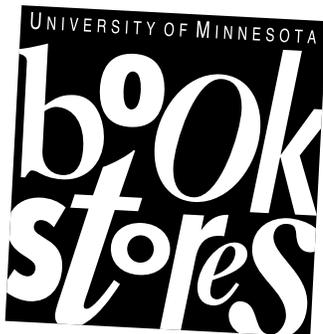


Information Technology Newsletter

August 1996 from the **Office of Information Technology**
This newsletter is an information resource for the University of Minnesota.

Volume 1
Number 5

The Books in Print Database is On-line



The University of Minnesota Bookstores and Academic and Distributed Computing Services have used the World-

Wide Web to publish the entire *Books in Print* database.

The database contains information on over one million titles. After finding a book, you can order it for delivery to your home or campus address by filling out a simple form. The database is available at the URL <http://bip.bookstore.umn.edu/>.

An Example Session

You can search for books by author, title, ISBN (a unique number assigned to each book) and subject classification, as shown in

Figure 1. For example, to search for *The Coming Plague* by Laurie Garrett, you could enter "garrett" in the author field and "plague" in the title field. After you click the *Submit Query* button, a list of matching books, sorted by title, will appear underneath the search form. The list of matching items can also be sorted by author or publication date.

In the list of matching books, you may see multiple entries with the same title. For example, two entries with the title *The Coming Plague* result from the query above. This is because most books are available in several bindings, such as paperback, hardcover and trade paperback. Such bindings are frequently listed in separate entries by the *Books in Print* publisher.

To see all information about an entry, follow its link in the list of results. Your web browser will display a page similar to the one in Figure 2.

Most titles in the database contain an estimated price, which is subject to change by the book's publisher at any time. Information about the book's publication date, length, volume and edition is usually included. To obtain more information about the book's publisher, click on the publisher's name.

You can order any book found in the database directly from the University of Minnesota Bookstores. The database uses a "shopping cart" system; you can add a number of books to your "cart" before proceeding to the "checkout counter" to specify payment information. You can empty your cart to cancel an order at any time before leaving the checkout. To add a book to your shopping cart, click on its ISBN. For example, clicking on the ISBN shown in Figure 2 causes the *Your Shopping Cart* screen shown in Figure 3 to appear.

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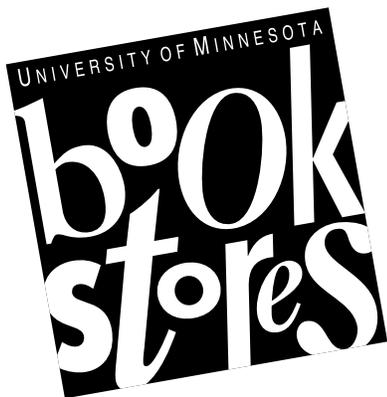
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Some funds are provided by the Minnesota Bookstores.

Dell Computers are new at the Computer Store. For more information, visit the *New Products* web site.

New Products URL <<http://www.bookstore.umn.edu/compstore/pricing/newprod.htm>>

Associate Vice President for Academic Affairs and
Acting Director of Information Technology
Donald R. Riley, Professor 626-9816



▼ Help

BASIS (AIS), 7am–4:30pm	624-0555
Central Systems, EPX, NVE, UZ, VX, VZ	6-8366
9am–4pm, requires username and password	
Web page: http://www.umn.edu/ccs	
E-mail & Internet, 9am–4pm, UM accounts	6-7676
by e-mail for U of M: help.tc.umn.edu	
Microcomputers, Distributed Systems	
9am–4pm, 152 Shepherd Labs	6-4276
1-4pm, 93 Blegen and 58 BioSci Center	
Web page: http://www.micro.umn.edu	
NTS, Telecom. 24-hour Repair Desk	5-0006
Web pages: http://www.unet.umn.edu/ www.umn.edu/telecomm/telcom.html	
Training Library, ADCS Short Courses	5-1300
Password: Forgot it? Call the Micro helpline	6-4276
Or go, in person, to any Microcomputer helpline.	

Monday–Friday

▼ General

	Phone
Academic & Distributed Computing Serv.	5-1300
Computer Store, Williamson Hall	5-3854
CUFS	4-1617
Digital Media Center	5-5055
Disability & Computing Services voice/tty	6-0365
Engineering Services	5-1595
Data Custodians • Data Warehouse Databases	
Facilities Mgmt, Kris Boike • SPAM	6-7896
Financial Sys Support, Lisa Carlson • CUFSRDB	4-1506
Grad School, Genny Rosing • GSRDB	5-9839
Human Res Info Ser, Gary Ogren • APSO	7-4341
Inventory Ser, Luke Madsen • INVENRDB	6-8217
Ofc of the Bursar, Sandy Pearson • STARS	6-8698
Ofc of Human Res, Nancy Highsmith • SDRDB	4-8374
Ofc of Planning & Analysis, John Kellogg	5-3387
• AARDB/MARDB • CLRDB • FARDB • RETDB • RRDB	
Ofc Scholarships&FinAid, PhilMorgan • SCHOL	4-6586
Payroll, Ann Beattie • HERDB	4-3869
Interactive Voice Response Grade Inquiries	4-5200
NTS, Telecommunications Helpline	6-7800
NTS, University Networking Services	5-8888
Statistical Support, SAS	4-3330
SPSS, BMDP, Minitab (VX/EPX)	6-8366
Workstation Support Group	4-7486

▼ Dial-in Computer Access

SLIP: 2,400–14,400 (V.32)	626-1920
SLIP: 14,400–28,800 (V.34)	627-4250
SLIP: ADI and ITE (with MKO)	3-0291
BASIS SecurID Access	
2400-N81 (no parity/8 data bits/1 stop bit) ...	6-7770
High Speed (V.32) 19200-N81	6-1061

▼ Internet Addresses

LUMINA (Library): admin.ais.umn.edu
BASIS mainframe systems: admin.ais.umn.edu
Gopher (public can log in as gopher):
 consultant.micro.umn.edu
News Server: newsstand.tc.umn.edu
U of M web page: <http://www.tc.umn.edu>
OIT web page: <http://www.umn.edu/oit>
Information Technology Newsletter web page
 <http://www.umn.edu/oit/newsletter>

Last updated August 1996

If you click on the large *Find Another Book* button, you'll return to the search form. From there, you can find more books and add them to your shopping cart.

When your order is complete, click on *Proceed to the Checkout* button.

Your Order is Secure

At the checkout counter, you'll be asked for your name, your address and payment information. Shipping and handling fees apply to books shipped off-campus. All information about your order passes through a secure web connection.

Other Features

You can search for publishers using a form similar to that used for book searches. A list of matching publishers is shown, and you click on a publisher's name to get more information. To fill out the form, click on the *Publishers* navigation button at any time.

Other navigation buttons allow you to search for books, view the contents of your shopping cart, get help or give feedback about the service.

The contents of the database are updated near the beginning of each month. Under our contract with the publisher, the database is available only to members of the University of Minnesota Twin Cities community.

