

Digiboost

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COLLABORATORS

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Chapter 1

Digiboost

1.1 DIGI-Booster

=====
DIGI Booster professional 2.19 (10.05.1998)
=====

- SHAREWARE -

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Official Digi Booster home page:
<http://www.amigaworld.com/support/digibooster/index.html>

Official Digi Booster support BBS:
Magic Galaxy BBS +49 40 612 617

~Copyright

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~Disclaimer

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~Distribution

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~Requirements

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1.2 Best sound card

Which music card is the best for DigiBoosterPro?

The best music card ever made for Amiga is Delfina. I give you some examples why this card is so good for DigiBoosterPro.

Delfina DSP has very good stereo audio codec (Crystal CS4231A) and signal processor (Motorola DSP56002) which gives you some wonderful possibilities while playing everything :

- realtime graphic equalizer (10 band)
- effects like chorus, flanger, delay etc...
- realtime HD rendering while music is played/mixed from few sources

All these effects you can use while playing DigiBoosterPro modules and not only...

You can connect Paula output to Delfina input and you will be hearing all music from demos, games.

Having Delfina and DigiBoosterPro from version 2.18 you can run more than one DigiBoosterPro and play, mix few modules at the same time !!!

It's the best solution for everybody who wants to have superb quality.

1.3 DSP Echo - realtime effect

DSP Echo :

If you want use this realtime effect you must set Echo "Fast" or "Enabled" in advanced settings using AHI preferences program.

In DSP Echo window you can find some parameters:

DSP Delay is the delay in milliseconds.

DSP Feedback defines how much of the delayed signal should be feed back to the delay stage. Setting this to 0 gives a delay effect, otherwise echo.

DSP Mix tells how much of the delayed signal should be mixed with the normal signal. Setting this to 0 disables delay/echo, and setting it to 255 outputs only the delay/echo signal.

DSP Cross only has effect of the current playback mode is stereo. It tells how the delayed signal should be panned to the other channel. 0

means no cross echo, 255 means full cross echo.

For best performance set "Fast Echo" but even with "Fast Echo" turned on, this effect slows down your computer.

1.4 "

Composing modules in MOD and XM format

Digi Booster Professional is able to export modules in three different music formats, these are:

- DBM - original Digi Booster Pro format - very flexible and most expanded
- MOD - old Pro Tracker and Fast Tracker 1.x (pc) module format
- XM - very popular Fast Tracker 2.x (pc) format

We advice to save modules in DBM because it's a very flexible and most expanded music format. It is supported by all most known players on Amiga platform.

When you intend to export mods in MOD or XM format there are restrictions you must obey.

MOD format has following limitations:

- max 32 channels
- max 31 samples
- max sample length is 128K
- max number of patterns is 100
- pattern length is 64 positions
- only one command per line
- no envelopes
- no DSP effects
- three octaves
- no 16 bit samples
- only one song
- and more...

XM format has following limitations:

- max number of channels is 32
 - max number of song positions is 256
 - there's only two commands per line and one of them is volume command only
 - you can't save DSP echo parameters
 - XM doesn't support following commands:
Oxx (slide sample offset), Sxx (set real BPM), Vxx (activate echo on channel), and Wxx, Yxx, Zxx which are DSP echo params
-

- only one song
- envelopes consist only 12 points and there is 1 sustain point
- and more...

Also we do not advice you to save your module in XM format while composing, if you have to export your work in this format do it only when the module is finished because there could be problems with converting finetunes and envelopes.

1.5 Copyright

Copyrights :

The program Digi Booster Professional in this version and its documentation files are (C)opyright 1997 by Tomasz & Waldemar Piasta. All rights reserved.

The right of using full version of this program is granted to you by paying the SHAREWARE-fee of 50 DEM (30 U\$) to the authors.

You will receive a full personal version of program. See registration form for details.

Digi Booster makes use of:

Ahi.device by Martin Blom (aminet/dev/misc/ahi.lha)
Reqtools.library by Nico Francois

WARNING!!!

Digi Booster Pro is protected in a special way.

Every registered user should know about personified number hidden somewhere in DigiBoosterPro Installer and in main program too, so when we will get cracked version we will know who is responsible for that.

So beware because you will take the criminal consequences of this !!!

1.6 Disclaimer

Disclaimer :

The authors take no responsibility for any results of the use of this program.

This software is provided "AS IS" and there is no warranty of any kind, so that you use this software at your own risk.

1.7 Distribution

Distribution :

No profit must be made by distributing DigiBoosterPro, especially the price of a disk containing DigiBoosterPro may not exceed US\$ 5,- (or equivalent amounts in other currencies). Please feel free to distribute DigiBoosterPro over bulletin board systems and networks.

Important!!!

If you want distribute DigiBoosterPro as a part of shareware/freeware CD-ROMs, PD DISKS you must send to authors one copy of product containing DigiBoosterPro.

