**Obtaining Software**

This is a short overview of how to obtain software both for your own and work use and ISU IT policies. It also contains some other information about computers you may find useful.

**ISU IT Policies**

The current ISU IT policies are in sections 930 to 941 inclusive of the University Handbook - <http://www.indstate.edu/adminaff/policyindex.htm>. In any discrepancy between this document and the University Handbook then the University Handbook will take precedence.

**ISU software**

The university makes several computer programs available to all faculty, staff and students. These can be found at <http://downloads.indstate.edu/>

The university also has several statistical and research software packages available. These include AMOS, Minitab, SAS and SPSS. More details of these can be found at <http://www.indstate.edu/cirt/re/softwaresupport.html>

Also available is instructional support software including Blackboard, Adobe Connect, Hot Potatoes, PRS and Quandary. Details of software can be found at <http://www.indstate.edu/cirt/id/instructionalsoftware.html>

CIRT - <http://www.indstate.edu/cirt/> - can also help with bespoke software. Development times will vary depending on the project but some online examples can be seen at <http://baby.indstate.edu/microslide/> and <http://sapphire.indstate.edu/~stat-attic/>

CIRT and OIT - <http://www.indstate.edu/oit1/> - also license other software for use by faculty and staff. An example of this would be Qualtrics - <http://www.qualtrics.com/>, an online survey tool. CIRT and OIT both provide training for some software packages.

**Purchasing Software**

Sometimes the software provided by the university isn’t enough and software has to be purchased. If it is work related then the best method of doing this is through a department. As a university we can usually get better discounts than we could as individuals. Here’s an example, Adobe Master Collection - <http://www.adobe.com/products/creativesuite/mastercollection.html> - retails at around $2,600. I am a long time user of Adobe software and am able to upgrade to the latest version of the same software for around $550 – which is what I did for my own use. I also needed a copy for work and as ISU is part of Adobe’s Cumulative Licensing Program another copy for my work computer at slightly less for the price I paid for my own.

**Free Software**

There is no major class of software, including the operating system, that is not available for free legally. I use Adobe Creative Suites and Microsoft Office mainly because they are industry standard software but all the software in those suites has free alternatives. Some examples…

Adobe Photoshop – GIMP - <http://www.gimp.org/>  
Adobe Illustrator – Inkscape - <http://inkscape.org/>  
Microsoft Office – OpenOffice - <http://www.openoffice.org/> or LibreOffice - <http://www.libreoffice.org/>

There are lists produced of the “best of” free software. Two good lists are the ones produced by PC Magazine - <http://www.pcmag.com/article2/0,2817,2381528,00.asp> and School Computing - <http://schoolcomputing.wikia.com/wiki/Best_Free_Software> but there is a lot more available than the ones in those lists.

The best place to obtain this free software is nearly always the publisher’s website or one of the trusted download sites. A lot of the software is available from Torrents or P2P (peer to peer) websites, but the problem with these is that a lot of the files have been altered and contain viruses or other malware.

**Software Glossary**

Adware – Free software that displays advertising to help offset the cost of development. Most “free” mobile apps are adware.

Betaware – software that is close to but not yet ready for full scale release. A recent example is Google’s social networking site Google+.

Demoware – A demonstration of the full software. Some functions may not work or the output may carry a watermark

Donationware – The user is asked for a donation, either to the developer or to a third party. The donation is not compulsory.

FOSS – Free open source software. Not only do you get the program but the source code is also available. This means the program can be altered to suit your needs.

Freeware – Free software. All FOSS software is freeware but not all freeware is open source.

Malware – any sort of software that contains spyware or a virus or is a trojan.

Nagware – Software that displays a message exhorting you to register and pay for it.

Public Domain – free for use by anyone for any purpose.

Shareware – Software that is fully functional for a period of time but after which some or all of the functionality is lost, or the software stops working completely until it is paid for.

Spyware – Software that contains code that can detect data on your hard drive or even a keylogger that can detect everything you type. This type of software usually “phones home” the information found or contains a “backdoor” giving someone remote access to your computer.

Trojan – software that purports to do one thing but once running does something else, usually malicious. The term is derived from the Greek myth.

**Backups and Storage**

So you’ve got your software and are busy producing documents and images. How do you protect them?

There are several ways to do this. Windows comes with its own backup software which you can find in Start > Programs > Maintenance in windows 7 or Start > Programs > Accessories > System Tools in earlier version of Windows. A good guide to using it can be found at <http://www.howtogeek.com/howto/1838/using-backup-and-restore-in-windows-7/>

When creating the backups it’s best to use an external hard drive such as the Western Digital Passport drives we’ve got. This is because it’s not a good idea to make the backup to the hard drive as you’ll need the backup files should the hard drive fail for any reason.

Another way of using the external hard drive is to copy the directories and files you want to keep to the external drive and use Window’s Sync Center (Start > Programs > Accessories > System Tools) to keep both sets of copies exactly the same. A guide to using this can be found at <http://windows.microsoft.com/en-US/windows-vista/Sync-Center-frequently-asked-questions>

Another way to keep copies of your files safe is to simply burn entire directories or a collection of files to CD or DVD. An easy way to do this is to insert a blank CD or DVD into the drive and then using Windows Explorer simply drag files to it. Under the options to do this are a couple of choices. One is to keep the drive open. This is good as you can drag different files at different times to the same CD/DVD and they will be written to it. The other option is to close the CD/DVD. This option does not allow further burning of files to the disk but it does allow the disk to be read in other computers.

Easier to use may be a dedicated CD/DVD burner such as CDBurnerXP - <http://cdburnerxp.se/> - which many people find easier to use rather than Microsoft’s bare bones approach.

