

**Video Game Audio Presentation**  
**May 29, 2011**

**Institute of Audio and Video / Instituto de Áudio e Vídeo São Paulo - <http://www.iav.com.br/en/>**

**Leonard J. Paul**

**Website:** <http://VideoGameAudio.com>

**School:** <http://School.VideoGameAudio.com/>

**Follow:** <http://Twitter.com/VideoGameAudio/>

**MP3 audio for this presentation:**

<http://videogameaudio.com/IAV->

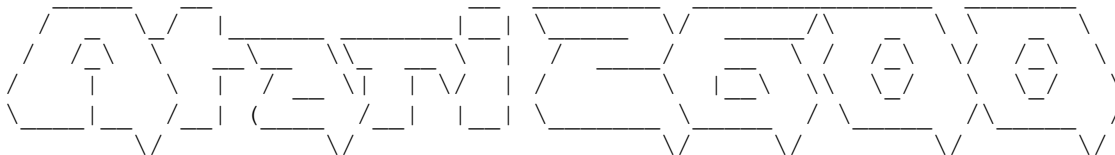
<http://videogameaudio.com/IAV->  
[May2011/VideoGameAudio\\_Workshop\\_SaoPaulo\\_IAV\\_27May2011\\_LeonardJPoul.mp3](http://videogameaudio.com/IAV-)

---

---

**Atari 2600**

1977



<http://www.network-science.de/ascii/>

**Audio Overview:**

The TIA is used to produce both sound and video in the 2600. It is capable of producing two channels of audio at the same time. The tuning values for the different waveforms that can be played by each channel are not necessarily in tune with each other and there are only 32 different frequency values (not related to a conventional note scale – or any scale in fact) possible for each channel. It is capable of producing sixteen different types of sound, many sound the same.

**Atari 2600 Audio Guide:** - [http://www.qotile.net/files/2600\\_music\\_guide.txt](http://www.qotile.net/files/2600_music_guide.txt)

**Karen Collins - “Fine Tuning the Terrible Twos”** - <http://www.tagg.org/others/kcflat2.html>

**Atari 2600 Sequencer:** <http://www.qotile.net/sequencer.html>

**The Entire 2KB Game of Combat:** <http://www.gamestudies.org/0601/articles/montfort>

**Pitfall:** <http://www.gdcvault.com/play/1014632/Classic-Game-Postmortem-PITFALL>

**“Racing the Beam” – Book:** [http://www.bogost.com/books/video\\_computer\\_system.shtml](http://www.bogost.com/books/video_computer_system.shtml)

**Yar's Revenge ROM:** [http://www.atariage.com/software\\_page.html?SoftwareLabelID=603](http://www.atariage.com/software_page.html?SoftwareLabelID=603)

**Atari 2600 Emulator – Stella:** <http://stella.sourceforge.net/>

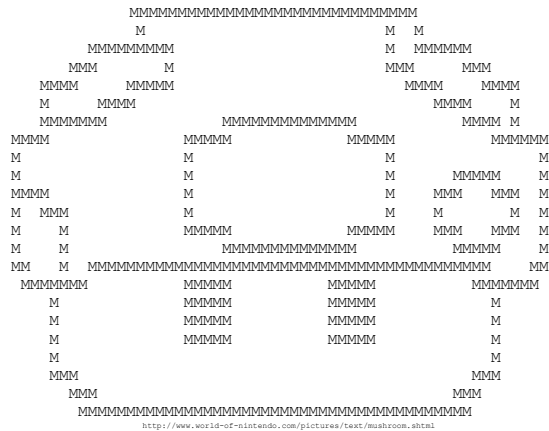
To play Atari 2600 games you can download them from <http://www.atariage.com/> and drag the ROM image over the icon for the Stella emulator. Of course, you should also own the original cartidges (like I do!)

---

---



# Nintendo Entertainment System / Famicom (NES) 1986



## Audio Overview:

The NES audio hardware supported five sound channels. The first two channels were pulse waves that could support four different duty cycles, the triangle wave couldn't have the volume changed directly, the noise channel had 16 different "pitches" and the final channel being a low-resolution sampled sound channel that was commonly used for sound effects in games. There were also special additional sound chips that could be integrated into the NES cartridges to allow for more audio functions, one of these being the VRC6 chip.

**Famitracker – NES Tracker:** <http://famitracker.shoodot.net/>

**Hipster City Cycle Soundtrack - Patrick Todd & Joey Mariano:** <http://www.hipstercitycycle.com/>

**South Philly Song:** [http://www.youtube.com/watch?v=SQoXY5vPM\\_s](http://www.youtube.com/watch?v=SQoXY5vPM_s)

**Retro City Rampage – Theme Music by “virt”:** <http://soundcloud.com/retro-city-rampage/retro-city-rampage-soundtrack-remix-titlesong-fullmix>

**NES Music Artist: “virt” - Jake Kaufman:** [Artist: Virt http://www.biglionmusic.com](http://www.biglionmusic.com)

