What's inside ...

- Year 2000 and Computer Systems
- New Printing Services - Color Printing, Print Quota Purchase
- 56K Modem Pool Support - Dialup from Home and Quarter
- Multimedia Station - Video-on-Demand, Internet TV, Videoconferencing, and more
- Uniform Email address @ust.hk
- Chinese Computing Environment Upgraded
- Lecture theatre PC enhancement
- UST End User Defined Chinese Characters Available
- New Mailing Lists - all UG, PG, Staff and Faculties in Departments
- Internet Speed upgraded!
- Digital Certificate - Modern Secure Email and Web Authentication
Year 2000 and Computer Systems

The Year 2000 (Y2K) problem is a concern all over the world as it has implications for all computer systems including hardware, software, network and applications, as well as other equipment and systems involving electronic date logic.

UST has less Y2K issues than other institutions in HK because we are comparatively young. Nevertheless, in order to share with you the information about the Y2K issues in UST, CCST has set up a home page

[http://www.ust.hk/ccst/y2k](http://www.ust.hk/ccst/y2k)

which contains information such as

- What is Y2K problem
- What I should do to handle the problem
- Y2K compliance test on my Personal Computer
- Y2K information on common software like Word, Excel, etc.
- Y2K information on UNIX, Macintosh, and Database systems

Seminar

We are going to have a seminar to discuss about Y2K in HKUST, tentatively scheduled as follow:

- Date: 1-June-1998 (Mon)
- Time: 10:00am - 11:30am
- Venue: LTG

Join Mailing List

We have set up a mailing list "y2k-list" for discussion about Y2K issues in UST. Your comments are valuable to other users, so please join the discussion mailing list. To subscribe the list, simply reply this mail or go to the web page:

[https://www-cgi.ust.hk/cgi-bin/ccst/listserv/restricted/subscribe.pl](https://www-cgi.ust.hk/cgi-bin/ccst/listserv/restricted/subscribe.pl)
CCST Laser Printing Services for Students

CCST provides laser printing facilities in each of the three Computer Barns to cater the general printing needs. All of these laser printers are network connected and you may conveniently print your email, file, document or image of your screen to the laser printers from any of the PC, Macintosh or Workstation in the barn. To help in saving a few trees and to reduce your burden of carrying a large pile of papers around, duplex printing units are also available in Barns A and B to enable you to print double sided pages. Color printing facility is also available in Barn B too.

You may find the following useful data for your interest.

<table>
<thead>
<tr>
<th>Print Quota Entitlement</th>
<th>400/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount Deduction From Quota</td>
<td></td>
</tr>
<tr>
<td>Normal Laser Printers</td>
<td>1 page/printout</td>
</tr>
<tr>
<td>Duplex Laser Printers</td>
<td>2 pages/printout</td>
</tr>
<tr>
<td>Colour Laser Printer</td>
<td>8 pages/printout</td>
</tr>
<tr>
<td>Place For Purchasing Additional Print Quota Coupons</td>
<td>Finance Office Counter (5th floor, Lift17-18)</td>
</tr>
<tr>
<td>Cost For Additional Print Quota</td>
<td>$60/coupon(200pages)</td>
</tr>
<tr>
<td>Place For Adding Print Quota</td>
<td></td>
</tr>
<tr>
<td>1. Student Consultants in the Computer Barns</td>
<td></td>
</tr>
<tr>
<td>2. CCST General Office (2nd floor, Lift 2)</td>
<td></td>
</tr>
</tbody>
</table>

For details on the following items:
1. How you can get refund for the problem printouts.
2. Tips on saving your quota.

Please refer to: [http://www.ust.hk/ccst/printing/](http://www.ust.hk/ccst/printing/)
56K Dialup modem support

CCST already have 56K dialup support in place since 5 March 1998. To summarize:

- Student HiSpeed: K56flex support, 230 lines, access number 29313300
- Staff HiSpeed: K56flex support, 46 lines, access number 29313200

Further information is available from our dialup web page:

http://www.ust.hk/ccst/dialup

What Modems are Compatible

Basically you need a modem that supports K56flex. However, Rockwell has two K56flex specifications, v1.0 and v1.1, and they're not compatible with each other. UST's 56K pools support v1.1 only. If you have bought a K56flex modem when K56flex just came out, chances are that it may not be compatible with our pool, and you need a firmware upgrade or a hardware upgrade.

