Information Technology

Newsletter

Introducing Integrated Systems Solutions

Steve Cawley, Assistant Vice President for Information Technology Operations

Improved One-Stop Shopping

We've introduced an organizational change that should bring immediate benefits to the University community. OIT's two separate software development groups have been merged into a new unit called Integrated Systems Solutions. This new unit will provide one-stop shopping for all the University's software development needs.

Previous Solutions

This announcement follows several months of reorganization in the University's central information technology departments and represents a major improvement to the original reorganization plans announced in December of 1995.

In December OIT laid out an initial plan to consolidate its four software development teams (AIS/Administrative Information Services, SPCS/Saint Paul Computing Services, CCS/Central Computer Services, and DCS/Distributed Computer Services) into a software development team in ADCS (Academic and Distributed Computing Services) and a software development team in BASIS (Business and Student Information Services).

We attempted to separate developers into two groups with separate application development missions. Mission cuts were made at administrative versus academic applications and distributed versus central applications.

We rolled out this plan and within a few months found ourselves struggling with these mission distinctions. Our customers were confused, and frankly, at times, so were we.
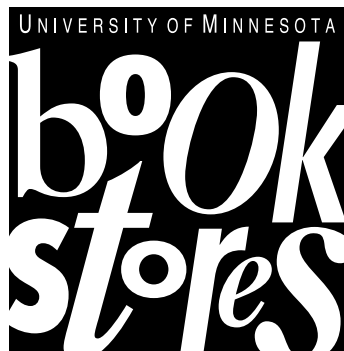
Common Technology Infrastructure

The distinction we had made between academic versus administrative applications, and distributed versus central applications just didn't hold up. We concluded that increasingly all applications should be able to leverage a common technology infrastructure of networks, clients, servers, security, authentication, database integration, and central transaction processors. We found ourselves

June 1996 ▼ Contents

Some funds are provided by the Minnesota Bookstores.

UNIVERSITY OF MINNESOTA
book stores

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

We will provide you with a solution that leverages all the developer talents OIT has available.

advocating this integration of applications architecture while at the same time we were separating our development team into sub-optimal structures that hindered this integration.

Creating the Integrated Systems Solutions (ISS) application development team positions our staff to better serve the University community.

The new ISS team is already paying dividends. Results from development efforts underway for the Grants Management Projects and the Registrar's Web Registration Project have demonstrated the power of the combined OIT development talents.

In the future, when you come to OIT for applications development solutions, we will be able to provide you with an Integrated Systems Solution that leverages all the developer talents OIT has available. No fuss. No muss. ▪

Electronic Journals Now Available

Nancy K. Herther <nherther@iic.lib.umn.edu>
Manager, Integrated Information Center, University Libraries

The University of Minnesota Science & Engineering Library is pleased to announce the availability of six electronic journals published by the American Mathematical Society (AMS) and 26 electronic journals published by the Institute of Physics (IOP).

With an Internet connection and a Web browser, you may access these journals from your office and home, without coming into the Library.

Directions for accessing these electronic journals directly from the AMS and IOP Web sites are included below. However, these web sites are also accessible from our Science & Engineering Library Home Page, which provides links to a wealth of information on the Internet. Please visit our site at <http://sciweb.lib.umn.edu/>.

American Mathematical Society
Electronic journals published by the American Mathematical Society:

1. Using your Web browser, enter the address <http://www.ams.org/journals>.
2. Follow the on-line instructions for selecting and viewing a specific journal

Institute of Physics
Electronic journals published by the Institute of Physics:

1. Using your Web browser, enter the address <http://www.iop.org/EJ/welcome>.
2. Under "Unregistered Users," fill in the blanks as follows:

   ```
   Site ID:        umn
   Site Password: physics
   ```

3. Click on *Register*
4. Follow the instructions for creating a Personal Username and Password

Note: once registered, you will access IOP electronic journals by clicking on *Main Menu* under *Registered Users* and typing your Personal Username and Password, so create something you will remember. You will no longer need the Site ID and Password listed above.

Questions?
If you have any questions, please contact Janice Jaguszewski, Coordinator for Science & Engineering Resources at her E-mail address: <j-jagu@tc.umn.edu>. ▪

CUFSRDB Enhancements

Joe Sullivan, ISS (Integrated Systems Solutions) Data Warehouse

Several enhancements to the CUFS Reporting Database (CUFSRDB) portion of the University's Data Warehouse have been approved as part of the Grants Management Project. These enhancements primarily increase the amount and timeliness of data available. Descriptions of the enhancements and a timetable for each implementation follow.

