NCSC – North Carolina Supercomputing Center

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North Carolina Supercomputing Center
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Description

The mission of the North Carolina Supercomputing Center (NCSC) is to promote the growth of computational science, education, and research in North Carolina institutions and to foster the economic development of North Carolina through high-performance computing and its applications. The primary focus of NCSC is to promote economic growth, computational science and education in North Carolina through cooperative agreements with industry and research collaborations with academic institutions at all levels. NCSC is a division of MCNC, a non-profit company. NCSC offers high-performance computing on the following platforms:

Cray YMP8/464	128 MWords SSD	62 GBytes of disk storage
Convex C220	128 MBytes of memory	10 GBytes of disk storage

An IBM 3090-180J provides mass storage services for the Center using Unitree. The Center's computers are connected via a high-speed UltraNet network.

The NCSC visualization lab includes a Silicon Graphics 4D/280 GTX with stereo display, UltraNet network interface, eight processors, 128 megabytes of memory and three gigabytes of disk storage; a Silicon Graphics 320 VGX-Turbo with 32 megabytes of memory and 8 gigabytes of disk storage; a Sun 4/490 with 64 megabytes of memory and 7.3 gigabytes of disk storage; a DECStation 5000/200 PXG-Turbo with 96 megabytes of memory and 850 megabytes of disk storage; and a Stardent Titan 3040 P3 G3 with four processors, 64 megabytes of memory and 2 gigabytes of disk storage. The lab also includes a NeXT computer with color monitor, a Macintosh IIci with color monitor, a Kodak XL7700 color printer, an optical scanner, a film recorder, two commercial-grade component video recorders, a video digitizer, a scan converter and a digital frame store, and a multi-format video transcoder.

NCSC was chosen as the site of the International AVS Center in 1991. Two of the International AVS Center's goals are to broaden the user base and the functionality of Application Visualization System, the current *de facto* standard visualization environment, and to be vender-neutral. The International AVS Center plans to reach this goal by fostering discipline-specific AVS module development and developing new uses for AVS. The International AVS Center collects, ports and distributes user-contributed public domain AVS modules and serves as a liason between AVS users and vendors. The International AVS center manages an International AVS Users Group to work with users from around the world to form local user groups.

NCSC provides user support through e-mail and telephone con- tacts; it also provides training courses on a wide variety of supercomputing topics. NCSC has a complete training facility with lecture facilities, video taping capability, and a hands-on training laboratory populated with 16 workstations. NCSC is a partner in the VISTAnet project, a component of the NREN project sponsored by the National Science Foundation. NCSC is installing a HIPPI based internal network for high-speed visualization and mass storage services. The Research Institute within NCSC pro- motes interdisciplinary and computational approaches to challenging problems through collaboration with industrial and academic partners.

Network Access

NCSC is a member of CONCERT, a state-wide network with bandwidth up to T3, operated by MCNC's Communications Division (see section 5.23 of the Internet Resource Guide). CONCERT accesses the Internet through SURAnet (see section 5.17 of the Guide). A state-wide two-way video and voice conferencing network, also operated by MCNC's Communications Division, connects NCSC with universities across the state for collaboration and training.

The network address of the NCSC Cray is *flyer.ncsc.org*. The mail server is *ncsc.ncsc.org*.

Who Can Use The Center

Academic resources are allocated on a peer-review basis to researchers affiliated with North Carolina's education system at no cost to the researchers. Resources for industrial affiliates are granted according to individual cooperative agreements.

Miscellaneous

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References

NCSC forms, documents, CONCERT training material, utility programs and more are available through anonymous ftp. The anonymous ftp account is located on the Convex C220 at NCSC. The IP address is 128.109.178.1 or cardinal.ncsc.org. After you ftp to the server, enter the account name anonymous. You are then prompted for a password or identification name. At this prompt, you should enter your e-mail address. When you type in your e-mail address at this prompt, it will not be echoed on the screen. Once you are logged into the anonymous account, a limited set of UNIX commands are available, such as ls, cd, help, and get.

For additional information and instructions on using the account, see the pub/README.ftp file or enter man ftp at the system prompt to see the man page. Copy this file to your directory on the machine where you initiated the ftp session. Type quit to log out of the ftp session.