

# scipy.io.wavfile gives "WavFileWarning: chunk not understood" error

Asked 10 years, 10 months ago   Modified 1 year, 7 months ago   Viewed 35k times



I'm trying to read a .wav file using scipy. I do this:

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```
from scipy.io import wavfile

filename = "myWavFile.wav"
print "Processing " + filename

samples = wavfile.read(filename)
```

And I get this ugly error:

```
/Library/Frameworks/Python.framework/Versions/2.6/lib/python2.6/site-
packages/scipy/io/wavfile.py:121: WavFileWarning: chunk not understood
  warnings.warn("chunk not understood", WavFileWarning)
Traceback (most recent call last):
  File "fingerFooler.py", line 15, in <module>
    samples = wavfile.read(filename)
  File "/Library/Frameworks/Python.framework/Versions/2.6/lib/python2.6/site-
packages/scipy/io/wavfile.py", line 127, in read
    size = struct.unpack(fmt, data)[0]
struct.error: unpack requires a string argument of length 4
```

I'm using Python 2.6.6, numpy 1.6.2, and scipy 0.11.0

[Here's](#) a wav file that causes the problem.

Any thoughts? What's wrong here?

python

macos

numpy

audio

scipy

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edited Apr 10, 2018 at 13:09



PatriceG

3,901 ● 5 ● 28 ● 43

asked Jan 14, 2013 at 15:41



Eric

16.2k ● 15 ● 87 ● 141


try `samples = wavfile.read(open(filename, 'r'))` – Timothy Jan 14, 2013 at 16:15

Tried it, still got the same error... – Eric Jan 14, 2013 at 16:59

are you sure your .wav file is standard? is it uncompressed or not? – Timothy Jan 14, 2013 at 18:33

Have you tried Python's `wave` module ([docs.python.org/2/library/wave.html](https://docs.python.org/2/library/wave.html))? – mtrw Jan 15, 2013 at 23:44 

## 6 Answers

Sorted by: Highest score (default) 



The files is no longer available (not surprising after 9 months!), but for future reference the most likely cause is that it had extra metadata which scipy can't parse.

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In my case, it was default metadata (copyright, track name etc) which was added by Audacity- you can open the file in Audacity and use File ... Open Metadata Editor to see it. Then use the 'Clear' button to strip it, and try again.



The [current version of scipy](#) supports the following RIFF chunks - 'fmt', 'fact', 'data' and 'LIST'. [The Wikipedia page on RIFF](#) has a bit more detail on how a WAV file is structured, for example yours might have included an unsupported-but-popular INFO chunk

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answered Sep 23, 2013 at 11:57



[rolinger](#)

685 ● 8 ● 18



10



I don't know anything about the WAV file format, but digging into the `scipy` code it looks like `scipy` isn't familiar with the chunk that's present towards the end of the file (chunk ID is `bext`, 2753632 bytes in, if that helps). That chunk is declared as 603 bytes long so it reads past it expecting another chunk ID 603 bytes later -- it doesn't find it (runs out of file) and falls over.



Have you tried it on other WAV files successfully? How was this one generated?

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answered Jan 15, 2013 at 23:37



[necaris](#)

247 ● 2 ● 11

2 Indeed... It was a problem with the WAV file (even though any audio player could play them). I tried the code with WAVs generated with another program and it worked. The problematic wav files were created in... Apple's Logic Pro, with standard settings: 16bit, 44100Hz, Interleaved, no dithering. – [Eric](#) Jan 22, 2013 at 8:28

1 Thanks for the comment. I used sox to "convert" my wav files to the format they already had. Thereby sox corrected erroneous wav files, while the audio data stayed the same. See [stefaanlippens.net/audio\\_conversion\\_cheat\\_sheet](http://stefaanlippens.net/audio_conversion_cheat_sheet) – [Johann Hagerer](#) Jan 13, 2016 at 9:52 



The easiest solution to this problem is to convert the wav file into other wav file using SoX.

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```
$ sox wavfile.wav wavfile2.wav
```



Works for me!



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answered Feb 23, 2021 at 14:57

[Carlos Leal de Castro](#)

41 ● 1



I had the same error and could successfully convert to what it can read.

2

My original file was from Logic Pro. Then I used [audacity](#) to read the file.

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answered Nov 10, 2017 at 7:58

[daisukelab](#)

91 ● 2 ● 6



1 The same issue here. I've also exported my wave file from Logic Pro. – [JavaRunner](#) Apr 21, 2021 at 7:06



I also got this error because of (presumably) metadata introduced by Audacity. I exported my wav file from another DAW (Ableton Live), and scipy.io.wavfile loaded it without error.

1

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answered Sep 30, 2015 at 2:47

[user2348114](#)

157 ● 1 ● 7

Solved this problem when exporting from Reaper: simply deselect "Write BWF ('bext') chunk" in the *Render to File* window.

1

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answered Apr 1, 2022 at 8:03

[Maximilian Treitler](#)

11 ● 1