1.8 Requirements for work with Digiboost:

Requirements:

- Any Amiga with 68020 or better
- Kickstart 2.0 or higher (kick 3.1 is recommended)
- ahi.device V4 (Audio Hardware Interface available on Aminet: dev/misc/ahi.lha) by Martin Blom
- asl.library & iffparse.library (ahi.device makes use of this libs)
- reqtools.library by Nico Francois

1.9 DigiBoost' formats:

Formats:

- Supported module formats from other editors and platforms:
 - S3M (Screamtracker3 / PC)
 - XM (Extended module / Fasttracker2 / PC)
 - Octamed (MMD0, MMD1-MMD3 / Amiga)
 - MOD (Protracker 3.15-4.0B / 4-32Channels / Amiga)
 - Digi (Digi booster 1.x / Amiga)
 - Oktalyzer (4-8 channels / Amiga)
-

- Supported sample formats from other platforms:
 - IFF8SVX (only mono / Amiga / 8 bit)
 - IFF16SV (only mono / Amiga / 16bit)
 - RIFFWAV (mono/stereo / PC / 8bit/16bit)
 - AIFF (mono/stereo / Amiga;PC;Mac / 8bit/16bit)

1.10 Features...

Features :

- supports following formats: XM, S3M, MMD0-MMD3 (Octamed/SS), MOD (4-32 CHN) OKTALYZER and DIGI (Digi Booster 1.x)
 - MP1/2/3 import
 - TB 303 emulator
 - saving/loading modules with MP3 encoded samples (68k/PPC)
 - CGX and P96 support
 - mixer (HD rendering) option included which allow to render your module to AIFF or AIFC sample then you are able to convert these formats e.g. to CDDA or MPEG audio formats
 - realtime DSP effects: echo, cross echo, delay, cross delay, hall and works on defined channels; it means that you are able to active DSP with selected tracks
 - optional 32 bit HIFI mixing with linear interpolation in realtime
 - Export *.XM files (4-32 channels) - not in unregistered version
 - Export *.MOD MOD.* files (4-32 channels) - not in unregistered version
 - up to 128 channels (4/6/8/10/..../128)
 - up to 7 octaves
 - unlimited sample size
 - AHI support (at this moment there's support for following sound card: Tocatta, Delfina, Wavetools, Prelude, Melody, Maestro, Concierto and of course for Paula)
 - DeliTracker, EaglePlayer and Hippo player support
 - source code of player included
 - two different commands in one line and in same time. It means that you
-

can use for example: sample offset command 9xx and vibrato 4xx

- 8 and 16 bit audio modes (so you can load to Digi Booster 16 bit samples) formats supported: IFF8SVX ; IFF16SV ; RIFFWAV 8BIT ; RIFFWAV 16BIT; AIFF 8/16BIT / STEREO/MONO

~Next~page~

1.11 More features...

Features (2):

- max. 256 samples (only in editor, but file format (DBM) supports max 65535)
- max. 1024 patterns -||-
- max. 1024 positions -||-
- almost all key shortcuts and commands are Pro Tracker compatible
- ping pong loop and command E3x - backward play
- realtime instrument effects: volume envelope
boost envelope
filter envelope
offsets
panning envelope and much more

envelope consists of: 32 points
2 sustain points
1 loop

- instrument/sample mode; you can use the same sample a few times with other parameters e.g. you have string sample no. 1 and you want use this sample a few time, each with different finetune, volume, loop and let's say one with volume envelope, second with boost envelope. In normal tracker (like Pro Tracker) you have to load the same sample two times to memory. In DB pro you have Instruments. So you have to do following things:
- load sample to bank no. 1 ; so you have an instrument no.1 which use sample no.1
- in instrument no. 2 change sample bank to no. 1
- now you can set different effects and parameters to instrument no. 1 and no. 2

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1.12 Digiboost-effect parameters

Digi Booster has almost fifty effects. All Pro Tracker effects are supported (without Efx).

If you want to use panning you must set audio mode with stereo++ in AudioModeConfig.

Here you are a full list of Digi Booster Pro II effects.

(*) = If the command parameter is zero, the last nonzero parameter will be used.

```

0xx      Arpeggio
1xx (*)  Portamento up
1Fx (*)  Fine Portamento up
2xx (*)  Portamento down
2Fx (*)  Fine Portamento down
3xx (*)  Glissando
4xx (*)  Vibrato
5xx (*)  Tone portamento+Volume slide
5xF (*)  Tone portamento+Fine Volume slide up
5Fx (*)  Tone portamento+Fine Volume slide down
6xx (*)  Vibrato+Volume slide
6xF (*)  Vibrato+Fine Volume slide up
6Fx (*)  Vibrato+Fine Volume slide down
8xx      Set panning
9xx (*)  Sample offset
Axx (*)  Volume slide
AxF (*)  Fine volume slide up
AFx (*)  Fine volume slide down
Bxx      Position jump
Cxx      Set volume
Dxx      Pattern break

E00      Low pass filter on
E01      Low pass filter off
E1x      Fine portamento up
E2x      Fine portamento down
E3x      Play from backward
E40      Turn off sound in channel
E5x      Turn on/off channel
E6x      Set loop begin/loop
E7x      Set offset
E8x      Set panning
E9x      Retrig note
EAx      Fine volume slide up
EBx      Fine volume slide down
ECx      Note cut
EDx      Note delay
EEx      Pattern delay

Fxx      Set tempo/BPM
Gxx      Set global volume
Hxx (*)  Global volume slide
K00      Key off

```

Lxx Set envelope position
Oxx (*) Sample offset slide
Pxx (*) Panning slide
Sxx Set Real BPM

The commands listed below works only if you have Echo option enabled in AHI preferences:

V00 Turn DSP echo on in channel
V01 Turn DSP echo off in channel
V10 Turn DSP echo on in all channels
V11 Turn DSP echo off in all channels
Default is: echo turned off in all channels.

