

Engines_English

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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	Engines_English	1
1.1	no documentation available	1
1.2	The Engines	1
1.3	Introduction to the Amplifiers	1
1.4	Tips for graphic board users	2
1.5	Introduction to the Engines	5
1.6	Controlling and Configuring of the Engines	5
1.7	Removed Engines	6
1.8	Bugs in the Engines	7
1.9	Informations to the Engines included in the current Release	7
1.10	8 Bit Amplifier	7
1.11	14 Bit Amplifier	10
1.12	Amplifiermanager	12
1.13	Analyzer	13
1.14	Analyzer2	14
1.15	BifatGui	14
1.16	DirListViewer	15
1.17	Eagleexotic	15
1.18	choose Exotic path	16
1.19	save configuration	16
1.20	Eagleplayer1x-Gui	17
1.21	Eagleripper	17
1.22	Pass 1	18
1.23	Pass 2	18
1.24	Security Mode	18
1.25	Extractor	18
1.26	FFT-Analyzer	20
1.27	Formatloader	21
1.28	formatloader_formatlist	22
1.29	formatloader_slider	23

1.30 Hifi System V1	23
1.31 Levelmeter	23
1.32 Levelgraph	24
1.33 Manager	24
1.34 Manager / Mode	25
1.35 Manager / Listviews	25
1.36 Manager / Add	25
1.37 Manager / Delete	25
1.38 Manager / Delete All	26
1.39 Manager / config	26
1.40 Manager / Load Config	26
1.41 Manager / save config	27
1.42 M.E.L.G.U	27
1.43 Messagewindow	27
1.44 Moduleinfo	27
1.45 Slider	28
1.46 Information list	29
1.47 Save Sample	29
1.48 Play Sample	29
1.49 Time forwards	29
1.50 Time backwards	30
1.51 cont module	30
1.52 Stop	30
1.53 Samplesaver switch	30
1.54 Choose Font	30
1.55 Noiseconverter	31
1.56 Noiseseagle	31
1.57 PatternScroll	32
1.58 PatternScroll++	32
1.59 Playerloader	33
1.60 PublicScreenSelector	33
1.61 Pysion	33
1.62 Quadrascope/Stereoscope/Monoscope	35
1.63 Samplesaver	35
1.64 List of save formats	36
1.65 Sample List	36
1.66 Informations list	37
1.67 Abilities list	37
1.68 Frequency slider	37

1.69 Play	37
1.70 Stop	38
1.71 Spacescope	38
1.72 Spacescope+	38
1.73 Stereoscope	39
1.74 Time	39
1.75 Voicemeter	39
1.76 Quit	39
1.77 Activate	40
1.78 Show	40
1.79 Hide	40
1.80 select background picture	40
1.81 Backpic switch	40
1.82 save configuration	41
1.83 Index of the Engines	41

Chapter 1

Engines_English

1.1 no documentation available

Sorry, for this Engine ist currently no documentation available.

1.2 The Engines

Engine - Documentation
for
Eagleplayer

Table of Contents:

Engines in general	
Introduction	Engines ? What is it ?
Control	How do I use and configure them ?
Overview	Which Engines are included and what they do
Programming	Am I able to write Engines myself ?
Bugs	Are there any known problems ?
Removed Engines	Which have been removed or replaced ?
Graphic Boards	How do I get scopes faster and Amplifiers sounding better ?
Amplifier	
Introduction	What are the Amplifiers and what do I need them to ?
Control	How do I use and configure them ?

1.3 Introduction to the Amplifiers

Introduction to the Amplifiers

The principle of the Amplifiers already exists since the Multiplayer of Brian Ford (1992) under the name "Noteplayer". It means that the replayers for the several music formats no longer poke directly to the audio hardware but handle their output to special programs which do that instead. The advantage of such a system is that it is absolutely no problem to redirect the output to other devices than only the Amiga Paula Chip, e.g. to Harddisk or to a Soundboard. The original idea of Brian Ford was to make the replay routines portable to let them run on other computers than only Amiga (Atari ST, MacIntosh). Some years later Peter Kunath and Frank Riffel reinvented the wheel by implementing such an interface into DelitrackerII. From Version 2.0 on Eagleplayer also has got a kind of Noteplayerinterface but since we did not like that name at all we called it 'Amplifier Interface'.

The Eagleplayer Amplifiers are based on the Protracker Fastramplayer of Eagleplayer 1.54. The main routine is the emulation of the Paula chip (responsible for the sound output of Amiga machines) what makes it extremely simple for us to adapt replayers to the Eagleplayer Amplifier system. Of course there is support for more than only 4 music channels and even the special effects like the Ping Pong Loops of FasttrackerII or OctaMED Soundstudio are included. The system is prepared for future enhancements such as 16 Bit Samples, Panning and on.

But what advantage does this offer for the user ? There are many opportunities, let me give you some examples. It is possible to load the music modules into fast memory instead of the quite limited Chipram, especially when your Amiga doesn't feature an extra graphics board. The second reason is that there are modules out which simply wouldn't fit into the 2 MB Chipmem range. A further advantage is that you are able to add several special effects to the music signal, for instance "Digital Delayed Surround" or nice echoes.

As the first step for Soundboard Support an Amplifier for the toccata.library was written to be able playing the sound using "Toccata", "Melody" or "Prelude" in true 16 Bit Quality.

1.4 Tips for graphic board users

Tips for graphic board users

Following we want to give you some hints how you can improve the speed of the Scopes, Analyzer etc. of Eagleplayer (and of course also other programs) when using graphics boards in your Amiga. Possibly the speed will be higher by a really measureable factor, as well as the sound quality when using one of 8 Bit - and 14 Bit Amplifiers.

The advices are custom made for the usual CyberGaphX®-System. Some of these tips may also be useful with other Graphicboard Emulations like Picasso96.

Graphics speed using CGFX

1. Open Screens, working in CGFX 8-Bit Mode always with the full depth of 8 Bit (256 colours), at 128 or less colours it may happen that you get serious speed problems in terms of displaying graphics details. That happened just yesterday to me (Buggs) when testing the FFT-Analyzer in maximal size on a 64 colours CybergraphX Pubscreen. Maybe this was only caused by a Bug in the CybergraphX 2.18 Intuition/Graphics emulation routines but I thought I should mention this

fact.

2. avoid graphic data in Chip memory, the Chipmem is depending on your processor and computer up to 10 times slower than the Fast memory which has a very noticeable effect on the display speed.

```
CGFX-Options: NOCHIPSCREEN switch "on"
               PLANES2FAST  switch "on"
```

3. use the hardware options of your graphics card to speed up the display rendering, for example the Cybervision has got a custom Chip (Roxxler) which is much faster recomputing the Amiga planar graphics to the VGA-Chunky Pixel format than the CPU could do that job.

```
CGFX-Options: CPUP2C          switch "off"
```

Examples: (open a Cli or Shell window and enter these lines)

```
setenv cybergraphics/NOCHIPSCREEN 1
setenv cybergraphics/PLANES2FAST 1
setenv cybergraphics/CPUP2C 0
copy env:cybergraphics/NOCHIPSCREEN envarc:cybergraphics/
copy env:cybergraphics/PLANES2FAST envarc:cybergraphics/
copy env:cybergraphics/CPUP2C envarc:cybergraphics/
```

Graphics speed using Picasso96

At the moment (V1.25) Picasso96 puts all custom bitmaps used by the scopes to chip memory. So the graphics performance slows down. (1/2 to 1/3 of the speed possible with CGFX)

The only solution I know at the moment is to patch the Scopes to use Fastmem instead of Chipmem. If you run MCP (Master Control Program by Aliendesign, available at Aminet or <http://www.cs.tu-berlin.de/~zerocom>) you should enable the Mempatch feature to speed up the scopes.

Start MCPPrefs, set the mempatch mode to "include" and add entries like these: (don't forget to replace the char after the "." in the taskname by the standard Amigados pattern "#?")

```
EPatternscroll.#?      --> Fast only
E_FFTSpectrumAnalyzer.#? --> Fast only
EQuadrascopeII.#?      --> Fast only
ESpace-Scope+.#?       --> Fast only
EStereoscopeColor.#?   --> Fast only
```

WARNING ! Don't patch Eagleplayer itself, Amplifiers or Players only to use fast memory, this would result in unpredictable effects, crashes etc. Eagleplayer absolutely NEEDS Chipmem for soundplaying on the native Amiga Hardware.

Note: the same patches can also be used in conjunction with CGFX when you disable

PLANESTOFAST due to some reason.

Note2: Please notice that the scopes ONLY work on graphics board screens after patching them, you may no longer open EP on native ECS/AGA Screens then.

