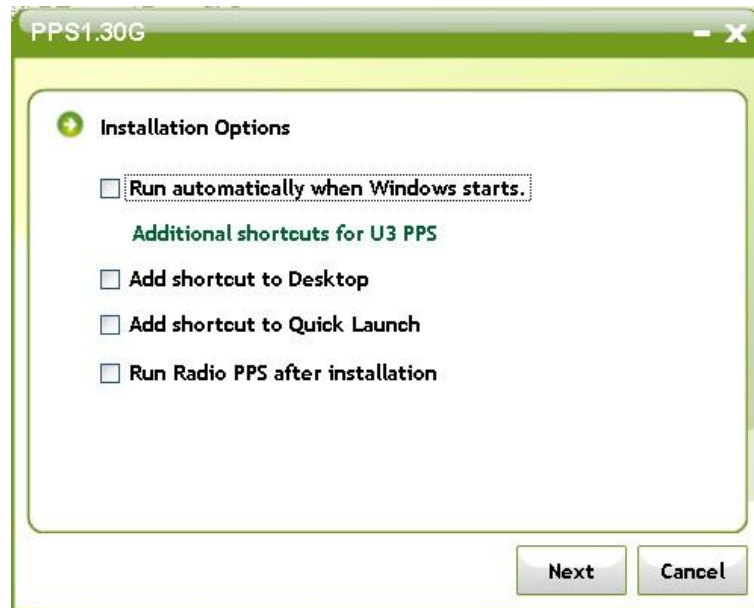
- (5) On the “License Agreement” screen, please read the agreement carefully. Click “Next” if the terms are accepted.



- (6) On the “Directory” screen, click “Next” to install the software to the default folder: “C:\program files\U3\PPS”. Or click “Browse” to select another destination folder before clicking “Next”.



- (7) On the “Installation Options” screen, select the option you desire.  
Click “Next” to proceed.

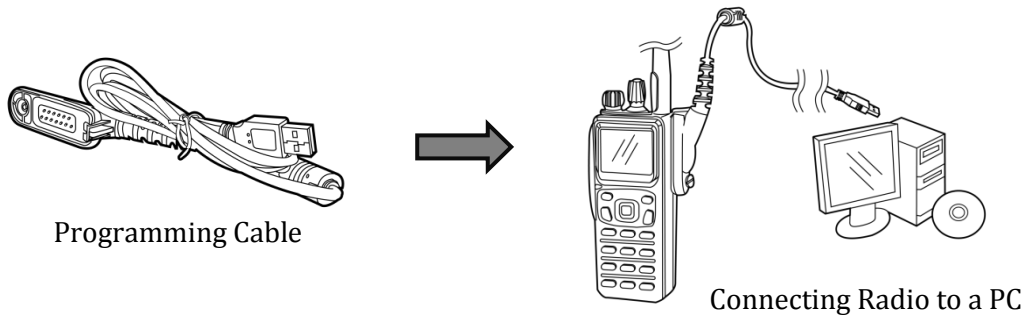


- (8) After the installation is completed, the “Installed successfully” message appears.  
Click “OK” to finish the installation process.





### 2.3 Connecting Programming Cable



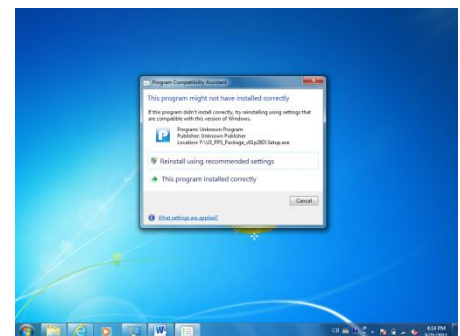
- (1) Please connect the radio to a PC with the Programming Cable.
- (2) Run the PPS, the PPS detects the radio and the display of the radio shows a "PC Connected" message.
- (3) Please note that while the radio and PC is connected, the radio cannot receive or transmit any voice or data.

➤ **For Windows 7 users (32-bit only):**

After first PPS installation, please run PPS first, the Program Compatibility Assistant may pop up a query window as below.




Please select "This program installed correctly".

Then connect the radio to the PC's USB port, the U3 driver will be installed automatically.



### 3 Launching U3 PPS

#### 3.1 Three methods to launching U3 PPS

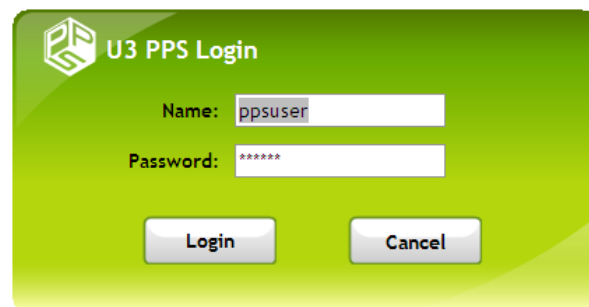
1. Double-click on the  icon on Desktop.
2. From the **Start** menu, select Programs or All Programs. Then find the **U3 PPS** folder. Click  icon to launch the program.
3. Click  at Quick Launch.

#### 3.2 Log in

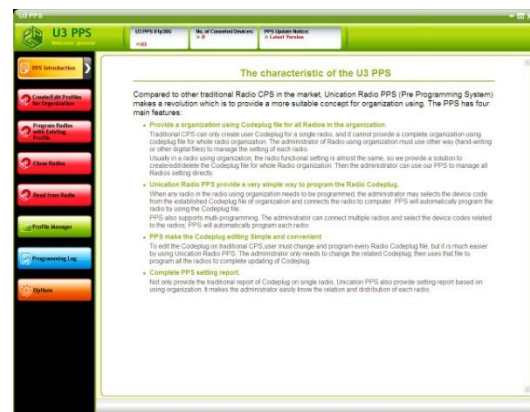
To log in to U3 PPS, please enter default account information as below to launch the program.

**Name:** ppsuser

**Password:** 123456

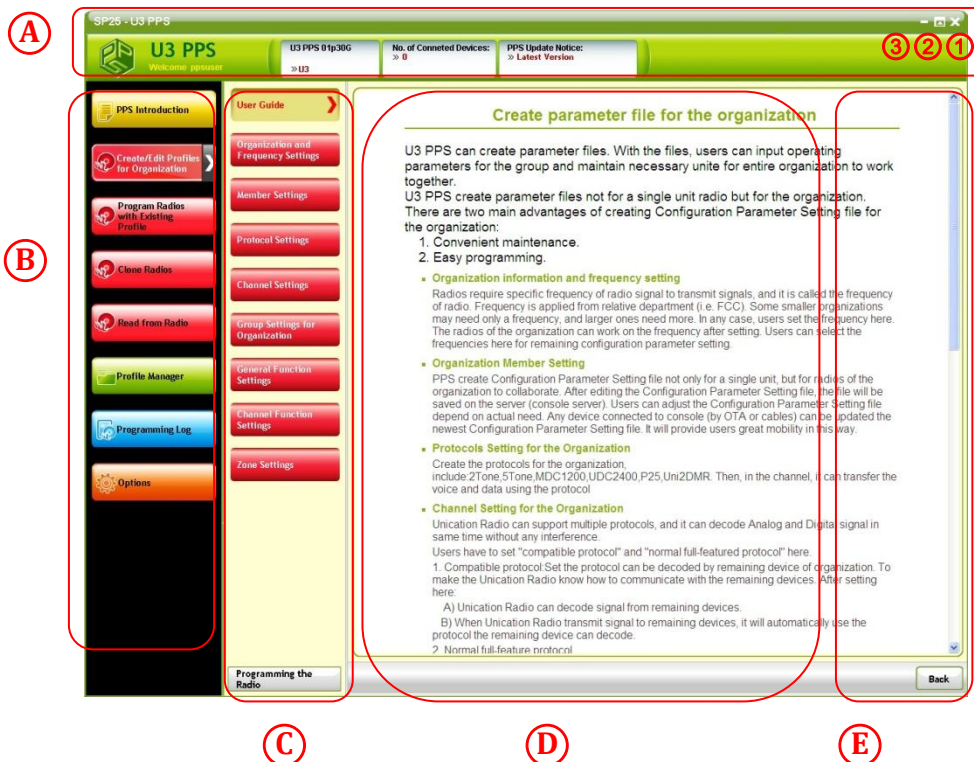


When login the PPS successfully, this page is as the Home page and giving users a brief introduction for the main features.



## 4 PPS Introduction

### 4.1 Knowing the PPS layout



① To exit the PPS program.

② To enlarge or restore the default window size.

③ To minimize the window to the taskbar.

Ⓐ **Status Bar:**

To indicate the status of PPS including version, number of connected device and notes.

Ⓑ **Main Menu Bar:**

This column lists the main feature tabs of Unication radio PPS.

Ⓒ **Sub Menu Bar:**

This column lists the sub menu of the selected Main Menu Bar.

Ⓓ **Working Area:**

Users can change parameters in this area.

Ⓔ **Help:**

This column is the Help messages for current Working Area.

## 4.2 Before Programming

Unication has added brand new concept for the radios. Before programming your radio, please read below paragraphs to know more about the creative features of the PPS.

## 4.3 Team Perspective

The design concept for the PPS is from team perspective. Therefore, we could build a Profile for whole organization. Once a Profile is established, which means the settings for members in the organization are also set up at the same file. This helps to eliminate the programming time and number of the setting files.

## 4.4 Auto-detect multi-protocols on one channel

The Unication U3 & P3 radio series support multi-protocols including CSQ, 2-tone, 5-tone, full MDC1200, DVOA, Uni2DMR, and P25.

One channel can support analog and digital signaling settings such as MDC1200 and P25 at same time. The device will automatically switch modes if receiving any call or data transmission.

➤ **NOTE:**

- (1) DVOA stands for “digital voice and data over analog”. It’s compatible to common analog repeaters, and the transmission rate is up to 2400 bps, which is also called UDC2400 signaling.
- (2) Uni2DMR is an Unication’s proprietary and similar DMR protocol.

## 5 Programming a U3 Radio

The PPS provides conveniently methods to program the radios. The following steps are the tutorial guide for the first time programming. Refer to Section 6 for modifying the parameters of Profiles.

### 5.1 Select an existing or add a new Profile

The Profile includes the information about the member, channels (freq, signalings, etc.) and functions settings. The PPS reads the radio's information and allows authorized user to make changes.

Once a user read a radio or create a new Profile by PPS, the user could reprogram the radio to add channels, protocol, functions settings, and etc.

#### 5.1.1 Select from built-in sample Profile

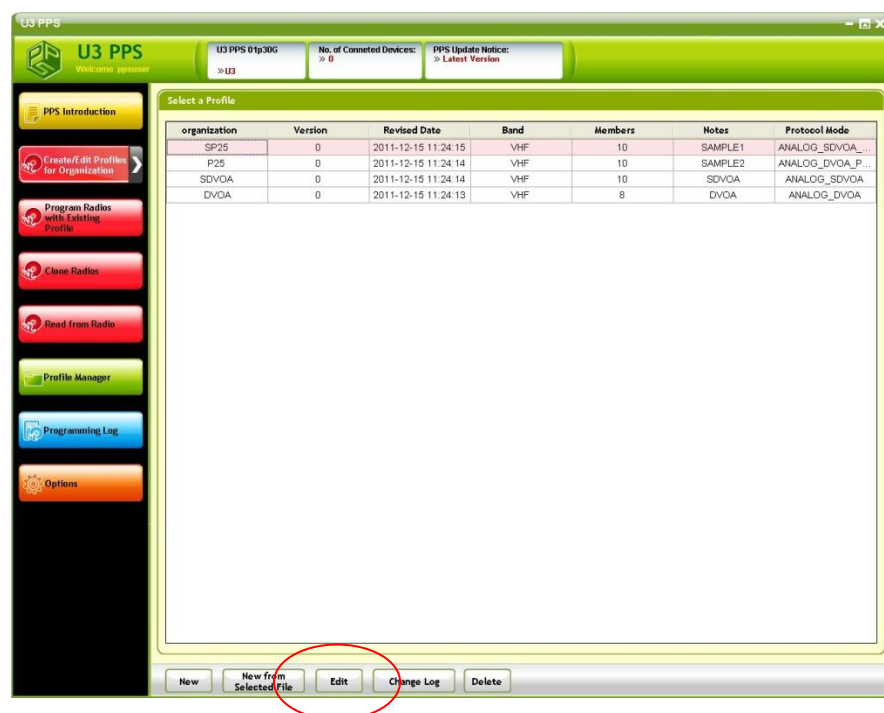
For simple programming, the PPS has built-in Profiles as samples.

Users can change the sample to reprogram the settings.

To view the built-in Profiles, please follow below steps:

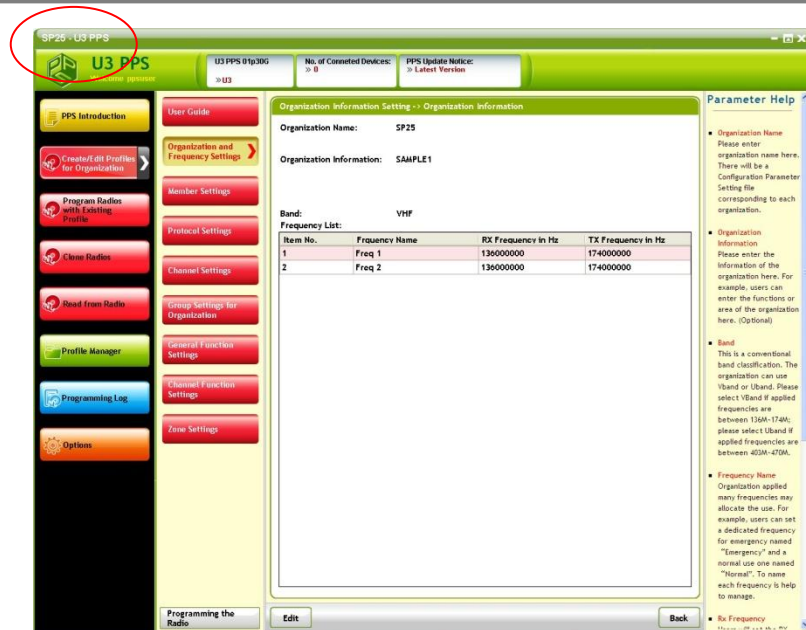
##### Step1:

Click “Create/Edit Profiles for Organization”



##### Step2:

Click a Profile and then click “Edit”.



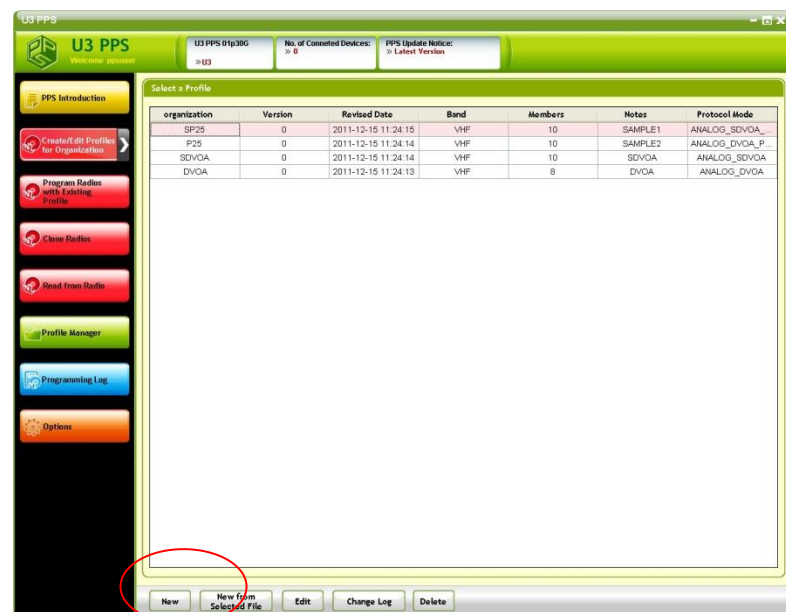
The status bar will automatically indicate the name of current Profile.