July 1, 1996 Implementation

New summary tables are being created for objects, revenues, sub-objects, sub-revenues and balance sheet accounts. These tables will contain one row of summary data for each accounting period of the fiscal year and will be refreshed at both Soft and Hard closes to match the operational CUFS system.

The object and revenue tables will have new unobligated and unrecognized balance columns respectively. New summary history tables in the same format, i.e. one row of summary data for each accounting period of the fiscal year and new balance columns, will be created for each fiscal year back to the start of CUFS (fiscal year 1992). Charts of Accounts tables for fiscal years 1992 and 1993 will be added.

New transaction detail tables will be created with the same columns but many more periods of detail than the existing tables. Transaction detail for the current fiscal year plus the preceding two fiscal years will be available. The equivalent of the cufs_tran_curr table (containing transactions for the current accounting period) will be refreshed each night that CUFS is refreshed.

A table containing the rest of the transactions for the current fiscal year will be refreshed at Soft and Hard closes. The transactions for the prior two fiscal years will be in separate tables.

These improvements will be implemented July 1st. But, the *existing* CUFSRDB tables will *not* be eliminated *until* the July Soft close on *August 7, 1996*. The new tables will exist alongside the current CUFSRDB tables, giving customers the month of July to make the switch to the new tables. Overviews and documentation of the changes will be available in early July. More information about this will follow.

The improved CUFS Reporting database will exist only on IDEA. The mainframe DB2 version of the CUFSRDB is targeted for elimination at the July Soft close on August 7, 1996. BASIS Data Access personnel will help mainframe DB2 CUFSRDB customers migrate to the use of the IDEA version.

If you would like help in making the migration, call the BASIS Customer Assistance Center at 624-0555.

October 1, 1996 Implementation

The ORTTA Proposal and Award table currently in the CUFS Reporting Database will be modified through the addition and deletion of columns. An ORTTA Proposal and Award History table also will be added.

March 1, 1997 Implementation

New tables containing data from the operational budget prep tables will be added in time for the fiscal year 1998 budget prep process.

The Grants Management project is also considering enhancements to the non CUFS business related portion of the Data Warehouse, such as changes to Historical Earnings and the addition of Fringe Benefit data. More information about these changes will be provided in the future. ▨

If you would like help in making the migration, call the BASIS Customer Assistance Center at 624-0555.

U to Discontinue BITNET Service

Jim Colten, BASIS and Jan Jannett, ADCS

↜ *The University's BITNET membership ends on August 1, 1996*

↜ *If you have questions about the Internet, call the Internet Helpline at 626-7676.*

BITNET has played an important role in providing network services to higher education and research institutions for 15 years, but the Internet has grown by leaps and bounds and has become a much more important network. To avoid duplicated services, many institutions that formerly had a link to each of these networks have been dropping BITNET.

Earlier this year, the organization that has been managing BITNET (CREN) announced that they would discontinue their BITNET support at the end of 1996. That announcement triggered a flood of institutions leaving BITNET. The rapid pace of institutions leaving makes it very difficult to remain part of BITNET until the end. Therefore, we are setting an early date for leaving BITNET.

What does this mean to you? Before August 1, 1996, you need to make the following changes:

- If you correspond with people at computer systems that are nodes on both BITNET and the Internet, you should be sure that you address their E-mail to their Internet address.
- If you correspond with people at computer systems that are nodes on BITNET only, then you need to address their E-mail using an Internet address. This Internet address is easy to determine:

Network	Address
discontinued BITNET:	userid@nodeid
becomes Internet:	userid@nodeid.BITNET

- If you correspond with people who currently send E-mail to your BITNET address, then you need to inform them that your address has changed. Likewise, remember to provide all NEW E-mail correspondents with your Internet address, not your BITNET address.

Fortunately, all University of Minnesota BITNET nodes already have access to the Internet. If that were not true, then these changes would be much more traumatic. The following lists the University of Minnesota BITNET nodes and their Internet alternatives:

BITNET	INTERNET
UMINN1	VM1.SPCS.UMN.EDU
UMNSOM	CSOM.SPCS.UMN.EDU
UMNACVX	VX.CIS.UMN.EDU
UMNADMNA	ADMIN.AIS.UMN.EDU

Questions?