Wxx Echo delay. It is a value between 00 and ff, and defines time of delay. 01 means that sound will be delayed 2 ms (0.02) of second.
Default is: W40 - 128 miliseconds ; 0.128 sec.

Xxx Echo Feedback. It is a value between 00 and ff, and defines how much of the delayed signal should be feed back to the delay stage. Setting this to 0 gives a delay effect, otherwise echo.
Default is: X80

Yxx Echo Mix. It tells how much of the delayed signal should be mixed with the normal signal. Setting this to 0 disables delay/echo, and setting it to ff outputs only the delay/echo signal.
Default is: Y80

Zxx Echo Cross. It only has effect if the current playback mode is stereo. It tells how the delayed signal should be panned to the other channel. 0 means no cross echo, ff means full cross echo.
Default is: ZFF - full cross echo.

1.13 What do you want us to do?

Future:

- PowerPC plugins
- DelfinaDSP plugins
- realtime resonance filtering (tb303 like acids)
- more envelopes like boost, filter, pitch etc.
- your proposals :-)

1.14 Some hints for proper work with Digibooster

Some hints:

If Digi Booster crashes while starting or selecting AHI audio mode we suggest you to check if you have correct versions of following libraries:

- asl.library
- iffparse.library
- reqtools.library
- diskfont.library

You can also check AHI device and its AudioModes.

If you have slow machine you can increase speed by limiting mixing frequency in a config option.

Also you can speed up the whole program by loading Kick3.1 into a fastram (use BlizKick). Ahi.device works faster using Kick3.1. It is very important to run Digi Booster pro and AHI with Kickstart 3.1. See

~Benchmarks~

For best quality of sound run CyberSound 14bit_calibration and ↔
then

select a tables/calibration audio mode in Digi Booster config window.

DigiBoosterPro doesn't like MCP & likewise - only sometimes :-)
(Don't know why) so if you don't want to crash your machine change MCP to MCX (it's better & more safety program).

1.15 Greetings fly to...

Greetings & thanks:

- Martin Blom for ahi.device
 - Patrick Beerhorst for documentation in guide format until version 2.17 and HTML version of docs
 - Yann Wissenbach, Dennis Lohr for documentation in guide format
 - Claus Morell for support, bugs report and big interest
 - T.F.A for ASM-one
 - Nico Francois for reqtools.library
 - Jan van den Baard for GadToolsBox
 - K-P Koljonen
-

- Peter Kunath
- All registered users

1.16 Digibooster module format:

Digi Booster PRO - DBM0 file format by Tomasz Piasta

DBM is Iff like format. It means that module consists of hunks. Each hunk has a 4 bytes identification and after that hunk length (LWORD - 4bytes).

If the module doesn't consist of any hunk, for example VENV - volume envelope hunk that will mean this module doesn't use volume envelope effect.

These hunks DBM module should always consists of: NAME, INFO, SONG, INST, PATT, SMPL

Offset	Length	
0	4	ID "DBM0" - module identification
4	2	tracker version: eg. \$0200 - version 2.00
6	2	reserved
8	4	ID "NAME" - module name hunk identification
+4	4	hunk length
+8	44	mod name
???	4	ID "INFO"
+4	4	hunk length
+8	2	number of instruments in module
+10	2	number of samples in module
+12	2	number of songs in module
+14	2	number of patterns in module
+16	2	number of channels
???	4	ID "SONG" - songs hunk identification
+4	4	hunk length
+12	44	song name
+56	2	number of orders for this song
+58	???	order list (words) NOTE: Each order list can use the same numbers of patterns.
???	4	ID "INST" - instruments hunk identification
+4	4	hunk length
+8	30	instrument name
+38	2	sample number used in this instrument
+40	2	instrument volume
+42	4	instrument finetune (stored in HZ)
+46	4	instrument repeat start
+50	4	instrument repeat length
+54	2	general panning (0-256)

+56	2		flags:	
				bit 0 set - forward loop used
				bit 1 set - ping pong loop used
???	4		ID "PATT" - patterns hunk identification	
+4	4		hunk length	
+8	2		number of positions (rows) in pattern	
+10	4		size of packed data	
+14	???		packed pattern data	
???	4		ID "SMPL" - samples hunk identification	
+4	4		hunk length	
+8	4		flags:	
				bit 0 set - 8 bit sample
				bit 1 set - 16 bit sample
				bit 2 set - 32 bit sample
+12	4		sample length	
+16	???		sample data (unsigned)	
???	4		ID "VENV" - volume envelopes hunk identification	
+4	4		hunk length	
+8	2		how many volume envelope tables does this hunk contain	
+10	2		to which instrument this volume envelope data belongs	
+12	134		volume envelope data	

 Volume Envelope structure:

Each volume envelope table takes 134 bytes.