Sound quality

The Amplifier of Eagleplayer are able, to output your music with a samplerate of much more than 28 kHz as long as an Amiga Screen is in front which runs in a DoubleScan Mode. (Multiscan, DoublePAL/NTSC, Euro72...) Those Screenmodes enable your Amiga to increase the sampling rate to almost twice the value it was before. (due to some hardware limitations =DMA timing the music output rate of the Amiga Soundchips is directly attached to the horizontal raster beam frequency of the graphic chips)

But what happens now when you use 3rd party graphic Boards ? Well, after switching from an Amiga Screen to a graphics board screen the output of the Amiga graphics signals are disabled and the CGFX Screen is shown. Where is the advantage ? That is easy to answer. CybergraphX does indeed disable the Amiga's native graphics output in order to increase the memory access speed to the ChipRam (if the Amiga screen ran in >16 colours in a DoubleScan AGA mode or >4 Colours Hires ECS mode) but it doesn't change the display mode and according to this not change the horizontal beam frequency.

If now at the bootup of the Amiga once a DoublePAL or Multiscan Screen has been opened (and maybe closed, that does not matter) the display mode of the Amiga native graphics remains. So if you run a picviewer for boot pictures in your startup-sequence (Bootscreen (used by me) , PicBoot, Syspic ...) and you make it use e.g. DoubleNTSC as the monitor driver for displaying your boot picture you have already won.

A further option are the tools you can find on Aminet like "Prod" (gfx/board/Prod.lha) or "HiScan" (mus/misc/HiScan1_0.lha), which open a screen in Multiscan-Resolution and after that closing automatically which also brings up the effect mentioned above. You only have to make sure that the "Multiscan" monitor driver is situated in your "devs:monitors/"-drawer.

CGFX-Option: activate KEEPAMIGAVIDEO (see above)

Picasso 96 offers an Option to enable Soundplayback with a rate of >28 kHz automatically when switching to a graphics card screen. With P96 V1.17+ the maximum usable playback rate is about 52000 Hz. Please notice that the max. replay rate changes back to 15 kHz when using ESC/AGA PAL or NTSC Screens, although onboard Flixfixer of the PicassoIV board is able to produce higher scanrates than 15 kHz those changes to the Video signal don't apply to the Amiga's native hardware.

(Maybe you have to update your drivers, the PicassoIV cards currently shipped (April 1997), feature an old version of P96)

possible Problems:

Unfortunately CybergraphX still has got some bugs. Sometimes it happens at opening of new Screens and/or switching between Screens that the ECS/AGA Monitordrivers and their copperlists get destroyed and even all registers of the Audio Hardware get mangled. Sometimes it even may happen that you get a total system lockup when Diskdrive accesses at the same time are done. I tried to write some workaround routines in my Amplifiers to minimize those problems but I can't guarantee that it works in all cases and an output rate of >28 kHz might become suddenly impossible (which can only be solved by a reboot).

You should always keep in mind that CybergraphX is in fact a HACK due to the lack of operating system support for 3rd party graphics cards and can't be 100% compatible to the original behaviour.

So if the problems I mentioned happen frequently at your computer you'd better keep a maximal output rate of 28 kHz although it sounds less good.

1.5 Introduction to the Engines

Introduction to the Engines

The Engines (called Userprograms in Eagleplayer V1.xx) are something really new on the music player market. They are externally loaded, self running programs, which work asynchronously. (most of the Engines are separate tasks) Basically they were designed as simple Scopes and Analyzer programs for graphical effects and more or less CPU time wasting toys but in the last years we added more and more use- and powerful opportunities for the Engines not only to be controlled but control the Eagleplayer itself. The Engines can access all important datas of the Eagleplayer so that this opens new worlds. So it is absolutely no problem creating a completely different interface for the Eagleplayer, e.g. with own screen in a CD player look. Since V2.0 the main user interface are such Engines. (e.g. BifatGUI) Eagleplayer is currently able to load up to 32 Engines simultaneously, all of them enabled/disabled the way you want. Their settings like on/off, size and position of the belonging window, displaymode (Analyzer) will be remembered and saved along with the main configuration file of Eagleplayer. From V2.0 on Eagleplayer even keeps the settings of quitted Engines. That means you can load an engine, set its options to fit your personal taste, quit it, save Eagleplayers config and every time you load that engine again the options are the correct ones. A further new and (as we think great) feature is that only the active Engines are loaded at startup. The others can be activated and loaded at any time easily by a simple mouseclick but don't reside unused in your memory or have to be deleted by Hand out of the Engines drawer like it was before with the unregistered Eagleplayer 1.x. If you want you are able to load the one or other Engine, twice, three times or more often at once. You only need to add it a) via the "Add Engine" menu option to a running Eagleplayer or b) better copy the file under using different file names into your "Engines" directory and restart Eagleplayer.

From Version 2.0 on the long promised information and managing program is included in the distribution, simply called Manager.

Please consider: The Engines with own graphic display like the Scopes are sometimes timed using the vertical raster beam and need naturally at 50 Hz display rate 25% less processing time than for example at 78Hz Super72 ! All shown measurements in terms of speed in the following chapters were taken in 50 Hz DBLPal-Mode, 16 Colours on an AGA Amiga. Some extremely CPU hungry Engines have got the "Slow Mode" option which halves their display rate and along with this their needed CPU time.

Nowadays there most other music players have got a similar concept for external tools and not only for the replayers. (Delitracker, APlayer) But at that time Eagleplayer came out it was definately the first program which was able to support external scopes, info windows and on.

1.6 Controlling and Configuring of the Engines

Controlling and Configuring of the Engines

The Engines will be (De)activated by selecting the according menu item in the Eagleplayer Pulldown Menu 'Engines'. If the item is checked it means that the Engine where it stands for is in active state. If the close gadget (or the Hide menu Item) of an Engine's window are selected the Engine will close it's window and depending on the settings of the Eject Engines option it will reside in memory or automatically be removed. If the "Quit" Item in the Pulldown Menu of the Engine itself is selected, the Engine will be removed in any case. Eagleplayer automatically remembers the last made settings before they will be quitted so that those are always useable when the Engine is reactivated. That means you can load an engine, set its options to fit your personal taste, quit it, save Eagleplayers config and every time you load that engine again or restart Eagleplayer the options are the correct ones. The one or other Engine saves it's own preference file (e.g. for path and filename of background images), you don't need to save every configuration by hand although it is possible, a global Save Config call will do as well\$^1\$.

Some Engines (e.g. Extractor, 8 Bit Amplifier, Eagleexotic) have got an own submenu to their entry in the 'Engines'-pulldown menu. These are the subitems called 'Show' und 'Activate'.

This special behaviour has the following reason: Some Engines like the 3 mentioned above are able to do their job even without an opened window (which would be quite hard for the scopes to do :-)) so that you have got here 2 choices: The first one is to Activate the Engine what means that it is loaded at startup and ready to do it's duty and the second makes you able to open the according window (Show) and configure the Engine to your personal taste and needs.

Those Engines will not be removed from memory by their close gadget or their hide item. The shown state is here not directly connected to the 'active' state like the scopes do.

In addition to the above told basic usage rules every Engine has got it's own special options which are described here.

\$^1\$Please notice that custom settings files saved by an Engine don't feature state and position of it's window, those settings are maintained by Eagleplayer. So if you open an Engine window using Pulldown Menu or Manager and want to keep it on your Screen you have to save Eagleplayer's global configuration.

1.7 Removed Engines

Removed Engines

The following Engines have been removed or replaced in the last time from the Eagleplayer distribution. If you have got one of the removed ones accidentally in your Engines drawer, please remove it. Those Engines are mostly totally outdated and won't run with the current Eagleplayer release.

- * Analyzer
- * Analyzer2
- * Hifi System V1
- * M.E.L.G.U

- * Noiseeagle
- * Stereoscope/Monoscope
- * Levelmeter
- * Voicemeter

1.8 Bugs in the Engines

Bugs in the Engines

-- no entries yet, hope it'll stay this way --

1.9 Informations to the Engines included in the current Release

Informations to the Engines included in the current Release

14 Bit Amplifier
8 Bit Amplifier
Amplifiermanager
BifatGui
DirListViewer
Eagleexotic
Eagleplayer1x-Gui
Eagleripper
Extractor
FFT-Analyzer
Formatloader
Levelmeter
Levelgraph
Manager
Messagewindow
Moduleinfo
Noiseconverter
Patternsroll
Patternsroll++
Playerloader
Pysion
Quadrascop
Publicscreenselector
Samplesaver
Spacescope+
Stereoscope
Time

1.10 8 Bit Amplifier

8 Bit Amplifier

The 8 Bit Amplifier is able to add up to 32 audio channels (= voices) of a sound module together and to replay them using the Audio Hardware of any standard-Amiga. The channels to be played are added to just 2 of the Amiga

hardware channels so that the remaining 2 voices can be used for special effects. Those feature the options to reduce the stereo bandwidth in 64 different levels down to Mono (the same thing the Headphone Noteplayer of Delitracker or the "Surround" mode of PS3M do) and – the really better sounding alternative – adding the some milliseconds delayed and 180\textdegree{} ← phase

shifted copy of the original sound signal – or short named – Digital Delayed Surround. That means in comparison to the known surround implementations (PS3M and the programs using it's routines like Hippoplayer and Aplayer) a noticable gain in terms of sound quality by increases of the stereo bandwidth and a virtual extension of the room instead of a feeling of pressure onto the ears. (hard to find the right words to explain, you should in fact try it out to see what I mean)

As a bonus I added a kind of pseudo-stereo mode to better the sound of Mono samples and the growing number of those completely sampled Mono dancefloor modules.

