

SmartPTT Enterprise 9.1

# Input Sound Configuration Utility

Configuration guide

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# Introduction

Input Sound Configuration Utility is a program that changes the parameters of the voice which transmits to the SmartPTT Radioserver from the control station. Applying various filters you can enhance the quality of the voice. It is not a service, so you do not need to keep this program active while SmartPTT Radioserver is running.

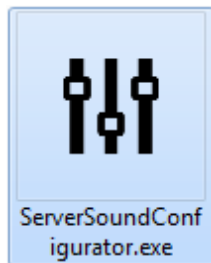
## Installation procedure

The program installs with the SmartPTT Radioserver. You do not need to make any actions to assist this process.

## Running the program

To run the program:

1. Go to the folder where SmartPTT Radioserver is installed (typically, it is C:\Program Files \SmartPTT\Server\ or C:\Program Files (x86)\SmartPTT\Server\).
2. Open the **ServerSoundConfigurator** folder.
3. Run the *ServerSoundConfigurator.exe* file.



You may add the program shortcut to your workplace if needed.

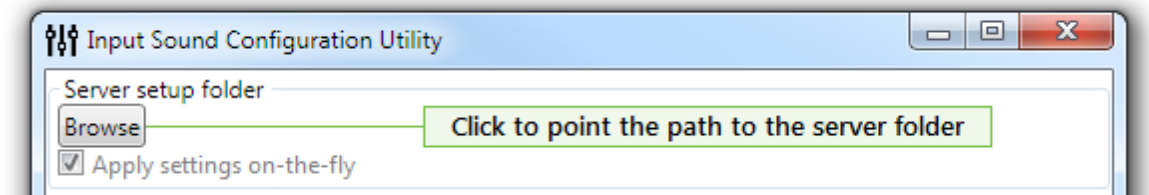
# Using the program

## Linking to the SmartPTT Radioserver

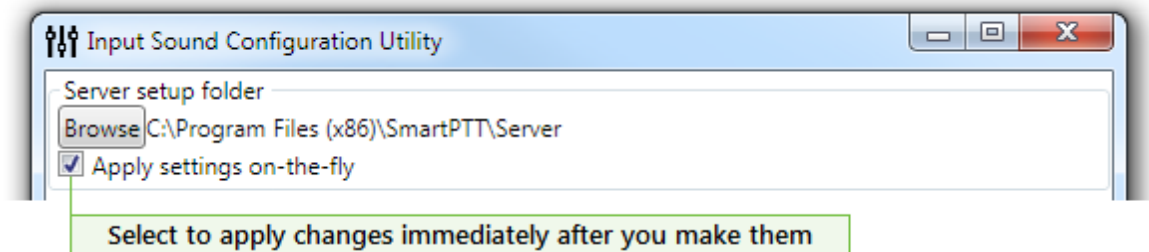
You should link Input Sound Configuration Utility to the SmartPTT Radioserver only at the first start of the program.

To link Input Sound Configuration Utility to the SmartPTT Radioserver:

1. Run *ServerSoundConfigurator.exe*.
2. Click the **Browse** button to point the path to the SmartPTT Radioserver folder.



