



infovox4 - Help

version 4

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Introduction to infovox4

infovox4: accessibility anywhere, anytime!

infovox4 is a USB product including a powerful SAPI text-to-speech engine and a quick and smart screenreader. It fits in your pocket and it guarantees that you are always ready to access any computer, anywhere, anytime. With infovox4 you are always ready to open and access any computer running Windows!

infovox4 allows you to run the text-to-speech engine directly from the USB but also to install the product locally on up to three computers. After installing on a local computer you no longer need to have the USB inserted on the computer to access the infovox4 text-to-speech voices.

infovox4 has two main functionalities:

- Portable text-to-speech solution for your computers at home and at work.

infovox4 can be installed locally on up to three computers, providing you with a powerful SAPI4 and SAPI5 compliant text-to-speech engine to be used on your computers together with your favourite screenreader.

- Portable accessibility solution when travelling and when no other screenreaders are available.

infovox4 lets you access any computer immediately with no need for any installation or administrator rights. It includes a wide choice of high quality text-to-speech voices, the brand new Colibri voices providing more flexibility and better performances a higher reading speed, a SpeechCreator application for listening to text and create sound files for personal usage, and the NVDA screen reader for accessing your computer.

When you use infovox4 on your computer as a SAPI compatible Text-to-Speech engine, you can also choose to install the engine locally on the hard disk to increase the text-to-speech performance.

infovox4 comes with lots of languages including several high quality voices.



After plugging infovox4 into your computer, Windows will automatically map the USB device as two drives – *infovox4 Launcher* and *infovox4 USB*. The mapping is implemented by Windows, therefore, the mapping letters are selected by Windows.

If you already have folders mapped in your computer, it may be happen that the automatic process maps infovox4 using a letter that is already used for another network drive. Follow these instructions if you encounter this problem:

1. Check which drive letters were used by infovox4.
2. Remove infovox4.
3. Specify another drive letter for the folder. Select a letter that is different from the ones used by infovox4.
4. Reboot your computer
5. Insert infovox4 into your computer

Do not apply this solution if your computer's physical units are involved, for instance hard-drive partitions.

For network drive mapping instructions, please refer to the Windows Help.



Depending on the BIOS settings of your computer, infovox4 can be recognized as a boot device. To avoid this risk it is recommended to remove the infovox4 USB device before rebooting the computer.



infovox4 LaunchPad

infovox4 LaunchPad is the main application that starts up automatically when the infovox4 USB pen drive is plugged into the computer. From this application, you can launch other infovox4 applications and set parameters affecting the behaviour of infovox4.



The LaunchPad main window

The applications can be launched by clicking the button in the main window or by selecting corresponding items from the *Tools* menu.

The LaunchPad's buttons

Each of the applications included in the infovox4 suit are described in a separate chapter of this document. The following applications are included:

- [NVDA](#) – the tool for reading the screen content out loud.
- [SpeechCreator](#) – use this application to get a text played or for generating speech files.
- [Pronunciation Editor](#) – the tool that allows you to change the standard word pronunciation.

- [Download Manager](#) – the tool you need for managing the download, installation and update of the voices.
- [Voice Manager](#) – allows you to create your own voices based on the ones included in infovox4 by setting different parameters.

There are three more buttons in the infovox4 launcher apart from the application buttons. They are located in the lower part of the window.

Configuration Wizard – Clicking this button opens a dialogue box where you may choose how you want to use infovox4 and decide if you want to run it from the USB unit or if you want to install the software locally.

Eject/Exit – use this button to exit the LaunchPad. If you run the LaunchPad from the USB pen drive the infovox4 hardware unit will be ejected from the computer. You can then safely detach it from your computer.

? - clicking this button opens the infovox4 Help

The LaunchPad's menus

Tools

The *Tools* menu contains menu items that correspond to the buttons of the LaunchPad main window, see [The LaunchPad's buttons](#).

Settings

Use the commands available in this menu to customize your infovox4 and to manage it.

The General sub-menu

From the *General* sub-menu you can:

- Change the localization language.
- Manage the local infovox4 installation. This action requires administrator privileges.
- Select one of the options available for LaunchPad specifying the action on plugging the infovox4 stick to the computer.

The Voice sub-menu

From the *Voice* sub-menu you can:

- Choose the infovox4 voice to be used with the Screenreader. You select your voice from the list of all the available voices.
- Choose one of the voices you used recently.
- Select one of the options available for the Screenreader specifying its behaviour on plugging in the infovox4 stick to the computer.

- Activate or deactivate the playing back of the welcome message.
- Launch the welcome message editor where you can enter the message to be spoken on starting the LaunchPad and select the voice speaking the welcome message.

The PLI sub-menu

PLI stands for *Permanent Local Installation* which means that you run infovox4 that has been installed locally on your computer. To work without the USB pen drive plugged into the computer, the PLI requires a license. Usually the required license is transferred automatically from the infovox4 pen drive when you install infovox4 but you can also transfer it from and to the infovox4 pen drive manually any time. The *PLI* menu allows you to manage the PLI license. You can do the following:

- Transfer a PLI license to your computer.
- Transfer back the PLI license from the computer to the infovox4 pen drive.
- Check the PLI license status. The information presented specifies the number of available licenses and says if a PLI license is available on your computer.

The Backup sub-menu

The menu commands available here allows you to backup and restore your infovox4 USB unit. There are two options specifying the extent of your action in the dialogue box that these commands open. *Complete* covers the infovox4 software _and_ the user settings including user-defined voices and user lexicons. The *User data* option affects only the user specific data.

The SAPI sub-menu

Here you can activate the SAPI engine. You can activate SAPI4, SAPI5 or both of them. The action requires administrator privileges. You don't need activate the SAPI if you install infovox4 locally on your computer. It will be activated automatically.

Help

The *Help* menu gives you the following options:

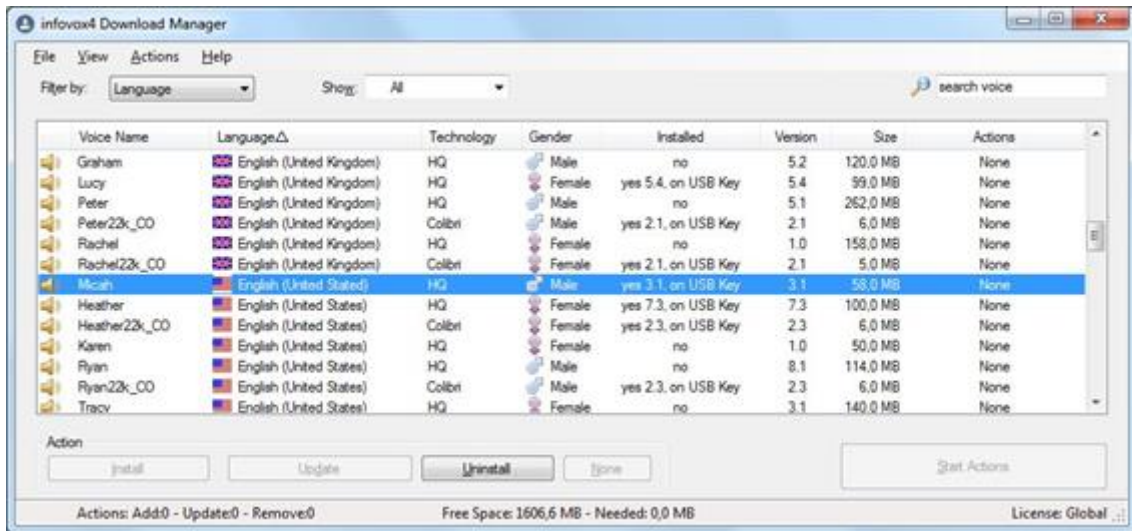
- Selecting the *About* sub-menu opens a dialog box displaying the information and the status of the infovox4. For instance, the serial number of your USB infovox4 unit is displayed. If you click the *Copy to Clipboard* button the information is copied to the Windows clipboard and the content can be pasted in a document or an email. This function can be useful for support purposes.
- The *License Agreement* command displays the license terms that you need to accept in order to use the infovox4.
- The *Content* command opens the infovox4 Help
- Checking *Automatic check for Updates on Launch* makes the infovox4 LaunchPad check if there are any software updates available. If there are any updates you will be notified when the LaunchPad is launched.

- Selecting *Check for updates* checks if there are any software updates available. You can run this command at any time.



Download Manager

The *infovox4 Download Manager* is an application that helps you to manage the infovox4 voices. The main window displays the voices that you can use.



The Download Manager main window

For each voice there is a value specifying its name, language, technology, gender, installation status, version number and the selected action.

The *Technology* field specifies one of the *HQ*, *HD* or *Colibri* values.

- *HQ*: Very High Quality text-to-speech resulting in a very natural and pleasant-sounding voice suitable for reading longer texts, due to its more expressive character. Pitch and pitch dynamics are fixed and cannot be changed for HQ voices.
- *HD*: High Density text-to-speech using an older technology that results in a more robotic and repetitive sentence melody. HD voices support changes of pitch and pitch dynamics.
- *Colibri*: Colibri voices are very compact. They are based on the HQ voices with the same name. The sound quality is less natural but they enjoy higher flexibility, which makes these voices more suitable for reading short sentences or also longer texts at higher reading speed. Colibri voices support changes of pitch and pitch dynamics.

Clicking the loudspeaker icon available for each of the voices will play a sample speech for the selected voice.

Performing actions on the voice

Your infovox4 license determines which voices are displayed in the voice list. You can access, manage and use these voices. The license type is displayed in the right bottom corner of the window.

You can download voices using this application, install and uninstall them and also run the updates. The processing takes place in two steps.

How to select actions on a voice?

First you need to specify the action for a voice or several voices. You can choose between *Install*, *Update*, *Uninstall*, and *None* (no action to be performed). The choice can be performed in several ways. Choose the one that is most convenient for you.

1. Select a voice and use the context menu. When you right-click the mouse the options applicable for this voice will appear. Select the one you want.
2. Select a voice and use any of the buttons available at the lower section of the main window. The buttons that correspond to the actions not applicable to the selected voice will be disabled. Click one of the enabled buttons.
3. Select a voice and chose any of the available menu items. The actions that are not applicable to the selected voice will be disabled. You can access the menu commands using the arrow button or the *Alt*-command, i.e., pressing the *Alt* button + the letter affecting the menu item.
4. Double-click the field specifying the current action. The value will change to the next available. Consecutive double-clicking will change the value until you return to what was initially specified.

After specifying the action a dialog box will appear asking you if you want to run the selected action immediately. If you click the *Yes* button the selected action is executed immediately. This is a good choice if you don't plan to run more than the action you just selected. However, if you plan to run several actions it can be more convenient to save them as "pending actions" and execute all of them when you have finished selecting all your actions. If you prefer the second option click the *No* button. Tick the *Do not ask again* checkbox if you don't want this dialog box to appear every time you select a new action.

If you click the *No* button continue selecting actions for other voices. They all will be added to the "pending actions".

Click the *Start actions* button or select *Start actions* sub-menu from the *File* menu.

It is also possible to select several voices using the *Shift* or the *Ctrl* buttons and choose an action available for all the selected voices. For instance if you want uninstall several voices you don't need to uninstall them one by one. Select all the voices you want to uninstall, select *Uninstall*, and click the *Start actions* button.

If no actions are selected for the voices and there are voices requiring and update the caption of the *Start actions* button toggles to *Update voice(s)*. If there are no selected actions and no voice update available, the button remains disabled (greyed).

Changing the view

You can affect the view of voices that are listed in the main window. You can control it by using the *View* menu or by the drop lists located immediately above the voice list. You can combine the filtering and sorting features to get the desired view.

Filtering the voice view

You can filter the voices listed in the main window by using the *Filter by* and *Show* sub-menus of the *View* menu or by selecting proper values in the corresponding drop lists located above the voice list. Start with selecting a filter option. You can filter the voices with respect to their language, gender or the installation status. After selecting the filtering value choose a *Show* value. The values available there depend on the filter option.

Example:

You want only the French voices to be displayed in your list. Select *Language* as the filter option in either the *Filter by* drop list or from the *View* menu, *View*→*Filter by*→*Language*. Now select *French* from the *Show* drop list or from the *View* menu, *View*→*Show*→*French*. After that, only French voices will be displayed in the voice list.

Sorting the voices

You can sort the order in which the voices are displayed by either clicking the column caption in the voice list or by selecting the *View*→*Sort by* menu and selecting any of the values available there. The action values are sorted in the ascending order by default. You can change it to descending order by clicking the arrow symbol displayed in the right part of the *Action* column header.

The menus

File

- Install Voice from File* – use it if you have a local voice install file.
- Start actions* – this command starts the actions selected for the voices, i.e., install, update, uninstall, or none (no action)
- Exit* – run it to exit the Download Manager

View

The menu items available here are described in section [Changing the view](#).

Actions

Get Info – this command displays an info box of a voice selected in the voice list.

Play sample – this command plays a sample phrase of a voice selected in the voice list.

Stop – stops the playback started by the *Play sample* command.

The *None*, *Install*, *Update*, and *Uninstall* are described in [Performing actions on the voice](#).

