

BlizKick

Harry Sintonen

COLLABORATORS

	<i>TITLE :</i> BlizKick		
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WRITTEN BY	Harry Sintonen	August 9, 2022	

REVISION HISTORY

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Contents

1	BlizKick	1
1.1	BlizKick Guide	1
1.2	rom bugs	2
1.3	Blizzard PPC features	2
1.4	What will (probably ;-) happen.	3
1.5	What is BlizKick anyway?	3
1.6	Other MapROM tools	3
1.7	BlizKick 1.23 vs. BlizzMagic 3.3	4
1.8	BlizKick 1.23 vs. BKick 1.1	4
1.9	BlizKick 1.23 vs. CyberMap 39.14	5
1.10	BlizKick 1.23 vs. Phase5's CyberMap 1.12	5
1.11	BlizKick 1.23 vs. Kick 1.0	6
1.12	BlizKick 1.23 vs. KickBlizz 1.0	6
1.13	About Kickstart ROM	7
1.14	MAPROM feature (jumper)	7
1.15	About BlizKick	8
1.16	Hmm	8
1.17	Features	9
1.18	Requirements	10
1.19	SaveROM utility	11
1.20	BlizKick installation	11
1.21	Programmer's notes	12
1.22	How it is done?	12
1.23	Important notes	12
1.24	Bug in BLIZZARD 1230-II and 1230-III	14
1.25	Attention, 68040/68060 user!	15
1.26	SetPatch and 68040/68060	15
1.27	Blizzard PPC special	15
1.28	ffs62 module fuckup	16
1.29	Troubleshooting	16

1.30	The Package	20
1.31	make KingCON resident installable: KingCON-handler.pch	23
1.32	copy new IDEFix prefs file to IDEfix executable: CopyIDEFixPrefs	23
1.33	Load resident tags to EXTRES buffer: loadresident	23
1.34	AmigaOS 3.5 support: romupdatesplit	24
1.35	AmigaOS 3.5 single boot system	26
1.36	How do I use applypatch?	26
1.37	How do I use BlizKick?	28
1.38	Garbled ShowConfig output	34
1.39	Calculating EXTRESBUF amount	34
1.40	Plainting 'Modules'	35
1.41	About BlizKick 'Modules'	35
1.42	SCSIDEV43 -- Get beyond 4GB limit!	37
1.43	BlizKick Module Names (in Aminet)	37
1.44	Programming modules	38
1.45	Blitter BLITHOG mode	39
1.46	Graphics Benchmarks	39
1.47	FastWaitBlit program	39
1.48	How do I use SaveROM?	40
1.49	Infinite boot loop	40
1.50	Copyrights	40
1.51	SaveROM example: Get Kickstart 1.3 ROM	41
1.52	About bug-reports	41
1.53	Form for sending bug reports	41
1.54	History	42
1.55	License	58
1.56	Disclaimer	58

Chapter 1

BlizKick

1.1 BlizKick Guide

4-Sep-2000

Documentation for

BlizKick 1.23

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Composed by Harry "Piru" Sintonen

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Introduction What is BlizKick?

Package What's included?

About Some words about BlizKick.

Features !!

Requirements What is required.

Installation How can I do it?

Usage Fights and arguments... :)

Important notes Please read.

68040/68060 notes Important!

Troubleshooting What if...

License FreeWare!

Disclaimer "I didn't do it!"

History What has happened.

Future What will happen.

1.2 rom bugs

ROM BUGS

Even V40 Kickstart rom has the following bugs:

- console.device can crash on window resize (happens with KingCON a lot) *1
- ram disk stack size is only 1200 bytes, should be more *1
- ramlib stack size is only 2048 bytes, should be more *1 *2
- ramlib msgport uses SIGB_SINGLE, causes hangs with semaphores *1
- ROM resident command `resident` illegal memory location 4 read *1
- mathieeesingbas.library 40.4 romtag has IEEEESPMul() and IEEEESPDiv() functions disconnected *3
- there could be even more...

*1 fixed by romfixes module

*2 fixed by ramlibstack module

*3 fixed by FixMath404 module

1.3 Blizzard PPC features

BLIZZARD PPC "FEATURES"

Placing ppc.library (and 680x0.libraries) on flashrom has caused some known side effects. I will not go into the debate whether these "things" were intentional or not. But placing 680x0.libraries to flashrom has caused some "side effects" that are less known:

- crash + reboot + alert is disabled completely (well some might consider this a positive thing:)
- some flashrom versions only enable 4k instruction cache for 68060 (halfinstcache) (this bug is actually fixed now)

Here is a rather clumsy explanation of what is going wrong with crash + reboot + alert:

There is a bug in blizzppc flash: Alerts will never survive reset.

This is due the fact that `flash 68060.library` remaps zeropage to fastmem and that alert system uses memory location \$0, \$100 and \$104 to deliver alert request (#'HELP' is placed to \$0), alert number (placed to \$100) and task address (placed to \$104).

Now what happens is that if program fails and you get the usual led blinking, alert request is written to \$0, alert number to \$100 and task address to \$104, next system will try to display the alert if only possible. If displaying succeeded \$0 request is removed. But, if system crashes before alert gets displayed, \$0 request will remain there and when system is rebuilt after crash \$100 and \$104 will be copied to execbase LastAlert. Finally alert.hook will *clear \$0 request* and see if execbase LastAlert gives it a reason try display postponed alert and will display it if needed.

The problem is that 68060.library MMU tables redirect writes to zeropage, and after a crash MMU is disabled thus system rebuilding will not find the alert request from \$0, nor \$100 and \$104 -> execbase LastAlert will get wrong values -> alert will never show up.

Also, as a side-effect if system crashes when MMU is disabled temporarily, you get infinite alert display (this is particularly annoying as you get the same alert on EVERY boot time after time.. :-). This happens because alert.hook is executed AFTER 68060.library has installed new MMU tables. This table again redirects zeropage to the same address thus alert.hook `CLR.L (0).W` will not do the desired action (that is to remove the alert request:-).

The `4k instruction cache` alias `halfinstcache` problem (cpu060 reports INST: 1/2 Cache Burst) is due the fact that early system initialization is examining the hardware by probing CPU registers. After finding out that the machine is running with 68040 CPU (system doesn't see any difference between 68040 and 68060) system will write \$0000A009 to cacr (cache control register). \$0000A009 means `Enable 68040 instruction cache, 68030 Write-Allocate mode, 68030 Enable instruction cache and 68030 Clear instruction cache`. For 68040 these 68030 bits are harmless, but for 68060 one of them has a new meaning: bit 14: FIC - 1/2 cache operation mode enable (instruction cache). So what happens is that instruction cache is halved from 8k to 4k. Also later on 68060.library initialization doesn't clear bit 14, so unless one manually forces it (cpu060 nohalfinstcache) 68060 will only use 4k instruction cache!

(this bug is fixed in new flashroms)

1.4 What will (probably ;-) happen.

FUTURE

Things I'm thinking about to implement in BlizKick in the (near?) future:

- o Rewrite in C.

Things that might be implemented:

- o ROM checksumming and fallback to old kick if bad chksum
- o Installer script (well maybe not, this is not a end user program anyways;)
- o You tell **me** !

...But I'm lazy/busy/etc.

1.5 What is BlizKick anyway?

INTRODUCTION

BlizKick is used to rekick any **Kickstart ROM** with phase5/DCE turbo boards having **MAPROM** feature (jumper). Also many CPU Cards have this feature and are supported. Kickstart 1.2, 1.3, 2.04, 2.05, 3.0 and 3.1 are currently tested ROM images.

SaveROM program can be used to save (grab) Kickstart ROM image into a kickfile.

applypatch program can be used to "prepatch" ROM image with BlizKick "patch" kind of **modules** .

romupdatesplit can be used to split **AmigaOS 3.5 ROM Update file** .

loadresident can be used to load resident tags to EXTRES buffer after running BlizKick.

See **here** , if you want to know why you should use BlizKick instead of other similar programs.

See BlizKick package **features** and **requirements** .

1.6 Other MapROM tools

OTHER MAPROM TOOLS

There are few programs similar to BlizKick. Here are some comparisons. After reading these, I'm sure you'll agree with me that BlizKick is the best choice. If not, use some of these programs instead... :-)

BlizzMagic

BKick

CyberMap

phase5's CyberMap

Kick

KickBlizz

NOTE: This section needs some serious updating.

1.7 BlizKick 1.23 vs. BlizzMagic 3.3

BLIZKICK 1.23 VS. BLIZZMAGIC 3.3

BlizzMagic 3.3, FreeWare, util/boot/BlizzMagic.lha

Author: Jan Hlavaty <mamlason@tnet.cz>

BlizKick 1.23 BlizzMagic 3.3

Supported boards all all but 20x0, PPC & CPU Cards

Orig. ROM restoration yes OS2.0+ only

256K ROM yes *) yes

Needed AmigaOS 1.2+ 2.0+

ROM grabber included yes yes

Need file preparing no no

AutoReSum yes no

ROM speed-up internal external

External Modules yes no

Additional programs lots *2) three

"prepareemul" yes yes

"movevbr" yes yes

SoftSCSI yes no

*) All parts of BlizKick package will work on both 256K and 512K ROM images, as opposite to BlizzMagic.

*2) BlizKick really needs only one additional program: ROM saver (grabber).

Hi Jan!! I really liked you comment on your BlizMagic's documentation!!

Well, I have few things to say:

a) I really was first!! [g]

b) I developed BlizKick independently (well, at least up to version 1.3... ;-)

c) BlizKick has great module system and way better documentation...

d) BlizKick has really cool **modules** !

1.8 BlizKick 1.23 vs. BKick 1.1

BLIZKICK 1.23 VS. BKICK 1.1

BKick 1.1, FreeWare, util/boot/BKick.lha

Author: Adam Ciarcinski <ciarcins@beta.ii.tuniv.szczecin.pl>

BlizKick 1.23 BKick 1.1

Supported boards all all but PPC & CPU Cards

Orig. ROM restoration yes yes

256K ROM yes yes

Needed AmigaOS 1.2+ 2.0+

ROM grabber included yes no

Need file preparing no no
AutoReSum yes no
ROM speed-up internal no
External Modules yes no
Additional programs lots none
"prepareemul" yes no
"movevbr" yes no
SoftSCSI yes no

1.9 BlizKick 1.23 vs. CyberMap 39.14

BLIZKICK 1.23 VS. CYBERMAP 39.14
CyberMap 39.14, FreeWare, util/boot/CyberMap.lha
Author: Carsten Schlote <schlote@stud.uni-frankfurt.de>
BlizKick 1.23 CyberMap 39.14
Supported boards all 2060, CPU Cards
Orig. ROM restoration yes no
256K ROM yes no
Needed AmigaOS 1.2+ 2.0+
ROM grabber included yes no
Need file preparing no no
AutoReSum yes no
ROM speed-up internal no
External Modules yes no
Additional programs lots none
"prepareemul" yes no
"movevbr" yes no
SoftSCSI yes no

1.10 BlizKick 1.23 vs. Phase5's CyberMap 1.12

BLIZKICK 1.23 VS. CYBERMAP 1.12
CyberMap 1.12, FreeWare, © 1999 by Phase5, <http://www.dcecom.de/pub/68060-ddmmyy.lha> (get the latest 68060 archive!)
Author: Matthias Scheler and Ralph Schmidt
CyberMap is the `official' maprom tool for Phase5/DCE cards. If BlizKick should fail for some reason try this tool.
BlizKick 1.23 CyberMap 1.12
Supported boards all all but 12x0
Orig. ROM restoration yes no
256K ROM yes no

Needed AmigaOS 1.2+ 2.0+
ROM grabber included yes no
Need file preparing no no
AutoReSum yes yes
ROM speed-up internal yes
External Modules yes no
Additional programs lots none
"prepareemul" yes yes
"movevbr" yes no
SoftSCSI yes no

1.11 BlizKick 1.23 vs. Kick 1.0

BLIZKICK 1.23 VS. KICK 1.0
Kick 1.0, ShareWare, util/boot/Kick.lha
Author: D.N.A
BlizKick 1.23 Kick 1.0
Supported boards all 1230-IV & 1260
Orig. ROM restoration yes yes
256K ROM yes yes
Init bypassing yes no
Local on-board memory yes no
Needed AmigaOS 1.2+ 1.0+
ROM grabber included yes yes
Need file preparing no no
AutoReSum yes no
ROM speed-up internal no
External Modules yes no
Additional programs lots two
"prepareemul" yes no
"movevbr" yes no
SoftSCSI yes no

1.12 BlizKick 1.23 vs. KickBlizz 1.0

BLIZKICK 1.23 VS. KICKBLIZZ 1.0
Kick 1.0, FreeWare?, util/boot/KickROM07B.lha
Author: Gideon Zenz <gzenz@ernie.mi.uni-koeln.de>
BlizKick 1.23 KickBlizz 1.0

Supported boards all 1230-IV
 Orig. ROM restoration yes no
 256K ROM yes yes
 Init bypassing yes no
 Local on-board memory yes no
 Needed AmigaOS 1.2+ 2.0+
 ROM grabber included yes no
 Need file preparing no no
 AutoReSum yes no
 ROM speed-up internal no
 External Modules yes no
 Additional programs lots none
 "prepareemul" yes no
 "movevbr" yes no
 SoftSCSI yes no

1.13 About Kickstart ROM

KICKSTART ROM

On Amiga computers, most of the operating system is on ROM chip. This differs from the Wintel PC's, whose OS will be loaded from the disk (by BIOS). Both methods have their benefits and misadvantages.

(1) If you have OS on ROM you don't have to wait until it's loaded from the disk and the OS takes minimal amount of the RAM when operating. The dark sides are that ROM chip isn't cheap and it's hard to change ROM chip (you'll have to open your Amiga and by doing this you'll invalidate your Amiga's warranty).

(2) If you have OS on the disk it'll take some time to load it to memory and it'll eat some of your precious RAM. On the other hand it's very simple to update or even change the OS, because no "srewdriving" is needed.

BlizKick helps in case 1: It enables you to have different Kickstart ROM images on the disk. On power-up BlizKick will load the ROM image from the disk and install it, overriding the old ROM. BlizKick is needed only once: while powering up your Amiga. In fact, BlizKick will make the case 1 look like case 2: It even takes part of the RAM (512KB) for the "fake" ROM. :(

BlizKick requires that the Kickstart ROM is saved to a kickfile. Two kickfile (and ROM) sizes are allowed:

256K KS 1.x

512K KS 2.x, 3.x

There are several utilities available for saving (grabbing) Kickstart ROMs. I've included my own piece of artwork, named **SaveROM**.

1.14 MAPROM feature (jumper)

MAPROM

"If memory is installed on the BLIZZARD 1230-III you can load Kickstart into the faster RAM to speed up the execution of operating system functions. If the MAPROM jumper is removed, Kickstart will be automatically copied over to the RAM. If the jumper is installed Kickstart will be executed on the ROM. If activated, MAPROM feature takes 512 KB of the RAM installed on the BLIZZARD 1230-III." (quoted from the BLIZZARD 1230-III User's Manual)

Apparently, at least 1230-I, 1230-II, 1230-III, 1230-IV, 1240-T/ERC, 1260, 2040-ERC and 2060 models have MAPROM jumper. Also Cyberstorm MK I, MK II, MK III, PPC and Blizzard PPCs have similar feature.