Max. number of points is 32.

Max. number of sustain points is 2.

Max. number of loops is 1.

Offset	Length		
+0	1		type bit 0: envelope on/off
			bit 1: 1st sustain on/off
			bit 2: envelope loop on/off
			bit 3: 2nd sustain on/off
+1	1		number of envelope points
+2	1		1st sustain point
+3	1		loop start point
+4	1		loop end point
+5	1		2nd sustain point
+6	1		reserved
+8	2		1st point time (in vblanks)
+10	2		1st point volume (range: 0-64)
+12	2		2nd point time (in vblanks)


```
+14      2      | 2nd point volume (range: 0-64)
+16      2      | ...
```

```
-----
Packed pattern format:
-----
```

If the byte is zero it means that you must skip to next position (row).

If the byte is nonzero bits are interpreted as follows:

```
bit 0 set: Note follows (byte)
bit 1 set: Instrument number follows (byte)
bit 2 set: 1st effect type follows (byte)
bit 3 set: 1st effect parameter follows (byte)
bit 4 set: 1st effect type follows (byte)
bit 5 set: 1st effect parameter follows (byte)
```

Next byte is a channel number to which this data belongs.

Example:

```
00 - skip to next pattern position
00 - skip to next pattern position
03 - byte is nonzero; the bit 0 and 1 is set; take note and instrument
24 - channel number to which following data belongs
81 - note (hex: $51 - this is a 5th octave and 1st note)
04 - instrument number
```

```
-----
Last words
-----
```

I think these informations are enough at the moment - the format is rather self - explaining. But if you have any problems you can always contact me.

1.17 Authors

 Programmers:

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Tomasz Piasta 30.11.1977
studying Informatics

Waldemar Piasta 19.10.1975
studying Sound Engineering

~How~to~register?~
Amigaguide-Deutsch:

Patrick Beerhorst

E-mail:Syntec@Stardate.Westfalen.de

1.18 Registration

Registration:

The right of using full version of this program is granted to you by paying the SHAREWARE-fee of 50 DEM (30 US\$) to the authors.

You will receive a full personal version of program. See registration form for details.

If you want to use DBM modules in commercial products you have to register.

Please fill in the registration form included in this archive and send it to:

Tomasz & Waldemar Piasta
Poprzeczna 66/6
51-167 Wroclaw
Poland

The registration may lasts 2-4 weeks. So do not worry :) and be patient. This is because of great snail-mail. The first registration is possible only via standard mail.

After sending registraton form and money to us you will recive a personified latest version of DIGI Booster Pro. If you are a registered user of DIGI Booster Pro you can make an upgrade for free (via E-mail) or for only \$10 or 15DEM via snail-mail (cost of shipment) by sending us the money and disk. The rules of upgrading may be changed in future!!!

Thanks a lot for your support!

1.19 Changes

Changes in V2.19

- removed a trashing of Mod Info window in 640x256 res.
- added Real BPM input to make mixing of few sound-inputs easier
- added resample in sampler window
- added flanger in sampler
- improved an exporting of XM format modules
- added saving samples in RAW format (both 8 and 16 bits)

Changes in V2.18 (second release)

- fixed requesters and file requesters
- removed crashing while changing number of channels

Changes in V2.18

- added MP support using (mpega.library) - loading samples encoded with MPEG into sampler, coming soon saving module with samples encoded as mp3 !!!
- removed CIA timers, if you have Delfina you can load more than one DigiBoosterPro and play, mix few modules at the same time !!!
- removed hardware hits so now you can run DigiBoosterPro even on DRACO
- changed showing SamplePos in sampler from dec to hex
- removed bug when looping sample, copying sample etc.
- added option : ctrl e (expand track), ctrl n (remark block), ctrl o (compact track)
- removed bug in EDx command
- improved multikey (you can select now active tracks)

Changes in V2.17a

- added continuing envelopes when note with 0-instrument was played
-

- fixed exporting of AFx and AxF commands in XM format
- removed bug which was freezing DB pro when there was no memory to load module
- fixed copying blocks in more than 22 channels and 256 length pattern
- added plug in system for sampler - flanger, chorus, LP filter 1khz etc. (not in demo version)

Changes in V2.17

- removed some bugs in ExportXM option
- fixed slider in ModuleInfo window
- fixed problems in sampler while using different sample types in module (8,16 bit)
- fixed problems with DMA Paula audio mode
- improved XM loader (fixed loading of panning envelopes)
- fixed a bug in Kxx command (key off after x vblanks)
- added possibility to setting up the BPM, tracks number and pattern length using keyboard
- added export XM
- improved loader for iff8svx and iff16sv samples
- added new scopes routines especially for gfx boards
- added new pattern scroll routine especially for gfx boards