The on-line Books in Print database is constantly evolving; as such, we welcome suggestions and comments. Please send e-mail to <bip@bip.bookstore.umn.edu> to offer feedback on your experience. ■
Ted Hajek

Figure 1: A Sample Search

Search by first letters of author and title:
In this box, enter the first four letters of the author's last name followed immediately by the first four letters of the title. This is the fastest way to search the database.

Search by ISBN:
In this box, enter an ISBN code.

Search by Author and/or Title

Author: Title:

Sort results by:

Figure 2: You Can Get Detailed Information

The Coming Plague: Newly Emerging Diseases in a World Out of Balance

Author:
Garrett, Laurie

To add this book to your shopping cart, click on the ISBN below.

Binding	Trade Cloth
Est. Price	\$25.00
ISBN	0-374-12646-1
Publisher	FS&G
Pub. Date	10/1994
Pages	750p.

Figure 3: Result of Clicking on Specific ISBN

Your Shopping Cart

Here are the contents of your shopping cart. When your order is complete, select the button labeled **proceed to the checkout**.

Copies	ISBN	Title	Binding	Vol. Ed.	Item	Total
<input type="text" value="1"/>	0-374-12646-1	The Coming Plague: N	Trade Cloth		\$25.00	\$25.00

Estimated total: \$25.00

Web Pages with Frames

If you feel frustrated by web sites that use frames, these tips may make your encounters easier.



If you visit enough newly constructed or remodelled sites on the World-Wide Web, you're likely to encounter frames. Frames are supported in Netscape 2. Designers are drawn to this new feature partly because frames allow them to divide the viewer's window into two or more scrollable sections.

Figure 1 shows a site with three frames. The skinny left frame at this site contains buttons and is always visible on the screen; the buttons are fixed elements. The contents of the other two frames change depending on which links you select.

Backwards and Forwards

Frames make many web users feel like a beginner again. Most web users soon discover a simple way to navigate web pages: they use their web browser's back and forward buttons to move to a "page" they've previously accessed. This technique does not work for web sites that are set up using frames. But, even if the web page uses frames, moving backwards and forwards is still a mouse click away.

Scenario: you're viewing a screenful of information and want to return to the "page" you previously were on.

What can you do? Whether you're using a UNIX workstation, a PC with a mouse, or a Macintosh, move your mouse off any graphics or links that are on that page. The next step depends on which machine you're using.

- UNIX and PCs with a mouse: click the *right* mouse button.
- on a Macintosh: hold down the mouse button

In either case you will access a menu with these kinds of options:

- move backwards in the frame
- move forwards in the frame

Each Frame is Like a Page

Each frame is like a page in that it has its own address (or URL: Uniform Resource Locator). Consequently,

saving a bookmark and selectively loading images is different for sites that use frames.

Bookmarks

If you use the common "add bookmark" menu option, you'll probably create a bookmark for the opening frame, which may not be the "page" you want.

To create a bookmark for a specific frame: (1) position your mouse's cursor over the link you want to save and (2) hold down the mouse's button; on a PC or UNIX system use the *right* button. (This movement is different from clicking the mouse.) From the resulting popup menu, select the "add bookmark for link" option.

Images

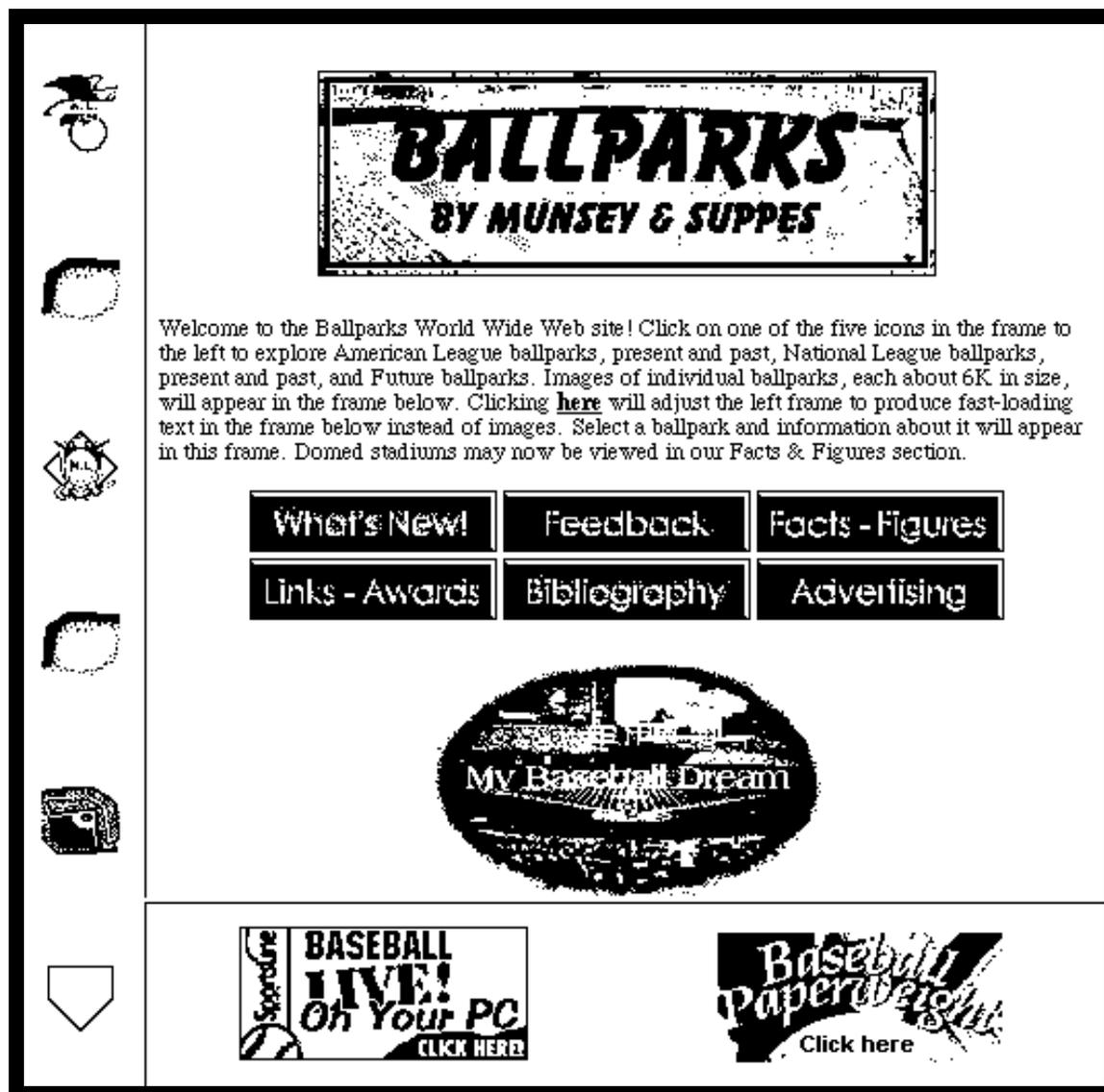
To speed things up many web browsers let you turn off automatic downloading of pictures. (This is an especially useful feature for modem users; even at speeds of 28,800 bps graphics can take a long time to download.) When you select this option, instead of getting specific pictures, you see small icons that represent the pictures. If you want to look at the pictures, you can select the images one-by-one by clicking on their icons. This feature also works with frames.