1.15 About BlizKick

ABOUT BLIZKICK

BlizKick package software and documentation are Copyright © 1996-2000 PitPlane Productions. All Rights Reserved.

BlizKick package is FreeWare. See [license](#) .

If you have any suggestions or remarks about this program, or if you find any bugs, please let me know.

The best way to reach me is IRC (ohno... don't blame IRC for stalled BlizKick development;):

IRC: [Piru](#) (#AmigaFIN, #amycoders, #amiga)

Again, absolutely the best way to reach me is to use IRC. Best channel for BlizKick questions/bug-reports is probably #amycoders or #AmigaFIN if you are finnish. :-)

Write to the following address (for [bug-reports](#) , comments etc.):

e-Mail: sintonen@iki.fi

(or sintonen@st.jyu.fi)

WWW: <http://www.iki.fi/sintonen/>

<http://www.iki.fi/sintonen/sw.html>

Latest beta release of BlizKick

should be found here. If you can't find it

from there try msging Piru on irc. ;)

SnailMail: [Harry Sintonen](#)

Vaasankatu 8 A 12

40100 Jyväskylä

Finland - Europe

1.16 Hmm

GREAT!!

Hmm... I think I'm above average programmer (aren't we all?). I use mostly AmigaE and Assembler (DevPac) in my Amiga programmes. Sometimes I also use C and C++. I'm also quite good ARexx/CLI script writer. I love CygnusEd. I really hate GoldED!! Hmm... What else? That's about it. :)

Now when I'm studying in University of Jyväskylä they've made me write some ansi C - no problems so far:

```
int main(void) {
printf("Piss off world!\n");
while (1) {
malloc(0x12345);
fork(); /* Sorry, not ansi C! => */
}
}
```

Oh, my Amiga's configuration?

Well, it's a good old A1200 put into 250W full tower case, 2 x 8 GB IDE hard disks, 40x IDE CD-ROM (with selfmade idefix hardware), 4.3 GB and 2.1 GB SCSI hard disks. Blizzard PPC Power Board equipped with 270 MHz 603e and 64.1 MHz 68060 (overclocking rules), and 32 MB + 64 MB 50ns SIMMs (total 96 MB fast), 10Mbit PCMCIA ethernet (\$80 PC-card

+ PCMCIA reset hack), Micronik scandoubler for AGA, BlizzardVision PPC 8 MB graphics card (Permedia2 overclocked to 97MHz memclock), JUSTer® loudspeakers and finally HITACHI CM752ET 19" monitor. Quite ok system, no? :-)

Check <http://www.iki.fi/sintonen/hw.html> for updates. :)

And of course good old A500 (in 1001 pieces nowadays), few external drives and other stuff in my closet. :)

1.17 Features

FEATURES

- CopyIDEfixPrefs and KingCON-handler.pch.
- QUICKBOOT feature as an external **QuickBoot** module. Note that this module can probably only be used with Blizzard 1230s. You **MUST** use LocalFast module too if you use this!
- Reintroduced LOCALFAST feature as an external **LocalFast** module. Only use this module if you need to (mainly Blizzard 12x0s)! Also note that if you use LocalFast module you must start BlizKick before PoolMem.
- If PoolMem should cause troubles, doesn't crash anymore.
- Implemented EXTRESBUF more OS friendly way, fixes some problems
- New commandline argument: **SANITY**
- mmu.library support (not tested)
- Two new tools: **romupdatesplit** and **loadresident**
- New section in guide about how to set up **AmigaOS 3.5 single boot system** .
- You can give any executable as module! Renders SCSIDEV43 module obsolete (if using non-beta scsi.device!). Use V43 scsi.device, new fastfilesystem and so on :)
- **applypatch** program to apply BlizKick patch kind of **modules** to ROM image
- romfixes module to fix some **bugs** from rom
- AlertFix module to fix Blizzard PPC **'crash + reboot + alert' problem**
- BPPCFix and BPPCFix040 modules to substitute BPPCFix by by Frank Wille <frank@phoenix.owl.de>
- ramlibstack module to substitute MCPRamlibPatch (also romfixes module has this functionality!)
- Support for Blizzard PPC
- Support for CPU Cards & CS MKI, MKII, MKIII and PPC!
- FusionReserve module to substitute RsrvCold tool of Fusion MAC Emulator (Also Mac1200), A1000Jingle to play some tune on reset, PatchMath020 to optimize C-compiler math routines in ROM, RebootFix to fix problems with A1200 and 060 (at least with BLIZZARD 1260) reboot when display is in multisync mode, and SpeedyChip module for patching 060 MMU lists for improved chip memory write speed.
- SCSIDEV43 module to kick V43 beta scsi.device. No more **4GB drive limit** !
- Free100buf for freeing buffer created by ChipSaver module
- EXTRESBUF is put into fast memory now!
- ChipSaver, RemCards, SpeedyIDE and WaitIDE modules.
- NewAlert & BBlank modules by Jens Lorenz
- BKMODPATH env-variable can be used to specify location of BlizKick modules
- QUIET switch
- KICKFILE * can be used to kick original ROM found on chip
- BlizKick can replace SoftSCSI program!

- KICKFILE can be packed with XPK
- BlizKick can replace PrepareEmul 100%
- Can "expand" the ResidentTag area. No more "ifficient ROM space" -problem!
- Can be run any time (no more need to start before SetPatch on 1260)
- This package is free! (see [license](#))
- Has possibility to plant ResidentTag **modules** into ROM image!
- No kickstart file preparation or similar is needed. You can just save any ROM image and give it to BlizKick!
- Can restore the original Kickstart.
- Can make memory on Blizzard board LOCAL, bypass flashy boot of the board and speed up ROM boot.
- Has built-in FastWaitBlit patch.
- BlizKick is 100% assembler!
- BlizKick doesn't use MMU, KickMem, KickTag, ColdCapture or CoolCapture vectors. -> 100% transparent!
- Works with almost any AmigaOS version! (that is AmigaOS 1.2 or better)
- BlizKick executable is only about 7K !
- BlizKick should be compatible with all future Kickstarts.
- Program for saving Kickstart ROM images included!

1.18 Requirements

REQUIREMENTS

BlizKick requires Amiga computer with AmigaOS 1.2 or better and phase5/DCE turbo board with its **MAPROM** feature enabled or a CPU Card.

SaveROM requires AmigaOS 1.0 or better.

Hard disk drive is highly recommended, but not required. You can also have problems reading this AmigaGuide document if you don't have MultiView because of @WORDWRAP.

BlizKick should work with:

- ? BLIZZARD 1230-I
- ? BLIZZARD 1230-II
- x BLIZZARD 1230-III
- x BLIZZARD 1230-IV
- x BLIZZARD 1240-T/ERC
- x BLIZZARD 1260
- x BLIZZARD 2040-ERC
- x BLIZZARD 2060
- ? BLIZZARD Cyberstorm MKI
- x BLIZZARD Cyberstorm MKII
- x BLIZZARD Cyberstorm MKIII
- x BLIZZARD Cyberstorm PPC
- x BLIZZARD Blizzard PPC

x A3640

? Other CPU Cards (A4000?)

x = tested and works

? = not tested, but should work

- = not yet functional

\$ = might not work, I don't know if these boards have **MAPROM** jumper

1.19 SaveROM utility

SAVEROM

With this program you can save the current Kickstart ROM image into a kickfile. Kickfiles created with SaveROM can be **used** with BlizKick. See **usage** and **installation** of the SaveROM.

1.20 BlizKick installation

INSTALLATION

Just click here to get BlizKick installed! (WILL COPY FILES AUTOMATICALLY! You still need to add BlizKick commandline to s:startup-sequence, see **BlizKick usage**)

If you simply want to get all programs and documentation installed automatically, click here. Programs will be copied into C: -drawer, **Modules** will be copied into DEVS:Modules -drawer, BKMODPATH env-variable is created and requester will pop up (OS 3.x) requesting destination directory for this AmigaGuide document. If you're OS 1.x/2.x user you should have HELP: -assign, as this document is copied into HELP:English or HELP: -drawer.

If you want to save your current Kickstart ROM into a file (DEVS:rom_ver.rev), click here. This kickfile can be used with BlizKick, it is the same version as already used, though :)

If you'll use **ChipSaver** module you probably want to copy Free100buf to C: -drawer or drag it into WBStartup -drawer (You only should put Free100buf into WBStartup if you start ripper software before Workbench is loaded). You may Copy Free100buf TO C: and/or Copy Free100buf Free100buf.info TO SYS:WBStartup/ .

Now, see **usage** section.

If you're interested in programming " **modules** " or " **patches** " see notes **here** .

DETAILED INSTALLATION

(For you who hate automatic installation scripts)

BlizKick's installation is quite simple: just copy executable named BlizKick into your C: -drawer. You also need **ROM image(s)** you want to rekick. If you're really lazy just hit the following button:

Copy BlizKick TO C:BlizKick

There is also a program for saving (grabbing) Kickstart ROMs included (**SaveROM**). If you want, you can copy it into your C: -drawer by clicking the following button:

Copy SaveROM TO C:SaveROM

If you want to "prepatch" ROM image with patch kind of **modules** install **applypatch** by clicking the button below:

Copy applypatch TO C:applypatch

If you want to split AmigaOS 3.5 ROM Update file install **romupdatesplit** by clicking the button below:

Copy romupdatesplit TO C:romupdatesplit

If you want to add resident modules to EXTRES buffer after BlizKick has been run install **loadresident** by clicking the button below:

Copy loadresident TO C:loadresident

If you want to use new IDEfix as a module CopyIDEfixPrefs can be used to update the IDEfixPrefs to C:IDEfix file. Install **CopyIDEfixPrefs** by clicking the button below:

Copy CopyIDEfixPrefs TO C:CopyIDEfixPrefs

There are some example **modules** included. If you want, you can copy them into your DEVS: -drawer by clicking the following button:

Copy Modules/~(#?.(ASMLi)) DEVS:Modules

Finally you could add a environment variable BKMODPATH which contains path for BlizKick modules (default "DEVS:Modules/").

Of course, you should copy (drag?) this AmigaGuide documentation into your Docs-drawer.

See usage of **BlizKick** , **SaveROM** and **applypatch** .

UNINSTALLATION

Delete C:BlizKick, C:SaveROM, C:applypatch, C:romupdatesplit, C:loadresident and C:CopyIDEfixPrefs, delete DEVS:Modules ALL, delete ENVARC:BKMODPATH and delete this guide file.

(Above is valid for default installation)

If you have copied Free100buf to C: and/or SYS:WBStartup/ -drawer(s) you should delete it too.

1.21 Programmer's notes

PROGRAMMER'S NOTES

You should copy file Modules/blizkickmodule.i into your include: -drawer.

There are assembler source code for all included modules! These files aren't copied by installation process. You might want to create Modules drawer to place where this guide file is located and copy all .ASM files into it.

Then see **example modules** .

1.22 How it is done?

HOW IT IS DONE?

Certain phase5/DCE turbo boards have **MAPROM** feature, which can be used to load (copy) currently installed ROM chip into the 32-bit fast memory. I found that the memory for the Kickstart ROM is "allocated" from the end of the memory installed on board. Because the memory isn't actually allocated, but the AddMemList() function parameters are changed a bit, the memory area containing the ROM is outside the system memory pool.

What I do in BlizKick is really quite simple: I test whether system has somewhat valid phase5/DCE turbo board installed and its MAPROM feature enabled. If all is OK so far, I allocate memory for the specified **Kickstart ROM** kickfile and load it. The I Disable() system and run some piece of code in CPU's supervisor state. It effectively does nothing exceptional: It just copies the loaded ROM over the Kickstart ROM created by boards own "MAPROM" and flushes CPU caches. Finally, execbase is trashed and reset is done.

Wow! Isn't that simple!

1.23 Important notes

NOTES

MorphOS loader takes over whole system memory overwriting everything, including EXTRES area. So EXTRESBUF can't be used if you're going to use MorphOS. Also be sure you use qstartup/startup Kickstart option, and do NOT use applypatched ROM Image here, but the original ROM! MorphOS will misbehave if it can't apply its' own patches!

If you have Blizzard PPC read [Blizzard PPC special](#) notes.

It might be that RemCards module can't be used if you have CD-ROM drive. This depends on the drive controller/device driver.

If you want to use SCSIDEV43 module with SpeedyIDE and/or WaitIDE module then SpeedyIDE and/or WaitIDE must be specified after SCSIDEV43 or else it won't work (as patches are made to ROM scsi.device which is immediately replaced by V43 scsi.device).

As of version 1.11B1 EXTRESBUF is put into board's own fast memory, not chip memory.

If you want to use NoClick module with Hackdisk module then NoClick must be specified after Hackdisk or else drives will continue clicking. I've also found that hackdisk.device has some problems in conjugation with CrossDos6. If you have any problems, just don't use hackdisk module.

Kickstart 1.2 (33.180) works now, as BlizKick automatically patches some bugs of it.

Please, see [why](#) you show use BlizKick 1.23 instead of other similar programs.

If you're interested in programming " [modules](#) " or " [patches](#) " for BlizKick see notes [here](#) .

There's a [certain bug](#) in at least 1230-II and 1230-III boards: memory node name can sometimes be a null string.

You can save (grab) the modified ROM created by BlizKick. It can be used with other "kicking" tools with no problems (at least if EXTRESBUF feature isn't used). Using it with BlizKick again requires use of the FORCE switch. See [usage](#) of the BlizKick.

BlizKick can be used in conjugation with Enforcer, CPU FASTROM, VMM, GigaMem etc. BTW: BlizKick has few Enforcer hits, but they'll never show up as Enforcer is turned off when needed... :) I'm well aware that no program should access memory areas outside of memory lists, but this is a [hack](#) anyway...

Note that you should not use Kickstart 1.3 or lower on systems equipped with MC68040 or better processor. This doesn't mean you can't do it though... :)

BlizKick has been tested on following systems:

A1200, BLIZZARD 1230-I 68EC030 @ 40MHz

A1200, BLIZZARD 1230-III 68030 @ 50MHz

A1200, BLIZZARD 1230-IV 68030 @ 50MHz

A1200, BLIZZARD 1240-T/ERC 68040 @ 40MHz

A1200, BLIZZARD 1260 68060 @ 50MHz

A1200, BLIZZARD 1260 68060 @ 50MHz

A1200, Blizzard PPC 603e+ @ 270Mhz, 68060 @ 64.1MHz

A?000, BLIZZARD 2040-ERC 68040 @ 40MHz

A2000, BLIZZARD 2060 68060 @ 50MHz

A4000, Cyberstorm MK II 68060 @ 50MHz

A4000, Cyberstorm MK III 68060 @ 50MHz

A4000, Cyberstorm PPC 604e @ 200MHz, 68060 @ 50MHz

(+ many other configurations)

BlizKick should work with all [phase5/DCE turbo boards](#) that have [MAPROM](#) feature enabled. If you're having troubles with BlizKick on your system and you're sure that your board is Blizzard board and it has MAPROM feature, then contact [me](#) . I'll fix BlizKick, if possible. I cannot guarantee BlizKick to be 100% software/hardware compatible!

You must have the [MAPROM](#) feature enabled or BlizKick won't work!

