

CAD Conferencing at Work in Construction Project



Telstra Research Laboratories (TRL) has joined forces with Telstra's Industry Marketing group, CSIRO's Division of Building Construction and Engineering and the Lend Lease Group to trial a CAD (computer aided design) conferencing application developed for Telstra's wideband networks. The application has enabled Lend Lease construction project personnel to 'telecommute' via multimedia conferencing between the company's Sydney Head Office and the Melbourne construction site during the building of the Greensborough Shopping Plaza.

The development of a shared, split screen, multimedia desktop - simultaneously combining CAD as a shared application supported by video, still images, graphics, text, online whiteboard and video/audioconferencing - has eliminated the need for Lend Lease personnel to be in the same

room to discuss plans or drawings, yet provides them with the same level of interactivity, right down to being able to see each other face to face, show and discuss concept sketches, and edit CAD drawings on the spot.

"A typical example of how the application might work is a problem on a building site with an electrical conduit," says Rob Wylie, a Senior Engineer co-ordinating TRL's contribution to the trial.

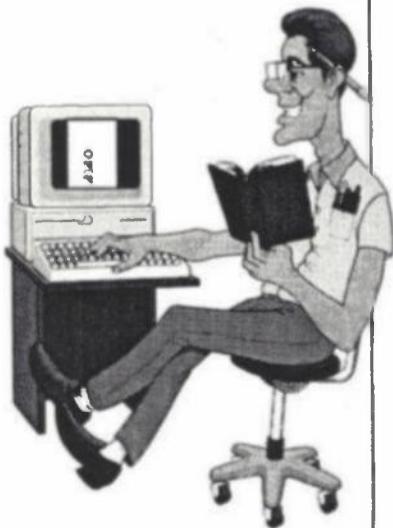
"The on site tradesperson sees that it does not fully comply with the drawings, so he calls the relevant engineer or architect to show a video of the duct-work. This might plainly show hydraulic pipes where the electrical conduit should be. The two parties are then able to test ideas and agree on the best possible option on the spot, modifying the construction drawings immediately."

Continued on page 3.

Inside ...

- | | |
|---|---|
| You Can Now Get FIFO Electronically - Here's How! | 2 |
| Do You Want to Improve Communication at TRL? | 3 |
| The API is Setting Up a Gym at TRL | 4 |
| Have Your Say | 4 |

You Can Now Get FIFO Electronically - Here's How!



FIFO is now available electronically. This is the last time we will produce a paper copy for every staff member of TRL. The electronic version of FIFO has been made possible by the use of a new software product called Adobe Acrobat Reader (or Acrobat for short).

Using Acrobat we can provide electronic copies of publications in the PC, Mac and Unix environments. For this issue, PC and Mac users will be able to access FIFO electronically. For the Unix people, we are waiting on some new software, which we hope will arrive before the next issue of FIFO. This will allow Unix users to access the common P:\ drive across the Labs.

Below are step by step instructions for installing Adobe Acrobat Reader and opening FIFO.

Installing Acrobat Reader on a PC

1. Go to File Manager
2. Select p:\trl\acrobat

You will find two directories:

acro_v1 & acro_v2

and

install.txt

You can click on install.txt to read all about how to install Adobe Acrobat Reader or you can go straight to installing it.

3. Select acro_v2

You will see two subdirectories:

acromac

acrownin

4. Select acrownin

You will see acro.exe

Click on it and the installation will begin. From this point on follow the instructions on the screen. When the installation is complete you will have two new icons:

Acrobat Reader &

Acrobat Reader 2 Readme

To open FIFO using Acrobat on a PC

1. Click on the Acrobat icon.
2. Select p:\trl\acrobat
3. Click on FIFO12.pdf

The publication will open.

Installing Acrobat Reader on a Mac

1. Select Chooser
2. Select Appleshare
3. Select Netware in the Appletalk Zones
4. Select fileserver VTRL_770BM1_F2
- Click on OK
5. Enter your name and password
- Click on OK
6. Select Public Server
- Click on OK
- (You can now close Chooser if you want to.)
7. Select the Public Server from the Desktop
8. Select Users
9. Select the Public folder
10. Select the TRL folder
11. Select Acrobat
12. Copy FIFO12.PDF to the Desktop
13. Select the acro_v2 folder
14. Locate acromac (under acrownin)
- Select acromac
15. Select AcroRead.mac

Then follow the installation instructions on the screen.

16. Reset your machine.

To open FIFO using Acrobat on a Mac

1. Select Acrobat Reader
2. Go to the Desktop to find FIFO
3. Select FIFO12.PDF

FIFO will appear.

Features of Acrobat Reader

Using Acrobat Reader software you can view and print FIFO and any other publications loaded.

When you open publications, you'll see that all the visual richness you would expect from the printed page is preserved. Documents appear on your screen just as they did on the authors' and print perfectly in black and white or colour.

You can also access links, bookmarks and other navigational features that take you beyond the limitations of paper.