3. Select **Apply settings on-the-fly** to apply changes immediately after you make them.



### Note

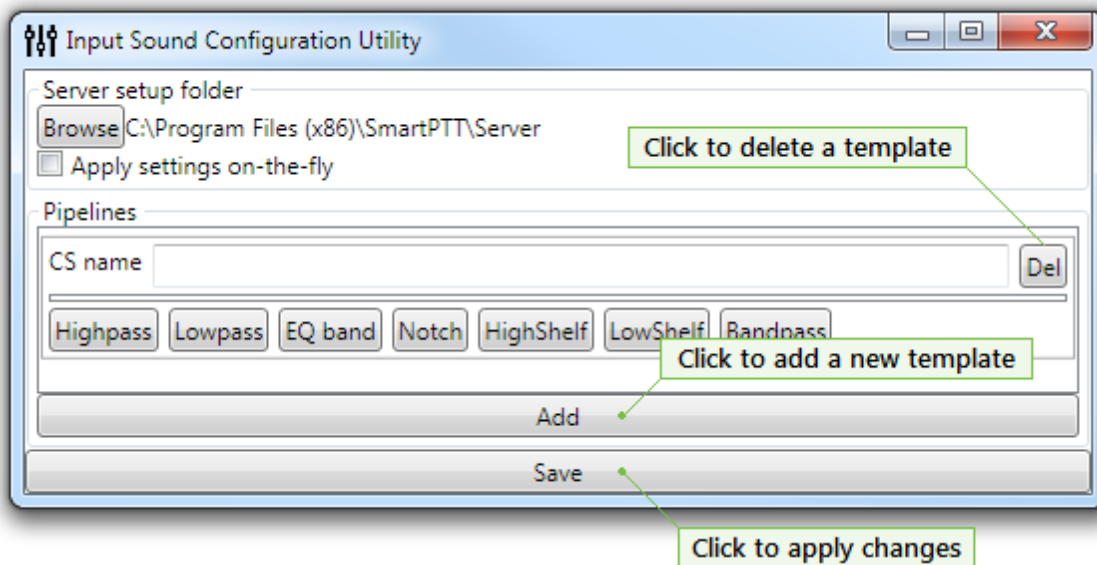
If you unselect this, you should click **Save** to apply changes.

Linking to the SmartPTT Radioserver is complete.

## Adding the control station

To link Input Sound Configuration Utility to the control station:

1. Run *ServerSoundConfigurator.exe*.
2. Make sure that SmartPTT Radioserver [is linked](#).
3. In the **Pipelines** area click **Add** to add a template for the control station.



4. Copy the name of the control station from the **Name** field of the "SmartPTT Server Configuration" program.
5. In the **CS name** field paste the name of the control station copied from SmartPTT Radioserver Configurator.

Click **Save** if **Apply settings on-the-fly** is unselected.



### Warning

You should create no more than one template for each control station.

Linking to the control station is done.

# Working with filters

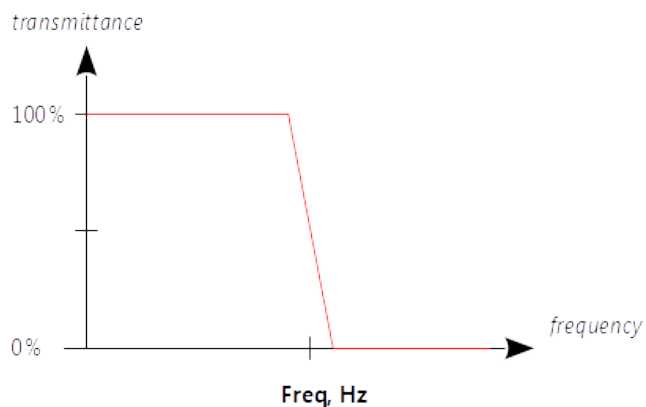
## Filter types

You can add seven types of filters to enhance the sound:

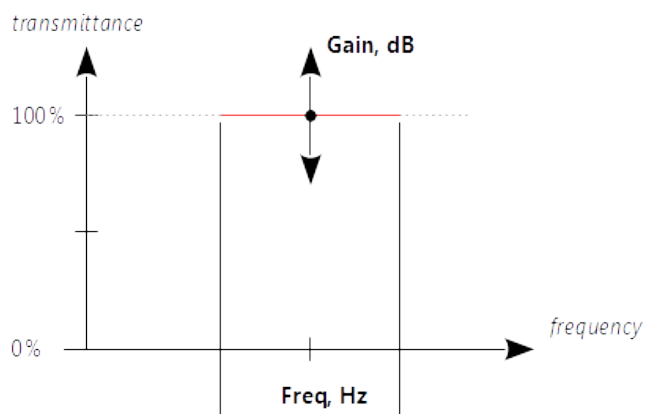
- [Highpass](#): Click to mute all frequencies which are lower than the particular one.