### 5.1.2 Create a new Profile

To add a new Profile, please follow below steps:

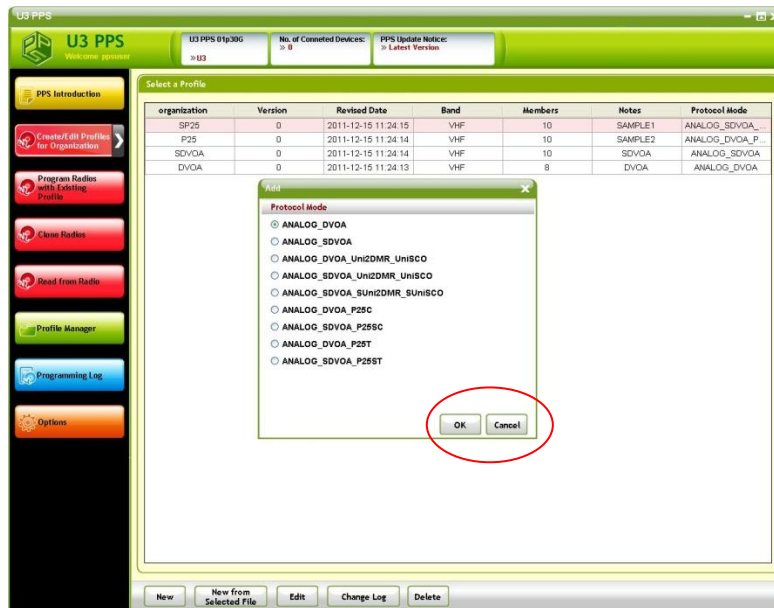
#### Step1:

please click “New” in below page.



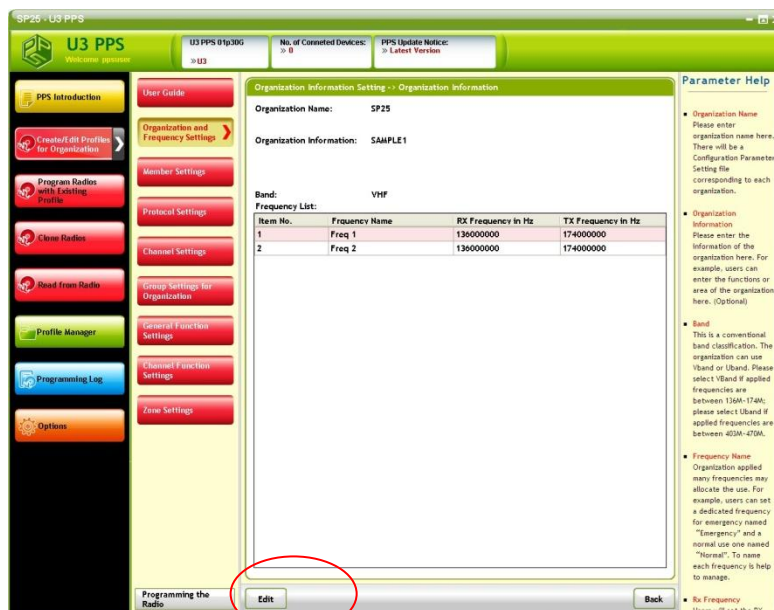
#### Step2:

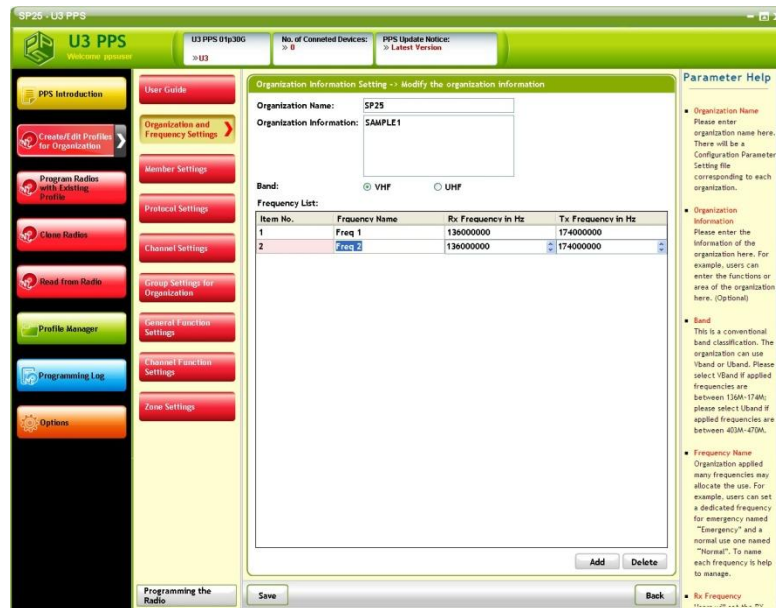
As the Unication radio has many protocol options, the user must select a Protocol Mode matching their model number. After selection, click “OK” to close the pop-up window.



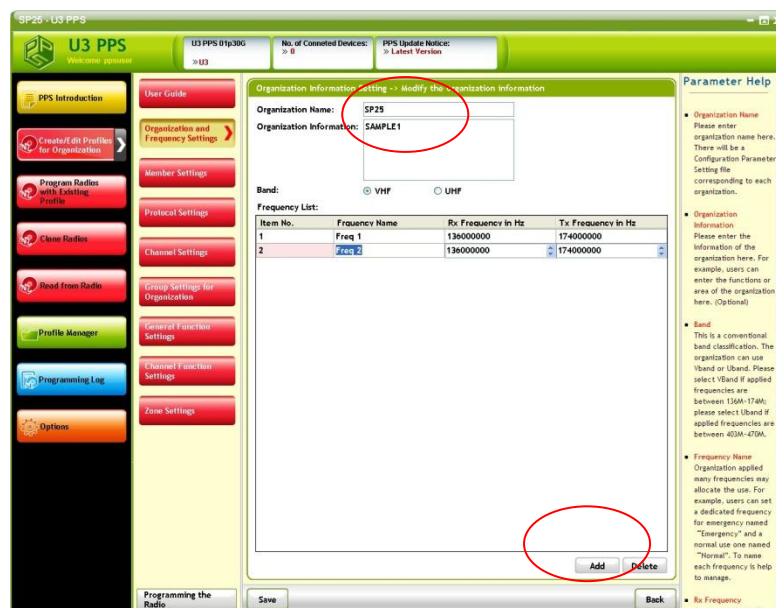
### Step3:

Click “Organization and Frequency Setting”, then click “Edit” to enter edit page.



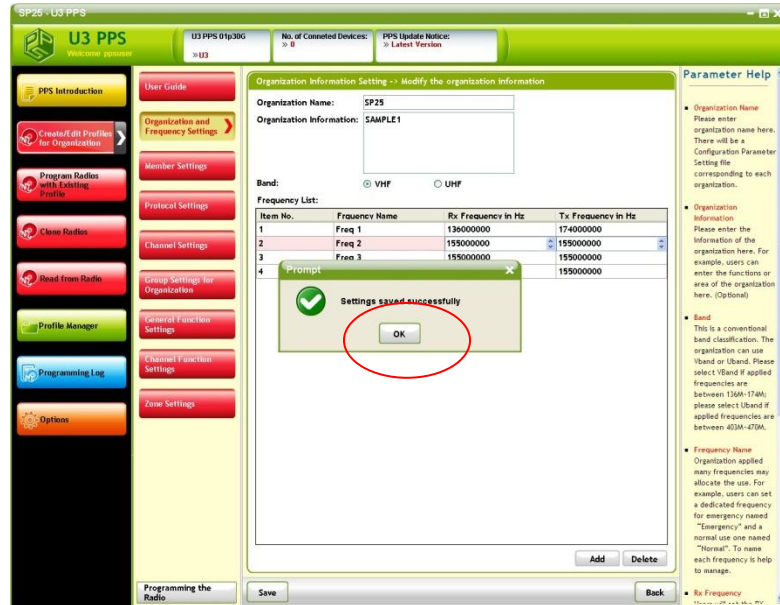
**Step4:**

Please fill in preferred name in “Organization Name” as the name of the new Profile, user can also add optional notes for this Profile. Click “Add” to add a frequency pair, the software will automatically generate a default pair as below, user has to edit the frequency pair manually to meet their actual usage.

**Step5:**

Click “Save” to save current settings. And click “OK” to close the pop-up window.





### 5.1.3 Read a Profile from a Radio

#### (1) Read From a Radio

The PPS supports to detect several devices simultaneously.

To read the Profile from a radio, please follow below steps:

#### Step1:

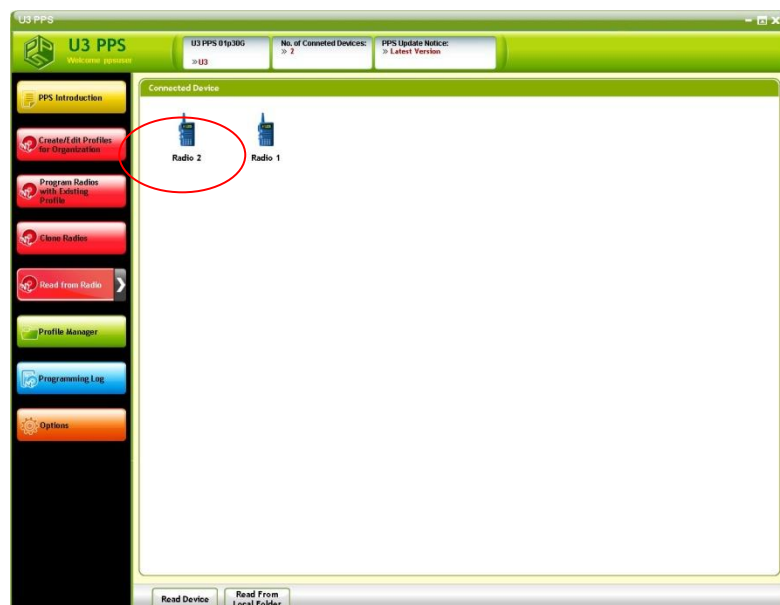
Connect the radio with your PC. If the connection is established, the display of the connected radio shows a "PC Connected" message.

#### Step2:

Click "Read from Radio".

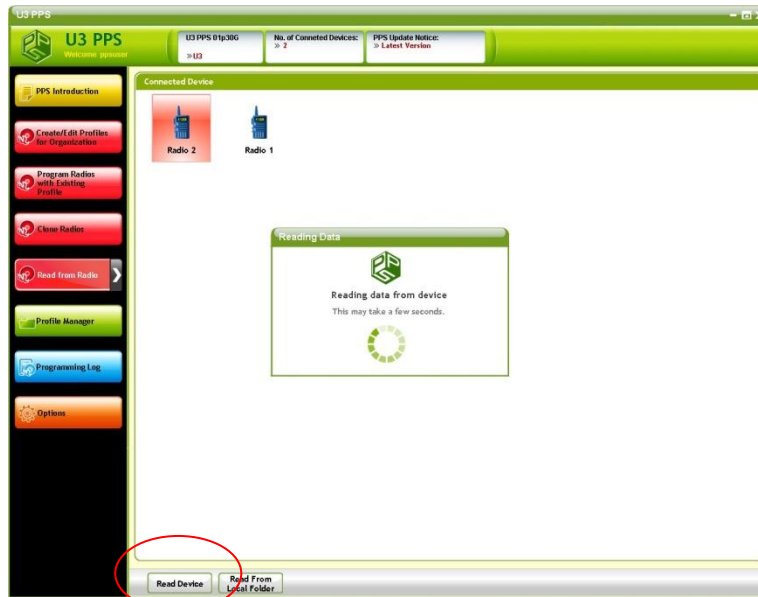
#### Step3:

The PPS supports to detect up to 10 devices. After the connection is established, the PPS indicates device icons as below.



Please click a device to read.

Once a device is selected, click “Read Device”

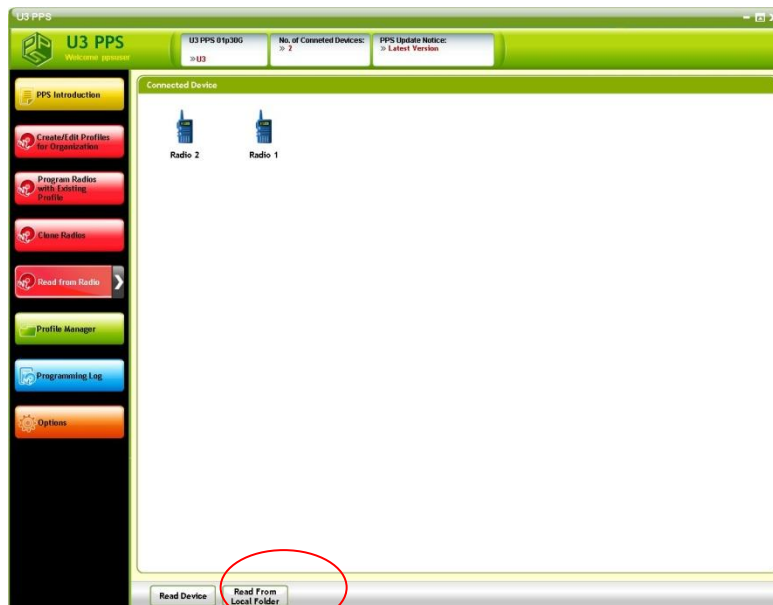


## (2) Read From Local Folder

Every Profile read from radios by the PPS is stored in archives automatically. To retrieve the Profile, please follow below steps.

### Step1:

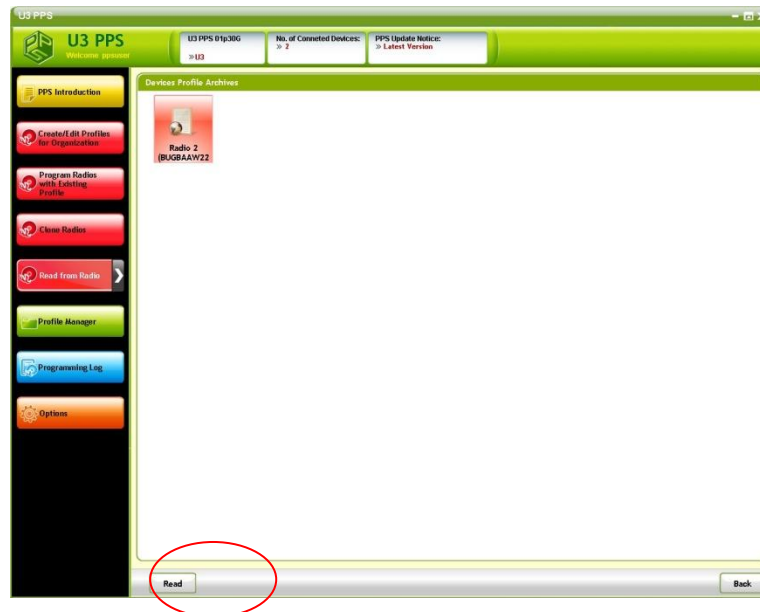
Go to below page, then click “Read From Local Folder”



### Step2:

The PPS lists down all available files.

Click a Profile, then click [Read] to open.



## 5.2 Quick Batch Programming

To program several radios at the same time, the PPS provides [Program Radio with Existing Profile] for reducing the programming time.

### 5.2.1 Programming from Existing Profile

#### Step1:

Click [Program Radio with Existing Profile] to go to below page.

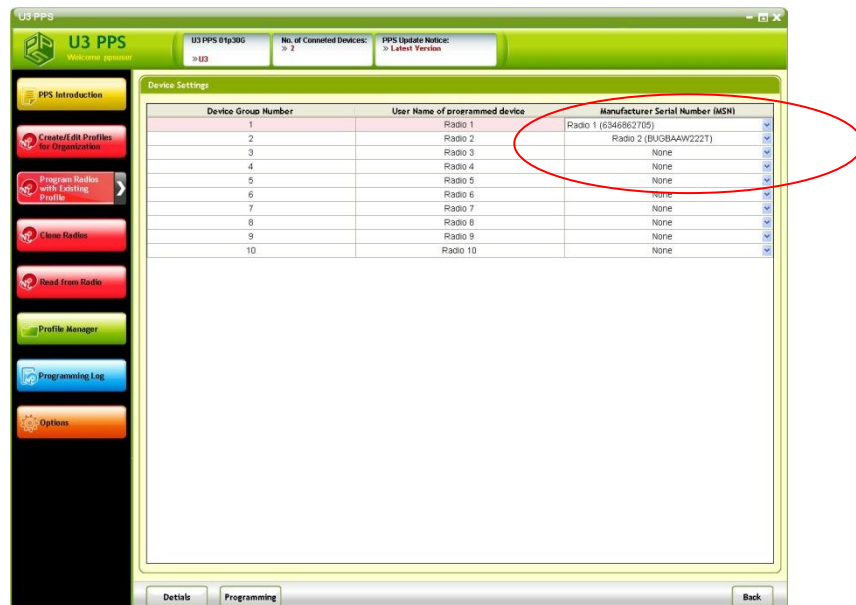
#### Step2:

Select one Profile and then click [Next].