Note that BlizKick uses always 512K of memory, even if the ROM image to rekick is only 256K (KS 1.x). This is because of phase5/DCE turbo's own MAPROM feature and can't be fixed (easily). The memory area before 256K ROM (\$F80000-\$FBFFFF) contains the same data as at \$FC0000 (this is what happens with real 256K ROM too).

You can use modified ROM images as BlizKick always resumes the image before it's kicked. Naturally you should be careful when changing ROM contents, but simple funny things like string modifications etc. should be easy thing to do. Of course, you should always have backup of the original ROM kickfile!

BlizKick doesn't use kickmem or kicktag vectors, or Cold- or CoolCapture.

BlizKick should be compatible with all future Kickstarts and Kickstart images. There is one restriction though: 1MB ROM images can't be used. Again, this is because of phase5/DCE turbo's MAPROM feature. KS 1.2, 1.3, 2.04, 2.05, 3.0 and 3.1 are currently tested ROM images. If BlizKick refuses to co-operate with other ROM images (256K/512K) then contact [me](#) .

If you rekick older kickstart than originally used one, it may be impossible to use all hardware and/or peripherals of your system (e.g. If you originally use KS 3.0 in your A1200 and rekick KS 1.3 you can't use your hard disk drives or PCMCIA slot. Direct banging of AGA hardware works, if someone is smart (?) enough to do it).

Here is some [information](#) about different Kickstart ROM images:

KS SIZE VERS NOTES

1.0 ¼MB 30.x Used in old AMIGA 1000
 1.1 ntsc ¼MB 31.x Used in AMIGA 1000
 1.1 pal ¼MB 32.x Used in AMIGA 1000
 1.2 ¼MB 33.x Original A500 ROM
 1.3 ¼MB 34.x Can run AUTOBOOT devices
 1.4 ??MB 35.x KS 1.3 with A2410 support
 2.0,2.01,2.02 ½MB 36.x Beta OS 2.0
 2.04 ½MB 37.175 Official OS 2.0
 2.05 ½MB 37.300 Used in A600's, knows how to use internal AMIGA 600/AMIGA 1200/AMIGA 4000 IDE peripherals and PCMCIA slot. Doesn't work with Bliz 1260!
 3.0 ½MB 39.106 Official OS 3.0
 3.0beta ½MB 39.107 Beta?
 3.0beta ½MB 39.110 Beta?
 3.1 ½MB 40.x Support for Akiko and CD-ROM
 3.2 ½MB 43.x Would have been used in "Walker"...?

1.24 Bug in BLIZZARD 1230-II and 1230-III

BLIZZARD BOARD BUG

There's a little bug in Blizzard boards autoconfig(TM) code (at least 1230-II and 1230-III):

When the board allocates memory for the memory node name of the boards' memory it can sometimes fail.

There's a code like this:

```
move.l (.stringsize,pc),d0
moveq #MEMF_ANY,d1
movea.l (4).w,a6
jsr (_LVOAllocMem,a6)
movea.l d0,a3 movea.l <ea>,An WON'T set
```

beq.b .nomem condition codes! -> fail!

movea.l a3,a1

lea (.blizmem,pc),a0

.copy move.b (a0)+,(a1)+

bne.b .copy

.nomem

movea.l a3,a1

;

; add memory to system memory pool

; a1=ptr to memory node name

;

.stringsize dc.l 20

.blizmem dc.b 'Blizzard_Mem',0

THIS IS TOTALLY WRONG!

1] movea.l <ea>,an does not set condition codes like move <ea>,<ea> does! This code can think allocation failed when it succeeded, and think it succeeded when it really failed (!).

1) Should movea.l d0,a3, tst.l d0, beq.b .nomem

1> Now if there's no memory, Blizzard memory node won't have any name which is perfectly legal.

1.25 Attention, 68040/68060 user!

68040/68060 NOTES

You need not start BlizKick before SetPatch. See [why](#) .

From version 1.6 and on you can start BlizKick anytime!

I've received some reports that BlizKick 1.9 wouldn't have worked if run after SetPatch on 68040 or 68060 systems. If this still happens please contact [me](#) .

1.26 SetPatch and 68040/68060

SETPATCH AND 68040/68060

When SetPatch is run, it'll load 680x0.library. 680x0.library will set up MMU tables so that it'll hide magic MAPROM memory areas from all other programs.

To get around this BlizKick will toggle MMU on and off couple of times while it's run. Note that BlizKick won't change MMU tables in any way, or turn MMU off if it was initially on.

1.27 Blizzard PPC special

BLIZZARD PPC SPECIAL

From version 1.19 on, BlizKick is capable of starting more than once per poweron (use **FORCE**)! You can also restore the original ROM (give no **KICKFILE**). I finally managed to find the way to disable the Blizzard PPC maprom... :)

1.28 ffs62 module fuckup

STORY OF FFS62 MODULE

Background story:

Once I was examining ffs partition with diskmontools and found out that there seemed to be "empty" space after file/dir name in file/dir block. So after hours of resourcing I was able to locate all places in which fastfilesystem handles file/dir names (hashing routines etc). Then I wrote patch to modify these places, and wow: I had fastfilesystem with max. 62 char filenames. Well, I really thought so, but it was too good to be true... :-(

What went wrong then?

Well I accidently included this beta module to BlizKick 1.13 Aminet release. It wasn't supposed to get included but my automatic aminet packaging script was a bit too efficient.

Then later I was talking with Ralph Schmidt and he told me that this ffs62 patch overwrites some fields in file/dir block. Ooops, bad luck! I still don't know 100% what these fields are but apparently this ffs62 just seemed to work for me (by luck).

Conclusion:

see [disclaimer](#) . ;-)

1.29 Troubleshooting

TROUBLESHOOTING

Q: Rafal Mania's InitPPCLib 1.1 doesn't work with BPPFix 1.2 module!?

A: Yep. At least the 'os-friendly version' doesn't. But hey you can always use 'BPPCFixFix' or 'loadppplib' written by me... :-)

Q: I am running UAE on my amiga and I don't use rom-file. If I am using EXTRESBUF with BlizKick, UAE fail to start. Why?

A: UAE cannot find the EXTRES buffer memory and fail miserably. However this is easy to fix; just use rom-file with UAE.

Q: With my A4000 + A3640 BlizKick work when started from shell when system has booted. However it fails when I put it to startup-sequence. Why?

A: It seems that with A3640 you need to place the BlizKick command after SetPatch line. If someone has ideas how to make it work before SetPatch let me know.

Q: muFastZero FASTEXEC doesn't work with BlizKick?

A: Seems so. Use BlizKick's LocalFast module instead. (Thanks to Matt for this one.)

Q: When I use BlizKick and start MorphOS my system just freezes. Even if it did work I can't get back to AmigaOS without powering down. Why?

A: MorphOS loader takes over whole system memory overwriting everything, including EXTRES area. So EXTRESBUF can't be used if you're going to use MorphOS. Also be sure you use qstartup/startup Kickstart option, and do NOT use applypatched ROM Image here, but the original ROM! MorphOS will misbehave if it can't apply its' own patches!

Q: I have AlertFix module installed and every app doing exec/Alert() gives me error instead of alert.

A: AlertFix-module V1.0 was broken and caused this problem as a side effect. 1.22beta12 included new fixed 1.1 version of AlertFix. (a fix on a fix :-)

Q: When BlizKick has loaded it reboots the system, and then hangs. If I give my machine three-finger-salute (Ctrl-Aamiga-Aamiga) it works just fine. What's up?

A: No idea. Happens to me too, time to time. Seems to be random so I suspect some HW of mine is causing it. In fact, it didn't happen with my old blizzppc (serial 0071), but does happen with my current one (serial 0080).

Q: KingCON-module doesn't work, you sux!

A: It doesn't work with AmigaOS 3.5. Too bad. The patch was written by Mikolaj Calusinski so I'm afraid I can't help much. On the other hand, who need KingCON in ROM anyway? :-)

Q: BlizKick seems to work properly on the 1st boot. On the next reboot I get red screen and/or system hangs/infinite reboots.

A: Four possibilities:

- a) If you have a SCSI-kit or BlizzardPPC and only one SIMM module installed you might want to try swapping the slot the module is in or try adding 2nd SIMM. This could help. (thanks for the tip CISC!)
- b) Some program is trashing the MAPROM area. Try to find and remove such program, use enforcer kind of tool to find the offending software.
- c) Your card's MAPROM is defective (I know at least one case).
- d) BlizKick has a bug (again:). If it doesn't seem to be neither a), b) nor c) please let **me** know.
- e) Did I say four? Oh well it can be some stupid mistake or weird hardware problem. Wave a chicken over it, might help...

Q: BlizKick seems to reboot the system twice!? I am using AmigaOS 3.5.

A: BlizKick doesn't reboot the system 2nd time, it's the SetPatch installing "devs:AmigaOS ROM Update" -file. However, the 2nd boot can be avoided. Read how to set up [AmigaOS 3.5 single boot system](#) .

Q: This new LocalFast module doesn't work! The old BlizKick that had it built in worked!

A: Due silly mistake external LocalFast module didn't work before 1.22beta4. I'm truly sorry. :)

Q: BlizKick seems to do its job properly but then it fails my startup-sequence with failure code 20. What's up?

A: Most probably bug in BlizKick. You might be still able to use BlizKick though, just add 'failat 21' command before BlizKick. Also please report this behaviour to **me** .

Q: I added QuickBoot module to my setup and it fails/hangs/crashes my system!

A: QuickBoot probably only works with Blizzard 1230-II and III. Possibly also 1230-IV, 1240 and 1260.

A: You must use LocalFast module with QuickBoot, it won't work without.

Q: I have ramlibstack and romfixes modules on BlizKick commandline and BlizKick just fails with returncode 10. Why?

A: romfixes module includes ramlibstack module functionality. Remove ramlibstack module from commandline.

Q: When I use romupdatesplit to split "devs:AmigaOS ROM Update" -file I don't get the modules shown in [romupdatesplit example](#) ! (FileSystem.resource file is missing!) Why?

A: That example run is done with AmigaOS 3.5 BoingBag1 service pack installed. And that list shows the module output on a A1200 machine. You should update to BoingBag1 anyhow, it contains lots of bug fixes! (and hopefully BoingBag2 will come out soon;)

Q: BlizKick 1.19 and 1.20 didn't work at all!

A: There was a major bug in copymem routine for 68040 and 68060 CPUs. Fixed in 1.21.

Q: I get weird crash and/or alert 80010000! What can I do?

A: BlizKick 1.20+ can probably help here, use new [SANITY option](#) .

Q: I have a module called ffs62 what is supposed to give me max 62 character filenames for FFS. It seems to work, but should I really use it?

A: DON'T USE IT! It **never worked** .

Q: BlizKick seems to be unable to find any modules without paths! I have `assign ENV: RAM:' line before BlizKick line. (Thanks to Max for pointing this one out :)

A: BlizKick 1.19 and later will find modules in this case too, previous releases had problems with this.

Q: BlizKick doesn't work with my Blizzard PPC!

A: It does work, read [Blizzard PPC special](#) .

Q: BlizKick doesn't work for me.

A: Don't turn on every feature, you know what happened in Tshernobyl... Try it as 'BlizKick *', if that doesn't work then BlizKick is a bit broken (probably). You could try contacting **me** , I might even be able to fix it. Don't expect miracles though.

Q: FusionReserve module doesn't work!

A: It does work. Get FixPATCHMAC.lha from aminet and use it conjugation with FusionReserve module.

Q: PrepareEmul and FusionReserve modules don't work together!

A: FusionReserve substitutes PrepareEmul in this case. If you use FusionReserve module you don't need to use MoveVBR module either as FusionReserve moves VBR by itself too.

Q: My CD-ROM drive refuses to work when I use BlizKick!

A: Don't use RemCards module. If you still have problems then contact [me](#) .

Q: When I use BlizKick and start Linux my system just freezes. Even if it did work I can't get back to AmigaOS without powering down. Why?

A: Linux loader takes over whole system memory overwriting everything, including EXTRES area. So EXTRESBUF can't be used if you're about to boot Linux.

Q: WaitIDE doesn't work on V43.17 scsi.device!

A: It didn't work in 1.11B3. WaitIDE should work with it as of 1.11B4. V43.17 IDE device recognition is broken. :(

Q: I use SCSIDEV43 module but I only get boot-hand picture. What's wrong?

A: Well some releases of V43 scsi.device are broken. At least V43.17 doesn't work for me. V43.11 and V43.18 work.

Q: SpeedyIDE and/or WaitIDE don't seem to work when used with SCSIDEV43 module. Why?

A: You must always specify SpeedyIDE and WaitIDE modules after SCSIDEV43.

Q: SpeedyIDE causes checksum errors (or other failures) on my hard disk(s)!?

A: It works on my A1200, I see no reason why it should't work on your system too. If any problems arise, please disable SpeedyIDE and let DiskSalv or similar program fix your hard disk(s). See also [disclaimer](#) :).

Q: I install hackdisk module, but my system freezes immediately after I've installed disk. I have CrossDos6 or newer. What's wrong?

A: I've found that hackdisk.device has some problems in conjugation with CrossDos v6+. If you have any problems, just don't use hackdisk module. I can't fix this yet because I really don't have a clue what's wrong with hackdisk... :(

A: I've heard that original author of Hackdisk, Dan Babcock, is about to release V3.0 of Hackdisk soon. That version is supposed to fix all current problems (I hope so! :).

Q: When I use hackdisk module ARTM (for example) shows that there's no hackdisk.device resident tag installed! Why?

A: This is normal! If hackdisk module initializes without errors it should be there! It is supposed to look like trackdisk.device because it's a full trackdisk replacement (It is even copied over trackdisk.device in ROM!). There's a HackDiskTest program included in NewHackdisk distribution (disk/misc/NewHackdisk.lha) which will display hackdisk version string (and return RC as 0) if it's installed. You can also use other tools (for example DiskMon) to see if hackdisk is really there...

Q: BlicKick doesn't work! I have memory only on SCSI-Kit.

A: MAPROM requires memory on turbo board itself. Solution to this would be to purchase 2, 4 or 8 MB SIMM to be installed into boards SIMM slot. Problems may arise if you have, for example overclocked 68060 to 66MHz and the fan covers SIMM socket (partially).

Q: NoClick doesn't work when used with hackdisk module!

A: Try specifying NoClick module after hackdisk. It should work then.

Q: When I use BlizKick with EXTRESBUF ShowConfig will report something like this:

```
Node type $A, Attributes $703 (CHIP), at $1E000020-$1FFFFFF (~3618.0 meg)
```

A: ShowConfig is bad. This is not my fault. NOTE: EXTRESBUF doesn't magically add chip memory... :)

Q: If I already have latest ROM in my machine how can I use for example EXTRESBUF without romfile?

A: Use * as KICKFILE. 512K of ram is lost (as usual) though.

Q: EXTRESBUF fails on 1240/2040/2060!? System locks up!

A: Hmm... It should work. Please inform [me](#) !

Q: SoftSCSI does not work.

A: It didn't work in 1.9β5, but should work now. Be sure to have DEVS:Modules/A1234.ROM file present!

Q: Kickstart 1.2 doesn't seem to work! I get only a yellow screen etc... What's up?

A: As of version 1.10β3 Kickstart 1.2 (33.180) should work! BlizKick automagically patches some bugs of it.

