Maintaining a LINC Computer Lab

This section contains technical information about the way the LINC computers are set up, and suggestions for keeping records of computer equipment, software and problems, and regular maintenance routines to help your lab run smoothly.

Levels of Access to Computer Resources

STUDENT MODE

To ensure that learners do not unintentionally delete or change important computer files, the LINC labs have been set up with many software restrictions for learners. When a computer in the LINC lab is turned on, it is in Student Mode, which means access to various features of the computer is limited. These restrictions should be maintained to keep your lab running as smoothly as possible.
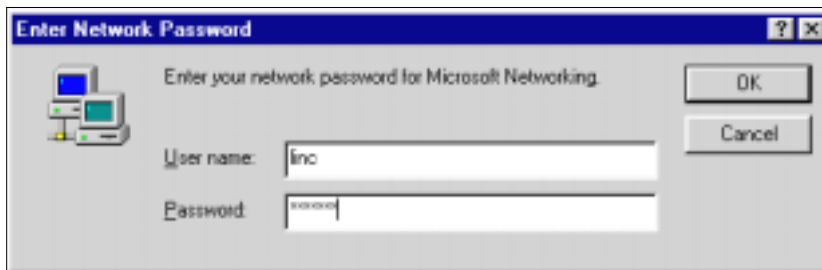
TEACHER MODE

As an instructor you need more access in order to customize your computers, install new software, manage student records in ELLIS Instructor Utilities, use the network, manage files, and solve the problems listed in the Troubleshooting section.

As well, we recommend giving more access to learners in LINC Four and Five, so they can learn the Windows 95 features that help organize and manage files. However, this is at the discretion of the instructor, and depends on the instructor's comfort with computers and also on the readiness of the learners.
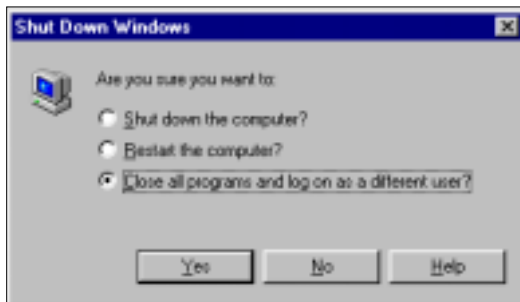
The level of access that has fewer restrictions is called Teacher Mode. To log-in at this level, click on **Start** | **Shutdown** | **Close all programs and log on as a different user?** | **Yes**.

A log-in dialog box will then appear. Type "**linc**" as the user name, "**ontario**" as the password, and click **OK**.

You will note that there are icons on the desktop in Teacher Mode. Please refer to the Windows 95 section in LINC Four for more information about the desktop in Teacher Mode.

To return to Student Mode from Teacher Mode, click on **Start** | **Shutdown** | **Close all programs and log on as a different user?** | **Yes**. In the log-in dialog box, type "**user**" as the user name and "**password**" as the password.

LAB MAINTENANCE

Record Keeping and Inventory

Most LINC instructors do not have a computer technician they can call on at a moment's notice for help, so it is important that any information about a centre's lab be well organized and available to all instructors. Keep a binder for your computer lab that has a list of equipment and serial numbers; sections on any problems and the service needed; special instructions, for example, installing new software; contacts for service; and an inventory of software CDs and manuals. It should also contain a checklist for maintenance items, such as defragmenting and clearing "junk" from hard drives, and emptying the Recycle Bins.

Any time you call for computer service, you will be asked for your site number, the name of a contact person, and the serial number of the equipment for which you want service. Try to have this information readily available. In addition, you will need to know the location of the keys for the cables that lock the computers to the desk. The keys should be numbered to match the workstation number and kept in a secure place. There should be two sets of keys, which you can keep in two different locations. Make sure other instructors know where to locate all information and keys for the equipment in the lab.

As well as keeping track of equipment, prepare a sign out-book for instructors borrowing CDs or manuals. It is a good idea to have a policy that CDs must be returned the next day. If an instructor is using a particular software, all the CDs will be needed.

Daily Maintenance

1. Turn on all computers before students arrive, and note computers that have problems. Most commonly, a problem is due to the computer being shut down incorrectly. If this becomes a pattern, ask the instructor of the last class to tutor students to shut down correctly.

