Free Resources

Audacity

http://audacity.sourceforge.net/download/

Audacity is a free, easy-to-use audio editor and recorder for Windows, Mac OS X, GNU/Linux, and other operating systems. You can use Audacity to:

Record

Audacity can record live audio through a microphone or mixer, or digitize recordings from cassette tapes, vinyl records, or minidiscs. With some sound cards, it can also capture streaming audio.

- Record from microphone, line input, or other sources.
- Dub over existing tracks to create multi-track recordings.
- Record up to 16 channels at once
- Level meters can monitor volume levels before, during, and after recording.

Import and Export

- Import and export WAV, AIFF, AU, and MPEG audio.
- Export MP
- Create WAV or AIFF files suitable for burning to CD.

Edit

- Easy editing with Cut, Copy, Paste, and Delete.
- Use unlimited Undo (and Redo) to go back any number of steps.
- Edit and mix an unlimited number of tracks.
- Use the Drawing tool to alter individual sample points.
- Fade the volume up or down smoothly with the Envelope tool.

Effects

- Change the pitch without altering the tempo, or vice-versa.
- Remove static, hiss, hum, or other constant background noises.
- Alter frequencies with Equalization, FFT Filter, and Bass Boost effects.
- Adjust volumes with Compressor, Amplify, and Normalize effects.
- Other built-in effects include:
  - Echo
  - Phaser
  - Wahwah
  - Reverse

Sound Quality

- Record and edit 16-bit, 24-bit, and 32-bit samples.
- Record at up to 96 KHz.
- Sample rates and formats are converted using high-quality resampling and dithering.
- Mix tracks with different sample rates or formats, and Audacity will convert them automatically in realtime.

Free and Cross-Platform

- Licensed under the GNU General Public License (GPL).
- Runs on Mac OS X, Windows, and GNU/Linux.

Tutorial

Recording from a Cassette Tape or LP Record

- connect a tape deck or record player to your computer to digitize your audiocassettes and LP records by recording them with Audacity.
- save the recordings as digital files to be played on computer or mp3 player, burnt to CD, or send over the internet.

Connect the Player to the Computer

- connect your tape or record player's output to your computer's Line In jack using a stereo *patch cable*.

Do not connect a turntable directly to your computer. The music on an LP record has been altered by a filter, to make the grooves fit on the record better. When the record is played, the signal from the turntable must be processed again to reverse this effect and restore the original sound.
To process the turntable's signal correctly, plug it into a receiver or pre-amplifier with a "phono" input. (For example Sony MM Cartridge Equalizer EQ-2 approx 15cm x 5cm x 5 cm)
Connect the receiver's output to your computer's "Line In" jack. As it passes through the receiver, the signal will be processed to restore its original sound.

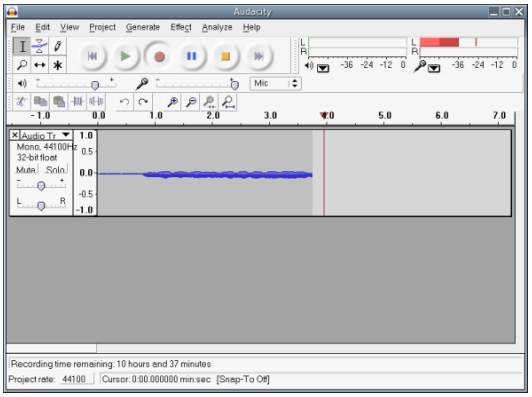
turntable > receiver or preamp > computer

Set up Audacity

Set Audacity to record from the Line In jack.

- From the *Mixer Toolbar window on the right* select *Line In* from the drop down menu

- press the red Record button or type *R* to start recording. A new track will appear, displaying the waveform of the recorded sound.

