

JOTD HD Install Collection

COLLABORATORS

	<i>TITLE :</i> JOTD HD Install Collection	
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Contents

1	JOTD HD Install Collection	1
1.1	JOTD Startup documentation	1
1.2	Introduction	1
1.3	Registering JST	2
1.4	Arguments/Tooltypes	3
1.5	Start and end scripts	6
1.6	Snapshots handling	6
1.7	TroubleShooting	7
1.8	FAQ	8
1.9	JST Degrader	9
1.10	Disclaimer	10
1.11	Author	10
1.12	History	11
1.13	Acknowledgements	15

Chapter 1

JOTD HD Install Collection

1.1 JOTD Startup documentation

JOTD Startup V1.1a
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- Introduction
- Arguments/Tooltypes
- JST Degrader
- Snapshots
- TroubleShooting
- Register
- Disclaimer
- Acknowledgements
- FAQ
- Author
- History

1.2 Introduction

As you could notice, I created and uploaded many HD-Install & fix programs for non-dos games, but all of them were standalone, and in case of an error in the general loader routines, I had to remake the loader (relink) and upload again.

Bert Jahn had developed WHDLoad, which solves this problem because it allows to load small, game-specific loaders and run them using its own degrade/hd/dos code. This technique allows easy updates in case of bugs or new functionalities.

That's what I decided to do myself. JST was born from a 8-hour adaptation of my link library. It's an equivalent to WHDLoad but a bit more powerful, as the system can be called in the slave loader, messages can be printed, a gui can be opened, there are lots of cool functions, and much more. It also allows easier programming of loaders (but WHDLoad is still cool!), and can run normal DOS programs in degraded mode (68060 support).

Now JST is also able to iconify some loaders and also to snapshot games to disk to return to level 34, where the tentacle robo monster is really impossible to beat without cheating.

The limited version can only create snapshots (for bug reports), but the RESUME ↔ feature is reserved to registered users only, of course.

JOTD HD Startup is © 1995-1998 Jean-François FABRE
JOTDStartup is © 1998 Jean-François FABRE

1.3 Registering JST

JOTDStartup is SHAREWARE!

From V0.3 I decided to ask a fee of US\$10, 20DM, 7£ or 50FF to be able to become a registered user. However, I will register whoever I think he or she did ↔ something cool for me (already sent disks, money, sports cars, Sandra Bullock clones...). Lots of people are already on the list. If you think I forgot you, contact me.

To register, send the money to:

Jean-François Fabre
19 Rue Emile Duploye
34500 BEZIERS
FRANCE

Specify your e-mail or send a blank disk with the money (for non-internet users), and I'll send you the registered version of JST (+the latest installs for the ones who sent a floppy but specify which ones in priority as the whole archive is ↔ big)

If you think this is too expensive, you can use the "limited" shareware version. It has no limitations compared to older free releases but the new features will be reserved to registered version. However, if I fix a bug, it will be fixed in both registered and shareware version of course. All the future loaders will be compatible with the limited version.

I hope you understand JST and all the loaders were hard work for me, that's why I decided it. If you can afford, please register, else, you can use the limited version freely. I won't bug you.

Of course, registered users have a higher priority for e-mail support from me, ←
even

if I don't always answer if I don't think it's interesting to do so (for you and ←
for me).

For the recall, here's the list of features reserved for registered users:

- Snapshot reload (RESUME)
- Possibility to save games in a different directory than the game directory (←
SAVEDIR)
- Possibility to load game data in a different directory than the loader (LOADDIR)
- Reload battery backed-up clock on exit
- Quiet mode (QUIET)
- A clear conscience because they registered :)

1.4 Arguments/Tooltypes

You can select the options:

- From the CLI by typing the arguments (JST ? for help)
- From the WB by activating/disabling the tooltypes

Some have effect only on loaders that support them. They will be noted as * ←
OPTIONAL*

Some have effect on all loaders. They're noted as *GENERAL*

Here's a short description of the options.