Help

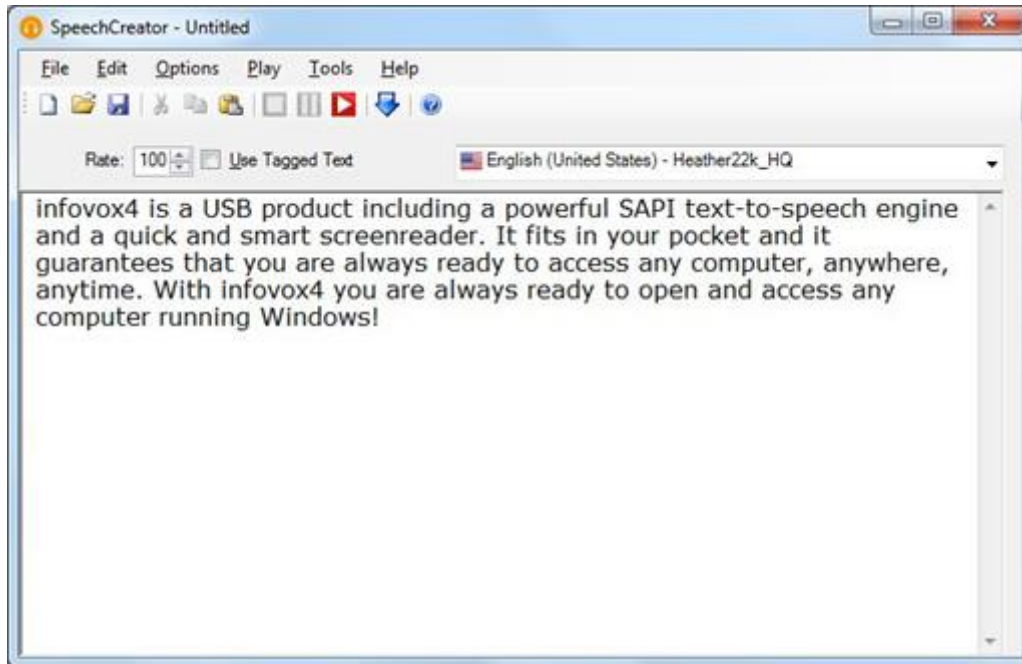
infovox4 Download Manager Help – opens the Help

About – this command opens an info box about the Download Manager



SpeechCreator

The SpeechCreator



The SpeechCreator main window

The infovox4 SpeechCreator shows some of the capabilities of the infovox4 Text-to-Speech Engine and has several typical features of a standard text-to-speech client application. The main functions of this application are listed here:

- Reads out loud any text file or text directly typed in the SpeechCreator window, using anyone of the available infovox4 voices.
- Possibility to convert text files into mp3 files.
- Access the infovox4 Voice Manager and the Pronunciation Editor
- Testing the SAPI tags

In the SpeechCreator window you will see an empty document window. You can now type any text (or load a text file) and then have it played back by infovox4.

The Menus

The File menu

- Use the *New* command to create a new text file. An empty document window appears, ready for editing.
- Use the *Open* command to open a file. You will be prompted with the familiar Open File dialog box. Double-click on the name of the file that you want to open and its content will appear in a new document window. The file formats that SpeechCreator can open are the *txt* and *rtf* file formats.
- Use the *Save* command to save files. To save the file with a different name, choose *Save as*.
- Use the *Exit* command from to quit the SpeechCreator.

The Edit menu

- You can edit the text in the open document in the usual way, using the *Undo*, *Redo*, *Cut*, *Copy*, and *Paste* commands from the *Edit* menu.
- Use the *Select All* command from the *Edit* menu to highlight the whole text in the active document window.
- The command *Toggle Focus to Toolbar* moves the focus from the toolbar to the text window, if the toolbar is active. The focus is moved in the opposite direction if the text window is active.

The Options menu

- The *Font...* command is used to select a font type, size and style. The command starts a new window where the options can be selected.
- If the *Automatic Heading Detection* option is selected the full stop will be automatically added to the text for each text line not terminated by the full stop. In this way the titles, itemized lists etc, will be read with correct intonation.
For instance, a title not closed by the full stop will be read as a sentence if this option is selected. If this option is not selected, the title that is not closed by the full stop will not be considered as a separate sentence. It will be concatenated with the text that follows immediately after and it will constitute one sentence with the first sentence of the text that follows after the title.
The option is activated by default.
- The *Use Tagged Text* option determines how the text is interpreted.
If you want to use the Microsoft Speech API control tags in your text, you have to select this option.

Here is an example of tagged text:

```
\Spd=100\ Now I speak normal, \Spd=150\ here I speak a bit faster, and soon I will \Spd=40\ speak very slowly!
```

For more information on Text Tags see chapter [Text Tags](#).

The same result can be reached by checking the Use Tagged Text option box in the main window of the SpeechCreator. If this option is not selected, the Microsoft Speech API control tags will be interpreted as a plain text and read as such.

- The *Unicode Files* option should be selected when the user opens a file that is a Unicode file. If this option is not selected the coding of the opened file will be interpreted as the default coding used by the voice that is currently active in the SpeechCreator.

Another case where this option should be selected is when the user wants to save the text entered to the SpeechCreator edit window as a Unicode file. The default character coding is what is default for the particular voice.

The Play Menu

- Use the *Play* command from the Play menu to have the text in the edit window read out loud. The SpeechCreator automatically begins reading the text from the beginning of the file. If you only want to listen to a certain part of the text, highlight this part before you choose the *Play* command.
- While the speech is in progress, you can choose the *Stop* command from the Play menu to stop the speech. You can also choose the *Pause* command from the Play menu to pause the speech. The speech output will continue when you click the *Play* button.

You can also use hotkeys for the commands above:

Play	F2
Pause	F3
Stop	F4

The Tools menu

- Use the *Pronunciation Editor* command from the Tools menu to open the Pronunciation Editor. See chapter [Pronunciation Editor](#) for more information about this application.
- Use the *Voice Manager* command from the Tools menu to open the infvox4 Voice Manager application. See section [Voice Manager](#) for more information on this application box.

The Help menu

- Use the *Contents* command from the Help menu or the hotkey **F1** to open the Help file.
- The *About Speech Creator...* command from the Help menu opens the *About* box containing information about SpeechCreator.

Selecting a voice

If you want to select a different voice to read the text in the current window, use the voice list on the right above the edit window.

Creating speech files

The SpeechCreator allows you to create speech files in the mp3 file format.



Note:

You may only use infovox4 or any sound file generated by the infovox4 voices, for your own personal use. You may not use the sound files generated with the infovox4 voices in commercial applications, for public performances, for redistribution, or broadcasting.

To see the infovox4 end-user license agreement open the infovox4 LaunchPad, select *Help*→*License Agreement...*

You can convert any text opened in the SpeechCreator edit window to an mp3 speech file.

