



How to - Record Your Own Sound Effects & Voice - Play them on the NXT Brick Within a Program

This simple tool converts the standard Windows .wav file into a .roc file that can be played on your NXT brick

Sound files take up a lot of room on the NXT brick so keep your sound effects or voice-overs short

The procedure

1. Use the windows recording feature on your PC. Access this from the START MWENU--> ALL PROGRAMS--->ACCESSORIES-->ENTERTAINMENT--->Sound recorder. Plug in a microphone and record your sound effect / voice.
2. SAVE AS- Save this sound file where you can find it again
3. Download the WAV2RSO.ZIP file
4. Unzip the file
5. Save the file and place a shortcut to it on your desktop
6. Open WAV2RSO and use this to convert your sound file from a .wav file to the NXT sound file format “.roc “ file- Select the .wav file you wish to convert, click “Linear”, click “Convert”
7. Save your new .roc sound file in the NXT program sounds folder.
8. The FILE SAVE AS from the FILE pull down menu for your WAV2RSO file is not designed for networked computers. For networked computers, ask the students to save their converted .roc file in a specific folder.

The teacher/systems administrator will have to manually move their .wav files over to the NXT Software, ENGINE, SOUNDS folder on your server. It can then be accessed by the students from within the NXT software configuration bar for the SOUNDS icon

DOWNLOAD LINK

<http://bricxcc.sourceforge.net/utilities.html>

WAV2RSO is a free download from this link

9 . Create a NXT g program using the PLAY SOUND icon, load and run your program with your sound effects/ voice

1 & 2 Record your voice / Sound Effect → Save As

It's easy to create your own voice files and sound effects to play on the NXT brick. You can use the "Windows" sound recorder to record
Follow this pathway to the Sound Recorder:

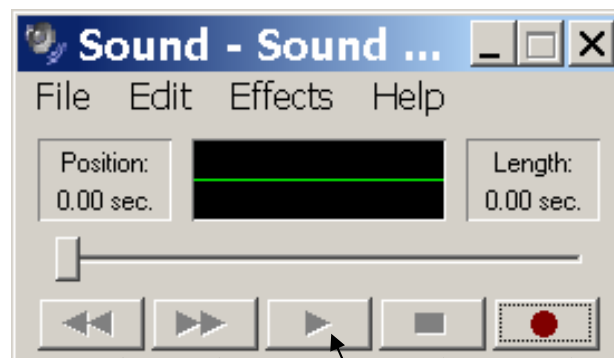


START -> All Programs -> Accessories -> Sound Recorder

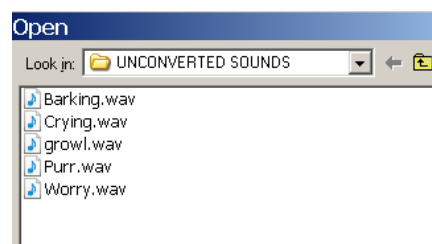
Record your sound effect / voice
 (no longer than 2 seconds or it will take up too much NXT memory) .

Then save your file where you can easily find it again ie File →SAVE AS.

Place your files where you can find them again.



Fast Rewind Fast Forward Fwd Stop Record

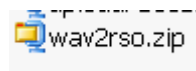


3, 4, 5 Download wav2RSO file to .roc format

3 DOWNLOAD

<http://bricxcc.sourceforge.net/utilities.html>

4 UNZIP



Its best to extract this file to the same folder where you are saving your .wav sound files as it makes them easier to find with the wav2rso utility

