iTec
SOFTWARE

CASES
Features

Table of Contents

1. OVERVIEW

CASES consists of a set of re-useable software components developed in Borland Delphi. These components implement a generic workflow system.

CASES is designed to allow an organisation to change workflows and associated tasks within the system as and when required. The system provides a flexible environment in which these workflows and tasks can be established and maintained. Thus the solution can be installed into any organisation and can be modified over time by users to ensure that it is appropriate to both their work environment and to their own organisation and its procedures.

1.1. PURPOSE OF THE SYSTEM

The CASES Case Tracking and Practice Management System has been designed to assist legal offices, departments and tribunals in the conduct of their case and practice workload. The system as designed, fits naturally into the work flow of solicitors, legal clerks, barristers and other case managers so that their interaction with the system becomes an integral component of their work.

The two major components of the system are:
➤ Case tracking
➤ Practice management.

The case tracking elements of the system are concerned with the registration and maintenance of details and tasks associated with a particular matter. This includes the registration and tracking of files, the allocation of responsibility for a matter and the linking together of related matters through a network of associations.

The practice management elements of the system are concerned with the management of matters by the various functional groups within the organisation together with a range of management review functions and reports. These are designed to ensure the efficient conduct of a large office department or tribunal, including the diary scheduling of courts, witnesses and legal staff, the establishment of deadlines and the monitoring of progress, plus the tracking of particular important matters or tasks.

1.2. SYSTEM DESIGN PHILOSOPHY

The four major design philosophies incorporated in the system are as follows:
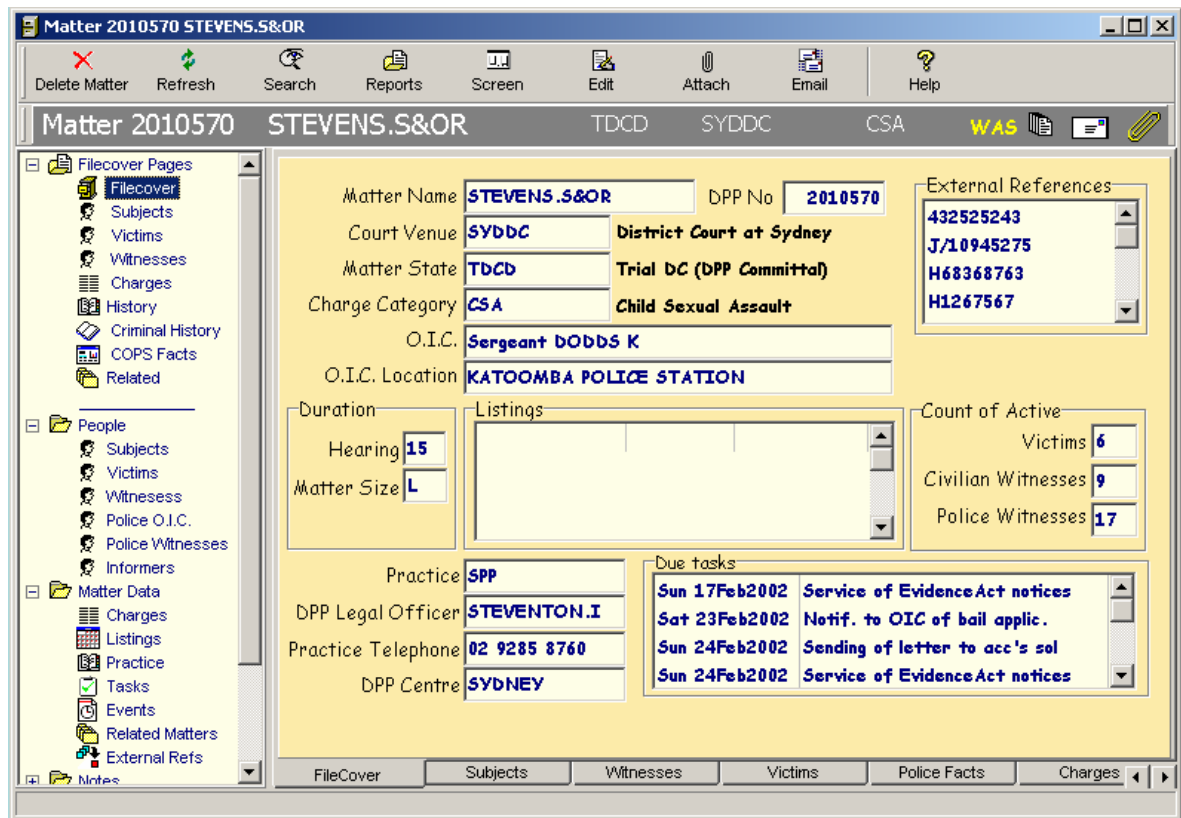
1.2.1. Designing for Change

Most organisations are in a process of progressive change. These changes are being triggered by both the external legal environment and also by internal management changes. CASES is specifically designed with as much flexibility as possible to cater for these changes over time, without requiring major system redevelopment. In particular, the system has been designed to allow the organization's own staff to change the workflows and associated tasks within the system as and when required.

1.2.2. User Interface

For the system to be successful it must be supported and used by solicitors, legal clerks and other case managers. Using the system could range from reviewing screen based or paper based reports to hands-on data entry. Accordingly, the system has been designed to be easy and intuitive to use, especially by staff that have not had previous experience using computer systems. In addition, it has been designed with sufficient flexibility so that it encourages individuals to utilise the system as an integral part of their work environment. To achieve this, the design pays particular attention to minimising the amount of data entry or keyboard work, with extensive use of suggested responses and selection from dropdown lists.

Here is a sample of the user interface showing the main screen of a matter or complaint. This screen relates to a single matter or case that is clearly displayed in a prominent position. The left of the screen is a map of the case information in the database, Filecover is highlighted therefore the right of the screen displays the case file cover data. The grey tags at the lower area of the screen offer another shortcut to the main case information types. This format is consistent throughout the system and other contemporary systems such as Microsoft Outlook email.

