dice NEWSLETTER

Summer 2007

Welcome to the Summer edition of the DICE newsletter. In this issue you will find details of the FC6 rollout, an update on AFS, and other useful snippets – including a useful item on additional command completion features introduced in FC6.

The editors would also like to take this opportunity to thank Morna for her work in producing past newsletters.

Contents

Comings and Goings

Welcome to Ian Durkacz, who joined us at the beginning of March, replacing Julieta who left us for MIS last November.

After graduating from Monash University, Ian spent several years in industry, followed by extensive experience as systems administrator at the University of Sheffield. He joins our Infrastructure Unit, where he initially will be looking after consoles and fibrechannel; and he's likely to become increasingly involved in the move to the new building.

Ian lists hill walking and natural history among his outside interests.

George Ross <gdmr@inf>
Infrastructure Unit

Rollout of FC6 to desktops

Many of you may have noticed that we have already started the rollout of FC6 to lab machines. The lab at FH (A20) is now populated with 46 FC6 machines and the West lab in AT has also been upgraded. We won't be upgrading any more lab machines now until after the MSc deadline (Friday 24th August). This means that the North and South labs at AT and rooms 1026 and 1028 at JCMB will remain as FC5 until week commencing 27th August.

With the closure of most of the JCMB labs and the refurbishment of AT, we will be particularly busy at the beginning of September preparing lab facilities. Over the summer, therefore, we will be upgrading staff and PhD machines to

FC6 with priority being given to staff with teaching requirements in semester 1. Our aim is to upgrade ALL staff and PhD desktop machines by 14th September. We will also be carrying out our annual replacement programme of core-funded machines over the summer period. Support will contact you individually to arrange a suitable time. We ask in advance that you help us by keeping to your arranged slot.

If you have any questions about the upgrade in the meantime, please contact support.

Alison Downie <alisond@inf>
User Support Unit

AFS Rollout

As many of you will already be aware, we have started the process of moving staff home directories to AFS. So far we are roughly a quarter of the way through the process and we hope to have finished by the beginning of September.

These moves are being done on a per-partition basis. You will receive an email two weeks before your home directory is due to move explaining how the process works. A very small number of users are not able to make the move at the moment. The email contains information allowing users to assess whether they fall into this category.

While you are waiting to make the move, you may wish to find out more about AFS by going to http://www.inf.ed.ac.uk/systems/AFS. Support staff will be happy to answer any questions you may have about the move or indeed AFS in general.

Craig Strachan <cms@inf.ed.ac.uk>
Services Unit

Teaching labs move to Appleton Tower

The first phase of Informatics's move from KB to the central area has begun! From September, teaching moves to the Appleton Tower. As part of this process, at the end of May we released the two "North Machine Hall" rooms at JCMB, along with a couple of separate open-plan workrooms. These are now being converted into teaching studios for college-wide use.

At the Appleton Tower, the third and fourth floors are being remodelled to incorporate flexible teaching/lab spaces and a dedicated robot area, to complement the existing workstations labs and new improved ITO offices.

The schedule for the building work is rather tight, and might yet be disrupted by unexpected events. Contingency plans are in place against the possibility that one or other of the floors might not be quite ready for the start of the semester, though of course it is hoped that we do not have to activate them!

Thanks are due to the technicians and support team for their work in making the move from levels 3 and 4 to the refurbished upper levels go as smoothly as it has.

George Ross <gdmr@inf>
Infrastructure Unit

Appleton Tower network changes

From a management and hardware-support point of view, it makes a lot of sense to consolidate our network switch types as much as possible. The Appleton Tower teaching space remodelling will require a considerable expansion in the network provision over that needed for office accommodation.

With the move to the Forum approaching, we would prefer not to buy new switches at this time, and so we intend moving the switch which is currently on level 2 up to level 4, replacing it with the two switches released when we vacated our North Hall labs at JCMB at the end of May. This will result in each floor using only one model of switch to drive its network outlets.

We expect this change to take place some time in August, though the exact date has not yet been set. It is anticipated that any disruption to users will last just a few seconds each, as lines

are re-patched to the replacement switches. An email announcement will, of course, be issued nearer the time.

George Ross <gdmr@inf>
Infrastructure Unit

Software (RPM) Changes in DICE FC6

When we upgrade DICE we usually have a review of the packages that we install. The majority of packages come as standard from Fedora and are installed as part of the installation procedure whilst a small number are installed by COs.

Packages are generally upgraded to the latest stable release and we take this opportunity to replace packages by better featured, better supported or more widely used equivalents. We also remove RPMs that are no longer in use or which can't be ported to the new platform. In the forthcoming upgrade we will be upgrading a number of RPMs that were built in-house. There are too many RPMs to mention individually so this article only highlights a few.

For more details about the changes introduced in FC6 see the release notes:

http://docs.fedoraproject.org/release-notes/fc6/en_US/

Major changes

The openmotif package has been dropped due to a non-free license. Software packages previously dependent on the openmotif library have been rebuilt to use lesstif.

FC5 has make version 3.80, FC6 uses version 3.81. A number of major backwards-incompatible changes have been made between these two versions. A full description is available at http://www.lcfg.org/doc/make-changes.txt FC5 has subversion version 1.3 and FC6 has version 1.4. If you use the 1.4 client on a working copy it will automatically, and silently, upgrade the format of various files in the *.svn* directories. After this upgrade you will not be able to use a 1.3 client on that working copy. The solution is to either only ever use the working copy on one platform or have separate working copies for each platform.

If you have a query relating to software contact support via the support form:

http://www.inf.ed.ac.uk/systems/support/form/

Package	FC5 version	FC6 version
glibc	2.4-11	2.5-10
perl	5.8.8-5	5.8.8-10
xorg	7.0	7.1
KDE	3.5.5	3.5.6
tetex	3.0.29	3.0.34
openoffice	2.0.2	2.0.4
kernel	2.6.18	2.6.20
gnome	2.12/2.14	2.16
python	2.4.3	2.4.4

Carol Dow <carol@inf>
Support

Bash Command Completion

DICE FC6 sees the introduction of extended 'tab' command completion to DICE. This is a huge potential timesaver for anyone who uses bash as their shell.

Many will be familiar with the ability of the shell to complete partially-entered filenames using the tab key; for example to view all subdirectories of the path:

```
/usr/local/games
```

A user need only type:

```
cd /u[TAB]/lo[TAB]/g[TAB]/[TAB, TAB]
```

The new bash completion system augments this feature to include virtually any portion of a command, and provides completion for many common shell programs, such as *svn*, *cvs* and

tar. This works more intelligently than the basic file completion, for example:

```
tar -zxf [TAB, TAB]
```

will provide only those files in the current directory which match the file spec **.(tar.gz|tgz)*, whereas:

```
cvs [TAB, TAB]
```

provides a list of commands for CVS, which can be a very useful way to recall syntax quickly and without having to resort to help.

Possibly the most powerful part of bash completion is its unlimited capacity for extension; scripts can be written quickly and simply to complete virtually anything that can be typed at the shell. These scripts can be placed in a user's ~/.bash_completion file, or taken up by DICE for use across the network.

Informatics has already contributed a number of completion scripts. One useful example is the *fs* command with which anyone with AFS file space should be familiar.

Taking advantage of these new features is simple - just source the completion script in your ~/.brc by adding the following lines:

```
if [[ -e /etc/bash_completion ]]; then
        . /etc/bash_completion
fi
```

(Note that the "[[...]]" syntax is not a typo! See the bash man page for more info.)

Restart your shell and you should see the change as soon as you hit [TAB].

Graham Dutton <gdutton@inf>
Research and Teaching Unit