

e-Notebooks:

Me-Notebook (Monash e-Notebook)

The Monash e-Notebook arose out of a growing need in the medical research environment (particularly at MISCL) to track electronic data which was being produced by instruments and then annotated and stored on independent personal computers and portable devices. A more reliable and 'centralised' system was required which could:

- Document experiments and include the source data, for when results were challenged
- Enable record keeping compliance over the long term
- Secure research results for intellectual property requirements
- Prevent unnecessary waste of research investment

Me-Notebook is an electronic notebook system which links the notebook to supporting research data stored in a centralised, searchable, secure, backed up repository (i.e. LaRDS) - while using standard desktop software and 'open format' type documents and databases (XML and XMLODB).

Two major suites comply with open document formats:

- Microsoft Office: 2007 PC / 2008 Mac
- Open Office

Major benefits include: A basic site (rather than user) license fee, familiar software and minimal additional training needed by user.

Database:

- XML ODB (Extensible Markup Language Object Database)

e-Notebook 'bookmark' refers directly to the attachments from instrument or elsewhere. Instead of using hyperlinks, there is a hard-link to the actual data, in all formats.

Centre for Drug Candidature Optimisation: Electronic Laboratory Notebook

Established in 2003 with infrastructure funding from the Victorian State Government, the CDCO collaborates with Australian Biotechnology companies and not-for-profit research organisations to identify and optimise drug candidates to accelerate and enhance drug discovery and development.

Since it commenced operation in 2003, the CDCO has conducted well over 4000 individual studies for collaborative partners, using well established protocols for capturing all relevant project and study related information. This information has led to approximately 2000 confidential reports issued to our collaborators. After five years of accumulated electronic and paper data from a group of 20 laboratory scientists, using a variety of different instruments, it became apparent that not only was the physical storage and linking of data a logistical issue, but the ability to efficiently access and retrieve all of the data relevant to each particular study was limiting our overall research performance.

An Electronic Lab Notebook (ELN) was considered the most feasible solution to our data management problems. An assessment was undertaken to review the key capabilities of 8 commercially available software packages to understand the capabilities and limitations of each package. IDBS was selected:

The key criteria utilised by the CDCO in selecting an ELN:

- Flexibility to design a CDCO specific system which would compliment our work flow processes
- Data sharing within the CDCO
- Data security on multiple levels
- Ability to use multiple data formats
- Query and reporting functionality
- Ability to track and audit changes and corrections
- Ability to link data, reports, and publications to studies
- Minimal administration required after setup
- Future proofing