New Library Materials

The Computing Center's Documents Room (205) has recently added a number of new materials, including:

**Books:**
- *Inside the IBM PC*, Norton--1986
- *Variations in C*, Schustack--1985

**Reference Materials:**
- *Glossary of LAN (Local Area Networks) Terms*, LAN Magazine--1986
- *Computing Resources on the University of Oregon Campus--1987*

**Magazines:**
- *Computer Graphics Review*
- *LAN: Local Area Network Magazine*
- *MacBriefs: Resource Digest for Macintosh Professionals*
- *MacNews: The Business Journal*

You'll also find new public-domain software for the Apple Macintosh and IBM PC. These programs, like all of the materials in the Documents Room, are available to anyone. Check the Documents Room for current holdings.

LAN/1: What Is It?

This is the second in a series of articles about the University's LAN/1 network and network terminology in general. Last month we described the physical broadband cable; this month we'll look at NIUs.

Every device (terminal, microcomputer, printer, plotter, mainframe computer, etc.) on the network must be connected via a network interface unit (NIU). The type of NIUs in use determines the type of service and transmission available on the network. Separate NIUs and software are needed for each broadband channel at every point where a device is attached to the network.

Each NIU has its own processor (CPU) and modem to direct the flow of data through the network, the actual conversion of data, and error checking. The modem translates data to the appropriate frequency for transmission over one of the broadband channels. Communications from many devices on a single channel are controlled by a protocol, a strict language or set of rules governing whose turn it is to "talk" on the channel and how error checking takes place.

This technology represents a distributed approach to networking: each NIU serves just a few devices. When an NIU goes down, no more than a handful of connections are lost, rather than the entire network. And, each NIU connection is always available—the CPU is always waiting for the device it serves to transmit data.

Our current network is usually referred to as the LAN/1, but that is really the type of NIU we have...Allen Bradley Vista LAN/1 NIUs. We are using one forward/reverse channel of the broadband cable for the LAN/1 service. It provides simple terminal service allowing data to be transferred between two devices at speeds up to 2.5 million bits per second (2.5 Mbps). A virtual circuit that acts like a direct connection by wires is established between the two devices. Anything "typed" on either device appears on both. However, unlike direct wires, the LAN/1 allows you to change the circuit by "hanging-up" and "calling" a different device.

Approximately 250 NIUs (about 2000 devices) can be supported on our current LAN/1 service. Next month, we'll describe briefly how the LAN/1 can be used.

Network Mail and File Exchange

With the addition of the DEC 1091 to the international BITNET network, the exchange of electronic mail and files has become easier on both the DEC and IBM mainframes. Several new DEC commands make sending and receiving network mail and files similar on both systems:

- to send mail: mail to receiver at node
- to read mail: mail on CMS; rdmail on the DEC
- to send a file: sendfile fileid to receiver at node
- to list waiting network files: q rdr all on CMS; ndirect on the DEC
- to move waiting files into your area: receive
- to delete waiting files: purge rdr spool# on CMS; purge fileid on the DEC

These commands can be used to exchange mail and files both locally and worldwide. On CMS (node oregon1), you can communicate with people on BITNET. From the DEC (oregon2), you can reach others on BITNET and on UUCP, a worldwide Unix-based network.

Other networks, such as ARPAnet, can be reached via BITNET and UUCP "gateways." Gateways connect separate networks and provide greatly simplified addresses for reaching people at other institutions. Mail from CMS and mail and files from the DEC can be sent via the gateways.
known to each system. Type help gateways on the
DEC or help mail networks on CMS for addressing
instructions and a list of gateway nodes.
For more information on network exchanges, see the
newly revised write-up, "Network Mail and File
Exchange," available in the Documents Room (205). For
the DEC, see the new online help files for each of the DEC
commands above, and the MAIL write-up. On CMS, there
are help files for the CMS commands listed above. The
BITNET write-up tells how to use it from either system.

Smile Online

The intent of computer communiques can be difficult to
identify without the vocal inflections that accompany face-
to-face and telephone exchanges. Jokes, sarcasm, and other
conversational nuances are often taken too literally when
read. The symbols listed below have evolved to help clarify
computer messages. To read these expressions, which are
really cartoon faces turned on their sides, turn the page 90
degrees to the right. Try using some of these to make the
intent of your online communications clear:

:-O Wow! :-O Smiling
:-*: Smirking :-(: Frowning
:-!: Grim :-!: Unhappy
:-:* Oops :-*: Shouting
:-* Winking :-*: Unbelievable
:-) Sardonic incredulity :-C Unbelievable
:-* Pursing lips :-*: Unbelievable
-:%- Doubled over with laughter
:-w Speaking with forked tongue
:-I Grim :-v Frowning

This list was culled from online use and articles in the
computing newsletters from the University of New Mexico
and the University of North Carolina, Greensboro.

New Micro Purchase Plan Products

The new personal computer products recently announced
by both Apple and IBM are available at a discount to U of
O faculty, students, staff, and departments through the
University's Microcomputer Purchase Plan.

On March 2, Apple introduced more than 25 new
products, including two new Macintosh models:
- the Macintosh SE—an enhanced and redesigned
Macintosh Plus with added internal storage
capacity.
- the Macintosh II—a high-performance, open-
architecture, top-of-the-line machine, with several
display options (including color) and the ability to
run other operating systems.

Additional Apple products available at a discount include
storage devices, memory upgrade kits, keyboards,
motors, and MS-DOS compatibility options.

On April 2, IBM introduced the new Personal System/2
microcomputer line, including more than 100 new products
and four new models:
- the 8530—an entry level model based on the 8086
processor
- the 8550 and 8560—intermediate level models
using the 80286 processor
- the 8580—a top-of-the-line model based on the
80386 processor

All four models will use 3.5-inch disk drives and have
increased memory, increased disk storage capacity,
improved disk access time, and expanded graphics support.
Functions such as display adapters have been built into the
new system boards, leaving more flexibility for the open
architecture slots.

Additional Personal System/2 products available include
new monitors, storage systems, printers, network options,
and Solution Pacs—bundled software and hardware packages
designed for particular applications.

For details concerning these new products and the
purchase plan, visit the Computing Center's Microcom-
puter Support Lab (Room 105) between 1:30 and 4:30
weekdays. Brochures and price lists are also available in
the Computing Center's Documents Room (205) and at the
Electronics Counter in the U of O Bookstore.