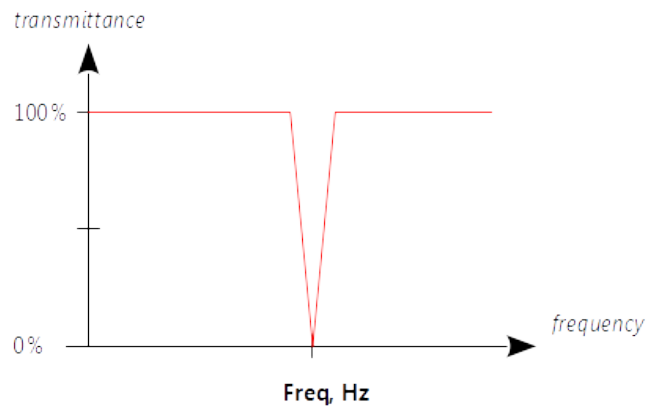
- [Lowpass](#): Click to mute all frequencies which are higher than the particular one.



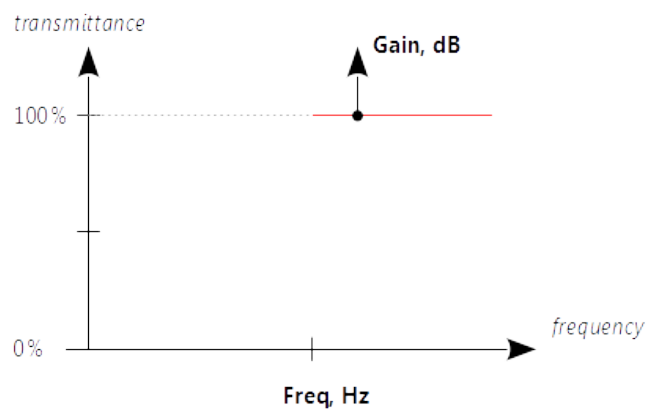
- [EQ band](#): Click to amplify or attenuate particular range of frequencies.



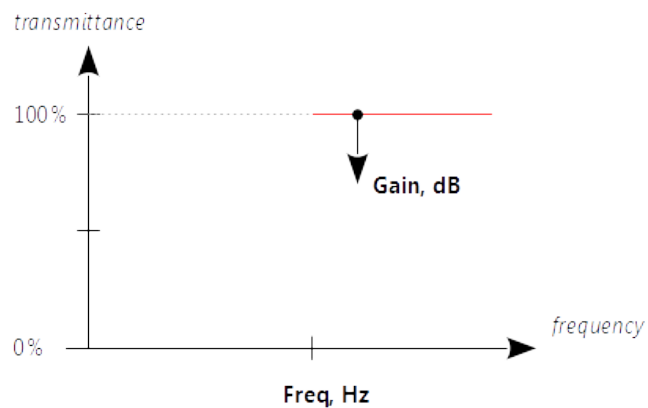
- [Notch](#): Click to mute the particular frequency.



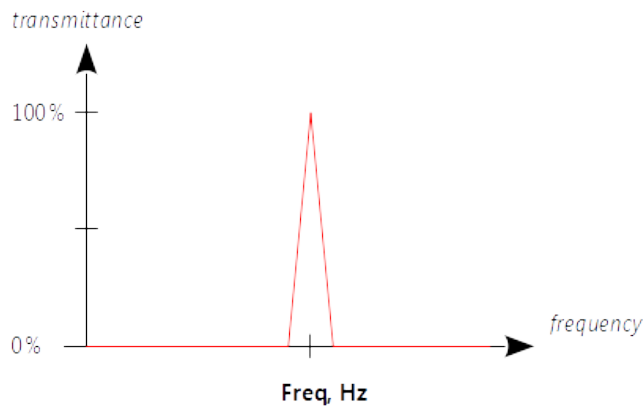
- [HighShelf](#): Click to amplify all frequencies which are higher than the particular one.



- [LowShelf](#): Click to add a minimum frequency of the range to be attenuated.



- **Bandpass:** Click to add a filter with a narrow passing band.



### Warning

Try to avoid the possible intersection of filters with opposite effects.