1.2.3. Accountability

It is part of the management philosophy of most modern organisations that individuals should be given responsibility and accountability for tasks. Accountability implies that individuals be kept informed of their obligations relating to specific tasks and that individuals and the various levels of management can clearly see exceptions to the projected target dates.

CASES is designed to cater for this accountability by including a projected completion date on all tasks. Individuals are automatically reminded of the completion dates for all tasks for which they have responsibility together with any tasks that have breached their planned completion dates. Similarly, managers can review all matters or tasks for their areas of responsibility, which have breached the planned completion dates. Senior managers can quickly identify bottlenecks and drill down into the information to determine the exact cause of the bottleneck.

The system also logs every activity, its date and the person who performed that activity so that the question of "who did what and when" relating to a case can be instantly established at any moment

1.2.4. Security

The CASES system deals with highly sensitive information. Security of this information is paramount. CASES includes a range of features that enable a matter's security to be tailored to the requirements of the case. This can include completely isolating the matter from view except for the person responsible for the case, to allowing supervisors to view a matter or to isolating particular data fields within the matter.

The system allows access control to be assigned by person, role, application function and case. The CASES Security documentation included in this proposal should be referred for further explanation of the capabilities.

1.3. BASIC SYSTEM CONCEPTS

There are some basic concepts that form the core of the system.

1.3.1. Matters

A MATTER is basically a legal case, that is, a related set of legal work that deals with a person of interest (or persons of interest bound together by a set of common evidence) in a matter and a set of related legal work around a brief for a civil matter.

A matter generally corresponds to a physical file (or a set of files).

Matters recorded within CASES are flexible in that they may be related to other matters (via a defined set of relationships), they may be split into several separate matters over time or they may be coalesced from several matters to one matter.

A matter may be in one of a number of relevant STATES and within each State there are a number of relevant TASKS and external EVENTS.

1.3.2. States

A STATE is a natural subdivision of the procedural process that a Matter can undergo. Defining and connecting a sequence of such States build up the basic procedural flow in the system.

A STATE usually corresponds to the stage of the process that the matter has reached; i.e. the application may be "Awaiting case file" or "Hearing Scheduled".

1.3.3.   Tasks

A TASK is a self-contained piece of work that can be completed on a matter whilst it remains within one State.

For each State there is a separate list of relevant Tasks. The list of valid Tasks may be varied by the organisation when required. These tasks can be compulsory or optional, and the completion of one task can trigger a new set of tasks, or tasks can be triggered by an external event. Tasks can also be dynamically created and sent to the creator at a later date or they can be sent to a nominated other person on the system. Tasks can be readily automated in the system through the use of a Task Manager - this enables reports or letters to be simply constructed that are driven from the context of the current case - for example to send notification of a hearing to all relevant parties.

1.3.4.   Events

EVENTS are generally things that occur externally. They normally result in a series of related tasks being generated and may also trigger a change in the STATE of the matter.

Events can be the applicant withdrawing their application or documentation being received from an external body. All events, tasks and states are completely configurable by the system users and require no programming changes.

Using these basic concepts CASES provides a simple, clear mechanism for an organisation to construct a computerised procedure manual that assists, guides and monitors the performance and management of legal work in the organisation. The association of responsibility of staff with cases and tasks enables a comprehensive picture of workload to be identified and monitored, together with detailed review of performance of managers of such staff. This will enable management to know the state of the case load at all times.

1.4.   BUSINESS FEATURES

The CASES application manages all aspects of a case including such features as:
➤   Involved Parties and nature of involvement.
➤   Related cases.
➤   Cloning and merging cases.
➤   Upcoming Appointments.
➤   Task Review.
➤   Workload review.
➤   Search facilities.
➤   Document production.

The system has more than 300 business functions available from a menu system that can be adjusted to only show those functions that are applicable to the role of the individual user.

1.4.1.   Workflow Management

At the core of the CASES design is a Workflow engine, which has allowed users to adopt all legislative changes without programming change, this is a major cost saving feature of the

system when compared to many other so called "Hard-coded" solutions that require highly skilled staff (programmers) or the products supplier to make any changes to workflow.

A significant user benefit of the workflow engine is that the best practice for processing predefined case types is defined by senior staff members and is enforced and tracked by the system, in a helpful and non-intrusive manner. For example if an event occurs and is recorded on a matter, a set of predefined "Tasks" are created, one task may be to send out a letter, a single mouse click would generate the letter as a Microsoft Word document for the user to preview and then acquit the required task.

This enables organisations to define different workflows for the processing of different matter types independently of each other and modify the process at any time.

### 1.4.2.	Document Management

The Integrated Document Management System (IDMS) provides CASES with the ability to manage, search and retrieve documents either through the full CASES application, or through a subset of the CASES application run from the desktop or through the native EDMS client. The IDMS platform is also suitable for future knowledge management requirements.

CASES implements document management by interfacing to document management servers such as Objective or TRIM and maintaining a consistent look and feel.

Creating, updating, and searching for documents, is carried out completely within the CASES application.

General CASES users see the IDMS through the functionality provided within the CASES application screens. This is in the form of:

➤	Prompting users for information for "Logged" documents that are stored within the IDMS;
➤	A more powerful search facility to enable documents to be searched by meta-data or document contents.

The functionality to retrieve the documents, handle the return of search lists, etc. is handled seamlessly for the user by the CASES application.

Documents can be "Attached" to a matter in a manner similar to attaching to an email message however greatly enhanced by supporting meta-data. This allows users to search the existing library of documents for material useful for the matter in hand and attach these documents for future reference.

### 1.4.3.	Contact Management

CASES contains a complete Person/Party database for storing contact details. This database is controlled to avoid duplicates of details. For example when a new person is added, the system automatically searches to ensure this person is not already known (particularly important in the Legal sector).

Soundex (sounds like) search can be used to assist the search process.

Cases also supports contact logs for a particular person. This feature is used to manage sensitive contact with the relevant people.

1.4.4. Online Help and Documentation

CASES has full context sensitive online help and Tool tips.

