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UNESCO/DigiArts
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Detailed datasheet for Anvilstudio

1. General outline

Name: Anvil Studio

Categories : recording, audio and MIDI editing, processing, sequencing, assembly

Versions : 2003.06.01 (Windows)

Platforms (systems) : Windows (95/98/2000/NT/ME/XP)

URL (date of last consultation) :

<http://www.AnvilStudio.com/>

(15/09/2003)

File download size: 3.2Mo

Language: English

Learning level : High

2. Technical outline

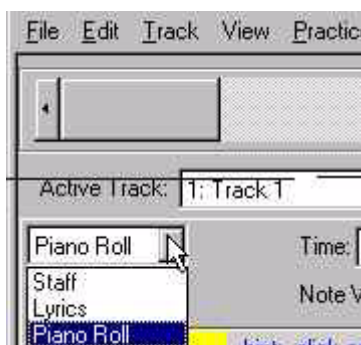
Formats

Imported files : Wave and MIDI

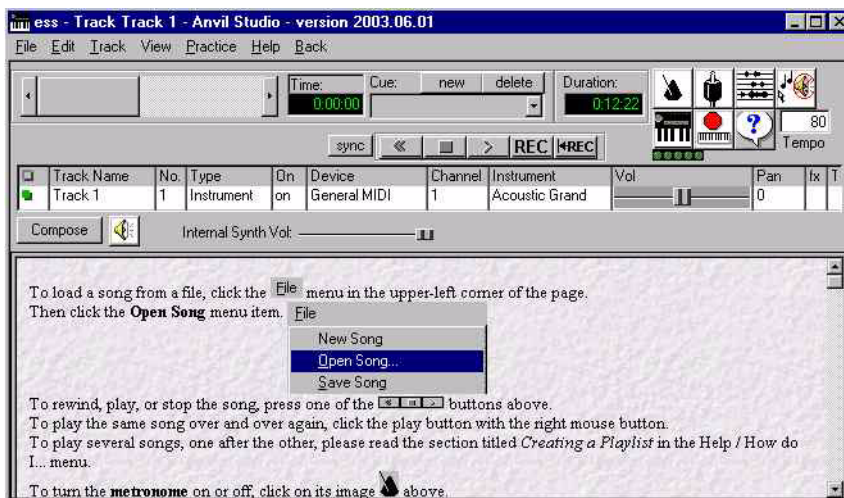
Exported files : Wave

Principle of program

Several windows are accessed via "View" menu :



Windows are only visible one at a time, like pages of an exercise book.
 A window generally has the name of the program at the top and detailed instructions at the bottom:



Functionalities

Controlling input and output of audio and MIDI and of synthesizer program

"View" menu, then "Synthesizers".
 MIDI and score data editing .
 "View" menu , then "Composer".

The three editing windows

Three views are available : "Piano Roll", "Lyrics" and "Staff".
 "Piano Roll" allows you to enter notes (appearing in form of rectangles) with the mouse or played on an external keyboard. In this window, unlike the others, "help" is on an html page, accessible top right.
 "Staff" presents notes on staves, but also allows you to enter notes with the mouse or played on an external keyboard.
 "Lyrics" allows you to write words under the notes.
 "View" menu, then "Event List" : MIDI data (start of note, end of note, etc.) appear as an editable list.

Mixing MIDI and Audio

"View" menu, then "Mixer".
 Audio can only be recorded and mixed. A few effects are available, but no real audio editing.

In all windows, active track is selected in first Mixer column.

Synthesis laboratory

In addition to usual sequencer functionalities, Anvil Studio offers a synthesis laboratory on simple wave forms.
 "View" menu, then "Audio Lab".
 Allows you to draw a wave form, its height envelope and amplitude envelope .

Graphic programming

"View" menu, then "Performer".

Allows you to create programs by connecting tools with links.

Musical scales

"Practice" menu, then "Notes".

3. Different windows in detail

Controlling input and output of audio and MIDI and of synthesizer program.

"View" menu, then "Synthesizers".



The "Synthesizers" field allows you to choose the types of synthesizers that will play the MIDI notes. You then choose one of these types on each MIDI track of the Mixer window.

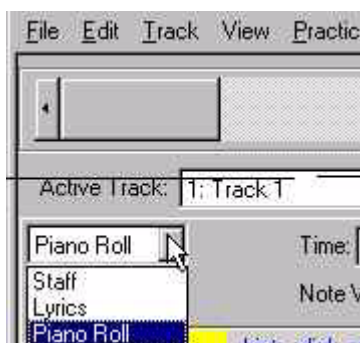
"General MIDI" is the most usual.

In the above example, "MIDI Out Port" is set on the internal synthesizer of the computer's sound card. It could also be set on a "MIDI Out Port". A MIDI cable would then be required to connect the computer to an external synthesizer (or expander, sampler, etc.).

Editing MIDI and score data

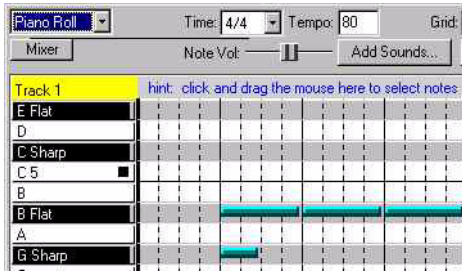
"View" menu, then "Composer".