Q: I know that BlizKick 1.10 on BLIZZARD 1260 can be started after SetPatch, but is the any difference starting it before or after? Which should I prefer?

A: No, there shouldn't be any difference. If you use BlizKick just to change (update) your Kickstart (for example 3.0 to 3.1), then you should insert line running BlizKick as first command in your s:startup-sequence. You can - of course - start BlizKick later on too, but I'll then take more time to boot up at the first time...

A: I've received some reports that BlizKick 1.9 wouldn't have worked if run after SetPatch on 68040 or 68060 systems. It this still happens please contact [me](#) .

Q: Help! BlizKick doesn't work!?

A: You need [phase5/DCE turbo board](#) with its [MAPROM](#) feature enabled.

Q: Why should I use BlizKick? BlizzMagic looks fine to me...

A: OK! OK! Use BlizzMagic if you like... But then you'll of course miss some nice features only present in BlizKick, like external [modules](#) ... [See](#) why I prefer BlizKick. It's up to you.

A: To see comparisations between BlizKick and other similar programs, see [here](#) .

Q: IDE devices of my AMIGA 600/AMIGA 1200/AMIGA 4000 don't work when I use KS 1.x or 2.04. Why?

A: If you rekick older kickstart than originally used one, it may be impossible to use all hardware and/or peripherals of your system (e.g. If you originally use KS 3.0 in your A1200 and rekick KS 1.3 you can't use your hard disk drives or PCMCIA slot). Kickstart 2.05 (37.300) should be able to use IDE controller of the AMIGA 600/AMIGA 1200/AMIGA 4000. Sadly it seems as 2.05 wouldn't work on BLIZZARD 1260... ;-(

Q: My 68040/68060 system crashes when I try to use KS 1.x! This is definitely BlizKick's fault!?

A: No. KS 1.x won't work properly with 68040/68060.

A: Actually, you might be able to use it... :)

Q: I took kickfile from XYZKicker and it doesn't work with BlizKick! Why?

A: Hmm... Probably "XYZKicker" has specially tuned ROM images (relocated to \$200000? ;-() Kickfiles used with BlizKick mustn't be (de)relocated or tempered with. To get 100% working kickfile, use [SaveROM](#) program to grab it from ROM chip.

Q: BlizKick sucks!?

A: No. BlizKick is great.

Q: I try to use kickfile for KS 40.70, but it fails! Why?

A: Be sure you don't have A4000 version as it doesn't work on A1200. A1200 version of KS 40.70 should work, although it isn't tested.

Q: I use kickfile for KS 40.68, but it can't use any external Modules! Why?

A: Kickstart 40.68 doesn't have enough [free ROM space](#) in it. ;-(Well, this is not a problem anymore with BlizKick 1.6 and on: Just use [EXTRESBUF](#) feature!

Q: Oh-no!! BlizKick failed saying "object too large, Couldn't plant module 'xxx'!" Help!!

A: There's no more space for external Modules, so you must use [EXTRESBUF](#) feature or increase the buffer size if it's already in use.

Q: BlizKick failed saying "object wrong type, Couldn't plant module 'xxx'!" !! What's up!?

A: You tried to use non-module file as **module** or the module isn't supported by this BlizKick version.

Q: HOGWAITBLIT don't work with KS 1.x!?

A: Right. Nothing can be done about this.

Q: Why are you releasing this great package as freeware? I'd ask money for it!

A: Sorry, I like it free. ;-)

Q: When I kick 256K ROM 512K of memory is lost! Why?

A: **MAPROM** feature of the phase5/DCE boards normally take 512K. It could be possible to patch ROM in such way it would add those unused 256K back to system memory pool, but since it's only 256K I won't bother. And hey: who uses KS 1.x anyway!?

Q: I have a phase5/DCE board and memory on it, but when I examine my system's memory node list, there's no node with name 'Blizzard_Mem' (or similar). Why?

A: There's a **bug** in at least 1230-II and 1230-III boards: memory node name can sometimes be a null string.

A: On BLIZZARD 1260 memory node name pointer is always null (which is, btw, 100% legal!).

Q: When I tried to kick ROM, my machine just hangs! Keyboard reset doesn't help either. Why?

A: You might have used trashed/bad kickstart ROM. You have to turn power off and on again. If you have BlizKick installed into your startup-sequence and your machine hangs again and again you have to break booting and remove (comment) line running BlizKick.

A: I have received a report that at least BlizKick release 1.5b caused a hang when used in conjugation with 1230-IV and SCSI-Kit. If you're sure you have 100% working ROM (it works on your friends machine for example), but BlizKick hangs on your system, you should send me a detailed **bug report**. If this terrible thing should happen you could also try some **other** similar programs available... (NOT! :)

A: There are also different Kickstart ROM versions for different Amiga models (A500, A2000, A3000 should work with A1200 too). A4000 tuned ROMs may not work on A1200. Sorry, but I really don't know for sure! :(

Q: I have program called FastExec installed in my s:startup-sequence. Should it be before or after BlizKick?

A: If you need FastExec, it should be after BlizKick.

1.30 The Package

PACKAGE

BlizKick 1.23 distribution package contains following files:

BlizKick/

Modules/

A1000Jingle Module playing A1k bootjingle

A1000Jingle.ASM Source code.

AlertFix Fix BlizzPPC crash+reboot+alert

AlertFix.ASM Source code.

BBlank Borderblank "module"

BBlank.ASM Source code.

BPPCFix BPPCFix "module"

BPPCFix.ASM Source code.

BPPCFix11 BPPCFix 1.1 "module"

BPPCFix11.ASM Source code.

BPPCFix040 BPPCFix040 "module"
BPPCFix040.ASM Source code.
ChipSaver Chip2fast copier "module"
ChipSaver.ASM Source code.
Colour Stripy-colours "module"
Colour.ASM Source code.
FixGetMsg Fix 68060 GetMsg() loop hang
FixGetMsg.ASM Source code.
FixMath404 Fix math 40.4 "module"
FixMath404.ASM Source code.
FusionReserve Fusion RsrvCold patch "module"
FusionReserve.ASM Source code.
hackdisk hackdisk.device "module"
hackdisk.ASM Source code.
LocalFast Exec & supervisor stack to fast "module"
LocalFast.ASM Source code.
Magia Example patch "module"
Magia.ASM Source code.
MoveVBR MoveVBR "module"
MoveVBR.ASM Source code.
NewAlert Improved alert.hook "module"
NewAlert.ASM Source code.
NoClick NoClick "module"
NoClick.ASM Source code.
PatchMath020 020+ optimizer "module"
PatchMath020.ASM Source code.
PrepareEmul PrepareEmul patch "module"
PrepareEmul.ASM Source code.
QuickBoot Blizzard flashy bootdelay patch "module"
QuickBoot.ASM Source code.
ramlibstack Make ramlib stack 8k
ramlibstack.ASM Source code.
RebootFix Fix A1200/060 reboot problems
RebootFix.ASM Source code.
RemCards PCMCIA-killer "module"
RemCards.ASM Source code.
Replace Example replacing "module"
Replace.ASM Source code.
romfixes Fix misc rom bugs

romfixes.ASM Source code.
SCSIDEV43 Kick V43 beta scsi.device
SCSIDEV43.ASM Source code.
SoftSCSI SoftSCSI "module"
SoftSCSI.ASM Source code.
SpeedyChip Improves 060 chipmem speed
SpeedyChip.ASM Source code.
SpeedyIDE IDE device boost "module"
SpeedyIDE.ASM Source code.
Test Example library "module"
Test.ASM Source code.
WaitIDE IDE spin-up-fix "module"
WaitIDE.ASM Source code.
blizkickmodule.i Include file for "Modules"
applypatch Apply modules to ROM image
applypatch.e Source code.
AspectFont Tool for fixing guide font
AspectFont.e Source code.
bkapi.lha EXTRES buffer API example
BKGUI Experimental beta GUI
BKGUI.e Source code.
BlizKick The main executable
BlizKick.ASM Source code.
BlizKick.guide This AmigaGuide document
BlizKick.guide.info Icon for the Guide
CopyIDEfixPrefs Copy sys:prefs/IDEfix.prefs to c:IDEfix
Free100buf Free buffer created with ChipSaver
Free100buf.ASM Source code.
Free100buf.info Icon for the above
install_script Installation script
KingCON-handler.pch Makes KingCON-handler resident installable.
loadresident Load resident tags to EXTRESBUF
romupdatesplit AmigaOS 3.5 ROM Update splitter.
romupdatesplit.e Source code.
SaveROM KS ROM grabber executable
SaveROM.ASM Source code.
BlizKick.info Icon of the drawer
BlizKick.readme Aminet std readme file
No additional files (including BBS adds) may be included!

1.31 make KingCON resident installable: KingCON-handler.pch

USAGE

To be able to use l:KingCON-handler as external module it needs to be patched before. You need KingCON-handler 1.3, 020+ for this to work:

```
spatch -ot:KingCON-module -pKingCON-handler.pch l:KingCON-handler
```

If you get no error message and file t:KingCON-module exists spatch worked. Now you can copy t:KingCON-module to your module dir and add KingCON-module to BlizKick commandline.

1.32 copy new IDEFix prefs file to IDEfix executable: CopyIDefixPrefs

USAGE

This program is used to update the new IDEFix prefs file to IDEfix executable. This is needed if you use c:IDEfix as external module.

Sample run:

```
> IDEfixPrefs
```

Change the preferences with the prefs editor. Save changes.

```
> CopyIDefixPrefs
```

This copies the modified preferences to c:IDEfix. You also **must** restart BlizKick, new setting won't take effect before.

1.33 Load resident tags to EXTRES buffer: loadresident

USAGE

loadresident's template is

```
MODULES/M, REBOOT/S
```

```
MODULES/M
```

Here you give list of all modules to load.

You can NOT give BlizKick modules here!

You can give scsi.device, FastFileSystem etc.

If omit all resident tags inside EXTRES buffer are listed.

```
REBOOT/S
```

After installing all modules succesfully,

reboot after 1 second delay.

Sample run:

```
> loadresident devs:modules/romupdate.idtag
```

```
loadresident 1.0.1 by Harry "Piru" Sintonen
```

```
Loading resident module devs:modules/romupdate.idtag... ok
```

Another sample run:

```
> loadresident
```

loadresident 1.0.1 by Harry "Piru" Sintonen

EXTRESBUF at \$79D5C360 - \$79D67FFF

Free: 6120 bytes Largest: 6104 bytes

Resident tags:

\$79D5C360: EXTRES Handler

\$79D5C470: FusionReserveVBR

\$79D5C540: AlertFix.patchcode

\$79D5C620: filesysres 45.2 (29.10.99)

\$79D5C7EE: fs 45.1 (10.9.99)

\$79D62DB8: IDE_scsidisk 43.34 (21.12.99)

\$79D62E8C: ROMUpdate 44.6 (21.12.99)

ps. Similarities with RemAPollo's loadresident are purely coincidental. :-)

1.34 AmigaOS 3.5 support: romupdatesplit

USAGE

romupdatesplit's template is

FROM=FILE/A, A600/S, A1200/S, A3000/S, A4000I/S,
A4000S/S, CD32/S, CPU/K/N, FPU/K/N, NOBOARDCHECK/S,
NOCOMMENT/S, ALL/S, TO

FROM=FILE/A

Here you specify full path of the AmigaOS 3.5

rom update file. It is installed to

`DEVS:AmigaOS ROM Update' by default.

A600/S

Extract Amiga 600 compatible module set. (Hardly
useful but included for completeness;)

A1200/S

Extract Amiga 1200 compatible module set.

A3000/S

Extract Amiga 3000 compatible module set.

A4000I/S

Extract Amiga 4000 IDE compatible module set.

A4000S/S

Extract Amiga 4000[T] IDE *and* NCR scsi
compatible module set.

CD32/S

Extract CD32 specific module set.

CPU/K/N

Specify CPU for CPU tagged modules.

Can be 68000, 68010, 68020, 68030, 68040, 68060.

FPU/K/N

Specify FPU for FPU tagged modules.

Can be 68881, 68882, 68040, 68060.

NOBOARDCHECK/S

Extract all manufacturer / productid tagged modules.

NOCOMMENT/S

By default romupdatesplit generates romtag idstring comments for generated files. This switch turns comment creation off.

ALL/S

Get ALL modules from file.

TO

Destination directory for resident tags written. Current directory by default.

NOTE: If you don't specify any of the machine, cpu, fpu, noboardcheck or all switches romupdatesplit will extract modules the same way SetPatch does. This is usually what you want, as this is the module set compatible for your configuration.

Sample run:

```
> romupdatesplit "devs:AmigaOS ROM Update" to t:
00: flags $0000 offset $000034 len $0000B8 "romupdate.idtag"
01: flags $0000 offset $0000FC len $00660C "FastFileSystem"
02: flags $0000 offset $006718 len $0001E8 "FileSystem.resource"
03: flags $0100 offset $006910 len $003AE4 "scsi.device"
*1 *2 *3 *4 *5
```

1: number of the executable the romupdate file

2: requirement flags for this resident tag, intentionally not documented here.

3: offset to beginning of executable file in the romupdate file

4: length of the executable file in the romupdate file

5: filename of the executable written. romupdatesplit tries its best on guessing this name.

This sample run was done with ROMUpdate 44.6 (1999-12-21) from BoingBag1. For A1200 it contains:

romupdate.idtag - version tag for SetPatch

FastFileSystem - fastfilesystem 45.1, same file is in 1: ;)

FileSystem.resource - filesystem.resource 45.2

scsi.device - A1200 IDE scsi.device 43.34

Personally I use FastFileSystem, FileSystem.resource and scsi.device as modules.

Read more about how to set up [AmigaOS 3.5 single boot system](#) .

ps. Similarities with RemAPollo's RUX are purely coincidental. I coded romupdatesplit without knowing about RemAPollo... :-)

1.35 AmigaOS 3.5 single boot system

AMIGAOS 3.5 SINGLE BOOT SYSTEM

AmigaOS 3.5 has updates for both Kickstart 3.1 and Workbench 3.1. SetPatch reads kickstart updates from "DEVS:AmigaOS ROM Update" -file and Workbench updates from libs:workbench.library and libs:icon.library files.

Kickstart updates require system reboot when installed. Workbench updates do not require boot.

It is possible to set up a BlizKick + AmigaOS 3.5 system that reboots only once at system power on. This is how it goes:

- Use `romupdatesplit` program to extract AmigaOS 3.5 rom update modules:

```
> romupdatesplit "devs:AmigaOS ROM Update" to devs:modules/
```

```
00: flags $0000 offset $000034 len $0000B8 "romupdate.idtag"
```

```
01: flags $0000 offset $0000FC len $00660C "FastFileSystem"
```

```
02: flags $0000 offset $006718 len $0001E8 "FileSystem.resource"
```

```
03: flags $0100 offset $006910 len $003AE4 "scsi.device"
```

(NOTE: the module output depends on "devs:AmigaOS ROM Update" version and your system configuration! This is just an example!)