Of course, X2 modems can only connect to our pool at 33.6K max.

To see how to determine if your K56flex modem is compatible with the new dialup pool, click this link:

http://www.ust.hk/ccst/dialup/56k/compat_check

To see if your modem has firmware upgrade on the Internet, check out:

http://www.56k.com/firmware

What Modem Should I Buy Now

It must support K56flex.

You may like to choose dual mode modems, supporting both K56flex and V.90 simultaneously. This will potentially avoid having to upgrade to V.90 when our pool upgrade to V.90 later this year.

Avoid modems that said V.90 but no mentioning of K56flex. As our modem pool is not yet V.90-ready, V.90-only modems V.90-only modems will only be able to connect to our dialup pool at 33.6K speed maximum.

It must be flash upgradable, meaning that new firmware can be loaded into the modem without sending it back.

Choose a brand that provides free firmware updates on the Internet, listed here:

http://www.56k.com/firmware. Some small vendors may not be prepared to develop an upgrade, some may ask you to pay for the upgrade.
Status of 56K Standard

ITU has recently agreed on a blue-print of 56K standard on 6 Feb. 1998, and named it V.90. While it will be official only by September this year, all the technical details has been fixed: it is a mixture of two proprietary protocols: X2 from 3Com/USR, and K56flex from Rockwell/Lucent.

Is It Really 56K

56K is the typical upper limit. In real life, most likely you'll get a connection speed between 42K and 50K. The connection speed depends very much on the quality of telephone line from your modem to the telephone company, among other factors.

And direction wise, one can only get 56K download speed (from UST to user), upload speed ceiling is still 33.6K as before.

For any problems or how to tune up your dialup connection, please see the web page: http://www.ust.hk/ccst/dialup/56k
Multimedia Station

CCST is pleased to announce the Multimedia Station at:

http://www.ust.hk/ccst/multimedia

Namely, the Multimedia Station is a collection of multimedia services on the campus network, including the following at present:

1. Video-on-Demand Service
   With the help from various departments, a number of video contents of interests to staff and students are put on our video server for on-demand retrieval. Examples of contents include lectures, seminars, training video for using various facilities (eg. weight training room), talks on pre-interview preparation for graduating students, as well as recreational contents like sports events, quartet-in-residence, the "Music Fire" event, etc.

2. Internet TV Channel
   Information about the University and departments are constantly broadcasted to the campus network.

3. Videoconferencing
   This would provide information about how to do videoconferencing on the campus network, or even on the vast Internet. The technology will be demonstrated by a "virtual helpdesk" which enables students using Barn's Video conferencing terminal to talk with barn helpers for assistance via the network.

4. Snapshots in Computer Barns
   It is interesting to be able to look at the three computer barns without having to be physically there. Hopefully, this would make it easier for the student to find a vacant seat in the least-busy barn.

As we are moving to a multimedia age, more applications of the technology has yet to be identified. Please do drop us an email at multimedia@ust.hk if you have any suggestions or comments. Thanks.
Uniform Email Address - @ust.hk

CCST is pleased to announce the new @ust.hk uniform email address service for all staffs. From now on, no matter what email clients and email platforms you are using, it is guaranteed that the @ust.hk email address works for you. For example, if your email account name is tmchan, no matter you are using tmchan@uxmail.ust.hk or tmchan@usthk.ust.hk, mails addressed to tmchan@ust.hk can also be delivered to you successfully. Of course, the existing @uxmail.ust.hk or @usthk.ust.hk still works fine. And for those departments who are reading mails through their own email server (e.g., the @cs.ust.hk of Computer Science department and the @ee.ust.hk of Electrical & Electronic Engineering department), this will NOT affect them in any ways no matter how they set up their email forwardings.

