



COMPUTERS & LAW

JOURNAL FOR THE AUSTRALIAN AND NEW ZEALAND SOCIETIES
FOR COMPUTERS AND THE LAW

Registered by Australia Post - Publication No NBG 8205

Editors: Elizabeth Broderick, Daniel Hunter
Number 24

ISSN 08117225
November 1993

Computers in Complex Litigation

by Simon Lewis & Ray Plibersek

How often is the following depressingly familiar scenario played out in Australian courts dealing with complex litigation? All parties are surrounded by trolleys of documents. The admission of each exhibit takes two or three minutes whilst it is passed between the lawyers, jury and exhibits clerk. The exhibits clerk takes minutes to locate an exhibit. The judge and jury stare blankly at counsel trying to explain complex transactions without any charts or visual aids.

Complex litigation is difficult because of the volume and complexity of the evidence and the difficulty in explaining complex transactions in a comprehensible form particularly when a jury is involved. Recent experience has shown the complexity and delay associated with complex litigation can be minimised with good document management and computerised litigation support.

A new litigation support system recently developed jointly by the Com-

monwealth Director of Public Prosecutions and the consultancy firm LMCS has just successfully completed a month long complex fraud committal hearing. The system essentially stores and displays images of witness statements, exhibits, transcript and diagrams for display in court. The material stored on the system amounted to approximately, 700 pages of exhibits, 100 witness statements, 300 pages of transcript and 11 complex schematic diagrams or flow charts. It was estimated that

Continued on page 3

In this issue ...

Legal Technology

Computers in Complex Litigation <i>by Simon Lewis & Ray Plibersek</i>	1
From the Editors' Desk	2
The UK Scene for Litigation Support <i>by Vicky Harris</i>	5
Technology on Trial: Project Managing the Litigation <i>by Elizabeth Broderick</i>	8
CLRC Draft Report on the Protection of Computer Programs <i>by Sharyn Ch'ang</i>	13

Society News	22
Computers in Court Trials - Is Australia Leading the Way? <i>by Chris Priestley</i>	24
New Technologies Assisting New Zealand Legal Practice <i>by Gavin Adlam</i>	26
Book Reviews	28
Abstracts	37

"Unlike any other courtroom litigation support systems, all parties and the magistrate had equal access to the DPP system"

of the 16 day committal hearing approximately 2 or 3 days were saved as a result of the use of the computer system. Clearly there is great potential for substantial time and cost savings to both the parties and the court.

System Operation

Prior to the commencement of the hearing, all the evidence was scanned and images in electronic form were stored in the computer system. Once in court any exhibit, statement, diagram or transcript reference could be accessed within one to two seconds. All such documents were linked to each other so that when any exhibit, diagram or transcript was being displayed any other relevant document could also be viewed. For example, if a flow chart was being viewed any exhibit referred to in that chart could be viewed within one second.

Unlike any other courtroom litigation support systems, all parties and the magistrate had equal access to the DPP system. As a result, after the first day in court all parties and the magistrate had adopted the system. They readily called for documents to be shown on the screen in preference to referring to hard copies. All parties were regularly supplied with updated lists of exhibits printed out in court.

Another key component of the system was a comprehensive document management system. Every document was identified by a unique alpha-numeric number. A detailed list (or Exhibit Register) was kept which listed the document number, date of document, brief description of the document, date tendered, the defendant against which the document was tendered and the witness through which the document was tendered.

This Exhibit Register was updated daily and able to be printed out in court. It was stored on the computer system and linked to the witness statements, exhibits and transcript. This enabled the court and parties to have the ability to control accurately and recall the thousands of pages of exhibits.

Because of the interactive relationship between the Exhibit Register, exhibits, witness statements and transcript, the computer system was able to search for exhibits and relationships between documents in many different ways. For example, transcript or exhibit descriptions could be searched for common key words. A search could also be made of the transcript for the point at which a document was admitted, which witnesses referred to that document or against which defendant the document was admitted. Such document management enabled the accurate and rapid identification of the evidence, the defendant or the charge that evidence related to.

The system also proved to have numerous other benefits. It greatly accelerated the tender of documents into evidence. As each document was tendered, the magistrate, legal representatives and witness were able to see the image of the document while it was being tendered. Docu-

ments already in evidence could be quickly shown to witnesses while they were giving evidence or being cross examined. Diagrams were used to show complex financial transactions in a readily understandable way. When preparing written submissions, counsel were able to refer comprehensively and with great accuracy to all relevant exhibits and transcript references. During closing addresses, counsel were able to quickly refer the court to any relevant exhibit, written statement or transcript reference.