The mixroutines are based upon the work of Jarno Paananen and his PS3M but are changed to work now – quite different compared to the original routines – in realtime (PS3M mixes according to it's settings up to some seconds ahead or afterwards, depending on the point of view) and got optimized and speeded up so far that they run in some situations now more than twice as fast. In my opinion there are currently no faster mixroutines on the Amiga market available. Furthermore I added the possibility to change all relevant parameters like Mixrate, Volume Boost ... while playing in realtime. Even Ping Pong loops, a usual feature of PC musicformats and also the new OctaMED 7 (OMED Soundstudio) are supported.

Usage

The configuration window features a listview for the offered modes (ordered after the number of the input channels), some sliders and a display showing which number of channels are currently to be configured.

listview:

A single mouseclick onto the wanted number of voices makes the Amplifier copy the current settings of this number of channels to the sliders so that they may now be configured.

A doubleclick (de)activates the desired number of channels so that the next modules loaded will be able to use this Amplifier with that amount of channels or not. Deaktivated modes are shown by "()" in the listview.

If the Amplifier is currently used to play a module the number of channels used by the module – the active mode – is highlited in the listview. (Kickstart 3.0 required)

Meaning of the numbers in the listview:

xx ch:	– shows the number of channels the settings are set for
xxxxx	– 5-digit value for the Mixrate (see below for explanation)
xx.x	– factor for volume boost
xx	– 2-digit level for the special effect, from -64 to +64, values >0 stand for surround, values <0 mean the mono

```

mode, 0 = Stereo
xx      - 2-digit number for the delay of the surround signal
         (has got no meaning or use for Mono or simple Stereo
         output)

```

Voices:

In this box there you find either a number showing the currently to configure number of sound channels or a "G" standing for "Global". "Global" means that all changes from the time it was activated on are made for every number of channels.

Volume Boost:

This slider controls the extra Volume of the output signal. That may be of use when the played module contains many voices and the output Volume gets a bit quiet.

Warning ! This slider is not meant as a replacement of the volume controller of your HiFi amplifier. Don't set the Boost too high to prevent the sound signal to get overmodulated.

Suggested values for the 8 Bit Amplifier: 1.2 at 4 channels, about 4.5 at 16 channels and the rest linear in between.

Mixing Frequency:

Well, I spoke a while about Mixing Rate or Mixing Frequency but what in fact is that ? The principle of mixing goes a special way to achieve it's goal. The samples to be mixed will be - as mentioned above - added together and played afterwards. To make that possible it is needed that their base frequency - the frequency they are sampled with (e.g. 17, 28 or 44 kHz) - is the same. The main task of a mixing routine is to resample the sound to a fixed frequency and volume. The mixing rate is in fact exactly the frequency the sum of the samples will get. The higher it is the better the output will sound. The little problem of such routines is that this'll need a quite big amount of CPU time, depending on the chosen Mixing Rate. Especially when using Surround a fast 68030 CPU is recommended when you want to work with your Amiga beside Eagleplayer at a reasonable speed.

The next problem is the maximum output frequency: the maximum possible Mixing Rate of the Amiga computers is directly attached to the horizontal beam frequency. That has the effect that in native Amiga display modes like DoublePAL or Multiscan much higher values are useable than in Modes like Pal, Ntsc or Euro 36.

Some examples for the max. value of the output rate, it is rather possible that the horizontal frequency differs from the settings at your machine because of the fact that my monitor drivers are a bit patched.

- DoubleNTSC	31.61 kHz	52500
- DoublePAL	31.61 kHz	52500
- Euro72	30.79 kHz	51000
- Multiscan	29.52 kHz	48000
- Super72	26.85 kHz	46000
- PAL,NTSC,Euro36	15.80 kHz	28000

In general it can be told that the chosen mixing rate is too high when

a) no CPU time is left :-)

oder b) the output suddently starts to produce glottal stops or

c) simply sounds terrible and seems to be played too slow.

If you own a graphics card, please read also here.

The maximum frequency you can set by the slider is 58000 Hz, the string gadget right beside accepts values of 4000 to 65500. Don't forget that

values of 65 kHz are only relevant when you did some hardcore patches to your monitor drivers.

Mono <----- Stereo -----> Surround:

This slider changes the replay mode, in the middle position the sound will be replayed in normal stereo.

A movement to the left makes the 8 Bit Amplifier add the signal of the right output channel to the left and vice versa with the chosen intensity (-1...-64). The leftmost position simply means: MONO.

The mono mode does not cost any extra CPU time compared to the simple Stereo Mode

A movement to the right adds the surround signal to the main output like explained above.

The special advantage of the surround mode is that it is finally possible to hear even Protracker modules using headphones without getting berserk after a few minutes, the sound pressure is nearly the same for both ears and still you are able to locate the signal, you still hear if a single instrument 'comes from the left or right'.

Surround delay:

This slider changes the delay of the Surround signal, if it is located leftmost it means a minimal delay (=2 Bytes or 1/22000 second at 44 kHz Mixing Rate), the same sound PS3M produces in Surround mode. In the rightmost position the maximum delay is used.

Pulldown Menu options:

Mono Modules Mode - the already mentioned Pseudo-Stereo mode, sounds best in connection with maximal values for Surround Level (=64) and -Delay (=23)
music tip: "ADPCM.CosmicBaby_the_universal_mind"

Global - after activating "Global" all settings made are relevant for every number of sound channels supported

Reset to Defaults - reset the Amplifier to the standard settings

Save Settings - saves all settings done in the channel list (not the position and the state of the configuration window, that is done in the way it works for every other Engine by the Save Config command of the Eagleplayer itself)

Remark: when saving the global settings of Eagleplayer these settings of the modes are also saved.

1.11 14 Bit Amplifier

14 Bit Amplifier

The 8 Bit Amplifier is able to add up to 32 audio channels (= voices) of a sound module together and to replay them using the Audio Hardware of any standard-Amiga in 14 Bit. That is possible by a trick where 2 channels work as usual with maximum value and the remaining 2 audio channels of the Amiga Paula chip play with the minimum. Due to the fact that the soundchip adds the output of the 2 channels for both sides it is then

possible to use the channels with the low volume for the lower Bits of the 14 Bit signal. (due to the fact that the Amiga offers 64 volume levels =6 Bit you get 14 Bit output)

The program parts for precalculating the tables for 14 Bit calculations is from the Cybersound System by Christian "flowerpower" Buchner. Because of that reason the Amplifier is automatically able to load and utilize the custom Calibration settings of Cybersound.

As extra the 14 Bit Amplifier offers the option to add up to 3 Echoes with variable delay and intensity to the output for DSP alike effect simulations.

Furthermore this Amplifier is able to play 16 Bit Samples directly in 14 Bit quality without the need to resample them to 8 Bit and you get an output quality for such samples comparable to Play16.

The mixroutines are based upon the work of Jarno Paananen and his PS3M but are changed to work now - quite different compared to the original routines - in realtime (PS3M mixes according to it's settings up to some seconds ahead or afterwards, depending on the point of view) and got optimized and speeded up so far that they run in some situations now more than twice as fast. In my opinion there are currently no faster mix-routines on the Amiga market available. Furthermore I added the possibility to change all relevant parameters like Mixrate, Volume Boost ... while playing in realtime.

Even Ping Pong loops, a usual feature of PC musicformats and also the new OctaMED 7 (OMED Soundstudio) are supported.

The 14 Bit Amplifier has got the same basic usage like the 8 Bit Amplifier, please see here for a description of the basic settings and usage.

Usage and Configuration of the Echo-effects

As a preparation first some basic remarks to the Echoes. Please don't exaggerate the intensity when using more than 1 Echo effect, please pay attention of about 75% of the sum of the intensities. If it happens that the Amplifier starts to 'push up' itself, please disable one of the Echoes and decrease the Intensity before you enable the Echo again.

Echo1 (.) here you choose between the 3 Echoes which
Echo2 () can be added
Echo3 ()

Active [] If this checkmark is activated that this one of the
3 Echoes is activated and will be added to the output signal.

Intensity This slider changes the volume of the current Echo
effect, values ranging from 3.125% to 50% of the original
sound signal are possible. Please use only one Echo with
50% volume. (see above)

<-> [] This checkmark makes in active state that the current
Echo will be added to the other side of the stereo output,
the english expression for this effect is "cross echo". Using
this option you can achieve quite similar effects to those
of the 8 Bit Amplifier at low delay values.

Delay The delay slider changes the delay of the sound,

how long it lasts until a played tone 'comes back'.

Warning!: The remark about exxagerating the Volume Boost is especially important when using the 14 Bit Amplifier. Due to the way the 14 Bit routine works too big Boot values WILL result in very bad noises. The output volume is in 14 Bit naturally lower than in 8 Bit, that can't be changed without a loss of sound quality.