1.4.5. Reporting

CASES uses in integrated report-writer that generates Microsoft Word documents. This application, named WordReports was custom built as part of the CASES application suite, allowing it to automatically integrate with document management. The result of this is that a user may complete a letter-generating task with a single mouse click. The document can also be automatically stored in the document management system for future reference or search. There is a report-painter that allows end users to add data items to a word template using a simple user interface. Reports can then be attached to any screen, automatically picking up any context available from that screen, and reducing the need for users to type in report parameters.

Industry standard reporting tools may also be used.

1.4.6. Remote Access

The CASES client can run remotely over a 56k modem connection or faster link.

1.4.7. Audit Log

CASES has a full online session log, which can be configured to record all levels of access to data, including READ access. This data is held online for easy reporting access, and can be easily archived and retained.

1.4.8. Case and Process Costing

CASES has an inbuilt Flexi-time time-sheeting system and also keeps track of all tasks performed by a user on a given matter allowing Activity Based Costing (ABC).

1.4.9. Data Import and Export

There are two levels at which Data import and export are supported by CASES.

The first and simplest level is using any standard import and export facility of Microsoft SQL server such as BCP.

The second level is under control of software called "Agents". These agents are used to get data into and out of the system, using validation rules and controlling security access. An example is the "ERIC agent" (standing for Electronic Referral of Indictable Charges) as used by the ODPP. All new charges are notified to ODPP from NSW Police over a dedicated line using MQ Series. This data is parsed and uploaded into a quarantine area of the database by the Agent. The user then uses an online screen to review the new data that can be accepted into CASES or rejected. This maintains the security and integrity of the database. The same technique is also used to provide outward Kiosk or Bureau type services, preventing any DIRECT access to the core business data.

1.4.10. Alert Systems

CASES has an inbuilt set of screens to alert managers of time-line breaches within the workflow. CASES also notifies system administrators of any problems encountered by agents using email.

1.4.11. Feedback Recording

Feedback or any other free text note can be recorded against a matter at any time. This will then appear in the online matter history, which is used to display the entire history of a matter showing events, notes, documents etc. and can be printed as a report.

1.4.12. Integration of CASES with other Systems

CASES is designed to simply integrate with a variety of other systems through simple parameter and context interfaces. This includes document management systems, where CASES records the document reference ID and enables users to jump to the relevant document within the context of a CASES task, complete the document work and then revert to the CASES task. It also includes file tracking systems, whereby CASES can pass file reference ID's to a file tracking system, which can locate the file and return to the CASES screen. Similar extensions have been easily built to external database systems such as Sentencing Databases or Legal Case Databases.

Interfacing to other systems is implemented using CASES Agents. Agents are programs, which run autonomously and encapsulate the interface definition for the external application and CASES.

Examples of existing Agents include:

➤ **eMail agent**
This allows messages and electronic files to be sent directly to, the matter record from any email interface. For example an image and word document can be emailed to the solicitor in charge of the matter and, if the matter is referenced in the subject of the email, the message and the attached documents automatically become part of the CASES record. Alternatively the solicitor in charge can forward such emails to CASES if they decide the message is relevant to the matter.

➤ **eBrief agent**
This accepts XML, files and a set of diverse document types structured as an "Electronic Brief". The XML is parsed and the brief structured into a standard form for use by the system and downstream agencies.

1.5. HARDWARE AND SOFTWARE

1.5.1. Desktop

The CASES client runs on any 32-bit Microsoft Windows workstation although a minimum of Microsoft Windows 98 is recommended. A reasonable minimum hardware profile would be a Pentium 500Mhz with 64mb of memory and 100Mb of available disk space. The software does run adequately on lower configured machines however such hardware is now mostly obsolete.

1.5.2. CASES SQL Servers

The server configuration is highly scalable and depends on the number of concurrent users expected on the system. The recommended database software for the server is Microsoft SQL server 2000 and above. The recommended operating system for the application server is Microsoft Windows 2000 Server and above. Specific server sizing can be supplied following a more detailed review of requirements. It is reasonable to assume that the server would be a commodity dual processor Intel based application server with a few Gigabytes of RAM and disk relative to data volume and high availability requirements at each site.

1.6. TECHNICAL FEATURES

The following section aims to describe in summary form the main technical features of the *CASES* system.

Technical Features

Module	Feature/s
Microsoft Look and Feel	A consistent and well recognise look and feel makes the application very intuitive in nature and thus minimises staff training requirements
Fast-Track key-ins	*CASES* Fastrack Menus allow experienced users to immediately reach required screens or functions. The key-ins are configured by the System Administrator
End-User Views	End-User views are configurable to change screen behaviour (eg: setting the default page your application opens on when you first log into the application)
Keyboard Data Entry	Data entry screens are designed to allow operators to enter data without the use of a computer mouse (data entry via keyboard alone supported)
Workflow management	Enables key users to define different workflows for the processing of different types of work and modify the '**Practice'** at any time. The Workflow engine allows users to adopt changes without requiring programming changes (involving the IT department).
Document management	*CASES* implements document management by interfacing to the Objective Corporation document management repository called 'IDMS'. Creating, updating and searching for a document is carried out completely within the *CASES* application. Documents can be "Attached" to a **Matter** in a manner similar to attaching to an email message however greatly enhanced by supporting meta-data. This allows users to search the existing library of documents for material useful for the matter in hand and attach these documents for future reference. Conceptual search - uses a thesaurus to include all known synonyms of the supplied search term and allows the user to exclude any deemed inappropriate. There is also a keyword search used for document classification in records management.
Contact management	*CASES* contains a complete Person/Party database for storing contact details. This database is controlled to avoid duplicates of details. For example when a new person is added, the system automatically searches to ensure this person is not already known. 'Soundex' (sounds like) search can be used to assist the search process. *CASES* also supports contact logs for a particular person. This feature is used to manage sensitive contact with the relevant people
Security - Menu security	The *CASES* menu system is dynamic and only reveals business functions to a user which they have been granted security access.
Security - User groups	Security access to business functions is managed by the use of User groups. These groups provide access to a set of related business functions, which can contain groups of functionally related or job related transactions.
Systems administration	*CASES* includes an extensive suite of administration facilities to manage and configure the application eg: the first screen that appears when a user first logs in, or simply the company logo that appears when initiating the application.
Matter management	*CASES* allows a user to manage all matters via the **Matter** Workface. From here a user is able to access all files that they are responsible for. When entering a **Matter**, if a searchable PDF document is used, *CASES* allows the fields to be auto populated, leaving the operator to check the data against the searchable PDF image. The searchable PDF document could have originated on a web-site, have been downloaded and filled in by a client on their PC, and emailed to the *CASES* system email box where it would auto-populate the data