To download all the pictures for a particular web page onto your screen, you can select the *Load Images* option from the *View* menu or click on the *Images* button. However, neither of these options work with frames. Instead you must select *Auto Load Images* from the *Options* menu and use the *Reload* button.



The Netscape handbook contains additional information about frames and pages; it's accessible via the *Handbook* button of Netscape browsers. To access that information directly use this URL: `<http://home.netscape.com/eng/mozilla/2.01/handbook/docs/learn.html#C1>`. ■ Mary Kelleher, Academic and Distributed Computing Services

Figure 1: Web Page with 3 Frames



Final Phase

Data Center Consolidation



The final phase of the Office of Information Technology Data Center Consolidation Project will take place Saturday, August 10 and Sunday, August 11, 1996. During this phase, the computer systems supporting research, instructional and departmental computing, Usenet News, and Gopher Hotel will be moved from the Lauderdale location to the BASIS Data Center at the West Bank Office Building. The following systems and related services will be unavailable during the

move: EPX, NVE, NOS, VX, VZ, UZ, backup, lpd, and Kodak network printing. For more information on this project, see the following URLs <http://www.umn.edu/oit/basis/reengineer/timeline.html> > and <http://www.umn.edu/oit/basis/reengineer/charter.html>.

Questions, comments, or concerns about this project can be directed to the project leader, Pete Bartz, at 626-1661. ■ Cindi Plaisance, Business and Student Information Services

INVENRDB, A New IDEA Database

Lisa Coppola, Integrated Systems Solutions, Data Warehouse Training



The Capital Equipment Inventory Reporting Database (INVENRDB) is now available on IDEA (the University of Minnesota's Data Warehouse)!

What data does it contain?

There are four tables in the INVENRDB. They are:

1. A table that has all active capitalized equipment, including owner area, depreciation values (total to date, current fiscal year, depreciation method and remaining life in months) and location of the equipment (room and building).
2. A table with exactly the same information in table 1, but for inactive equipment. Also included in this table is information on the disposal date and method (i.e. reason).
3. A table with the history of all transactions pertaining to each piece of capitalized equipment.
4. A table with all capitalized equipment category types and numbers with the number of years used to calculate depreciation.

Where does the data come from?

The source of the data is the Property Accounting Management (PAMS) operational system.

How can I request access?

To request Access contact the BASIS Customer Assistance Center (CAC) at 612/624-0555 and ask for an access request form for the INVENRDB on IDEA. You will receive the form via campus mail. Follow the instructions for the INVENRDB and forward it to the INVENRDB data custodian (Luke Madsen, Inventory Services, 720 WBOB).

How can I learn more?

There is an INVENRDB data dictionary that contains a listing of every column in each table, the datatype and format (alphanumeric or numeric, how many characters, is there a decimal point, etc.) and a data definition (i.e. where the data comes from, code explanations, etc.).

The INVENRDB data dictionary is available on gopher at this URL <GOPHER://gopher.ais.umn.edu>.

Choose the IDEA Information and Updates folder, then choose Documentation (data dictionaries).

What about future enhancements?

At a focus session that we held in May, 1996, there was a request (voiced by several attendees) to somehow allow departments to include the custodian org number associated with each piece of equipment on the INVENRDB. To clarify:

On the PAMS Operational system, if an item was **acquired** after CUFSS implementation, then the **acquisition account number** (i.e. the acquisition fund/area/org) is included (pre-CUFSS items use the old fund/dept format).

There is another column in PAMS that has the **custodial area number**. Currently, the active and inactive tables (1 and 2 above) of INVENRDB contain all the information available on the PAMS Operational system (i.e. a column that has the acquisition account number and the custodial area) but not the **custodial org**.

This enhancement will allow (not require, but allow) Colleges and Departments that own data to associate (via a WWW screen) a piece of equipment (or a group of items) with a **custodial org**. So custodial area AND org will be available in INVENRDB for reporting purposes.

This is going to be the next step on this project. We will send out updates on the progress of this enhancement.

Questions?

Contact Luke Madsen at (612) 626-8217 or 626-8222.

**The Capital Equipment
Inventory Reporting
Database is now available
on IDEA.**

Data Warehouse Enhancements

**A Progress Report from Joe Sullivan, Integrated Systems Solutions
Data Warehouse and Departmental/Small Business Systems**



The Grants Management Project's enhancements to the CUFS Reporting Database (CUFSRDB) scheduled for July 1, 1996, have been successfully implemented.

Forty-three new tables have been created containing new transaction detail, summary, and chart of accounts data. They are now available for use by anyone with access to the CUFSRDB. Here are brief descriptions of the new tables and their contents.

Detail for Open and Closed Periods

CUFS_TRAN_OPEN_PDS

This table contains transaction detail for CUFS periods that are currently open.

CUFS_TRAN_CLSD_95, _96, etc.

These tables contain transaction detail for each closed accounting period of the fiscal year indicated by the numeric suffix. Tables will be available for the current fiscal year and the previous two fiscal years. The table for the current fiscal year will be created at the close of period 1. When a new table is created, e.g. CUFS_TRAN_CLSD_98 at period 1 close for fiscal year 1998, the oldest table, e.g. CUFS_TRAN_CLSD_95, will be dropped.

Summarized at Balance Sheet Accounts

CUFS_SUM_BALSHT_LAST_CLSD_PD

Inception-to-date balances on balance sheet accounts by Fund-Balance Sheet Account through the accounting period most recently closed.

CUFS_SUM_BALSHT_PRIOR_PDS

Inception-to-date balances on balance sheet accounts by Fund-Balance Sheet Account-Accounting Period. It contains data for the other closed accounting periods in the same fiscal year as the accounting period in the CUFS_SUM_BALSHT_LAST_CLSD_PD table.

CUFS_SUM_BALSHT_92, _93, etc.

Inception-to-date balances on balance sheet accounts by Fund-Balance Sheet-Accounting Period as of the close for each accounting period of the fiscal year indicated by the numeric suffix.

Summarized at the OBJECT Level

CUFS_SUM_OBJ_LAST_CLSD_PD

This table has expenditures, encumbrances and pre-encumbrances summarized at the OBJECT level by Fund-Area-Org for the most recently closed accounting period. It has information similar to the EXPB table in CUFS as it includes approved and current budget amounts and is budget fiscal year based. The table contains current month expense amounts as well as total expense amounts. For MY accounts, the total expense amounts are inception-to-date. For fiscal year accounts, the total expense amounts are fiscal-year-to-date.

CUFS_SUM_OBJ_PRIOR_PDS

This table has expenditures, encumbrances and pre-encumbrances summarized at the OBJECT level by Fund-Area-Org-Accounting Period. It contains data for the other closed accounting periods in the same fiscal year as the accounting period in the CUFS_SUM_OBJ_LAST_CLSD_PD table. It has information similar to the EXPB table in CUFS as it includes approved and current budget amounts and is budget fiscal year based. The table contains total expense amounts. For MY accounts, the total expense amounts are inception-to-date. For fiscal year accounts, the total expense amounts are fiscal-year-to-date.

