

# Educational

*Path:* /NEBULA1/Educational

*Description:* Educational applications

*Quad-FAT:* 22 Motorola/Intel/PA-RISC/SPARC

*Tri-FAT:* Motorola/Intel/PA-RISC

*Dual-FAT:* 1 Motorola/Intel

*Motorola:* 13

*Intel:* 5

*PA-RISC:*

*SPARC:*

*Total Apps:* 41

## NEBULA1/Educational/aa\_Intel\_m68k\_Only

octave-1.1.1

Rex Dieter

Octave is a high-level language, primarily intended for numerical

computations. It provides a convenient command line interface for solving linear and nonlinear problems numerically, and for performing other numerical experiments.

Motorola/Intel

## **NEBULA1/Educational/aa\_Intel\_Only**

CellFractionation3.1

Version 3.1.2 by Charles G. Fleming and Glen G. Wurst

Intel

DiffusionAndOsmosis3.1

Version 3.1.1 by Charles G. Fleming and Ann M.Kleinschmidt

Intel

Nugs

Version 1.0 by M.Wesemann

This is a program that simulates evolution.

Intel

ODE

Version 2.0 by Paul Burchard

A flow viewer for ordinary differential equations

Intel

Water\_2.0.intel.app

Water is a program to calculate dependent state, thermodynamic, transport, and electrostatic properties of water as a function of user-specified state conditions and unit and triple point conventions.

Intel

**NEBULA1/Educational/aa\_m68k\_Only**

ArsMagna

Version 1.0 by Jeff Adams

First, a definition: An anagram of a word or phrase is a rearrangement of all of the letters in the original word or phrase to form a second word or phrase. All of the letters must be used exactly as many times in the

anagram as they were in the original.

Motorola

Doctor

Version 1.0 by Derek Ney

An animation of body parts.

Motorola

Epsilon - Delta

Version 1.0 by Dr. Eric Gossett

This lab will help you gain an intuitive understanding of the formal definitions for limits, continuity, and uniform continuity.

Motorola

Flash

Version 99.99 by Ernest N. Prabhakra

FLASH produces flashcards on the NeXT.

Motorola

GeneMapping.app

Motorola

Graviton

Version 0.31B by Kevin Solie

Graviton Jr. simulates the gravitational effects on bodies in two-space.

Motorola

Laser

Version 1.00

rate Equation Model for 4-Stage Laser

Motorola

Lingwhat

Version 0.9 by Scott Deerwester.

Lingwhat is an application for determining what language a book or article is wrtten in. It claims neither to be complete nor absolutly correct.

As worst, it should be entertaining.

Motorola

Mandel

Version 6.4 by R.Pajarola

This application computes the normal Mandelbrot Set.

Motorola

NeXTcontour

Version 1.4 by Thomas H. Pulliam

NeXTcontour is intended for use in plotting contours of functions from either 2D (two-dimensional) or 3D (three-dimensional) data sets.

Motorola

NXSpice.app

NeXT Spice3c1

Version 1.3 by Ronald D. Fellman

Motorola

Pendulum

Version 1.0

Damped Driven Pendulum

Motorola

TimesTable

Version 1.0 by Archie Bird III

This is a program designed to emulate the guessing style of some of the toys available for small children that are learning the multiplication tables.

Motorola

## **NEBULA1/Educational/**

AMS

Article Management System

Version 1.0 by Krishnaprasad Kamisetty

Stores records of research paper. Great for your school papers

Includes source code

Motorola/Intel/PA-RISC/SPARC

Chaos...

Version 1.1 by Sean L. Hill

This is a very small sample program that may be useful to beginning programmers. It demonstrates the use of UserPaths for fast drawing of a series of data points.

Includes source code

Motorola/Intel/PA-RISC/SPARC

CurveGrader

Version 0.8 by Rob Ferrante

CurveGrader takes a list of test scores, normalized to the range 0 to 100, and presents a tool for determining breakpoints between assigned letter grades. Grades can then be loaded back into the list of the corresponding scores.

Includes source code

Motorola/Intel/PA-RISC/SPARC



Dual

by Ross Cutler

Dual is a simple application to demonstrate the concept of duality as used in computational geometry (and arrangements).