	entry screen above.
	When a **Matter** is created, certain default tasks may need to be completed. These may include certain default forms to be generated.
	An important feature of **Matter** and practice management is that the user can open many **Matters** at the same time and work on all at once.
Charge Feed	Another type of 'Agent' – allows for automatic update and maintenance of the 'Judicial Commission Law port codes'
Person management (Person Party database)	All persons or organisations known to the system are recorded in a self contained repository. This person data is then associated with a **Matter** by virtue of the role the person performs in the **Matter** eg: 'subject', 'victim' or 'witness'.
Data import and export	There are two levels at which Data import and export are supported by CASES : - The first and simplest level is using any standard import and export facility of Microsoft SQL server such as 'BCP'. - The second level is under control of software called "Agents". These agents are used to get data into and out of the system, using validation rules and controlling security access. An example is the MQ Series Agent. This data is parsed and uploaded into a quarantine area of the database by the Agent. The user then uses an online screen to review the new data that can be accepted into CASES or rejected. This maintains the security and integrity of the database.
Agents	*CASES* agents are autonomous software modules, which encapsulate an interface between *CASES* and other applications. An agent handles any external source of information provided to *CASES* as a 'feed'
Alerts	*CASES* has an inbuilt set of screens to alert managers of time-line breaches within the workflow. *CASES* also notifies system administrators of any problems encountered by 'Agents' using email.
Feedback recording	Feedback or any other free text note can be recorded against a **Matter** at any time. This will then appear in the online 'Matter history', which is used to display the entire history of a **Matter** showing events, notes, documents etc. and can be printed as a report.
Paper capture	*CASES* provides a mechanism to capture such documents and attach them to the correct **Matter**, in the process, turning them into a searchable electronic resource
Reporting	*CASES* uses an integrated report-writer that generates 'Microsoft Word' documents. This application, named 'Word Reports', allows completion of a letter-generating task with a single mouse click. The document can also be automatically stored in the document management system for future reference or search. There is a report-painter that allows end users to add data items to a Word template using a simple user interface. Reports can then be attached to any screen, automatically picking up any context available from that screen, and reducing the need for users to type in report parameters. Industry standard reporting tools may also be used.
Workload management	*CASES* allows a manager to manage a group of **Matters** and where certain **Matters** are more complex, workload balance accordingly. Through a whole suite of reports and analysis tools allowing a manager to monitor, balance and fine tune the work load of individuals and the organisation.
Client Management Services (CMS)	Contact and Client management module. This system can be used by organisations where client details and relationship with matters are important and need to be maintained
Roster	Facilitates forward planning of work and staff, and allows reports to be produced for this. There is a direct link to *CASES*, allowing a user to display and view their time or any planned leave. Allows for retrospective time recording.
Timesheet (Case and Process	*CASES* has an inbuilt Flexi-time time-sheeting system keeping track of all tasks

Costing)	performed by a user on a given matter.
Activity Based Accounting (ABC)	More detailed time recording against specific **Matters**. Statistical information based on the average cost of **Matters** by category. A template is created in MS Excel where this information can be viewed and then updated.
Involved parties	Allows users to search not only for 'Person's related to a Matter but Involved parties (ie: other people or organisations)
Operational Performance Metrics (OPMS)	Allows tracking of organisations performance against set performance indicators.
Billing module	Allows an interface to any popular financial software packages.
Distributed database	Allows various users to connect to servers located locally or rmemotely for Matters and associated documentation. These servers communicate with each other to keep data synchronised (users can view data from other locations if need be but cannot modify)
Matter cloning	**Matter** cloning is usually performed by Office Managers and clerical officers who are experienced in the use of *CASES*. It's a process that creates a new **Matter** (a cloned **Matter**) from an existing **Matter** (the original **Matter**). You specify which subjects are to be attached to each **Matter**. The cloned **Matter** and the original **Matter** have two different **Matter** states.
Tracking, Archiving, Backup and Recovery	Commodity archiving, backup and recovery tools are used for these tasks.
Online Help and Documentation	*CASES* has full context sensitive online help and Tool tips.
Remote Access	The *CASES* client can run remotely over a 56k modem connection or faster link.
Audit Log	*CASES* has a full online session log, which can be configured to record all levels of access to data, including READ access. This data is held online for easy reporting access, and can be easily archived and retained.
Integration of *CASES* with other systems	*CASES* is designed to integrate with a variety of other systems through simple parameter and context interfaces. This includes document management systems, where *CASES* records the document reference ID and enables users to jump to the relevant document within the context of a *CASES* task, complete the document work and then revert to the *CASES* task. It also includes file tracking systems, whereby *CASES* can pass file reference ID's to a file tracking system, which can locate the file and return to the *CASES* screen. Similar extensions have been built to external database systems. Interfacing to other systems is implemented using *CASES* Agents.

1.7. CASES BUSINESS BENEFITS

Benefits to an organisation of using *CASES* are:

- Best practice for processing specific case types is defined by senior staff and is enforced and tracked by the system in a helpful and non intrusive manner.

- Changes to the workflow can be made by users without programming changes.

- Electronic case files and associated workflows generally reduced case processing time and cost.

- Benefits from *CASES* Workload management module are:
  - Work can be easily reassigned in the event of staff sickness or absence
  - Workload can be summarized and reviewed throughout the organization
  - Workloads can be balanced and monitored easily

- Integrated Document Management benefits are:
- The document repository becomes searchable for research and precedent
- Documents are held once
- Documents are audited for change
- Documents are backed up from a single source
- Documents are version controlled with full change history and locking
- Supports compliance with Government records management best practices

2. CASES TECHNICAL OVERVIEW

2.1. SYSTEM ARCHITECTURE

CASES is written in Borland Delphi and has been constructed as a class library using object oriented development techniques. *CASES* currently runs against the Microsoft SQL Server database but can also be implemented using Sybase or ORACLE.
CASES uses stored procedures to encapsulate business logic.