The @ust.hk not only can provide a uniform email address for UST staffs, it is also easier to be remembered and more representative.

More You Can Do

You don't have to do anything to make the @ust.hk work. But if you want to adopt this address, and have your email address consistently appeared as @ust.hk ANYWHERE, we suggest you:

1. Tell your friends and colleagues your email address is @ust.hk
2. Change the email address in your name card next time you have to reprint them
3. Change/Making sure the "Reply-to" or "user-domain" configuration of your mail client software is set to @ust.hk. By doing this, the "From:" address shown in the header of every mail you sent will be @ust.hk. And when the recipient reply your mail, it will be addressed to @ust.hk. To do this, please follow the instructions below:

   ● if you are using Pine, change the "user-domain" to ust.hk by:
      1. start pine
      2. in the main menu, type "S" to enter SetUp menu
      3. in SetUp menu, type "C" to enter Configuration mode
      4. use arrow key to move the cursor to the user-domain field
      5. change it to ust.hk
      6. press "space bar" (around 9 times) and use arrow key to move the cursor to the alt-addresses field
      7. change it to your old mail address used  
         e.g., username@uxmail.ust.hk,  
         where username is your email account name
8. type "E" to exit
9. answer "Y" to the question "Save ?"

- if you are using Netscape mail, change the Identity to username@ust.hk by:
  1. start Netscape
  2. select Edit menu and choose "Preference..."
  3. select Server & Groups, expand it if needed
  4. select Identity
  5. in the "Email address" and "Reply-to address" boxes, enter username@ust.hk
     where username is your email account name
  6. click OK

- If you are using PathWork mail, VMS mail, or file based mail clients in central Unix server, you don't have to set up anything because the default "reply-to" address has already been set to @ust.hk for you.

**Technical Information**

The @ust.hk is actually a virtual email address, i.e., it is implemented using email alias, and is not really an email domain. For more information about email addressing, you may refer to the following web page:

[http://www.ust.hk/ccst/email/email-address.html](http://www.ust.hk/ccst/email/email-address.html)
PC Chinese computing environment upgraded

To cope with the great demand on Chinese computing, CCST is upgrading the PC Chinese environment to suit diversified needs of our users, including those who want to VIEW and INPUT Chinese using English based windows system, and those serious users who need a full Chinese windows system, either Windows 3.1 or Windows 95.

Example of applications include:

- Read and write Chinese Emails
- Read and compose Chinese Web pages
- Chinese word processing
- Traditional and Simplified Chinese

The Chinese capability in English based windows system is powered by RichWin. RichWin has its own Chinese fonts and input methods. Coding systems such as BIG5, GB, CJK are all supported.

For more information, please refer to: [http://www.ust.hk/ccst/chinese](http://www.ust.hk/ccst/chinese)
Lecture Theatre Computing Facilities Enhancement

To make use of the advanced technology in facilitating teaching, CCST always tries to enhance functions of the computers in lecture theatres. Several upgrades have been made, and many others are in progress.

To let users exchange idea and experience about using the lecture theatre PC, we have setup a discussion mailing list **ltpcuser-list**. Please join and express anything you think may help to make improvements.

**New PC Features**

- Quick start option
  - let user choose to preserve his change to the PC after restart
  - quicker restart
- Pre-installed software
  - Microsoft Internet Explorer 4.0
  - Visual C++ 5.0

**Future Enhancement**

- Instant startup
  - Make the PC startup very quickly by using new technology of **Reborn Card**
  - No need to check and load network files during startup
- Remote mouse/keyboard
  - User can walk around anywhere in the middle of presentation
- Users’ add-on devices
  - Allow user to bring in any add-on devices to assist his/her presentation

**Join the Mailing List**

Your comments are valuable to other users and CCST, so please join the **ltpcuser-list** discussion mailing list about sing lecture theatre PC.
End User Defined Chinese Characters

End User Defined Characters (EUDC) are those Chinese characters that are not defined in standard Chinese encoding schemes. In Hong Kong, the most popular Chinese encoding scheme is BIG-5 which was developed in Taiwan.

