Examples from Professor Crandall, Chief Scientist, NeXT Computer, Inc.

Disclaimer: These applications are experimental and therefore are not supported through standard NeXT customer channels, nor should it be assumed that this software is made available under future releases of NeXTSTEP.

CompressionLab

This application allows you to open up any TIFF image and then compress the image using a choice of compression techniques. Note: alternatively, you can drag a TIFF icon into the main window to open. The ScrollView on the left displays the image.   The ScrollView on the right displays the image after it has been compressed and expanded. The Result box displays some statistics on the compression.

The JPEG compression technique works on 12 bit or 24 bit color images and allows you to trade off between fidelity and size.   That is, you can get greater compression by losing some correctness in the resulting expanded image.   This is specified as the JPEG Q-factor.   The larger the Q-factor the more compression (and consequently less fidelity) you'll get.

Gourmet

Gourmet is a power calculator that launches a *Mathematica* kernel.   Once launched, this kernel will perform symbolic & numerical mathematics according to the prevailing Mathematica specifications.   Recent updates include support for *Mathematica* 2.0.

ProbeScope.app

ProposeScope allows three simultaneous inputs: a microphone channel and two 44ksample/sec "probe" input channels.   The microphone channel is always finctional and refers to the standard, built-in CODEC input on a NeXT computer.   Any good electretÐor even a lower grade passive microphoneÐcan simply be plugged int othe input and analyzed by ProbeScope.   For 44kHz stereo probe data input, a separate program is interrogated by ProbeScope.

Touch.app

Touch allows graphical connection to remote FTP sites.

Zilla.app

Zilla is a "community supercomputer" application.   The idea is that volunteered machines are used to participate in parallel computations. This version of Zilla is the one that Professor Crandall uses in his research.

Zilla loves to devour research problems, such as analyzing large numbers or doing quantum-theoretic calculations or modelling black hole collapse or designing medicines or simulating a living brain, and so on.   But Zilla also likes to be taken to the movies.

RenderMan runs nicely on Zilla, so one can make a synthetic movie by doing, say, one frame per machine.   Zilla is also capable of generating symphony orchestration, say with one instrument synthesized per machine.

Above all, Zilla does something that computers were designed to do and are supposed to do, which is to work all night every night.

To convey the scale of Zilla, we define one Zilla Unit (Z.U.) as 100 NeXTstations.   The performance of one Z.U. is roughly equal to an account on a modern Cray-YMP supercomputer.   If you like numbers, then 1 Z.U. is about 1.5 GIP (1.5 billion instructions per second) and 200 megaflop (200 million floating-point instructions per second).

For Zilla help or commentary of any flavor in any direction, contact:

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