CASES runs on workstations using Microsoft Windows 32 bit operating systems and could be ported to Linux. A minimum of Microsoft Windows 98 is recommended. A minimum hardware profile is a Pentium 500Mhz with 64mb of memory and 100Mb of available disk space.

CASES is implemented as a client server application. CASES supports Internet access using a restricted function front end.

CASES implements document management through an abstraction layer. The interface between *CASES* and the document management system allows connection to a logical or generic document repository. Currently the only supported repository is from Objective Corporation but near term plans also include support for TRIM.

A launcher is used to distribute the application to each user's desktop and also controls release bulletins and version management.

CASES uses 'Agents' for secure information interchange with other applications.
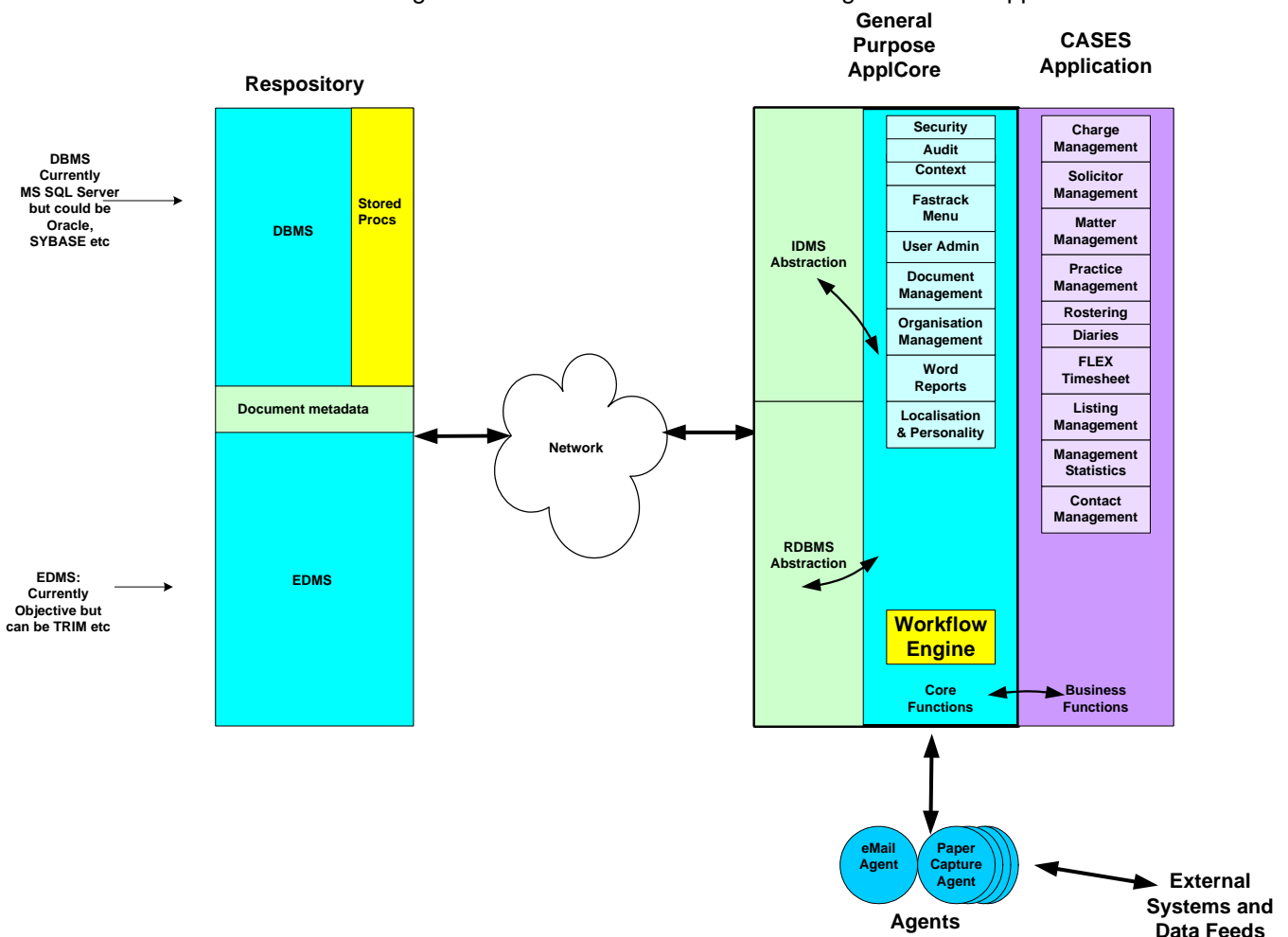
Diagram 1 *CASES* System Architecture

