## California Science Center



## CALIFORNIA STATE SCIENCE FAIR 2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.)

Jace K. Priester

Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9)

Network Intercomm - software to send messages, files, and chat over local area networks

**Science Fair Use Only** 

**J1121** 

Division
J Junior (6-8) J Senior (9-12)

Preferred Category (See page 5 for descriptions.)

## 11 - Mathematics & Software

**Abstract** (Include Objective, Methods, Results, Conclusion. See samples on page 14.)

Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.

**GOAL:** My goal was to write a computer program that would allow the sending of files and messages, and open chat over a loca area network. It had to simple enough for children and adults with no computer experience to use. It had to operate without a fixed server. Finally, it had to have a password protection system in place that could be used when security was necessary.

**METHOD:** Network Intercomm (NIC) is written in the C++ programming language using the Microsoft Foundation Classes and many classes that I wrote myself. It makes use of Windows Sockets which provide a fast and efficient way to transfer information without requiring the sharing of hard drives. All data transfer is run through a single socket in the main thread.

**RESULTS:** NIC has been tested on multiple LANs and is in use at First Christian Academy in Columbus, Ohio. It works better than I had ever expected. It works equally well on Windows 95, 98, and 2000. I'm fairly certain it will also work on NT, although that remains to be tested. It is simple and intuitive to use, even without reading the help file. It also comes complete with an easy to use installer. All aspects of the program are functioning perfectly.

**DISCUSSION:** NIC may not have all the features of Microsoft Exchange, but it has enough to suit the average person's needs. The lack of complexity has the advantage of making NIC simple and easy to use. It works very well on a small LAN. Each computer is a single node, separate from the rest of the network. There is no server, and there are no clients. This makes NIC a better choice for small LANs, many of which don't have servers running all the time.

**Summary Statement** (In one sentence, state what your project is about.)

Network Intercomm is a computer program that allows the sending of messages, files, and open chat over a local area network.

**Help Received in Doing Project** (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4.