

AlertPatch 3.0

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| COLLABORATORS |
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Chapter 1

AlertPatch 3.0

1.1 AlertPatch 3.0 (9.3.94)

| | |
|------------------------|--|
| AlertPatch v3 ===== | Copyright (C)1992,93,94 David Swasbrook. |
| Disclaimer | Legal information |
| Shareware | Shareware information |
| Introduction | Introduction to AlertPatch |
| How to Install | How to install AlertPatch |
| Usage | How to use AlertPatch |
| Configuration | Adjusting the settings |
| Update Information | How to get the latest AlertPatch version |
| Patch Information | How to detect the patch |
| Special Thanks | Thankyou for your ideas/support |
| History | A very brief history of AlertPatch |

1.2 Its not my fault...

Disclaimer

AlertPatch is supposed to be a replacement function for the
exec.library/Alert function. Operations of this type are always
risky, as when an alert occurs the system is in an inconsistent
and/or defective state.

I hereby reject any liability or responsibility for these or any
other consequences from the use of AlertPatch whatsoever. This

includes, but is not limited to, damage to your equipment, to your data, personal injuries, financial loss or any other kinds of side effects.

Although AlertPatch has been tested thoroughly on several different machines, I cannot rule out the possibility that AlertPatch

- o is somehow incompatible to your equipment
- o has bugs that show up on your equipment
- o does not do what it is supposed to do on your equipment

It is your responsibility to take any precautions necessary to protect yourself from these or any other effects. I explicitly reject any liability or responsibility from the consequences of you using AlertPatch.

Swaz.

1.3 Shareware distribution info...

Shareware

AlertPatch is shareware. The program may be freely distributed and copied, as long as the following conditions are fulfilled:

- o The sales price must not be higher than the cost of an (empty) disk plus a nominal copying fee plus costs for shipping. The total price must not be higher than 5 US\$.
- o All parts of the program and the documentation must be complete. The distribution of single parts or incomplete subsets of the original distribution is NOT ALLOWED.
- o AlertPatch or parts of it may not be sold in combination with or as part of commercial software.
- o Program and documentation may not be changed in any way.
- o Permission has been given for distribution through Aminet and Fred Fish.

AlertPatch is shareware, this means I request those users, who use AlertPatch, to send me the shareware fee of 10 US\$ (or any other contributions gratefully accepted) to the following address:

Postal: David Swasbrook,
43 Pickwick Parade,
Howick,
Auckland,
New Zealand.

Internet: swaz@iconz.co.nz (private)
 or msd@iconz.co.nz

Please include the following information in your registration:

- o your name, address (including any electronic mail addresses you might have) and telephone number
- o your Amiga model(s)
- o Kickstart and Workbench versions
- o the AlertPatch version number (currently 3.0)

I assure you that the information you send me will be treated confidentially.

I will try and inform everybody, who has registered with me as described above, when a new version of AlertPatch becomes available. If you have sent a shareware donation, if possible, you will receive an update through mail (preferably email).

Thank you very much in advance !

1.4 A brief rundown...

Introduction

AlertPatch is simply a patch into the exec.library/Alert() function to display more meaningful information to the user.

There is a variety of information provided at the time the alert is displayed:

| | |
|-------------------|---|
| Alert Type | - Software Failure or DeadEnd. |
| Task | - Task address and name. |
| Error | - The alert error being displayed. |
| Caused By | - If the calling routines are known then this will tell you where the problem lies (eg. "graphics.library") |
| Cause | - Single line description of what the alert is all about. |
| Task Owner | - if MultiUser FileSystem is installed then the userID and userName are also displayed. |
| Data Registers | - A dump of the CPU data registers d0...d7 |
| Address Registers | - A dump of the CPU address registers a0...a7 |

Text Representation - This is the text representation of the data and address registers. Non-printable ascii characters are shown as "."

To generate the above information, approximately 600 bytes of stack are required. This "large" amount of stack usage to build the alert text will cause problems if we are low on stack. If this is a problem then increase the stacksize of the task causing the alert, of course getting an alert "usually" means there is something wrong anyhow so this may not always work.

1.5 How to install and run AlertPatch...

Installation

Double click on the install icon

Localization Information:

You may select which languages are to be installed for AlertPatch during the installation. If there is no translation provided for your preferred language then you may make your own catalog from the alertpatch.cd file. You will need the program "CatComp" to build the catalog file alertpatch.catalog. Please refer to CatComp documentation for further information.

CatComp is Copyright Commodore Amiga Inc.