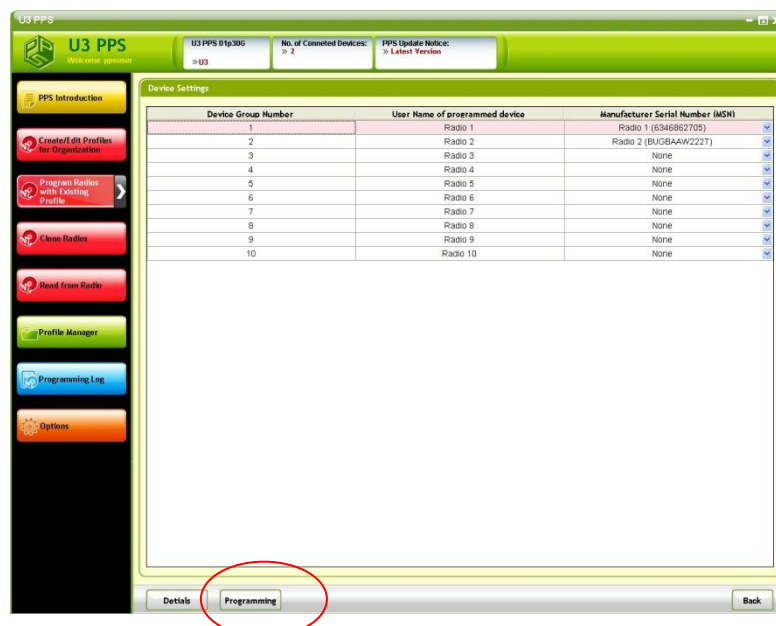
**Step3:**

Use the drop-down list to select the MSN of the connected devices, and allocate the radio number to all connected devices.

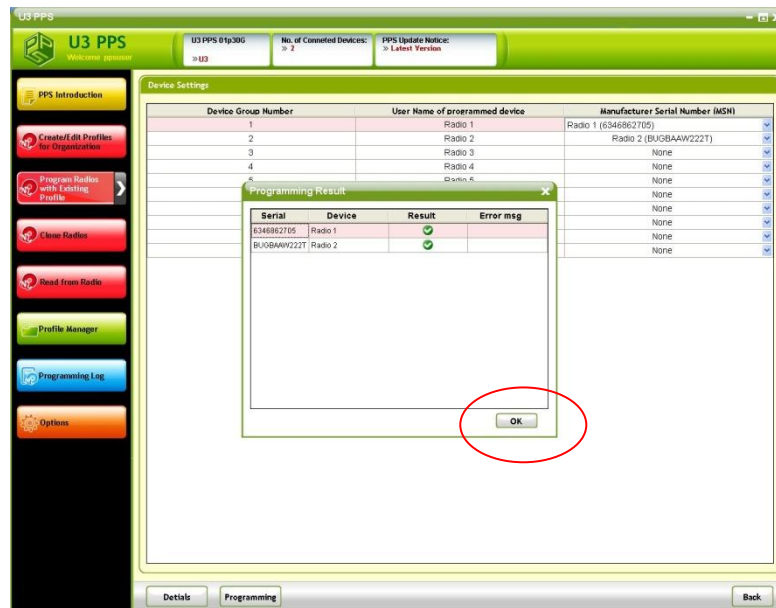
**Step4:**

After allocation, click [Program] to program the radios.

User can click [Details] to view details of current Profile.

**Step5:**

When programming process is successful, click "OK" to close the pop-up window. Please remove all connected devices.

**Step6:**

Please turn off and restart all connected radios to reload the new Profile completely.

**5.2.2 Clone Radios**

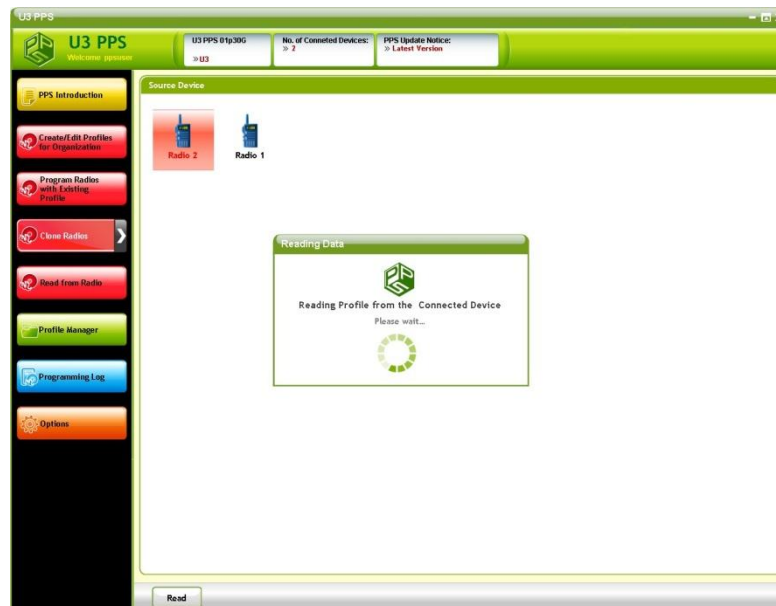
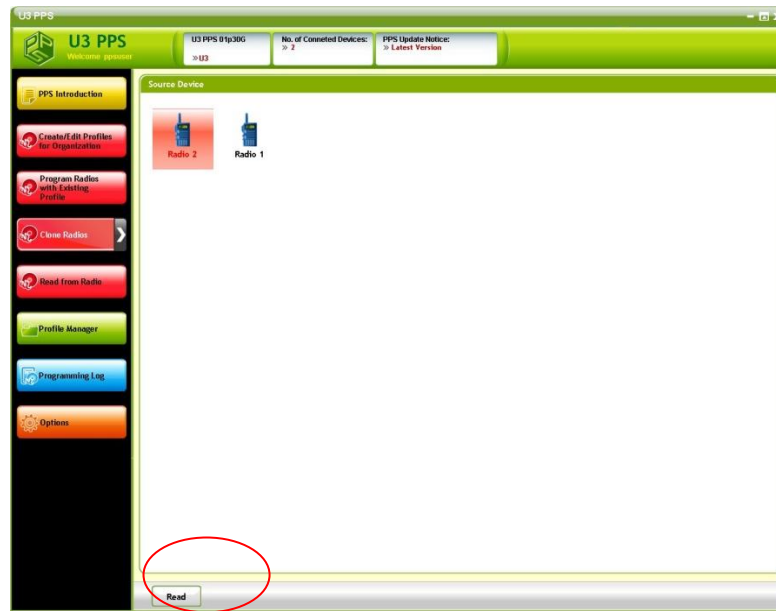
If any device is defective and user has to replace the defective one. Please use “Clone Radios” for quick refilling to the crew.

**Step1:**

Please run PPS first and then connect at least two devices to a computer via the Programming Cables.

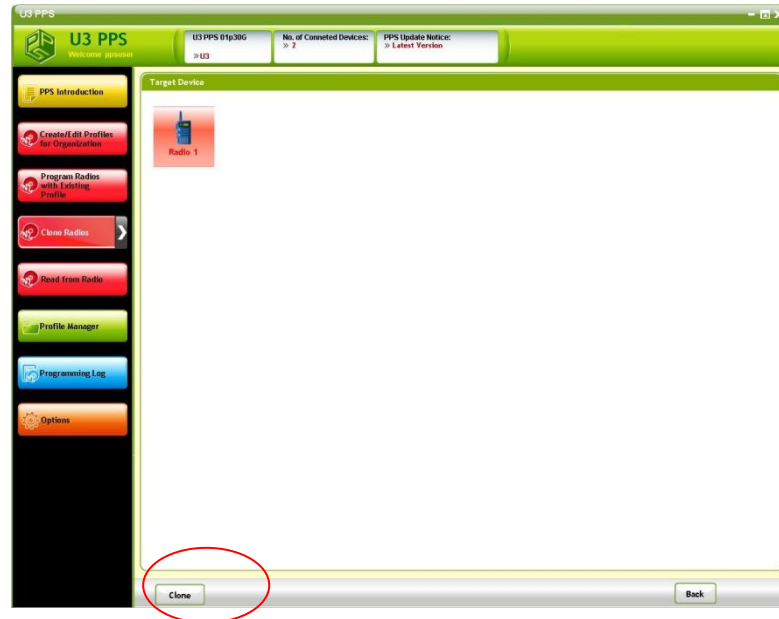
**Step2:**

Click “Clone Radios” to go to below page. Then select the source device and click “Read”.



### Step3:

After the Profile of the read radio is cloned, the PPS list down available target device as below. Please click the target device and then press “Clone” to proceed.

**Step4:**

If cloning is successful, click “OK” to close the pop-up window.  
Please remove all connected radios.

**Step5:**

Please turn off and restart all connected radios to reload the new Profile.

## 6 Change Settings

This chapter will illustrate sample settings to create a new Profile and how to add new channels, groups and functions settings for each channel.

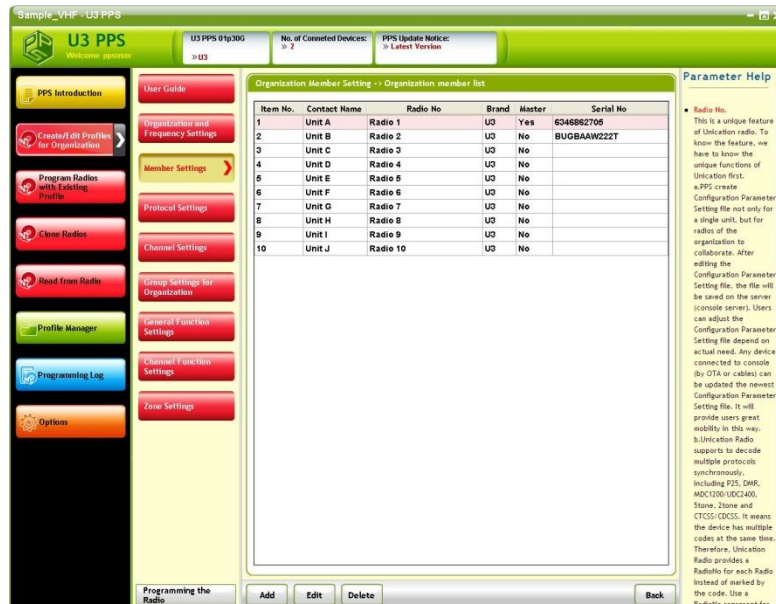
### 6.1 Profile and Frequency Settings

Please follow 5.1.2 New to create a new Profile. Follow step1 to step5 to edit the frequency list settings.



### 6.2 Member Settings

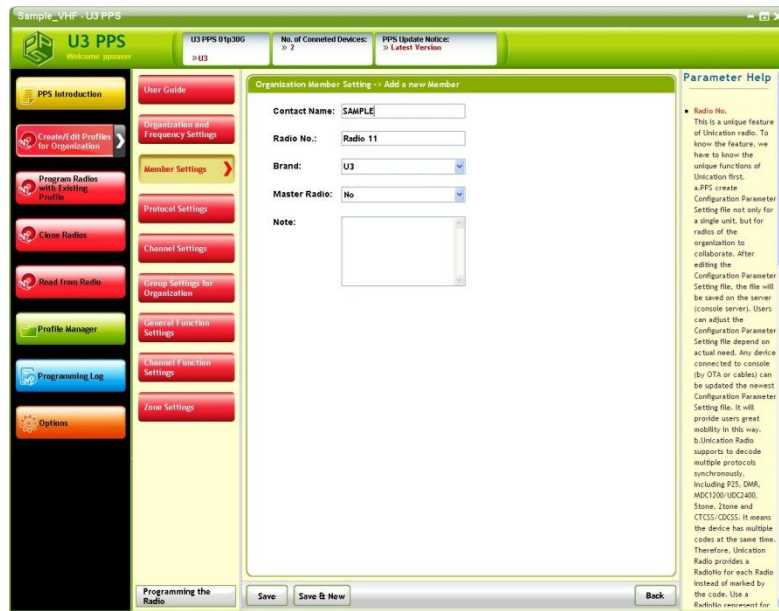
Click "Member Settings" and deploy all necessary members for the whole organization in below page.



#### Step1:

Click "Add" to add a new member, and key in basic information as below.





➤ **Master Radio:**

Assign this radio high authority to execute remote features such as remote monitor.

➤ **Save:**

Save current settings in this page and back to previous page.

➤ **Save&New:**

Save current settings in this page and go to add next member.

➤ **Back:**

Cancel editing and go back to previous page.

**Step2:**

Redo above settings until all members are added.



➤ **Add:**

To add a new member.

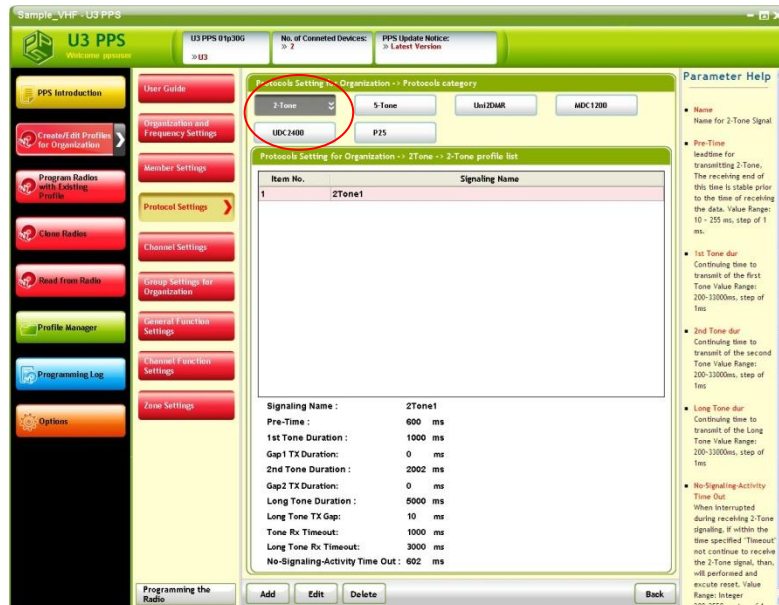
➤ **Edit:**

To enter edit page to edit the basic information of current selected member.

➤ **Delete:**

To delete the selected member.

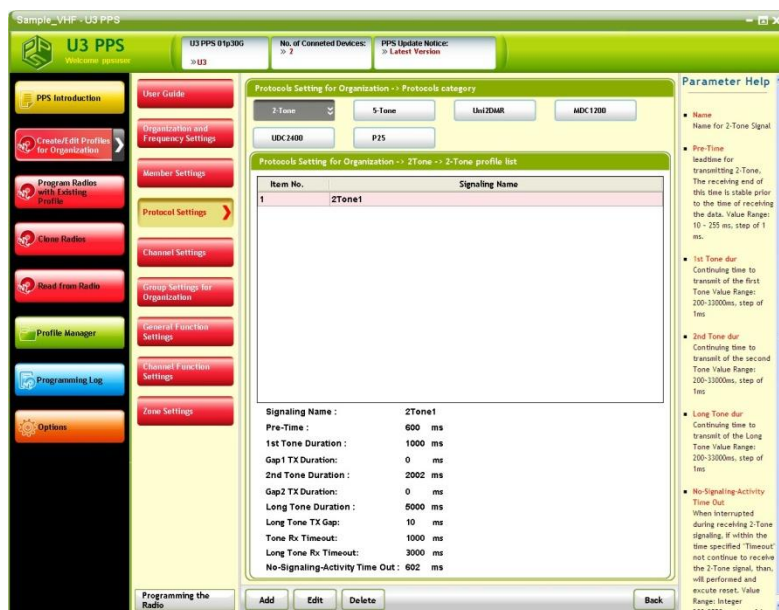
### 6.3 Protocol Settings -2Tone



**Step1:**

Click "2-tone" to configure all parameters associated with 2-tone.

