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CCST Hot-line 6200
Mon - Fri: 9:00 a.m. - 12:45 p.m. 2:00 p.m. - 5:00 p.m.
Sat: 9:00 a.m. - 11:45 a.m.

Computer Barns (Rms 4382 & 1044)
Opening hours:
Mon - Fri: 8:15 a.m. - 10:45 p.m.
Sat: 8:45 a.m. - 4:15 p.m.
Consultation hours:
Mon - Fri: 9:00 a.m. - 12:45 p.m. 2:00 p.m. - 5:00 p.m.
Sat: 9:00 a.m. - 11:45 a.m.

Business Computing Laboratory (Rm 4334)
Opening hours:
Mon - Fri: 8:15 a.m. - 10:45 p.m.
Sat: 8:45 a.m. - 4:15 p.m.

Editor's Notes

Channel is a bi-monthly publication of the
Centre of Computing
Services and
Telecommunications
(CCST) of HKUST.
Prepared by the
Computing Information
Centre (CIC), Channel
provides valuable
information about CCST
plans, developments
and services. Topics on
new trends in computing technology or
other related topics of interest are also
included. User contributions to
Channel are welcome
and should be sent to
the Editor along with
the author's name and
department.

Channel is distributed
to all University
members who are
registered users of the
CCST services. Other
parties who would like
to have their names added to our mailing list
for Channel may
complete and return the
form on the last page to
the Computing
Information Centre.

Esther Chan, Editor of Channel
CIC
cccesther@usthk.ust.hk
When Students Use CCST Computer Laboratories

Students are welcome to use the CCST computer laboratories at Rooms 4382, 1044 and 4334. Various notices have been put up in the laboratories to introduce new policies and facilities. You are advised to spend a few minutes to browse through them when you use the laboratories.

**Boot a PC**

Starting this academic year, to prevent computer viruses, all PCs in the CCST PC laboratories boot from a special floppy diskette, instead of from the hard disk.

To boot a PC, use a **boot diskette** obtained in one of these 2 ways:

- **Borrow the diskette** from the help desks in the labs. You will be asked to leave your student ID card with the help desk until you return the diskette. After boot-up, you may log in the PC. On the main menu, you have an option to create your own boot diskette. Insert a blank diskette of your own into the floppy drive, and select this menu option to make a boot diskette for yourself once and for all.

- **Use any one of the dedicated print monitoring** PCs in the labs to create a boot diskette of your own. Insert a blank diskette into the floppy drive, and do as directed.

Next time when you go to the laboratories, you may bring along your own boot diskette.

**Change Password**

For security reasons, you are urged to change your account password for the first time you log in a system, and afterwards, from time to time.

On PC, you may change your password by choosing "Others", and then "Change Network Password" on the HKUST PC Menu. Alternatively, you may change your password through host computers. On Macintosh, changing passwords has to be done through hosts. Refer to the instructional notices in the laboratories for the steps.

**Print From PC**

- **Network laser printing (postscript)**
  By default, the LPT2: port of a PC is connected to a network laser printer when you log in. Network laser printing is controlled by a quota.

- **Local dot matrix printing**
  Dot matrix printers are placed on every row of PCs in the labs. By default, the LPT1: port of a PC is connected to the nearest local dot matrix printer when you log in. Turn the knob of the switch box next to your PC to enable local printing.

- **Network dot matrix printing**
  You can connect a PC to a network dot matrix printer on the LPT1: port. To do so, choose "Control Network Printers" on the HKUST PC Menu.

- **Central laser / line printing**
  You may send documents to be printed on system print queues, CCLQ (laser) and CCP4 (band line). Printouts are distributed by CCST operators to the shared pigeon holes outside the CCST printer room (Rm 2034).
You may check the printing status of your job in a print queue on your PC. Choose "Others" and then "Examine a network print queue" on the HKUST PC Menu. Alternatively, you can show laser printing queued jobs on the dedicated print monitoring PCs.

To delete your print job in a queue on your PC, choose "Others" on the HKUST PC Menu and then "Delete queued print job" on the submenu.

Student Computer Accounts

In September, a total of 1,391 computer accounts were created for new students of this university, an almost 130% increase in the total student accounts compared to last academic year.

To facilitate learning, a computer account is a must for a new student in order to use the computing resources provided to him. Part-time students or students late in registering with the university have to be quick in applying for an account. Visit one of our computer barns (Rm 4382 & 1044) to file in an electronic request from the PCs now. Instructions are posted in the laboratories. Assistance is available from the laboratory help desks.