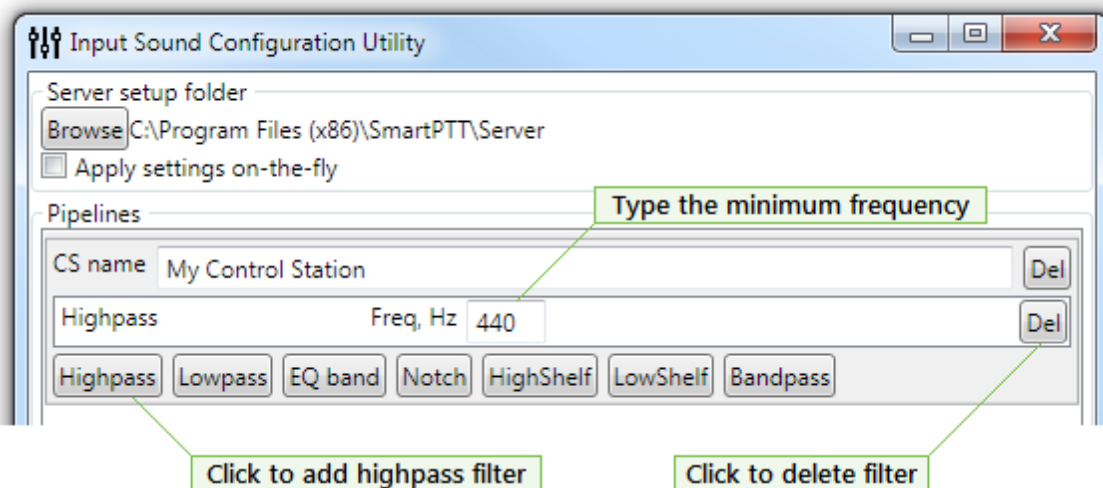
To select a proper set of filters, please, refer to the technical documentation on your radios and control stations.

## Adding filters

### Adding Highpass

To add a highpass filter:

1. Click **Highpass** in the control station template. A new line will appear.





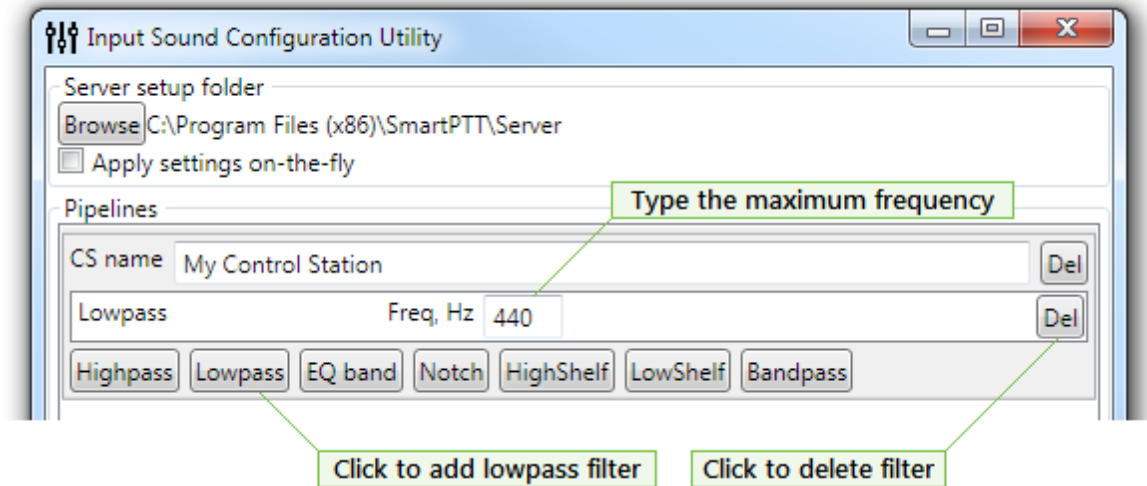
2. Type the minimum frequency (measured in hertz) in the **Freq, Hz** field.
3. Click **Save** if **Apply settings on-the-fly** is unselected.

You should apply only one **Highpass** filter for each control station.