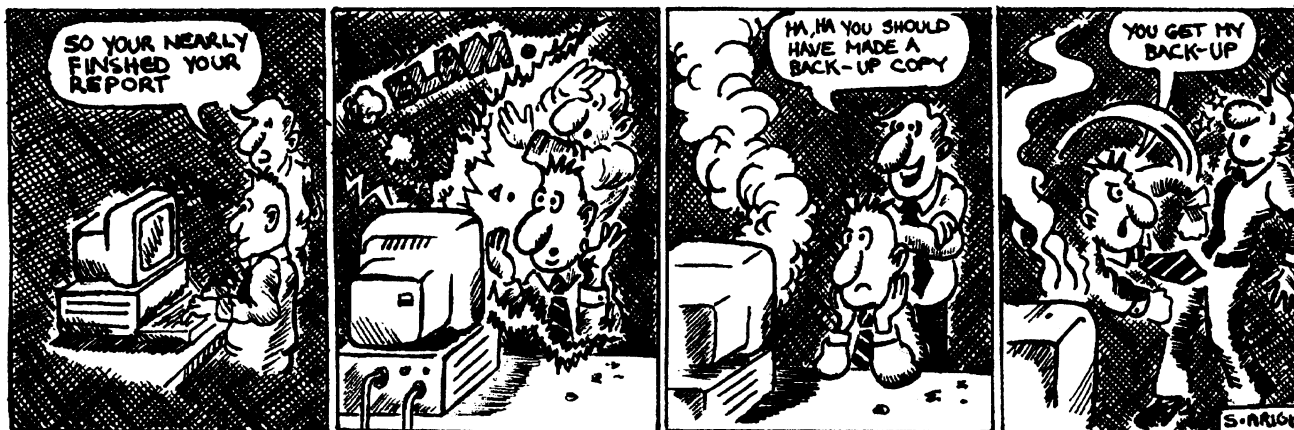
A further likely benefit of the system to other cases is the potential for greatly improved jury comprehension of complex evidence when presented with interactive charts and schematic diagrams.

The System

Hardware

The system consists of six 20 inch 5D NEC high resolution monitors driven by a central processing unit (CPU) with a one gigabyte hard disk capacity (approximately 30,000 A4 pages). The CPU was built by Legend Computers and customised by LMCS. It uses an 80486DX 33MHz processor and 8 MB of RAM. A graphics card allows the 20 inch monitors to display almost a full size A4 document, something not possible on a standard VGA screen. The high resolution enables the user to zoom in on particularly small text with little loss of shape of the letters. The system is operated by a 'slave' control method with one operator controlling the system and every screen viewing the same image at the same time. To maximise response time specially imported RGB Systems video co-axial cable was used.

One particular advance in this system is the high degree of portability.



The system was installed in court in less than one hour on the morning of the first hearing day.

Software

The system uses five readily available commercial software applications. The innovation in the system is the seamless way in which those applications are integrated. The five separate applications appear to work as one without the need to move from one application to another. This integration enables extremely

rapid access to all the features in the system either individually or as different applications linked together.

The software operates in a Microsoft Windows environment. It uses *FileMaker Pro* to manage imaged documents. *ToolBook* is used for the graphics and flow charts which are interactive or directly linked to the exhibits. Thus, when looking at a flow chart, any document referred to in the chart can be selected and displayed within one second. The system also uses *ISYS* for full text re-

trieval searches of transcript for key words and exhibit references with a direct link from transcript to images of those exhibits. *WImage* is used to view and manipulate the images.

Transcript was supplied on disc by the Court Reporting Service. ¹

Simon Lewis is a director of LMCS (NSW) Pty Ltd

Ray Plibersek is a solicitor with the Commonwealth Director of Public Prosecutions

IN OUR NEXT ISSUE...

We focus on

COMPUTER CRIME

Computer Crime has been an issue for many years, but recently we have seen a resurgence in interest. A number of legislative proposals and revisions, together with a smattering of cases, has meant that computer crime is back on the agenda. We have some articles looking at the issue from the perspective of both practice and enforcement authorities.

 Please send all contributions to the Editors no later than January 31, 1994.