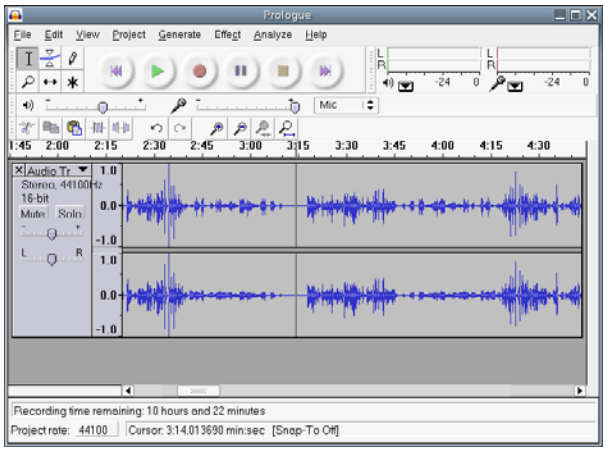


- when you are finished recording the first side of your tape or record, press the yellow Stop button or press the *Spacebar* to stop recording.
- press *Play* to listen to the finished recording. If you want to try again, use the *Undo* command to start over from the beginning.

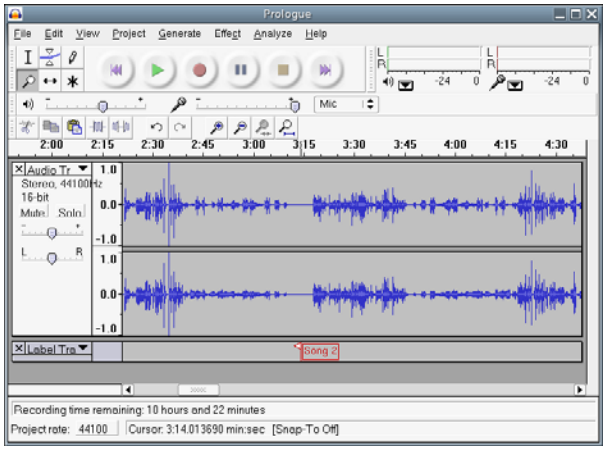
Use labels to split a long recording

After you record one side of a tape or record, you will probably want to save each song or track in a separate file. Use labels to mark where segments begin and end, and the *Export Multiple* command to save each song as a separate file.

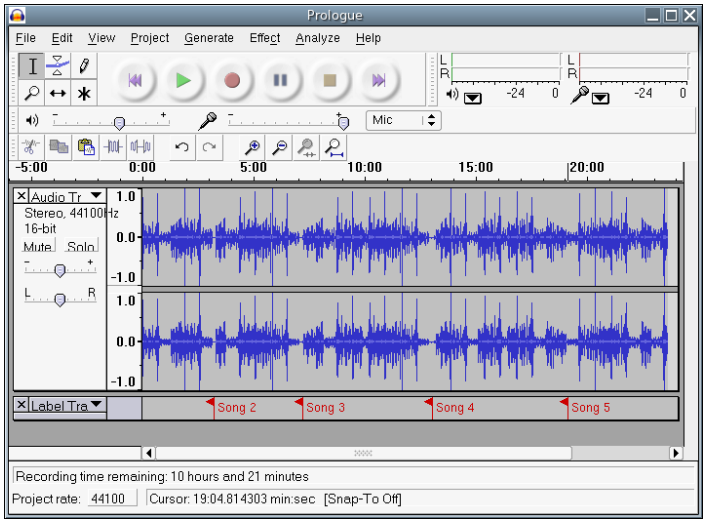
- when recording is finished, find where the first song ends and the next begins. You may need to use the *Zoom* tool to look for pauses in the recorded waveform.
- click to place the cursor anywhere in the track, and then press *Play* to listen to that part of the track. When you find the place where one song ends and the next begins, click to place the cursor there.



- select the *Add Label at Selection* command from the *Project* menu to insert a *label* typing a name to mark the beginning of the song.



- repeat this process, adding a label at the start of each new song.



- when you finish, choose *Export Multiple* from the *File* menu. The *Export Multiple* window will appear. NB Export Format
- select the option to *split files based on labels* from the left hand side.
- next, select how Audacity should assign names to files. If you typed a song name into each label, choose the *Using Label/Track Name* option so Audacity will name each file using the song names you entered. Otherwise, choose *Numbering consecutively*, and enter a value in the *File name prefix* field.
- Next press the *Choose...* button which is next to the *Export location* field. Select the folder where you want to save all of the files. Press OK.
- press the *Export* button. Audacity will create a file for each song, in the selected location and format.