Assistance

CCST computer laboratory help desks are manned by CCST staff during office hours. Outside office hours, there are student helpers in the laboratories ready to give you a hand.

Floor Plan of New Computer Barn at Rm 1044
Industry News

Unicode Character Coding Standard

Introduction

The Unicode standard is a new character code standard designed to encode text for storage in computer files. It is a profile of the upcoming ISO 10646 standard. The design of the Unicode standard is based on ASCII (and Latin-1), but aims to go beyond ASCII to provide the capacity to encode all of the characters used for written languages throughout the world.

In order to accommodate the many thousands of characters used in international text, the Unicode standard uses a 16-bit set instead of ASCII's 7-bit code set. This expansion provides codes for more than 65,000 characters, a huge increase over ASCII's code capacity of 128 characters. To keep character coding simple and efficient, the Unicode standard assigns each character a unique 16-bit value, and does not use complex modes or escape codes to specify modified characters or special cases.

The Unicode Standard & ISO 10646

Until recently, the Unicode standard contended to be the internationally accepted character encoding standard with a draft international standard known as ISO 10646. However, a recent agreement between the Unicode Consortium and the committee defining ISO 10646 has established a merger of the two standards: the Unicode standard will become a subset of the ISO 10646 character set.

The Unicode standard's 65,536 code points will become the first 65,536 code points of ISO 10646 and will contain all of the characters currently defined by ISO 10646. All other ISO 10646 code points will be empty and reserved for future expansion. To accommodate characters required by ISO 10646, the next version of the Unicode standard will include over 3,600 new Chinese, Japanese and Korean characters and over 1,000 precomposed characters of other scripts.

What Characters Are Included

The Unicode standard defines codes for characters used in every major language today. It includes the Latin alphabet used for English, the Cyrillic alphabet used for Russian, the Greek, Hebrew and Arabic alphabets, and other alphabets used in countries across Europe, Africa, the Indian subcontinent and Asia.

The Unicode standard also includes alphabets such as Japanese Kana, Korean hangul and Chinese bopomofo. Much work of the Unicode standard is devoted to thousands of unified character codes for Chinese, Japanese and Korean ideographs.

The Unicode standard also includes many sets of symbols, with codes defined for punctuation marks, mathematical symbols, technical symbols, arrows, dingbats and others. It provides codes for diacritics, which are modifying marks such as the tilde (~) that appear in conjunction with other characters. All in all, Unicode provides codes for over 29,000 characters from the world's alphabets, ideograph sets and symbol collections.

The standard also retains over 29,000 unused code numbers for expansion to include new characters. Future plans may call for including historic scripts such as hieroglyphics in the Unicode standard, and for expanding current alphabet and symbol sets as needed. In addition, the standard reserves 6,000 code numbers for private use, which software and hardware developers can assign internally for their own
The Unicode Consortium

The Unicode Consortium is a non-profit organization founded in January, 1991 to promote the use of the Unicode standard. Unicode, Inc. started out as an informal collaboration between engineering teams at Apple and Xerox, who produced the original design of the Unicode standard. Other companies concerned with multilingual and international text applications soon joined them; Adobe, Aldus, Borland, Digital, GO, IBM, Lotus, Metaphor, Microsoft, NeXT, Novell, The Research Libraries Group, Sun and WordPerfect. These corporations are now part of the Unicode Technical Committee, the group within the Unicode Consortium that actively maintains the Unicode standard.

Han Unification

One major challenge in creating code elements is accommodating the many thousands of ideographs used in Chinese, Japanese and Korean text. The blanket term for these ideographs is "Han", referring to Han dynasty, which first codified them. In China, they are called "Hanzi"; in Korean, "Hanja", and in Japan, "Kanji".

Unicode Principles In Brief

- The Unicode standard strives to be simple and consistent. It uses fixed-width 16-bit character codes, and does not depend on states or modes for encoding special characters.
- Unicode incorporates many character set standards. It includes the Latin-1 character set as its first 256 characters. It also includes the repertoire of characters from other corporate, national and international standards.
- Unicode uses Han unification to consolidate Chinese, Korean and Japanese ideographs.
- Unicode allows for character composition in creating marked characters. It encodes each character and diacritic or vowel mark separately, and allows the characters to be combined to create a marked character. It provides single codes for marked characters when necessary to comply with pre-existing character standards.
New Services/Development

New Computer Barn

Rm 1044 was transformed into a new computer barn with over 80 PCs and some Mac microprocessors for the free use of students. With X-terminals coming, the laboratory will be operated in full swing shortly. Refer to Page 2 of this newsletter for the opening and consultation hours, and Page 4 for the floor plan of the laboratory.