2.1.1. De-centralised
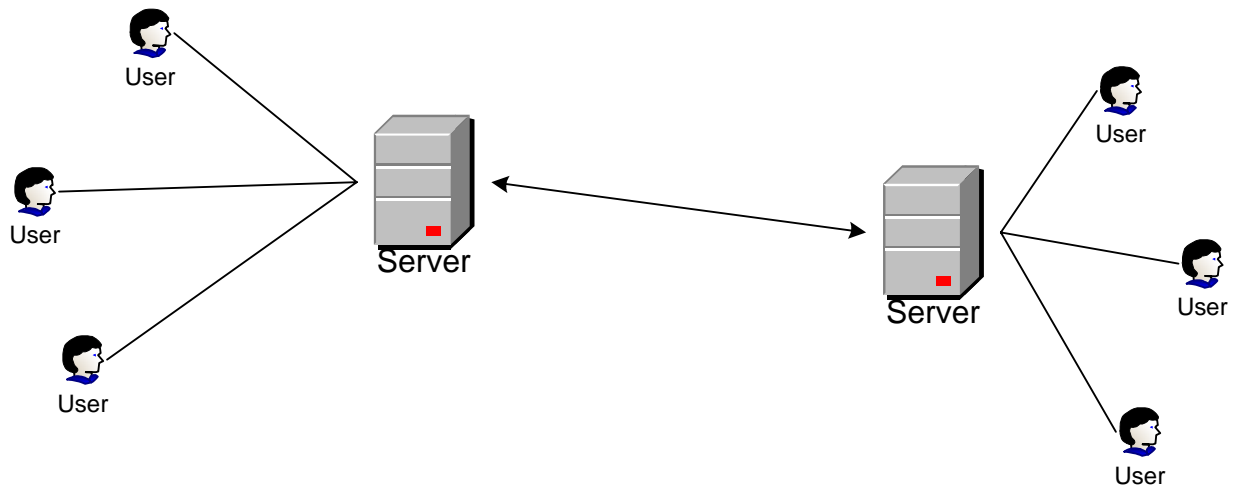
Diagram 2 CASES De-centralised

2.1.2. Centralised
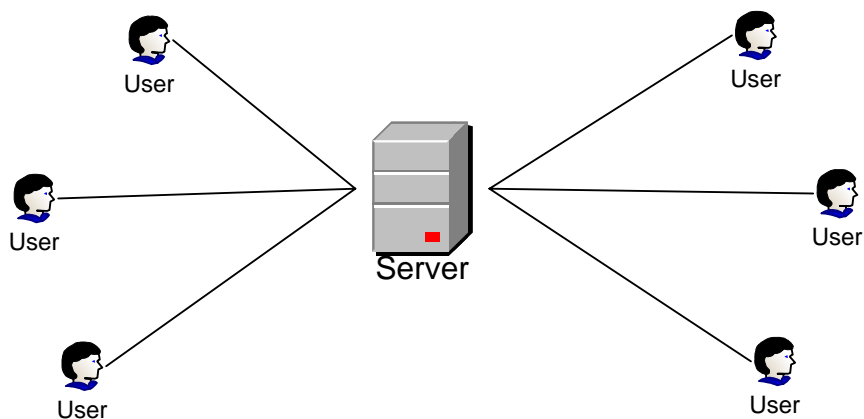
Diagram 3 CASES Centralised

2.2. INTEGRATED DOCUMENT MANAGEMENT SYSTEM

2.2.1. Overview

The integrated document management solution for *CASES* can be used to access industry standard EDMS (Electronic Document management Systems).directly and seamlessly from within CASES

One implementation of the CASES IDMS is based on Objective Corporation's product suite. Objective is a comprehensive Knowledge and Process Management solution that materially meets the functionality required by *CASES*.IDMS another such system is TRIM

The Integrated Document Management System (IDMS) provides *CASES* with the ability to manage, search and retrieve documents either through the full *CASES* application, or through a subset of the *CASES* application run from the desktop or through the native Objective client. The IDMS platform is also suitable for future knowledge management requirements.
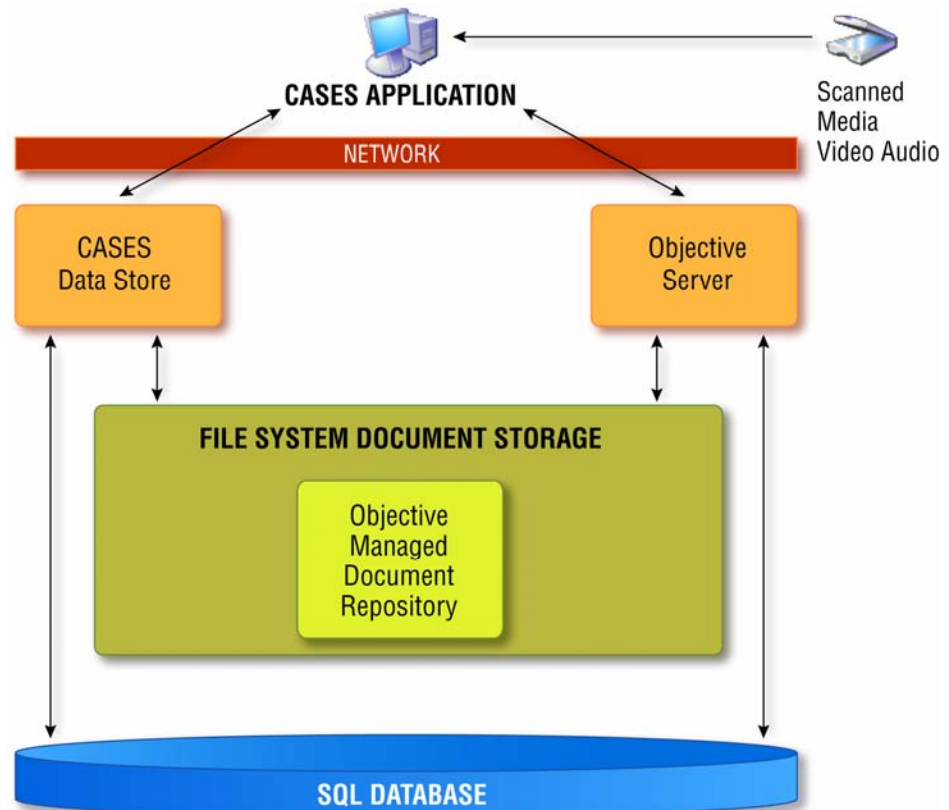
Diagram 2 Objective IDMS *with CASES*

2.2.2. CASES User Interface

General *CASES* users see the IDMS through the functionality provided within the *CASES* application screens. This is in the form of:

- Prompting users for additional information for "Logged" documents that are stored within the IDMS;

- A more powerful search facility to enable documents to be searched by meta-data or document contents; and

- The functionality to retrieve the documents & handle the return of search lists which are handled seamlessly for the user by the *CASES* application.

2.2.3. 'Objective' User Interface

Users could have access to the IDMS through the standard 'Objective' interface. These users could have access to the full 'Objective' product functionality that can be used for the

implementation of non-CASES solutions, plus for monitoring and administration purposes for the IDMS. This interface is not included in this document.

