

Date: Sun 3 Mar 85 12:41:15-PST

From: Gustavo Fernandez <FERNANDEZ@SU-SCORE.ARPA>

Subject: Programmers' Deep Shit Alerts

Anyone who has read the system error handler section of Inside Mac has seen the 'system alerts' window which was supposedly for programmers while the bomb we all know and love was for naive users.

Unfortunately, Apple never released the programmers' alerts.

Having a very old version of the system (october '83) from which I was able to grab such goodies as the Monkey, etc, I decided to try to bring over the old deep shit alerts as well. (That's what they're called!)

I had to do a complete disassembly of the file as several updates had been made since then. I then merged my disassembly with the published source of the user alerts (Lisa workshop local/init2.text) The results are now stored in <info-mac>sysalerts.asm (assembly source) and <info-mac>sysalerts.hqx (BINHEX 4.0 file of resource file sysalerts containing a single INIT 2 resource to replace the existing INIT 2 in the system folder - Use REDIT.)

The programmers' alerts have the following advantages...

- 1) They display the error message as well as the error code. (ID=28 is displayed as "Stack overflow," etc.)
- 2) They give a register dump of A0-A7/D0-D7 and PC.
- 3) There is a FINDER button that does an ExitToShell call as well as the usual restart and resume buttons.

They have the following disadvantages...

- 1) They are definitely NOT for naive users. The register dump is ugly. The error messages might either scare people or make them jump to conclusions
- 2) The FINDER button may not always work. Currently it does the same as the RESTART button if the ExitToShell trap is patched. (Both the switcher and Hyper do this.)
- 3) They take up almost 4 times as much memory in the system heap than do the user alerts. I have yet to try these out on a 128K mac where the system heap is a lot smaller.

I took a few liberties and added a few things to the code.

- 1) The register names are displayed as well as their values. (ie D0=xxxxxx...)

- 2) Some of the error messages have been changed to reflect their true meaning in a Mac environment (eg Line 1111 exception changed to Fxxx Breakpoint.)
Some other errors which are nearly impossible to create (such as bus error or privelege exception) were deleted to save memory.
- 3) The grayed out RESUME button, which was faked in by the user alerts, and nonexistent in the system alerts, was added for the sake of compatibility.
Some memory can be reclaimed by deleting subroutine PlotGrayBut and its single call at the beginning of routine p4. This will make this button appear ONLY when resume is enabled.
- 4) Certain parts of the display were shifted slightly
- 5) The code now comforms to the current conventions which have changed since October, '83.

Have Fun and Happy Hacking.
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Return-Path: <FERNANDEZ@SU-SCORE.ARPA> Date: Mon 4 Mar 85 23:01:34-PST
From: Gustavo Fernandez <FERNANDEZ@SU-SCORE.ARPA> Subject: Re: your
D--- Sh-- alerts codes. To: INFO-MAC-REQUEST@SUMEX-AIM.ARPA

To install the alerts, simply use RMOVER or the Resource editor to replace the INIT 2 resource in the system wwith the new one.

Gus