If you have questions or concerns, please contact the OIT/BASIS Customer Assistance Center at 612/624-0555. ▆

Continuous Electrical Backup

Data Center Generator Installation is a Success
Joann Conradson, OIT/BASIS Customer Assistance Center

The installation of a generator was successfully completed in the OIT/BASIS Data Center on Sunday, April 28. The installation marks the completion of a project that began in the summer of 1995 and involved many hours of planning and coordination.

The generator provides continuous electrical backup to the Data Center in the case of a power outage to the West Bank Office Building (WBOB). The need to "switch" to the backup generator is sensed by monitoring equipment and occurs automatically.

In the past, the Data Center shared a generator with the entire building. However, there were many problems, since the single generator was not capable of handling the combined demand of the building and the data center. The new generator is an important piece of equipment in making the OIT/BASIS Data Center a premier data operations center for the OIT organization. ▆

Business & Student Information Services

Billing for Services Traditionally Offered by AIS

Business and Student Information Services' (BASIS) Billing Approach for Fiscal 1996-97
Robert Singleton, Business Services, BASIS

BASIS has been moving toward becoming an ISO (internal service organization) beginning July 1, 1997.

An agreement has been reached by the Office of Information Technology, the Budget Office, and the vice presidents responsible for financial systems, student systems, library systems, and human resource/benefits systems to treat fiscal year 1996-97 as a transition year. Listed below are the billing approaches that will be used for fiscal 1996-97 and fiscal 1997-98.

Approach for Fiscal 1996-97

1. All actual billing will be done at the CUFS area level.

2. The Office of Information Technology will pay for all use of the institutional data maintained by the "data warehouse" environments by BASIS. OIT will also bear the cost of training University staff in the use of these databases.

   Contact Lisa Coppola at 612/624-5768 for further information on training.

3. Customers will be billed for applications maintenance and development based on actual hours of service provided.

4. Customers will be billed for completely new services or systems per agreement.

   Examples are the new Interactive Voice Response service and the University Services AS/400 technical and applications support agreement.

5. For all other traditional AIS (Administrative Information Services) services, including mainframe computing services, each area will be billed for fiscal 1996-97 the same amount as they have been billed for fiscal 1995-96. There will be no fee increases and no additional charges for higher volumes of service which may be used next year.

6. When item 5 is inappropriate or causes a hardship, special arrangements will be made. Contact your area/class manager to initiate the discussion. Area/class managers should contact Bob Singleton at BASIS (612/625-2876) to discuss funding needs they are unable to address.

Approach for Fiscal 1997-98

Users will pay for all services provided by BASIS, with the continued exception of institutional data. Rates will be calculated according to ISO guidelines. During the upcoming fiscal year, detailed information on actual usage (memo bills) will be sent to customers. These memo bills will show the service categories and costs which will be billed under the new methodology starting in July, 1997.

The next fourteen months will be used as a time for fine tuning the measurement/chargeback system so that actual billings in fiscal 1998 will be correct. ■

Contacts

❧ **Data Warehouse Training:**
   Lisa Coppola
   624-5768

❧ **Special Funding Arrangements:**
   contact your
   area/class manager

Data Security Update

Yvonne Carlton, BASIS Data Security

The Data Security Group at OIT/BASIS is making changes to processes, procedures, and the forms used by our customers to request access to systems and data. All of these changes are designed and planned to make it easier to request and implement access to administrative systems.

In order to make the changes more accessible to our customers, we are *establishing* a home page. Our URL is <http://www.umn.edu/oit/basis/security/security.html>. On our page we will introduce our new *Access Request* (B-D/S001). It replaces the current "Type 06" form we have been using. The new form should be used after May 17, 1996. We have also included instructions for completing the form.

In addition, we have designed a new form customers should use to request access to the IDEA Warehouse. Customers should use this form (*Request for IDEA Warehouse Database Access [*B-D/S002*]*) to request access to every RDB (reporting database) that is available, except for CUFSRDB (CUFS Reporting Database).

The *CUFSRDB Via IDEA Access Request* Form (U-FSS001) is also a new form. We worked with Financial Systems Support to develop one form that allows our users to request access and complete the CUFS Contract for CUFSRDB.

All of the forms have instructions for completing the form. We have also provided instructions for where to send the forms and a list of Data Custodians.

Our future plans include developing a process to allow customers to complete and route forms on-line. We need to resolve security issues regarding forms routing and digital signature. When we can work through those issues, we will be ready to go as paperless as possible.

In addition to new forms, we are publishing our Data Security Standards and Guidelines. These standards apply to OIT Business and Student Information Services (BASIS) and OIT Integrated Systems Solutions (ISS) organizations. As new standards and guidelines are developed we will put the drafts out for comment on our home page. When Business Continuity Standards and Guidelines become certified, they will be published out on the Security Web page.