2.3. CASES AGENTS

A *CASES* **Agent** handles the data feed to other systems from *CASES*. A typical task for an **Agent** is to accept a data feed from another agency, parse, cleanse and upload this data into a quarantine area in a database for user-guided acceptance into the system. A screen appears which allows the users to review and accept the new data inputs with a few mouse clicks.

There are a number of existing **Agents** some of which are described below.

eMailToFile Agent.	This allows files of known format to be mailed to a specified address. If the sender was an authorized user then the file is uploaded to a local folder (an example of this allows a remote agency to update an intranet web page)
eMail Agent.	An email agent, which allows messages and electronic files to be sent directly to the **Matter** record from any email interface. For example an image and word document can be emailed to a party in charge of the **Matter** and if the **Matter** is referenced in the subject of the email, the message and the attached documents automatically become part of the *CASES* record. Alternatively the party in charge can forward such emails to *CASES* if they decide the message is relevant to the **Matter**.
MQSeries Agent.	This accepts data on an MQ Series feed parses and uploads it into a quarantine area.
eBrief Agent	This accepts a feed containing an AES encrypted composite set of brief documents with an XML description file. The file is automatically decrypted, unzipped, the XML is parsed and the documents are then converted to a large composite PDF suite of documents.
CHRIS Agent	The CHRIS Agent can be used to monitor changes made in the CHRIS human resource system and propagate the changes to other business systems. An example of its use is to monitor approved employee leave applications and automatically update the *CASES* roster to show the person is not available and also to show a reminder on the users Flex sheet.
Microsoft Access Agent	This agent accepts can upload data from access databases into the system. An example of its use is to accept new and updated charge codes from the Judicial Commission and update the *CASES* tables accordingly.

There are a number of class library implemented features, which can be plugged together in the construction of these agents:

- Email access using Microsoft Outlook or POP3 mailboxes.
- AES encryption/decryption.
- ZIP compression.
- XML parsing.
- MQ Series file and secure data transfer.
- PDF creation.
- CHRIS through Vision files and or MSSQL.
- SUN Financials.
- Logging to screen and file. (logs can be automatically emailed to nominated users)

- Configuration settings through registry and INI file.
- Authentication and SQL access using Microsoft MDAC to databases.

3.   MATTER CREATION

The majority of matters in CASES no longer are created by data entry, most information arrives by data feeds, however this was not the case originally and hence the matter entry function is fast robust and easy to use. One key design requirement for the set of screens for entering new matter data was the need to allow keyboard operators to use non-mouse data entry. Hence the entire entry function can be driven using the keyboard alone.
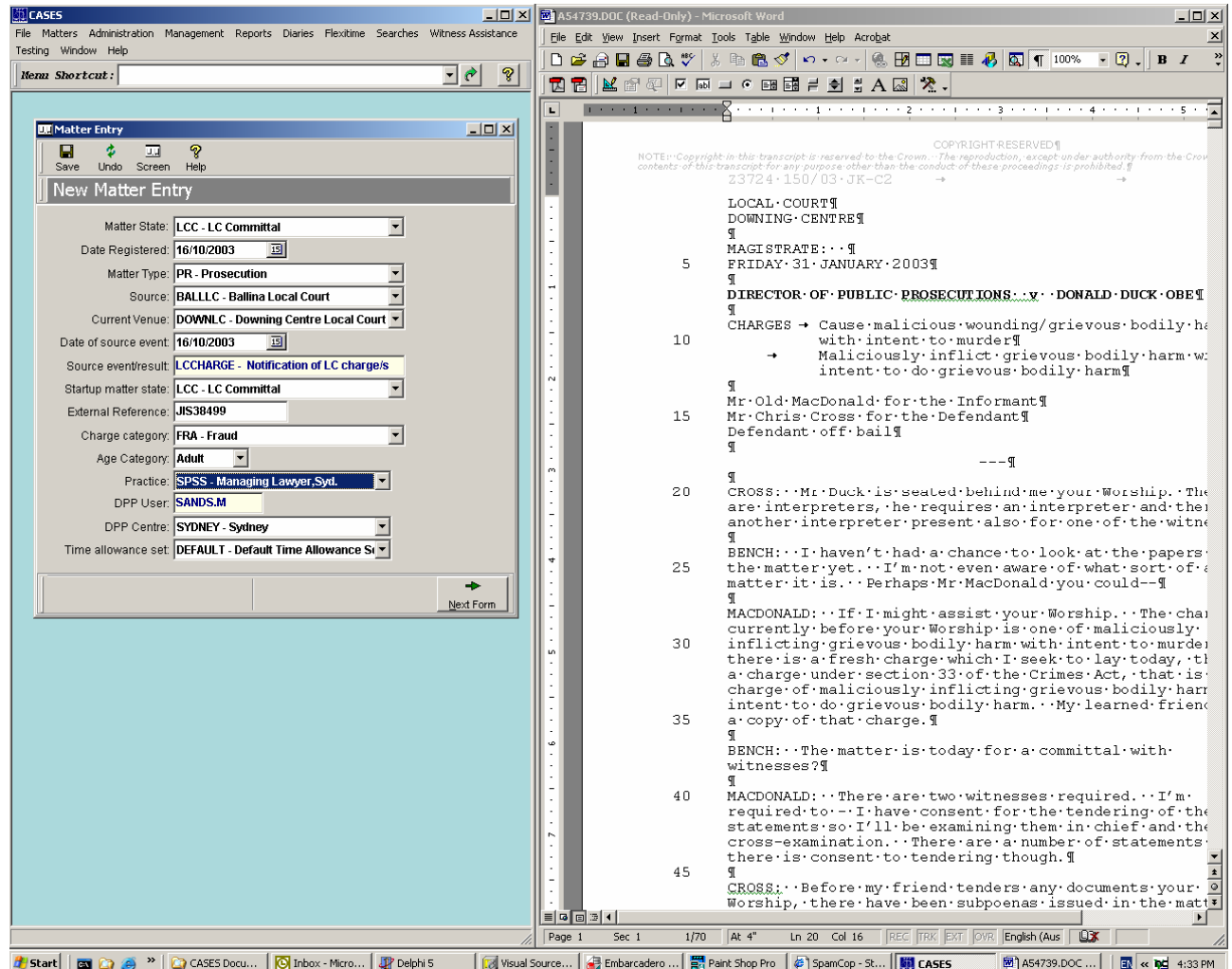
Figure 1.