- Rename "devs:AmigaOS ROM Update" -file to something else or use NOROMUPDATE option with SetPatch (this prevents SetPatch from loading it)

- Add EXTRESBUF=48000 and "FastFileSystem FileSystem.resource scsi.device" to MODULE line on BlizKick commandline:

```
c:BlizKick [...] EXTRESBUF=48000 MODULE [...] FastFileSystem FileSystem.resource scsi.device [...]
```

- You may want to add SpeedyIDE module after scsi.device to speed it up:

```
c:BlizKick [...] EXTRESBUF=48000 MODULE [...] FastFileSystem FileSystem.resource scsi.device SpeedyIDE [...]
```

- That's it!

1.36 How do I use applypatch?

USAGE

applypatch's template is

```
FROM=KICKFILE/A, TO/K/A, MODULE/M, FORCE/S, SPEEDROM/S,
```

```
HOGWAITBLIT/S
```

```
FROM=KICKFILE/A
```

Here you specify full path of the source ROM image to apply patches to. Note that applypatch requires 512K ROM image. This argument is always required.

```
TO/K/A
```

This argument specifies the full path of the destination ROM image to write. Note that you should not overwrite the source ROM image, always keep backups! This argument is always required.

MODULE/M

Here you can give "patch" kind of **modules** to apply to source ROM image. Multiple modules are allowed. BKMODPATH variable is supported.

See **BlizKick usage** for more information.

IMPORTANT! Not all modules can be given to applypatch! There is no easy way of knowing which modules work and which don't. However at least fixmath404, hogwaitblit, noclick, patchmath020, romfixes, speedrom, speedyide and waitide modules work.

FORCE/S

If this switch is specified applypatch will use this ROM image, even if it has bad kickstart ROM checksum. This switch is also needed if you're about to use grabbed ROM that has been previously used with BlizKick.

SPEEDROM/S

This feature will speed up ROM. It will remove/disable some not so important parts of the ROM to gain some speed.

HOGWAITBLIT/S

If you have an AGA chipset you use this switch to patch graphics.library/WaitBlit() to turn **BLITHOG** on during blit wait. This does almost the same thing as **FastWaitBlit** by Dave Jones, but is even **faster**.

HOGWAITBLIT requires V39 or better ROM image.

Sample run says it all:

```
> applypatch DEVS:rom40068.A1200 TO T:rom40068.A1200.patched HOGWAITBLIT SPEEDROM NoClick FixMath404
SpeedyIDE PatchMath020 romfixes
reading kickfile "DEVS:rom40068.A1200"...
rom image ok, applying patches...
applying hogwaitblit patch...
applying NoClick patch...
applying FixMath404 patch...
applying SpeedyIDE patch...
applying PatchMath020 patch...
Patched DiceC Mulu routine at offset $27748
```

```

applying romfixes patch...
applying speedrom patch...
---- total 7 patches applied ----
calculating new checksum for image... $2336D49D
writing patched rom image to "T:rom40068.A1200.patched"...
done.

```

Obviously you then copy this patched ROM image on harddisk and use it with BlizKick also removing patches already applied from BlizKick commandline.

NOTE: If you intend to use SCSIDEV43 module with SpeedyIDE patched ROM image and you want the SpeedyIDE to take effect then you need to specify SpeedyIDE module again! (Otherwise scsi.device loaded by SCSIDEV43 module would overwrite the SpeedyIDE patched ROM scsi.device.)

Take this example:

```

C:BlizKick DEVS:rom40068.A1200.patched EXTRESBUF=16384 MODULE FusionReserve SCSIDEV43 SpeedyIDE Alert-Fix QUIET

```

1.37 How do I use BlizKick?

USAGE

BlizKick's template is

```

KICKFILE, MODULE/M, EXTRESBUF/N, SANITY/K/N, FORCE/S,
(LOCALFAST/S), QUICKBOOT/S, SPEEDROM/S, HOGWAITBLIT/S,
CPUCARD/S, QUIET/S

```

KICKFILE

Here you specify full path of the ROM image you want to kick.

e.g. BlizKick KICKFILE="DEVS:rom image 3.1"

If you don't specify kickfile and you've used BlizKick previously, original Kickstart will be restored.

By specifying * as kickfile BlizKick will use the original ROM found on chip.

MODULE/M

You can expand and patch your KS ROM by using " **Modules** ". From BlizKick 1.5 on it has been possible to **plant** external " **modules** " into ROM image. Multiple modules are allowed. If you've **installed** BlizKick, modules should reside on 'DEVS:Modules'-drawer.

e.g. BlizKick DEVS:rom3.1 DEVS:Modules/ColourModule

As of version 1.10B4 there can be a environment variable called BKMODPATH which holds path of BlizKick modules. If you specify BKMODPATH as "DEVS:Modules/", you can use BlizKick without need to specify full path for modules:

e.g. BlizKick DEVS:rom3.1 MoveVBR PrepareEmul

NEW in 1.20: You can give any executable file as module! Naturally this executable should contain valid resident tag or else it doesn't do anything. This feature renders SCSIDEV43 module obsolete (if using non-beta scsi.device!), you can give scsi.device as a module, also you can update ROM filesystem by just giving l:fastfilesystem as a module!

As of 1.22beta6 two new support tools were added: [CopyIDEfixPrefs](#) and [KingCON-handler.pch](#) . With these it is possible to use c:IDEfix and l:KingCON-handler as modules!

[romupdatesplit](#) tool can be used to extract resident tags from AmigaOS 3.5 `DEVS:AmigaOS ROM Update` file.

See how to set up [AmigaOS 3.5 single boot system](#) .

[loadresident](#) tool can be used to load resident tags to EXTRES buffer after running BlizKick.

[Installation](#) automatically defines BKMODPATH variable to "DEVS:Modules/".

[applypatch](#) program can be used to "prepatch" ROM image.

EXTRESBUF/N

Insufficient [free ROM space](#) isn't a problem anymore! With this keyword you can specify amount of memory (in bytes) which is allocated for the external "module" buffer. Now you can plant any number of [modules](#) !

EXTRESBUF requires at least V36 ROM image!

See [How to calculate EXTRESBUF amount](#) . Please note that there is no need to calculate exact

value for EXTRESBUF, just use large enough buffer.

Good values are 50000, 100000, 150000 and so on.

NOTE: If you use this feature then this

kicked ROM mustn't be ripped with SaveROM or any other similar program. This means: don't rip ROM Image from BlizKicked Amiga, if EXTRESBUF was used.

New tool **loadresident** can be used to

load resident tags to EXTRES buffer after running BlizKick.

NOTE: ShowConfig output gets a bit **garbled** .

SANITY/K/N

This argument specifies safety buffer size that is allocated after EXTRESBUF. If you seem to get weird crashes and/or alert 80010000 use

SANITY=1000. If it still fails try ~2000 or ~4000.

Note that using this option reduces the largest available memory block.

FORCE/S

If this switch is specified BlizKick will kick this ROM image, even if it has same version and revision number and checksum as in the currently kicked ROM. This switch is also needed if you're about to use grabbed ROM that has been previously used with BlizKick. This switch comes in handy if you use scripts to launch different Kickstart versions. With FORCE you can ensure that Kickstart really changes, even if you've used BlizKick previously.

CAUTION!! DO NOT SPECIFY THIS SWITCH IF YOU USE BLIZKICK IN S:STARTUP-SEQUENCE OR YOU'LL GET INFINITE BOOT LOOP .

(LOCALFAST/S)

By using this switch you can have memory on your Blizzard board used for RAD-disks and reset-proof programs. If there's enough memory provided you can have huge RAD-disk!

This also enables fast memory for exec.library and supervisor stack.

This feature has been disabled in BlizKick 1.20+.
As of BlizKick 1.21 you can use external module called **LocalFast** instead.

Note that most new cards do NOT need this module, only some old Blizzard 1230s.

NOTE: If you use LocalFast module you must start BlizKick before PoolMem.

QUICKBOOT/S

If this switch is specified BlizKick will bypass flashy delay in Blizzard boards' boot.

NOTE: Bypassing can cause problems! My hard disk doesn't boot when I use this feature!

Note also that this thing currently only works on Pre-IV 1230 boards.

This feature has been disabled in BlizKick 1.20+.
As of BlizKick 1.22 you can use external module called **QuickBoot** instead.

NOTE: If you use QuickBoot module you must use LocalFast module too or else you're in trouble.

SPEEDROM/S

This feature will speed up ROM. It will remove/disable some not so important parts of the ROM to gain some speed.

HOGWAITBLIT/S

If you have an AGA chipset you use this switch to patch graphics.library/WaitBlit() to turn **BLITHOG** on during blit wait. This does almost the same thing as **FastWaitBlit** by Dave Jones, but is even **faster** .

HOGWAITBLIT requires V39 or better ROM image.

CPUCARD/S

Specify this if you use CPU Card. Should work at least with CBM (A3640) and Cyberstorm MKI cards. Cyberstorm MKII, MKIII and PPC are detected automatically so don't use this switch with those.

NOTE: If you experience problems try placing BlizKick commandline after SetPatch -line.

QUIET/S

Guess what happens if you specify this switch?

There won't be any output at all! =o)

Under 1.x Kickstart you cannot use MODULE, FORCE, SPEEDROM, HOGWAITBLIT or QUIET because the whole paramline is interpreted as KICKFILE name. Original Kickstart will be restored if you don't specify KICKFILE parameter. Also, you can't specify keyword KICKFILE in the argument line:

1.x BlizKick DEVS:rom image 3.1

2.04 + BlizKick KICKFILE "DEVS:rom image 3.1"

If you want to rekick for example Kickstart 1.3 then you need the ROM image itself (in [devs:rom1.3](#) file in this example). Write in CLI/Shell:

1.Workbench> BlizKick DEVS:rom1.3

If everything worked ok system should boot up with KS 1.3.

If you want to start BlizKick automatically (you use never Kickstart than on your chip all the time, KS 3.1 on 3.0 machine, as in this example), you need to copy BlizKick executable into your C: -drawer (if not yet done) and insert the following line to the beginning of your s:startup-sequence file:

C:BlizKick DEVS:rom3.1 QUIET

Now, at the first system boot up the new ROM image will be kicked. Your system will boot twice at power-up, but that isn't too disturbing, I think!

NOTE: You should install BlizKick before any reset-proof programs because BlizKick will trash exexbase. If you install it after any other reset-proof program you might get [infinite boot loop](#) .

If multiple reset-proof patches are used you can have triple boot at power-up (Just a slow-down).

After rekicking system with BlizKick there is virtually nothing that can trash the new ROM (except accessing [certain](#) very high memory addresses). Of course, power-down will restore the original ROM.

NOTE: If you rekick older kickstart than originally used one, it may be impossible to use all hardware and/or peripherals of your system (e.g. If you originally use KS 3.x in your A1200 and rekick KS 1.3 you can't use your hard disk drives or PCMCIA slot. Direct banging of AGA hardware works, if someone is smart (?) enough to do it).

You can easily build cool system in which you can select kickstart by clicking cooresponding icon, you can use iconx program and scripts.

See [usage](#) of the SaveROM program.

ERROR CONDITIONS

RC (return code) is set:

OK (0)

BlizKick installed ok. You'll never see this, though... :)

WARN (5)

BlizKick isn't needed. You're trying to kick same ROM image as currently used.

ERROR (10)

Things went wrong. Couldn't get memory?

Couldn't access kickfile? Invalid ROM image?

You're trying to restore kickstart, but you

haven't used BlizKick to kick it previously?

Failed to plant module?

FAIL (20)

Something fatal happened! Dos didn't open? No
phase5/DCE turbo board or MAPROM jumper not
installed?

Some special error codes can be generated by BlizKick in addition to standard error codes (see your AmigaDOS Users's Guide for expansion of most common errors.)

Problems concerning module system begin with line: "Couldn't plant module 'modulename'!"

205: "object not found"

Module file can't be found.

207: "object too large"

Module can't fit into ROM. Use EXTRESBUF, or if it's already in use **increase** the amount of allocated memory.

212: "object is not of required type"

Module file you specified is not valid.

118: "wrong number of arguments"

You have specified multiple occurrences of module that can only be planted once.

EXAMPLES

C:BlizKick DEVS:rom40068

Now then... This line does nothing special, it only installs v40.68 ROM and reboots if it is not yet installed.

C:BlizKick

This commandline restores original ROM if it was previously kicked with BlizKick.

```
c:BlizKick DEVS:rom40068.A1200.patched EXTRESBUF=48000 MODULE FusionReserve FixGetMsg AlertFix FileSystem.resource
FastFileSystem scsi.device SpeedyIDE QUIET
```

This is the first line in my s:startup-sequence. It uses **applypatched** (SPEEDROM NoClick FixMath404 SpeedyIDE Patch-Math020 romfixes) v40.68 ROM Image (A1200), 48000 byte EXTRES buffer, and uses FusionReserve, AlertFix, FileSystem.resource, FastFileSystem, scsi.device and SpeedyIDE modules, disabling annoying drive clicking, fixing 68060 GetMsg() loop hang, fixing bug from V40.4 mathieeesingbas.library, optimizing some math routines inside ROM, fixing some **rom bugs**, allowing me to get rid of ShapeShifter's PrepareEmul (and Fusion's rsvrcold/warm), fixing Blizzard PPC **crash + reboot + alert** problem, installing **AmigaOS 3.5** filesystem.resource, fastfilesystem and scsi.device and speeding up scsi.device access.

```
C:BlizKick DEVS:rom40068.A1200 EXTRESBUF=16384 HOGWAITBLIT SPEEDROM MODULE NoClick FixMath404 PrepareEmul
BBlank SCSIIDEV43 SpeedyIDE RemCards QUIET
```

This was the first line in my s:startup-sequence when I had B1230-III. It uses v40.68 ROM Image (A1200), 16K EXTRES buffer, speeds up gfx WaitBlit, speeds up ROM, and uses NoClick, FixMath404, PrepareEmul, BBlank, SCSIIDEV43, SpeedyIDE and RemCards modules, disabling annoying drive clicking, fixing bug from V40.4 mathieeesingbas.library, allowing me to get rid of ShapeShifter's PrepareEmul, enabling borderblanking already in bootmenu, installing beta V43 scsi.device, speeding scsi.device access and removing all PCMCIA stuff from system. Phew! Nice one, eh? ;)

```
C:BlizKick DEVS:rom40068.A1200 EXTRESBUF=32768 HOGWAITBLIT SPEEDROM MODULE NoClick FixMath404 PrepareEmul
BBlank SoftSCSI SCSIIDEV43 SpeedyIDE RemCards QUIET
```

If I'd have B1260, I'd probably use this commandline. SoftSCSI module "replaces" SCSI (ep)rom (27C256) of BLIZZARD 1230-IV, 1240-T/ERC or 1260, allowing use of latest SCSI driver beta ROM with SCSI-Kit.

```
C:BlizKick DEVS:rom40068.A1200 EXTRESBUF=512 MODULE DEVS:Modules/FixMath404 QUIET
```

This line will only fix bug from V40.4 mathieeesingbas.library.

C:BlizKick DEVS:rom37300

Anyone wants to test software on kick 2.05? ;) BTW: PCMCIA slot and hard drives work with ROM 37.300!!

C:BlizKick DEVS:rom34005

Will give you a handy pic... saying KS 1.3. NOTE: works on most 060 systems too!

C:BlizKick * EXTRESBUF=256 HOGWAITBLIT

This line will use the original ROM found in chip and use HOGWAITBLIT.

C:BlizKick * EXTRESBUF 256 HOGWAITBLIT DEVS:Modules/MoveVBR

This line will use the original ROM found in chip and use HOGWAITBLIT, plus move VBR to fast memory.