HKUST Electronic Notice Board

HKUST Electronic Notice Board brings a new era to online information service in HKUST.

To broadcast a message to the university public, previously you would send email to all of them by making use of an all-inclusive mail distribution list or the allstaff broadcasting account. While this might be handy, there are easily seen drawbacks. First, from past experience, most messages addressed to "allstaff" are indeed irrelevant to most recipients. Imagine how repetitious, irrelevant junk messages cause nuisance on a large number of recipients. Secondly, broadcasting to a huge group of users ever increasing in size incur substantial loading on our systems and the campus network.

Advancing the read-only CCST On-Line Information notice board released earlier in June, the newly launched HKUST Electronic Notice Board further unleashes the power of your workstation or personal computer as a valuable communication tool. In HKUST Electronic Notice Board, you can publicize your department and society events, announcements, or even your personal advertisements simply by placing them into relevant folders of the Electronic Notice Board (ENB) - an action known as posting a notice. Once your notice is posted, others could view it at their own disposal.

Two types of folders are currently available in our ENB: public folders and departmental folders. Public folders are opened for posting and viewing to all users who hold a valid computer account. Examples of these folders are Advertisements, Lost & Found and Staff News. Departmental folders, on the other hand, are created on request from individual university departments or offices for disseminating departmental information to the university community. Posting to a departmental folder is restricted to a group of nominated personnel from the department concerned. As an example, the departmental folder Laboratory facilities status is maintained by the Office of Laboratory Services for providing up-to-date information about the status of various laboratory utilities which would be of interest to laboratory users. The notice, and other notices in other folders, will be updated continually as often as needed.

HKUST Electronic Notice Board is available for use on both PCs and Sun workstations connected to our campus network. On the Sun workstation, the X-window based ENB service is placed under the HKUST Information Service Main Menu which can be accessed by typing "ustinfo&". On the PC, the ENB is grouped under the item Information Service on the Main Menu. Apart from English notices, Chinese notices can be posted in the ENB on the PC platform. In addition, we are in the
process of making the Macintosh interface available to the ENB. Further announcements will be made when this interface is ready for release to general use.

With the user-friendly features available in the ENB, now you can concentrate on the content of your notices rather than the mechanism of making your notices known to others. So, next time when you have a notice to make, why not post it on the HKUST Electronic Notice Board?

** ** **

To create departmental folders, send mail to our ENB Administrator, Mr. Paul Kwan, at CCKWANWW. Mr. Kwan can also be reached at Ext. 6251.

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**Electronic Notice Board Etiquette**

You are requested to observe a few rules in posting and reading notices in an ENB:

* Be polite and considerate of others. When you post a notice, use a descriptive subject. Make your post short and tidy. If you have terrible spelling or grammar, keep a dictionary nearby. Make your notice as reader-friendly as possible by paying attention to what you say.

* HKUST Electronic Notice Board is designed mainly for making announcements. It is NOT a discussion forum. When you post, refrain from putting subjective personal views, sentimental and philosophical statements, questions and so on in your notice. Under normal circumstances, do NOT respond to a notice with a followup notice. Remember when you post, there should be no criticisms, insults and personal comments. If you really have something to say to the author of a notice, send mail to him off-line.

* Do NOT post test messages. New users, in particular, like to try it out before actually posting by sending a junk notice to the ENB. This annoys others who read your test notice even though you will delete it afterwards.

* Do NOT post a notice to a huge group of readers to do something targeted for just one or two persons, like trying to reach a long-lost friend of yours.

* Carefully word your notice to take care even of the inflection or tone in your voice. AVOID USING ALL CAPITAL LETTERS, readers will have the feeling that you are shouting to them. Write as you would in a normal letter, following traditional rules of English.
Electronic Notice Board
Vs.
Email

Electronic notice board (ENB) and electronic mail are meant to be different.

**Target Readers**

ENB: A large group of readers, whom you may or may not know.
Email: One or a limited group of identified readers.

**Content Nature**

ENB: Information propagated is absolutely non-confidential, and expected to be distributed. The transmission of notices is entirely cooperative. Feeds are generally provided out of good will.
Email: Can be confidential or non-confidential.