Three Views are available: "Piano Roll", "Lyrics" and "Staff".



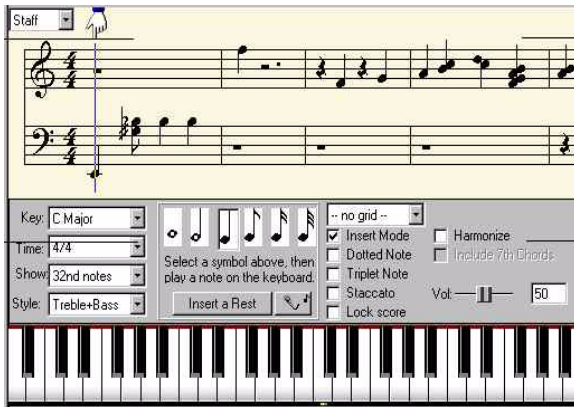
"Piano Roll"

"Piano Roll" allows you to enter notes (appearing in form of rectangles) with mouse or by playing an external keyboard. Help is on an html page accessible top right.



"Staff"

"Staff" shows you the notes on staves, but also lets you enter notes with mouse (choose length then click on keyboard note visible in window) or played on an external keyboard (a metronome is available).



"Lyrics"

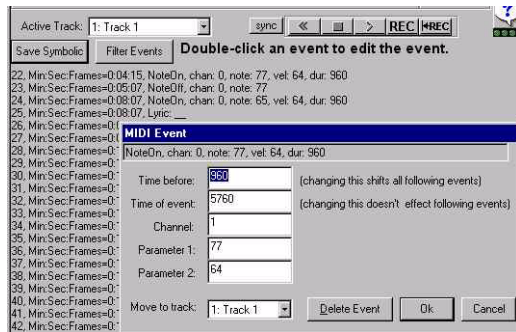
"Lyrics" allows you to view words under the notes. Click on note and choose "Lyrics" to enter word corresponding to note.



"Event List"

"View" menu, then "Event List".

MIDI data (start of note, end of note, etc.) appear in form of editable list.
To change data, double-click on corresponding line.



Mixing MIDI and Audio data

"View" menu, then "Mixer".

Audio can only be recorded and mixed. A few effects are available ("fx" button top right), but no real audio editing.

In all windows, active track is selected in first Mixer column (green square shows active track). To add, duplicate or remove a track: "Track" menu .

Controls for volume and left-right pan of each track are on right.



Exporting Mixed Audio as Audio File

Warning: the free version of Anvil Studio cannot save in the usual way ("File" menu , then "Export Mixed Audio"). See advice below.

Exporting mixed audio as MIDI file

"File" menu, then "Export MIDI".

All MIDI tracks will be recorded in a MIDI file (extension .mid). Commands, not sounds, are recorded. A synthesizer is then required to manufacture sounds from this recording.

See advice below.

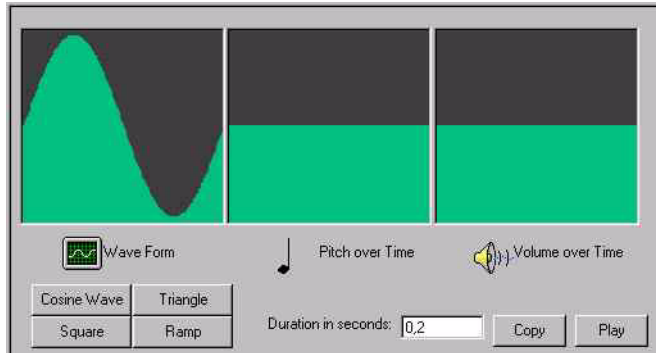
Synthesis laboratory

In addition to the usual sequencer functionalities, Anvil Studio offers a synthesis laboratory on simple wave forms.

"View" menu, then "Audio Lab".

You can use mouse to draw a wave form, its height envelope and amplitude envelope.

Four forms are provided.



Graphic programming

"View" menu, then "Performer".

You can create programs by connecting tools with links.

Scale exercises

"Practice" menu, then "Notes".

4. Comments and advice

Exporting mixed audio as audio file

Warning: the free version of Anvil Studio cannot save, so you have to retrieve the audio file (for example, in analog form, through one of the computer's audio out ports) then record with another device (tape recorder, another computer, etc.). You can then digitize the recording with a computer program such as Windows tape recorder. Quality loss is often acceptable.

Exporting mixed audio as MIDI file

Exporting in MIDI format is always on MIDI 0 files. All MIDI tracks are mixed into one. It then becomes very difficult to separate the different instruments again. To avoid this problem, use "View" menu, then "Options" then "MIDI" : tick "Save song files in MIDI 1 format". Then "File" menu and "Save Song as". If you do this, the tracks will be saved in the MIDI recording.

"Clicks" problem in audio

Increase number of buffers in "View" menu, then "Options" then "Number of audio buffers".

DO NOT HESITATE TO READ HELP ("Help" menu and instructions in lower part of windows) !