1.6 How to use AlertPatch

How To Use AlertPatch

- o To install AlertPatch simply double click on the icon.
- o Double clicking again on the AlertPatch icon will bring up a window listing all Alerts with descriptions known by AlertPatch. You may add to this list yourself (see Alert list).
Details on Main Window .
- o To remove AlertPatch click on the Quit button

Additional configuration options and features:

CLI/ToolTypes
Sounds
ARexx

1.7 ARexx command summary...

ARexx

AlertPatch adds an ARexx port named "ALERTPATCH" to the system.

Supported commands are:

QUIT - Quit from AlertPatch

SHOW - Show the AlertPatch interface

HIDE - Hide the AlertPatch interface

ALERT <HexNumber> - cause the specified alert to occur.

1.8 Command Line Usage and Workbench ToolTypes

ToolTypes & CLI Arguments

Supported arguments/tooltypes are:

Standard Commodity arguments:

CX_POPKEY

CX_POPUP

CX_PRIORITY

Specific to AlertPatch:

FONT - the name and size of the font to use for gadgets.
If not specified then the default system front is used.
eg. FONT="topaz 8"

Settings specific to AlertPatch may be chosen by selecting from the main AlertPatch window the Settings button.

1.9 Alert List Window and Configuring Alert Mode

Alert List Window and Configuration

When AlertPatch is run from Workbench and it is currently installed, or the command line argument of WINDOW is specified, a window listing all the alerts is opened.

THE LIST - double clicking on an entry in the list will generate the Alert. ***BE VERY CAREFUL*** If the alert is a DEADEND alert then you may reset your

computer. If you have chosen the Window Alert then it is advisable to select CONTINUE unless you *WANT* to suspend "AlertPatch" or "Reset" your machine.

- You may also use the arrow keys to move up and down the list and press return to select an entry.

The Buttons

- | | |
|----------|--|
| Quit | - remove the AlertPatch Alert function and restore the original system Alert() function. |
| About | - some information about AlertPatch |
| Settings | - set/save the configuration |
| Ok | - close the AlertPatch window |

1.10 Just some shareware information....

The About Window

This window tells you information about the current version of AlertPatch and some information on Shareware & Registration

1.11 How to configure AlertPatch...

Configuration Information

This is where you select what sort of Alert you would like plus some extended features available for that particular alert type.

Settings:

- | | |
|---------------|---|
| Render Method | - the type of alert you wish to have displayed. |
| | NORMAL Use System Alerts |
| | CUSTOM Use Custom Alerts |
| | WINDOW Use Window Alerts |

Call exec Vector - will also call the original
exec.library/Alert() function

Sounds - turn sounds on/off. (Sounds are only available for the custom and window alert modes.

Timeout - number of vertical blanks before the alert should timeout. This is not available for Standard alerts, or Custom alerts on pre

kickstart V39.

Logfile enabled - if set AlertPatch will write a log of all the alerts generated. See also Logfile

Configure logfile - set the logfile name and other logfile options.

Alert File - additional alert descriptions may be provided in a text file. See Alert File Format

Custom Alert Mouse Buttons:

Recovery (right) - what action to take when the RIGHT mouse button is pressed. It is to be noted that a left mouse button on a Recovery alert means continue.

Deadend (any) - what action to take for a deadend alert. This is for any (either left or right) mouse button.

Window Alert Timeout Actions:

Recovery - the action to take when timeout occurs on a recovery alert.

Deadend - the action to take when timeout occurs on a deadend alert.

1.12 Alert File Format

Alert File Format

The alert data file is a text file named "AlertPatchData" residing in the current directory when AlertPatch is run, or a user specified file.

One alertnumber and description may be specified per line in the text file. You may use "#" to indicate at the start of a line to indicate that it is a comment.

---- Example File "AlertPatchData" ----

```
#Example AlertData file
12345678 Numerical consistency warning
80102FF0 This is my own alert
---- End Of File ----
```

1.13 Keep track of alerts...

Logfile

If the logfile is enabled then when an alert occurs, AlertPatch will attempt to write to the specified file information about the alert. It is strongly suggested that the file be located on a RamDisk or other such device, as writing to disk during an alert could cause possible errors in the filesystem, in order to reduce the chance of filesystem corruption it is possible to not write the DEADEND (the most serious) alerts to the file. Alternatively you may wish to output the logfile to SER: (the serial.device) or PAR: (the parallel.device). This choice is up to you.

LogFile - this sets the name for the logfile to be written. Selecting the BUTTON or pressing the HELP key in the string gadget will use a filerequestor to get the logfilename.

Do not log DEADEND alerts - if set then AlertPatch will not log any DEADEND alerts to the logfile. This may reduce the chance of corrupting the logfile.