Task

Use the help file to learn how to

- fade the volume up or down smoothly with the Envelope tool.
- change the pitch without altering the tempo, or vice-versa.
- remove static, hiss, hum, or other constant background noises.

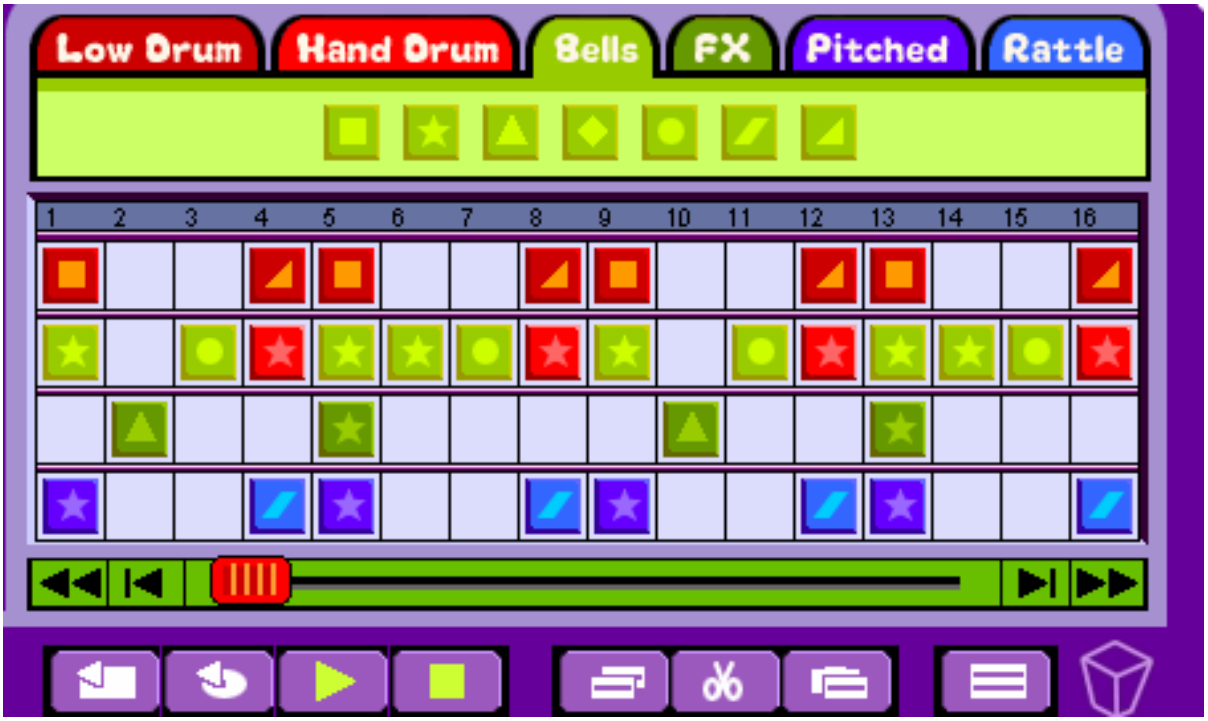
Making tracks

http://www.bbc.co.uk/radio3/makingtracks/games.shtml

Create a new folder

- Open *Beatmachine* and create a composition
- Select record in *Audacity*
- Select Loop to play the composition in *Beatmachine*, then Stop.
- Select Stop in *Audacity* and then export as a .wav file. Save it in the new folder.
- Open a new Word document
- Select Print Screen (Prt Scr) and then paste into Word and crop
- Select *Insert* then *Hyperlink*
- Select the .wav file from the new folder and then OK
- Save the Word document in the new folder.
- To play the .wav file hold Ctrl while selecting the hyperlink

My composition



making tracks

Ricci Adams Musictheory Net

http://www.musictheory.net/

This entire website can be downloaded for offline use for free. Offline Edition 5.2.6 (4.5 MB).

