

# 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.

<b>입 이 아이 아</b>	ty 💷 🔲	×
Server setup folder		
Apply settings on-the-fly	Click to point the path to the server 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.

밖에 Input Sound Configuration Utility	
Server setup folder Browse C:\Program Files (x86)\SmartPTT\Server Apply settings on-the-fly	Click to delete a template
Pipelines CS name	Del
Highpass Lowpass EQ band Notch HighShelf Low	VShelf Bandpass Click to add a new template
Add 🗸	
Save 🔨	
	Click to apply changes

- 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:

• <u>Highpass</u>: 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.



• <u>EQ band</u>: Click to amplify or attenuate particular range of frequencies.



• <u>Notch</u>: Click to mute the particular frequency.



• <u>HighShelf</u>: Click to amplify all frequencies which are higher that the particular one.



• LowShelf: Click to add a minimum frequency of the range to be attenuated.



• <u>Bandpass</u>: 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.

📢 Input Sound Configuration Utility	
Server setup folder	]
Browse C:\Program Files (x86)\SmartPTT\Server	
Apply settings on-the-fly	
Pipelines Type the minimum frequen	су
CS name My Control Station	Del
Highpass Freq, Hz 440	Del
Highpass Lowpass EQ band Notch HighShelf LowShelf Bandpass	
Click to add highpass filter Click to delete filter	

- 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.

<b>ពុំរុំទ្</b> Input So	und Configuration Utility
Server setu Browse C:\I	p folder Program Files (x86)\SmartPTT\Server
Pipelines	Type the maximum frequency
CS name	My Control Station Del
Lowpass	Freq, Hz 440 Del
Highpass	Lowpass EQ band Notch HighShelf LowShelf Bandpass
	Click to add lowpass filter Click to delete filter

- 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.

<b>ili</b> Input So Server setu	und Configuration	n Utility	Type the ce	ntral frequence	
Browse C:\	Program Files (x86 ettings on-the-fly	5)\SmartPTT\Serve	r	Type the b	and width
Pipelines -			1	/	Type the gain inc
CS name	My Control Static	on /	/		Del
EQ band		Freq, Hz 440	Width, Hz 10	Gain, dB2	Del
Highpass	Lowpass EQ ba	and Notch High	Shelf LowShelf E	Bandpass	
ck to add lo	wpass filter			Click to dele	te filter

- 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 decibells). 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.

<b>ពុំរុំទុំ</b> Input So	ound Configuration Utility	
Server sett BrowseC:\ Apply s	up folder "Program Files (x86)\SmartPTT\Server ettings on-the-fly	
Pipelines		Type the central frequency
CS name	My Control Station	Del
Notch	Freq, Hz 440	Del
Highpass	Lowpass EQ band Notch HighS	helf LowShelf Bandpass
Click t	o add notch filter	Click to delete filter

- 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.

야야 Input Sound Configuration Utility	
Server setup folder Browse C:\Program Files (x86)\SmartPTT\Server	
Apply settings on-the-fly Type the border freque	ncy
Pipelines Type the g	jain index
CS name My Control Station	Del
HighShelf Freq, Hz 440 Gain, dB -2	Del
Highpass Lowpass EQ band Notch HighShelf LowShelf Bandpass	
····//	/ """
Click to add high-shelf filter Click to dele	ete filter

- 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 decibells) 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.

<b>입 Input Sound C</b>	onfiguration Utility		
Server setup fold Browse C:\Progra	ler am Files (x86)\SmartPTT\Server s on-the-flv	Type the b	order frequency
Pipelines CS name My C	ontrol Station		Type the gain index
LowShelf	Freq, Hz 440	Gain, dB _2	Del
Highpass Low	pass EQ band Notch High	Shelf LowShelf	Bandpass
	Click to add low-shelf fi	lter	Click to delete filter

- 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 decibells) 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.

Input Sound Configuration Utility  Server setup folder  Browse C:\Program Files (x86)\SmartPTT\Server	
Apply settings on-the-fly	
Pipelines I ype the frequency to	pass
CS name My Control Station	Del
Bandpass Freq, Hz 440	Del
Highpass Lowpass EQ band Notch HighShelf LowShelf Bandpass	
'/	/ "

- 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.





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