WHAT BLIZKICK COMMANDLINE SHOULD I USE?

Okay. Now this is the tricky part: you need to experiment and find out what modules you need/want. It hardly makes sense to add every module there is. This will not work. Read [description of the modules](#) carefully and try to figure out what you need. Some modules require specific hardware or software, so spend few minutes on this.. :) BlizKick never was or will be easy to use, I didn't claim that. If you really can't work out configuration for your system, ask your local amiga guru or take my configuration and remove the stuff that doesn't work on your system.

1.38 Garbled ShowConfig output

4·Workbench:% showconfig

PROCESSOR: CPU 68060/68060fpu/68060mmu

CUSTOM CHIPS: AA PAL Alice (id=\$0023), AA Lisa (id=\$00F8)

VERS: Kickstart version 40.68, Exec version 40.10, Disk version 44.2

RAM: Node type \$A, Attributes \$405 (FAST), at \$7672AD78-\$79EFFFFF (57216 K)

Node type \$A, Attributes \$415 (FAST), at \$76000000-\$7672AD77 (7360 K)

Node type \$A, Attributes \$703 (CHIP), at \$760002F0-\$1FFFFFF (~2210.0 meg)

BOARDS:

Board + ROM (HD?) (phase 5): Prod=8512/110(\$2140/\$6E) (@\$F00C38 128K)

1.39 Calculating EXTRESBUF amount

CALCULATING EXTRESBUF AMOUNT

EXTRESBUF argument of BlizKick can be used to increase **free ROM space** when external **Modules** are installed.

The value given for EXTRESBUF depends of selected modules and **ROM Image version** . In most cases 40960 bytes is sufficient.

To understand memory requirements of modules you should know that there are (currently) two types of them: "real" and "patch" modules. "real" modules need some space for themselves, but "patch" ones need not.

Here are approximated memory requirements for currently included modules:

A1000Jingle ~8 Kbytes

AlertFix 200 bytes

BBlank 88 bytes

BPPCFix 152 bytes

BPPCFix11 144 bytes

BPPCFix040 192 bytes

ChipSaver 272 bytes

Colour 240 bytes

FusionReserve 208 bytes

LocalFast 136 bytes

MoveVBR 160 bytes

NewAlert 632 bytes

QuickBoot 136 bytes

Replace 344 bytes

RebootFix 72 bytes

SCSIDEV43 ~13 Kbytes

SpeedyChip 384 bytes

SoftSCSI 138 bytes + ~20Kbytes (A1234.ROM)

Test 264 bytes

Other modules included in BlizKick package are plain "patch" type, so they don't need any ROM space.

1.40 Planting 'Modules'

PLANTING MODULES

There's some empty space in 512K ROM images. This space can be used for BlizKick's "modules", allowing bug fixes, patches, speed-up kludges etc.

Size of the free space area varies between different Kickstart releases, here is some information:

Kickstart Empty space in bytes

37.175 2276 + 10216

37.300 132 + 24

39.106 404 + 100

40.63 32 + 452

40.68 84 ;-(

40.70 4800 + 4

Now you're no more limited by "empty space"! You can expand the module buffer by using **EXTRESBUF** feature!

1.41 About BlizKick 'Modules'

BLIZKICK MODULES

With BlizKick "Modules" you can expand the current Kickstart ROM.

There are currently **thirty-one** example modules included, but I expect you to code more...

See [module programming examples](#) .

P.S. If someone is in need for some features in BlizKick they can (mostly) be easily implemented with external modules. I suppose Aminet will be full of PD/Freeware BlizKick modules soon... ;-) I made this possible because I can and will not change BlizKick constantly...

So if you think something essential is missing, look Aminet first, then ask your programming skilled friend to do it, and finally, if nothing else helps: contact [me](#) .

INCLUDED BLIZKICK MODULES

A1000Jingle playing A1000 boottune.

AlertFix fixing Blizzard PPC **`crash + reboot + alert` problem** .

BBlank turns on borderblank, even in bootmenu.

BPPCFix(11) and BPPCFix040 substitute BPPCFix by Frank Wille <frank@phoenix.owl.de>. BPPCFix module disables the flashrom ppc.library of BlizzarPPC board. BPPCFix040 module disables 68040.library (and 68060.library if available). If you want to disable both ppc.library and 0x0 libraries use both modules. BPPCFix11 is the older 1.1 version of the BPPCFix module. You can use that if the new module doesn't work.

ChipSaver is **the ultimate** ripping aid! When installed this module will copy **whole** chip memory to fastmem if right mouse button is pressed while booting thus enabling to rip any music module. This module creates so-called \$100 -buffer which can be used with most advanced module rippers (ExoticRipper for example). Included tool, Free100buf, can be used to free this buffer if you want to get rid of it. For technical reasons you should have at least four (4) megabytes of memory installed on your BLIZZARD turbo board (hackish code inside TM). This shouldn't be a problem nowadays though... :) Note also that reset surviving programs (RAD etc.) should not be used when using ChipSaver. Don't use this module in everyday use!

Colour displays some dull colour bars on screen. Useless really.

FixGetMsg fixes hang that happens on 68060 system if program calls GetMsg() in tight loop. Substitutes FixGetMsg by Frederick H. G. Wright II <fw@well.com>.

FixMath404 fixes two bugs in V40.4 mathieeesingbas.library (IEEESPMul() and IEEEESPDiv()).

FusionReserve substitutes FUSION's RsrvCold tool (Also Mac1200). Also substitutes ShapeShifter's PrepareEmul tool.

hackdisk replaces trackdisk.device with faster and more reliable code. Useless if want to use **v6/v7 CrossDos** .

LocalFast does the same as pre-1.20 BlizKick **LOCALFAST option** , this is to move exec.library and supervisor stack to fast-memory. Also makes RAD: use fastmem instead of chipmem. NOTE1: Only use this module if you need to (mainly Blizzard 12x0s)! NOTE2: If you use LocalFast module you must start BlizKick before PoolMem.

Magia is a funny example on how to replace strings in rom (Amiga -> Magia). Useless really.

MoveVBR moves low level interrupt vector table to fastmem. Note that also FusionReserve module moves VBR to fastmem.

NewAlert is improved alert.hook, displaying task/process name.

NoClick turns off drive clicking. Supports hackdisk module.

PatchMath020 optimizes C-compiler math routines inside ROM.

PrepareEmul substitutes ShapeShifter's PrepareEmul tool. Note that FusionReserve module works with both FUSION and ShapeShifter, so you probably should use that.

QuickBoot does the same as pre-1.20 BlizKick **QUICKBOOT option** , this is to disable board initcode completely (ie. the flashy display on Blizzard cards). NOTE1: This module can cause boot problems, ie. you might not be able to boot from hard disk! NOTE2: You **MUST** use LocalFast module too if you use this!

ramlibstack fixes ramlib stack to 8k instead of original 2k. Substitutes MCPRamlibPatch. Also romfixes module has this functionality! Adding both romfixes and ramlibstack causes an error!

RebootFix module fixes reboot problems with A1200 and 060 (at least BLIZZARD 1260) when display is in multisync mode. This module is hacky so please don't use it unless you really need it.

RemCards patch disables all PCMCIA stuff from system, thus freeing some memory and system resources.

Replace is a example on how to replace existing rom parts. Useless really (just an programming exaple).

romfixes fixing some **rom bugs** . This module is a must!

SCSIDEV43 patches Kickstart 3.0 or newer to use beta V43 scsi.device. No more **4GB drive limit** ! Note that you need V43 scsi.device in DEVS:scsi43.device -file. The beta scsi.device can be obtained from SCSI_IDE43_nn developer package, "a300.ld_strip" is to be used with A1200, "a1000.ld_strip" with A4000[T] IDE, "a4000t.ld_strip" with A4000T SCSI and "scsidisk.ld_strip" with A3000[T]. You must move correct file (according to your system configuration) to DEVS:scsi43.device -file. This module is obsolete (if using non-beta scsi.device!), you can use correct .ld_strip file as module directly!

SoftSCSI replaces the SCSI ROM of BLIZZARD 1230-IV, 1240-T/ERC or 1260 via software. Requires A1234.ROM file in DEVS:Modules directory! Substitutes SoftSCSI program by Gideon Zenz.

SpeedyChip module patches 060 MMU lists improving chip memory write speed! 68060 only. NOTE: This module is obsolete with phase5/DCE 68060.library V46+.

SpeedyIDE patch speeds up IDE-devices accessed with scsi.device upto 20%! (or even more! yes, this does work!) New IDEFix97 software has this functionality built-in.

Test is a simple example on how to add a library to rom. Useless really (just an programming exaple).

WaitIDE patches Kickstart 3.0 or newer to wait all IDE devices (even those slowly spinning-up ones!).

See [How to calculate EXTRESBUF amount](#) .

1.42 SCSIDEV43 -- Get beyond 4GB limit!

NOTES ABOUT >4GB DEVICES

SCSIDEV43 module can be used to kick Kickstart ROM to use 64bit V43 scsi.device which supports over-4GB drives. There are some caveats though:

1. You must also use V43 FFS in RDB to make use of V43 scsi.device. Without this new filesystem over-4GB cannot be accessed correctly (new FastFileSystem can be obtained from FFS43_nn developer package).
2. Because BlizKick is loaded from disk, the partition on which BlizKick and related files are located should not exceed 4GB size. It might work, but probably not. You should not use over-4GB drives as boot disks, that is. The safest way would be to mount such partitions manually in DEVS:DosDrivers/ or in S:startup-sequence.

You might also want to use DirectSCSI version of AFS/pfs2/pfs3 or SFS instead.

1.43 BlizKick Module Names (in Aminet)

MODULE NAMING CONVENTIONS

Q: What should I call my module?

A: Name should tell what the module does or be otherwise descriptive. For example: I've used such names as PrepareEmul and SoftSCSI when my module replaces these programs. I also think that 'NoClick' and 'hackdisk' are kind of descriptive names. Hint: Think about module name before uploading... Could it be even better?

Q: So now I have created my own module... Where and with what name should I put it into Aminet then?

A: The first BlizKick module pioneer Christian Sauer <sauer@cip.informatik.uni-wuerzburg.de> created the standard... ;) So I'll advice you to do it in same way:

1. Name the lha packaga as BK_<modulename>.lha.
2. Put your lha package to util/boot directory in Aminet. (Type: util/boot)

EXAMPLE (util/boot/BK_FooHelloWorld.lha)

Short: BlizKick-Module: Says "hello world" while booting

Author: fojack@inter.net (Jack the Coder)

Uploader: fojack@inter.net (Jack the Coder)

Type: util/boot

FooHelloWorld is a module for BlizKick by Harry Sintonen. It says

"Hello World" while system is booting... etc... blahblah...

1.44 Programming modules

PROGRAMMING MODULES

Programming BlizKick modules is relatively easy. If you've ever written ResidentTag or a library/device you should be able to code a module.

Currently there are two different forms of BlizKick modules: "real" modules and patch modules.

There are numerous example sources included (source codes for all included modules in fact):

file type description

A1000Jingle.ASM m Plays A1000 bootjingle

AlertFix.ASM p Complex rom patch to fix alerts

BBlank.ASM m Turn on border blanking

BPPCFix.ASM m Disable BPPC ppc.library

BPPCFix11.ASM m Disable BPPC ppc.library (V1.1)

BPPCFix040.ASM m Disable BPPC 040/060.library

ChipSaver.ASM p Copy chip to fastmem if RMB

Colour.ASM m Colour-bars on screen

FixGetMsg.ASM m Fixes GetMsg() loop hang on 68060

FixMath404.ASM p Fixes mathieeesingbas.library 40.4

FusionReserve.ASM p Substitutes RsrvCold

hackdisk.ASM p Makes hackdisk.dev resident

LocalFast.ASM p exec & sv stack to fast

Magia.ASM p Changes ROM strings :)

MoveVBR.ASM m Moves VBR to fastmem

NewAlert.ASM m Improved alert.hook

NoClick.ASM p Turns off drive clicking

PatchMath020.ASM p 020+ Optimizes ROM image

PrepareEmul.ASM p Moves chipmem start to \$2000

ramlibstack.ASM p Fix ramlib stack to 8k

QuickBoot.ASM p Disable flashy blizzard bootdelay

RebootFix.ASM m Fix A1200/060 reboot

RemCards.ASM p Removes PCMCIA stuff

Replace.ASM m Replaces OS "alert.hook"

romfixes.ASM p Fixes some rom bugs

SCSIDEV43.ASM p Kick V43 beta scsi.device

SoftSCSI.ASM m Installs SCSI ROM kicktag

SpeedyChip.ASM m Speed up 060 chipmem writes

SpeedyIDE.ASM p Speed up IDE upto 20%

Test.ASM m "testmodule.library"

WaitIDE.ASM p Wait IDE spin-up

You should also peek blizkickmodule.i.

If you're about to release your BlizKick module in Aminet, see [module naming conventions](#) .

You can, of course, distribute your modules and patches in any form you like [#?ware (or *ware if you're UN*X fan :-)].

1.45 Blitter BLITHOG mode

BLITHOG MODE

The BLITHOG ("blitter-nasty") bit controls the blitter DMA priority (over CPU micro). If BLITHOG is on it'll prevent CPU from stealing any bus cycles while blitter DMA is running.

Normally BLITHOG is off.

1.46 Graphics Benchmarks

GRAPHICS BENCHMARKS

Hardware: Amiga 1200, BLIZZARD 1230-III, 16MB 60ns SIMM,

Kickstart 3.1 (V40.68)

Software: SetPatch 43.5, AIBB 6.5

ROM - **MAPROM** off

MROM - MAPROM on

FWB - **FastWaitBlit 2.12** , MAPROM on

BHOG - **BLITHOG** and MAPROM on

HWB - BlizKick **HOGWAITBLIT** , MAPROM on

ROM MROM FWB BHOG HWB

WritePixel 7345 10674 10552 10776 10674

EllipseTest 7.96 6.77 6.83 6.83 6.70

TGTest 1420 1680 1678 1698 1729

LineTest 1385 1431 1431 1432 1445

WritePixel - Pixels/Second

EllipseTest - Seconds

TGTest - Characters/Second

LineTest - Lines/Second

As we can see BlizKick's HOGWAITBLIT gives the best results. HOGWAITBLIT is faster than FastWaitBlit because BlizKick automagically ;-) patches also Kickstart ROM's internal calls to WaitBlit().

HOGWAITBLIT is average 1.64 % faster than ROM code (MAPROM on).

HOGWAITBLIT is average 1.78 % faster than **FastWaitBlit 2.12** .

NOTES:

a) MAPROM off results are with KS 3.0 and 8MB 70ns SIMM.

1.47 FastWaitBlit program

FASTWAITBLIT

FastWaitBlit 2.12, GiftWare, Aminet

Author: Dave Jones <DJones@CardiffCyberCafe.Co.Uk>

FastWaitBlit program turns **BLITHOG** on while system is waiting for blit to finish. This will speed up graphics, at the cost of CPU performance.

1.48 How do I use SaveROM?

USAGE

SaveROM's usage is

```
SaveROM <KICKFILE>
```

```
<KICKFILE>
```

Here you specify full path for the ROM image to save. You can't quote the filename, even if it contains spaces!

e.g. SaveROM DEVS:rom image 1.3

SaveROM functions identically in all Kickstart versions: The whole paramline is interpreted as KICKFILE name.