2. Restart computers at lunch hour to clear memory allocation for other programs.

Weekly Maintenance

CLEANING
Monitors, computers, screens, and desktops should be cleaned every week.

- **Keyboard**
   Use a cotton swab or a vacuum cleaner.

- **Mouse**
   1. Turn off the computer.
   2. Turn the mouse over.
   3. Push down on the holding plate surrounding the ball, turn in the direction of the arrows, and lift out.
   4. Clean the ball and contact points inside the mouse with a cotton swab and alcohol.
   5. Replace the ball into the mouse and screw the holding plate onto the mouse.

- **Screens**
   With the monitor turned off, spray water on a soft cloth and then wipe the screen.

- **Computers and Desktops**
   Wipe computers and desktops with a wet cloth. Do not use any chemical cleaners on the computers.

VIRUS CHECKING

Schedule a weekly virus check for your computers by following these steps:

1. Open the virus checker. (Click **Start** | **Programs** | **Norton AntiVirus** | **Norton Program Scheduler**.

2. Click **Add**. Click the arrow beside **Type Of Event** and choose **Run Live Update** (**for Norton AntiVirus**) from the drop-down menu.

3. In the Frequency drop-down box select **Weekly**.

4. Enter a time in the Time box. (Enter a time when the computers will be on.) Click **OK** and **OK** again to save the scheduled event.

5. Minimize the window. Do not exit or Norton Program Scheduler will not run.

Monthly Maintenance

GENERAL INSPECTION

1. Check for loose or stray cables and cords, and tape or move them away from a potential collision with a learner's foot.

2. Check connections of headsets, microphones, mice, keyboards, and outlets.

Maintenance at the End of a Term

REORGANIZING THE HARD DRIVES (DEFRAGMENTING)

After several weeks or months of running multimedia programs a computer's hard drive may be "fragmented." Files can become divided into fragments that are stored in different locations. These files are complete when you open them, but it takes longer for your computer to read from and write to them. To defragment your files and speed up performance, use Disk Defragmenter.

- ■ **To Defragment a Hard Drive**
    1. Click **Start** | **Programs** | **Accessories** | **System Tools** | **Disk Defragmenter**.
    2. Choose the hard drive disk (**C:**).
    3. If the system recommends a "defrag," click **Start**. If the system does not recommend a "defrag," click **Exit**.

Defrag may take from one to five hours, so it is recommended that you perform this at the end of the last class.

CHECKING THE HARD DRIVE SPACE

To keep your multimedia computers running at their best performance, keep the hard drives at least 15 per cent empty. To check the space that is used and available, use the following instructions:

1. Double-click on the **My Computer** icon on the desktop.

2. Right-click on the **C:** icon.

3. Click on **Properties**.

4. Click **OK**.

LAB MAINTENANCE

CLEARING "JUNK" FROM THE HARD DRIVE

1. Double-click on the **My Computer** icon.

2. Double-click on the **C:** drive.

3. Double-click on the folder **My Documents**, or the folder where documents created on the computer are saved.

4. Select and **delete** any obsolete files.

5. Click "**Yes**" to send them to the Recycle Bin.

6. Also look for any unusual folders that you are sure are not important and delete the contents. (CAUTION: Do not delete .exe, .dll, or .com files.)

7. If you have an Internet lab, look for the folder **Temporary Internet Files** and delete those files as often as possible. Use the Options settings in your browsers to automatically delete these files every five days.

8. Close all windows.

EMPTYING THE RECYCLE BIN

1. Double-click on the **Recycle Bin** icon on the desktop.

2. Click **File | Empty Recycle Bin**.

3. Click **Yes** to confirm that you want to permanently delete the items in the Recycle Bin.

4. Close the Recycle Bin.

Equipment Maintenance

PHYSICAL DAMAGE

Food and drinks can cause a great deal of damage to computer components. Food can crumble and fall in-between the keys on the keyboard. Over time, this causes the keyboards to fail or individual keys to stick. Food and drink residue also accumulates in the rolling component of a mouse and eventually inhibits its performance. Spilled beverages can leak in the computer tower itself. To prevent these problems, enforce a no food and drink policy in the computer room. (See the General Lab Rules section.)