## Adding Lowpass

To add a lowpass filter:

1. Click **Lowpass** in the control station template. A new line will appear.



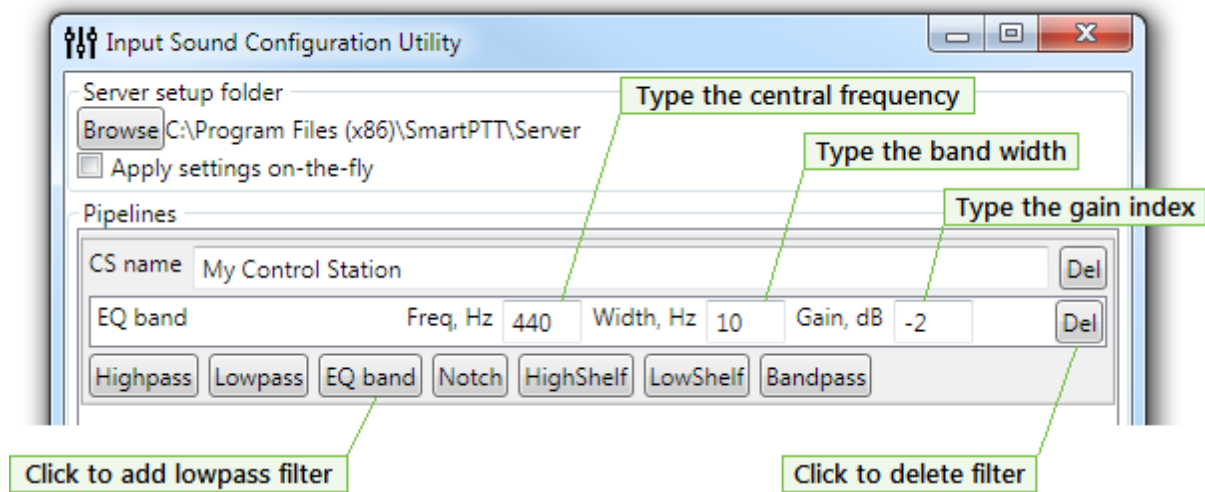
2. Type the maximum frequency (measured in hertz) in the **Freq, Hz** field.
3. Click **Save** if **Apply settings on-the-fly** is unselected.

You should apply only one **Lowpass** filter for each control station.

## Adding EQBand

To add a gain filter:

1. Click **EQband** in the control station template. A new line will appear.



2. Type the required parameters:

- **Freq, Hz:** Type the central frequency (measured in hertz) for the range you need to amplify or attenuate.
- **Width, Hz:** Type the width of a frequency band (measured in hertz) you need to amplify or attenuate.
- **Gain, dB:** Type the gain index (in decibels). You can type positive values to amplify the sound or negative values to attenuate the sound.



### Information

If you type 2 in the Gain field, you will hear a twice-loud voice. If you type -3 in the Gain field you will hear a thrice-low voice.

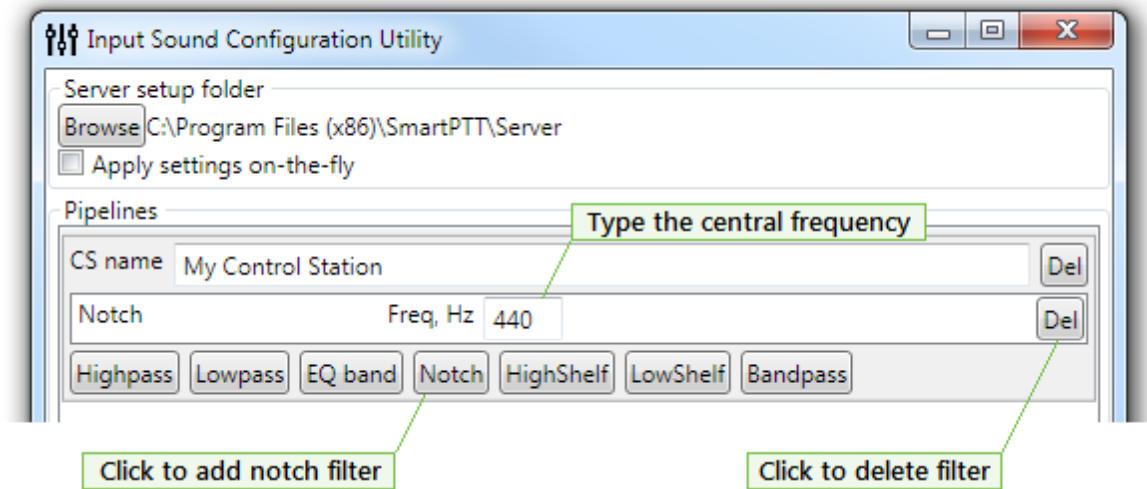
3. Click **Save** if **Apply settings on-the-fly** is unselected.