However, such scheme does not include Chinese characters that are unique to Hong Kong. As a result, CCST has built quite a lot of such characters (total 152 up-to-date) on the old ETen system.

CCST is now pleased to announce that these characters has been successfully implemented on our new Chinese Windows 95 platform.

Since the establishment of HKUST, CCST has worked on creating Chinese characters to meet the need from various departments. Up to now, there are 152 characters defined in our ETen system.

To ensure smooth migration of old ETen system to contemporary Chinese Windows 95 system, CCST has created three type faces of HKUST EUDC on Chinese Windows 95, namely:

- Sai Ming
- Biu Kai
- Medium Black

For details on HKUST EUDC, please visit: http://www.ust.hk/ccst/chinese/infra/eudc
New mailing lists

All UG, PG, Staff and Faculties in departments

Do you have the need to send mail to all UG or all staff in your department? CCST has setup mailing lists for you to do this and more. The new mailing lists are:

- xxx-ug-list: all UG in department of xxx
- xxx-pg-list: all PG in department of xxx
- xxx-stf-list: all Staff in department of xxx
- xxx-fac-list: all Faculties in department of xxx

where xxx is department code like CCST, EMO, etc.

Right now all staff in a department can send mail to the ug-list, pg-list, and stf-list of his/her own department; and faculties in a department can send mail to the fac-list.

You may refer to the following web page to have a full list of all mailing lists:

http://www.ust.hk/ccst/mailinglist
Completion of Phase I HARNET Upgrade

In 1997 the University Grants Committee (UGC) has approved a 3-year funding to upgrade the network infrastructure of HARNET - the Hong Kong Academic & Research Network. As a regional network linking up the eight local tertiary institutions, HARNET provides a shared connection for international Internet access by the member institutions.

The HARNET Network Task Force, with representatives from each institutions, has been working on this upgrade for around 3 months. The phase I upgrade, which completed earlier, includes the following major enhancements:

1. HARNET migrated from a T1-star to 20 Mbps ATM-based wide area network,
2. Local connection speed amongst institutions upgraded from 1.5 Mbps to 10 Mbps, providing Ethernet-like network access performance, and
3. Shared international Internet link upgraded from 2 Mbps E1 to 6 Mbps connection.

It is planned to upgrade the international Internet link from 6 Mbps to 12 Mbps in 1998/99 and further to 45 Mbps (T3) in 1999/00.

With this upgrade, users should experience a faster performance for Internet access, especially to local institutions and other Hong Kong sites. To make better use of the new infrastructure, we will explore any possible chances of collaboration with other institutions on multimedia related projects like HARNET-wide live broadcast of important events or distinguished lectures. If you have any suggestions on possible applications, please drop a mail to internet-research@ust.hk.

For further information on this upgrade, including the latest HARNET topology, please point your web browser to http://www.ust.hk/ccst/network/internet
Digital Certificate

Secure Email and Web Authentication

What is Digital Certificate?

Digital Certificates (or sometimes called Digital IDs) are the electronic counterparts to driver licenses or identity cards. You can present a digital certificate electronically to prove your identity in an electronic message or your right to access information or services available online on the Internet.

How to Use Your Digital Certificate?

The most common use of digital certificates is to verify that a user sending an electronic mail message is who he or she claims to be, or authenticating a World Wide Web services without need of user name and password.

Pilot Digital Certificate Service in HKUST

CCST is issuing digital certificates in our Intranet environment. Namely, CCST is operating a pilot certificate authority which issues digital certificates to all interested individuals in HKUST.

As an emerging new technology, the digital certificate will be enabling new applications in electronic commerce and network computing in general. CCST is providing this service as an experimental trial and let users experience the latest Internet security technology.

For more information, or want to get a Digital Certificate for you, please refer to:

http://www.ust.hk/ccst/digitalid