**Reception**

ENB: Free reception. Readers can choose to read or not to read a notice at their leisure, just like reading a newspaper.
Email: Forced reception. Your mail message is dropped in a recipient's mail box for his handling.

Macintosh Products at Education Price

A range of Apple Macintosh products are offered to members of this university at a reduced price by Gilman Business Systems. The products include Mac systems, keyboards, monitors, hard disks and personal printers. Interested parties may obtain further information and an order form from:

* Departmental Computer Coordinators (for staff)
* Student Affairs Office (for students)

Training Services

The Centre will launch a series of staff computer training courses from October to December. Interested members of staff may register with us when a particular course is announced. Application forms can be obtained from the Departmental Computer Coordinators.

1. ETen Chinese Processing Oct 27
2. CWI Chinese Word Processing Oct 28
3. Pathworks Mail Oct 29
4. Internet Nov 3
5. Network Services Nov 5
6. Windows Environment Nov 18 Dec 2
7. MS Word Nov 19 Dec 3
8. SAS Nov 20 Nov 27
**Centre News**

**CCST Open House 1992**

A close was drawn to the 4-day CCST Open House 1992 launched by the Centre on September 4 at 5:00 p.m.

Over 1,700 students, members of staff and guests of honour have visited the Open House at RmS 2397 & 2399, which exhibited the latest developments of CCST and computer technology in the university.

"Seeing that a great number of students benefit from this exhibition, we are delighted." Mr. Tony Chan, Coordinator of the Open House, exclaims.

**Student Orientation**

In mid-September, CCST presented 4 sessions of orientation talk to freshmen in the LT400 theatre. Two hours each, the talk orientated the new students with what they should know to make use of the computer resources available to them in learning and research. Rules in using university computing facilities and topics like Pathworks mail were highlighted.

**DECUS Symposium '92**

Two CCST members will be giving talks in DECUS Asia Chapter Symposium '92, October 13-14. They are:

* Mr. Lawrence Law, Associate Director & Manager (S&O)  
  *The Integrated FDDI Network in HKUST*
* Mr. Victor Cheng, Senior Computer Officer (S&O)  
  *Integrated Chinese Processing Environment*
Visit of the Governor & Mr Alastair Goodlad

On September 8, Mr. Christopher Patten, Governor of Hong Kong, visited CCST Computer Barn with Mr. Alastair Goodlad, Minister of State for Foreign & Commonwealth Affairs with Special Responsibilities for Hong Kong. CCST Director, Dr. William Max Ivey, greeted the guests at the Computer Barn, and introduced to them a number of the Centre's latest projects.

Staff News

Welcome on board to Miss Michelle Cheng who joined the Information Systems team as Assistant Computer Officer in August.

**  **  **

Michael Shiu, Assistant Computer Officer in the Systems & Operations team, reported for duty at CCST in April 21. David Shiu, elder brother of Michael, was employed in the Computing Information Centre as Assistant Computer Officer in May 1.

Most of us did not realize that the Shius are brothers until some time afterwards (Because they do NOT look alike. - Editor). In the same department, they have work contact in a few areas. The user account password reset program recently tie them together on shared responsibilities.

New Information Leaflets:
Dial Up Service for Staff of HKUST
Dial Up Service for Students of HKUST
CCST Contact Points

Problem Reporting E-mail Account - CCHELP
For users to send in their problems and difficulties via e-mail. A consultant will respond to messages sent to this account as soon as possible.

Suggestion E-mail Account - CHANNEL
For users to send in their queries, ideas, suggestions and comments concerning services we provide. A consultant will respond to messages sent to this account as soon as possible.

Requests for Computing Resources - (Admin & Business)
Mr. William Tung - 6221 ccbtung
( Others)
Mr. Danny Tang - 6241 ccdanny

Channel Mailing List
A mailing list is maintained for the distribution of Channel. To be placed on the mailing list*, fill out this form completely and mail to the Computing Information Centre, CCST, Hong Kong University of Science and Technology, Clear Water Bay Road, Hong Kong. Please print clearly.

- Add my address to the mailing list
- Address change (write new address below)
- Remove my name from the mailing list

Name: ____________________________
Organization: ______________________
Address: __________________________

Phone: ____________________________
E-mail: ____________________________

*Registered users of the CCST services are placed automatically on the mailing list.