CRASH X
Ti83+/SE/84+/SE

This file will tell you everything you need to know about anything related to those mysterious freezes and RAM clears

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1. Levels

There are several different 'levels' of crashes. The 'lowest' level is level 1- your calc will turn off by itself. When turned on again, a RAM cleared message will be displayed, all the way up to lvl 6….

Credit goes to http://dragonfire.unitedti.org/asmin28/ref/crash.html for this table.

Panic Level	Try This
1	Press [ON].
2	Open the battery case, take a battery, and swivel it on the springy terminal.
3	Take out all four batteries and re-insert them.
4	Take out all four batteries *and* the lithium backup—you'll need a small phillips-head screwdriver (the screw is pretty dang long).
5	Take out everything and let the calculator sit on its face for a couple hours to let the power drain out.
6	Get the reciept and take the calculator back to the store. If they refuse to exchange, make the best of a bad situation and get a TI-86 or 89 this time. Oh, and instead of just throwing the thing away, position it on
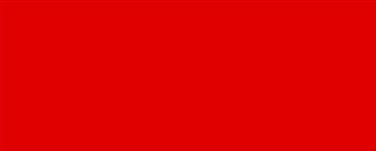
the sidewalk, and have it and a baseball bat repeatedly attempt to occupy the same co-ordinates in space-time. The spritzing LCD oil does wonders for that ancient bloodlust.

Please don't sue me…
I would like to add 2 more levels to the list; a level 0.5 and a level 1.5
Level 0.5 is when the screen freezes, then automatically clears the RAM
Level 1.5 describes a situation in which the screen freezes, then the batteries must be pulled out in order to resume operation (the RAM is cleared, of course)

2. A story…..

This is an interesting little anecdote that happened to me one day after messing around with MOS and some other random games…..

As you know, the 83+ has only ~24kb of RAM. Since I'm so paranoid about crashes (mainly form the experience that allows me to write this file), I keep everything archived almost all the time….
I was scrolling through my memory menu, about to unarchive some stuff (with ~23560 bytes RAM free), when I saw a variable "B" between the scalars and the apps. It wasn't the scalar variable "B"; I saw that in the scalar list….
This particular variable was in RAM. It was 8145 bytes. My RAM had 23kb free already…. WTF!!!
So I deleted it.
Calc turned off. RAM clears
Used Omnicalc (see section 3, protection) to recover my RAM (since I'm too lazy to re-hide all my MOS games)
The "B" re-appeared.
I tried to delete it again; this time, the process went through. Now I had over 30kb of free RAM…..
As I scrolled back up through the mem menu, I saw the graphing variable u1 and v1 in RAM as well, 65 bytes each…. Past them was another variable, w1. w1 was 16543 bytes. …..
When I tried to scroll past it, the calc crashed again….

So beware mysterious variables in your memory.
Although what happened to me was only a lvl1 or 2 crash, it might have done much worse. If you encounter something of the same kind, or encounter an ERR: MEMORY while scrolling through the mem menu, use the calc's reset RAM function to safely get rid of them….

This has happened to me 2 more times after that, with the variables Y1 and Y2, and with a program that was… 65543 bytes (?)

3. Protection

There are quite a few ways to protect your RAM from crashes; my favorite is Omnicalc's restore RAM function for SE's. You can download Omnicalc from detachedsolutions.com.

If you don't have Omnicalc, then I recommend grouping variables that are not on your computer (BASICs in the works?) or things that you generally keep in RAM (small games, math progs). This will keep those variables backed up in ROM, though grouping does have some issues (see section 6, OS crashes)

Another method is to keep all your games archived and run them form MOS or a similar shell- you'll never have to archive/unarchive again…

I use all three methods.

Of course, like ***, the best way to protect yourself is through non-activity. Don't use your calc, don't get crashes

Of course, then you wouldn't be reading this.

4. BASIC

Believe it or not, there are ways that your calc can crash through TI-BASIC.

(they are only lvl 1-2 crashes)

Here are a few ways….

:expr("

:"→Str0
:expr(Str0

:"
:expr(Ans

(these are all the same, more or less, but the former will not work on the 84+/SE 90% of the time….)

:"0"→Y1
:Equ→Str(Str0, Y1
:Equ→Str(Str0, Y1
:Equ→Str(Str0, Y1
:Equ→Str(Str0, Y1

This will put gibberish into Y2 and screw up the screen after a little while

Doing any long/big calculations after playing assembly-language games will sometimes produce a crash.
Once, I ran my memory-management program, SuperMem (available from ticalc.org) and the calculator crashed.
Running BASIC progs from shells like MOS or DCS may crash your calc

5.ASM

Of course, there are manymany ways to crash your calc with assembly programs

Some crashes are unknown; one day I was playing Mario and the screen randomly froze. Using the Port Monitor with Calcsys (detachedsolutions.com) and exporting certain values will produce a crash

Any assembly program with syntax errors in it will produce a crash.

Making a BASIC prog like this
:AsmPrgm
:<random gibberish using only characters 0-9, A-F>

and running with the Asm(token will (usually) produce a crash

If you are (un)lucky, the code will actually do something in asm and a prog will be run on your calc (Asm programs, once compiled, are just a stream of hexadecimal numbers; random numbers will usually not make sense to the calc and therefore make it crash)
WARNING- MAY PRODUCE UP TO LVL 6 CRASHES!!!
Ex:
:AsmPrgm
:896956879257AFB4A

6: OS Crashes
The TiOs is <fairly> stable.. but random crashes always have a chance of occurring!!!!
Sometimes while doing things like grouping variables, the screen will freeze.
Pressing MODE+ ALPHA+ [S] +ENTER will clear your memory (RAM) after doing some cool graph stuff

In general, I would say never take chances with TI.
Crashes happen way too often to me, for no apparent reason

Comments/questions?
Email squidgetx@yahoo.com
SqudgeTI is coming soon; watch for www.geocities/yahoo.com/squidgeti !