Changes in V2.16

- new boost option (the last one was terrible)
 - scopes work about 50% faster on Axa machines now and don't slow down player
 - added a ping pong loop for volume and panning envelopes
 - now you are able to save (with Save Ins option)/load sample together with parameters like: volume envelope, finetune, ping pong loop and panning envelope,
 - added echo option in sampler window
 - improved XM loader
 - when you change a number of pattern while playing DB pro doesn't change data in pattern editor; now it is fixed,
-

- added playing sample in volume/panning envelope and DSP window
 - added normalize option in sampler (max volume without distortion)
 - loader for DBMs is more intelligent (doesn't crash when after module is some data)
 - added DSP echo window see
 - DSP echo window
 - added DSP echo commands: Vxx, Wxx, Xxx, Yxx, Zxx, for more ←
 - details see

 - list of effects~
 - no system crash when you change instr. number to 0
 - volume boost in mixer window works fine from now
- Changes in V2.15
- fixed bug which caused guru on kickstart 2.0
 - fixed bug which caused enforcer hits while setting priority via rom function
 - added some keyboard options like:
 - alt + '+'
 - alt + '-'
 - alt + '\'for slide effect value up or down and copy value

 - ctrl + '+' or '-' or '\'
 - for selecting a number of command column (1st or 2nd) with which a slide effect value option will work

 - the player works faster now (doesn't hang on kickstart 3.0 and lower), but we still strongly recommend you to install a new kickstart 3.1, AHI works 100% faster!

 - added panning envelopes (so... from now there are two realtime effects for instruments)

 - removed bugs from deliplayer and made some improvements

 - added panning slide command Pxx

 - added playing notes from keyboard in envelope window

 - added a set real bpm effect command: Sxx

 - fixed playing patterns which take more than 64kb in memory
- Changes in V2.14
- fixed some bugs in Load/Save config

 - made a Digi Booster pro deliplayer

 - fixed some bugs in Oktalyzer module loader routine :)
-

- added a dealloc music channels option
- improving requesters
- fixed bug while quitting from the program
- added an autoboot option, so now Digi Booster changes automatically the volume boost depending on number of channels
- from now LP filter (low pass filter) works in %
- renamed 'cut bass' to 'HPfilter' (high pass filter) and improved routine, now HPfilter works in %
- improved optimize routine: added possibility to remove unused channels in module and clear unused instruments' names
- fixed bug in showing range in sample editor
- fixed a bug in saving module in DBM format which appeared sometimes when you saved too much volume envelopes and then tried to load it.
- improved xm converter: converting of commands EAx Axx and volume envelope
- added Master Volume slider
- added Real BPM slider
- added Sample Range slider

Changes in V2.13

- added a blankzero option
- fixed a bug in selecting AHI audio mode
- removed a bug which caused a 'guru' while a number of channels was changing and music was played at the same time.

Changes in V2.12

- added lalt + arrow left/right to change number of editing pattern
 - added stop playing a sample with space in sampler
 - added I O P [] 9 0 = keys to play sample and edit notes
 - added some option visible at right side of pattern editor (CUT, COPY, PASTE, FLIP, INSERT POS, DELETE POS PATT/TRACK/BLOCK ALL/COMMANDS)
 - added show repeatmarks in sampler while showing a range or zoom in a sample
 - fixed bug in ZoomOut option
 - added leaving sampler with ESC key
-

- fixed a bug in DIGI loader - some of left channels were played as right channels and vice versa
- made a faster procedure (we hope...) to print pattern scroll (visible only with GFX cards)
- improving protection :-)
- fixed an editing of command column in pattern editor (thanks Slaxx)

Changes in V2.11

- fixed some bugs in allocating music channels and initializing ahi.device
- up to 256 (row skip) in quantize
- added some keyboard options missed in older versions
- added save instrument option; so now you are able to save/load sample together with parameters like: volume envelope, finetune, ping pong loop etc.
- added sample routine (make use of HardDiskRecord by Martin Blom)

Changes in V2.10

- added a menu and some keyboard shortcuts see
~Keyboard~
 - fixed a lot of small bugs like:
 - fixed playing of 256 position long patterns
 - fixed editing of commands in pattern editor
 - fixed e6x - loop command
 - fixed dx pattern break (this command had limitation: you were able to skip to 63th position max. - now it's extended to 99)
 - fixed playing 256 pos long patterns by return key
 - when you change position when module is not played program does not skip to start of pattern now
 - fixed converting 'fade out' in XM's volume envelope
 - fixed EDx command when an instrument has vol envelope
 - when initializing sound there shouldn't be longer any system crashes
 - Digi Booster is now more user friendly
 - added a second faster procedure to show samples in sampler window (works only with AGA and ECS machines because this is a hack and will not work
-

with graphic cards)

- added highlighting of marked block in editor

Changes in V2.01

- Made a loader for patch samples in XM converter and fixed some bugs. So there shouldn't be longer any problems with converting XM modules.
- Fixed some bugs in envelope editor.
- Added a cut bass option in sampler.
- Fixed a bug in volume envelope procedure.
- Added some Pro Tracker keyboard options like:

Drumpad

Use \ to toggle modes. One or more dots will appear to the right of the 8bit/16bit mode gadget.

No dots: Normal keypad.

1 dot: Drumpad.

2 dots: Drumpad - Edit/Rec possible.