CUFS_SUM_OBJ_92, _93, etc.

These tables have expenditures, encumbrances and pre-encumbrances summarized at the OBJECT level by Fund-Area-Org-Accounting Period for each closed accounting period of the fiscal year indicated by the numeric suffix. It has information similar to the EXPB table in CUFS as it includes approved and current budget amounts and is budget fiscal year based. The tables contain total expense amounts. For MY accounts, the total expense amounts are inception-to-date. For fiscal year accounts, the total expense amounts are fiscal-year-to-date.

Summarized at the REVENUE SOURCE Level

CUFS_SUM_REV_LAST_CLSD_PD

This table has revenues summarized at the REVENUE SOURCE level by Fund-Area-Org for the most recently closed accounting period. It has information similar to the REVB table in CUFS as it includes approved and current budget amounts and is budget fiscal year

based. The table contains a current month revenue amount as well as a total revenue amount. For MY accounts, the total revenue amount is inception-to-date. For fiscal year accounts, the total revenue amount is fiscal-year-to-date.

CUFSSUMREV_PRIOR_PDS

This table has revenues summarized at the REVENUE SOURCE level by Fund-Area-Org-Accounting Period. It contains data for the other closed accounting periods in the same fiscal year as the accounting period in the CUFSSUMREV_LAST_CLSD_PD table. It has information similar to the REV table in CUFSS as it includes approved and current budget amounts and is budget fiscal year based. The table contains a total revenue amounts. For MY accounts, the total revenue amount is inception-to-date. For fiscal year accounts, the total revenue amount is fiscal-year-to-date.

CUFSSUMREV_92, _93, etc.

These tables have revenues summarized at the REVENUE SOURCE level by Fund-Area-Org-Accounting Period as of the close for each accounting period of the fiscal year indicated by the numeric suffix. It has information similar to the REV table in CUFSS as it includes approved and current budget amounts and is budget fiscal year based. The tables contain a total revenue amount. For MY accounts, the total revenue amount is inception-to-date. For fiscal year accounts, the total revenue amount is fiscal-year-to-date.

Summarized at the SUBOBJECT Level

CUFSSUMSUBOBJ_LAST_CLSD_PD

This table has expenditures, encumbrances and pre-encumbrances summarized at the SUBOBJECT level by Fund-Area-Org-Suborg for the most recently closed accounting period. The table contains current month expense amounts as well as year-to-date and inception-to-date expense amounts.

CUFSSUMSUBOBJ_PRIOR_PDS

This table has expenditures, encumbrances and pre-encumbrances summarized at the SUBOBJECT level by Fund-Area-Org-Suborg. It contains data for the other closed accounting periods in the same fiscal year as the accounting period in the CUFSSUMSUBOBJ_LAST_CLSD_PD table. The table contains year-to-date and inception-to-date expense amounts.

CUFSSUMSUBOBJ_92, _93, etc.

These tables have expenditures, encumbrances and pre-encumbrances summarized at the SUBOBJECT level by Fund-Area-Org-Suborg as of the close for each accounting period of the fiscal year indicated by the

numeric suffix. The tables contain year-to-date and inception-to-date expense amounts.

Summarized at the SUB-REVENUE SOURCE Level

CUFSSUMSUBREV_LAST_CLSD_PD

This table has revenues summarized at the SUB-REVENUE SOURCE level by Fund-Area-Org-Suborg for the most recently closed accounting period. The table contains a current month revenue amount as well as year-to-date and inception-to-date revenue amounts.

CUFSSUMSUBREV_PRIOR_PDS

This table has revenues summarized at the SUB-REVENUE SOURCE level by Fund-Area-Org-Suborg. It contains data for the other closed accounting periods in the same fiscal year as the accounting period in the CUFSSUMSUBREV_LAST_CLSD_PD table. The table contains year-to-date and inception-to-date revenue amounts.

CUFSSUMSUBREV_92, _93, etc.

These tables have revenues summarized at the SUB-REVENUE SOURCE level by Fund-Area-Org-Suborg as of the close for each accounting period of the fiscal year indicated by the numeric suffix. The tables contain year-to-date and inception-to-date revenue amounts.

New Chart of Accounts (COA) Tables

COA tables for fiscal years 1992 and 1993 have also been added. These tables have names and data similar to the existing COA historical tables. For example, the tables for fiscal year 1992 are: CUFSSCOA_FUND_92, CUFSSCOA_AREA_92, CUFSSCOA_ORG_92, CUFSSCOA_FUNC_92, and CUFSSCOA_SOBJREV_92. These tables were loaded once and will not be refreshed.

Many of the new tables are meant to replace existing CUFSSRDB tables.

- Table 1 includes a list of these new tables and the "old" tables they are replacing.
- Table 2 shows tables that contain data that was not available before.
- Table 3 shows the new refresh schedule for the CUFSSRDB.

Originally, the old tables were to be eliminated at the close for July on August 7, 1996. Now, the tables will be refreshed through the close for August on September 9, 1996. At that time the old tables will be eliminated. This delay is meant to give customers more time to make the transition to the new tables.

Table 1
Many New Tables Replace Existing CUFSRDB Tables

<u>New table</u>	<u>Old table it replaces</u>
CUFS_TRAN_OPEN_PDS	CUFS_TRAN_CURR_PD
CUFS_TRAN_CLSD_96...	CUFS_TRAN_PREV_SC
CUFS_TRAN_CLSD_96...	CUFS_TRAN_PREV_HC
CUFS_SUM_OBJ_LAST_CLSD_PD	CUFS_SUM_OBJYTD
CUFS_SUM_SUBOBJ_LAST_CLSD_PD and	
CUFS_SUM_SUBOBJ_PRIOR_PDS	CUFS_SUM_SUBOBJYTD
CUFS_SUM_REV_LAST_CLSD_PD	CUFS_SUM_REVYTD
CUFS_SUM_SUBREV_LAST_CLSD_PD and	
CUFS_SUM_SUBREV_PRIOR_PDS	CUFS_SUM_SUBREVYTD
CUFS_SUM_SUBOBJ_LAST_CLSD_PD	CUFS_SUM_SUBOBJSC
CUFS_SUM_SUBREV_LAST_CLSD_PD	CUFS_SUM_SUBREVSC
CUFS_SUM_BALSHT_LAST_CLSD_PD	CUFS_SUM_BALSHTYTD
CUFS_SUM_OBJ_94	CUFS_SUM_OBJ94
CUFS_SUM_REV_94	CUFS_SUM_REV94
CUFS_SUM_SUBOBJ_94	CUFS_SUM_SUBOBJ94
CUFS_SUM_SUBREV_94	CUFS_SUM_SUBREV94
CUFS_SUM_BALSHT_94	CUFS_SUM_BALSHT94
CUFS_SUM_OBJ_95	CUFS_SUM_OBJ95
CUFS_SUM_REV_95	CUFS_SUM_REV95
CUFS_SUM_SUBOBJ_95	CUFS_SUM_SUBOBJ95
CUFS_SUM_SUBREV_95	CUFS_SUM_SUBREV95
CUFS_SUM_BALSHT_95	CUFS_SUM_BALSHT95