Proceed as follows to generate a speech file:

1. Enter the text in the SpeechCreator edit window or open a text file that you wish to convert to speech. If you do not want to convert all the text in the edit window, simply select the text section to be used.
2. Select the voice from the voice list.
3. Check if the speech rate is set to the value you wish to use.
4. Listen to the text using the *Play* button. This will allow you to verify that the SpeechCreator settings are correct.
5. Start the conversion by selecting the *Export as MP3...* command from the File menu. This will launch a dialog box
6. Specify the output file name in the dialog box.
7. If you highlighted a specific text selection in the edit window check the *Selected Text Only* option box. Otherwise, all the text will be converted to a speech file. If no text is highlighted in the SpeechCreator edit window, this option will be dimmed.
8. The default bit rate of the mp3 file is 128. You can choose a different value from the Bit Rate drop-down list.
9. Clicking the *Export* button will start generating the mp3 speech file.

Troubleshooter

Error message at startup

Should you receive an error message when launching the infovox4 SpeechCreator, this could be due to two common causes:

- You do not have a valid license.
- Your sound card is incorrectly configured. This is often the case when you use general audio drivers, often referred to as *Soundblaster compatible*. To use infovox4, you must have the correct driver matching the model of your sound card. The problem is that certain operations (like playing a WAV or MP3 file) usually can function with a general purpose driver, but other more specific audio operations, like those required by SAPI, requires the proper audio driver.

No sound from the loudspeakers

If you typed text in the document window and pressed Play, but do not hear any sound from the loudspeakers, please check the following:

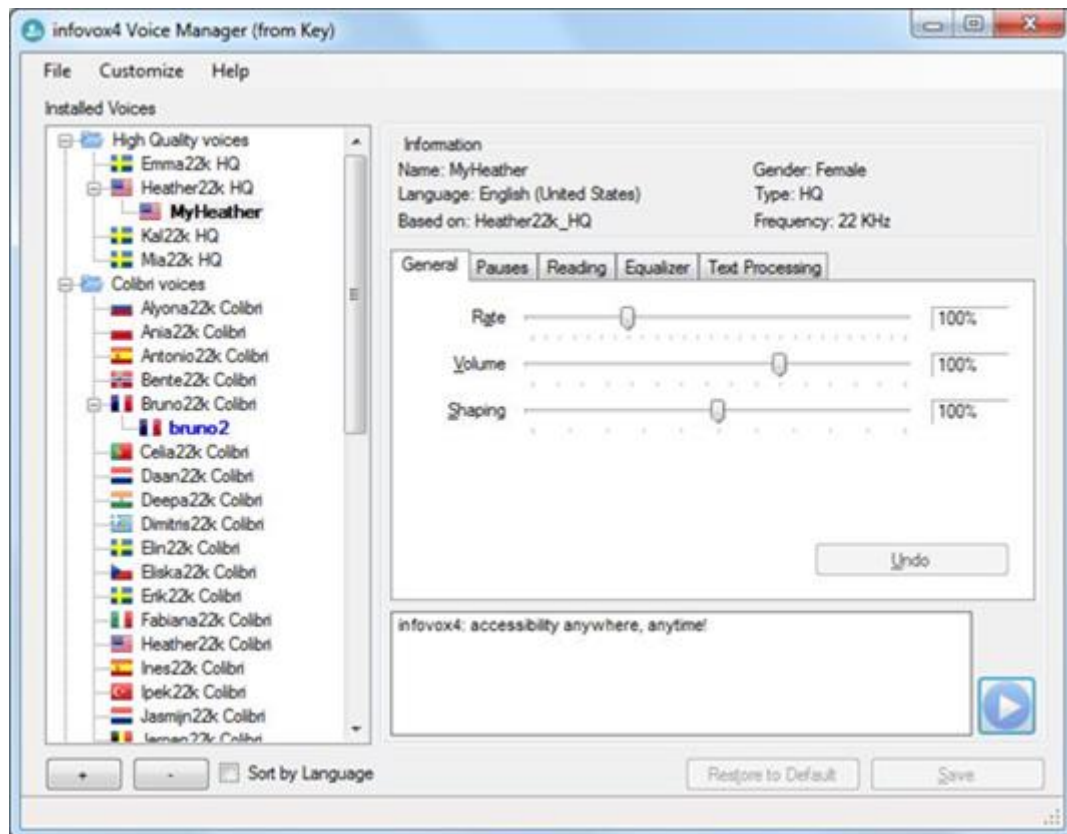
- that your loudspeakers are correctly connected;
- that the volume in Windows is set to a proper level;
- open the *Tools* menu and choose Voice Manager, and make sure that the speech volume is set to a proper level (note that the infovox4 volume corresponds to the WAVE volume controller in the Windows mixer);

Voice Manager

The Voice Manager is an application providing you with a way to customize the infovox4 voices. You choose an original voice among the available infovox4 voices and create a new voice based on the selected one. You customize your new voice by changing its settings. When you are pleased with your voice settings save the new customized voice. The voice based on an original voice and using your own settings is called a *custom* voice. Every application using infovox4 will then list your custom voice among the other available voices.

You launch the Voice Manager from the infovox4 LaunchPad. It is also possible to launch it from the SpeechCreator.

The Main Window



The Voice Manager main window

The Voice Manager's left pane lists your voices. The voice list is organised as a tree structure. In the remaining chapters, we will use a terminology common to that of tree structures to describe the items in the left pane: The term *node* indicates a generic point in the tree structure and the term *branch* indicates a node that is a sub-tree. You can click on the small "plus" or "minus" nodes to show or hide all branches and leaves below that node.

Clicking a voice name in the voice list presents the corresponding voice information at the top of the right part.

The lower part of the right section contains a text box that you can use for entering a text and playing it by the selected voice. This function is especially useful when you set parameters for your own voices. You can set a parameter and check how this setting affects the voice. Adjust the parameter again and check the effect by clicking the Play button. You can also use the Play command from the File menu or use the **F2** key. While the text is played you can use **F2** again to stop the playback.

At the bottom of the Voice Manager main window you will find four buttons and a tick box. Their function is as follows:

The '+' button

Clicking it creates a new voice based on an original voice. The button is disabled if no voice has been selected from the voice list. The same action can be performed by running the New Custom Voice command from the File menu.

The '-' button

Clicking it removes the voice selected in the voice list. Only voices created by the user can be deleted. The button is disabled if no voice has been selected in the voice list or if the selected voice is an original voice and cannot be removed. The same action can be performed by running the Delete Custom Voice command from the File menu.

The *Sort by Language* check box

By default the voices are sorted alphabetically with respect to their names. Sometimes it can be more convenient to sort the voices according to their language. This will be the effect of ticking this check box.

The *Restore to default* button

Click this button to reset the voice you previously created. It means that all your settings will be deleted and replaced by the default values for each parameter. You can also run the Restore to Default command from the File menu.

The *Save* button

Clicking it saves the parameters you set for your voice. Also, you can run this command by using the Save Custom Voice command from the File menu.

In the middle on the right the property box appears if a user-created voice is selected from the voice list. It is divided in several tabs where you can adjust all editable properties of a voice. For a complete description of the voice properties, please consult the [Voice Properties](#) section.

Tutorials

Follow these tutorials and you will learn how to perform the most common operations, like creating, editing and deleting a customized voice.

