

#### MIDIFILE TO CSOUND SCORE AND ORCHESTRA CONVERTER

**High End Digital Audio Rendering** 

# **MIDI2CS** - tutorial

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at <a href="http://www.snafu.de/~rubo/songlab/midi2cs">http://www.snafu.de/~rubo/songlab/midi2cs</a>

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# The Pink Panther

How to produce a song using Midi2Cs and Csound

#### Intro

This example will show you how to create <u>"Pink Panther" as a WAV-file</u> in digital quality directly on your harddisk.

If you have a DOS system the first thing you should do is download <u>Csound.zip</u> (173k) and <u>Midi2cs.zip</u> (57k) and unzip them in your current directory. If you have a Linux or SunOS system you should download Midi2Cs and Csound from our <u>Midi2Cs's</u> <u>download page</u> and <u>Songlab's Csound Link Site</u>.

Half of CD-audio quality (22050Hz/mono) should be enough for your first example. This will save some time to download the needed files. You can listen to some bars of the Pink Panther (157k) you will learn to create now. It's a looped quality reduced version in 22050Hz/8bit for easy download. The original WAV file you will create using these tools is 16bit and sounds better altough this is not bad at all. If you have got this example running I would suggest to continue with stereo and 44,1kHz.

The used samples were found on the Web in an archive and converted to 22050Hz with CoolEdit (This sample editor is one of the best tools I have ever seen!). The midifile used in this example was found in the midi binaries newsgroup. The original composer is Henry Mancini. He wrote several soundtracks and jazz-oriented music.

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# **Getting started**

Get the	following samples.	You w	ill need	them to	create	the	example	you've	possibly
already	listened to:								

Pink Panther - midifile (24k)
c3piano.aif (22050Hz/16bit) - piano sample (150k)
alacbass.aif (22050Hz/16bit) - acoustic bass sample (40k)
hh4.wav (22050Hz/16bit) - hihat sample (27k)

An example midi2cs.pro file is written automatically by calling Midi2cs without parameters. I began to edit it to show you how easy you are able to manipulate the information contained in any midifile.

Get the projectfile if you would like to create my example using Midi2cs and Csound:

□ Pink Panther - Midi2cs projectfile (1k)

### **Generate Score and Orchestra**

After you have put the midi2cs.pro project file into your current directory you should call **midi2cs** without parameters. All information will be taken from the projectfile.

Two files are created now:

The Orchestra - ppanther.sco
The Score - ppanther.orc

### **Process the Pink Panther**

Create yourself a batch file containing the following line:

csounce	l -d	l -H	-W	-0	<b>%</b> ]	l.wav	<b>%</b> 2	1.orc	<b>%</b>	1.sco
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This tells Csound to produce a WAV file by just calling

 $\Box$  cs ppanther

That's all. Now Csound begins the soundfile processing!

### **Exercise**

To learn a little more about Midi2cs and Csound you should add a saxophone to the existing tracks.

Find a saxophone (a 22050Hz/16bit sample)
Edit track 5 (by using your preferred editor and add it)
Generate a new score and orchestra file by calling 'midi2cs
Create the new WAV file by calling 'cs ppanther'

Also the last bar should be set to a higher value to get more of your song done.

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#### This is the content of the current projectfile:

```
# --- The Pink Panther Project File ---
                ppanther.mid
midifile
                                ; midifile (will be read)
        22050
                ; samplerate
sr
nchnls
                ; 1=mono 2=stereo
givol
        0.5
                ; master volume of 0.3 seems to be good for many songs
# this example creates the first 4 bars of this song
# just set lastbar to a higher value to get more ...
firstbar
                0
lastbar
                4
notrackpreselected
miditrack
                1
                        ;off
        sound c3piano.aif
        name AcousticGrand
        score
                lowest al
                highest a5
        endscore
endtrack
# The saxophone part is not active in this example :(
# It's up to you to find a saxophon sample you like
# You can create the needed AIF-file with CoolEdit or Sox
# Name it c3_sax.aif or similar and delete the colon
# Now you have successfully finished your first lesson :)
miditrack
                5
                        off
        ;sound c3_sax.aif
        name Sax
endtrack
                6
miditrack
                        ;off
        sound alacbass.aif
        name AcousticBass
        score
                lowest c2
        endscore
endtrack
miditrack
                        ;off
        sound hh4.wav
        name Hihat
        relvolume 0.5
endtrack
endofproject
```

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