Table 2
New Tables — This Data Was Not Available Before

CUFS_TRAN_CLSD_95...	
CUFS_SUM_OBJ_PRIOR_PDS	
CUFS_SUM_REV_PRIOR_PDS	
CUFS_SUM_BALSHT_PRIOR_PDS	
CUFS_SUM_OBJ_92	CUFS_SUM_OBJ_93
CUFS_SUM_REV_92	CUFS_SUM_REV_93
CUFS_SUM_SUBOBJ_92	CUFS_SUM_SUBOBJ_93
CUFS_SUM_SUBREV_92	CUFS_SUM_SUBREV_93
CUFS_SUM_BALSHT_92	CUFS_SUM_BALSHT_93
CUFS_COA_FUND_92	CUFS_COA_FUND_93
CUFS_COA_AREA_92	CUFS_COA_AREA_93
CUFS_COA_ORG_92	CUFS_COA_ORG_93
CUFS_COA_FUNC_92	CUFS_COA_FUNC_93
CUFS_COA_SOBJREV_92	CUFS_COA_SOBJREV_93

Table 3: New Refresh Schedule for CUFSRDB

Table Name	Refreshed
CUFS_TRAN_OPEN_PDS	each night CUFS processes transactions
CUFS_TRAN_DTEXT	each night CUFS processes transactions
CUFS_TRAN_CLSD_9X (9x indicates current fiscal year)	accounting period close
CUFS_SUM_OBJ_LAST_CLSD_PD	accounting period close
CUFS_SUM_SUBOBJ_LAST_CLSD_PD	accounting period close
CUFS_SUM_REV_LAST_CLSD_PD	accounting period close
CUFS_SUM_SUBREV_LAST_CLSD_PD	accounting period close
CUFS_SUM_BALSHT_LAST_CLSD_PD	accounting period close
CUFS_SUM_OBJ_PRIOR_PDS	accounting period close
CUFS_SUM_SUBOBJ_PRIOR_PDS	accounting period close
CUFS_SUM_REV_PRIOR_PDS	accounting period close
CUFS_SUM_SUBREV_PRIOR_PDS	accounting period close
CUFS_SUM_BALSHT_PRIOR_PDS	accounting period close
CUFS_SUM_TIP	two days after the 4th weekend of each month
CUFS_COA_AREA	accounting period close
CUFS_COA_BAL_SHEET	accounting period close
CUFS_COA_FUNC	accounting period close
CUFS_COA_FUND	accounting period close
CUFS_COA_ORG	accounting period close
CUFS_COA_SOBJREV	accounting period close
CUFS_COA_SUBORG	accounting period close
CUFS_COA_RPT_CAT	accounting period close
CUFS_ENDW_DIST	4th weekend of each month
CUFS_ENDW_HIST	4th weekend of each month
CUFS_ENDW_TEXT	4th weekend of each month
CUFS_GRANT_DESC	weekly on Fridays
CUFS_GRANT_PROPAWD	weekly on Fridays

Documentation

Documentation for the new tables will be sent to all individuals with current CUFSRDB access. This documentation will also be available on the Web. To reach it:

- start from the IDEA home page
<<http://notes.ais.umn.edu>>
- from that page, click on the *Information* button
- at the next page, click on *Our Gopher Home Page*, this will take you to the BASIS Gopher

- from there, choose *IDEA Information and Updates*, then *IDEA documents* and the *CUFSRDB Data Dictionary*

To get there directly you can use this URL <GOPHER: /gopher.ais.umn.edu:70/11p%3A/document>.

Training Services will provide overviews of the changes in late July and early August. RRC Area Class and Area Managers have been informed of these overviews.

If you would like more information contact Training Services at 626-1373. ■

Current Contents Database Moves

Nancy K. Herther, Manager, Integrated Information Center, University Libraries



• Want to check out what's being published in a journal that you only see occasionally but might have some good articles? • Need to see what a colleague has published lately? • Updating a bibliography and want to learn about recent developments and research reports?

If so, most researchers here on campus turn to Current Contents. This database allows you to browse through the contents pages (and sometimes abstracts) of all the major research publications you might need, all from your desktop.

The Move

The Current Contents database has been available to University students, staff and faculty through the campus Internet Gopher since January 1993. This year Current Contents moved to a different interface and a new home.

The database was developed in a joint effort between the University Libraries' Integrated Information Center and Computer and Information Services, which is now part of the Office of Information Technology. Current Contents was the first successful application of putting complex text-based bibliographical data files on the Internet using Gopher as the front-end search engine.

Because of changes in software features and pricing reductions, the Libraries decided to move Current Contents from Gopher (which has provided solid but limited flexibility in searching) as of July 1, 1996.

In September 1995, BioMedical Library mounted Current Contents on a UNIX server housed in Diehl Hall using BioMedSearch, a software interface from CDPLUS Corp.

Currently you can access COMPENDEX, MEDLINE and a host of other, largely health science databases through BioMedSearch. The software is very sophisticated and allows users to develop and initiate their own tailored searches.

How Do I Get Access?

To use Current Contents on BioMedSearch, you can access it via Telnet at either of these addresses

```
cc.lib.umn.edu  
biomed.lib.umn.edu
```

At the login prompt type this (be sure to use lower case)

```
umn
```

Then you will be asked for your userid and password. If you have questions about what your password or userid are, call the Internet HelpLine at 626-7676.

What is Current Contents?

Current Contents is a database of the contents — citations and abstracts (where abstracts are given) for well over 7000 journals and magazines. The database covers all types of documents, including editorials, major letters to the editor and reviews, in addition to articles.

Current Contents covers all major research areas, including: Agriculture, Biology and Environmental Sciences; Social and Behavioral Sciences; Clinical Medicine; Engineering, Technology and Applied Sciences; the Life Sciences; and Arts and Humanities. The breakdown, as of April 1996, was as follows: 4700 science journals, 1550 social science journals, and 1150 arts and humanities journals. Each week over 18,700 bibliographic records and over 1000 tables of contents are added to the database.

How Do I Search the Database?

You can search Current Contents in a variety of ways, for example Browsing and Searching.

Browsing by subject allows you to select a specific discipline and then a journal; you can look through the tables of contents for various issues or look at



Each week over 18,700 bibliographic records and over 1000 tables of contents are added to the Current Contents database.



Figure 2: Sample Record
After Searching for "digital video" via BiomedSearch/OVID

Accession Number

UA750-0004

Authors

Ahanger G. Little TDC.

Title

A SURVEY OF TECHNOLOGIES
FOR PARSING AND INDEXING DIGITAL VIDEO

Source

Journal of Visual Communication & Image Representation.
7(1):28-43, 1996 Mar.

KeyWords Plus

Multimedia documents. File.