In these tutorials we will use the terms *custom voice* to indicate the custom voice you are creating/editing or deleting, and *original voice* to refer to the infovox4 voice that you are using as a starting point for creating the new voice.

Creating a Voice

In this example we will create a new voice called Maggie based on the American English voice called Heather. The same procedure applies to all other infovox4 voices.

Maggie will have a lighter tone, will speak a bit faster, but with longer pauses

Do as follows:

1. Start the Voice Manager.
2. Look under the High Quality voices node, expand it if necessary. All installed voices are listed.
3. Click on the name of the voice you want to use as a template for the new voice. For our example we will use Heather22k.
4. Choose *New Custom Voice* from the File menu. The New Custom Voice dialogue box appears.
5. Type the name of the new voice in the Name of the new voice box. For this example we will use the name "Maggie". After typing the name click on Create to create the new voice.
Now you can set the properties of the new voice.
6. Choose the *General* tab and set the *Rate* level using the Rate slider. For this example, choose 120.
7. Choose the *Pauses* tab and set the Punctuation level to *Long*.
8. Choose the *Equalizer* tab, activate the *Use Filter* check box, and set the equalizer to the following levels (from left to right): *-1.0, -2.0, +2.0, +4.0*.
9. Save the new voice by clicking on the *Save* button, or by choosing *Save Custom Voice* from the *File* menu.

The new voice *Maggie* is now saved and listed right under *Heather22k*, ready to be used in any application using infovox4.

Deleting a voice

You can delete custom voices from the Voice Manager, but you cannot delete the original voices distributed with infovox4.

Let us say that you want to delete the voice *Maggie* created in the previous sections, see section [Creating a voice](#).

Do as follows:

1. Start the Voice Manager.
2. Locate and select the voice you want to delete. For this example we will choose *Maggie*, located under the *High Quality voices/Heather22k* node.
3. Choose *Delete Custom Voice* from the *File* menu.
A dialogue box appears asking you to confirm the choice of deleting the voice.
4. Click on *Yes* to proceed with the operation.

The voice immediately disappears from the voices list.

Editing a voice

All custom voices can be edited. So, if we decide that the rate of the *Maggie* voice created in the previous tutorial (see section [Creating a voice](#)) is still too low, we can change that voice instead of creating a new one.

Do as follows:

1. Start the Voice Manager.
2. Locate and select the voice you want to edit. For this example we choose *Maggie*, located under the *High Quality Voices/Heather22k* node.
3. Open the *General* tab and set the Rate level as you wish. You can play a text by typing it in the edit box at the bottom of the dialogue box to control the result of the new settings. Set any other setting as you wish.
4. Use the *Undo* command to reset the settings to the last saved ones, if you are unhappy with the changes you made.
5. When you are satisfied use the *Save* command to save the new settings.

Voice Properties

It is not possible to change the settings of the original voices, the ones that you get by installing infovox4. You can only adjust parameters for *custom voices* that you need to create yourself, see section [Creating a voice](#) for more information. When you have created your own voice, it is

an exact copy of the original voice you used. To set speech parameters select the voice name in the voice list on the left. This action makes the voice property tabs dialog appearing in the right pane. Now you can change the characteristics of a voice, for example, the speech rate, the frequency settings, etc. You can experiment to make a voice more suited to your needs.



Note: Not all of the parameters are available for all the voices. If one of the parameters specified below is not displayed for a particular voice it means that it is not supported for the selected voice. For instance the *Pitch* parameter is not supported for voices generated from the *High Quality (HQ)* voices.

You can open the Properties tabs by clicking them, using the left/right arrow, or from the Customize menu. You can also use the following keyboard hotkeys:

CTRL + F1 opens the *General* tab

CTRL + F2 opens the *Pause* tab

CTRL + F3 opens the *Reading* tab

CTRL + F4 opens the *Equalizer* tab

CTRL + F5 opens the *Text Processing* tab

The voice property box is divided into five panes:

General	Contains settings for the speech rate and the volume.
Pause	Allows you to change the duration of each type of pause as specified in the tab. Select any of the values listed in the drop-down list. You can also accept the default value which is set by the processing of the text and depends on the text content.
Reading	<i>Reading</i> specifies how the text is read. The default value is <i>Normal</i> which means regular reading. The remaining options will make your voice reading the text word by word or letter by letter. For the spelling and word mode, you can also modify the duration of the pause between each text unit.

Note: The pause duration is not available for all voices in infovox4.

Equalizer

The equalizer allows you to change the acoustic appearance of a voice by changing four different frequency bands.

When you select the Equalizer tab the equalizer is normally not selected and the frequency sliders are disabled. Click the Use Filter button to turn the equalizer on. Now you can drag the sliders to change the sound of the voice. Each slider corresponds to a specific frequency band, from low to high frequencies.

There are four predefined equalizer pre-sets: *bass booster*, *bass reducer*, *treble booster*, and *treble reducer*. You can use them when you edit your voice.

You can also define your own equalizer pre-sets that can be used by any voice. To create a pre-set, move the sliders until you have an equalizer setting that you want to use. Go to the combo box and type a name for the pre-set. Then click the Add button. Clicking the Remove button removes the selected equalizer pre-set.

The pre-set can now be called with help of the *Equ* tag. See [Text Tags](#) for more information.

Text Processing

Text can be processed by the text-to-speech system in two different ways. Advanced processing is the default setting. It means that the text is analysed and interpreted. For instance the pronunciation of numbers and abbreviations depends on the context. Details on text processing can be found in the Language Manual for each language. In some cases the user may wish to turn this processing off. To do so, uncheck the *Verbose Mode* tick box.

Another setting available in this tab affects only the Arabic voices. Here you can decide how a non-Arabic text will be interpreted and which voice will read the non-Arabic text. You can choose between two languages: English and French. For both of them you can choose one of the available voices. The default option is *None* which means that a non-Arabic text will be read by the Arabic voice you use.

You need to relaunch the Voice Manager before your changes affect the text processing. Click the Relaunch button to perform this action. When the Voice Manager is running again you can enter text and check how your new settings work.

Menus and Functions

The File Menu

New Custom Voice, CTRL + N	This command creates a new voice based on an original voice. Select an original voice from the voice list and execute this command. It opens a dialog box where you need to enter a name of your new voice. Click <i>Create</i> or press <i>Enter</i> . Afterwards your new voice will be added to the voice list under the original voice you used.
Rename Custom Voice, CTRL + R	You name your voice when you create it but it is possible to rename it later at any time. To do so, select the custom voice. Run this command from the File menu. Enter the new name and press <i>Enter</i> .
Restore to Default	This command resets your custom voice to the default settings. As a result, your custom voice will be a copy of the corresponding original voice.
Listen to Info	This plays the information about the selected voice. This information is displayed at the top of the main window's right section.
Play, F2	Use this command to get your sample text played. While the text is played the command toggles to Stop and can be used for stopping the on-going play.
Exit, CTRL + Q	This command closes the Voice Manager application.

