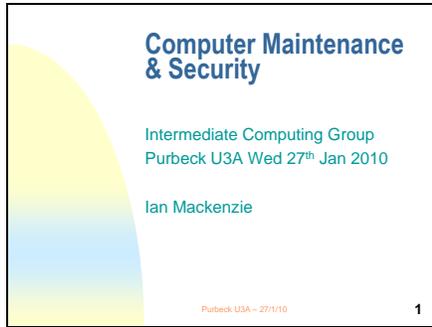Slide 1

**Computer Maintenance & Security**

Intermediate Computing Group
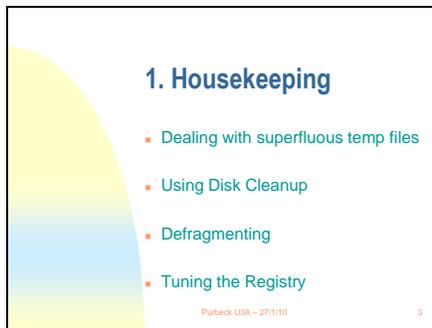Purbeck U3A Wed 27th Jan 2010

Ian Mackenzie

Slide 2

**Topics for Discussion**

- 1. Housekeeping – dealing with temporary files.

- 2. Resurrecting a 7 year old laptop

- 3. Keeping our computers secure

Slide 3

**1. Housekeeping**
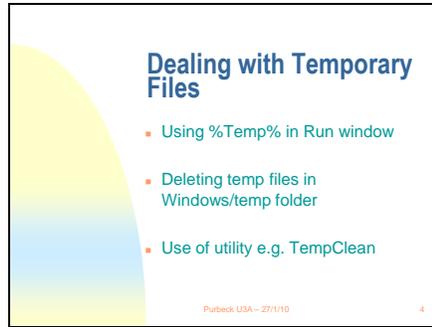
- Dealing with superfluous temp files

- Using Disk Cleanup

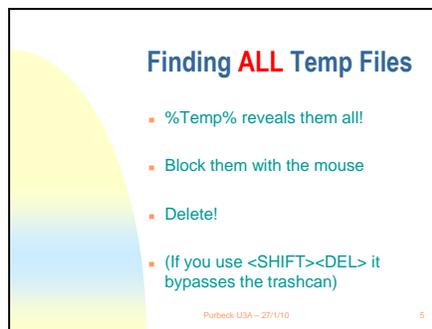- Defragmenting

- Tuning the Registry

Slide 4

### Dealing with Temporary Files

- Using %Temp% in Run window

- Deleting temp files in Windows/temp folder

- Use of utility e.g. TempClean

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•Dealing with these files can speed up your computer working
•The paint dries a little more quickly!

Slide 5

### Finding ALL Temp Files

- %Temp% reveals them all!

- Block them with the mouse

- Delete!

- (If you use <SHIFT><DEL> it bypasses the trashcan)

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•There are other temp file types e.g. log, bu, tmp etc. But these are the main culprit!
•To pick up others use the other methods!
•(demo)

Slide 6
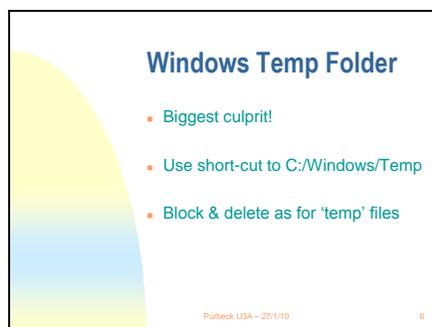
### Windows Temp Folder

- Biggest culprit!

- Use short-cut to C:/Windows/Temp

- Block & delete as for 'temp' files

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•Windows is very untidy in its work – it leaves many files around
•Although often zero in length(0kB) they can clog up the working

Slide 7

**TempClean**

- Freeware
- Easily downloaded from the web
- http://software.addpcs.com - Java 1.6 is required

•It does everything that MS Disk Clean does – and more!
•It's MS Vista certified!
•Why it requires Java I do not know??