Abstract

In the future we envision systems that will provide video information delivery services to customers on a very large scale. These systems must provide customers with mechanisms to select programs of their choice from live broadcasts, Customers should also be provided with easy means of browsing and accessing prerecorded digital data (e.g., distributed digital multimedia libraries), and downloading data from other information sources. To be viable for such large information sets, these systems must understand customer preferences and tailor the available information to the customer's needs. To support this vision, a number of issues must be addressed and obstacles overcome. Intuitive interfaces, powerful query formulation and evaluation techniques, comprehensive data models, and flexible presentation functionalities must be developed. To realize these components, an effective query evaluation engine with the capabilities of query resolution in different content-specific formats (e.g., by graphics, by image, by sound) and in different domain-specific models (e.g., database of movies, database of newsclips) should be present. Additionally, the digital video database will require an efficient indexing system for easy access to the stored information. In this paper we discuss existing research trends in this area and requirements for future data delivery systems. An overview of video indexing is presented followed by a discussion on current indexing techniques. (C) 1996 Academic Press, Inc. [References: 74]

Language

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Publication Type

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Institution

Reprint available from:

Ahanger G

BOSTON UNIV

DEPT ELECT COMP & SYST ENGN

MULTIMEDIA COMMUN LAB

44 CUMMINGTON ST

BOSTON, MA 02215

USA



**Note: The Gopher version of Current Contents was discontinued on July 1, 1996,
and all individualized profiling services ceased at that time.**



DHCP versus BOOTP: Dynamic versus Static Network Addressing

Lawrence Liddiard and Tim Peiffer, *Networking and Telecommunications Services (NTS)*

Background



The article *Who owns the IP Address Space at the University?* in our July 1996 issue described the shortage and the forthcoming requested return of some of our IP address space. This article presents our current IP allocation practice, the present state of BOOTP (Bootstrap Protocol) and DHCP (Dynamic Host Configuration Protocols), and some DHCP "Work in Progress." This is a technical article; a glossary at the end of this document explains many of the abbreviations and acronyms used here.

Current IP Assignment at the University

Networking and Telecommunication Service's largest IP assignment is through EtherJack, where a subnet's hub is initially allocated specific, adjacent IP values (26 for a 24 port hub and its AUI connections). There are about 1,200 hubs installed at the University, which require 31,200 IP addresses. Hub ports are then connected by twisted pair wiring to your roomjack and a specific IP is given to your machine. This is considered a 'static IP' since it has 'infinite' assignment and your system can advertise it for World-Wide-Web, printer or fileserver usage. Our EtherJack standard is to have no more than 60 users connected to a router subnet.

Examples of dynamic IPs (assignments only lasting for a current connection) are those used in FastPath routers and dial-in terminal servers. A FastPath router is assigned up to 20 (32 in olden days) adjacent IP numbers. On that LocalTalk LAN, printers and file servers are assigned static IP values; while the remaining IPs are "dynamic" and assigned to users on a first-come basis. When an AppleTalk user drops his current dynamic IP connection and later reconnects, there is no assurance of getting the previous IP value. This is similar to a SLIP dial-in connection where the modem (which has a static IP), is randomly selected to answer your call and will not be the same modem and IP (only a 1/976 chance) of your previous call. Given the approximately 30,000 different users who use our SLIP pools each month, this means the address pool is multiplexed (temporary use) with a 30 to 1 ratio.

Current Centralized Assignment of IP Addresses Using BOOTP

Here is how the BOOTP Protocol works.

A host computer's software formats a BOOTP request. This contains both Ethernet and IP destination and source (this one must be 0) addresses and a second copy of the host's Ethernet address (sometimes called the host's MAC address). This request is sent to the router on that network, which changes the IP destination to the local BOOTP server address and then the IP source address of the packet to that of the router (so BOOTP knows where to return the information). The request is in essence relayed via broadcast media and then directed as a normal packet to the BOOTP server.

The BOOTP server receives the now-router-generated request packet and looks up the MAC address in a central database. Processing stops if the MAC is not known or BOOTP service is not enabled for that MAC. If the MAC address is known, the BOOTP server formats the reply that will include the assigned IP for the Host, subnet mask and other information according to the service type. This reply is sent to the originating router. That router will put the reply packet out on the local Ethernet for the host to get the needed information.

Past and Current Renumbering of University Networks

Reasons for IP renumbering include too many hosts on a subnet and unit reorganizations. In the past e-mail would be sent to all the LAN administrators about the needed change, several meetings would be held, and after a couple of months the announced day of change would arrive. Then many users would need additional help changing to the new IP for their system.

Recently our Human Resources group moved from the U-Tech to Donhowe building. Human Resources had all of their systems using BOOTP at U-Tech. NTS staff prepared new BOOTP and DNS databases reflecting the changed IP addresses Human Resources would be using in Donhowe. Human Resources went home

Friday from U-Tech; NTS installed the changed BOOTP and DNS databases early Monday morning. Doing this allowed Human Resources users to automatically start at Donhowe later that morning. (Networking and Telecommunications Services received thanks for the smooth transition.)

Comments from RFC 1900 Renumbering Needs Work

“...Currently, renumbering is usually a costly, tedious and error-prone process. It normally requires the services of experts in the area and considerable advance planning. Tools to facilitate renumbering are few, not widely available, and not widely deployed. While a variety of ad hoc approaches to renumbering have been developed and used, the overall situation is far from satisfactory. There is little or no documentation that describes renumbering procedures. While renumbering occurs in various parts of the Internet, there is little or no documented experience sharing.

3. Recommendations

...To make renumbering more feasible, the IAB strongly recommends that all designs and implementations should minimize the cases in which IP addresses are stored in non-volatile storage maintained by humans, such as configuration files. Configuration information used by TCP/IP protocols should be expressed, whenever possible, in terms of Fully Qualified Domain Names, rather than IP addresses. Hardcoding IP addresses into applications should be deprecated. Files containing lists of name to address mappings, other than that used as part of DNS configuration, should be deprecated, and avoided wherever possible. [Our current practice of storing/mapping jack numbers to IP addresses is an example of hard coded addresses in configuration files]...

...The development and deployment of a toolkit to facilitate and automate host renumbering is essential. The Dynamic Host Configuration Protocol (DHCP) is clearly an essential part of such a toolkit. The IAB strongly encourages implementation and wide-scale deployment of DHCP. Dynamic router discovery (RFC 1256) and service location (work in progress in the IETF) also belong in this toolkit. Support for dynamic update capabilities to the Domain Name

We have deployed production DHCP services at Crookston where standardization on laptops required a mechanism allowing students to move between classrooms without manually changing IP addresses.

System (DNS) that could be done with sufficient authentication would further facilitate host renumbering. The IAB strongly encourages progression of work in this area towards standardization within the IETF, with the goal of integrating DHCP and dynamic update capabilities to provide truly autoconfigurable TCP/IP hosts.”

Beyond BOOTP Lies DHCP

DHCP enables individual computers on an IP network to get their configurations from a DHCP server. This reduces the administration work necessary in a large IP network. DHCP maintains some backward compatibility with BOOTP, but in addition it allows dynamic allocation, recovery, and reallocation of IP addresses through a leasing scheme. BOOTP only allowed preconfigured host information in a server database.

Furthermore, the dynamic nature of DHCP addressing will allow one to multiplex addresses — a feature needed to deploy “JACK” labs. JACK only labs will be the future direction for student computing at the University.