The Customize Menu

This menu can be used only for the custom voices. The actions you can perform from the Customize menu are the same as the ones you can do using the Properties tabs. Use the method that is more convenient for you.

The menu items and the submenus you can choose correspond to the parameters that can be set for the voice. If an original voice is selected in the voice list this menu will be disabled.

General	You have four submenus available: <i>Rate</i> , <i>Volume</i> , <i>Shaping</i> , and <i>Pitch</i> . Selecting any of them will move you the <i>General</i> tab in Properties and put the focus on the corresponding slider. Use the left and right arrows to set the value.
----------------	---

Pauses Use this menu for setting the pause length. In the first submenu you select the kind of pause to set. There are four pause types: *Punctuation, Comma, Semicolon, and Brackets*. In the second sub-menu you set the value. The available values are *Default* (i.e., set automatically by the text-to-speech system), *Very Short, Short, Medium, Long* and *Very long*.

Reading It allows you to set the reading mode. In the first sub-menu you select between three available reading modes: *Normal* (regular reading), *Word by Word*, and *Spelling*. Use the *Pause* sub-menu to set the pause length between the read speech units. This affect only the *Word by Word* and the *Spelling* reading modes. The available values are *Default* (i.e., set automatically by the text-to-speech system), *Very Short, Short, Medium, Long* and *Very long*.

Equalizer Activate the Equalizer by selecting *On* from the menu. Selecting *Off* will disable it.

The *Edit* command can be used when the Equalizer is in the *on* state, otherwise this command is disabled. When you select the *Edit* command it will open the Equalizer tab with the focus on the first equalizer slider. Use the up and down arrows to set the value. Pressing the Tab moves the focus to next equalizer slider.

Text Processing Here you can perform actions affecting the way in which the text is processed.

Selecting the *Verbose Mode* command enables the infvox4 component processing abbreviations and numbers. If this mode is not used, text will be read "as is", without any interpretation based on a context analysis. By default the Verbose Mode is enabled.

The *Language Detection* commands affect only the Arabic voices. You set the language and the voice that will be used together with your Arabic voice for reading a non-Arabic text.

Before your text processing setting takes effect you need to restart the Voice Manager. To do this, use the Re-launch command.

Help

Contents F1

It opens the infvox4 Help

About Voice Manager

This command opens the About box specifying some information about this version of Voice Manager.



Pronunciation Editor

A user lexicon allows you to change the standard pronunciation of a word. This is typically used to provide a correct pronunciation for acronyms that are not recognized by the text processor, or to correct or change the pronunciation of specific words, for instance, foreign words.



The Pronunciation Editor main window

How to use the Pronunciation Editor

Pronunciation Lexicons

Lexicons created by Pronunciation Editor are connected to a specific language. For instance, a lexicon created for American English will work for the American English voices and will not affect the British English voices, which require their own pronunciation lexicon.

In the main window, you can choose what lexicon to work on by selecting a voice group from the Voice Group list.

Adding a new lexicon entry

If you want to change the way a word is pronounced by the voices of the same language, you need to add a proper entry to the pronunciation lexicon. First check to see whether the language displayed in the Voice Group is the one you would like to work with, then press the *Add Word* button. You can also use the menu *Lexicon*→*Add Word* or the shortcut **Ctrl+A**.

In the *Original Word* field, type the word for which you want to change the pronunciation. The word is automatically displayed as a phonetic transcription in the *Phonetic Transcription* field if it is opened. By default, the *Phonetic Transcription* fields are not displayed, but you can easily disclose them with the appropriate disclosure button placed on the left of the *Original Word*

field and the New Pronunciation field. You can also use the menu command *View* → *Show Phonetic Transcriptions* or its hotkey **Ctrl+T**.

Enter the new pronunciation in the *New Pronunciation* field. This new pronunciation is also automatically displayed as phonetic transcription in the corresponding *Phonetic Transcription* field.

You can specify the pronunciation in two ways. Firstly, by using phonetic symbols and secondly by rephrasing the word by using regular text.

If you use phonetic symbols in your pronunciation you need to begin with the '#' character. Otherwise, your pronunciation will be considered as a regular text. If you specify your pronunciation using regular text (no phonetic symbols), you can use orthography, misspelling or rephrasing. Such transcriptions will be referred to as *rephrasing*.

Using space or punctuation in rephrasing is not recommended. If you specify your pronunciation using more than one word it is recommended to store it as a phonetic transcription. This improves the speech quality. Storing the pronunciation as phonetic transcriptions is the default action. This signifies that even if you specify the pronunciation using regular text (without the use of phonetic symbols) your pronunciation will be converted to a phonetic string and saved as such in the lexicon. However, if you need to store the pronunciation that you specify as a rephrasing (i.e. not using phonetic symbols) uncheck *Transcribe this phonetically*. Unchecking it will store your transcriptions exactly as you specify them in the *New Pronunciation* box.

Press the *Update* button to validate your new entry.

Read [Fine-tuning the new pronunciation](#) section for more information about phonetic transcriptions.

Updating an existing entry

If you want to modify an existing entry of your pronunciation lexicon, select it in the list of lexicon entries.

The original word and its phonetic transcription are shown in the *Original Word* field and the corresponding *Phonetic Transcription* field. The current pronunciation is shown in the *New Pronunciation* field. If the current pronunciation is specified as a regular text, its phonetic transcription is also shown in the corresponding *Phonetic Transcription* field.

Make your modifications in the *New Pronunciation* field. The new pronunciation will be automatically displayed as a phonetic transcription in the corresponding *Phonetic Transcription* field.

If the pronunciation is expressed as a phonetic transcription it must be preceded by the '#' character.

Press the *Update* button to validate your new entry.

Listening to the original word and the new pronunciation

You have the possibility of listening to how the original word was pronounced by pressing the *play* button on the right of the Original Word field. You can also use the menu entry *Lexicon* → *Play Original Word* or the keyboard hotkey **F2**.

You can also hear how the new transcription, that you typed in the New Pronunciation field is pronounced by pressing the *play* button on the right side of the field. You can also use the menu entry *Lexicon* → *Play New Pronunciation* or the keyboard shortcut **Alt+F2**.

Deleting an entry

Select the entry that you want to delete in the list of lexicon entries. Go to the menu *Lexicon* → *Delete Word*. You can also use the *Delete Word* button or the keyboard hotkey **Ctrl+D**. You can also press the *delete* key or the *backspace* key.

Saving the lexicon

None of the changes you make in the Pronunciation Editor are permanent and therefore, will not work in other applications unless you save your changes. To save all the changes and make them permanent, use the menu *File* → *Save* or the keyboard shortcut **Ctrl+S**.