5 CREATE SHORTCUT



Shortcut to
wav2rso.exe

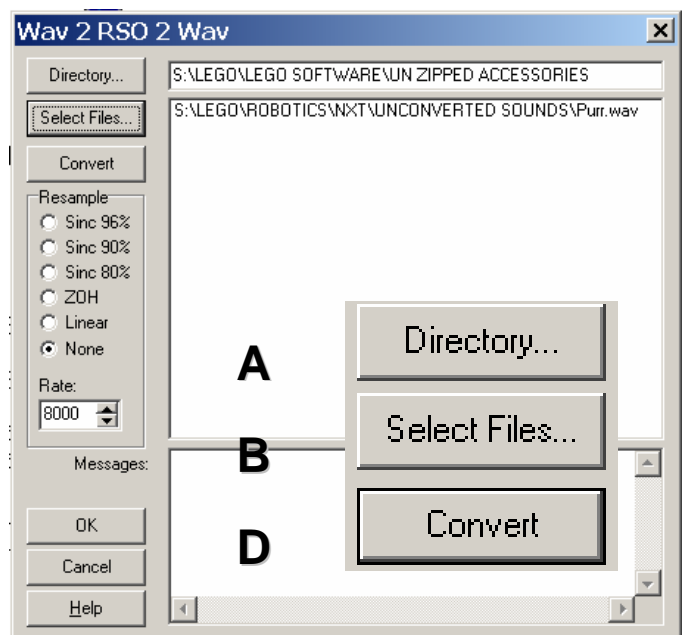
6 Convert your .wav sound file to .roc format

A- Select the directory & folder where you wish to save your converted files

B- Select the files you wish to convert

C- Select "Linear"

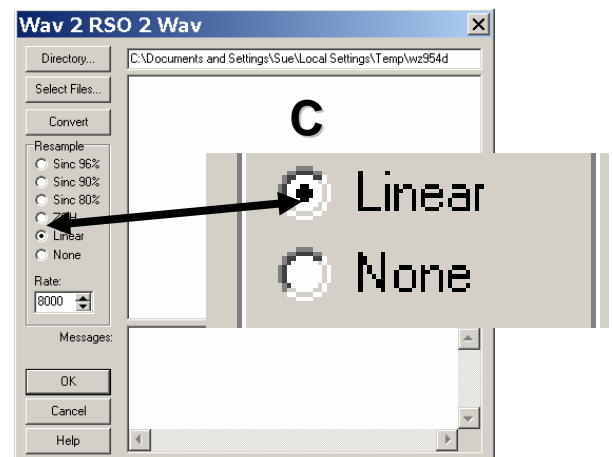
D- Select "Convert"