DHCP and BOOTP Interoperation

In October 1993, RFC 1534 defined the interaction between DHCP and BOOTP. The DHCP message format was defined to be compatible with BOOTP messages, so that existing BOOTP clients and relay agents (usually part of a router) could use DHCP servers. Messages with a DHCP type option are assumed sent by a DHCP client. Others messages are assumed sent by a BOOTP client. DHCP servers configured to support BOOTP clients, may supply static addresses, automatic addresses or both.

Static addresses are those administratively assigned and stored in a DHCP database server. Automatic addresses are selected from the DHCP server’s pool of unassigned addresses. The BOOTP client is not aware

of the DHCP leasing mechanism for addresses, and if the DHCP server is configured to return an automatic address, it must assign an infinite lease.

What are the Implications of DHCP at the University?

DHCP will be the main tool for renumbering the 30 odd thousand IP addresses at the University.

InterNIC, as our July article stated, is requiring denser use of their Class B address spaces, and we may soon be required to return some of our current ones. DHCP, with its leasing of IPs, also allows the start of mobile computing. We have already deployed production DHCP services at Crookston where standardization on laptop computers required a mechanism allowing students to move between classrooms without changing IP addresses (the leasing feature of DHCP).

There are some gotchas in any new direction. DHCP, especially with renewals of leasing time, complicates networking service by requiring yet another active element (outages will cause problems) between you and the net. The following works-in-progress shows that DHCP is an evolving protocol, and the DHCP used today at the University will change in DNS updating, authentication, and just in time naming (FQDNs). All change is growth, but sometimes ugly and error prone. Security implications will also need to be addressed for DHCP.

Some DHCP Work in Progress

Internet Engineering Task Force (IETF) Internet-Drafts are documents valid for a maximum of six months. The drafts may be updated, replaced, or made obsolete by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress." Some specific drafts regarding DHCP are:

1. Dynamic Host Configuration Protocol, May 1996: shows DHCP is currently being redefined.
2. DHCP Options and BOOTP Vendor Extensions, May 1996: defines DHCP and BOOTP interaction.
3. Graceful renumbering of networks with DHCP, April 1996: improves DHCP's ability to help renumber an internet.
4. An option for FQDNs in DHCP options, April 1996: suggests using Fully Qualified Domain Names rather than IP addresses.
5. Authentication for DHCP Messages, February 1996: provides for authentication of DHCP messages.

6. Interaction between DHCP and DNS, February 1996: defines how DHCP clients and servers should dynamically update the DNS.

For Further Information

A good web site for DHCP information is *Net-Man's Hotlist of Useful Sites* at <http://nws.cc.emory.edu/WebStaff/Alan/Net-Man/Computing/DHCP/>. It has the following section that have pointers to other sources.

- *The DHCP — Dynamic Host Configuration Protocol* section has ten references. In this section we highly recommend John Wobus's DHCP FAQ at <http://Web.Syr.Edu/~jmwobus/comfaqs/dhcp.faq.html>
- Current DHCP RFCs (Requests for Comments) 1541, 1542, 1533 and 1534
- Current DHCP Internet-Drafts (Work in Progress)
- DHCP Server Product Implementations (thirteen vendors)
- Recent Magazine Articles or Other Related Publications (one testing six TCP/IP stacks with DHCP for Windows)

Glossary

Many of the definitions used below came from *Babel, a Glossary of Computer Oriented Abbreviations and Acronyms*, copyright 1989-1996 Irving Kind <http://www.access.digex.net/~ikind/babel196b.html>.

- AUI: Attachment Unit Interface
- BOOTP: Bootstrap Protocol
- DHCP: Dynamic Host Configuration Protocol
- DNS: Domain Name System
- EtherJack: 10BaseT/Twisted Pair Ethernet connection
- FQDN: Fully Qualified Domain Name
- IAB: Internet Architecture Board
- IETF: Internet Engineering Task Force
- InterNIC: Internet Network Information Center
- IP: Internet Protocol
- MAC: Media Access Control; the move prevalent MAC is Ethernet
- RFC: Request for Comments
- SLIP: Serial Line Internet Protocol
- TCP/IP Transmission Control Protocol/Internet Protocol

Expanded definitions are available at <http://www.ntnu.edu.tw/elf/s13006/testtemp/glossary.english/>. The sensitive should beware; this site also has a blinking welcome sign. ■

Ethernet Switching Evaluation

Will Murray, Networking and Telecommunications Services
An Overview for the Technically Inclined, including a Glossary and Table



Networking and Telecommunications Services (NTS) recognizes that new technologies have the ability to aid in solving network capacity issues. With the introduction of Ethernet switches and OC3c uplink modules, we believe that these tools may solve some of our network needs and problems. To that end, we evaluated Ethernet switches with OC3c uplink modules. We did this in the spring of 1996 to get a first hand look at the technology so that we are able to give an experienced based decision on the use of this new switching technology.

With the strategic decision to build an ATM (Asynchronous Transfer Mode) campus backbone, a key design area of our network will be connecting Ethernet switch edge devices via OC3c uplink modules to the ATM backbone. We specifically waited until the Spring of 1996 to do a second evaluation of these type of devices until LAN Emulation 1.0 was available from vendors. With LAN Emulation, traffic will move between legacy LANs and ATM attached devices.

Two Categories of Switches

In the evaluation we split the type of switches into two categories. The first category of edge devices are chassis based systems that allow for an aggregation of many workstations into a common device. These have the ability to expand upwards of 96 switched 10BaseT ports. They also have the ability to insert multiple 100BaseT connections as well as one or more OC3c ATM ports.

The second category is an edge device that is meant to connect a small cluster of desktop workstations together using switched 10BaseT ports. This type of switch also has an OC3c ATM uplink module to attach to the ATM backbone. We believe that the University of Minnesota network will need to deploy both categories of switched devices, depending upon the particular network need.

Performance and Basic Functionality

This evaluation focused on performance and basic functionality of the switches in a LAN emulation environment because this is the direction that we are heading on our backbone design. We were not able to

do some things on the switches that we would have liked, because of a shortage of time and a technical problem (we ran into a compatibility problem between NFS3.0 and NFS2.0). One of the scenarios we wanted to test was overbooking the OC3c port. To see how the switch behaved we would have liked to connect a workstation at 100BaseT (on the switches that had this port) along with the seven other 10Mbps clients to produce a theoretical overhead of 170Mbps. Another scenario we wanted to test is overbooking the backplane on the switches to see how they held up. We simply did not have enough equipment to do this kind of overbooking.

Another very large consideration for us, as a service provider of this technology and for LAN administrators thinking of deploying it, is the use of Virtual LANs (VLANs).

Virtual LANs are a new term used in conjunction with Ethernet switches that provide for the concept of dividing network traffic up between logical units that may be located in different physical locations. So, one might define a VLAN called Chemistry where the workstations are spread through the building or between separate buildings. The traffic within the Chemistry VLAN would only be seen by workstations within that VLAN — thus, restricting the broadcast domain as well as removing the physical location barrier that current higher layer routing protocols such as IP, IPX, AppleTalk and Decnet need.