COMPUTERS

Computers should have a number that corresponds to the workstation number in Network Neighbourhood. (See LINC Five for an explanation of Network Neighbourhood.) You need these numbers when reporting problems to technicians, and also to identify computers when using the network in the LINC lab.

MONITORS

The use of screen savers will increase the lifespan of your monitors by preventing "burn-in." Set the "wait" time of a screen saver to twenty minutes. It is possible to enter text as a screen saver. (See Screen Saver Message.)

- **Turning on the Screen Saver**
  To turn on a screen saver, right-click on a blank area of the desktop, and click **Properties | Screen Saver**. Click the arrow beside Screensaver and select a screensaver from the drop-down list. Choose any other options you want. Enter **20** as the wait time and click **OK**.

■ **Screen Saver Message**
You may want to display a text message on the screen saver. This would be good for holidays, for example, "Happy Valentine's Day," or for congratulations to someone. To do this:
1. Right-click on a blank area of the desktop and click **Properties** on the pop-up menu.
2. Click the **Screen Saver** tab.
3. Click in the screen saver option area and choose **3D Text** or **Scrolling Marquee**.
4. Click the **Settings** button.
5. Click the **Text** radio button and type in a message (16 character maximum for 3D Text).
6. Choose from a variety of other options. Click **OK**.

■ **Turn off the monitors**
Turning off the monitors when the learners are not using the computers is another way to help prevent "burn-in."

PRINTER
Keep an extra printer toner cartridge and extra paper in the lab.

When the level of toner in the print cartridge is low, a "Toner Low" message displays. The message is cleared when the upper front door is opened. To utilize the remaining toner, remove the print cartridge and shake it gently. Reinstall the same print cartridge and continue using it until the print quality becomes unacceptable.

MOUSE PADS
There are two types of mouse pads available: a soft cotton style and a hard plastic-coated style. A mouse tends to work better when it is exposed to both types. Use both types and switch them weekly.

HEADSETS
It is best to keep the headsets plugged into the computers. One method of keeping them safe between classes is to hang them on hooks stuck to the side of the monitor. This eliminates having to distribute, collect, and store them at each class, thus reducing their mortality. It is also easy to quickly see if all the headsets are in place.

FLOPPY DISKS
Keep a supply of floppy disks for learners to save their work. Have learners label their disks and provide containers where they can be stored in the classroom. Make it clear that the disks are not to leave the classroom until the learner has left the program. If learners are working on something important, like a resumé, they may need a second disk to use as a backup disk.

CDS
Number the CDs and the cases, and ask your learners to use the CD whose number matches their workstation number. It is important to have some method of storage that is easy for you to tell at a glance if all of the CDs have been returned at the end of the class. Some centres use CD towers. If you turn a tower on its side it is easy to insert and take out the CDs, and you can also write numbers on the tower so that CDs are stored next to their number. One centre has devised a CD holder made of cloth that can be hung on the wall and has numbered pockets for the CDs. At the end of the class, store the CDs in a secure place.

LAB MAINTENANCE

For longer lasting CDs, remember that the shiny underside of a CD must always be clean and scratch-free. Instruct students to handle CDs by holding them on the edges by fingertips.

VIRUSES

Although there is a virus-checking program on the LINC computers, more viruses appear every day. It is in your centre's best interest to periodically update this virus checker. This is especially important if your centre is connected to the Internet.

Provide learners with floppy disks that are kept in your computer room. When learners leave your centre they can take their disks with them. This way learners have no excuse for bringing disks from the outside world into your lab, which is the most common way for a virus to infiltrate your computer lab.

- **Running a Virus Check**
  To do a virus check of a computer, double-click the virus check icon in the notification area of the taskbar (on the right side, at the bottom of the screen). If any virus is reported, call a technician for help.

CHECKING THE NETWORK

1. Turn on all of the computers.

2. Start a computer in teacher mode.

3. Double-click the **Network Neighbourhood** icon on the desktop.

4. Check that all of the workstations appear on the screen.

5. If a computer does not appear, reboot it by pressing **Ctrl**+**Alt** +**Del**.

6. Check Network Neighbourhood again by right clicking and selecting **Refresh**.