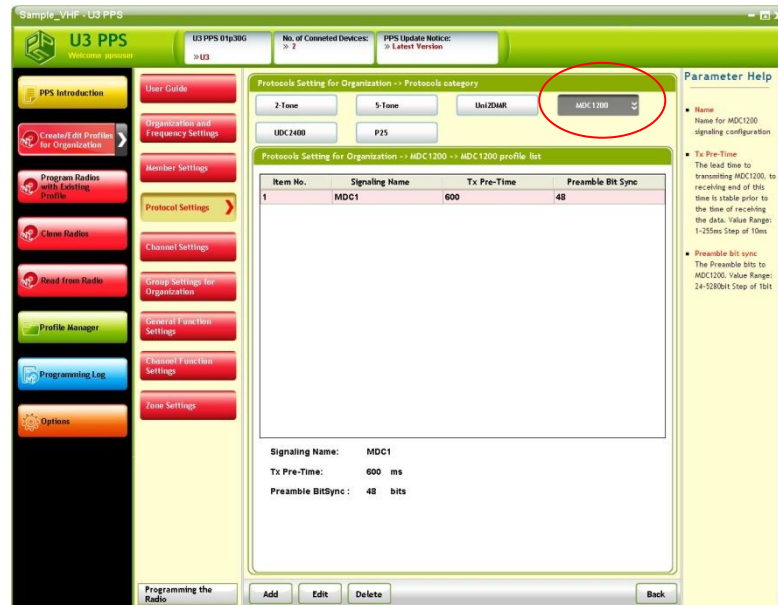
**Step2:**



The software has a default 2-tone signalling list, user can edit the default list or add new lists manually.

- **Add:** To add a new list.
- **Edit:** To enter edit page to edit current selected list.
- **Delete:** To delete current selected list.

## 6.4 Protocol Settings –MDC1200

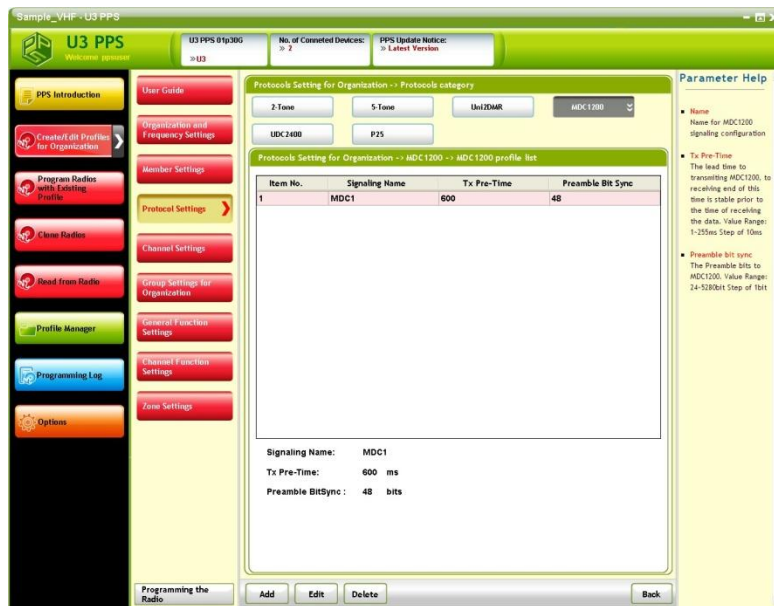


### Step1:

Click “MDC1200” to configure all parameters associated with MDC1200.

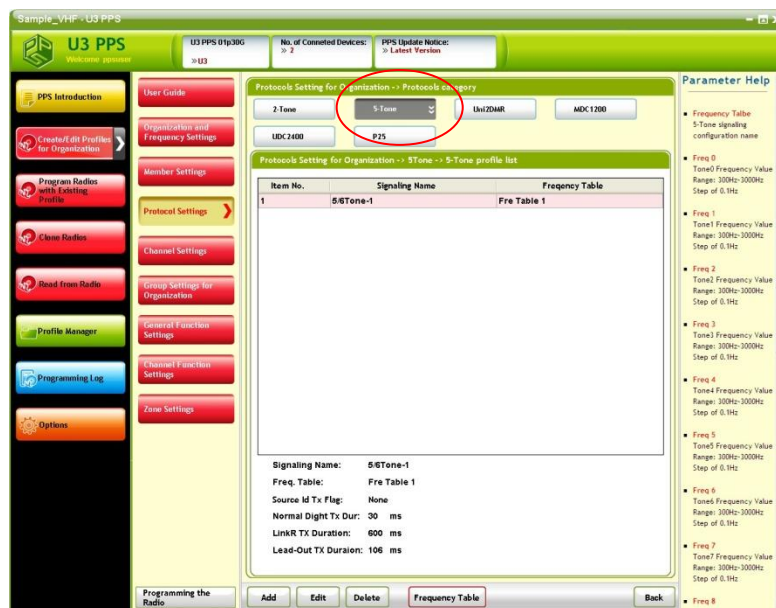
### Step2:

The software has a default MDC1200 signalling list, user can edit the default list or add new lists manually.



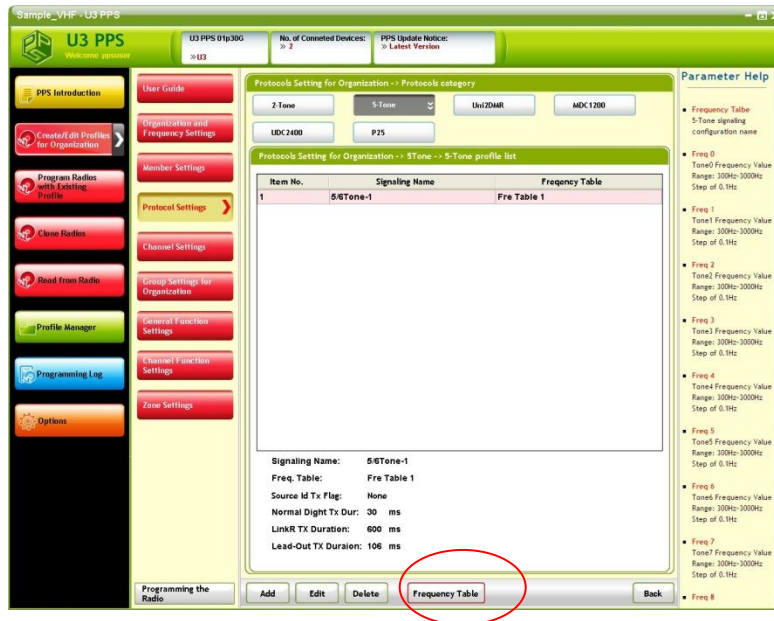
- **Add:** To add a new list.
- **Edit:** To enter edit page to edit current selected list.
- **Delete:** To delete current selected list.

## 6.5 Protocol Settings -5Tone



### Step1:

Click "5-Tone" to configure all parameters associated with 5-Tone.

**Step2:**

- **Add:** To add a new list.
- **Edit:** To enter edit page to edit current selected list.
- **Delete:** To delete current selected list.
- **Frequency Table:** To view or edit the frequency table list.

Please click “Frequency Table” to edit frequency table if it’s the first-time setup.

**Step3:**

- **Add:** To add a new frequency table.
- **Edit:** To enter edit page to edit current selected list.
- **Delete:** To delete current selected list.
- **Back:** To cancel editing and go back to previous page.

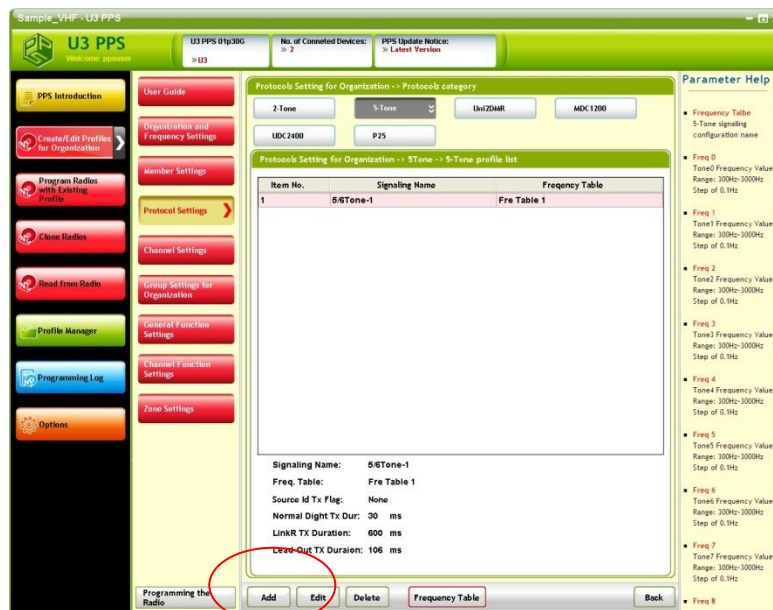
Please click “Edit” to edit the default table if it’s the first-time setup.

#### Step4:



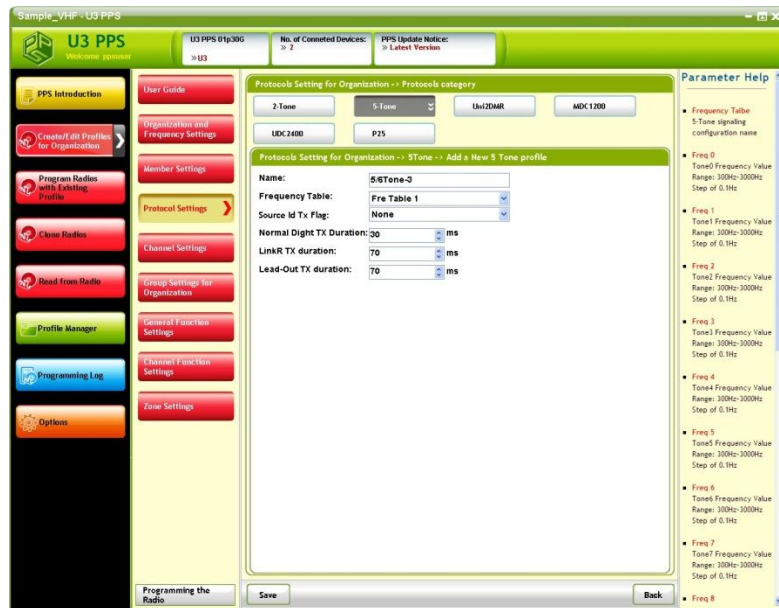
The Unication PPS has several 5-tone formats to select, the user has to select preferred one and edit custom tones manually. Click “Save” to save settings in current page and go back to previous page.

#### Step5:



Click “Add” to add a new list.

#### Step6:

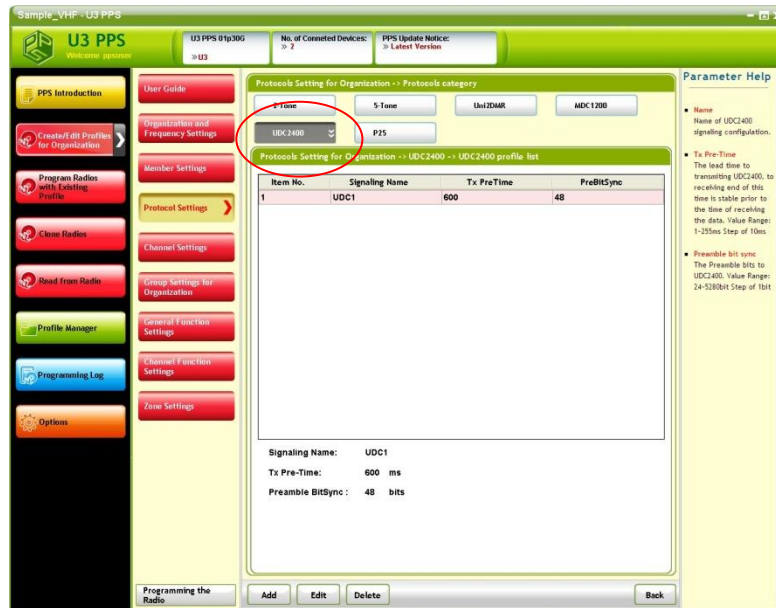


Configure all associated settings and click "Save" to go to previous page.

### Step7:

Redo step1 to step7 to add a new list if necessarily

## 6.6 Protocol Settings –UDC2400



### Step1:

Click “UDC2400” to configure all parameters associated with UDC2400. UDC2400 is for Unication proprietary “DVOA” technology and a similar MDC protocol.

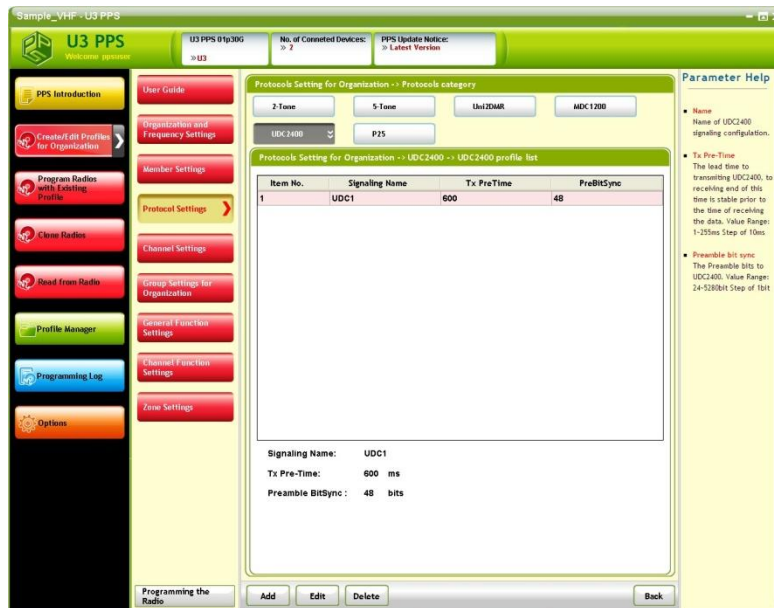
### ➤ NOTE:

DVOA stands for “digital voice and data over analog”, it’s compatible to common analog repeaters, and the transmission rate is up to 2400 bps, which is so called UDC2400 signaling.

### Step2:

The software has a default UDC2400 Signalling list, user can edit the default list or add new lists manually.

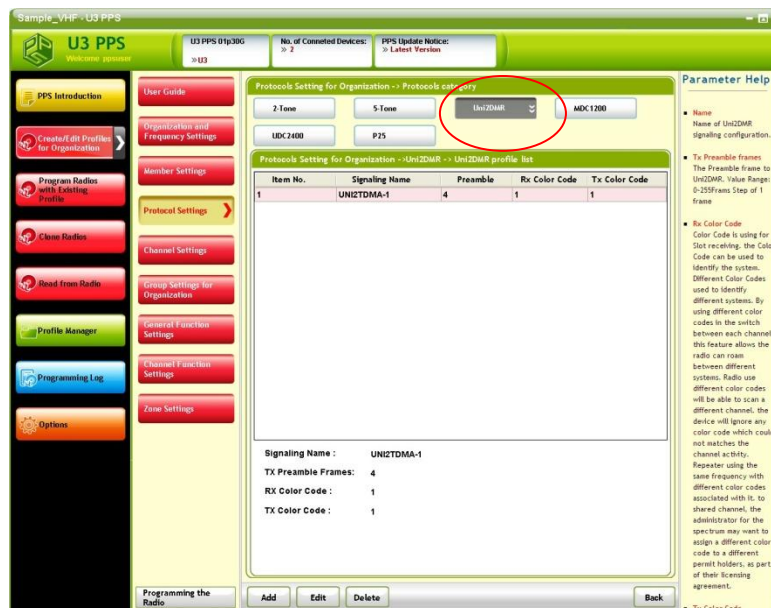




- **Add:** To add a new list.
- **Edit:** To enter edit page to edit current selected list.
- **Delete:** To delete current selected list.