Use Alt + keypad key to set note. "Select note" text will appear then select a note from keyboard. DIGI Booster will store a pressed note and actual octave.

lalt+o - open module

lalt+s - save module

lalt+l - load sample/instrument

lalt+q - Quit from program

lalt+r - Go to sampler screen

lalt+d - Go to disk op.

lalt+e - Go to edit option

lalt+m - Go to mod info screen

lalt+x - Go to mixer screen

lalt+c - Go to configuration screen

lalt+a - Turn On/Off spectrum analyzer

lalt+v - Go to volume envelope editor

lalt+p - Go to panning envelope editor

lalt+b - Go to boost envelope editor

lalt+f - Go to filter envelope editor

- removed a bug which appeared when samples with ping pong loop were played
 - fixed Timer (vbl irq changed to cia 1/50 sec)
 - added possibility to turn off/on scopes
 - fixed bug in scopes
-

- fixed bug when allocating audio channels, cia interrupt
- added config
- added Export MOD option; so now you can create 4-32CHN .MOD files; this option will not be available in unregistered version
- added a loader for AIFF 8/16 bit / mono/stereo samples.
- removed a bug in mixer which appeared when you chose a cancel in file requester
- the volume boost in mixer window is showed in %
- fixed a playing notes from keyboard while module is played
- for now the volume envelopes are heard in realtime, it means that when you play notes on keyboard instruments are played with volume envelopes; if you want to turn off the sustain points or envelope loop press key above tab (in edit mode this key also places a key OFF note)
- removed a bug in ECx and Fxx commands; so the F00 should now work fine.
- added unfortunately missed in DB1.x and 2.0 PRO command EDx
- fixed a bug, BTW not mine; when you played samples with very short loops AHI device terrible slowed down; now there is a procedure which makes 1024 bytes buffers (both for ping pong and forward loops) in realtime and then gives it to AHI play :) so there shouldn't be longer any system freezes...
- when saving sample a file name is taken from a instrument's name list

1.20 Keyboard shortcuts

Keyboard :

note: lalt means left alt
lshift means left shift
lamiga means left amiga

High notekeys: 2 3 5 6 7 9 0 =
Q W E R T Y U I O P []

Low notekeys: S D G H J L ;
Z X C V B N M , . /

F1 - Octave up (there are 7 octaves; from note C-1 to B-7; 84 notes)
F2 - Octave down

lalt+F3 - Cut whole pattern (notes+commands) to buffer
lalt+F4 - Copy whole pattern (notes+commands) to buffer

lalt+F5 - Paste patt-buffer (notes+commands) to pattern

lshift+F3 - Cut track (notes+commands) to buffer

lshift+F4 - Copy track (notes+commands) to buffer

lshift+F5 - Paste track-buffer (notes+commands) to track

ctrl+F3 - Cut commands in track to buffer

ctrl+F4 - Copy commands in track to buffer

ctrl+F5 - Paste cmd-buffer to track

lamiga+F3 - Cut commands in pattern to buffer

lamiga+F4 - Copy commands in pattern to buffer

lamiga+F5 - Paste cmd-buffer to pattern

F6 - Go to patternposition 0

F7 - Go to patternposition 16

F8 - Go to patternposition 32

F9 - Go to patternposition 48

F10- Go to patternposition 63

lshift+F6-F10 - Store current patternposition on selected F-key

lalt+F6-F10 - Play pattern from the stored patternposition

lshift+Return - Insert blank note at cursorposition and move the others down. Notes beyond last patternposition will be lost!

lshift+Backspce - Delete note above cursorposition and move the others up. You can NOT do this if you're at patternposition 0!

lalt+Return - As above, but with all tracks

lalt+Backspace - As above, but with all tracks

ctrl+Return - Push cmds in track one down

ctrl+Backspace - Drag cmds in track one up

lamiga+Return - Push cmds in pattern one down

lamiga+Backspace - Drag cmds in pattern one up

ctrl+0-9 - (quantize) Select how many slots PT will jump down each time you insert a note (this is only in Edit-mode)

Space - Toggle between Stop/Edit-mode

< (beside Z) - All channel's volumes to 0

right Amiga - Play Pattern

right Shift - Record

right Alt - Play Song

Del - Delete note under cursor

lalt+Del - Delete command only
 lshift+Del - Delete note and command

left shift+1 - turn on/off a first visible channel from left
 left shift+2 - turn on/off a second visible channel from left
 left shift+3 - turn on/off a third visible channel from left
 left shift+4 - turn on/off a fourth visible channel from left
 left shift+5 - turn on/off a fifth visible channel from left
 left shift+6 - turn on/off a sixth visible channel from left
 left shift+9 - turn off all channels
 left shift+0 - turn on all channels

On Numeric pad:

0 - Select instrument \$0
 1st row - Select instrument \$1-\$4
 2nd row - Select instrument \$5-\$8
 3rd row - Select instrument \$9-\$c
 4th row - Select instrument \$d-\$f
 Just . - Select instrument \$10