1.12 Amplifiermanager

Amplifiermanager

The Amplifier manager is one of the new Engines of Eagleplayer V2.0. It is the command center for control and configuration of the Amplifiers. It was written to enable the user to define under which conditions which Amplifier is used to play the music. ←

For understanding of the principle I'll explain how the Amplifier System of Eagleplayer works.

When Eagleplayer loads a music file, it first looks for a matching Replayer and after that, if needed, an Amplifier which is able to fulfill the requirements of the current replayer. For example it would make no sense if it would be tried to play a 32 channel S3M module directly from Chipram since the Amiga Hardware is - as known - normally only able to play 4 channels in 8 Bit.

To find a suitable Amplifier Eagleplayer checks its list of available Amplifiers shown in the left Listview in Amplifiermanager's configuration window from the top on and utilizes the first found Amplifier offering the required features. So it is for the user quite easy to guess in which cases which Amplifier is used.

The Amplifiermanager has got a number of functions to offer the user the option to select which Amplifier is used and in which circumstances so that it is e.g. possible to use the Fastram Amplifier for all modules with 4 channels, the 8 Bit Amplifier up to 8 channels and the rest with the 14 Bit Amplifier.

If a module is played by one of the available Amplifiers that one will be highlighted in the Amplifier list. (in most cases the name is shown in white compared to the black text of the not used Amplifiers)

To (De)Activate an Amplifier you'll just have to double click onto the according item in the Amplifier list. Inactivated Amplifiers are marked by "()" and will not be used when loading the next music module.

To change the position of an Amplifier within the list it is first needed to select it by a single mouse click. Then you have got the options to move it using the "Up" - and "Down"- Switches one position up or down. Second you may swap the position of 2 Amplifiers by using the "Exchg."-Button. The "Sort"-Switch simply sorts the Amplifiers by their names.

The 8 Bit Amplifier and also the 14 Bit Amplifier offer the possibility,

switching single amounts of used channels on/off. This is done by double clicking onto the items in the listviews of their configuration windows.

more functions:

Info - here a short information text to the currently selected Amplifier is shown
 Show - show the configuration window of the currently selected Amplifier, similar to the "Show" item of the Engines-Menu¹
 Hide - close the configuration window of the currently selected Amplifier, ← similar to the "Show" item of the Engines-Menu¹
 Add - add one more Amplifier (or another Engine) to the current Engine List
 Del - quit the selected Amplifier and remove it from memory¹

¹ not for ChipRam Amplifier and FastRam Amplifier

To save your customized settings you'll simply have to save your global ← Eagleplayer configuration. (Save Config)

Remark: Don't forget to switch the LoadFast option to on when you intend to use other Amplifiers than the Chipram Amplifier because of the extremely slow Chip Memory speed. Using the 14 Bit Amplifier with a in chipmem situated module it may even happen that a 68060 CPU is no longer able to do replay the stuff in realtime. Always remember: to upgrade your Amiga with fast memory makes it much faster and RAM is cheap nowadays.

Short remarks to ChipRam Amplifier and FastRam Amplifier:

These two Amplifiers are already Eagleplayer-intenal and are automatically available when starting Eagleplayer (in case the user didn't deactivate them)

The ChipRam Amplifier does nothing more than replaying the music modules like it was done in earlier Eagleplayer versions (without the Amplifier System) by directly banging onto the Audio Hardware. That offers the advantage of an absolute compatibility to the behaviour of the original replay routines in both terms: sound and CPU usage.

The FastRam Amplifier plays up to 4-voices Amiga-Modules from Fast memory by copying the currently played part of the samples to the Chipram so that the Audio-Hardware of your Amiga can reach and replay your sound.

1.13 Analyzer

Analyzer

Quasi Spectrum Analyzer, which works using the usual method reacting on the samplerate which was used for playing the actual note. (like Sound/Noisetracker etc.) Although some people don't wanna believe it this piece supports 21 different modes (ok, some only differ in trifles).

Who cares about the scroller or the picture may switch it off by selecting the corresponding pulldown-menu item. These settings will also be used in the configuration as like as the actual mode.

-has been removed from the V2.0 distribution, the FFT-Analyzer is much better, so who cares...

1.14 Analyzer2

Analyzer2

Small, Kickstart 1.3 compatible version of the Analyzer, has never been completely working and was quite buggy.

1.15 BifatGui

BifatGui

BifatGUI is one of the new Eagleplayer 2.0+ external user interfaces.

The Design was done by Timm Müller (Captain Bifat) - that is the reason for it's name.

The most impressing feature is the possibility to size the window for fitting your needs and adapting to the used Screen resolution. That is done by an invisible "Sizing"-Button in the lower right corner. This got possible by implementing own BOOPSI-classes, again thanks to the Commodore System Developers at this point.

Furthermore is it possible to add a background picture to the window. The picture is loaded by the Datatypes library. The BifatGUI Routines are compatible with the 24 Bit Picture.datdatatype by Ralph "Laire" Schmidt.

The Text Font for the Scroller can be altered using the Layout-Submenu of Eagleplayer. Even non proportional Fonts may be used. The maximum height for the font depends on the current size of the window.

In addition to the Buttons within the window BifatGUI offers up to 3 Buttons in the titlebar of it's window. These can be switched using the "BifatGUI-Prefs" submenu of the "Engines"-menu.

It's meaning:

Filter Gadget

PubScreen Jump Gadget

- with this button you can force Eagleplayer to open it's windows on the next available public screen. If there is only one available pubscreen (e.g. only the Workbench Screen is open), all windows are once closed and then reopened again.

Iconify Gadget
 Background Picture - switch Background Picture on/off
 select Background Picture - opens the Filerequester so that you may select the picture you'd like to have in background

1.16 DirListViewer

DirListViewer

Dirlistviewer shows the current directory, the current Moduleslist or the contents of a scanned Archive.

The shown modules can either be loaded by a double click with your mouse or using the keyboard. After selecting a directory that one will automatically be scanned.

If e.g. by an Arexx call or automatic Modulechange (Songend or Timeout) another module is loaded by Eagleplayer, the cursor bar jumps to the current module.

Keyboard support in Dirlistviewer

RKP = right keypad (numeric keypad)

Cursor up	or 8 (RKP)	= one entry up
Cursor down	or 2 (RKP)	= one entry down
Shift + Cursor up	or 9 (RKP)	= one page up
Shift + Cursor down	or 3 (RKP)	= one page down
Ctrl + Cursor up	or 7 (RKP)	= top of the list
Ctrl + Cursor down	or 1 (RKP)	= end of the list
Cursor left		= previous pattern in module OR parent directory if cursor bar in <<Parent>> line
Cursor right		= next pattern in module OR jump to subdirectory in case cursor bar is situated on a directory entry
Return, Enter (RKP),	5 (RKP)	= load selected module
Esc		= hide window (quit Dirlistviewer)
A + Q		= Quit
A + H		= Hide
A + A		= About

1.17 Eagleexotic

Eagleexotic

Eagleexotic ist an Interface Engine to Exotic Ripper (by Turbo and Marley of Infect), a tool which is able to detect and extract music data from files. If upon loading a file no suitable replayer is found by Eagleplayer

the Eagleexotic starts it's work. It tries to find a sound module within the loaded file. If one is found Eagleplayer loads the appropriate replayer and plays the module. So it is absolutely easy to play the modules directly out of Demos or executable modules (saved e.g. by OCTAMED or Protracker). Of course the Demos may be situated in Archives from where they are dearchivated by Extractor.

At the moment only the first found module will be played. That may change in the future.
Eagleexotic offers Locale support.

The configuration submenu for Eagleexotic in the Engines menu is organized in the following way:

```
Active
choose Exotic Path
~~~~~
save config
```

Remarks:

- Playerloader has to be active when using Eagleexotic (should be active anyway) ←
- the path for ExoticRipper2.31+ has to be chosen manually before usage (e.g. using the Manager or the menuitems, see above)
- when Eagleexotic rips through a file you can stop it by pressing the "Control" key
- it is recommended to activate the XFDDecrunch option when attempting to rip a module from demos, most of them are packed using various kinds of crunchers which are mostly not natively supported by Eagleplayer
- Eagleexotic may occupy a lot of memory when loading/decrunching/ripping a module
- Exoticripper 3.1 can be found on Aminet in mus/misc/ExoticRip31.lha

1.18 choose Exotic path

```
choose Exotic path
```

Using a file requester this feature lets you select the path where ExoticRipper can be found. You may either specify 'ExoticRipper' or 'Exoticripper.020' according to the main processor setup of your computer.

1.19 save configuration