1.14 Some audio to make alerts even more enjoyable...

MSD/UPD Sounds

AlertPatch will play sounds through a Sound Daemon such as MSD or UPD. These add an Arexx port to the system called "PLAY" and the following sound id's are sent to the port:

AlertPatch/Recoverable
AlertPatch/DeadEnd
AlertPatch/Continue
AlertPatch/Suspend

- o Sounds are only available if the "MSD/UPD Sounds" is checked in the configuration window and the alert mode is either custom or window.

Acknowledgements

UPD is Copyright © 1991 Jonas Petersson & Absolute Software (aka Sirius Soft)

MSD is Copyright © 1992,93,94 David Swasbrook. (Not released yet)

1.15 Why should you be careful?

Why you should be Very Careful

When you select an entry in the listview, AlertPatch will generate an example alert by calling `exec.library/Alert()`. This functions identically to when any other program calls `exec.library/Alert()`. And so if you select SUSPEND, AlertPatch will suspend itself, by selecting REBOOT the system will reboot.

If you do select SUSPEND or REBOOT and the alert has been generated by AlertPatch then a requestor will be displayed to make sure you are aware of what you intend doing.

1.16 Information on the NORMAL mode of AlertPatch

Normal AlertPatch

All alerts generated will be passed through to the original `exec.library Alert()` function before calling the specified patch routine.

1.17 Information on the CUSTOM mode of AlertPatch

Custom AlertPatch

The custom option will produce a "flashy" alert using the normal `exec.library` function `Alert()` but will contain all the information as below in a slightly larger than normal flashy box.

| | | | | | | | |
|---|-------------|-------------|-------------|------|-------|------|------|
| Task : 0x079527D8 "AlertPatch" | | | | | | | |
| Error : 0x81000005 (DEADEND) | | | | | | | |
| By : Exec library | | | | | | | |
| Cause : Corrupt memory list detected in FreeMem() | | | | | | | |
| D0:00000001 | D1:01E4DB57 | D2:00001000 | D3:079608CC | .... | ...W | .... | .... |
| D4:00000001 | D5:00000001 | D6:01E55BC9 | D7:81000005 | .... | .... | ..[. | .... |
| A0:079608CC | A1:0795F7C0 | A2:07813A84 | A3:07936D2A | .... | .... | ...: | ..mo |
| A4:079607B8 | A5:00F92324 | A6:07800804 | A7:07904AA2 | .... | ..#\$ | .... | ..J. |

The alert may be satisfied by timeout or by pressing either the LEFT or RIGHT mouse button with the following effects:

For DEADEND Alerts

EITHER BUTTON: Use the configured settings for custom mode, by default

this is reset.

For RECOVERABLE Alerts

LEFT BUTTON: This is always Continue.

RIGHT BUTTON: Use the configured settings for custom mode, by default
 this is reset.

For TIMEOUT

If the alert times out then the result is the same as would happen for
DEADEND and RECOVERABLE alerts (above) if the LEFT BUTTON was pressed.

1.18 Information on the WINDOW mode of AlertPatch

Window AlertPatch

Below is an example of what the window generated by AlertPatch looks
like (hey its the best i could manage with ascii :)

| | | | | | | | | | | |
|----------|---|------------------|-------------|-------------|------|-------|-------|------|--|--|
| | | | | | | | | | | |
| \| | O | Software Failure |  |  |  |  |  |  |  | \| |
| | | | | | | | | | | |
| \| | Task : 0x079527D8 "AlertPatch" |  |  |  |  |  |  |  |  | \| |
| \| | Error : 0x81000005 (DEADEND) |  |  |  |  |  |  |  |  | \| |
| \| | By : Exec library |  |  |  |  |  |  |  |  | \| |
| \| | Cause : Corrupt memory list detected in FreeMem() |  |  |  |  |  |  |  |  | \| |
| \| | User : root (David Swasbrook) |  |  |  |  |  |  |  |  | \| |
| | | | | | | | | | | |
| \| | D0:00000001 | D1:01E4DB57 | D2:00001000 | D3:079608CC | .... | ...W | .... | .... | \| |  |
| \| | D4:00000001 | D5:00000001 | D6:01E55BC9 | D7:81000005 | .... | .... | ..[. | .... | \| |  |
| | | | | | | | | | | |
| \| | A0:079608CC | A1:0795F7C0 | A2:07813A84 | A3:07936D2A | .... | .... | ...: | ..mo | \| |  |
| | A4:079607B8 | A5:00F92324 | A6:07800804 | A7:07904AA2 | .... | ..#\$ | .... | ..J. | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Continue | | | Suspend | | | | Reset |  |  | \| |

NOTES:

- o The "User : " field is only available if you have installed MultiUser filesystem .
- o If the system is too badly damaged then there is a high chance that the window will not be displayed and the computer may lock up.