Enter + select instruments \$11-\$1f

lamiga (Plus keys below) - Transposing like in Edit Option

Instrument/Track	Instrument/Pattern
1 - Note Up	2 - Note Up
q - Note Down	w - Note Down
a - Octave Up	s - Octave Up
z - Octave Down	x - Octave Down
All/Track	All/Pattern
3 - Note Up	4 - Note Up
e - Note Down	r - Note Down
d - Octave Up	f - Octave Up
c - Octave Down	v - Octave Down

Tab - Move cursor to next track
 lshift+Tab - Move cursor to prev track

NOTE: (-) means that this option is not implemented yet

ctrl+a - Toggle channel on/off

ctrl+b - Mark block

ctrl+c - Copy notes + commands to buffer
 lalt+ctrl+c - Copy commands only to buffer

ctrl+d - Delete notes + commands, drag notes & commands up
 lalt+ctrl+d - Delete commands, drag commands up

-ctrl+e - expand track

ctrl+f - toggle filter on/off

ctrl+h - Transpose block up

ctrl+i - Insert notes + commands, push notes + commands down
lalt+ctrl+i - Insert commands, push commands down

ctrl+j - Join-paste notes + commands
lalt+ctrl+j - Join-paste commands

ctrl+k - Kill to end of track notes + commands
lalt+ctrl+k - Kill to end of track commands only

ctrl+l - Transpose block down

ctrl+m - Toggle multikeyboard on/off

-ctrl+n - Re-mark last block

-ctrl+o - Contract track

ctrl+p - Paste commands+notes
lalt+ctrl+p - Paste commands only

ctrl+r - Restore F6-F10 positions

ctrl+t - swap tracks

-ctrl+u - undo last change

ctrl+x - Cut notes + commands to buffer
lalt+ctrl+x - Cut commands to buffer

ctrl+y - Backwards notes+commands
lalt+ctrl+y - Backwards commands only

lalt+o - open module
lalt+s - save module
lalt+l - load sample/instrument

lalt+q - Quit from program
lalt+r - Go to sampler screen
lalt+d - Go to disk op.
lalt+e - Go to edit option
lalt+m - Go to mod info screen
lalt+x - Go to mixer screen
lalt+c - Go to configuration screen
lalt+a - Turn On/Off spectrum analyzer
lalt+v - Go to volume envelope editor
lalt+p - Go to panning envelope editor
lalt+b - Go to boost envelope editor
lalt+f - Go to filter envelope editor

Return - Step one note forward
Backspc- Step one note backward

cursor up/down - change position of cursor
lshift+cursor up/down - change position of cursor (faster)
lalt+cursor up/down - change position of cursor (fastest)

ctrl+arrows right - instrument up
ctrl+arrows left - instrument down
lalt+cursor right - patternnumber up
lalt+cursor left - patternnumber down
lshift + cursor right - song-position up
lshift + cursor left - song-position down

Drumpad

Use \ to toggle modes. One or more dots will appear to the right of the 8bit/16bit mode gadget.

No dots: Normal keypad.
1 dot: Drumpad.
2 dots: Drumpad - Edit/Rec possible.

Use lalt + keypad key to set note. "Select note" text will appear then select a note from keyboard. DIGI Booster will store a pressed note and actual octave.

1.21 some infos about sampler...

About Sampler:

If you want to sample some sound, copy file HardDiskRecord to C: directory. You can find it in AhiDev.lha archive:

"Developer/Examples/Low-level/HardDiskRecord"
or in our archive in C: directory

1.22 Some infos about envelope editor...

Envelope Editor v1.0:

An instrument's volume or panning may be defined by it's envelope curve. An envelope curve consists of envelope points (in Digi Booster max. number of points is 32, max. number of sustain points is 2 and max. number of loops is 1).

Each envelope point has two informations. The vertical position of point corresponds to volume value (the range is: 0-64) - (in panning envelope window corresponds to panning value ; range -127 to 128). Horizontal position corresponds to a time (The range is: 0-350 ticks ;

0-6 seconds).

One pixel in the envelope window corresponds to one player-tick. If the BPM is 125, you'll consume 50 pixel/second. The window's "size" is about 6 seconds.

If the instrument has a sustain point, the envelope will stop at the that point until a key-off note has been played. If instrument has two sustain points the envelope will stop two times (it means you have to play a key-off note two times). Envelope loop works in the same way (to turn off loop you have to play a key off note).

The volume envelope window is the same like panning envelope, only one difference is a special new parameter in panning envelope window. It's a GENERAL PAN. This parameter sets the general position in channel (-127 far left and 128 far right).

Example:

If you have a panning envelope which starts at down of the window and ends at far up the sound will slide from left to right. Horizontal position of first point is 0 (BTW horizontal pos of 1st point is always 0). The time of slide from left to right is defined by horizontal position of second point.

If you want to use panning envelope you must set audio mode with stereo++ in AudioModeConfig !!!

1.23 some infos about protection...

Protection:

WARNING!!!

Digi Booster Pro is protected in a special way.

Every registered user should know about personified number hidden somewhere in DigiBoosterPro Installer and in main program too, so when we will get cracked version we will know who is responsible for that.

So beware because you will take the criminal consequences of this !!!