Yet another way to keep the files backed up and accessible from anywhere and even to share them with colleagues and your own files with friends and family is to use one of the online storage servers. There are several of these servers around…

Google Docs - [http://docs.google.com](http://docs.google.com/) - 1Gb of free space - 1Mb to 20Mb individual file size limit depending on type  
Dropbox - [http://dropbox.com](http://dropbox.com/) - 2Gb of free space - 300Mb individual file size limit  
SkyDrive - [http://skydrive.com](http://skydrive.com/) - 25Gb of free space - 50Mb individual file size limit  
Adrive - [http://adrive.com](http://adrive.com/) - 50Gb of free space - 2Gb individual file size limit

Megaupload - [http://www.megaupload.com](http://www.megaupload.com/) - 200Gb of space - 1Gb individual file size limit  
Mediafire - [http://www.mediafire.com](http://www.mediafire.com/) - unlimited free space? - 200Mb individual file size limit

As a note, a good thing to remember that no matter how long a file took to create or what information it contains, if you’ve only got one copy of it, then the file is worthless.

**Free Multimedia**

Almost everything that is creatively produced, writing, music, video and images and so on belongs to whoever produced it, and did the moment it stopped just being an idea and was put onto some physical media. It’s called fixation.

As we shouldn’t just “borrow” material from the web here’s some resources we can use.

Smugmug – the universities own collection of photographs - <http://www.isuphoto.smugmug.com/>. See also <http://www.indstate.edu/photog/>

Commercial photo libraries

BigStock - <http://www.bigstockphoto.com>   
IStockPhoto - <http://www.istockphoto.com>   
Shutterstock - <http://www.shutterstock.com>

There are also plenty of public domain image libraries we can use. There is a list of them at <http://en.wikipedia.org/wiki/Wikipedia:Public_domain_image_resources>

The Creative Commons is another good resource. These usually have some sort of license, such as they cannot be used for commercial use, the creator must get a specific accreditation etc. A creative commons search engine can be found at <http://search.creativecommons.org/>

That search engine can also be used to look for creative commons music and video.

Penn State University keeps a very good list of public domain and creative commons resources - <http://mediacommons.psu.edu/freemedia>

**Tips**

Please do not attempt any of the following unless you are fairly sure you know what you are doing.

**File Recovery**

When a file in Windows is deleted what happens is that it is not deleted at all but gets moved to hidden directory, this is what the Recycle Bin is. To recover a file that has been placed there by accident, double click on the Recycle Bin icon on the desktop and all the files in it will be displayed. Just right click on the files you want to put back where they were and click on Restore in the menu.

Even if you empty the Recycle Bin there is still a chance that you can recover the file. When a file is deleted from the Recycle Bin it still is not actually deleted from the hard drive. Windows keeps an index of all the files on the hard drive, when you empty the Recycle Bin the file is not actually deleted, all that happens is that the index to it is deleted and so that space it took on the drive is marked as being free for reuse.

There is software around that can, if you are lucky undelete a file even if you have emptied it from the recycle bin. One such software is Recuva - <http://www.piriform.com/recuva>. If you have already emptied the Recycle Bin DO NOT use the last link. Instead use the portable version from <http://www.piriform.com/recuva/builds> to any other drive, such as an external USB drive and run the software from that. The reason for this is you do not want to overwrite the file you are trying to rescue with the software that you are trying to rescue it with!

Recuva is a very powerful piece of software. Last year I was messing around with a bunch of old hard drives and I accidentally formatted one without first copying the files from it. Recuva rescued all 93,000 files from it.

**Restoring a Slow Computer**

Over time you may notice your computer slowing down. The computer is not “wearing out”, what’s happened is that over the course of its life it has accumulated all sorts of junk and old files and it these that are slowing your computer.

At a command prompt, or the run command, just type msconfig  
  
This brings up a dialog box showing all the programs that start when your computer boots. Just uncheck the ones you don't want to start. Be careful when you do this and only uncheck those you know you don't need as some of those are system tools.  
  
It could be your hard drive is getting full. A rule of thumb is to keep at least 10% of free disk space. If yours is near that it's time to think about moving your files to another drive or CD/DVD. Under 90% full, it usually doesn't matter how full your drive is, it shouldn't slow your computer down - its storage space and not actively used until you run a program.  
  
Another way of clearing some space off your drive is to use the clean up utilities - Start > Programs > Accessories > System Tools to delete old log and temporary files. Utilities like Ccleaner - <http://www.piriform.com/ccleaner> - do much the same job but with a prettier interface.  
  
You need to check your anti-virus is up-to-date. Download MBAM free edition - <http://www.malwarebytes.org/products/malwarebytes_free> Boot into safe mode (press F8 while your computer is booting) and do a full scan. This may take a while but will find anything nasty your normal AV program missed.   
  
Make sure your drivers are up-to-date. Open Device Manager and update the drivers.  
  
You could also try defragging your drive and cleaning the registry - Ccleaner has a registry cleaner - but unless your computer is seriously messed up you won't see much of a difference. The use of defragging and registry cleaning is debatable. Lots of people say it helps, some people say it doesn't but very little in the way of proof either way.  
  
Another way is to edit the services that start when your computer boots. I supposed this comes under "advanced", and you need to be careful as turning the wrong thing on or off can seriously mess your computer up.   
  
<http://www.speedyvista.com/services.php>  
<http://www.theeldergeek.com/services_guide.htm>   
<http://www.blackviper.com/category/guides/> - a very good site  
  
One way to speed up almost any computer is to add more memory. <http://www.crucial.com/> has a good tool for showing what RAM you've got fitted and how much your motherboard can actually use.   
  
Of course, you could ignore all of the above and simply backup your files and reinstall everything, including your operating system.

Ray Thomas  
July 2011