For this issue of FIFO we have kept the A4 paper based format. From the next issue we will redesign the publication to make the most out of the size and shape of a computer screen - our basic page will not require users to scroll up and down. We will also be using coloured photographs - wherever possible!

For those at TRL who do not have a computer, or access to a computer, we will still provide a paper copy of FIFO fortnightly - and in the traditional layout.

Do You Want to Improve Communication at TRL?

This article calling for volunteers for a new work group, has been sent in to us by Amanda Jenkins.

Effective communication is critical to TRL business.

A number of new initiatives have recently commenced, for example, the 'two step' process of fortnightly management meeting and Section meetings. It is timely, therefore, to establish a team to oversee, evaluate and recommend improvements to TRL communication processes.

We are looking for three volunteers to form an Effective Communication Workgroup. Graham Shepherd will be the sponsor for this group.

The members will refine their own objectives, however, it is envisaged that the Group will look at:

- * the FIFO newsletter;
- * electronic distribution of information;
- * evaluation of the two-step process;
- * the role of other communication initiatives, e.g. Networks Branch Seminars;

- * provide feedback on the process to develop presentation skills in the Labs;
- * communication processes used by working groups to provide progress reports to staff and to seek feedback from staff.

The Group will work with relevant process owners and key people as needed. Tasks will include:

- * flowcharting processes;
- * measuring and analysing processes and outcomes (including staff satisfaction) of communication initiatives;
- * using data to develop and prioritise recommendations for improvement.

If you are interested in participating in this Effective Communication Workgroup, please contact Amanda Jenkins by e-mail by COB Friday September 15. Please include in this e-mail brief details on why you would like to be part of the Group, and any relevant skills and experience you have.

CAD Conferencing at Work in Construction Project (continued)

CSIRO, assisted by an R&D contract through TRL, is integrating the application software which will allow architects, engineers and other sub-contractors in separate offices to work interactively on the same drawing via shared screens and video whiteboards.

The trial has demonstrated the potential of Telstra's broadband networks for interactive visual applications such as video whiteboarding, said to be a key to the virtual organisation of the future.

While the trial is using Telstra's FASTPAC network, the application will be developed for Frame Relay, enhanced AUSTPAC and ISDN networks and, further down the track, to an ATM (asynchronous transfer mode) network.

It seems that the application has a great future. Negotiations are underway to set up a CAD conferencing centre in the Telstra building in Jakarta. It is planned that CSIRO will provide staff and most of the hi-tech equipment and Telstra will provide the floor space and support. And there's talk about other places in south-east Asia!



Have Your Say



If you have a question or an issue you'd like to raise, send it in to FIFO.

In this issue Peter Campbell alerts us to an error printed in the last issue of FIFO.

In the article about the cross-strait cable being laid it says that the "cable was brought ashore at Sandy Bay in Tasmania on 27 July". I find this hard to believe, as it would involve the cable having to follow the entire west coast, coming around the Peninsula along the south coast & then travelling about 30 km up the Derwent River, as Sandy Bay is in Hobart.

Which beach did it actually come ashore on?

TIA.

Peter K. Campbell

Apologies to Rob Ayre and all other readers, the text should have read "the cable left Sandy Point in Victoria, and came ashore at Boat Harbour in Tasmania."

The API is Setting Up a Gym at TRL

The API Research Branch is currently setting up a gymnasium in M7. This has been an involved process, and may not be ready for use for a while yet.

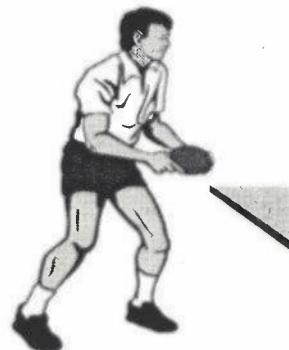
However at this stage we need some feedback on how many people are likely to use the facilities, and what sort of equipment we should buy first. We will not be able to provide all the facilities of a commercial gymnasium, but we plan to buy equipment as funds become available.

The gymnasium will not be constantly supervised, but we hope to have a member of the API professional gym staff visit on a regular basis. Before using the facilities you will need to have a fitness assessment and exercise program designed for you to follow. The anticipated cost for this will be approximately \$70 (there may be some subsidy).

We currently have a universal weight station undergoing repair, and two exercise bicycles which also need repair. A table tennis table is also available.

If you are interested in this program, can you please send mail or e-mail letting me know what sort of equipment and activities you would be interested in. Please give an order of preference and any other suggestions you may have regarding an on site gym.

Trevor Pearson
President, API Research Branch



The FIFO Newsletter

FIFO is a fortnightly newsletter for all TRL staff. It is produced by the Promotion & Communication Section at TRL. We welcome your feedback and contributions.

The editor of FIFO is Tanya Waterson-Clark, Science Writer on (03) 9253 6704.

Copyright at all times is reserved by Telstra Corporation Limited, ACN 051 775 556. Reproduction of any part of this publication is prohibited without the express written consent of Telstra.