Also if you are using cracked version, we aren't responsible for any damages made by our program !!!

1.24 Some problems with protection

Some problems:

If you hear while playing module heavy clicks when an autoboot in config window is activated you have to run AHI configuration (available in full AHI package) and set the option "MASTER VOULME" as "WITH CLIPPING".

If Digi Booster Pro (registered version) quits after 5 minutes. It means that you have broken some rules (read below) & you must to install it once again. Sorry for it but it's caused by our protection.

Here follows text taken directly from the last page of DBpro installer.

There are some rules after installing Digi Booster on HD:

- you can't rename file Digi Booster !!!
- you can't rename dir where Digi Booster was installed !!!
- you can't copy Digi Booster because it won't be run !!!

If you won't treat this rules serious Digi Booster Pro will always quits after some time !!!

1.25 Benchmarks

Benchmarks

MC030/50MHZ

Kick 3.1, freq 44khz, ahi.device 4.164

Paula Fast 14 bit mono calibrated = 30 chn
Paula Fast 14 bit stereo calibrated = 25 chn
Paula Fast 14 bit stereo++ calibrated = 20 chn

MC030/50MHZ

Kick 3.0, freq 44khz

Paula Fast 14 bit mono calibrated = 27 chn
Paula Fast 14 bit stereo calibrated = 22 chn
Paula Fast 14 bit stereo++ calibrated = 18 chn

MC030/50MHZ

Kick 3.1, freq 44khz, ahi.device 4.180

Delfina Fast 16 bit mono calibrated = 32 chn
Delfina Fast 16 bit stereo++ calibrated = 18 chn
Delfina 16 bit mono calibrated = 16 chn
Delfina 16 bit stereo++ calibrated = 8 chn

Tester: Tap&Walt

digi@kki.net.pl

MC040/25MHZ
OS 3.0, freq 44Khz, ahi.device 4.180

Delfina Fast 16 bit mono calibrated = 40 chn
Delfina Fast 16 bit stereo++ calibrated = 26 chn
Delfina 16 bit mono calibrated = 22 chn
Delfina 16 bit stereo++ calibrated = 10 chn

Tester: Tap&Walt

digi@kki.net.pl

MC68040/25Mhz
OS 3.0, freq 44.1Khz, AHI 4.180

Paula fast 14bit mono calibrated = 42
Paula fast 14bit stereo calibrated = 30
Paula fast 14bit stereo++ calibrated = 26

Paula fast 8bit mono calibrated = 42
Paula fast 8bit stereo calibrated = 32
Paula fast 8bit stereo++ calibrated = 27

Tester: Tap&Walt

digi@kki.net.pl

Amiga1200: MC68040/40Mhz
CybergraphX V3, OS3.1, Freq.44.1Khz., AHI 4.164

Paula fast 14bit mono calibrated = 62
Paula fast 14bit stereo calibrated = 50
Paula fast 14bit stereo++ calibrated = 32

Paula fast 8bit mono calibrated = 64
Paula fast 8bit stereo calibrated = 52
Paula fast 8bit stereo++ calibrated = 34

Tester: Patrick Beerhorst
Syntec@Stardate.Westfalen.de

MC060/50MHz

OS 3.1, freq 44.1kHz, ahi.device 4.180

Paula:Fast 14 bit mono calibrated = 100 chn
Paula:Fast 14 bit stereo calibrated = 96 chn
Paula:Fast 14 bit stereo++ calibrated = 80 chn

Paula:14 bit mono = 112 chn
Paula:14 bit stereo = 108 chn
Paula:14 bit stereo++ = 68 chn

Paula:HiFi 14 bit mono calibrated = 48 chn
Paula:HiFi 14 bit stereo calibrated = 36 chn
Paula:HiFi 14 bit stereo++ calibrated = 36 chn

Tester: Ferry Schouten

elal@dds.nl

MC060/50MHZ with CyberGfx Screen

Kick 3.0, freq 44khz

toccata mono cpu = 86 chn
toccata mono tables = 82 chn
toccata stereo++ cpu = 50 chn
toccata stereo++ tables = 48 chn
toccata stereo cpu = 68 chn
toccata stere tables = 54 chn

Toccata Stereo ++ HIFI 16bit = 30 chn
Toccata Stereo HIFI 16bit = 32 chn
Toccata Mono HIFI 16bit = 38 chn

Toccata Stereo ++ HIFI 8bit = 32 chn
Toccata Stereo HIFI 8bit = 34 chn
Toccata Mono HIFI 8bit = 40 chn

Tester: Claus Morell

CMORELL@VOSSNET.DE / <http://user.vossnet.de/cmoredll>
or call my BBS : MAGIC GALAXY BBS / +49 (0)40 612 617

How to do a benchmark test ?

1. Run DigiBoosterPro and load from directory test/ file test.dbm
 2. Make sure that mixing frequency is set to 44.1 kHz
 3. If DBpro slows down, reduce number of channels and check again.
 4. If DBpro doesn't slow down, increase number of channels, copy note to new tracks and check again.
 5. Test all audio modes available with your music card and send
-

results with your name to us: digi@kki.net.pl - thanks in advance.