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Slide 8

**TempClean Settings**

•This is the Settings tab on the utility
•This shows the range of file types that you can select to delete
•Some of these are covered by Windows Disk Cleanup

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Slide 9

**The cleanout!**

•I ran the utility on my desktop at the end of a day's work.
•Note that at the end the package computes that 323 files have been erased
•This has freed up 361MB
•Note that it has NOT been able to erase all temp files.
•Some files are being used in the running of Windows VISTA itself.
•Some files are also involved with current open applications e.g. Internet access, peripheral device operation etc..
•They'll probably be erases next time!
•You can keep on running it several

times and it will pick up a couple on each pass!
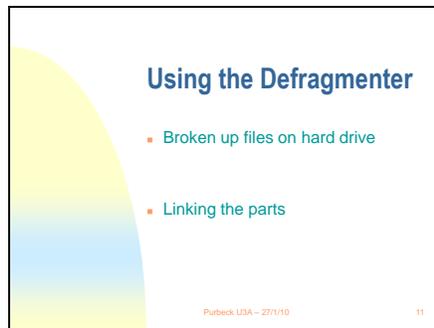
Slide 10

**Use Disk Cleanup**

- A good MS utility

- Clears out internet trash as well as temp files and trashcan

- You can select what to remove and what to leave

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•Can help a lot if used regularly!
•A desktop  shortcut to makes it easy to use regularly
•(demo)
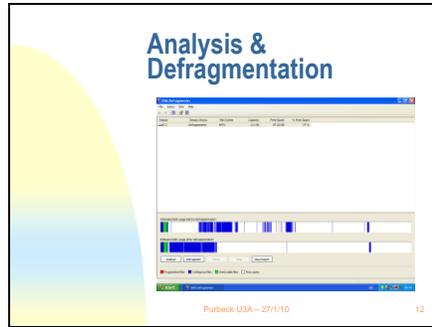
Slide 11

**Using the Defragmenter**

- Broken up files on hard drive

- Linking the parts

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Slide 12

**Analysis & Defragmentation**



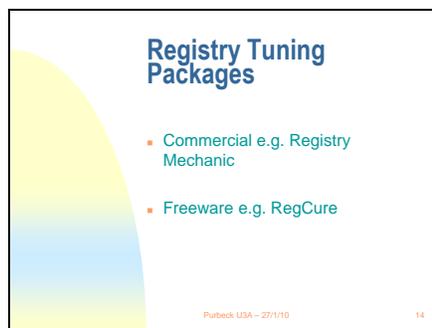Purbeck U3A – 27/1/10                    12

- Analysis is the top bar and the end result after defrag is the bottom
- Where file chunks are all broken up the computer processor has to do a lot of 'fetching and carrying'
- In particular red bits show broken files.
- Defrag can take an hour to do
- It can take a day or two if you leave it too long
- Suggest defrag once a month?

Slide 13

**Tuning the Registry**

- "Command Centre" for all programmes

- Needs clearing up of 'loose ends'

- Various packages available

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Slide 14

**Registry Tuning Packages**

- Commercial e.g. Registry Mechanic

- Freeware e.g. RegCure

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- I have used both
- Registry Mechanic involves an annual licence - £30 per year
- Available from PCTools at www.pctools.com.
- You can download a trial version. It offers compression of registry as well as a clear out
- I now use RegCure. It is free and offers a 'manage startup' feature for the registry.
- (demo)
- Do NOT use RegClean – I tried downloading and installing it and AVG trapped it as carrying a trojan virus.
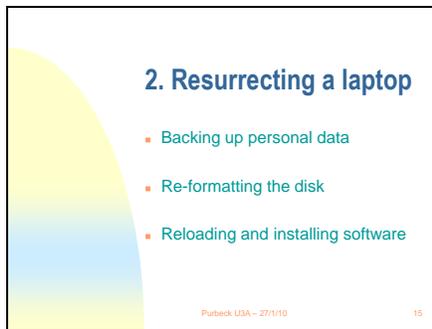
**2. Resurrecting a laptop**

- Backing up personal data

- Re-formatting the disk

- Reloading and installing software

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•The necessary background tasks.

**The scenario**

- Laptop bought in 2002 – HP Compaq nx9005

- 1.8Ghz AMD Athlon XP2500+processor

- 1GB RAM with 250GB hard drive

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•It was a good one – I had upgraded the memory from 500MB and replaced the battery
•I replaced the 150GB hard drive 2 years' ago with 250GB.
•Running Windows XP Professional with Starter Pack 3.
•DRAWBACK – slow USB1.1. Have to use PCMIA adaptor to achieve USB2.0.

