

# How to record custom voice prompts

## Introduction

All the voice messages used by sipXecs can be customized and localized to meet your requirements. As a minimum you will most certainly want to customize your system greeting. This page provides a brief introduction on how to self-record a new system greeting or, alternatively, how to add a professionally recorded greeting to the sipX system.

## Voice Prompt Files

### Voice Prompt File Format and Location

All the sipX voice prompts are \*.wav files. They are located in `/usr/share/www/doc/stdprompts`. On Debian for sipXpbx version 3.2 they are located in `"/var/www/sipxpbx/doc/stdprompts"`.

The audio format we use is:

```
RIFF (little-endian) data, WAVE audio, Microsoft PCM, 16 bits, mono, 8000 Hz
```

To check the format of an existing wav file do this:

```
file <file>.wav
```

## Voice Prompt Files

There are almost 500 different .wav files that comprise the total vocabulary of sound bites that sipX is able to speak. These sound bites are assembled into sentences using VoiceXML scripts. Most file names of the .wav files sufficiently explain their content. A complete listing can be found in the document referenced below.

Additional information in .pdf format can be downloaded from the [SIPfoundry main site](#). You need to be signed in on the SIPfoundry site to see the files. Especially relevant to localization is the file *Localization\_of\_Voice\_Apps.pdf*.

## How to change the default system greeting

The generic greeting that plays to all callers by default is `?Welcome to the Pingtel Communication System.? To replace this informational prompt, you can record a set of greetings, each appropriate for a different situation, and specify which greeting the Auto Attendant should play.`

You can record the following different types of system-wide greetings:

- Standard
- After hours
- Special occasion

**Tip:** You can replace the initial Auto Attendant prompt with one that includes a welcome statement, rather than playing two different prompts in sequence.

### Setting permissions for the user group to allow recording of system greetings:

User permissions are either defined for the group the user belongs to or for the individual user. In order to enable a user to record system greetings, the group or the user have to have permission to do so (default: *disabled*). In addition, the group or user has to enable voicemail access (default: *enabled*).

User Group Settings

- Configure
- Unified Messaging
- Schedules
- Conference
- External User
- Speed Dials
- Music On Hold
- Permissions**
- Caller ID
- Personal Auto-Attendant
- Instant Messaging
- MyBuddy
- Call Forwarding

### Permissions

#### General Permission

Superadmin Access	<input type="checkbox"/>	(Default: unchecked)
<small>User can log into administration interface.</small>		
Change PIN from IVR	<input checked="" type="checkbox"/>	(Default: checked)
<small>User can change PIN value from Voicemail system. PIN is used to log into voicemail system and web interface. PIN does not affect the password phones use to authenticate with registration server.</small>		
Configure Personal Auto Attendant	<input checked="" type="checkbox"/>	(Default: checked)
<small>User can configure personal auto attendant</small>		
Configure Music on Hold	<input checked="" type="checkbox"/>	(Default: checked)
<small>User can configure music on hold</small>		
Subscribe to Presence	<input checked="" type="checkbox"/>	(Default: checked)
<small>User can monitor the presence status of other users</small>		

#### Call Permission

900 Dialing	<input type="checkbox"/>	(Default: unchecked)
<small>User can dial 900 numbers</small>		
Attendant Directory	<input type="checkbox"/>	(Default: unchecked)
<small>List user in Auto Attendant</small>		
International Dialing	<input checked="" type="checkbox"/>	(Default: checked)
<small>User can dial international numbers</small>		
Local Dialing	<input checked="" type="checkbox"/>	(Default: checked)
<small>User can dial local numbers</small>		
Long Distance Dialing	<input checked="" type="checkbox"/>	(Default: checked)

## To change the generic greeting:

1. Script your new *Standard*, *After Hours*, or *Special Occasion* greetings.
2. The end user who wants to record greetings logs in to his or her voicemail inbox from a phone. The main voicemail menu for that user will include a system administration option.
3. The end user follows the prompts that play:
  - a. Press 7 to access system administration.
  - b. Press 1 to manage system greetings.
  - c. Select a greeting type to record.
4. When the end user completes and accepts the recording, the newly recorded prompt immediately begins to play to all new callers.
5. Optionally, the end user can repeat this process to record a different system greeting, such as an after hours or weather emergency greeting.
6. To select the greeting that plays to callers, the end user follows the prompts to select one of the previously recorded system greetings.
  - a. Press 7 to access system administration.
  - b. Press 1 to manage system greetings.
  - c. Press 4 to select the system-wide greeting.
  - d. Select the greeting to play.

## How to change the default auto-attendant prompt

The initial *Auto Attendant* prompt plays immediately after the system greeting. By default, this prompt is:

"If you know your party's extension, you may dial it at any time. To dial by name, press 9. To reach the company operator, press 0."

You can replace this prompt with a new prompt that describes the same options, or replace this prompt with a different prompt that describes different options. For example, you could add an option that lets callers transfer to your company help desk by dialing 1. Or alternatively, you could prevent this prompt from playing at all.

## Replacing the initial prompt

To replace the initial Auto Attendant prompt:

1. Script the new prompt
2. If required, change the options available with the new prompt
3. Select an end user to record the prompt
4. Make sure the user who wants to record system prompts is in a group that has this feature enabled (see above).
5. The end user logs into his or her voicemail inbox from a phone. The main voicemail menu for that user will include a system administration option
6. The end user follows the prompts that play:
  - a. Press 7 to access system administration
  - b. Press 2 to manage the Auto Attendant prompt
  - c. Press 1 to record the Auto Attendant prompt

7. When the user completes and accepts the recording, the newly recorded prompt immediately begins to play to all callers

## How to Record, Convert and Upload Audio Files (Voice Prompts)

### Recording Voice Prompts

When recording voice prompts, use 8kHz sampling, mono, and 16 bits per sample and save as Microsoft PCM .wav file.

To record your own prompts you might want to try [Audacity](#). This is an open source application available for Mac OS X, Microsoft Windows, and GNU/Linux and it is used for music recordings. It represents a good mix between powerful features and high usability (i.e. it is simple to use). Normalizing the volume after recording will most likely improve your results. Audacity also provides a noise reduction capability that shall be recommended.

A commercial alternative to Audacity is [Adobe Audition](#). Record your source material using a high (at least 44Khz) sample rate, apply filters or normalization, then down sample the recorded audio to 8,000 Hz and save the file in Windows PCM wav (16 bit) format.

Avoid background noise when recording and use a reasonable quality microphone (don't hold it in your hand). It is also a good idea to make sure that you have access to your voice model in the future as you might have to do additional recordings and you do not want to change the voice.

### Using Voicemail to Record Prompts

If you don't need music as part of your Voice Prompt, another easy method of recording your voice prompts is to dial your voicemail box (8 and your extension), record the Voice Prompt as you want it. Then go into the user menus, right click on the voicemail file and save the WAV file to your local computer then upload it to the proper AA.

Alternatively, you can use one of the many recording services.

### Converting Audio Files

For converting audio files into the format used by sipX, we recommend [sox](#). This is a simple yet powerful tool to convert many different formats of audio files. For instance, it would be possible to convert MP3 music files into the sipX format to be used by the call park server to play music on hold.

### Uploading Audio Files

Voice prompts can be uploaded using the sipX Configuration Server.

- Auto-attendant prompts
- Music on hold (call park server)

## Additional Information

[Tips on how to record voice prompts](#)