As you can see we are making strides in using this medium to communicate with you. Please let us know what you think about our progress. You can E-mail your comments, concerns and questions to <carlt001@gold.tc.umn.edu>. ▪

Business & Student Information Services

Electronic Mailing Lists

Unsubscribing, Finding Addresses, Useful Web Sites and More

Summer means activity and residence changes for many people. If that's true for you and you've joined any electronic mailing lists, you probably want to stop all or some of the mail generated by those lists. One way to stop mail is to unsubscribe from the list, an easy task if you've saved the Welcome message you got when your subscription was acknowledged.

Welcome messages include basic instructions, such as how to unsubscribe and get help. You are urged to keep these messages because there isn't one address or one set of commands that is recognized by all the "brands" of software that manage electronic mailing lists.

Some Common Features

List managing software is designed to run with the minimum of human intervention. Popular software in this category is LISTSERV (also called BITNET LISTSERV), listproc (ListProcessor) major-domo, mailbase, and mailserv. Another popular format is called -request.

Fortunately, the commands to unsubscribe from these lists are basically the same, as shown in Table 1. You need to type in the name of the list you want to leave because the software is usually set up to handle many different lists.

Additional Commands

Programs that manage mailing lists have limited "vocabularies" and usually only understand precisely worded messages, a source of frustration for many people. You can obtain an overview of E-mail discussion lists and the commands they understand by reading a document maintained by James Milles, Saint Louis University Law Library. You'll find it on the Web at this URL

Table 1: Unsubscribe Commands

Software	Unsubscribe command
LISTSERV	unsubscribe [listname]
Listproc	unsubscribe [listname]
Mailbase	leave [listname]
Mailserv	unsubscribe [listname]
Majordomo	unsubscribe [listname]
-request	unsubscribe ✸

Where you see [listname], substitute the actual name of the list. Here's an example:

```
unsubscribe topten
```

If you subscribed under a different E-mail address than the one you are currently using, mailserv and majordomo let you type in that address when you issue the unsubscribe command, as shown below.

```
Mailserv    unsubscribe [listname] [address]
Majordomo   unsubscribe [listname] [address]
```

✸   Programs that use the -request form sometimes have additional instructions, but usually will recognize the word unsubscribe.

<http://lawlib.slu.edu/training/
mailser.htm>. It's also available as a document
called *mail.ser* via anonymous FTP from the net
training section of </ubvm.cc.buffalo.edu/
nettrain>.

Two Addresses

Addresses can also be a source of frustration and
confusion for people. The principle is simple. You
use one address to communicate with others who
subscribe to the list. You use a different address
for administrative tasks, such as unsubscribing.
The problem arises when people do not keep
track of the administrative address, perhaps
because they've discarded the group's Welcome
message. While moderated discussion lists and
electronic bulletins often include the address and
commands you need to subscribe and
unsubscribe in their closures, unmoderated lists
usually do not.

If you've lost your Welcome message and need to
find the "unsubscribe" address, you can read the
section called *Finding Lists' Addresses* for clues
about finding out how to unsubscribe. That
section will also be useful to people who just
want to locate interesting discussion topics.

Bitnet versus Internet Addresses

Occasionally you will find a List Server or list
address that has a Bitnet form, such as:

        listserv@bitnic
        listserv@psuvm

You can send mail to any Bitnet address from an
Internet account simply by appending

        .bitnet

to the address, for example

        listserv@bitnic.bitnet

How the List Server
Knows Who You Are

When you subscribe, unsubscribe, and otherwise
correspond with many list managing programs
you usually do not type in your E-mail identifica-
tion. You don't need to. The software gets that
information from the "header" that is automati-
cally sent along with each message. Headers also
show the paths the message took to reach you
and can be quite long. Many E-mail programs

hide this messy header since it provides little
useful information for the average user.

Finding Lists' Addresses

If you lost the address you need to use to
unsubscribe, what do you do? Below we offer
several options.

LISTSERV@BITNIC

You can send your unsubscribe request to

        listserv@bitnic.bitnet

Since that List Server maintains an extensive
record of LISTSERV lists, it may be able to handle
your inquiry. If the Bitnic LISTSERV cannot act on
your unsubscribe request, you will receive an
electronic form letter telling you so.

Web Sites

Several Web sites can be helpful for finding
addresses and topics that match your interests.