RC (return code) is set:

OK (0)

SaveROM succeeded.

ERROR (10)

Couldn't create or write kickfile! Destination file is removed.

FAIL (20)

Something fatal happened! Dos didn't open?

Here is a detailed example of the SaveROM use: [Get Kickstart 1.3 ROM](#) .

1.49 Infinite boot loop

BOOT LOOP

If you don't install BlizKick as your first reset-proof program you might get infinite boot loop. This happens because BlizKick trashes exexbase and therefore any reset-proof programs run before BlizKick will get flushed from memory. If you experience such a problem just press both mouse buttons while your Amiga is booting and you'll get to bootmenu. Then select 'Boot without Startup-sequence' -button. Now you must edit your s:startup-sequence file: move BlizKick as your first reset-proof program or if BlizKick refuses to work properly, remove it completely (and report the problem to [me](#)).

If you use FORCE switch in your startup-sequence, you will get infinite boot loop, so don't use it there!

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1.51 SaveROM example: Get Kickstart 1.3 ROM

GET KICKSTART 1.3 ROM IMAGE

To get Kickstart 1.3 ROM, you need, of course, Amiga with Kickstart 1.3 (old A500 from your closet!) and my program called **SaveROM** or similar. Here are the detailed instructions:

I assume here, that you own an AMIGA 500 (KS 1.3) and an AMIGA 1200 (KS 3.x) and that you've already **installed** BlizKick package.

1. Format and install 1.3 disk. This can be done with commands:

1.Workbench> Format DRIVE DF0: Name FooBar OFS

...

1.Workbench> Install FooBar:

2. Copy SaveROM program to the disk:

1.Workbench> Copy C:SaveROM FooBar:

3. Boot your Kickstart 1.3 Amiga (A500) with this disk.

4. Write in CLI:

1.> SaveROM rom1.3

5. Now, copy the rom1.3 kickfile from the disk into your better (A1200) machine's Devs: -drawer:

1.Workbench> Copy FooBar:rom1.3 DEVS:

Now this kickfile can be used with **BlizKick** program.

1.52 About bug-reports

ABOUT BUG-REPORTS

When sending in bug reports, please state exactly under what circumstances the bug occurred, what equipment was used and what happened. If possible also try to give me enough information to reproduce the bug. Dumps produced by common debugging tools are welcome. It is very difficult to find bugs when you don't know exactly what happened.

You are strongly encouraged to use included **bug-report -form** to report bugs.

1.53 Form for sending bug reports

BUG-REPORT

I HAVE FOUND BUG(S) FROM BlizKick. I HAVE VERSION _____.

NAME: _____

ADDRESS: _____

ELECTRONIC ADDRESSES:

(if any, ie. Internet Email, FidoNet Netmail etc.)

MACHINE CONFIGURATION:

(ie. 500, 600, 1000, 1200, 1400, 1500, 2000, 2500, 3000, 4000, accelerator...)

DETAILED DESCRIPTION OF BUG (ENVIRONMENT, ANY DEBUGGING INFORMATION RECEIVED FROM YOUR FAVORITE DEBUGGING TOOLS (Enforcer etc.), WHAT YOU WERE DOING WHEN BUG OCCURED OR SIMILAR STUFF:

(Date) (Signature)

1.54 History

PROGRAM HISTORY

==== Version 1.23 ==== Sep 4th, 2000 =====

- 20th Aminet release.
- PUBLIC SOURCE CODE RELEASE !
- Fixed silly bug from 030 MMU code. (Remco Komduur)

==== Version 1.22 ==== Sep 2nd, 2000 =====

- 19th Aminet release.
- PUBLIC SOURCE CODE RELEASE !
- Added notes about A4K with A3640. (S7reaM)
- Added notes about muFastZero FASTEXEC probs. (Matt)
- Added notes about UAE + EXTRESBUF probs. (Thematic)
- Improved BPPCFix module, booting sped up by 3.3

- seconds! If this new version causes problems the old BPPCFix 1.1 is still included as BPPCFix11.
- Fixed wrong 'Kickstart wasn't kicked using BlizKick!'
 - error when kickstart restoring wasn't possible. Now give 'Kickstart restoring not supported!' instead.
 - Seems that CS MK II support is finally working properly.
 - Now will quit quietly (RC = WARN) if MorphOS is running.
 - Bugfix: ChipSaver, LocalFast, RebootFix and QuickBoot modules would have misbehaved if the patch code was installed inside ROM. That is, these modules only worked if installed in EXTRESBUF. Very long-standing bug, it dates back to 1997. :-)
 - Improved AlertFix: it can be installed inside ROM now (not by applypatch though).
 - Bugfix: Due a stupid bug in LocalFast module, memory node name was referencing wrong memory. Caused the name to be somewhat random. Ouch. Special thanks to Hexaae for help.
 - Fixes to DisableCacheS: now invalidate cache on 040/060. Made disable 060 superscalar dispatch.
 - Terrible horrible stupid "nggh ngggh!" -level bug fixed from 020/030 MMU test code, it fucked up VBR completely! Many thanks go to "John Stunner" who found this and reported it at ru.amiga 2nd Aug. Also special thanks to Useless who redirected this message to me 3rd Aug.
 - Added more MorphOS information to guide. Also fixed some copyright information.
 - Fixed terrible bug from AlertFix module, it made the exec/Alert() call fail. Ouch! I really wonder how I could miss this. :)
 - Minor bugfix in main program: the 040+ cacheclear routine didn't invalidate the data and inst cache after flush.
 - Guide improvements: Added more notes that QuickBoot module doesn't work without LocalFast. Improved troubleshooting about 'red screen crash' problem
-

(CISC). Made it really really clear that LocalFast module is only needed with Blizzard 1230s. Added information about KingCON-module + AOS 3.5 problems. Added section about buggy AlertFix-module.

- **romupdatesplit** : Fixed FROM-relative-to-TO bug and added comment creation.
- No longer tries to open mmu.library if run before SetPatch. (Thematic)
- Fixed a typo. (Oleg Sergeev)
- Updated my hardware config info. :)
- Added elfloadseg-patch ioerr bug workaround to **applypatch** , now you get proper error message if module is not found.
- Added new module: FixGetMsg fixes the 68060 GetMsg() loop hang. Substitutes the FixGetMsg patch by Frederick H. G. Wright II <fw@well.com>. (RobinC)
- 68030 MMU code was broken in 1.22.beta9 (several reports).
- Improved **applypatch** guide, it wasn't that clear which modules can be applied and which can't (indy).
- Added troubleshooting about 'red screen crash' problem (CISC).
- Some minor improvements to guide.
- Added 256k ROM support for CPU Cards.
- Fixed BPPCFix module to work if it's placed into ROM. Now it finally works Nadir. :)
- Added workaround for elfloadseg-patch ioerr bug, now you get proper error message if module is not found.
- Fixed MMU code a bit.
- Hopefully linux/APUS loader will support BlizKick EXTRES buffer soon. This should mean that booting back to AmigaOS would work even if EXTRESBUF was used.
- Fixed stupid bug, I forgot to remove LOCALFAST commandline argument when I added the external LocalFast module. In case you've wondered why LocalFast module hasn't worked this might well be it. Thanks to Nadir for this one.
- Fixed a bug that made BlizKick ignore error when multiple occurrences of single-only module were being

planted. You never got "wrong number of arguments"

-error for this.

- Fixed guide about SCSIDEV43 module, it's not completely obsolete (it does disable the beta warning).

- Fixed a typo. Thanks to EkSOTiC for annoying me. :)

- Added BPPCFix040 module. Use both BPPCFix and BPPCFix040 to disable both ppc.library and 680x0 libraries. You happy now SimplePPC? =)

- Added Copy [CopyIDEfixPrefs](#) tool and

[KingCON-handler.pch](#) from RemAPollo, now you can use c:IDEfix and l:KingCON-handler as modules. Many thanks to Mikolaj Calusinski for letting me include these.

- Fixed nasty bug caused by bad BK_MOD macro.

- Fixed really stupid bug from LocalFast module, it didn't work properly (you just got yellow crashes).

- Disabled memory header name checks, should now work better if node name is fucked. hi brotheris:)

- Now that BlizKick finally seems to work better with other phase5/DCE cards, worked on the guide a bit.

- CS MK II works now, however beta2 failed to recognize if BlizKick was run before. Fixed this I hope.

- CPU card support could work now.

- Fixed major bug from CS MK II support! Also B20x0 support could have been affected.

- B1230 maprom testcode had some flaws, fixed.

- Improved [romupdatesplit](#) a bit.

- Reintroduced QuickBoot feature as external module. It seems this thing is useful for some B1230 users after all.

- Added note to [troubleshooting](#) about ramlibstack + romfixed module. Some people didn't realise romfixes includes ramlibstack patch.

==== Version 1.21 == Jan 17th, 2000 =====

- 18th Aminet release.

- PUBLIC SOURCE CODE RELEASE !

- MAJOR BUGFIX: the 040/060 move16 copyloop introduced in 1.19 easily got off by 8 bytes, causing spurious crashes! Stupid bug, but now it's gone. Special thanks and hellos go to MeTRiXX who tested BlizKick

on his B1260 and helped me to narrow the problem area.

Thanks again!

- Fixed a bug that called dos/Open instead exec/

Supervisor, and believe me or not, it didn't have any

side effects. This is what you get when you code in

asm. :-)

- Updated **loadresident** to show free / largest EXTRESBUF.

- Reintroduced LocalFast feature as external module, it

was requested by Hexaae. Probably others won't mind

either. ;) NOTE1: Only use this module if you need to!

NOTE2: If you use LocalFast module you must start

BlizKick before PoolMem!

==== Version 1.20 == Jan 15th, 2000 =====

- 17th Aminet release.

- PUBLIC SOURCE CODE RELEASE !

- Reservi. jee. :)

- After finishing my service in army I finally have time

to work on BlizKick again. This is a major release,

fixing some stupid bugs and introducing new features.

Enjoy!

- Added new tool: **loadresident** , it loads resident tags

to EXTRES buffer after BlizKick has been run.

- Found RemAPollo from aminet. Cool now I don't need to

add support for Apollo cards. Seems to be cool program

with lots of cool features (support for BlizKick

modules and all!), I'll probably implement some of

those features for BlizKick too. If you're Apollo user

reading this, get util/boot/RemAPollo.lha NOW :)

- Overall guide cleanup.

- Added new section to guide about how to set up

AmigaOS 3.5 single boot system .

- Found out that PoolMem could have easily fucked up

BlizKick in several ways. Won't do that anymore.

- Finally fixed these weird hangs with some systems (at

least Blizzard PPC), changed EXTRES buffer

implementation to be more OS friendly. As a side

effect LOCALFAST and QUICKBOOT are no-op from now on.

If this is a problem for you, use older version of

BlizKick ;) As a result also some other crashes and

incompatibilities might be gone.

- Added new commandline argument: SANITY/K/N, this specifies the safety buffer added to EXTRES buffer in kbytes - if you get weird crash or alert 80010000 on boot, add (for example) SANITY=1024 to BlizKick commandline. This will allocate 1 megabyte sanity buffer after EXTRES buffer. Using big SANITY buffer reduces largest available memory block though.

- Added mmu.library V41+ support. Not tested though.

- Added new tool: **romupdatesplit**, it splits AmigaOS 3.5 `DEVS:AmigaOS ROM Update` file back to executable files. These can be given to BlizKick as modules (see below).

- Added cool new feature: you can use ANY executable file as module!! Resident modules inside will be initialized. Cool. Renders SCSIDEV43 module obsolete, just give scsi.device as one module! You can also give l:fastfilesystem and so on. :)

- Fixed horrible mistake from romfixes `resident` patch, resident command froze if resident was added without ADD keyword (this freezes AmigaOS 3.5 installer for example). oops. :-/

NOTE: If you use **applypatch** 'd ROM Image with BlizKick and you have applied romfixes module to it, you **must** run applypatch with same arguments again to create working ROM Image!

- Modified romfixes module to also work on V37 ROM images, and added **ramlib msgport sigbit** patch.

==== Version 1.19 == Dec 21st, 1999 =====

- 16th Aminet release.

- PUBLIC SOURCE CODE RELEASE !

- GTJ10 - viis kassuaamua, hajotkaa läjät! (finnish army joke;)

- bought Nokia 3210 dual band cell phone today, boy it's cool. (paid advert;)

- **applypatch** program to apply BlizKick patch kind of modules to ROM image. Useful if BlizKick doesn't support your system for some reason, but you have a working maprom tool for it. applypatch can also be used

to speed up BlizKick booting by pre-patching rom image.

Commandline also gets quite a bit cleaner. :)

NOTE: It is a good idea to keep the original ROM images in safe place, as there is no undo... :)

- BlizKick loads faster now (no longer uses chipmem for code to avoid VMEM, but memory allocated with MEMF_PUBLIC). Optimized memory copies to use ultrafast movem- (upto 68030) or move16-loop (68040, 68060). Also if QUIET is specified doesn't delay for half a second before booting.

- Found out that CopyMem[Quick] are AmigaOS 1.2+ so fixed guide accordingly.

- Finally figured out how to disable maprom for blizzppc, so you can run BlizKick more than once per poweron (by using FORCE). Also as a side effect the original Kickstart can be restored (give no KICKFILE).

- Updated this guide a bit.

- Added two new modules: romfixes, that fixes couple of **rom bugs** and AlertFix module that enables alerts for BlizzardPPC system again. See **description** of this Blizzard PPC "feature".

==== Version 1.18 == May 10th, 1999 =====

- 15th Aminet release.

- PUBLIC SOURCE CODE RELEASE !

- Added BPPCFix module for WarpOS lowers. I personally like PowerUP better but lots of ppl asked this.

==== Version 1.17 == Jan 24th, 1999 =====

- 14th Aminet release.

- PUBLIC SOURCE CODE RELEASE !

- EXTRES buffer was overwritten by blizzppc/csppc kernel, now allocates 1mb extra memory to ensure this will never happen again. This probably was the cause for reboot loops with some PPC systems.

- Special hellos to Frank Eiche: Thanks for the letter :)

==== Version 1.16 == Nov 3rd, 1998 =====

- 13th Aminet release.

- PUBLIC SOURCE CODE RELEASE !

- Removed rom checksum disable from SPEEDROM, as it was a bit too dangerous.

- Added ramlibstack module.
- Again tried to fix CS MK II support. Maybe I get it right some day. => Ta again ChaoZer.
- Fixed some stuff in places. I hope I didn't break anything. =>
- Fixed guide a bit.

==== Version 1.15 ==== Oct 9th, 1998 =====

- 12th Aminet release. (well I did upload this version, apparently they lost it)
- PUBLIC SOURCE CODE RELEASE !
- Fixed memory node area for CS MK II, it could work now.
- Fixed guide about **Blizzard PPC** , read it.
- Fixed installation script.