Includes source code

Motorola/Intel/PA-RISC/SPARC

Fitts

Fitt's Law Experimenter

Version 1.0 February 1991 by Stuart Ritchie

A program to test human motor skills on user interfaces

Includes source code

Motorola/Intel/PA-RISC/SPARC

FractalView.1.0

Version 1.0 by Peter Merz

FractalView is a program to calculate and display fractal sets like the popular Mandelbrot Set.

Motorola/Intel/PA-RISC/SPARC

gap-3.4.2

Rex Dieter

GAP is a system for computational discrete algebra, which we have developed with particular emphasis on computational group theory, but which has already proved useful also in other areas. The name GAP is an acronym for \*Groups, Algorithms, and Programming\*.

Motorola/Intel/PA-RISC/SPARC

Henon

Version 0.7 by Anders Bertelrud

A Henon mapping is an area-preserving map of a plane.

Includes source code

Motorola/Intel/PA-RISC/SPARC

HodgePodge3

Version 3 by Allen King

A cellular automaton, described in Scientific American May 1985, involving the deterioration and curing of the health of a two-dimensional

array of cells.

Includes source code

Motorola/Intel/PA-RISC/SPARC

IP\_Graph3D

by Varun Mitroo

Graph3D draws a three-dimensional mathematical function within a bounding volume. The user is able to rotate this function freely as well as change the scale and the degree of perspective. Currently, there is no option to change the function displayed.

Includes source code

Motorola/Intel/PA-RISC/SPARC

Julia

Version 2.0 August 1990 by Edmund Ronald

of  $f(z) = z^2 + c$ , The Beauty of Fractals

Includes source code

Motorola/Intel/PA-RISC/SPARC

lp\_solve-2.0

Rex Dieter

The public domain linear optimization package: lp\_solve with a few test examples

Includes source code

Motorola/Intel/PA-RISC/SPARC

macaulay-3.0

Rex Dieter

Macaulay is a system for computation in algebraic geometry and commutative algebra. Currently, Macaulay is one of the few systems that require little space and time to compute a Groebner basis of any system of polynomial equations.

Motorola/Intel/PA-RISC/SPARC

MolViewer

Version 0.2 by Steve Ludtke

Most computers around nowadays have some sort of molecular modeling/viewing program available in the public domain or

commercially. I needed such a beast for my research (molecular biophysics), and couldn't find one for the NeXT ... hence MolViewer was born.

Includes source code

Motorola/Intel/PA-RISC/SPARC

NNV

Neural network Viewer

Version 1.3 by David J. Ferrero

Graphically displays feed forward neural networks

based on network descriptions in a .network file breaking the network up into layers, and evaluating the activity within the network based on the supplied .input file.

Includes source code

Motorola/Intel/PA-RISC/SPARC

Ortografie

Ralf Suckow

Ortografie is a spelling trainer.

Motorola/Intel/PA-RISC/SPARC

pari-1.39

Rex Dieter

The PARI system is a package which is capable of doing formal computations on recursive types at high speed; it is primarily aimed at number theorists, but can be used by people whose primary need is speed.

Motorola/Intel/PA-RISC/SPARC

PrimeSpiral

Version Nov 22, 1991 by C.D.Lane

The concept of the prime spiral is simple: start at the center of a square and spiral outwards, inverting those bits whose positions on the spiral correspond to a prime number.

Includes source code

Motorola/Intel/PA-RISC/SPARC

PrimeThreads

by David S. Joerg

Tries to find the highest prime number (unstable application)

Includes source code

Motorola/Intel/PA-RISC/SPARC

RasMol

Roger Sayle's popular molecular graphics program.

Includes source code

Motorola/Intel/PA-RISC/SPARC

Sphere

Version 1.0 by Varun Mitroo and Tyler Gingrich

The light source is fixed in the Z-direction and the program uses Lambert's law of cosines to calculate the shading.

Includes source code

Motorola/Intel/PA-RISC/SPARC

Traveling Salesman Problem

by Nolan R. Davis and Joseph Jeffery

An application of simulated annealing

Includes source code

Motorola/Intel/PA-RISC/SPARC