- OBJNAME="object": lets you specify an object name (icon launch).
- NTSC (GENERAL): default for loader is PAL. NTSC changes this to NTSC (really?)
- TRAINER (OPTIONAL): activates trainer when there is one. It can be infinite ←
lives, time, etc...
- QUIET (GENERAL): displays nothing and opens no window. No error messages, and no ←
author message.
Be sure that everything works OK before selecting this one.
- NOCACHES/NOCACHE (GENERAL): Sets CACR to 0. All caches are disabled. 68060 ←
supported.
- LEAVECACHES (GENERAL): Don't touch the caches. Disabled by NOCACHES
- NOFAST (GENERAL): Always allocates extension memory
from chip memory. If you got crap sprites, this could help. Useless in the case ←
of 512K mem games.

- HDLOAD (GENERAL): to save some memory, you can load from HD instead of caching ←
all the files in RAM.
It works for diskfiles and normal files.
Useless in games with only 1 diskfile, use LOWMEM instead.
 - RESUME (GENERAL): resume a previously saved snapshot. This option uses absolute ←
allocation so
you may need to reboot to get some free memory at the required location. You can ←
also specify
NOFAST in the JST tooltypes to make your snapshots compatible from one memory ←
config to another.
 - EXECUTE (DOS GAMES): this tooltype will allow you to use JST as a normal ←
degrader like
KillAGA, but with 68060 support and more control over the system. See
JST degrader
for further information.
 - USERDATA: if the user passes a string to this argument/tooltype an wants to run ←
a program
using EXECUTE (degrader features only), then this string hold the arguments of ←
the program.
If it's a loader, it can be used to specify some parameters to the loader. ←
Useful for disk
rippers to pass track start/end. Max length allowed is 80 characters.
 - LOWMEM (OPTIONAL): will not cache diskfiles in memory. Read directly from disk. ←
Useful if you've
got a A1200/020/NoFast. With normal files, LOWMEM consumes even less memory than ←
HDLOAD. Some
loaders may bring up and error message or crash with an exception.
In that case they don't support this option yet :)
 - NOOSSWAP (OPTIONAL): Disables in game HD loads/saves. Depending on the loaders, ←
NOOSSWAP
will try to access the floppy when you try to save/load a game, or will do ←
nothing.
If you don't select NOOSSWAP, if the game has some data to write, it will do it ←
on your
hard drive. It's rather safe (I've been using it for a while now) but you should ←
avoid
filesystems or disk caches that perform copyback caching (AFS, possible in ←
Dynamicache).
This is not generally harmful, except if you quit by a reset or the game locks. ←
In that
case, your hard drive can be unvalidated.
 - NOQUIT (only in degrader mode (EXECUTE)): some games contain autodetachable code ←
and run
in background. If you try to run such a game with a degrader, the degrader will ←
enhance
display/caches when the program autodetaches and *crash*. NOQUIT will cause JST ←
to run
in degraded mode forever (until you reboot).
 - DELAY (GENERAL): Waits a little while after every OS swap.
-

This can be useful for low speed media. It allows the drive to stop and leaves ←
 time for ←
 interrupts to be processed before the system is frozen again (allows lots of ←
 games to ←
 run from CD on a CD32).

- SAVEDIR (OPTIONAL): allows the user to specify a directory where the game data ←
 like hiscores ←
 or savegames will be saved/loaded. Some loaders with HD saves don't support it ←
 yet. ←
 This function is only available to registered users.
- LOADDIR (GENERAL): allows the user to specify a directory where the game files ←
 or diskfiles ←
 should be loaded from. For registered users only.
- DEADLY (GENERAL): "Clean" installs should run with DEADLY on, because it trashes ←
 ExecBase ←
 and redirects interrupt vectors to an error message, so no ROM code is called if ←
 an ←
 unexpected interrupt occurs. Leaving Execbase alive can be unreliable and can ←
 trigger 81000005 ←
 GURUs in the case the loader still uses system routines such as AllocMem() ←
 (which is not recommended, but it's up to the programmer. I generally remove all ←
 system ←
 code in the game).