You can apply multiple gain filters with different frequency ranges for each control station.

## Adding Notch

To add a notch filter:

1. Click **Notch** in the control station template. A new line will appear.



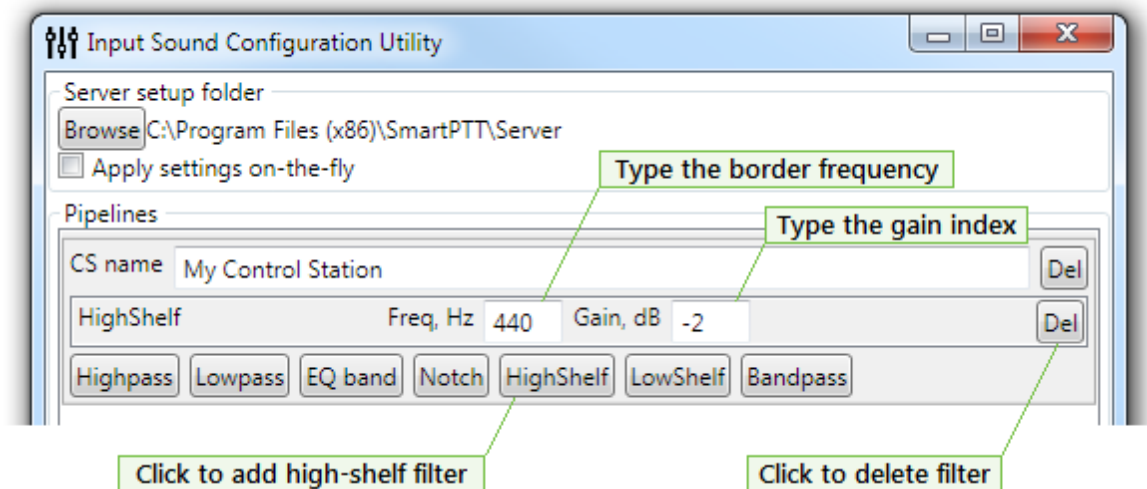
2. Type the frequency you want to be muted in the **Freq, Hz** field.
3. Click **Save** if **Apply settings on-the-fly** is unselected.

You can apply multiple notch filters with different frequencies for each control station.

## Adding HighShelf

To add a high-shelf filter:

