

Fractal Pack v 1.0 by Ashwin Wavde

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<http://www.geocities.com/washin99>

--NC section coming soon!

About The Author

I am 19 years old, I live in the Western Suburbs of NSW, Australia. I am currently studying for a degree in Mechatronics Engineering at Sydney University. For those that haven't heard of it, Mechatronics is a combination of mechanical, electrical, electronic & computer engineering.

I have been developing a few apps for the NC100 but it's too hard to test them when the only way to test it under zcn is to use a computer and emulator! I looked for memory cards here in Australia but they are over \$200 (around £60-£70) and that's not for a 1MB card!. As a student I can't afford that, but I do want to have a good crack at zcn and write some programs for it, as programming is partly what I am doing at uni. The problem is that the NC's memory is way too small for a decent program which is why zcn is just perfect, and you can utilise the CPU better, but I can't do that without a memory card!

I am trying to learn assembler for the NC and also the ti-83 graphics calculator (see <http://www.ticalc.org> or <http://www.ti.com> for details) but they are very different the only similarity between the two is the have zilog 6MHz CPU's (you can even overclock the ti to 24 MHz- that's some serious calculator power!). You should check out how advanced some programs are for just a humble graphing calculator! There are infrared links and all other weird gadgets for it!

I have started on porting some NC200 programs to NC100 but alot of the nice graphics are lost due to the screen size difference. Uni will start in about 2 months and I am very busy at the moment so I don't know how fast I can get apps out. What I have done should be up on my website.

About The Program

I decided to make a fractal set because, well, they look good darn it! I am looking around for some fractal algorithms to convert to an NC version. I tink they are just great to look at after working hard all day. I tried to make the program as graphically pleaing as possible on a small screen. I think it's pretty good. I am not an assembler programmer so my progs are very basic, but they work! Please give feedback on how I could improve the code, or maybe even how to use Machine Language to plot the fractals so it's even faster and you could thus do a longer loop with more detail in the picture.

The following screenshots come from *Russel Marks'* NC100 emulator for MS-DOS running zcn 1.3. zcn would be the better way to view them as it can get more use out of the CPU and thus creates the fractals faster than under the NC's os.

Anyway, I hope you enjoy the fractals, I have more programs coming soon!



Fern Fractal



Sierpinski Triangle



Dragon Fractal



Main Menu

Possible Issues with ZCN

To run this program under ZCN, under my DOS-box emulator atleast, you will need to edit lines 130 and 140 of the code. This is because ZCN assigns different values to some of the key presses from GET. line 130 should have `IF G=5`, and line 140 `IF G=24`. I don't know about zcn on a "real" NC because as I've said I can't test it without a memory card! Otherwise, from my testing, it should work fine.

-program history
5/12/01 -sierpinski triangle prog made
6/12/01 -dragon fractal prog made
10/12/01 -fern fractal prog made
10/12/01 -made all 3 into PROC's
13/12/01 -created a menu and put all PROC's together
-file size at this stage about 2.5K.
-finished readme
15/12/01 -tidied up code
-final code size 2.74K
4/1/02 -updated readme