Some options are here for debug and developpement purpose only:

- DEBUG (GENERAL): useful only for bug reports. Makes a memory image on exit. Can ←
 be FULL or REGS ←
- LEAVEVBR (GENERAL): useful only for debugging purposes, and with a debugger such ←
 as Action-Replay, ←
 HRTMon or ThrillKill. Don't select it unless you want to debug.
- TEST (GENERAL): The loader will not start. Only the options selected will be ←
 displayed. ←
- VERBOSE (GENERAL): The loader will display information while initializing (←
 memory, files...)
- DEADLY (GENERAL): Your loaders should all run with this one on

EXAMPLES from CLI for normal JST objects:

JST MagicPocketsHD NOCACHES DELAY NTSC

JST HookHD NOFAST HDLOAD SAVEDIR=ram: (registered users only can use SAVEDIR)

Examples from CLI for normal DOS executables:

JST Dune NOCACHES EXECUTE (the game does not like caches)

JST ssboot EXECUTE USERDATA=SWOS (the ssboot executable needs SWOS as an argument)

JST AGADemo LEAVEVBR LEAVECACHES NTSC EXECUTE (the demo likes caches and does not ←
 care about the VBR ←
 relocated in fastmem, but I've got a multiscan WB, and I want to boot in 15KHz ←
 with NTSC)

Of course if the dos executable sets PAL or opens an intuition screen, display ↔ features of JST will be cancelled. JST's no David Copperfield.

1.5 Start and end scripts

Registered version only!

With the registered version, you're able to make JST run scripts on startup and when you quit the loader. Useful to disable/enable commodities, ethernet cards, enforcer, etc...

Those 2 scripts are not specific to each loader but general. They must be located in S: and be called:

```
jstpre.sh for the pre-JST script
jstpost.sh for the post-JST script
```

jstpre.sh will for instance contain:

```
enforcer off
handlecx multicx disable
```

This feature is also active (and very useful) with EXECUTE option (degrader mode). You won't have to make a script for every game you install.

NOTE: if T: does not exist, the scripts won't be executed (PLEASE keep T: in RAM: ↔ or a virtual disk)

1.6 Snapshots handling

Registered version only!

When a loader supports iconify, the iconify menu will allow you to snapshot the ↔ game data.

The data will be saved in the SAVEDIR directory if set, or in the game directory.

To load a previously saved snapshot, set the RESUME option.

If the loader or JST changes, your snapshots are no longer valid. This is a ↔ technical limitation

I cannot remove. So be careful before upgrading to a new JST or a new loader.

Only some loaders support the Iconify/Snapshot option at the moment. Every loader ↔ has to be

slightly modified (means modify/test/update) for this purpose. Updating every ↔ loader could

take time, you see...

1.7 Troubleshooting

Some error messages can occur before or after the game has started:

- Object is not relocatable: the game-specific loader must not address variables in an absolute way. If you wanted to run a DOS program using JST, use the EXECUTE tooltype.
- Invalid Object: someone tried to load non-loader objects or other files. To run a normal DOS program with JST don't forget to set EXECUTE tooltype/argument.
- Not enough memory: try to free some memory. Playing with NOFAST and HDLOAD and boot without startup-sequence can help too.
- Version of JOTDStartup is outdated for this object: get a newer version of JST, this one is just too old for the loader and would not work.
- Unsupported version: some games exist in different versions. I try to support some of them, but if the program does not recognize the version, it can display this message (it can crash too!).
- Exception: <cryptic message> : some illegal instruction was encountered while the game executes. Try NOCACHES and NOFAST to see if it helps. Else report me/patch author the error with accuracy.
- Uninitialized level <X> interrupt: remove the DEADLY mode :)
- Wrong virtual disk ID: patch error. Contact author.
- Diskfile not found, Disk Read Error: in HDLOAD mode, a file is missing.
- Snapshot is not compatible with this version: you made a snapshot with an old loader, an old JST or on another amiga. You cannot resume your game!
- GetDiskPointer called while in LOWMEM mode: LOWMEM is not available with this loader (rare message)
- Not enough memory while you've got plenty: check the priority of your different memory expansion cards, because JST uses MEMF_REVERSE, and maybe that's the cause. Use the VERBOSE option to see what's the problem.

If the game simply hangs or resets, check that you don't have some MMU related program running (enforcer, VMM...) or low level patches like Fastexec. My patches are reported to work with softkicked amigas, though.

Some versions of the 68060.library can bring up problems too (gfx errors)
You'll find a 68060.library version which accepts JST on my WWW page.