```
save configuration
```

Using this function EagleExotic saves it's settings (Exoticripper's path and name) into the current "config" directory under the name "Eagleexotic.config".

Note: this is automatically done when saving Eagleplayer's main configuration.

1.20 Eagleplayer1x-Gui

Eagleplayer1x-Gui

The good old user interface of Eagleplayer 1.54, for those people who wanted to keep Eagleplayer's look as they knew (and liked) it all over the time.

The scroller routines have been taken from BifatGUI and the user interface works now with all fonts of up to 9 points in height.

1.21 Eagleripper

Eagleripper

Eagleripper is an Engine to find modules within files. When Eagleplayer doesn't detect a player for the loaded music format Eagleripper starts it's work. It scans the currently loaded file using it's external plugins for any known playable sound data. If a module is found the appropriate player will be loaded and the module played. It doesn't matter if you want to rip modules from packed files or even from files contained in archives.

Depending on the settings Eagleripper offers the options not only to scan for the first module but also to save the file and look for further sound modules.

The configuration submenu for Eagleexotic in the Engines menu is organized in the following way:

```
Activate
~~~~~
Pass 1
Pass 2
~~~~~
Security Mode
```

Remarks:

- Playerloader needs to be active when using Eagleexotic (should be active anyway) ←
- it is suggested to activate Noiseconverter
- it is recommended to activate the XFDDecrunch option when attempting to rip a module from demos, most of them are packed using various kinds of crunchers which are mostly not natively supported by Eagleplayer
- Eagleripper may occupy a lot of memory when loading/decrunching/ripping a module
- It's always a good idea to enable the Security Mode to be able manually preventing Eagleplayer from playing eventually incorrect recognized modules.

1.22 Pass 1

Pass 1

Eagleripper works in 2 search passes when ripping, the first pass is the Quickscan for specific ID's of music formats to be found. Most formats Eagleripper currently supports will be ripped already in this pass.

1.23 Pass 2

Pass 2

Eagleripper works in 2 search passes when ripping, the second pass is the deep scan for which may last much longer but works much more reliable detecting any playable data.

1.24 Security Mode

Security Mode

When enabling this option , Eagleripper asks you at any found module for your further actions. (using a requester)

- (Play) the found module will be played immediately
- (Continue) continue to scan for modules in the current file
- (Save) the found music file will be saved to disk
(registered version of Eagleplayer only)
- (Cancel) cancel ripping

1.25 Extractor

Extractor

Introduction:

Extractor is the Engine for Eagleplayer's Archive support. The whole Archive file is handled like a normal directory by scanning it's contents, that means if an Archive get's selected it's contents are shown in the modules menu (and Dirlistviewer), after selecting an entry that module will be depacked and played as usual. Eagleplayer is able to write a fastdir information file 'Archive.EPDIR' in order to minimize the time needed to scan a the Archives. That one only works in the registered Version.

Extractor supports Localisation.

At the moment it supports Archive of the following programs:

- HA
- LHA
- LZX
- RAR
- Shrink
- Zip
- ZOO

ARJ is supported as well but due to the lack of a useable depacker tool on Amiga (Unarj 1.0 is unable to depack single files from an Archive) this Archive format has been disabled.

Usage:

Before use you have to specify the path where the Archivers for the supported formats can be found. You may also alter the options used to depack a file correctly.

%1 is the path/filename of the Archive
%2 is the path/filename of the file to be depacked from the Archive
%3 destination path (Eagleplayer default: T:)

Example #1 LHA:

Options in Extractor's window: Lha -N e "%1" "%2" "%3"

example archive name: MODS:Modules.lha
example file name: Mod.Condom_Corruption
temp: T:

This would result in the following command line at depacking:

Lha -N e "MODS:Modules.LHA" "Mod.Condom_Corruption" "T:"

Beispiel #2 Shrink:

example Options in Extractor's window:
Work:packer/Archiver/Shrink x "%1" "%3" "%2"