Using updated pronunciation lexicon with infvox4 voices

Once you have saved the pronunciation lexicon, it will be used by the corresponding infvox4 voices in all the *Microsoft Speech API* applications using them. However, if your voices are currently used, you will need to reboot the application using the infvox4 voices after having saved the lexicon.

For instance, if you opened an application using the infvox4 US English voice Heather and afterwards, you made some changes in the pronunciation lexicon used by Heather, it will not affect Heather's pronunciation in running the application, even if the lexicon was saved. In order for Heather to apply your lexicon, you must quit and relaunch your application. Heather needs to be *re-initialized*.

Changing the working voice

When you work with a certain language, the Pronunciation Editor will use the first voice in the group as the default *play* voice. If the Voice Group contains several voices, you can set another voice as the voice used for reading the words and the word transcriptions. Select it in the menu *Lexicon*→*Voices*.

The next time you open the voice group's lexicon, the last selected voice will be used by default.

Fine-tuning the new pronunciation

The following section explains how to work efficiently with phonetic transcriptions, even without an expertise in linguistics.

A description of the phonetic alphabet with examples of a particular language is available in the corresponding Language Manual (found in the Documentation folder on your infvox4 USB key).

You can see the list of phonetic symbols by clicking the *Show Phoneme List* button or by selecting the command *Show Phoneme List* from the View menu. The corresponding keyboard hotkey is **Ctrl+P**

Remember that the phonetic transcriptions you enter to the *New Pronunciation* field must start with the # character.

Let's take as an example, *Reading* the name of a town in England and we will change its pronunciation for the US English voices. The standard pronunciation of this word is like "*reeding*", i.e. infovox4 considers this word being the 'ing' form of the verb *read*. If you enter the word *Reading* in the Original Word field it will show a phonetic transcription of the standard US English pronunciation applied by infovox4, i.e. "*#r i1 d I N*". You want this word to be pronounced like "*#r E1 d I N*", i.e. like the correct pronunciation of the town name in England. You can enter the complete phonetic transcription "*#r E1 d I N*" to the New Pronunciation field, but if you are not very familiar with the infovox4 phonetic alphabet you can try to use one of the methods described below:

Method 1

1. Enter "*Reading*" in the *Original Word* field. The phonetic transcription "*#r i1 d I N*" is shown in the associated Phonetic Transcription field if it is shown. If it is not visible, click on the disclosure button marked up with the '+' sign. You can achieve the same result by selecting the menu command *View* → *Show Phonetic Transcriptions* or entering the keyboard hotkey **Ctrl+T**.
2. Press the down arrow button on the right of this Phonetic Transcription field. It will copy the phonetic text "*#r i1 d I N*" of the Original Word into the New Pronunciation field. You can also use the menu command *Lexicon* → *Copy Word Transcription* or the keyboard hotkey **Ctrl+K**.
3. Look at the list of phonetic symbols for the phonetic symbol you need for your transcription. Open the list of phonetic symbols by clicking the *Show Phoneme List*. You can also use the menu command *View* → *Show Phoneme List* or the keyboard hotkey **Ctrl+P**.
The phonetic symbol you need is the */E/* occurring in words *bet* and *recognition* in the phoneme table. Replace the symbol */i/* in the *New Pronunciation* field by the */E/*.
Note the */1/* symbol which, as explained in the language manual, is used for lexical accent, i.e. the prominence (or emphasis) of a syllable in a word.
4. Press Update in order to add your new entry to the lexicon.

Method 2

1. With this method you simply try to find the spelling that the standard pronunciation can be used for pronouncing the particular word you are working with. In our example, you will reach the requested result if you spell the town name like *Redding*. Enter the word *Redding* in the New Pronunciation field. The phonetic transcription "*# r E1 d I N*" is shown in the associated Phonetic Transcription field if it is shown. If it is not visible, click

on the disclosure triangle to show it or use the menu command View → Show Phonetic Transcriptions. The keyboard hot key for this command is **Ctrl+T**

2. Press the up arrow button to the right of this Phonetic Transcription field. You can also use the menu command Lexicon → Copy Pronunciation Transcription or the keyboard shortcut **Ctrl+Up arrow**. This action will copy the phonetic string "#r E1 d I N" into the New Pronunciation field.
3. Press Update in order to add your new entry to the lexicon.

Importing and exporting pronunciation lexicons

Exporting

You can convert your pronunciation lexicon to a text format (.txt) or save it in any location using the standard infovox4 lexicon format (.dic), i.e. you can *export* your lexicon. You export a lexicon using the menu command *File* → *Export...* You can also use the keyboard hotkey **Ctrl+Shift+X**.

Choose a filename and the location where to save the file and choose the file format. The default file format is *text file* (file extension: .txt). You can also choose the *Acapela lexicon file* binary format (file extension ".dic". Acapela Lexicon file format may be useful for backup purposes. You will not be able to export an Acapela lexicon binary format from one language to another language.

The text format is *tab separated* which means that you have one entry per line and that the *original word* and *new transcription* are separated by the tabulation character.

Importing

If you have an access to a lexicon file that is a ".dic" file, i.e. it has Acapela's binary lexicon file format, you can add it to your infovox4 lexicon. You can also add lexicon entries of a text file if the text file is formatted according to the format described in the [Exporting](#) section. This action is called *importing a file*.

Note that the file you import must contain entries of the language that is active in the Pronunciation Editor when you start this action.

You can import entries in the current lexicon using the menu command *File* → *Import ...*. You can also start this action using the keyboard hotkey **Ctrl+I**. This command will launch the *Import lexicon* dialog box.

First, select the file containing the entries. You can import .dic files (Acapela Lexicon file binary format) and .txt files (tab separated text file).

You will not be able to import an Acapela Lexicon binary format of one language group to a different language group. The text files should have the correct encoding.

If there is a word in the lexicon to be imported that is already in your current lexicon, but containing a different transcription, a confirmation window will be opened by the application asking you about your decision on which entry to add to the infovox4 lexicon.

Before the import starts a list of conflict entries will be displayed. For each item in the list you can select an action and decide which entry to use in the lexicon.

Click *Overwrite* to replace the existing entry by the new one from the lexicon being imported. Press *Keep* to keep the existing pronunciation, i.e. you do not want to use the pronunciation from the imported file.

You can also make your choice globally. Clicking *Keep All* will always keep the entries readily available in the lexicon and ensure that no entries that are already in the lexicon will be overwritten. If, in the case of a conflict, you always select an entry from the imported file you can simplify the process by clicking *Overwrite All*.

The button *Cancel Importing* will cancel the import process and revert to the saved lexicon as it was before the lexicon import request.

In the case of invalid phonetic entries in the imported text file, an error message is displayed. The invalid phonetic entries will not be added to the current lexicon.

The Menus

In this section the user will find a description of the menus available in the Pronunciation Editor application.

File Menu

The File Menu provides the standard file operations and functions for importing and exporting lexicons.