The game can crash if it finds an exception and there is not enough memory to ←
restore the
system and display the exception message. Buy some more mem :-)

Some old versions of JST may be able to run a loader while the newest cannot. In ←
that case,
please report me the problem urgently.

1.8 FAQ

Q: The loader exits with some message like: Version problem

A: Your version is not supported. Report me the problem

Q: I've got an AGA computer and SWOS patch only runs the ECS version. Why?

A: Because only ECS version is supported at the moment. Hang on.

Q: When I run a formerly frozen game, using snapshot/RESUME option (registered ←
only),
the game does not work properly, or the sound is not correct.

A: Remove the RESUME tooltype, start the game normally, exit, then set RESUME ←
again
and retry.

Q: Why can't you promote the games to multiscan or GFX cars. You can promote them ←
to PAL/NTSC
already.

A: This would suppose that I include cybergfx code in JST, because most of games ←
run with the
OS trashed, and the games use directly hardware registers and copperlists. ←
Sorry that's
impossible, unless you run the patches under UAE :)

Q: Couldn't you add modem/ethernet support to null-modem games (like Overdrive) ?

A: That's be great but I'd have to code a full serial.device/ethernet device ←
handling in JST,
and then patch the games to support this protocol. You'd better get a long ←
cable :)

Q: Why some of your patches do not exit using F10 or HELP, or any other key?

A: Because JST can be used as a degrader to run old DOS compatible games, and most ←
of those

are so ashamed they trashed the memory bad that they don't want to quit, so JST ←
can't do
anything about this.

Q: Why some of your patches don't iconify/snapshot?

A: the old DOS compatible games fall into this category (for the reason see answer ←
just above),
some pure JST loaders don't bear it, and for the others, I've got to add some ←
code to
each of them, because this operation needs copperlist pointer snooping, which I ←
can achieve
only by acting slightly but specifically on every loader.

Q: I tried to install your patch of <game> but the install tells me something like ←
"decode disk
error" or "sync not found". Why?

A: Either you're trying to install a cracked version of a non trackdos game, or ←
you're trying
a trackdos rerelease (or coverdisk) of a non trackdos game. If you've got a ←
crack, no need
to write to me...

Q: I've got an unsupported version of Pinball Dreams

A: Contact me.

Q: What does FAQ does mean?

A: Frequently Asked Questions.

1.9 JST Degradar

You can use JST with an executable that has not been designed to work with it, and ←
with which
you've got trouble because of the display or the caches, VBR, etc...

The degrader mode of JST is activated by the EXECUTE tooltype.

If you specify EXECUTE, JST will try to execute the object you passed, degrading ←
the
display to PAL (or NTSC if you select NTSC), zeroing the VBR (unless you specify ←
LEAVEVBR),
disabling 68060 specific caches (unless you set LEAVECACHES) and setting the ←
sprites to OCS size
(required by most games). Of course, loader-specific options like LOWMEM, HDLOAD, ←
NOFAST,
SAVEDIR and DELAY will not work.

If you want to disable the caches, add the NOCACHES argument.

You can also set JST as a default tool in the executable icon (set icontype to ← Project) just like WBKillAga.

1.10 Disclaimer

I'm not responsible for any damage caused directly or indirectly by this piece of software.

The shareware version of JST and my HD work can be distributed freely. However, I'd appreciate that you drop me a line if you include it in a coverdisk or PD collection. If you like (or you dislike) this piece of software, you can e-mail me.

The registered version of JST should NOT be distributed.

1.11 Author

Regular mail:

Jean-François FABRE
19 Rue Emile Duployé
34500 BEZIERS

E-mail:

jffabre@club-internet.fr

Or (for bug files you'd like to send)

jffabre@ensica.fr

PLEASE don't send big files to my first internet address unless I allow you to. It's got the property to act on my nerves in a negative way. Thanks.

WWW:

Visit my patch page, where all my HD work is gathered, along with some other quality installers (all for original software), and some other interesting related freeware stuff:

<http://www.ensica.fr/~jffabre/patches.html>

And my home page (totally stupid stuff):

<http://www.ensica.fr/~jffabre/> (english)

http://www.ensica.fr/~jffabre/index_fr.html (french)

FTP:

Available in all good aminet sites retailers (game/patch) and grocery stores.

