Audio App Plug-ins

VST

- Steinberg's Virtual Studio Technology
- Interface for integrating software instruments and effects into audio editors, and hard-disk recorders.

VST Instrument

- Generates audio
- A virtual synthesizer or virtual sampler

VST Effects

- Reverb   Delay   Compressor   EQ
- Etc…
  - …thousands available (try KVR.com)
  - A number of good ones are free.
    - Blockfish, DX Reverb Light
  - Generally specific to computer OS

VST MIDI Effects

- Processes MIDI messages prior to routing
- Examples:
  - To *transpose*
  - To create *arpeggios*
    - (An *arpeggio* is a typical climbing or dropping series of notes in a particular key. Like a chord that is more interesting. Heard in the background of much music and film.)

Which Apps can Use VST?

- Most!
- Studio One, Tracktion, Cubase, Ableton Live, FL Studio, Sonar, Sound Forge
- Some, like Pro Tools, has you use a transition layer or "shim" software to allow VST plugins.

Competing Technologies

- *DirectX* from Microsoft
  - Plugins for audio and multimedia, game programming, etc.
  - Well known derivative: xBox
- *LADSPA, DSSI, LV2*
  - For Linux systems
- *AudioUnit* (*.AU or .Component*) from Apple
  - For OS X DAWs (Digital Audio Workstations)
- AAX (and earlier RTAS) from Pro Tools

Versions Can Conflict

- Plugins are written for either 32-bit or 64-bit operating systems.
- Currently, new computers all run 64-bit OS.
- But: DAWs are also 32-bit or 64-bit.
- So all three must match: OS + DAW + Plugin
  - Upgrade one of these, and try to open your old mixes!

ReWire

- Developed by Steinberg and Propellerhead
- Allows transfer of audio and MIDI data between programs (256 audio tracks and 4080 MIDI channels)
- Example: You can use a different program (not a plugin) to edit sound files in tracks in Tracktion, while Tracktion is running.