==== Version 1.14 ==== Oct 6th, 1998 =====

- 11th Aminet release.
- PUBLIC SOURCE CODE RELEASE !
- Major flaw, I accidently didn't remove the nonfunctional ffs62 module in 1.13. WARNING: DO NOT USE FFS62 MODULE!
- Fixed support for KS 1.1NTSC and 1.1PAL. Should work at least in theory. :)

==== Version 1.13 ==== Oct 4th, 1998 =====

- 10th Aminet release. Finally.
- PUBLIC SOURCE CODE RELEASE !
- Fixed BlizzPPC bug. It was due wrong priority in _localfast_module... sigh.
- FusionReverve module has been working all the time, just get FixPATCHMAC.lha from aminet and use it. Ouch.
- CS MK I, II and other CPU card support is probably still broken. Sorry.
- Special greeting to laire: Thank you for the superior PowerUP system software. =>

==== Version 1.13B1 July 17th, 1998 =====

- PUBLIC SOURCE CODE RELEASE !
- Fixed bug in CS MK II support. Maybe it finally works.
- Improved BlizKick_install script a bit.
- Added NewIcons for BlizKick.guide and Free100buf.
- VERY mucho thanks go to duet / #AmigaFIN for verifying Blizzard PPC support.
- Apparently there are some problems with 1240 and

SCSI-Kit (memory on both board itself and SCSI-Kit). If someone has ideas how to fix this problem please tell **me** .

==== Version 1.12B9 July 8th, 1998 =====

- PUBLIC SOURCE CODE RELEASE !

- Due to (kindof) huge public demand I finally added support for Blizzard PPC cards. Thanks for all who mailed and msg'd me about it. Special thanks go to Zer0-X / #AmigaFIN for providing me bliz ppc rom at Motorola Inside 98 (that party ruled;), [Kiste] / #amiga, Spin / #AmigaFIN, FoZZ / #AmigaSWE and JohanE / #AmigaSWE for testing bliz ppc MAPROM. Also thanks and hellos to LloydROSN / #amycoders for kindly compiling some blizppc stuff. Also hellos to laire / #amiga - and sorry for asking all those stupid questions ;)

Big thanks to Cithara / #AmigaFIN and manatee / #amiga for digging up nicks from logs when that bloody WinNT (boo!) bluescreened;) without their help credits wouldn't have been far as complete as they're now...

- I've been told that CPU Card / CS MK I / CS MK II support doesn't work. Those will be fixed when someone just finds out what's wrong with them.

- However, I did fix a little bug from CS MK II code, so CS MK II might work now.

- Forgot to mention in previous beta that there is a (experimental, non-functional) beta-version of GUI included (BKGUI, BKGUI.e). If you manage to improve/ finish it just drop **me** a line.

==== Version 1.12B8 May 13th, 1998 =====

- PUBLIC SOURCE CODE RELEASE !

- Due the fact that I haven't been able to work on BlizKick for ages now, I decided to release the source code for public. You can consider the source code PD, though I would really appreciate if you would credit me for the hard work I've done in these years. The idea is that someone would continue development of BlizKick and add features I haven't been able to implement:

BlizzardPPC support, some sort of GUI (simple AmigaE GUI is included), IDEFix97 support, OxyPatcher support,

Installer script etc. Anyways, have fun with it!

- BTW I'm not quitting Amiga ;)

==== Version 1.12B7 Dec 16th, 1997 =====

- BETA RELEASE !

- Rewrote board detection to be more clean & robust. Now adding new boards is a lot easier.

- Fixed some stupid bugs... Now works at least with CS PPC (tested) and CS MK III. (Thanks Duken!)

- Fixed some Lock bugs.

==== Version 1.12B6 = Dec 9th, 1997 =====

- BETA RELEASE !

- Oh shit. Wrote nice CPU Card support to BlizKick 1.12B1 but forgot to enable it... hmmm ;)

- Now should work with at least following CPU Cards: CBM A4000 CPU Cards, Cyberstorm MKI, Cyberstorm MKIII and Cyberstorm PPC.

==== Version 1.12B5 = Dec 3rd, 1997 =====

- BETA RELEASE !

- PatchMath020 now patches routines whose replacement routines don't use 64bit mul/div on 68060.

- Fixed stupid movem bug from SpeedyChip module.

- Tried another (simpler) approach in RebootFix.

- FusionReserve _still_ refuses to work.

==== Version 1.12B4 Nov 28th, 1997 =====

- BETA RELEASE !

- I'm not dead, just busy/lazy. ;)

- Fixed this guide a bit. (Hi Max)

- Fixed little bug in ROM image validation test.

- Fixed FusionReserve module, it wasn't doing "Fusion-magic" if vbr was moved _before_ FusionReserve module. :-I

- Added two modules: RebootFix to fix problems with A1200 and 060 (at least with BLIZZARD 1260) reboot when display is in multisync mode, and SpeedyChip module patching 060 MMU lists for improved chip memory write speed.

==== Version 1.12B3 Aug 22th, 1997 =====

- BETA RELEASE !

- Now KS 1.x are only patched if they're original

versions. This should prevent some problems with patched 1.x ROM images.

==== Version 1.12β2 Aug 15th, 1997 =====

- BETA RELEASE !
- SCSIDEV43 module tested with scsi.device V43.18
- Modified CPU Card support to work after SetPatch too.
- Hopefully fixed FusionReserve module. Note that it should also work with Mac1200 emulator.
- Added two new modules: A1000Jingle (Try it out! ;) and PatchMath020 (Optimizes C-compiler math routines).

==== Version 1.12β1 Aug 14th, 1997 =====

- BETA RELEASE !
- After over month of lazyness (blame it on IRC:) added support for (A4000?) CPU Cards! Should work at least with CBM and Cyberstorm cards. See CPUCARD switch.
- New module: FusionReserve substituting RsrvCold of FUSION MAC emulator.

==== Version 1.11 Jul 4th, 1997 =====

- 9th Aminet release.
- RemCards module causes some troubles with CD-ROM devices. Added this information.

==== Version 1.11β4 Jun 5th, 1997 =====

- BETA RELEASE !
- Fiddled with this guide a bit.
- It seems as SpeedyIDE could cause some errors on specific hard drives/setups. It has now been successfully tested on 1230, 1240 and 1260 BLIZZARD boards. Only one beta tester has reported problems, but his problems could have been caused by some other software interfering with SpeedyIDE. Be careful with SpeedyIDE though! BTW: I've never had any problems on my machine... :)
- Found out that V43.17 scsi.device is broken: it doesn't recognize any IDE devices. Ouch! (thanks again Max)
- Improved WaitIDE module.
- Improved SCSIDEV43 module to disable beta message of scsi.device.

==== Version 1.11β3 May 28th, 1997 =====

- BETA RELEASE !
-

- Fixed MAPROM jumper OFF detection, it had been broken since v1.9...

- SpeedyIDE module may cause problems on some machines...

:(It should be used on A1200 only. It seems to work at least with 1230 and 1240 boards.

- Added SCSIDEV43 module; kick V43 beta scsi.device!!

(Tested with scsi.device 43.11)

==== Version 1.11β2 May 26th, 1997 =====

- BETA RELEASE !

- Fixed this guide a bit.

- Added Free100buf program (used with ChipSaver module).

Funny icon for Free100buf drawn by Max Romanoff

<hurtman@usa.net>. Thanks a lot for icon, numerous

suggestions (ChipSaver, RemCards, SpeedyIDE, WaitIDE)

and extensive betatesting !

==== Version 1.11β1 May 24th, 1997 =====

- BETA RELEASE !

- Added information about Kickstart 2.04 (37.175).

- Added four new modules: ChipSaver, RemCards, SpeedyIDE and WaitIDE.

- Now EXTRESBUF is put into fast memory!!

==== Version 1.10 === May 4th, 1997 =====

- Eighth Aminet release.

==== Version 1.10β7 Apr 21st, 1997 =====

- BETA RELEASE !

- Fixed reset code to disable caches. Previously caches were only flushed.

==== Version 1.10β6 Apr 11th, 1997 =====

- BETA RELEASE !

- Added BBlank module by Jens Lorenz.

- Added some detailed information about included modules

==== Version 1.10β5 = Apr 2nd, 1997 =====

- BETA RELEASE !

- NoClick supports hackdisk.device now.

- Improved HOGWAITBLIT. Requires V39+ ROM now.

- Added NewAlert module by Jens Lorenz.

==== Version 1.10β4 Mar 22nd, 1997 =====

- BETA RELEASE ! 2nd on the *same* day! phew...

- Added BKMODPATH environment variable. Now you can set

BKMODPATH to DEVS:Modules/ (or whatever) and BlizKick knows to load modules from there. Now you can specify

MODULE PrepareEmul MoveVBR SoftSCSI

==== Version 1.10β3 Mar 22nd, 1997 =====

- BETA RELEASE !
- Added QUIET switch
- Removed enforcer hit from AspectFont (hi Walter! ;)
- Now 256K ROM map two times (at \$F80000 & \$FC0000)
- Fixed PrepareEmul module to work with KS 37.300
- Got KS 33.180 ROM function! (There was a bug in ranger (\$C00000) memory test and in expansion.library)
- Fixed manual in places

==== Version 1.10β2 Mar 21st, 1997 =====

- BETA RELEASE !
- Now automagically patches 34.5 ROM.
- Fixed bug when EXTRESBUF was and LOCALFAST was *not* specified. Supervisor stack could have trashed EXTRESBUF area!
- Hopefully fixed some 040/060 MMU code

==== Version 1.10β1 Mar 13th, 1997 =====

- BETA RELEASE !
- Implemented pseudo kickfile *
- Hopefully fixed 040/060 MMU bug (wasn't able to start after SetPatch)
- Updated manual a bit

==== Version 1.9 === Mar 10th, 1997 =====

- Seventh Aminet release.
- Now BlizKick accepts same kickstart file as in ROM chip again (as in β5 and backwards). The fun part is that BlizKick should have rejected such kickstart files. I "fixed" this for β6... :) I apologise the unconvenience caused.
- Fixed bug in PrepareEmul module: It didn't cope with A1200 rom (it has chipmem start always at \$3000).

==== Version 1.9β8 = Feb 27th, 1997 =====

- BETA RELEASE !
- Fixed terrible bug from reset code! Thanks to Flemming Steffensen for reporting these autoconfig problems...

=o)

```
lea $01000004,a0
sub.l (-$14-4,a0),a0
move.l (a0),a0 ; Sometimes this code skipped reset
subq.l #2,a0 ; instruction!! DevPac produces zero
CNOP 0,4 ; word instead of $4E71. Quite stupid
reset ; bug actually... but hard to trace!
jmp (a0)
; Executing reset instruction only once will cause
; some expansion devices not to autoconfig properly.
==== Version 1.9B7 = Feb 26th, 1997 =====
- BETA RELEASE !
- Now LOCALFAST relocates memheaders to fast memory,
thus speeding AllocMem() etc.
- Improved manual.
==== Version 1.9B6 = Feb 25th, 1997 =====
- BETA RELEASE !
- Found out that EXTRESBUF works on 1260. Hi Jani T! =o)
- Fixed one minor bug from main program.
- SoftSCSI didn't work. It should work now.
- Improved this guide file.
- Maybe I finally can release v1.9 in Aminet... ;)
==== Version 1.9B5 = Feb 13th, 1997 =====
- BETA RELEASE !
- Fixed EXTRESBUF. Now it requires at least V36 ROM image
to work, but should work on xx40/xx60!
- Now BlizKick.guide font is automagically adjusted
depending on screen aspect ratio while install script
is run. (2:1 -> ruby.font, 1:1 -> system default font)
==== Version 1.9B4 == Feb 4th, 1997 =====
- BETA RELEASE !
- Added SoftSCSI module.
- Beta-testers have reported some problems with EXTRESBUF
on 1240, 1260, 2040-ERC and 2060. Aminet release
delayed. :(
==== Version 1.9B3 = Jan 29th, 1997 =====
- BETA RELEASE !
- Support for 1240-T/ERC, 2040-ERC and 2060 boards.
- Some bugs fixed.
==== Version 1.9B2 = Jan 14th, 1997 =====
```

- BETA RELEASE !

- Fixed BLIZZARD 2060 code. Used rte to exit subroutine.

Didn't work! Wonder why... :P Now B2060 code could
work... :)

==== Version 1.9β1 == Dec 3rd, 1996 =====

- BETA RELEASE !

- Fixed BLIZZARD 2060 code.

- Fixed bug in EXTRESBUF (Occured with V40.60 ROM).

- Fixed negative return code bug. Stupid.

- Added ROM address validity test.

- Updated the documentation.

==== Version 1.8 == Nov 19th, 1996 =====

- Sixth Aminet release.

- Added XPK support for KICKFILE.

- Fixed long standed bug from install_script.

- Updated the documentation.

==== Version 1.7 == Nov 5th, 1996 =====

- Fifth Aminet release.

- Fixed stupid bug in 68040/68060 MMU test code...

- Now really gracefully exits if no Blizzard board is
present. This thing was too hard to test! ;)

- Added hackdisk.device patch module.

==== Version 1.6 == Oct 1st, 1996 =====

- Fourth Aminet release.

- Updated the documentation.

- Improved 68040/68060 cache flushing code

- Added two patch modules: "FixMath404" and

"NoClick". These two are really useful ones,

esp. NoClick... just try it!

==== Version 1.6β4 = Sep 19th, 1996 =====

- BETA RELEASE -- DO NOT REDISTRIBUTE !

- Now BlizKick can be run even if Enforcer, VMM,
GigaMem or similar program is started first.

- Updated the documentation.

==== Version 1.6β3 = Sep 16th, 1996 =====

- BETA RELEASE -- DO NOT REDISTRIBUTE !

- Fixed KS 2.x EXTRESBUF

- Fixed not to allocate MEMF_KICK memory on 2.x systems

- Now can be run after SetPatch on 1260 systems

==== Version 1.6β2 = Sep 12th, 1996 =====

- Sep 11th BETA release didn't work! :(Sorry folks!
(It was a really stupid mistake indeed!!)
- Some bugs fixed.
- Added EXTRESBUF feature.
- Added external patches (kind of "module").
- Improved "module" -system. (BKMB_ExtResBuf flag)
- Didn't work with all 1230-IV and 1260 memory configurations. FIXED.
- Fixed BlizKick to need FORCE only if same KS was kicked with BlizKick previously (no more: "...used previously", as it was before)
- Added PrepareEmul and MoveVBR modules.
- Didn't always work with SCSI-Kit. FIXED?

==== Version 1.5b === Jul 6th, 1996 =====

- Third Aminet release.
- Some fixes to documentation.

==== Version 1.5 ==== Jul 5th, 1996 =====

- Second Aminet release.
- Several bugs fixed.
- Added original Kickstart restoration.
- Improved error messages.
- Improved MAPROM test.
- Improved CacheClear routine.
- Added HOGWAITBLIT feature.
- Added SetPatch (680x0.library) test.
- Added MODULE feature.
- Documentation improved.
- Release 1.4 had wrong executable included. Well, version 1.4 release packet was constructed in a hurry anyway, so I forgot to copy the correct executable into it... ;-)) Please, forgive me!

==== Version 1.4 ==== Jun 29th, 1996 =====

- First Aminet release.
- Works with 1260, of course!

==== Version 1.3 ==== Jun 17th, 1996 =====

- Added SPEEDROM feature and improved LOCALFAST.
- Improved error messages ;-)

==== Version 1.2 ==== Jun 16th, 1996 =====

- Added LOCALFAST and QUICKBOOT features.

==== Version 1.1 ==== Jun 10th, 1996 =====

- First local release.
-

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