Slide 17
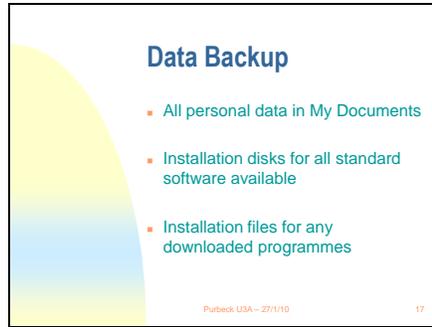
**Data Backup**

- All personal data in My Documents

- Installation disks for all standard software available

- Installation files for any downloaded programmes

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•All my word process files, spreadsheets, pictures and music files
•Implies an orderly way of storing data!
•All standard software on installation disks – Windows XP, HP Wireless Driver, Rescue Disk etc.
•Special software installation files available – TrackLogs(mapping), FlowCode(PIC Programming) etc.
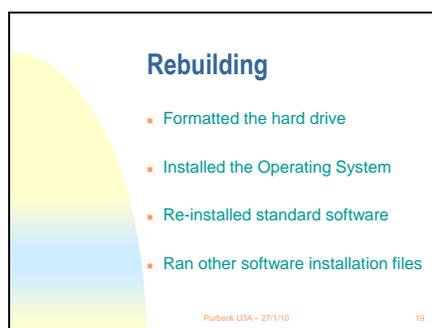•Must have any installation or registration keys to hand.

Slide 18
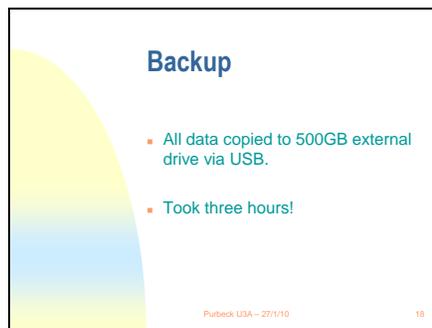
**Backup**

- All data copied to 500GB external drive via USB.

- Took three hours!

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•Chose straight copy.
•Could, of course, used MS Backup or Genie Backup – which I generally use.
•Copying meant that I could easily pick and choose what to copy back – identical file structure!

Slide 19

**Rebuilding**

- Formatted the hard drive

- Installed the Operating System

- Re-installed standard software

- Ran other software installation files

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•My XP Installation disk gave me the option – very brave decision moment!
•I had been running a partition to try out Linux – now on my desktop!
•I had to reload my XP Starter Packs 2 & 3!
•One more thing.....

Slide 20

**Retuning of laptop**

- A lot of the device drivers were out of date

- For example: wireless, printer, display

- Downloaded and installed up to date versions

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•The wireless driver was particularly frustrating over the security interface.
•Fortunately as a good make HP all updates were available to download.
•UNFORTUNATELY the on-off button is quite worn and the power plug on the chassis a little unreliable!
•So.....maybe another two years?!

Slide 21

**3. Security**

- Firewalls

- Wireless

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•Firewalls prevent access from outside to your computer without permission from you.
•You can set the level of permission required.
•Wireless security is necessary to prevent unauthorised access to your router (and possibly computer).
•Signals can pass to and fro between wireless router and computer(laptop) via em radiation.
•Works at frequency of 2.4GHz.

Slide 22

**Firewalls**

- Windows firewall can generally be switched on and off

- Wireless security

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•You can use the Windows firewall, the firewall offered by your anti-virus software or possibly even router.
•You have choice of two or three levels of wireless security to choose from.

Slide 23

**Firewall Software**

- Norton Anti-Virus

- AVG

- Experiences

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Slide 24

**Wireless Security**

- Router security level

- Network Authentication

- Data Encryption

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•Router security(RS) is a hardware barrier.
•RS is set by management programme on master computer connected by wire to router box
•Generally by ethernet or USB.
•Network Authentication(NA) can be Open, Shared, WPA, WPA-PSK or Cisco compatible
•Data Encryption(DE) depends on NA level.
•The available levels depend on your router software and management.

Slide 25

**And Finally..the Future?**

- Late resolutions for 2010?

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What are your resolutions?