- This site <http://www.liszt.com/> has a
  large list that includes entries for LISTSERV,
  majordomo, and listproc lists. It does not
  include entries for private lists. You can also
  enter a word or phrase and search for lists by
  topic.

- To look for mailing lists managed by
  LISTSERV software, you can search this Web
  site <http://tile.net/lists/>. You can
  get alphabetical listings by subject or name
  as well as search for topics by typing in
  keywords.

- If you're searching for a scholarly or profes-
  sional list, you can try this site <http://
  n2h2.com/KOVACS/>.

- The Publicly Accessible Mailing Lists site
  <http://www.neosoft.com/internet/
  paml/> maintained by Stephanie de Silva is
  another a good resource. Her compilation
  contains addresses for many sources, includ-
  ing lists run from commercial services. The
  listings often includes links to the list's
  archives. You can view the listings by name
  or by subject.

- This site bills itself as a "one-stop informa-
  tion resource about E-mail discussion
  groups" <http://www.webcom.com/im-
  pulse/list.html>.

- Yet another catalog of LISTSERV lists: this one lets you contact the list's owner and get an overview of the list's features, such as archives and spam filter. You can even view lists with 1,000 subscribers or more <http://www.lsoft.com/lists/listref.html>.

- Inter-Links is another searchable source of LISTSERV addresses. The Web site is maintained by Nova Southeastern University at <http://www.nova.edu/Inter-Links/listserv.html>.

Signatures: a Fine Point

Remember, mailing list managing software is designed to run without human intervention, and it recognizes only a few commands. Since many E-mail programs let you automatically append signature information to your messages, if you've set up such an automatic signature, it is a good idea to suppress it when you correspond with the software. However, if you do include your signature, the software will probably just tell you that "John Doe" — or whatever you put in your signature — is an unknown command.

■ by Mary Kelleher

PBX Switch Numbers

Vivian Skordahl, Networking and Telecommunications Services

So what are those "switch" numbers that appear on the telephone bill for my department? This is a question that is often posed to the Networking and Telecommunication Services (NTS) Helpline at 6-7800.

The University currently has 3 exchanges available for voice communications. These exchanges include: 624, 625, and 626. In 1986 the University installed a new Intecom PBX. At that time, Telecommunications developed a numbering scheme for telephone overflow lines and campus telephones which did not include the above prefixes. The basis for this decision was to avoid purchasing another exchange from US West, thus saving money, and allowing for more flexibility in assigning such numbers.

As a point of information, it may be useful to review the process for acquiring new telephone numbers from the local telephone company. When the available block of telephone numbers serving the University is nearly used up, it is necessary to obtain new numbers from US West. US West then charges an initial set up fee for each block of numbers, as well as a monthly recurring charge which depends on how many new numbers are assigned to the University.

When the University established the numbering scheme for switch numbers, it used the same format for campus phone numbers. That is, since the campus utilizes a 5-digit dialing pattern, it was determined that switch numbers should also be comprised of 5 digits beginning with a "3" such as 3-7817.

You will see these numbers on telephone bills provided by Networking and Telecommunications Services, and on display phones when receiving a call from people who are using their overflow line for an outgoing call.

While these switch numbers provide NTS with the means to program telephones with overflow lines, they should *not* be published or listed as department numbers. That is, the switch number (3-xxxx) *is not* a 7-digit phone number that can be dialed from an off-campus location. However, if you are in fact calling a 623 exchange, remember to first dial "8" for an outside line.

For additional information on switch numbers, contact the NTS Helpline at 626-7800. ■

Extended Absence Reminder

For those faculty and staff who will be leaving campus for the summer, remember to record an *Extended Absence Greeting* on your voice mail box. See the April edition of this newsletter for directions or call the NTS Helpline at 626-7800. ■

Networking & Telecommunications Services

What a Difference 192 Modems Make!

Lawrence Liddiard   liddiard@nts.umn.edu – Networking and Telecommunications Services

I n our April SLIP Modem Pool Statistics article in this newsletter, we mentioned 192 SLIP modems were on order for April. These were installed in mid-April. You can graphically see the results by looking at the charts below for April and May.

During the week of 7–13 April, the 784 SLIP ports were often completely busy for 7 or 8 hours a day. Our NTS engineers worked with US West to add the 192 more 28.8K modems to the 627-4250 Centrex supported SLIP pool (total 576).

The 5–11 week of May then shows only 1 hour a day at near peak usage for the SLIP pools. The pools now contain 976 modems. (SLIP modem users still love that 9 to 10 p.m. [21:00–22:00] slot of time.)