FAX:

Yes, thanks. I'd like one.

Cellular phone:

They'll *NEVER* make me buy one of those!

1.12 History

V1.1b:

- Keypresses during LOWMEM no longer hang JST (don't tease it, tough :)
- Added 2 very convenient functions for programmers:
possibility to log the patches done and write it to a file and
automatic blitter search/replace/blitwait insertion for move.w #addr, (\$58 ←
,Ax)

V1.1a:

- Improved snapshots (some things to add with some loaders)
- Reload command from iconify menu added (registered only)

V1.1:

- RESUME tooltype (registered version) allows snapshots on disk! (for ←
loaders
which support iconify option)
- Menu in iconify mode to allow to save snapshot, quit, resume
- Keyboard acknowledged properly on iconify (no more annoying chars)
- Small OS swap improvements
- Modified BeamDelay routine. Contact me in case of timing problems, music ←
not
playing right...

V1.0:

- Added iconify feature (the loaders must be designed for it, because of ←
the
read-only copperlist register!)
- Updated developer documentation to support iconifying.

V0.9c:

- Oops fixed a bug in argument parsing from CLI (the first time it happens ←
?)
- Added LOADDIR tooltype (registered users only)
- Added some programmer functions like TestDirectory.
- A few loaders will need to be slightly rewritten (get the Street Racer ←
update
and Space Hulk update).

V0.9b:

- Added NOQUIT tooltype (to use with EXECUTE)
 - Bug removed: in case of abnormal termination, JST did not execute the ←
post
script (registered version only)
-

- Added LOADDIR tooltype, but function not implemented yet (registered version) ↔

V0.9a:

- Oooops, fixed a bug: if T: did not exist, the scripts were executed and your HD could be unvalidated because of the T creation (by calling "execute") (only registered users who used V0.9 were "exposed") ↔
- TestDirectory function added (developoppers) ↔

V0.9:

- added the 2 scripts jstpre.sh and jstpost.sh (registered version only) Very useful to disable commodities/ethernet cards/enforcer before JST executes ↔
- the program/loader and to activate them again when JST exits.
- for developoppers: problem when the nbdisks argument is accidentally set to 0 ↔
- in the HD_PARAMS macro

V0.8f1:

- Aaaaaaargh argument another parsing problem (not with registered version) prevented the usage of most of the options either from WB or CLI

V0.8f:

- Arghh, some games like Lure Of The Tempress don't like some gfx fixes during OS swaps. Fixed.

V0.8e:

- Oooops, HDLOAD did not work anymore. Fixed now.
- Default interrupt 2 (keyboard) improved
- OS swap routines improved
- Accurate MOVEP exception detection on 68060

V0.8d:

- Bug/limitation that prevented some loaders to work removed: SetFilePath added. ↔

V0.8c:

- Ooops. NTSC switch enabled again
- Thanks to Keith, now some display problems on Pyramax, Puzznic, and some others fixed. So degrader mode is also more efficient now.

V0.8b:

- USERDATA tooltype added for loaders which need it (useful for rippers) and also to pass args to a command if you use EXECUTE to degrade an executable
- GetUserData function added to read this data
- StrncpyAsm function added (D2 sets max string length)
- Now blitter mask is cleared by SaveOSData, which simulates better a cold boot.

V0.8a:

- Fixed bug with HDLOAD and a subdirectory as data dir

V0.8:

- LEAVECACHES tooltype added: no caches will be disabled, not even 68060 specific ones.
-

- EXECUTE tooltype added to allow to execute normal DOS programs (like KillAGA) with 68060 support. Other tooltypes can be used with it too (LEAVEVBR, LEAVECACHES, NOCACHES, NTSC). Now JST can be used as a degrader
- Sprites are set to lores using the system at startup (thnx to Bert Jahn for the routine).

V0.7:

- Simple execbase emulation added (developpers)
- Functions added to handle this emulation (developpers)

V0.6b (internal release):

- Bug removed: In HDLOAD mode JST could not load file in another directory than current one. This is now fixed (only Kick 2.0+, sorry)
- Nasty bug found: if not enough mem for quit the game crashed because of wrong stack relocation. Some people may have noticed the problem.
- Bug removed in interrupt acknowledge
- Removed long delay at startup in case of DELAY on.
- FIRE decruncher support added
- PatchExceptions behaviour change. Now can be used again in program to ← trap exceptions only (programmers only)

V0.6a:

- Changed default stack location.