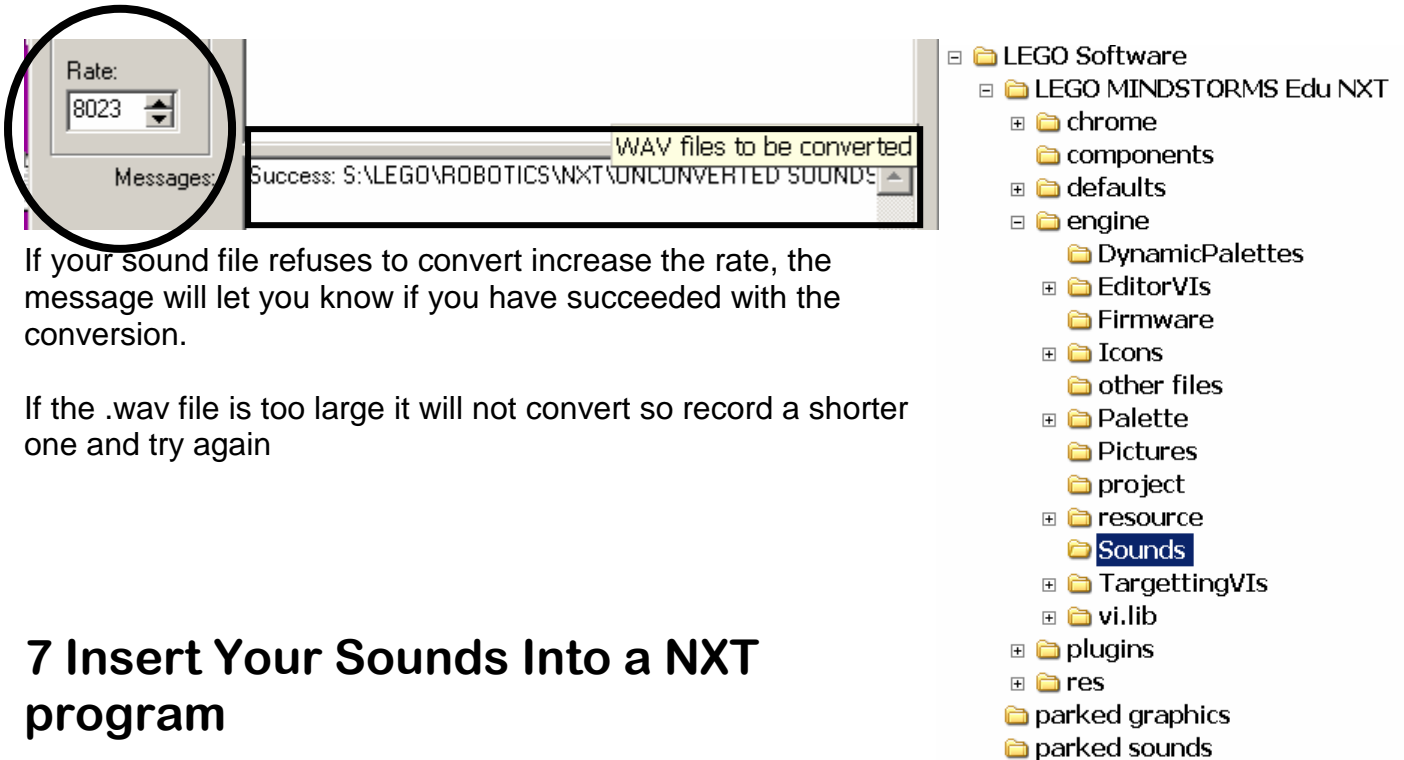
6 Save to NXT software folder

This program should automatically save your converted file in the NXT software SOUNDS folder on your computer. If you can't find it in the NXT SOUNDS folder it may have been saved into the same folder as your Wav2rso utility and you may manually have to copy it into the correct NXT folder

The NXT sound files can be found by following the following path. LEGO Software-→ LEGO MINDSTORMS Edu NXT-→ engine→ Sounds.



For networked computers ask the students to save their converted sound files in a specific folder. The teacher/systems administrator will have to manually move their sound files over to the NXT Software, ENGINE, SOUNDS folder on your server. It can then be accessed by the students in the manner described above



If your sound file refuses to convert increase the rate, the message will let you know if you have succeeded with the conversion.

If the .wav file is too large it will not convert so record a shorter one and try again

7 Insert Your Sounds Into a NXT program

Insert your sounds into your NXT program in the usual way. Your file should now appear in the selection of sounds window. Scroll to select. Sometimes the full "sounds " menu does not appear if you use the scroll bar, if a file that you know is there doesn't appear use the UP and Down arrows to locate your file

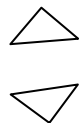
INSERT SOUND icon



Icon is configurable when the icon is "live" with a blue border



Select your graphic by file name here. If it doesn't show up in the list using the scroll bar use the UP and Down arrows And they should appear



The NXT Software – the file tree on your hard-drive

The LEGO MINDSTORMS NXT software installs by default on your hard-drive in C:/ , or elsewhere if you nominate another location

- [-] 📁 LEGO Software
 - + 📁 LEGO MINDSTORMS Edu NXT

- [-] 📁 LEGO Software
 - [-] 📁 LEGO MINDSTORMS Edu NXT
 - + 📁 chrome
 - 📁 components
 - + 📁 defaults
 - [-] 📁 engine
 - 📁 DynamicPalettes
 - + 📁 EditorVIs
 - 📁 Firmware
 - + 📁 Icons
 - 📁 other files
 - + 📁 Palette
 - 📁 Pictures
 - 📁 project
 - + 📁 resource
 - 📁 Sounds
 - + 📁 TargettingVIs
 - + 📁 vi.lib
 - + 📁 plugins
 - + 📁 res

If you wish to insert graphics or sounds that you have created you will need to have administrator access permission to the LEGO MINDSTORMS Edu NXT software on your computer. Specifically ENGINE--→Pictures -> and ENGINE->Sounds.

For networked / school security installations teachers will have to negotiate this issue with their