More Changes

More modem chassis (2 T1 lines to 48 modems to 3 terminal servers and 3 Ethernets) are on order and will be added as required. This may mean up to *another* 1000 SLIP modems would be available for next Fall quarter. The Office of Information Technology is working with central administration on the funding specifics. Think of each SLIP modem port, its support and US West line charges as a yearly $1,000 bill, to get the magnitude of the cost.

More Stats

You can see more of these weekly SLIP modem pools graphs by browsing at our Web site <http://www.nts.umn.edu/stats.html>. ▆

Dates, Times (0:00 to 24:00), and Number of Users
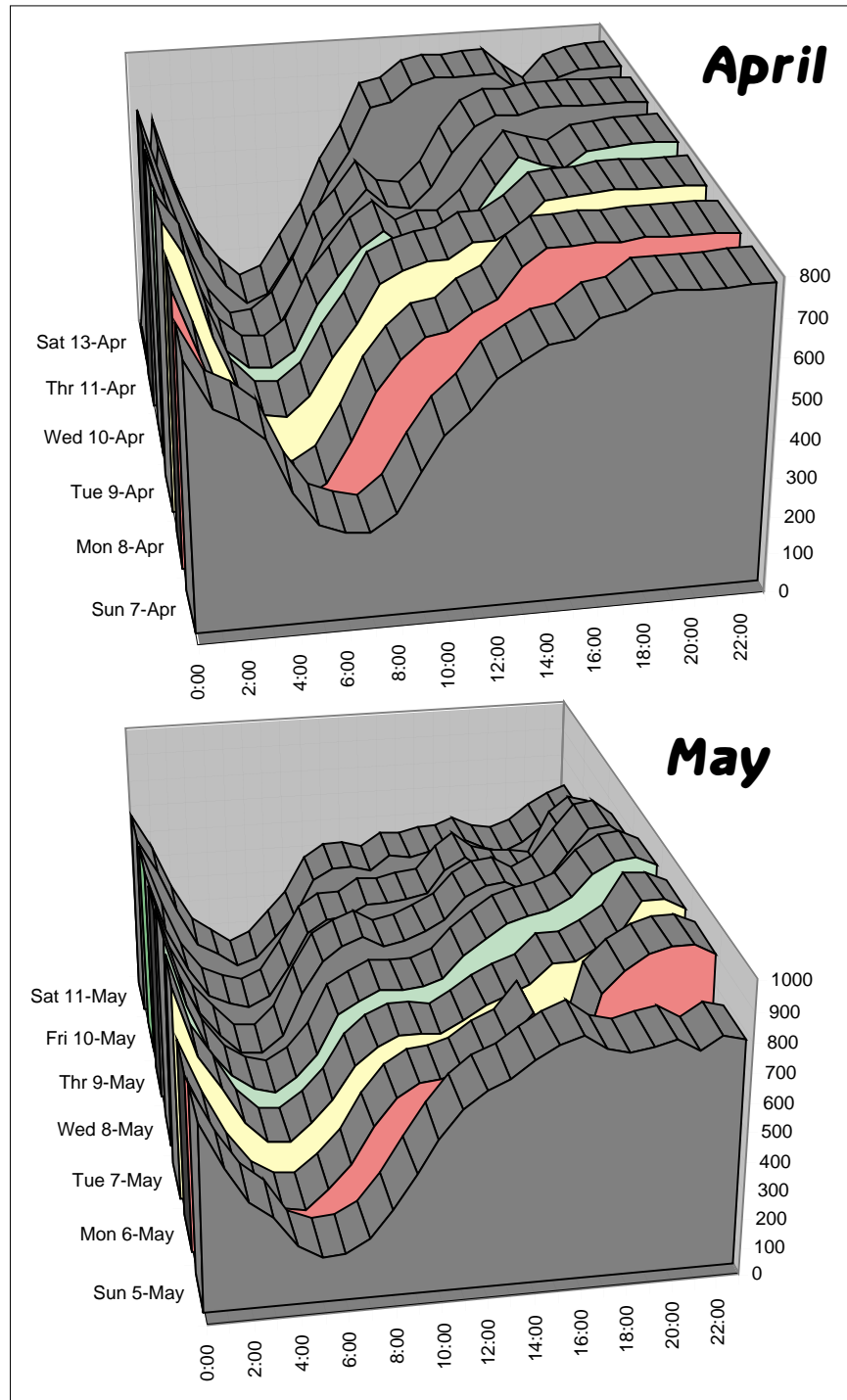
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