## 6.7 Protocol Settings -Uni2DMR

### Step1:



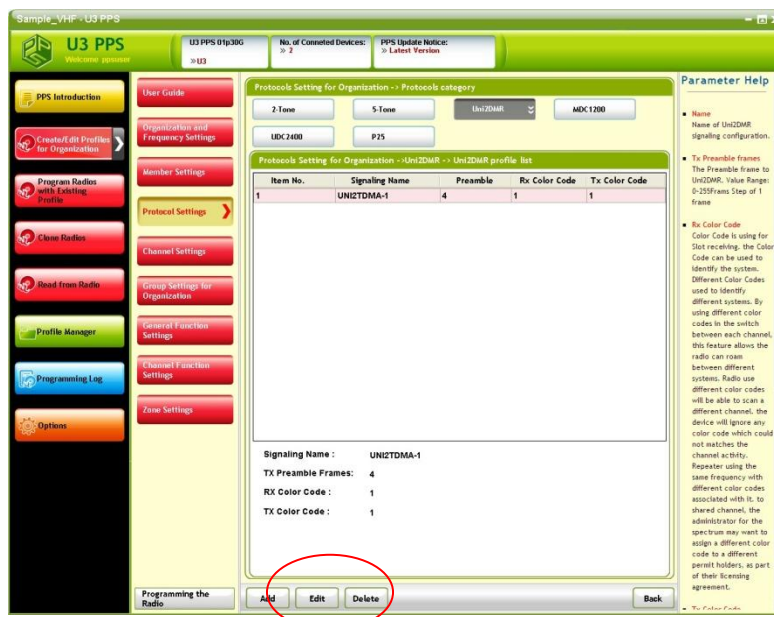
### Step2:

Click "Uni2DMR" to configure all parameters associated with Uni2DMR.

- **NOTE:**  
Uni2DMR is an Unication's proprietary and similar DMR protocol.

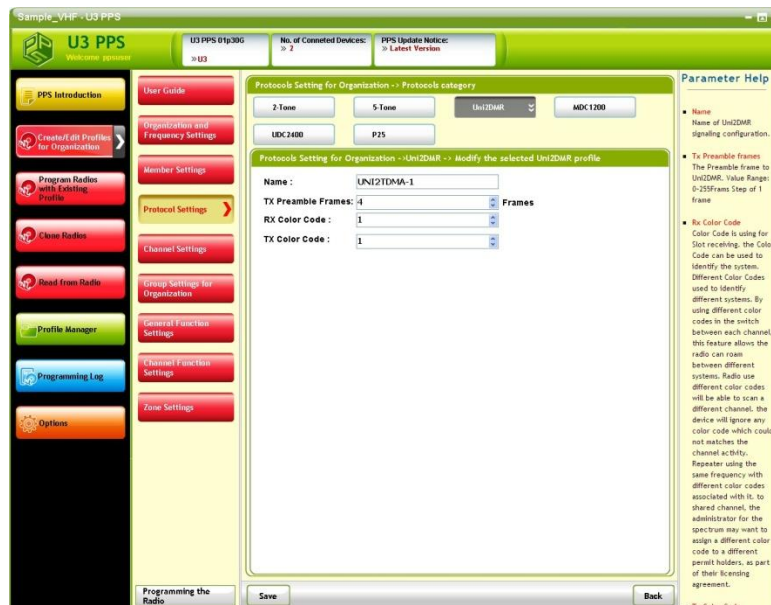
**Step3:**

The software has a default Uni2DMR list, user can edit the default list or add new lists manually.



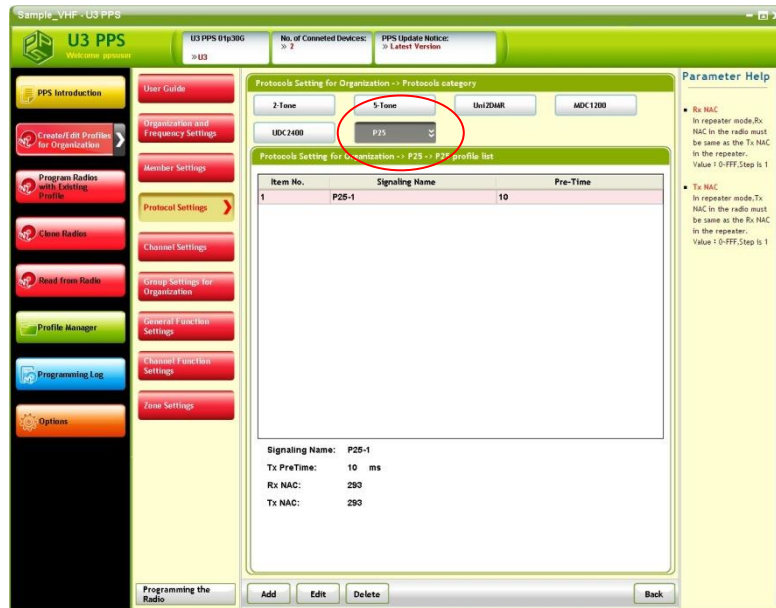
- **Add:** To add a new list.
- **Edit:** To enter edit page to edit current selected list.
- **Delete:** To delete current selected list.

Click "Edit" to enter the edit page.

**Step4:**

After configure all parameters, click "Save" to save settings in current page and go back to previous page.

## 6.8 Protocol Settings -P25

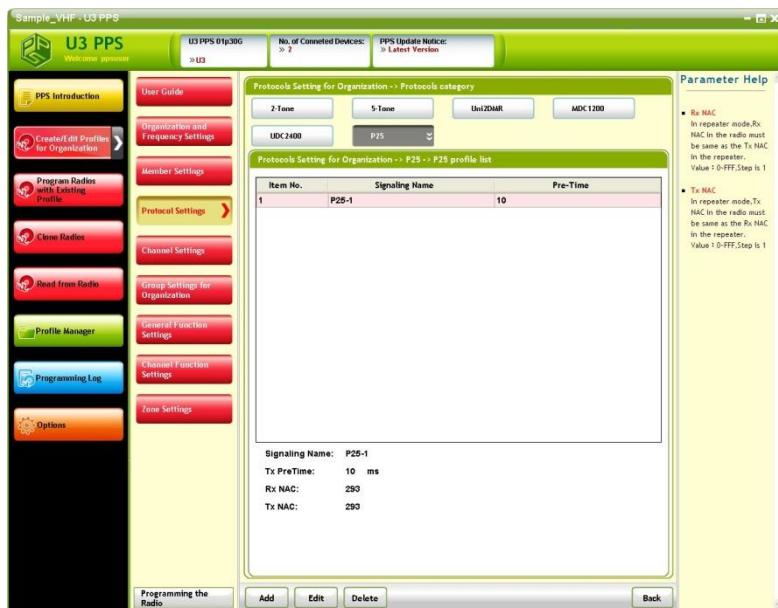


### Step1:

Click “P25” to configure all parameters associated with P25.

### Step2:

The software has a default P25 signalling list, user can edit the default list or add new lists manually.



- **Add:** To add a new list.
- **Edit:** To enter edit page to edit current selected list.
- **Delete:** To delete current selected list.

## 6.9 Channel and Function Settings

A Channel contains several RF settings such as frequency, channel names. The following pages guide users to edit channel-wide settings including “Channel Settings”, “General Function Settings”, “Channel Function Settings”, “Zone Settings”.

### Step1:

Click “Channel Settings” to enter below page, and then click “Add” to enter edit page.

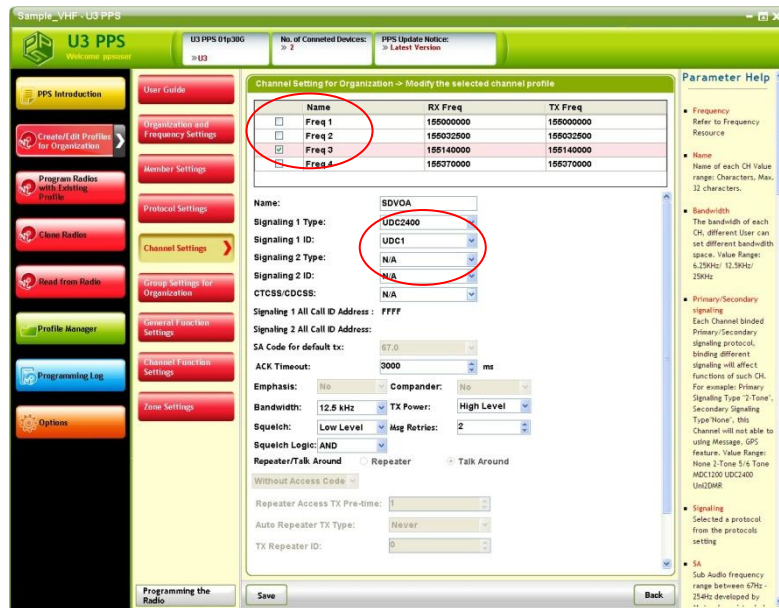


- **Add:** To add a new channel.
- **Edit:** To enter edit page to edit current selected channel.
- **Delete:** To delete current selected channel.

### Step2:

Click a frequency pair to be used on the new channel, and then fill in the channel name and associated basic channel settings, click “Save” to save settings in current page and go back to previous page.

The Unication radio U3 & P3 series support to add up to two signaling systems on one channel. For example, user can add MDC and P25 signaling on the same channel. The radio will auto detect the type of signaling and switch to the associated mode.

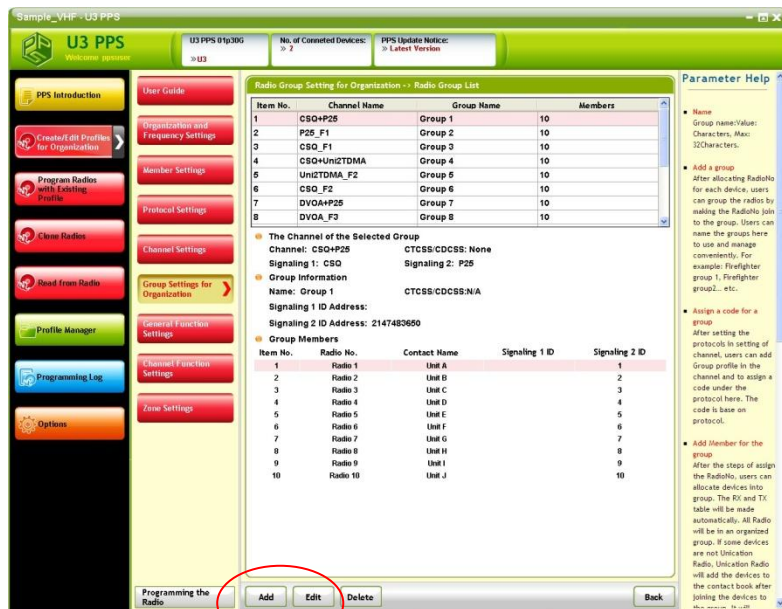


## 6.10 Group Settings for Organization

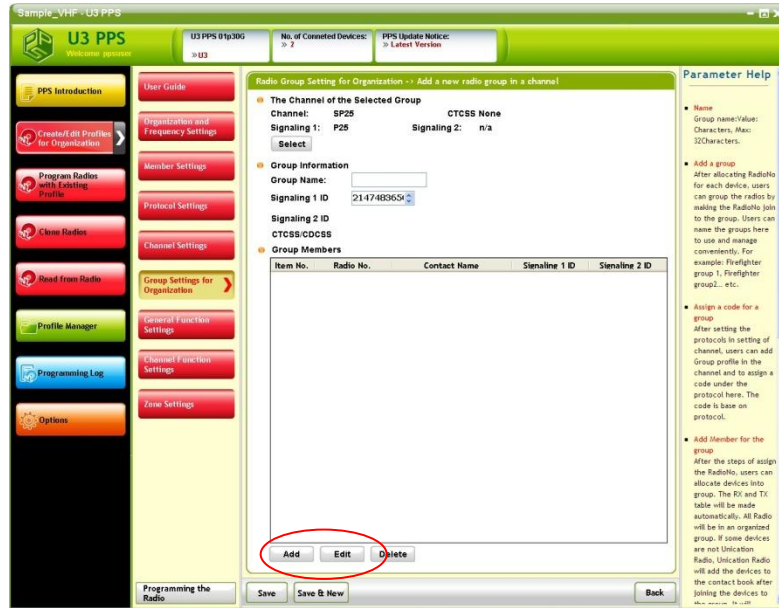
Every channel must be paired with at least one group, users have to create a group list first, and then manually allcate the group to a channel.

### Step1:

Click “Group Settings for Organization”, then click “Add” to enter edit page to add a new group.



### Step2:

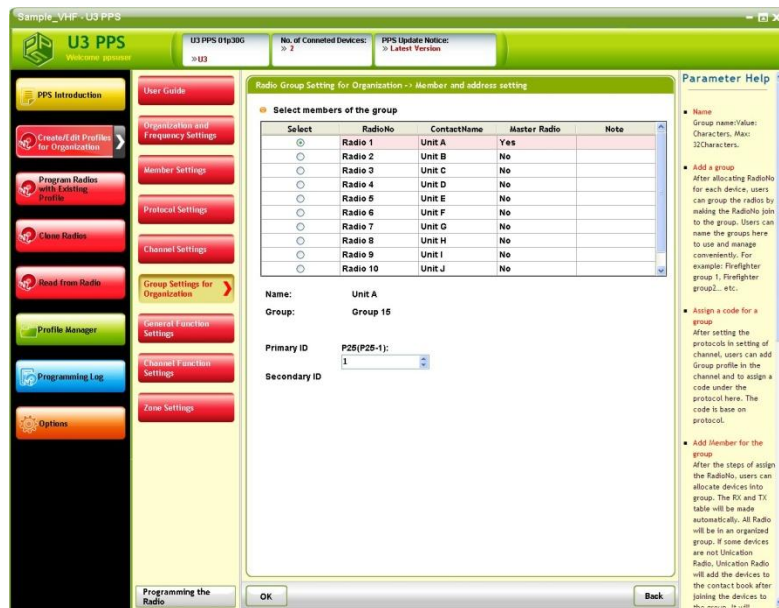


➤ **Select:** To reassign the channel for current group.

Please feed in the preferred group name for the group, and then click “Add” to add members. Note that every channel can be assigned up to 2 type of signaling, and the group for the channel should support same types of signaling. For example, if a channel is assigned as MDC+P25, then the group which is assigned to this channel should also support MDC+P25, , the signaling IDs can be different in different systems.

### Step3:

Select the members to add to current group, and then click [OK] to save.



**Step4:**

- **Select:** To reassign the channel for current group.
- **Save:** To save settings in current page.
- **Save & New:** To save settings in current page and add another new group.
- **Back:** To cancel editing and go back to previous page.



After adding a group successfully, the software should display view page as above.

## 6.11 General Function Settings

Users can edit parameters for some features such as voice call or canned Messages. Users can click below icon to edit general settings for radio-wide use.

### Step1:

Click “General Function Settings”, and then click a feature to change settings.



### Step2:

- **Add:** To add a new item.
- **Edit:** To enter edit page to edit current selected item.
- **Delete:** To delete current selected item.
- **Save:** To save settings in current page.

## 6.12 Channel Function Settings

Once a channel is added, the software will automatically list down all available features, users can select disable or enable certain feature.

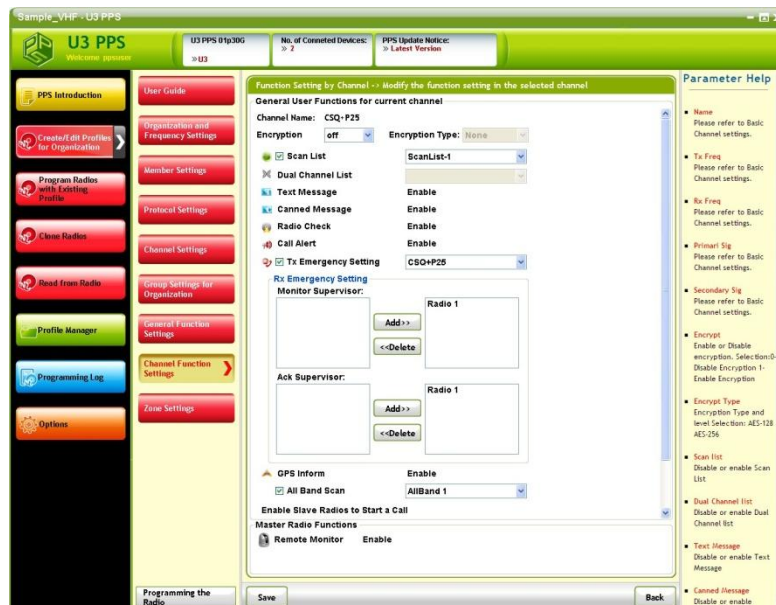
### Step1:

Click “Channel Function Settings”, select a channel, and then click “Edit” to edit current selected channel.