V0.6:

- Removed BENICE tooltype
- Removed joybutton press = LOWMEM (for people using joymouse)
- Added DEADLY tooltype
- Changed behaviour in case of unexpected interrupts. Now tries to ← acknowledge the interrupts unless DEADLY is on. In this case, exits with an error (thanks to Carlo Pirri for the accurate bug reports)
- Bugfix in 'registers.dat' file creation. Now extension memory is properly ← reported
- Added another stop sound command on quit
- assembled with optimize option

V0.5c:

- Bugfix in ReadFileHD for getlength command
- ReadUserDir() function added
- Now battery backed up clock is reloaded only on a quit from the game

V0.5b:

- bugfix in SaveOSData: ExecBase was not cleared if VBR was 0 or LEAVEVBR ← was on
- bugfix in arguments parsing on shareware version. Almost all tooltypes ← did not work!
- stack relocated to top of used chipmem in SaveOSData: Agony, BodyBlows ← original & BodyBlows Galactic work on a standard A1200/020/NoFast, but some other ← loaders needed to be recoded to work (Prince, Lotus...)
- all registers D0-A6 set to 0 in SaveOSData
- sprite dma disabled at bootup to avoid some display corruption

V0.5a:

- DMA set/clr bugfix in os swap routine
- WaitBOF function added (not functional yet)
- Better WaitBlit() routine

V0.5:

- Bugfix: intuition screen was not opened!
- More accurate exception handling (useful for coders/bug reports)
- Added TPWM decrunch routine (experimental, not tested)
- Changed ImploderDecrunch(). Now only registers D2-D5/A2-A4 are saved.

V0.4b:

- Sprites/display are reset better when an OS swap occurs (HDLOAD/LOWMEM ↔ mode)

V0.4a:

- JST now opens an intuition screen of 4 colors (vs 16 in older versions)
- Now JST does not allow system calls after SaveOSData (programmers only)
- BENICE tooltype added for compatibility (users who have problems with old ↔ loaders)
- Removed a bug in argument parsing from CLI

V0.4:

- Now JST loads the clock from battery backed up clock if found (registered ↔ only)

V0.3 : JST is now SHAREWARE. Some features are only accessible to registered users ↔

- 1.3 compatibility restored. SAVEDIR still unsupported
- VERBOSE tooltype added.
- RNC\02 unpack method added to RNCDecrunch()
- Alloc24BitMem() function added (for some games which do not like 32 bit ↔ fastmem)
- Read/Write/DeleteUserFileHD() functions added to support SAVEDIR (developer(s?) please update your loaders which load/save user data to ↔ disk)
- Slightly changed DMA handling on os swaps
- Fixed a bug in dump register functionality (DEBUG option)
- Now the display comes up and the dumps are written after (DEBUG option).
- SAVEDIR tooltype added (registered only)

V0.2e:

- internal release

V0.2d:

- NOOSSWAP no longer forbids HDLOAD or LOWMEM. It's now a user flag

V0.2c:

- Fixed bug in LoadDisksFromName (Cadaver)
- Changed task name to "JOTDStartup"

V0.2b:

- Changed intuition screen depth from 8 colors to 16

V0.2a:

- fixed bug with LoadDisksIndex and LOWMEM (Superfrog intro)
-

V0.2:

- first aminet release, few details changed

V0.1:

- developer release

1.13 Acknowledgements

I'd like to thank the following people:

- Keith Krellwitz (Abaddon) for interesting talk about loaders and for writing ↔
about 1/3
of the loaders using JST !
 - Alain Malek (Hornet) for HRTMon and for his CIA source code
 - All the registered users in general, and in particular Robert Plutchak, Chris ↔
Vella, Steven Velletri,
Wolfgang Unger.
 - Harry, John Girvin, Bert Jahn, Mr Larmer and all the WHDLoad coders for their ↔
loaders and interesting chat.
 - People who report bugs ACCURATELY :)
 - Your name here: _____
-