```
archive name:      MODS:Industrial.shr
file name:         Mod.Bifat_bunkerschliessung
Temp:             T:
```

This would result in the following command line at unpacking:
Shrink x "MODS:Industrial.shr" "T:" "Mod.Bifat_bunkerschliessung"

Attention: Extractor only recognizes the type of an Archive when
the correct Extensions for the Archive type are given (.LHA, .LZX etc.)

1.26 FFT-Analyzer

FFT-Analyzer

FFT-Analyzer is a scope engine showing the frequency spectrum of the currently played audio signal (in the manner some HIFI Equalizers do). In opposite to the fakes of programs like APlayer, Hippoplayer2.xx or Eagleplayer 1.xx a highly optimized Fast Fourier Transform is used for an exact calculation of the single frequencies. That on the other side needs a lot of CPU calculations and needs a high system performance. Because of that reason I optimized the routines especially for fast Amigas (040 & 060) with the result that this program runs on a 68060 CPU under the same conditions (same display mode, Highres, Full Speed) about 50% faster than that one of Delitracker.

FFT-Analyzer offers - typical for Eagleplayer - about 25 different display modes including coloured variants, as an extra direct CybergraphX support with multicolour display of the frequency spectrum. The CyberGFX-Modes can be found at the rightmost button. Due to the fact that our own graphic cards (Cybervision) are much faster when using monochrome planar modes in comparison with the Chunky Pixel method we kept the planar display variants and just added the 3 Cybergfx modes so that you yourself are able to decide between better look and higher speed.

The shown frequency spectrum ranges from 0 to 8 kHz, depending on your settings with 128 or 256 divisions, which means a resolution of 62.5 Hz or 31.25 Hz. The single Amplitudes are shown - as usual in the electronics - logarithmic, in fact by the formula $20 \cdot \lg[x/x_{\max}]$, as used in the Bode-diagram (the X-Axis stays linear in this program) The FFT output of the higher frequencies is corrected in it's Amplitude due to the aliasing errors when recalculating the samples.

The display of the frequency bar and the buttons can be toggled on/off

the menu options:

Gadgets - toggle the gadgets on/off, as an alternative to the buttons you may use the keys from '1'-'5' to switch to your desired display mode

- Frequency Table - toggle the frequency bar on/off
- full Speed - the Analyzer runs at full speed and tries to show the full amount of 50 pictures per second (1-frame), depending on your display mode. (when using modes like NTSC or EURO72 it shows 60 .. 72 frames per second)
- half Speed
1/3 Speed - to reduce the needed CPU time you can switch to half (or 1/3) of the display rate
- High Resolution - if activated a 512 point FFT will be used instead of the default 256 point one so that you get a resolution between the single frequencies of 31.25 Hz instead of 62.5 Hz.

To run FFT Analyzer at least a 68020 CPU and Kickstart 3.0 are required.
(suggested: 68040 or better 68060)

If you have got any questions to my routines and algorithms, just ask me. (← preferably by E-Mail)

1.27 Formatloader

Formatloader

Formatloader was written to enable Eagleplayer replaying sounds which lack of the possibility to recognize them by the usual automatic checkroutines, mainly raw data like CDDA or the samples used in programs like Protracker.

This task has to be done by the user in this case, as well as setting the appropriate replayrate (using the slider or keyboard).

Attention!! You have to know what you do, if not you'll risk replaying trashed sounds or even cause crashes (← not when playing just raw sounds though)

keyboard support in Formatloader

RKP = right (numeric) keypad

Cursor up or 8 (RKP)	= one entry up in the offered list
Cursor down or 2 (RKP)	= one entry down in the offered list
Shift + Cursor up or 7 (RKP)	= one page up
Shift + Cursor down or 3 (RKP)	= one page down
Ctrl + Cursor up or 9 (RKP)	= top of the list
Ctrl + Cursor down or 1 (RKP)	= end of the list
Cursor left	= decrease replaying frequency by 10 Hz
Cursor right	= increase replaying frequency by 10 Hz
Shift + Cursor left	= decrease replaying frequency by 500 Hz

Shift + Cursor right	= increase replaying frequency by 500 Hz
Ctrl + Cursor left	= set replaying frequency to 4000 Hz
Ctrl + Cursor right	= set replaying frequency to 58000 Hz
<Enter>	= load a module played as the specified format
Esc	= Hide Window (=quit formatloader)
A + Q	= Quit
A + H	= Hide
A + A	= About

[more links to formatloader](#)

[Formatlist](#)
[Slider](#)

the following formats are currently played:

BFB Master	a loader for BFBMaster.Library, a multiformat replayer library, as a test for more complex formatloader style replaying
Protracker	for modules, which are slightly corrupt or where the "M.K." signature is missing, be careful ! The module will be played without further checks
RAW 8Bit Mono	using AIFF player, loading directly from harddisk whilst playing big soundfiles, e.g. Protracker samples
RAW 16Bit Mono	using AIFF
RAW 16Bit Stereo	using AIFF
CDDA LSF	using AIFF (Motorola style CDDA streams)
CDDA MSF	using RIFF WAVE replayer (Intel style CDDA streams)
RAW 8 Bit Mono unsigned	using RIFF WAV replayer

1.28 formatloader_formatlist

[Formatlist](#)

Here you may select the available loader, either by keyboard or a doubleclick with your mouse onto the required entry. After that a filerequester pops up you may use to select a soundfile which will be loaded and played then.

e.g. doubleclick onto "RAW 8Bit Mono" and then load one of your raw samplefiles for protracker...

[more links to formatloader](#)

[Formatloader mainpage](#)
[Slider](#)

1.29 formatloader_slider

Formatloader Slider

Using the slider you may alter the replay rate for raw samples.

keyboard support for the slider

Cursor left	= decrease replaying frequency by 10 Hz
Cursor right	= increase replaying frequency by 10 Hz
Shift + Cursor left	= decrease replaying frequency by 500 Hz
Shift + Cursor right	= increase replaying frequency by 500 Hz
Ctrl + Cursor left	= set replaying frequency to 4000 Hz
Ctrl + Cursor right	= set replaying frequency to 58000 Hz

more links to formatloader

Formatloader mainpage
Formatliste

1.30 Hifi System V1

Hifi System V1

There was a time I checked out all my pictures and I found a pic of a HiFi tower drawn by a platin member which I adapted (after asking the creator) to my own ideas and present it now as the first complete new Eagleplayer interface. Because of the fact that our gfx men didn't like this look at all this project wasn't finished and not released in a public version.

Mainly it is made to directly control the Eagleplayer (I don't think that I must describe its functions) and the secondary reason is that the analyzers are integrated. (in a little more colorful way). The Levelmeter (LED-chain) is samplecontrolled.

- will be replaced by a better looking the OS3.0 features using user interface

1.31 Levelmeter

Levelmeter

Output analyzer which reacts on the volume of the sample currently played. It shows the value calculated additive in the same way the samples are displayed in the scopes.

For best look of "Levelmeter" the screen you run Eagleplayer on should

offer at least 2 free pens (e.g. 16 coloured Workbench) but it is not required.

Furthermore Levelmeter shows the time how long the current module is playing. By the way, the Look has been taken from the display of a Sony-tapedeck.

Levelmeter requires at least Kickstart 3.0.

Levelmeter is the former "Levelmeter AGA", the old Levelmeter, based on the 4 standard colours has been removed at Version 2.0 of Eagleplayer.

1.32 Levelgraph

Levelgraph

Output analyzer which reacts on the volume of the sample currently played. It shows the value calculated additive in the same way the samples are displayed in the scopes.

The graphics for the display were drawn by Volker Kessler (Ramon/Defect) and Jörg Krempien (M.U.D.U/Defect).

The old "Levelgraph2" has been integrated into this program and the graphics can be switched using the according pulldown menu.

For one of the next Eagleplayer releases a multicoloured Levelgraph is planned.

1.33 Manager

Manager

The Manager is a replacement for the Playerwindow of Eagleplayer V1.x. Starting with Version 2.0 of EP the playerwindow has been removed because of compatibility reasons and the lack of design.

It was completely new programmed and extended and works now as an external Engine.

The Manager shows all known abilities of the Player and Engines. Using the Manager you can alter the current settings of Players and Engines. Manager is font sensitive, the window can be sized to your needs and supports locale.library.

Manager offers the following gadgets and custom menu items:

Mode	the Cycle gadget
Listviews	the 3 Listviews
Add	
Delete	
Delete all	
Config	
Load	

Save

Remark: Manager shows all available Players and Engines but that does not automatically imply that those plugins are already loaded to memory !

De(Activating) is done by a simple double click onto the according item in the listview. When activating/selecting an Engine which can also work in background (described in the introduction) the config button will get accessible.

1.34 Manager / Mode

Mode

switches between display of available Players and Engines

1.35 Manager / Listviews

Listviews

In the so called Listviews the available Players and Engines and their abilities are shown.

Inactivated Player/Engines are marked by (...), to (De)Activate you have to double click onto the according items in the listview or by pressing the <SPACE> or <RETURN> - key.

1.36 Manager / Add

Add

After selecting this button Eagleplayer opens the Filerequester to select a Player or Engine (according to the settings of the Mode-Cycle gadget) to load and activate.

Remark: All available Players and Engines are already shown in the Listview so that you normally won't need this button.

1.37 Manager / Delete

Delete

The chosen entry and the belonging Player or Engine will be removed and deleted from memory.

- Notes:
- Eagleplayerinternal Players can't be removed.
 - It may happen that the Playerloader loads a removed player again into memory if a module of that kind is being loaded.

1.38 Manager / Delete All

Delete All

According to the settings of the Cycle gadget in the left upper corner of the manager window all external Replayers or Engines will be removed and discarded from memory.

- Notes:
- Internal replayers of Eagleplayer cannot be deleted
 - be careful with "deleteall" in Engines-Mode, when you select it in this case, all Engines, including Amplifiers and user interfaces will be thrown out and you simply get a 'naked' Eagleplayer !

1.39 Manager / config

Config

opens/closes the config windows (or requesters) of the selected Replayers or Engines.(e.g. 8 Bit Amplifier or Eagleexotic)

1.40 Manager / Load Config

Load Config

Loads custom settings of the selected Engine or Replayer. Some Engines e.g. the Amplifiers, Eagleexotic etc. use own configuration files for additional informations which can be reloaded using this button.

- Notes:
- when loading Eagleplayer these files are automatically loaded
 - own config files of Engines/Players DON'T feature state and position of the according windows, those are maintained by Eagleplayer itself

1.41 Manager / save config

save config

Saves custom settings of the selected Engine or Replayer.
Some Engines e.g. the Amplifiers, Eagleexotic etc. use own configuration files for additional informations which can be saved using this button.

Notes: - when saving Eagleplayer's global config these files will automatically be saved so you normally won't need this feature
- own config files of Engines/Players DON'T feature state and position of the according windows, those are maintained by Eagleplayer itself and have to be saved using the global saveconfig command

1.42 M.E.L.G.U

M.E.L.G.U

This Engine has been removed in Release 2.00 of Eagleplayers and has been replaced by Pysion, a new and much better module database which is able to load the old M.E.L.G.U database files.

1.43 Messagewindow

Messagewindow

An Engine which simply shows and collects all message texts by Eagleplayer (normally appearing in the Scroller area of the main window) for those people who want to know exactly what Eagleplayer has got to tell them.

1.44 Moduleinfo

Moduleinfo

Moduleinfo shows informations to the currently replayed music file. The number of items in the shown list depends on the infos the used replayer delivers so that the amount of informations (e.g. number of used channels, internal name of music file, author, the calculated duration of Protracker, Oktalyzer, SonicArranger, AIFF and others, names of the samples and much more) may vary. The window is sizeable, font sensitive (you may also select custom fonts) and supports user selected background images.

A special highlight of Moduleinfo 2.0 is that you now may select one of the shown samples and play them by a double click or <ENTER>. Using the save sample button you may open the Samplesaver to 'rip' that sample out of the module, the currently selected sample in Moduleinfo appears automatically as the current one in Samplesaver then.

Keyboard support in Moduleinfo

RKP = right keypad (numeric keypad)

Cursor up	or 8 (RKP)	= one entry up
Cursor down	or 2 (RKP)	= one entry down
Shift + Cursor up	or 9 (RKP)	= one page up
Shift + Cursor down	or 3 (RKP)	= one page down
Ctrl + Cursor up	or 7 (RKP)	= top of the list
Ctrl + Cursor down	or 1 (RKP)	= end of the list
Cursor left		= decrease replaying frequency by 10 Hz
Cursor right		= increase replaying frequency by 10 Hz
Shift + Cursor left		= decrease replaying frequency by 500 Hz
Shift + Cursor right		= increase replaying frequency by 500 Hz
Ctrl + Cursor left		= set replaying frequency to 4000 Hz
Ctrl + Cursor right		= set replaying frequency to 58000 Hz
P, Return, Enter (RKP), 5 (RKP)		= load selected module
Esc		= hide window (quit Moduleinfo)
A + Q		= Quit
A + H		= Hide
A + A		= About
A + W		= Continue replaying the module
A + S		= stop playing the current sample

Weitere Links zum Moduleinfo:

- Informationsliste
- Instrument speichern
- Instrument spielen
- Zeit vorwärts zeigen
- Zeit rückwärts zeigen
- Modul weiterspielen
- Abspielen des Instruments stoppen

1.45 Slider

Slider

Using this slider you may alter the replay rate of the selected sample when replaying a single sample after doubleclicking onto it's entry in the information listview.

Keyboard support of the slider:

Cursor left	= decrease replaying frequency by 10 Hz
Cursor right	= increase replaying frequency by 10 Hz
Shift + Cursor left	= decrease replaying frequency by 500 Hz
Shift + Cursor right	= increase replaying frequency by 500 Hz
Ctrl + Cursor left	= set replaying frequency to 4000 Hz
Ctrl + Cursor right	= set replaying frequency to 58000 Hz

1.46 Information list

Information list

In this list all available informations about the current module are shown. That may be e.g. size, name, format, number of instruments, duration, author, number of channels, number of patterns and the instruments, which can be replayed by a simple double click onto their names.

1.47 Save Sample

Save Sample

As a special highlight the instruments can be ripped off the current module. After selecting this button the Samplesaver pops up and the instrument selected in Moduleinfo will be shown there as well. By a double click onto it's name (or the wanted saving mode) you activate the filerequester to select name and path where you want to save it to.

1.48 Play Sample

Play Sample

After selecting this option the currently selected instrument will be played by Eagleplayer (if EP directly supports instruments of this kind and an appropriate Amplifier is active)
The module in EP will be stopped meanwhile but stays in memory.
To resume replaying of the module, use the Cont Module menu option or select the Play button in Eagleplayer's Main window twice.

1.49 Time forwards

Time forwards

In the "time" display box the current module's playing time is shown in minutes and seconds.

1.50 Time backwards

Time backwards{uu}

Moduleinfo shows the remaining replay time of the current module if Eagleplayer is able to calculate the duration for the current module, else the time is shown in positive direction.

Note: The overall duration is only calculated once, thus user actions like patternswitches or speed changes which have got an influences on the effective replaying time are ignored.

1.51 cont module

cont module

The current module, stopped to play a single sample will resume to be played.

1.52 Stop

Stop

The currently played sample will be stopped. If you did not select a sample in moduleinfo to be played, this function will do nothing.

1.53 Samplesaver switch

Samplesaver on/off

When this item is enabled, the Moduleinfo window shows the frequency slider, selected replaying frequency and the button to enable/disable samplesaver.

1.54 Choose Font

Choose Font

Using this option you may select an alternative font (to the current screen's one) for use in Engine's window. I would suggest a small and non proportional font but that depends on your personal taste...

1.55 Noiseconverter

Noiseconverter

Noiseconverter is one of the new Engines of Eagleplayer 2.0. It has got the job to convert seldom used sound formats where e.g. no replayer exists for to a usual format. It is in general nothing else than the way Eagleplayer handles the loaded Protracker clones (Noisepacker, Trackerpacker....) since V1.54. Noiseconverter works at the moment in background without own configuration window. The advantage of this engine is it's plugin concept to be easily expandable. Everybody who is a little bit experienced in programming can write his own converters.

for programmers

Noiseconverter loads external converters from the `"/Engines/Noiseconverters"` directory and -if possible- automatically converts those files where no own replayer can be found.

The external converters are built up quite similar to external replayers with own header, a taglist and a function entry (see example source)

Important is Tag_Convert. The parameters are delivered in the following way:

```
Input:  ULONG  d0 = Size of Module
        APTR    a0 = Adr of Modules
Output: ULONG  d0 = Converted size or NULL in case of an Error
        ULONG  d1 = Flags (e.g. free original file, see includes)
        ULONG  d2 = size of memory allocated by the converter or NULL
        APTR    a0 = address of resulting module
        STRPTR  a1 = name of the format converted from
        APTR    a2 = pointer to extra samples, (for Protracker clones) or NULL
```

Since it is for normal protracker packers only needed to convert the song data without samples it is sufficient to allocate memory for the new song datas and set a2 to the pointer of the Sample area in the original module. This has got the advantage that it is possible to save the modules in their original format.

Important!!! d2, the memory size, always has to be bigger by 'SecurityMem' than Convertedsize in d1, else EaglePlayer will return an error !
If the format is only a modulecoder (ala Wantonpacker, Prorunner 1.0), it is sufficient to convert only the song datas right over the original contents, D2 has to be set to NULL in this case. A0 has to point onto the original address of the module then. Then saving in original module format is not possible anymore.

1.56 Noiseeagle

Noiseeagle

Who doesn't like the Eagleplayer interface at all (Hi CPT. BIFAT of TEK) may start this Userprogram that orders a file and plays it, in the same way as the good old Noiseplayer does it. The difference to the original is that "some" more replays will be supported and I didn't include the hardwarehacking mouse/keyboard interrogates.

-since Eagleplayer 2.0 no longer in the distribution

1.57 PatternScroll

Patternscroll

Shows the patterndata of selected Soundsystems like in Protracker or Quadracomposer. The support of Patternscroll depends on the current replayer. Most trackers and also some other replayers provide patternscroll support. Patternscroll supports up to 16 Channels to be displayed in it's window.

Menu Options:

A + I = Inverted Mode: nicer 3d alike look but using this display mode the speed will suffer from 2 times the amount of data needs to be copied and blitted for Patternscroll on ECS/AGA systems

A + S = Autosizing: If activated the program tries to set the window's width as big as needed to show all voices of the current module

A + B = Blankzero: hides unnessesary zeroes so that the overview gets easier

A + R = resize the window to the needed with to show all channels of the current module

A + Q = Quit

A + H = Hide

A + A = About

Note: The display format for the notes is in the terminology used by Protracker. Other Sound systems may call their notes and/or commands in a different manner. That will be ignored here.

The Patternscroll for Kickstart 1.3 has been removed in Version 2.0 of Eagleplayer.

1.58 PatternScroll++

Same function as Patternscroll, with the only

difference that the width of the shown chars has been halved to be able showing up to 32 channels.

1.59 Playerloader

Playerloader

Playerloader is - besides the Amplifiers - probably one of the most important new Engines introduced with Eagleplayer 2.0.

Playerloader checks the loaded modules for it's type (by analyzing the module data in memory) and then automatically loads the appropriate replayer. So it is no longer needed to load external replayers upon startup. That does not only save a lot of time needed to load the replayers at startup but also saves more than 1 MB of memory

The method Eagleplayer 1.54 worked by examining special prefixes or suffixes of the filenames is still working ('Playerbatch') but this program is much more reliable in handling, even works if the file does not feature special filename extensions.

Note: It's your fault if you deactivate Playerloader....

1.60 PublicScreenSelector

PublicScreenSelector

Shows all available public screens in a resizable window. Double click the one entry of your choice to open the Eagleplayer with all belonging windows that screen.

Alternatively to PublicScreenSelector you may use the "PubscreenJump"-function of BifatGUI, "hardcore keyboarders" may enter the name directly using the "Change Pubscreen" Menu option of Eagleplayer's main window.

1.61 Pysion

Pysion

Pysion the new amazing module database of Eagleplayer 2.0. Using Pysion you may create your own modules lists which can be loaded and played by Eagleplayer. As a special Highlight it is able to load and convert lists of the following module players (in alphabetical order):

- * Accessible Player
- * BananaPlay
- * DASMod

- * Delitracker
- * Eagleplayer
- * Empty
- * Hippoplayer
- * M.E.L.G.U.
- * Smartplay

Another great feature of Pysion is that it is able to handle Archives (in case Extractor is active), every Archive added will be treated as a list and it's contents will be added to the current list just as you would 'insert' a 'normal' list. (To add Archives, the "Insert List" command has to be used)

Due to the fact that Pysion didn't get finished by the Release of Eagleplayer 2.0 only the basic functions can be used. :-(

Some more nice features, almost finished:

- * able automatically adding entries to the Author list while you are playing your modules
- * divide your modules into groups, every module can belong to several groups
- * individual prefs for every module, every group, every author

Now follows a little introduction to the interaction with Eagleplayer:

- Eagleplayer is able to overtake created lists to it's modules menu, the function to do so is called "Execute".
- Eagleplayer is able to load lists by itself (without active Pysion) which are handled as well as Archives by being listed in the modules menu. Or in other words: lists are treated like normal directories by Eagleplayer.

Keyboard support in Pysion

8 & Cursor Up	= one entry up
2 & Cursor Down	= one entry down
9 & Shift + Cursor Up	= one page up
3 & Shift + Cursor Down	= one page down
7 & Ctrl + Cursor Up	= top of the list
1 & Ctrl + Cursor Down	= end of the list
<Enter>	= load selected module (or doubleclick by mouse)
Esc	= Hide Window
A+Q	= Quit
A+H	= Hide
A+A	= About
A	= Add
D	= Delete
S	= save list
E	= Execute
T	= move entry to top of the list
B	= move entry to end of the list
U	= swap with entry above
O	= swap with entry below
P	= settings for this module

C = cleas settings for this module
P = play selected module

1.62 Quadrascope/Stereoscope/Monoscope

Quadrascope/Stereoscope/Monoscope

Shows the actual played sample of each voice, either separated (Quadrascope) or additive put together. (Monoscope, Stereoscope)
This Output is done in realtime, that means that on an oscilloscope connected to the Amiga the same view should be displayed.

Stereoscope has been replaced by the former Stereoscope AGA in V2.0 of Eagleplayer and Monoscope has been dropped.

Menu options of Quadrascope:

Standard - fastest display mode, just one pixel per column will be shown
Solid - the distance from the middle to the current Amplitude will be filled
Line - the single dots will be connected
Space - see at Spacescope

Horizontal - horizontal display, like an oscilloscope
Vertical - display rotated by 90 degrees
Halve - only the absolute amount of all Amplitudes is shown
Mirror - only the absolute amount of all Amplitudes is shown, mirrored in the middle

Note: those 4 switches haven't got any influence on the "Space"-Mode

Slow - halve the display rate and thus the needed CPU resources

1.63 Samplesaver

Samplesaver

This Engine is for playing and saving single instruments out of a module (or in other terms: ripping samples). Samplesaver supports own plugin modules for the save formats and can easily be extended, e.g. to directly import samples from Eagleplayer in SoundFX, the possible options are wide open. The plugins are loaded from the "/Engines/Samplesavers/" directory upon startup.

There is a slider for the replaying speed of the samples in the lower area of the window. Samplesaver is font sensitive, the window is sizeable, supports localization, a background picture and can completely controlled by keyboard.

keyboard support in Samplesaver

RKP = right (numeric) keypad

Cursor up or 8 (RKP)	= one entry up in the offered list
Cursor down or 2 (RKP)	= one entry down in the offered list
Shift + Cursor up or 7 (RKP)	= one page up
Shift + Cursor down or 3 (RKP)	= one page down
Ctrl + Cursor up or 9 (RKP)	= top of the list
Ctrl + Cursor down or 1 (RKP)	= end of the list
Cursor left	= decrease replaying frequency by 10 Hz
Cursor right	= increase replaying frequency by 10 Hz
Shift + Cursor left	= decrease replaying frequency by 500 Hz
Shift + Cursor right	= increase replaying frequency by 500 Hz
Ctrl + Cursor left	= set replaying frequency to 4000 Hz
Ctrl + Cursor right	= set replaying frequency to 58000 Hz
<Enter>	= save the current sample in the specified format
Esc	= Hide Window (=quit Samplesaver)
A + Q	= Quit
A + H	= Hide
A + A	= About
Tab	= toggle between the Listviews for offered save formats and the samplelist
P, Space	= Play
S	= Stop

Further Links to Samplesaver

[List of save formats](#)
[Sample list](#)
[Informations list](#)
[Abilities list](#)
[Frequency slider](#)
[Play](#)
[Stop](#)

1.64 List of save formats

List of save formats

This listview shows the available save formats. By a double click onto one of these entries you activate the save function and a filerequester pops up asking for name and path where the currently showed sample in the samplelist has to be saved to.

1.65 Sample List

Sample List

This listview shows you all available instruments in the current module. It may happen that some instruments shown in Moduleinfo are missing due

to the lack of some needed informations like address in memory and size.

By a double click onto the instrument's name oder by pressing <Enter> you activate the save function and a filerequester pops up asking for name and path where the currently selected sample has to be saved to in the format currently selected in the format samplelist has to be saved to.

1.66 Informations list

Informations list

In this list you find some informations about the current saver module (e.g. prorammer, version number or some misc. informations which programs and computer systems usually deal with that format.)

1.67 Abilities list

Abilities list

In this list you find some informations about the attributes of the currently selected instrument such as type and size.

1.68 Frequency slider

Frequency slider

Using this slider you may alter the replay rate of the current sample. When saving the sample this setting will be included in the file as well if the save format supports that. (e.g. AIFF).

keyboard support for the slider

Cursor left	= decrease replaying frequency by 10 Hz
Cursor right	= increase replaying frequency by 10 Hz
Shift + Cursor left	= decrease replaying frequency by 500 Hz
Shift + Cursor right	= increase replaying frequency by 500 Hz
Ctrl + Cursor left	= set replaying frequency to 4000 Hz
Ctrl + Cursor right	= set replaying frequency to 58000 Hz

1.69 Play

Play

When selecting this button the selected sample will be played if possible. The current module this sample belongs to will be stopped but still stays in memory and can be resumed to play by pressing the Play/Pause button in Eagleplayer's main window twice.

1.70 Stop

Stop

Replaying of the current sample will be stopped. If none of the shown samples are replayed using Moduleinfo or Samplesaver this option does not react.

1.71 Spacescope

Spacescope

Lice looking sample shower which I saw first on an Atari ST Machine. Needs a lot of CPU-time because of large Blitting Area and lots of Points to be displayed within a short time. Looks best with