## Step2:



The software will automatically list down available parameters for current channel, users can edit preferred settings.

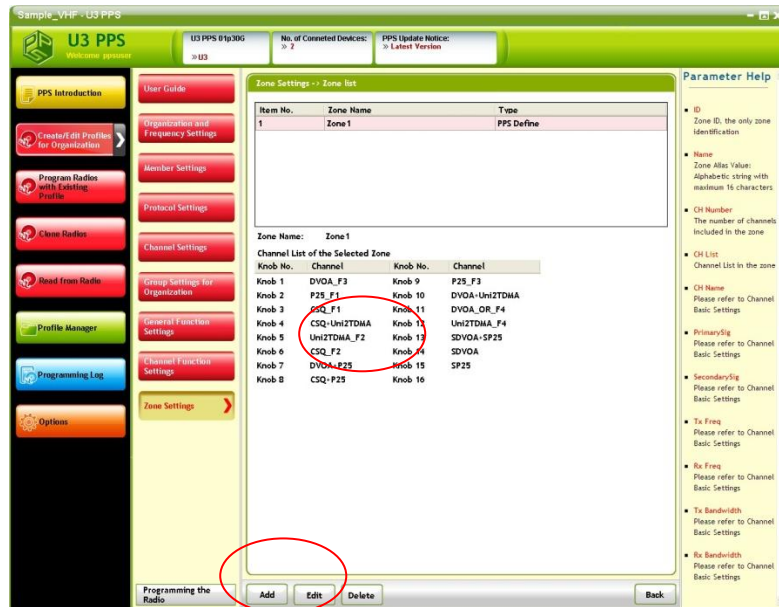
- **Add:** To add a new item.
- **Delete:** To delete current selected item.
- **Save:** To save settings in current page.
- **Back:** To cancel editing and go back to previous page.

### 6.13 Zone Settings

The zone settings must be done manually, after channels are created, please follow below steps to allocate channels to the zones.

#### Step1:

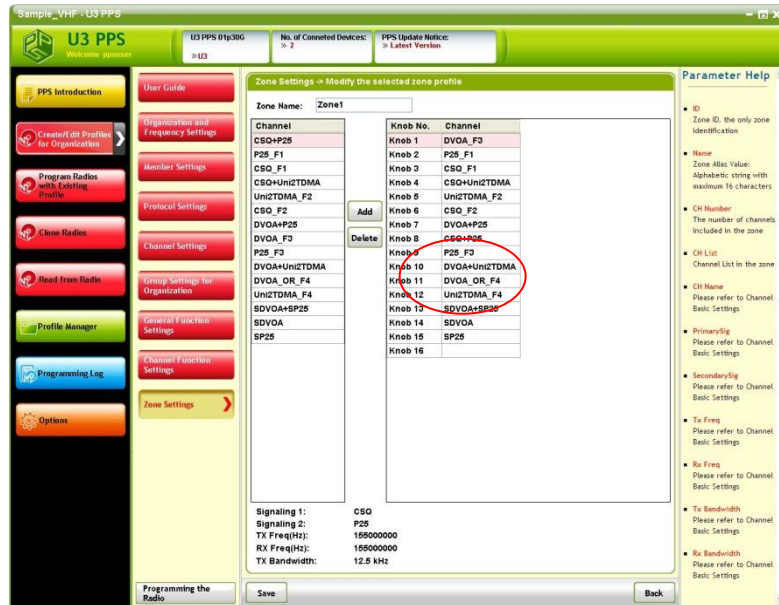
Click [Zone Settings], the software has built in a default zone, users has following options:



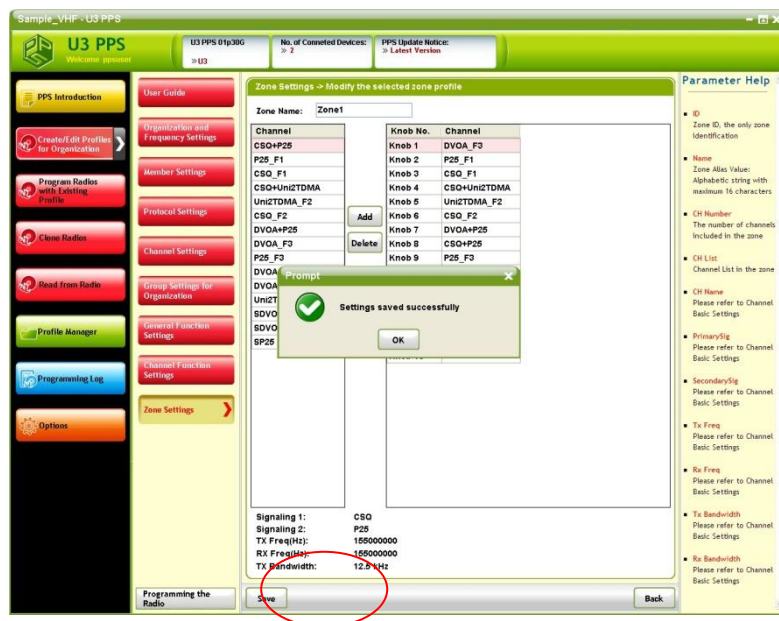
- **Add:** To add a new zone.
- **Edit:** To add or delete channels in current zone.
- **Delete:** To delete current selected zone.
- **Back:** To cancel editing and go back to previous page.

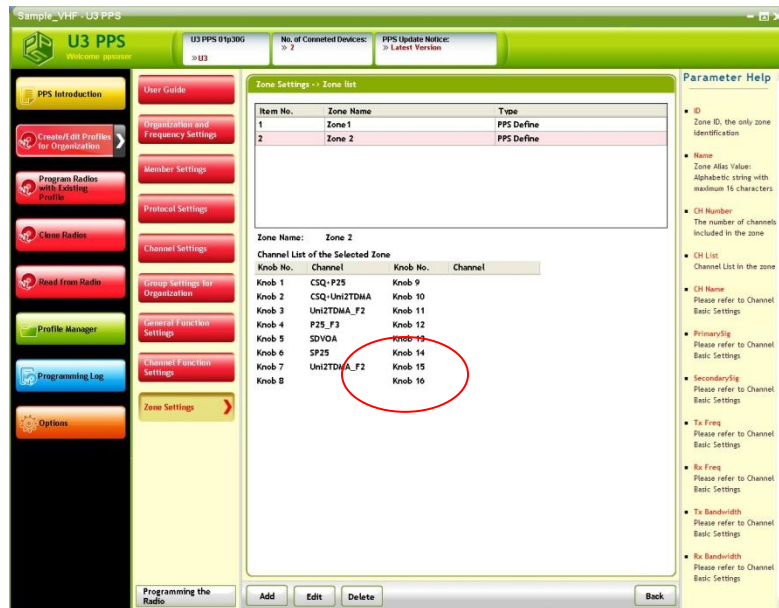
#### Step2:

Please click "Edit" to edit the default zone1, and click "Add" to add channels to the Knob No..

**Step3:**

Click [Save] to save settings in current page and go back to below page.



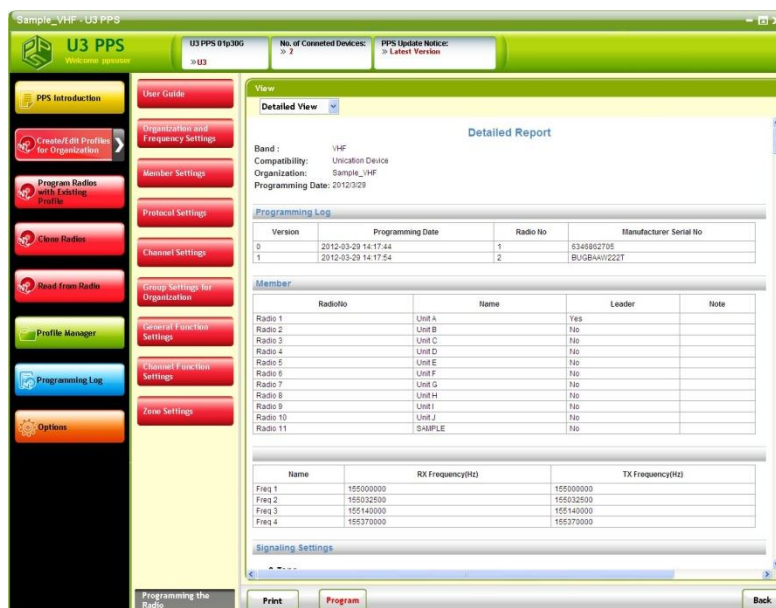


## 6.14 Programming the Radio

After all settings are done, before programming, the software provide users to preview the profile in advance.

### Step1:

Click “Programming the Radio” to enter below page.



There is four preview options:

- (1) **Detail View:** Default Detailed Report as above.
- (2) **Channel View:** The report is rallied from per channel perspective.

Sample\_VHF - U3 PPS

U3 PPS 01p30G No. of Connected Devices: 2 PPS Update Notice: Latest Version

View: Channel View CSQ+P25

Band: VHF  
Compatibility: Unication Device  
Organization: Sample\_VHF  
Programming Date: 2012/3/29

Member

| RadioID  | Name   | Leader | Note |
|----------|--------|--------|------|
| Radio 1  | UNIT A | Yes    |      |
| Radio 2  | UNIT B | No     |      |
| Radio 3  | UNIT C | No     |      |
| Radio 4  | UNIT D | No     |      |
| Radio 5  | UNIT E | No     |      |
| Radio 6  | UNIT F | No     |      |
| Radio 7  | UNIT G | No     |      |
| Radio 8  | UNIT H | No     |      |
| Radio 9  | UNIT I | No     |      |
| Radio 10 | UNIT J | No     |      |
| Radio 11 | SAMPLE | No     |      |

Name RX Frequency(Hz) TX Frequency(Hz)  
Freq 1 155000000 155000000

Signaling Settings

• 2-Tone

| Name | Pre-Time (ms) | 1st Tone Duration(ms) | Gap1 Tx Dur | 2nd Tone Duration(ms) | Gap2 Tx Dur | Long Tone Rx Timeout | Tone Rx Timeout | Long Tone Duration(ms) | No Signaling Activity Timeout(ms) |
|------|---------------|-----------------------|-------------|-----------------------|-------------|----------------------|-----------------|------------------------|-----------------------------------|
| Name | Pre-Time      | 1st Tone              | Gap1 Tx     | 2nd Tone              | Gap2 Tx     | Long Tone Rx         | Tone Rx         | Long Tone              | No Signaling Activity             |

• Five Tone Frequency Table

| Name | Tone0 | Tone1 | Tone2 | Tone3 | Tone4 | Tone5 | Tone6 | Tone7 | Tone8 | Tone9 | Tone10 | Tone11 | RepeatTone | GroupTone | AckTone | Link2Tone |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------------|-----------|---------|-----------|
| Name | Tone0 | Tone1 | Tone2 | Tone3 | Tone4 | Tone5 | Tone6 | Tone7 | Tone8 | Tone9 | Tone10 | Tone11 | RepeatTone | GroupTone | AckTone | Link2Tone |

• Five Tone

| Name | Frequency Table | Tone Dur | LinkR Dur | Lead-out Dur |
|------|-----------------|----------|-----------|--------------|
| Name | Frequency Table | Tone Dur | LinkR Dur | Lead-out Dur |

Print Program Back

(3) **Group View:** The report is ralled from per group perspective.

Sample\_VHF - U3 PPS

U3 PPS 01p30G No. of Connected Devices: 2 PPS Update Notice: Latest Version

View: Group View Group 1

Band: VHF  
Compatibility: Unication Device  
Organization: Sample\_VHF  
Programming Date: 2012/3/29

Member

| RadioID  | Name   | Leader | Note |
|----------|--------|--------|------|
| Radio 1  | UNIT A | Yes    |      |
| Radio 2  | UNIT B | No     |      |
| Radio 3  | UNIT C | No     |      |
| Radio 4  | UNIT D | No     |      |
| Radio 5  | UNIT E | No     |      |
| Radio 6  | UNIT F | No     |      |
| Radio 7  | UNIT G | No     |      |
| Radio 8  | UNIT H | No     |      |
| Radio 9  | UNIT I | No     |      |
| Radio 10 | UNIT J | No     |      |
| Radio 11 | SAMPLE | No     |      |

Name RX Frequency(Hz) TX Frequency(Hz)  
Freq 1 155000000 155000000

Signaling Settings

• 2-Tone

| Name | Pre-Time (ms) | 1st Tone Duration(ms) | Gap1 Tx Dur | 2nd Tone Duration(ms) | Gap2 Tx Dur | Long Tone Rx Timeout | Tone Rx Timeout | Long Tone Duration(ms) | No Signaling Activity Timeout(ms) |
|------|---------------|-----------------------|-------------|-----------------------|-------------|----------------------|-----------------|------------------------|-----------------------------------|
| Name | Pre-Time      | 1st Tone              | Gap1 Tx     | 2nd Tone              | Gap2 Tx     | Long Tone Rx         | Tone Rx         | Long Tone              | No Signaling Activity             |

• Five Tone Frequency Table

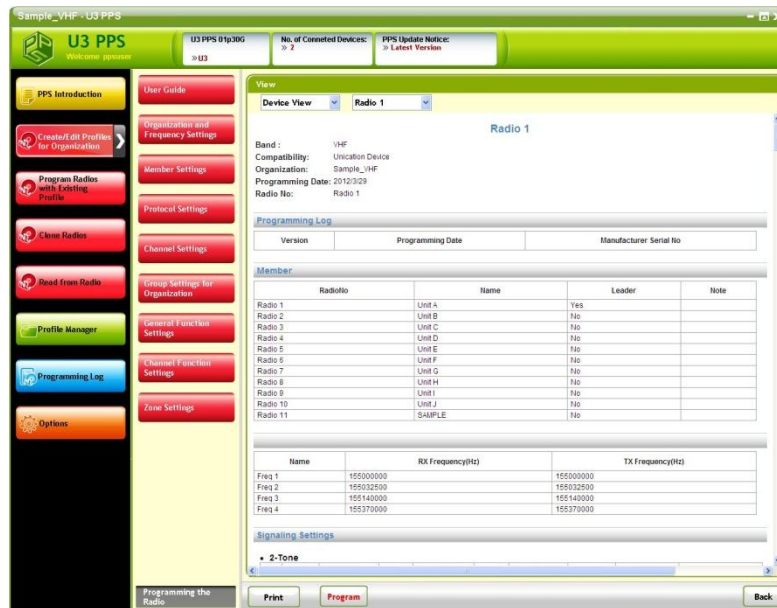
| Name | Tone0 | Tone1 | Tone2 | Tone3 | Tone4 | Tone5 | Tone6 | Tone7 | Tone8 | Tone9 | Tone10 | Tone11 | RepeatTone | GroupTone | AckTone | Link2Tone |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------------|-----------|---------|-----------|
| Name | Tone0 | Tone1 | Tone2 | Tone3 | Tone4 | Tone5 | Tone6 | Tone7 | Tone8 | Tone9 | Tone10 | Tone11 | RepeatTone | GroupTone | AckTone | Link2Tone |

• Five Tone

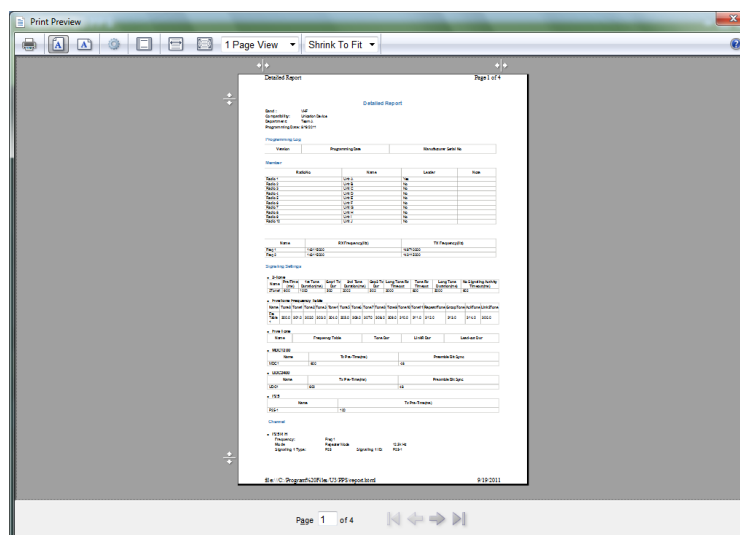
| Name | Frequency Table | Tone Dur | LinkR Dur | Lead-out Dur |
|------|-----------------|----------|-----------|--------------|
| Name | Frequency Table | Tone Dur | LinkR Dur | Lead-out Dur |

Print Program Back

(4) **Device View:** The report is ralled from per device perspective.