Save (Ctrl+S)

The Save command saves the lexicon. You need to run this command after updating your lexicon. The updates like adding new entries, deleting entries or changing the pronunciation will not affect your lexicon permanently before you save it.

Import Lexicon (Ctrl+I)

You can import lexicon entries from a text file or from another Acapela lexicon. The imported lexicon will be merged with the currently loaded lexicon. Make sure that the lexicon you are importing matches the language currently loaded, otherwise your import will fail. See section [Importing](#) for more information.

Export Lexicon (Ctrl+Shift+X)

Use this command for exporting your lexicon to a text file or to a lexicon using Acapela's standard lexicon format. See section [Exporting](#) for more information.

Exit (Alt+F4, Ctrl+Q)

This command terminates the Pronunciation Editor.

Edit Menu

This menu contains commands known from most Windows applications

Undo (Ctrl+Z)

This command reverses editing actions to return to the preceding state.

Redo (Ctrl+Y)

This command recreates editing actions that were undone by the *Undo* command.

Cut (Ctrl+X)

This command removes the selected text and stores it in the clipboard.

Copy (Ctrl+C)

This command places the selection in the clipboard.

Paste (Ctrl+V)

This command inserts the clipboard content at the cursor position.

View Menu

This menu contains commands affecting the information that is displayed by the Pronunciation Editor.

Show Phonemes List (Ctrl+P)

This command opens a window displaying the list of phonetic symbols used for specifying phonetic transcriptions.

Show Phonetic Transcriptions (Ctrl+T)

By default, no phonetic transcriptions are displayed when a new lexicon entry is created in the right pane on the Pronunciation Editor. In order to see how infovox4 would pronounce words select this command. After selecting, this menu item will toggle to *Hide Phonetic Transcriptions* with the same keyboard hot key. The same action can be performed by clicking the '+' button on the left of the *Word* and the *Pronunciation* fields. After clicking them the '+' sign will toggle to the '-' sign.

Lexicon Menu

This menu contains commands needed for updating the lexicon.

Add Word (Ctrl+A)

This command resets the edit fields and prepares the lexicon for a new entry.

Delete Word (Ctrl+D, Delete, Backspace)

This command deletes the selected entry from the lexicon.

Delete All Words (Ctrl+Shift+D)

This command deletes all the entries from the lexicon. As deleting all the entries cannot be undone the Pronunciation Editor launches a dialog box asking the user about confirming this action.

Play Original Word (F2)

This command plays the word currently entered to the *Original Word* field.

Play New Pronunciation (Alt+F2)

This command plays the word currently entered to the *New Pronunciation* field.

Copy Word Transcription (Ctrl+K)

This command copies the phonetic transcription from the *Phonetic Transcription* field to the *New Pronunciation* field. After the suggested phonetic string has been copied, the user can edit it in the *New Pronunciation* field.

Copy Pronunciation Transcription (Ctrl+Up arrow)

This command copies the phonetic string to the *New Pronunciation* field from the corresponding (placed right under) *Phonetic Transcription* field.

Voice

Use this menu command for selecting the standard voice used for all the *Play* actions of the Pronunciation Editor. This voice will be used for reading the *Original Word* and the *New Pronunciation*.

Window Menu

This menu contains only one menu item used for managing the Pronunciation Editor window.

Minimize

This command minimizes the Pronunciation Editor window.

Help Menu

The Help Menu gives you access to the help file, and to the Acapela Group home page on the Internet.

Contents (F1)

This command opens the Help file.

About Pronunciation Editor...

This command launches the *About* window.

Language Manual

This command opens the Language Manual of the language currently selected.



Text Tags

infovox4 uses the *Microsoft SAPI 4 tag pattern* to read at runtime some specific information in the text. Sapi4 tags follow these general rules of syntax:

- All tags begin and end with a backslash character (\).
- The backslash character is not allowed within a tag.
- Tags are case-insensitive. For example, `\RST\` is the same as `\rst\` or `\Rst\`.
- Tags are whitespace-dependent. For example, `\Rst\` is not the same as `\ Rst \`.
- To include a backslash character in tagged text, but outside a tag, use a double backslash (\\). If a user wishes a filename to be read as `c:\windows\system\test.txt`, then the backslashes should be doubled, for example, `c:\\windows\\system\\test.txt`.
- When the engine encounters a tag it does not understand, the tag is simply ignored (not read).
- Tags are persistent from one text to another. For example, if the `\spd=150\` is present in a text, all following texts will be read with a speed of 150 words per minute, until a reset tag is encountered or the language is changed.

In the rest of the chapter you will find a list of tags supported by the infovox4. You can easily test the tags using the SpeechCreator, see chapter [The SpeechCreator](#).

Tags description

`\Pau=number\`

This tag inserts a pause in the speech of the specified number of milliseconds.

Example:

```
I am \Pau=2000\ ready.
```

A pause of 2 seconds is introduced after the word *am*. The maximum allowed pause length is 10 seconds.

`\Prn="phonetic string"\`

With this tag, a user can synthesize a specific pronunciation inside a text. The only allowed symbols are the one listed in the *Phoneme List* that can be opened from Pronunciation Editor. See chapter [Pronunciation Editor](#) for more information. This tag is only suitable for inserting single word into the text. Unpredictable errors (mainly prosody) can occur when inserting greater units.

Example:

I will say: \Prn=h @ 1 @U\

is equivalent to *I will say: hello.*



Remark: This tag does not behave as in the standard SAPI 4 norm, since it does not automatically apply the same pronunciation for future words.

\Spd=number

This tag sets the baseline average talking speed of the voice to the specified number of words per minute. Each voice has a default speed (about 180 words per minute, depending of the voice). Use the `\Rst\` tag to reset to the default speed.

\Rst

This tag resets the engine to the default settings for the current voice.

\RmS=number

Sets reading mode to spelling out each letter of each word (`number=1`), or turns it off (`number=0`).

\RmW=number

Sets reading mode to leaving audible pauses between each word (`number=1`), or turns it off (`number=0`).

\Equ=Preset

Change the equalizer preset at runtime. You can manage the list of presets with the Voice Manager, see chapter [Voice Manager](#).

\Vce=charact=value

Where charact can be language or speaker.

This tag changes the current speaker or language to the one specified by the value. Consider the following example:

```
\vce=speaker=Sarah\ Hallo, ich heisse Sarah.
```

```
\vce=speaker="Ryan"\ Hi, my name is Ryan.
```

```
\vce=language="German"\ Hallo, ich spreche Deutch.
```

```
\vce=language=American English\ Hi, I speak American English.
```

No matter what voice was selected before, the first sentence will be spoken by Sarah. The second one will be spoken by Ryan. If the voice name specified as the value is not available the last valid voice setting will continue. The third sentence in the example will be spoken in German and the last one in American English. Again, the vce tags will work properly if the specified languages are available. Otherwise the last language setting will continue.

As you can see in the example the quotation marks are optional for specifying the value.