```
"AON.FMDemosong" by Tomme (included in 'Art Of Noise' =
                        'Chorus' Demo version), a MUST HAVE SEEN :-)
```

```
"Mod.Beast II ingame"
```

```
"Mod.eternia" by luigi chelini
```

```
"Mod.load master loading" by Rebels,
```

```
"Mod.Heart_of_Rotterdam" by Greenhouse rewind,
```

```
"Mod.Breeze-Diablo" by Diablo/BudBrain,
```

```
"Mod.Disco Groove" by RSI or
```

```
"Mod.Madness took me" by Scoopex
```

```
"Mod.Untitled Song__2" by E.Cook (sounds horrible but looks nice)
```

```
"Mod.Boesendorfer P.S.S" by TRSI looks not bad as well (but
                        sounds much better therefore)
```

Menu Options:

- 30 Pix/100 Pix/200 Pix/300 Pix: How much parts of the sample will be shown (the more you choose the higher is the CPU usage)
- Inverted: shows a reversed display
- Bright Mode: uses black/white instead of black/gray but needs twice the memory and displaying time
- Slow Mode: halves the update rate of the display for saving CPU resources

Spacescope has been removed in Version 2.0 of Eagleplayers, because of 2 reasons. 1. the window was not sizeable and 2. the program routines in SpaceScope+ are much faster.

1.72 Spacescope+

Spacescope+

- like Spacescope, with sizeable window and faster program routines

1.73 Stereoscope

Stereoscope

like Quadrascope, but in a 'perfect' Oszilloscope-Look. Needs a lot of CPU horsepower due to the big amount of data needed to calculate the display (much more than 400 KByte per second to be created using a normal 16 coloured screen, even more when using screens with a bigger depth). You may reduce the needed CPU time by the "Slow Mode" which updates the display only 25 times per second instead of full frame rate.

Needs at least OS3.0 and a screen with 2 free pens, e.g. a 16 colours Workbench with only 8 locked pens, else open a screen with a bigger depth.

1.74 Time

Time

Shows the current play- and system time. The program was rewritten in a way that the needed CPU processing time usage was decreased drastically.

Note: will be replaced by a better looking new program in one of the next releases.

1.75 Voicemeter

Voicemeter

This is the same gag like in the usual tracker-programs. (see also the Analyzer available by pressing onto the key "1". A selection using gadgets is in preparation.

- Removed in Eagleplayer 2.0 release

1.76 Quit

Quit

The Engine will be quitted and removed from memory.

1.77 Activate

Activate

The Engine will be activated (=loaded into memory). This does not automatically imply that the configuration window will automatically pop up, this depends on your personal settings. So you may have to call show in this case as well.

1.78 Show

Show

The configuration interface of the selected Engine will be shown.

1.79 Hide

Hide

The user interface of the selected Engine will be closed.

1.80 select background picture

select background picture

After selecting this option a filerequester appears where you may select a picture for the window's background of this engine. The pic is loaded by the datatypes.library. Depending on the version of the datatypes library and your computer's Hardware setup even High- and True-colour Pictures are supported.

To enable backdrop pictures, you have to enable this option!

Note:

This feature is not supported by all engines (yet).

1.81 Backpic switch

Backpic on/off

Here you may select if you want to show the selected picture in background, if you didn't select a picture yet, the filerequester pops up.

Note:

This feature is not supported by all engines (yet).

1.82 save configuration

save configuration

Using this feature you may save custom settings of this Engine like the path for the selected background picture into a separate settings file.

Notes: - The settings of window position and size are still maintained by Eagleplayer itself
- This configuration will also be saved in case you save Eagleplayer's global configuration so that this is normally only needed if you e.g. quickly want to change the background picture.

1.83 Index of the Engines

Eagleplayer documentation Index (EP_Engine.guide)

Index of main documentation
Index of replayer documentation
Index of programmer's documentation

general links

Engine documentation contents
Introduction to the Engines
Informations to the particular Engines
programming of own Engines
Bugs in the current Engines
Removed Engines
tips for graphic board owners
Introduction to the Amplifiers
Controlling the Amplifiers

Active
Show
Hide
Quit
save config
Backpic
Choose Backpicture
Choose Font

Links to the Engines

14 Bit Amplifier
8 Bit Amplifier
Amplifiermanager
BifatGui
DirListViewer
Eagleexotic
Eagleexotic choose Exotic path

- Eagleexotic save config
- Eagleplayer1x-Gui
- Eagleripper
 - Pass 1
 - Pass 2
 - Security Mode
- Extractor
- FFT-Analyzer
- Formatloader
 - Formatloader_List
 - Formatloader_Slider
- Levelmeter
- Levelgraph
- Manager
 - Manager Mode
 - Manager Listviews
 - Manager Add
 - Manager Delete
 - Manager Delete All
 - Manager Config
 - Manager Load Config
 - Manager Save Config
- Messagewindow
- Moduleinfo
 - Moduleinfo Information list
 - Moduleinfo Save Sample
 - Moduleinfo Play Sample
 - Moduleinfo Time forwards
 - Moduleinfo Time backwards
 - Moduleinfo Cont Module
 - Moduleinfo Stop
- Patternsroll
- Patternsroll++
- Playerloader
- Pysion
- Quadrascop/Stereoscope/Monoscope
- PublicScreenSelector
- Samplesaver
 - Samplesaver List of save formats
 - Samplesaver Instruments list
 - Samplesaver Information list
 - Samplesaver Abilities list
 - Samplesaver frequency slider
 - Samplesaver Play
 - Samplesaver Stop
- Spacescope
- Spacescope+
- Stereoscope
- Time
- Voicemeter