1. Click **HighShelf** in the control station template. A new line will appear.

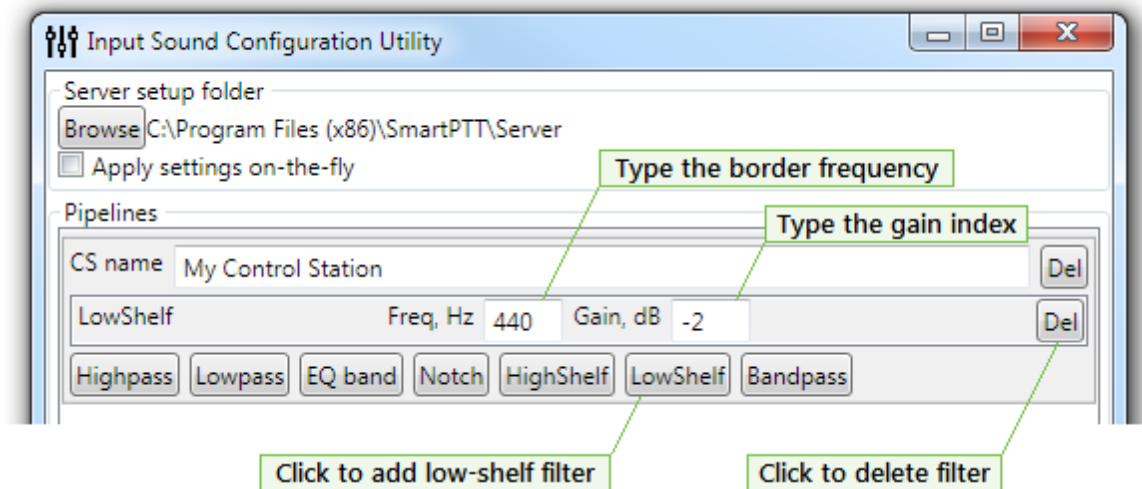


2. Type the required parameters:
  - **Freq, Hz:** Type the border frequency for the range you want to amplify.
  - **Gain, dB:** Type the gain index (measured in decibels) for the amplifying range.
3. Click **Save** if **Apply settings on-the-fly** is unselected.

## Adding LowShelf

To add a low-shelf filter:

1. Click **LowShelf** in the control station template. A new line will appear.

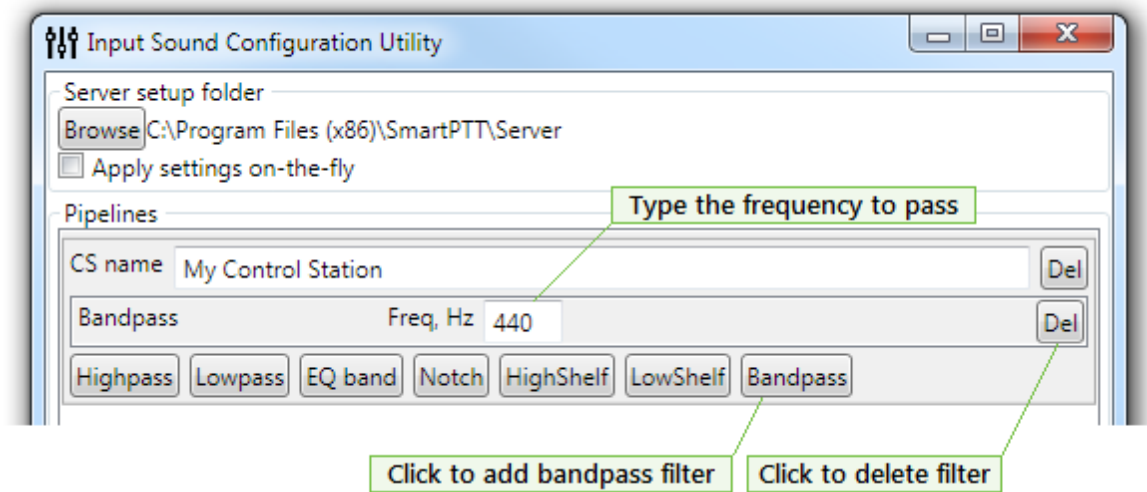


2. Type the required parameters:
  - **Freq, Hz:** Type the border frequency for the range you want to attenuate.
  - **Gain, dB:** Type the gain index (measured in decibels) for the attenuating range.
3. Click **Save** if **Apply settings on-the-fly** is unselected.

## Adding Bandpass

To add a bandpass filter:

1. Click **Bandpass** in the control station template. A new line will appear.



2. Type the frequency you want filter to pass in the **Freq, Hz** field.
3. Click **Save** if **Apply settings on-the-fly** is unselected.

## Reordering filters

To reorder filters in the template you should create another template with the right order of filters. You cannot change the order of filters in the current template.

## Editing filters

To edit a filter:

1. Change values in the corresponding fields.
2. Click **Save** if **Apply settings on-the-fly** is unselected.

## Deleting filter

To delete a filter:

1. Click **Del** next to the filter.
2. Click **Save** if **Apply settings on-the-fly** is unselected.