However, currently it is not trivial to design and implement VLANs. There are several very strong reasons for stating this. One is that there is no VLAN standard at this time. One vendor's VLAN cannot interoperate with another vendor's VLAN. There is currently an IEEE 802.1Q standards body working on making an interoperable standard, but this is not projected to be completed for the next 6-12 months.

A second reason is that when establishing more than one VLAN, even within the same Ethernet switch, a router is needed to route between the VLANs. Basically what this means is that if you define VLAN1 and VLAN2 on an Ethernet switch, traffic between VLAN1 and VLAN2 will not be forwarded without first going through a router. To be fair, some Ethernet switches currently do have routing functionality built into

them, but only in the first category type switches (mentioned above).

Routing VLANs and ELANs (VLANs within ATM) is an area of development currently being discussed within the networking community. The concepts that are being discussed or implemented are where and how the routing should be done. It varies from developing an entire new routing protocol (called I-PNNI), as standardized by the ATM Forum, that can handle all of the new issues in routing within, between, and through a switched (ATM or Ethernet switch) world to using existing standards that have been developed within the ATM Forum and IETF (this is called MPOA). Suffice it to say that there are a number of technical issues to be resolved with deploying this technology to a larger scale.

Conclusion

To sum up, there are enough issues associated with this new technology that need either careful planning or further study and watching. Networking and Telecommunications Services is committed to staying current on all of the issues surrounding the switched world. We recommend that all University networkers at least consult with us before looking to deploy this technology. We want to proceed with deployment of this technology; but to make it work we are going to need a close partnership with all participants!

If you would like to see our evaluation results and recommendations, visit our web site at <http://www.nts.umn.edu>.

Glossary

- 10BaseT: 10-megabit-per-second Ethernet on unshielded twisted-pair (telephone) wire
- 100BaseT: 100-megabit-per-second Ethernet on unshielded twisted-pair wire
- ATM: Asynchronous Transfer Mode
- ELAN: an ATM Emulated LAN
- Ethernet: network system that carries audio and video as well as data
- IEEE: Institute of Electrical and Electronic(s) Engineers
- IETF: Internet Engineering Task Force
- Kbps: kilobytes per second
- LAN: local area network
- Mbps: million bits per second
- MPOA: Multi-Protocol Over ATM
- NFS: Network File System
- OC: Optical Carrier, a SONET optical signal
- SONET: Synchronous Optical Network
- STS: Synchronous Transport Signal, a SONET electrical signal rate
- VLAN: Virtual LAN, dividing network traffic into logical units that may be located in different physical locations

Table

For ATM either the STS or OC prefix may be used for rates. Table 1 may be used to specify electrical and optical signaling in the Telco and ATM worlds. ■

Table 1: from TELCO SYSTEMS ATM Bandwidth for the Future

Asynchronous		
DS0	64 Kbps	1 Voice Channel
DS1	1.544 Mbps	24 DS0s
DS2	3.152 Mbps	4 DS1s
DS3	44.736 Mbps	28 DS1s
Synchronous (SONET)		
STS-1/OC-1	51.84 Mbps	28 DS1s or 1 DS3
STS-3/OC-3	155.52 Mbps	3 STS-1s byte interleaved
STS-3c/OC-3c	155.52 Mbps	Concatenated, invisible payload
STS-12/OC-12	622.08 Mbps	12 STS-1s, 4 STS-3cs, or any mixture
STS-12c/OC-12c	622.08 Mbps	Concatenated, invisible payload
STS-48/OC-48	2488.32 Mbps	48 STS-1, 16 STS-3cs, or any mixture

Software for Windows 3.1, Windows 95, OS/2 and DOS

1001 Downloads

The July 1996 hardcopy issue of *PC Computing* features 1001 programs or utilities that you can download from the Internet. To avoid typing the URLs (addresses), you can access these programs from PC Computing's Free Stuff Web site <<http://www.zdnet.com/pccomp/lowband/freestuff/>>, a Ziff-Davis venture. This site uses frames; to get at the July 1996 selections, click on the *1001 Best Downloads* button.

Utilities, Virus, Much More

Click on the *Utilities* button for access to categories such as compression, printer utilities, and virus.

The *Compression* section includes selections such as • WinZip 95, "The Windows 95 update of the best data compression and archiving utility around" Size: 360KB • PKZip, "The mainstay program for compression and decompressing ZIP and self-extracting ZIP files under DOS" Size: 198KB • PKZip for Windows, "PKzip data compression finally makes the move to Windows" Size: 492KB

The *Virus* section includes • McAfee VirusScan for Windows 95, "Native 32-bit virus scanning for Windows 95 desktops" Size: 1.1 MB • VirusScan, "Keep viruses away from Windows 3.x, DOS, and OS/2 desktops" Size: 958KB

Click on the *Internet* button for access to categories such as plug-ins for Netscape and plug-ins for any browser.

The Netscape plug-in section includes • RealAudio, "Play audio files and listen to live broadcasts over the Internet" Size: 497KB ■ M. Kelleher

SuperSession Tip

BASIS Mainframe Session Manager

Reorder Command

SuperSession, the BASIS mainframe session manager, allows the use of the REOrder command to change the display order of your SessionIDs on the Main Menu by modifying the Group numbers and Order numbers. To customize your menu, group similar functions together by Group number and then order them within the group by Order number.

In the Group number column, the highest number(s) will appear first on the SessionID list. In the Order number column, the SessionIDs you specify will appear in the numeric sequence, highest to lowest, with all marked as 0 appearing last in alpha order.

To REOrder Your SessionIDs follow these steps:

1. Type REO on the command line of the SuperSession Main Menu. The reorder menu will be displayed.
2. Using your [TAB] key, place the cursor on either the Group or Order field.
3. Type in the Group or Order *number* as you want the SessionIDs to appear on the Main Menu.
4. After all changes have been made, press [ENTER].
5. The Main Menu will appear with the SessionIDs reordered.

Questions?

If you have questions on this or any SuperSession procedures, please contact the BASIS Customer Assistance Center at 612/624-0555. ■ Joann Conradson, Business and Student Information Services

NAIL: NARA Archival Information Locator

National Archives

In July the National Archives and Records Administration (NARA) announced a new on-line service, the NARA Archival Information Locator (NAIL). Below are excerpts from a NARA press release. The URL for NAIL is <<http://www.nara.gov/nara/nail.html>>.

NAIL contains descriptions of 2,500 still picture series and 20,000 still picture items; 85,000 films and videos; and 8,500 sound recordings:

- Audio excerpts of an interview with the last surviving Confederate veteran
- 100 maps and charts vividly tracing America's expansion westward
- The House of Representatives territorial papers collection, 1810-1872, documenting America's expansion westward
- The Senate Subcommittee on Indian Affairs files, 1928-1953, illustrating the culture, environment and governance of 20th century Native American tribes
- More than 300 petitions sent to Congress in the 19th and early 20th century reflecting America's opinions on Native Americans, polygamy, suffrage and other issues of the day

Although NAIL contains more than 200,000 descriptions, it represents only a limited portion of NARA's vast holdings. In a democracy the records that constitute our archives belong to the citizens. This initiative is an important first step to bringing the National Archives to citizens no matter where they are.

■ M.Kelleher

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Information Technology Newsletter

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