The uncomplicated and well ordered interface on Ricci Adams' interactive music theory site makes it very accessible to music students in all stages.

The three drop down menus allow the user to select a *lesson*, a *trainer*, or a *utility*.

The lessons are sequenced to provide skill development from beginner to the level of professional musician.

The trainer section contains drills in each skill with cumulative assessment and help tips.

The utilities section contains a chord calculator, a staff paper generator and a matrix generator for composers working with tone rows.

Task:

Organise each strand into stages for Stage 4, Stage 5 and Stage 6.

HappyNote

http://www.happynote.com/music/learn.html

Note Cracker

Available as a free download.

Note Cracker teaches children to recognize different types of rests and the notes to which they correspond.
Whenever the ball hits a rest, it cracks it open and a note of equivalent duration comes out. For instance, if the ball hits a half rest, a half note comes out.

- The notes bounce all over the screen. To win points, you must hit them with the elephant.
- If you let the ball drop off the screen, you lose one life.
- After you've completed a level, you must take a mini-quiz about the type of rest you've just played with (and learnt about). Depending on your answer, you will win or lose a life and a number of points.
- Four gaming speeds are available: Adagio - Moderato - Allegro - Presto.
- The game can be made easier for very young players by reducing (with a simple click) the number of rests to crack open on any given level.
- You can change the background with your own pictures
- At the end of each game, a Hi-Score List shows the names of the ten players with the highest scores!

Notes In Space

Available as a free download.

Notes in Space is a free computer game that makes it easy to learn and remember what shape of note corresponds to what relative duration as well as the ratio of any note duration to any other.

- For you to score, the duration indicated by the spaceship must match the duration of the note you're shooting at.
- When you hit a whole note, it splits into 2 half notes; when you hit a half note, it splits into 2 quarter notes
- When 2 quarter notes collide with each other, they turn into 1 half note. When 2 half notes collide with each other, they turn into 1 whole note.
- At the start of each game, you must answer a multiple choice mini-quiz on note durations. Your answer will determine how many lives you start the game with.
- You have the option to have the game display or not the duration of each note you hit.
- There are three levels of difficulty: BEGINNER- ADVANCED- EXPERT
- You can give yourself bonus points at the start of each game by clicking on the score indicator
- You can activate or deactivate the comets and meteors at the start of each game

Science of Music: Accidental Scientist

http://www.exploratorium.edu/music/

Explore rhythm and tone colour in three interactive mixers: Kitchen Sink-o-pation (rhythm patterns on a range of instruments), Dot Mixer (sound loops in a variety of styles) and Step Re-Mix (claps, combinations and stomps).

The Sound Exchange

http://www.philharmonia.co.uk/thesoundexchange/the_orchestra

This section contains masses of information on the instruments of the orchestra. We've interviewed members of the Philharmonia Orchestra to find out how the instruments are played and the tricks of the trade. Use the menu on the left to explore hundreds of articles, photos, examples of notation, audio and video clips. This unique resource will be invaluable for performers, composers and anyone with an interest in music and we will also be continuing to add new resources on a regular basis.

Interactive edition of "Principles of Orchestration" by Rimsky-Korsakov

http://www.garritan.com/forum.html

Interactive Edition of "Principles of Orchestration" based upon Nikolay Rimsky-Korsakov's celebrated text. Rimsky-Korsakov's genius for orchestration is unsurpassed and there may be no better source to learn about orchestration than to learn from what the great Russian master himself taught.