Use the custom mode if you find this annoying.

1.19 The CONTINUE button...

Continue Button

The continue button allows task that caused the alert to continue doing whatever it was doing. If you do this on a DEADEND alert then you may find that the task will cause some serious problems and you will end up rebooting.

1.20 The SUSPEND button...

Suspend Button

The suspend button simply puts the offending task to sleep. This is achieved by calling the exec.library function Wait() with a NULL for the signal mask.

```
moveq #0,d0
SYSCALL Wait
```

This effectively stops the task from causing any more harm than it has done.

1.21 The RESET button...

Reset Button

The reset button will reboot using the exec.library function ColdReboot().

1.22 All about updates...

Update Information

I will try and further improve AlertPatch if I have time for it. Registered users will at least get a notification when new versions of AlertPatch get available that contain significant changes or enhancements.

New versions of AlertPatch will also be available on the Internet per "anonymous FTP" (look on Aminet).

In order to be able to improve and/or correct AlertPatch, I would like to ask every user to do the following:

- o send me the registration fee of US\$ 10
- o send me bug reports, if you find any bugs
- o give me hints how to improve AlertPatch

See Shareware section for details on my mail address.

Thank you very much in advance !

1.23 How to find AlertPatch...

How to detect AlertPatch -- A programmers perspective

AlertPatch may be found by finding the Semaphore named "AlertPatch" which is the following structure:

```
STRUCTURE TheAlertPatch,ss_SIZEOF
  UWORD    ap_Version
  UWORD    ap_Revision
  APTR     ap_VersionString
  APTR     ap_OriginalVector
  APTR     ap_NewVector
  ;--- The following were added for V2.20
  APTR     ap_DiskLogName
  LABEL    ap_SIZEOF
```

1.24 MultiUserFileSystem

MultiUserFileSystem

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You've got an Amiga with Kickstart 2.04 or higher and several people are regularly fooling around with it ... Last week your sister deleted your 20MB JPEG collection by mistake and you don't want this to happen again ...

Well, here's the answer: MultiUser!

MultiUser allows you to create a *IX-like environment where several users live together in harmony, unable to delete each others files, unable to read those private love-letters of other users ... And this even if several users are working on the machine at the same time (on a terminal hooked up to the serial port) ...

You are the sole user of your computer? Well, make sure it stays that way by installing MultiUser! People without a valid login ID and

password won't be able to access files you have made private with MultiUser. If you make all files private (not readable for others), the only useful thing they could do, is boot from a floppy ...

And ... you do not have to reformat your hard drive!

1.25 List of contributors

Contributors

Thank you to the following translators:
français - Jean-Michel Bezeau

Thank you to the following who have sent in suggestions and requests:
Carlos Amezaga

Thanks also to the following who reported bugs:
Denis Bucher

Beta testing performed by:
Daryl Jay

Also thanks to Osma Ahvenlampi for designing the MagicWB icon.

o I'm sorry if you have contributed and your name is not in the above lists. I try to reply to all email so if you have sent me some mail and not received a reply then it is more than likely that my mailer sent it to nil: accidentally.

1.26 Whats been happening...

History Information

'V3.0' o Commodities support
o Locale support
o Arexx support
o User definable alert numbers and descriptions
o Preferences interface changed
o The safe mode is no longer an option and detects if an alert is a test alert much better
o MagicWB style icon added

'V2.31' o Fixed email address

- 'V2.30' o Multiuser FileSystem support, displays the name of the owner of the offending task (only if you are using MultiUser Filesystem)
 - o Locale support (Interface only)
 - 'V2.20' o Now has safe option, this reduces the chance of accidentally suspending AlertPatch or resetting the machine when you are testing alerts.
 - o Alerts may now be logged to a disk file
 - 'V2.19' o Added timeout for Custom and Window Alerts
 - o Can call the old Alert function before a Custom or Window Alert.
 - 'V2.18' o Added in configurable action for pressing the right mouse button for Recoverable alerts, and either mouse button for DeadEnd alerts.
 - o The AlertPatch main window is disabled while "testing" alerts.
 - o Changed disclaimer and shareware documentation.
 - o Improved documentation about testing alerts.
 - o Added sounds to the window alert.
 - 'V2.17' o Fixed to work under V37
 - 'V2.16' o Initial release on Aminet.
 - o (Incorrectly documented as working under V37)
-