- **Program:** To go to programming page.
- **Print:** To print the Profile settings.



- **Back:** To go back to previous page.

Note that report will automatically highlight any parameters are not well configured in red. Before programming to any device, users have to ensure all parameters are well configured.

## Step2:

Click “Program” to go to programming page.

### 6.15 Tips for adding channels

The PPS stores default parameter settings as many as possible, however there are still parameters which have to be configured manually according to the customers' requirement. To add a channel, please note below steps for minimum configuration.

**Step1:**

Select a profile which matches your device.

**Step2:**

Click "Organization and Frequency Settings" and allocate at least 1 frequencies where frequency list number = Organization Name.

**Step3:**

Click "Channel Settings" and allocate Name at least freq. 1 = Channel 1.

**Step4:**

Go to "Group Settings for Organization" and click "Add" to add at least one radio.

**Step5:**

Every channel must be paired with at least one group, users have to create a group list first, feed in the group name and then manually allocate the group to a channel.

**Step6:**

The zone settings must be done manually. Please manually allocate at least 1 channel to zone 1 where Knob Position 1 = Channel 1.

### 6.16 Tips for modifying the radio ID

After cloning the radio if needed, user can select to follow below steps to modify the radio signaling ID address. However, Unicaion recommend to use batch programming feature to change the radio ID.

**Step1:**

Read the profile of the target device.

**Step2:**

Click "Group Settings for Organization" and select a group which the radio is belong to, then click "Edit".

Sample\_VHF - U3 PPS

U3 PPS 01p30G No. of Connected Devices: 2 PPS Update Notice: Latest Version

Radio Group Setting for Organization -> Radio Group List

| Item No. | Channel Name | Group Name | Members |
|----------|--------------|------------|---------|
| 1        | CSO+P25      | Group 1    | 10      |
| 2        | P25_F1       | Group 2    | 10      |
| 3        | CSQ_F1       | Group 3    | 10      |
| 4        | CSO+UNI2TDMA | Group 4    | 10      |
| 5        | UNI2TDMA_F2  | Group 5    | 10      |
| 6        | CSQ_F2       | Group 6    | 10      |
| 7        | DVOA+P25     | Group 7    | 10      |
| 8        | DVOA_F3      | Group 8    | 10      |

The Channel of the Selected Group  
Channel: CSO+UNI2TDMA CTSS/CDSS: None  
Signaling 1: CSQ Signaling 2: UNI2TDMA

Group Information  
Name: Group 4 CTSS/CDSS: N/A  
Signaling 1 ID Address:  
Signaling 2 ID Address: 21474B365

Group Members

| Item No. | Radio No. | Contact Name | Signaling 1 ID | Signaling 2 ID |
|----------|-----------|--------------|----------------|----------------|
| 1        | Radio 1   | Unit A       |                | 1              |
| 2        | Radio 2   | Unit B       |                | 2              |
| 3        | Radio 3   | Unit C       |                | 3              |
| 4        | Radio 4   | Unit D       |                | 4              |
| 5        | Radio 5   | Unit E       |                | 5              |
| 6        | Radio 6   | Unit F       |                | 6              |
| 7        | Radio 7   | Unit G       |                | 7              |
| 8        | Radio 8   | Unit H       |                | 8              |
| 9        | Radio 9   | Unit I       |                | 9              |
| 10       | Radio 10  | Unit J       |                | 10             |

Buttons: Add, Edit, Delete, Back

**Step3:**

Sample\_VHF - U3 PPS

U3 PPS 01p30G No. of Connected Devices: 2 PPS Update Notice: Latest Version

Radio Group Setting for Organization -> Modify the selected radio group profile

The Channel of the Selected Group  
Channel: CSO+UNI2TDMA CTSS None  
Signaling 1: CSQ Signaling 2: UNI2TDMA

Group Information  
Group Name: Group 4  
Signaling 1 ID  
Signaling 2 ID: 21474B365  
CTSS/CDSS

Group Members

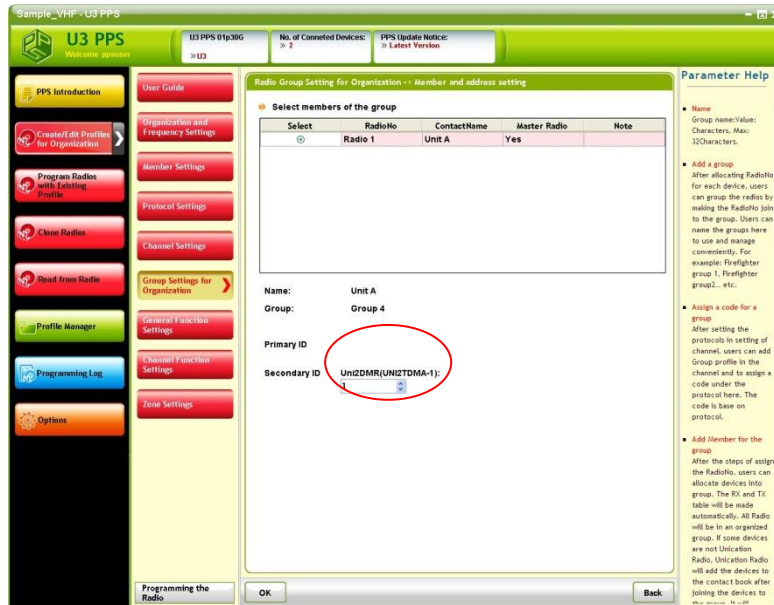
| Item No. | Radio No. | Contact Name | Signaling 1 ID | Signaling 2 ID |
|----------|-----------|--------------|----------------|----------------|
| 1        | Radio 1   | Unit A       |                | 1              |
| 2        | Radio 2   | Unit B       |                | 2              |
| 3        | Radio 3   | Unit C       |                | 3              |
| 4        | Radio 4   | Unit D       |                | 4              |
| 5        | Radio 5   | Unit E       |                | 5              |
| 6        | Radio 6   | Unit F       |                | 6              |
| 7        | Radio 7   | Unit G       |                | 7              |
| 8        | Radio 8   | Unit H       |                | 8              |
| 9        | Radio 9   | Unit I       |                | 9              |
| 10       | Radio 10  | Unit J       |                | 10             |

Buttons: Add, Edit, Delete, Save, Save & New, Back

Select the target device, select "radio 1" for example, and then click "Edit".

**Step4:**

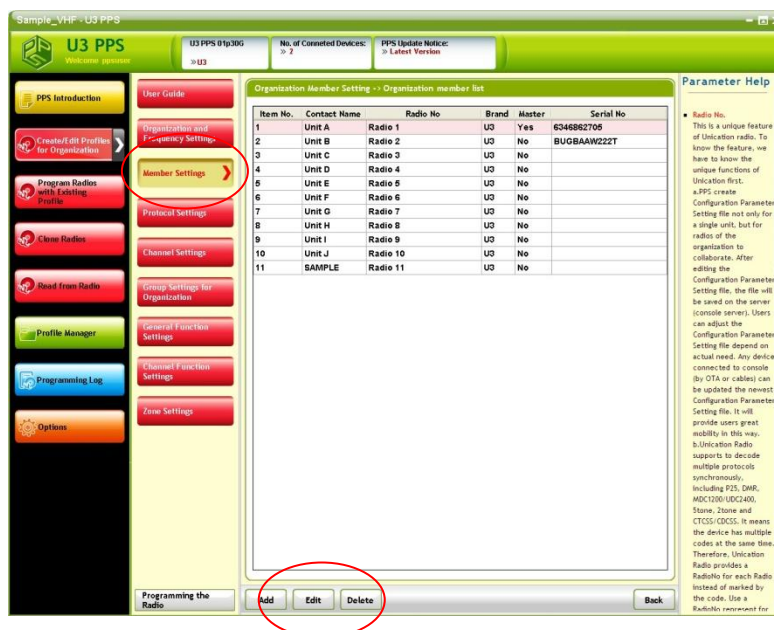




Change the ID address of this device.

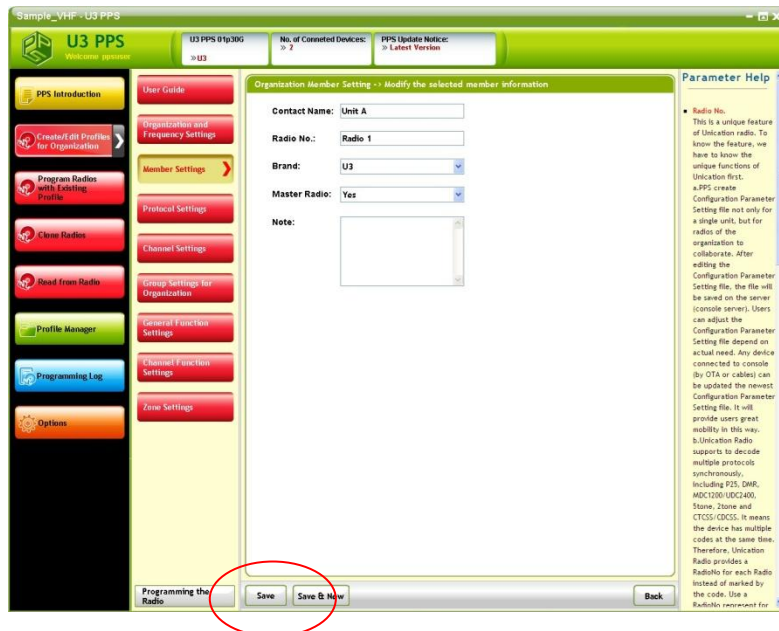
### Step5:

If user also wants to edit the target device name and radio No., please click “Member Settings”, and then select the target device “radio 1” for example.



### Step6:

Then edit the name, radio No. and other basic information according to the requirement. After editing, please click “Save” to save settings in current page.



### Step7:

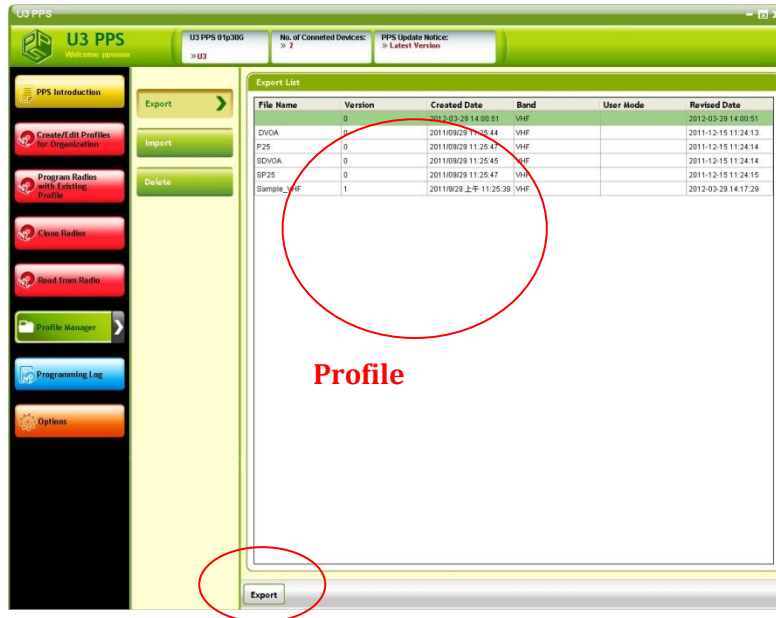
After settings, please use the revised sub Profile to reprogram the radio, and select the revised radio No.

For detailed operations for each step, please refer to above chapter

## 7 Profile Manager

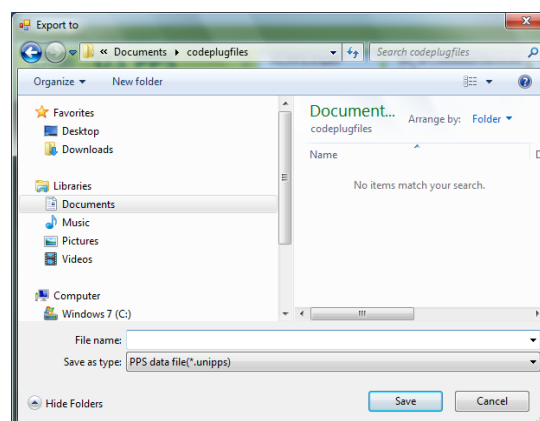
In main feature bar, click “Profile Manager” to enter below page. The PPS can export Profiles into a Profile file for back-up and import the file to restore the settings.

### 7.1 Export

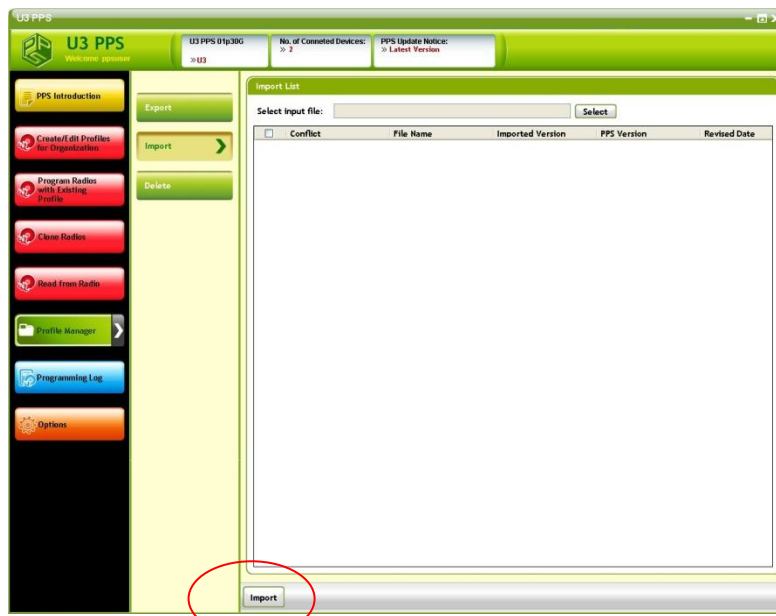


#### ➤ **Export:**

To export a Profile file to a selected folder, enter a preferred file name to save the Profile file.