Course Syllabus

- **Welcome to the Garritan Interactive PRINCIPLES OF ORCHESTRATION by Rimsky-Korsakov**
- **Lesson 1** - GENERAL REVIEW - Strings & Woodwinds
- **Lesson 2** - GENERAL REVIEW - Brass, Percussion & Other Instruments
- **Lesson 3** - MELODY - Strings - Melody in Stringed Instruments
- **Lesson 4** - MELODY - Strings - Grouping in Unison
- **Lesson 5** - MELODY - Strings - Doubling, Thirds & Sixths
- **Lesson 6** - MELODY - Wood-wind - Melody in Wood-wind
- **Lesson 7** - MELODY - Wood-wind - Unison & Octaves
- **Lesson 8** - MELODY - Brass - Melody, Unisons & Octaves
- **Lesson 9** - MELODY - Different Groups of Instruments Combined
- **Lesson 10** - MELODY - Different Groups of Instruments (Cont.)
- **Lesson 11** - HARMONY - General Observations
- **Lesson 12** - HARMONY - String Harmony
- **Lesson 13** - HARMONY - Wood-wind Harmony
- **Lesson 14** - HARMONY - Wood-wind - Several Parts & Duplication
- **Lesson 15** - HARMONY - Brass Harmony
- **Lesson 16** - HARMONY - Combined Groups - Wind & Brass
- **Lesson 17** - HARMONY - Combined Groups - Wind & Brass (cont.)
- **Lesson 18** - HARMONY - Combined Groups - Strings & Wind, Three Groups
- **Lesson 19** - COMPOSITION - Orchestrating the Same Music

- **Lesson 20** - COMPOSITION - Tutti
- **Lesson 21** - COMPOSITION - Soli
- **Lesson 22** - COMPOSITION - Range Limits, Transference, Alternating Chords
- **Lesson 23** - COMPOSITION - Volume of Tone Qualities, Repetition, Sfz, Emphasis
- **Lesson 24** - COMPOSITION - Crescendo and Diminuendo
- **Lesson 25** - COMPOSITION - Effects, Rhythm & Color
- **Lesson 26** - VOICE & ORCHESTRA - General Overview

Develop your teaching practice using ICT

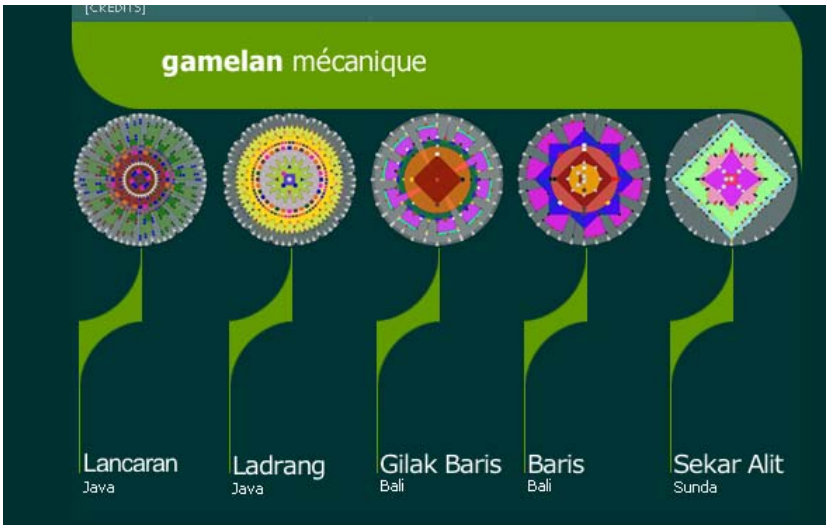
http://www.teachernet.gov.uk/supportpack/

Develop your Music teaching practice using ICT using the "ICT Support Pack" (UK 2006) Key Stage 3 (ages 11-14). Materials to teach Music using ICT, from planning and preparation to evaluation. The Practical Support Pack is an online collection of high quality lesson content, lesson plans, multimedia resources and ICT support materials designed to help teachers develop their teaching practice using ICT.

Gamelan Mécanique

http://www.cite-musique.fr/gamelan/shock.html

Interactive gamelan activities from Java, Bali and Sunda which can be viewed by instrumental ensemble, mandala or grid.



Virtual Instrument Museum

http://learningobjects.wesleyan.edu/vim/

An online Museum of the World Musical Instrument Collection of the Music Department of Wesleyan University.

SBS Peace Songs Tapestries

www.peacesongs.info

Download this free virtual PC recording studio and compose songs as part of SBS Radio's Peacesongs project. Includes its own midi keyboard and various sounds.