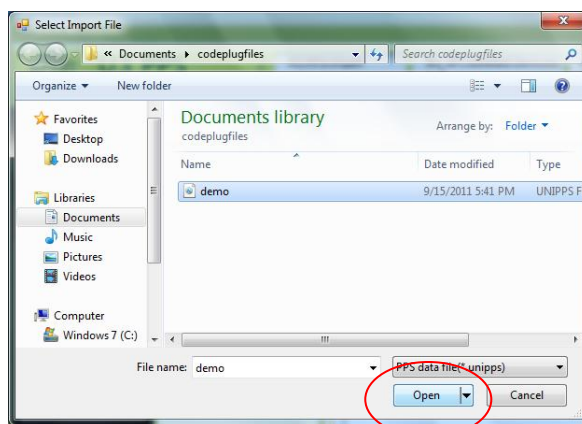


## 7.2 Import

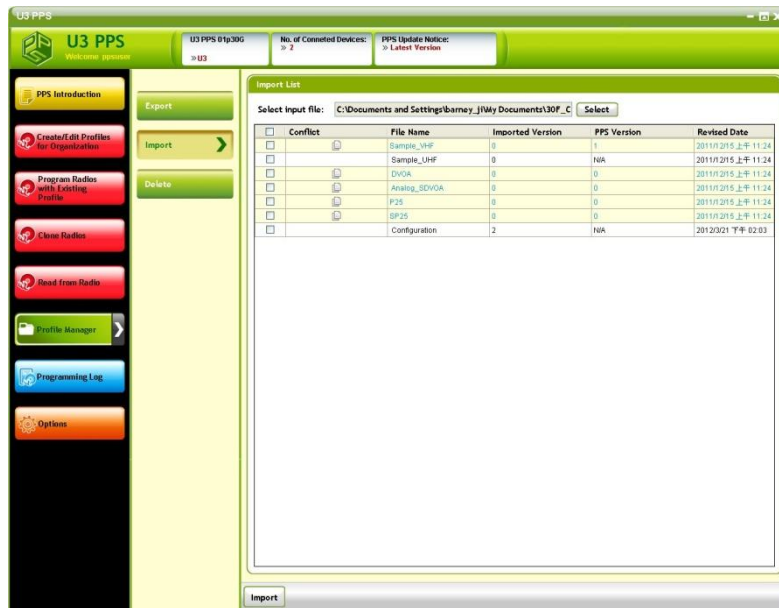


### ➤ Import:

To import a Profile file, user can select a Profile file in local folder to import to PPS.

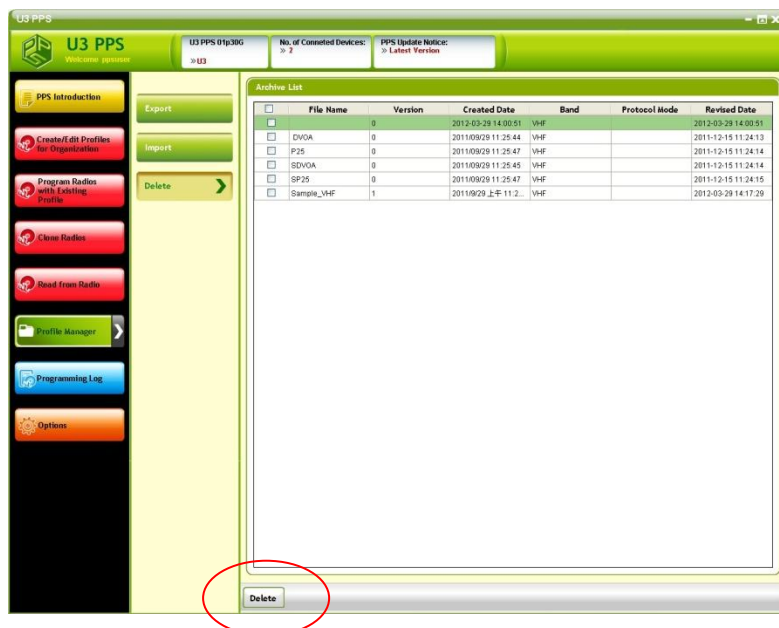


After importing, if names of Profiles were same as the build-in Profiles, the user has to select if to overwrite the Profiles.



Press [OK] to close the pop-up window. Select the preferred Profiles to import to the PPS.

### 7.3 Delete



- Delete: To delete selected Profile.

## 8 Programming Log

Click [Programming Log] to enter below page. User can select to find programming log by file or device.

### 8.1 By File

If the built-in Profile file contains many Profiles, user can select below filter parameters to find Profiles more quickly.

➤ **File Name:**

The Organization name of each Profile.

➤ **Programming Type:**

**All:** Both Archive and Clone type.

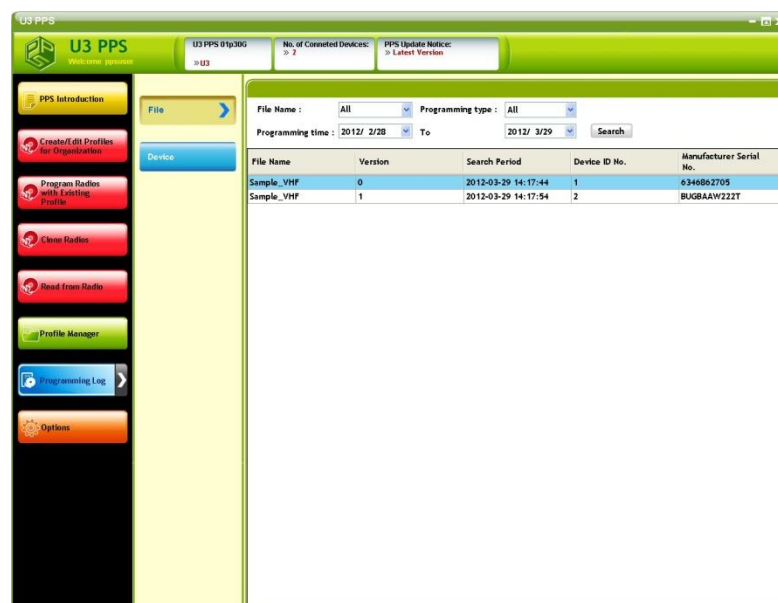
**Archives:** Profiles not generated by Clone feature.

**Clone:** Profiles generated by Clone feature.

➤ **Programming period:**

The date of a Profile is programmed to a device.

After selection, click “Search” to list down filtered files.

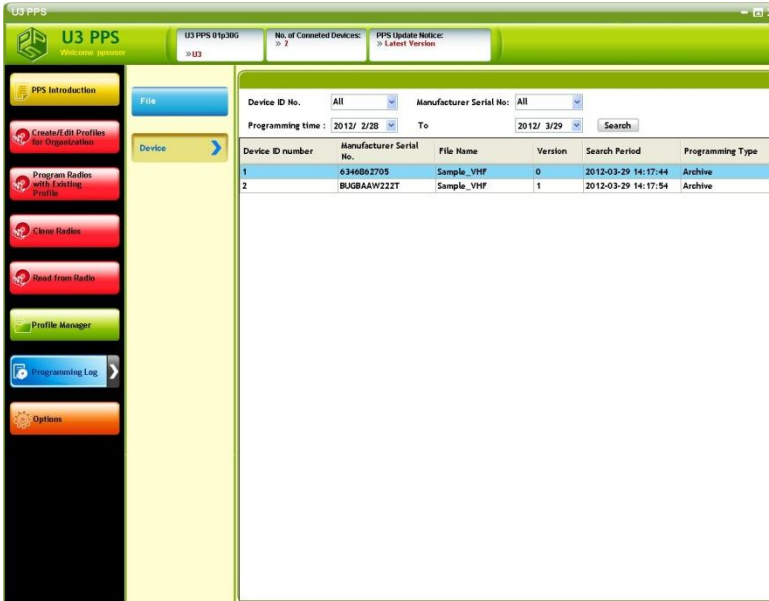


## 8.2 By Device

User can also select find log by device, every radio programmed by local PPS will leave a record in the history, user can also select below filters to find files.

- **Radio ID No.:** The radio ID No. of programmed device.
- **Manufacturer Serial No.:** The serial No. of programmed device.
- **Programming Time:**

The date of a Profile is programmed to a device.



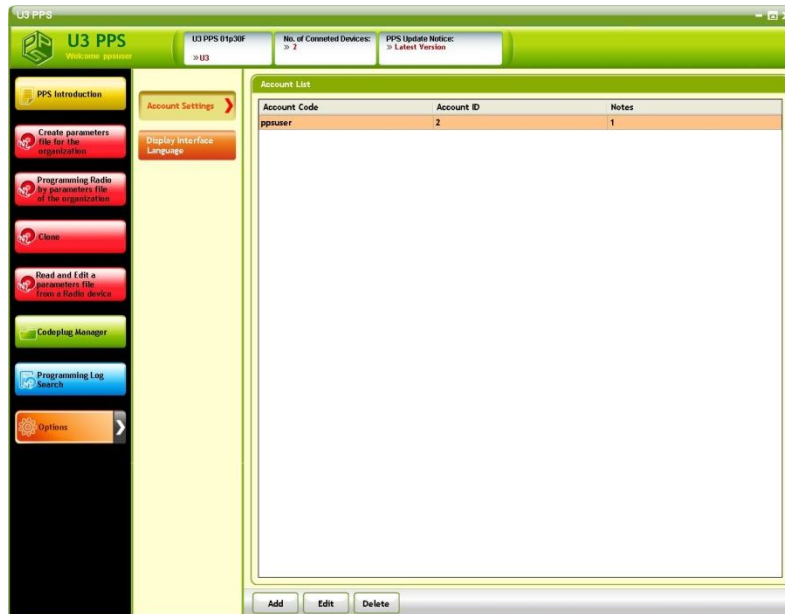
The screenshot shows the U3 PPS software interface. The top bar displays 'U3 PPS 01p30G', 'No. of Connected Devices: 0', and 'PPS Update Notice: Latest Version'. The sidebar on the left contains buttons for 'File', 'Device', 'Profile Manager', 'Programming Log', and 'Options'. The main window shows a search filter for 'Device ID No.' and 'Manufacturer Serial No.' set to 'All'. Below the search filters is a table with the following data:

| Device ID number | Manufacturer Serial No. | File Name  | Version | Search Period       | Programming Type |
|------------------|-------------------------|------------|---------|---------------------|------------------|
| 1                | 6346802705              | Sample_VHF | 0       | 2012-03-29 14:17:44 | Archive          |
| 2                | BUGBAAW222T             | Sample_VHF | 1       | 2012-03-29 14:17:54 | Archive          |

## 9 Options

Click “Options” in main feature bar, users can change account settings and display interface language in this page.

### 9.1 Account Settings



- ① **Add:** To add an new account
- ② **Edit:** To edit the selected account.
- ③ **Delete:** To delete the selected account.

#### 9.1.1 Add a new account

After “Add” is clicked, there will be a pop-up window for user to add a new account.

The 'Add User' dialog box contains the following fields:

- Account Code:
- Account ID:
- Password:
- Confirm your password:
- Note:

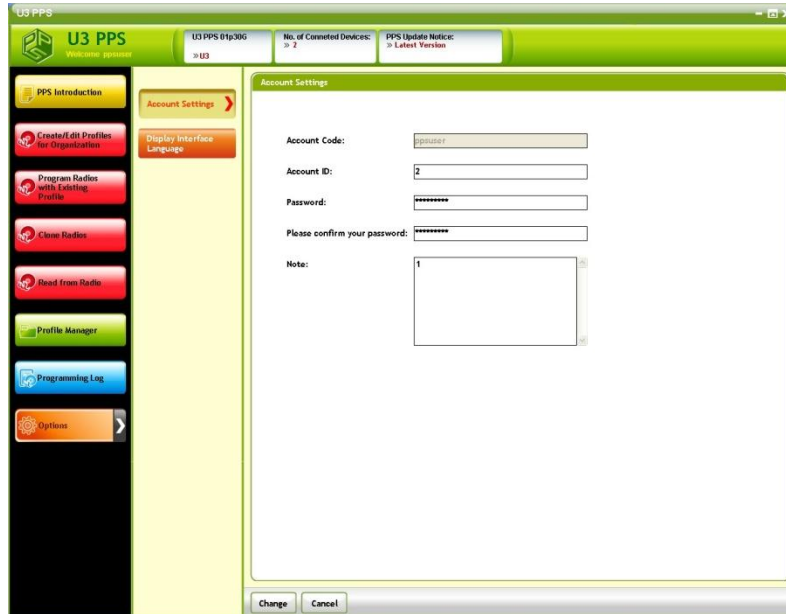
At the bottom right are 'OK' and 'Cancel' buttons.

#### 9.1.2 Edit a account



**Step1.**

User can select to change the account ID, password and notes for a selected account.

**Step2.**

Click “Change” to save changes and go back to previous page. Or click “Cancel” to go back to previous page directly.

**9.2 Display Interface Language****Step1.**

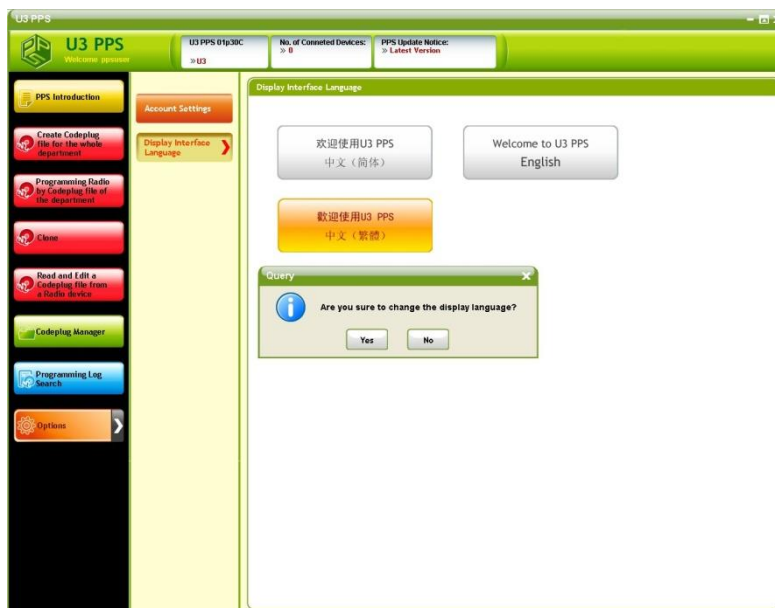
Click one preferred language to change the display interface.

**Note:** Supported languages depend on software version.



## Step2.

After selection, click OK to confirm selection and the display interface will be changed.



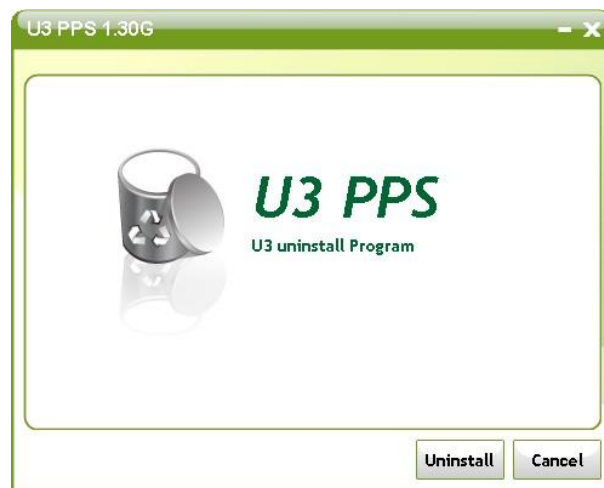
## 10 Uninstalling U3 PPS

To uninstall U3 PPS, please follow instructions below.

- (1) Quit all applications running in Windows.
- (2) From the Start menu, select Programs or All Programs.
- (3) Find the U3 PPS folder for the U3 PPS program and highlight it.

Then click the  icon to uninstall the program.

- (4) The uninstall wizard appears, and then click [Uninstall] to remove the program. Follow the dialog “Are you sure to uninstall U3 PPS?” to click the button [Yes] to confirm the selection.



- (5) After uninstalling the PPS is completed, click [OK] to exit the wizard.



## 11 Recommended Repeater Parameter Settings

The U3 radio supports the following protocol and signaling:

- Conventional carrier squelch
- CTCSS
- CDCSS
- 2-Tone
- MDC1200
- DVOA
- SDVOA
- DTMF encode (Not provided in version 3.0, will be released in future)
- 5/6-Tone
- Uni2DMR (Similar DMR, Optional Model)
- P25 (Optional Model)

The following is the minimum set of parameters on an Analog Repeater that should be configured for it to perform the repeating function of above signaling and protocols types.

| Parameters         | Settings                                 |
|--------------------|--|
| Transmit Frequency | Same as the U3's receive frequency       |
| Receive Frequency  | Same as the U3's transmit frequency      |
| Transmit Power     | As per allowed by the regulatory license |
| Channel Bandwidth  | 12.5 kHz                                 |
| Squelch Type       | Carrier Squelch                          |
| Pre-emphasis       | Enabled                                  |
| De-emphasis        | Enabled                                  |

# U3 PPS Guide

For More Information  
Please Contact Us  
At :



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