The above illustration shows how matter entry is initiated and the workflow for a new matter is kicked off, the document on the right is not a matter document and is for illustrative reasons only. Most of the matter entry fields auto populate or use pick lists as you progress through the data entry task. The first screen on the left in **Figure 1** is reproduced in **Figure 2** for the sake of readability. Note that at this point it would be possible to use an OCR document on the right hand side and auto populate the form on the left, leaving the operator to check the data only against a searchable PDF image.

Figure 2

Once the data in the screen(s) above is complete the next for is for entering the persons who are involved in the matter as subjects witnesses or any other nominated role. This forces a person search to maintain the integrity of the person data as illustrated in **Figure 3** (see document CASES Person Party) and eliminates the need to re-key data for people already known to the system.

Figure 3

Once the parties have been added to the matter the file cover screen appears with the current state of the new matter and the first set of required tasks dictated by the workflow, ready to add listings (hearings) and ready to go, the history already showing the first few steps taken on the new matter **Figure 4**.

Figure 4

The above shows the initial state of a newly created matter, the first set of required tasks appearing in the bottom right hand corner.

The illustration below **Figure 5** shows the history for the new matter, all achieved with a very few keystrokes.
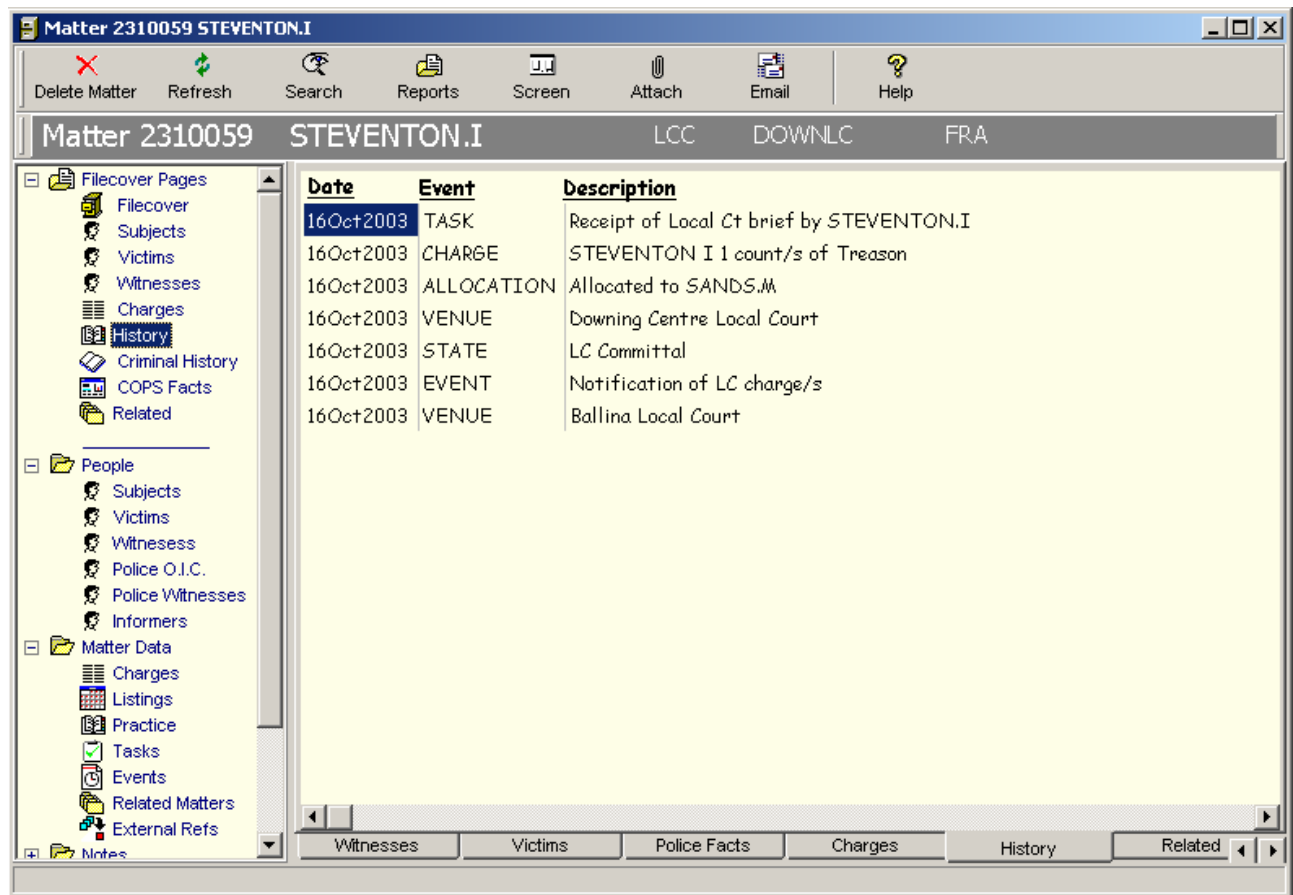
Figure 5

4. MATTER MANAGEMENT

A MATTER is basically a case file, that is, a related set of work that deals with a set of associated people such as accused, applicants, suspects (or a group of accused or suspects bound together by a set of common evidence) in a criminal matter and a set of related legal work around a brief for a civil matter.

A matter generally corresponds to a physical file (or a set of files).

Matters recorded within CASES are flexible in that they may be related to other matters (via a defined set of relationships), they may be split into several separate matters over time or they may be coalesced from several matters to one matter.

A matter may be in one of a number of relevant STATES and within each State there are a number of relevant TASKS and external EVENTS.

4.1. MATTER CARRIAGE WORKFACE

There are a number of different ways that a user may access a matter the most common being thought their matter carriage workface. This screen shows a user a summary of the status of all of the matters within their practice, particularly highlighting those, which have tasks requiring attention **Figure 1**.
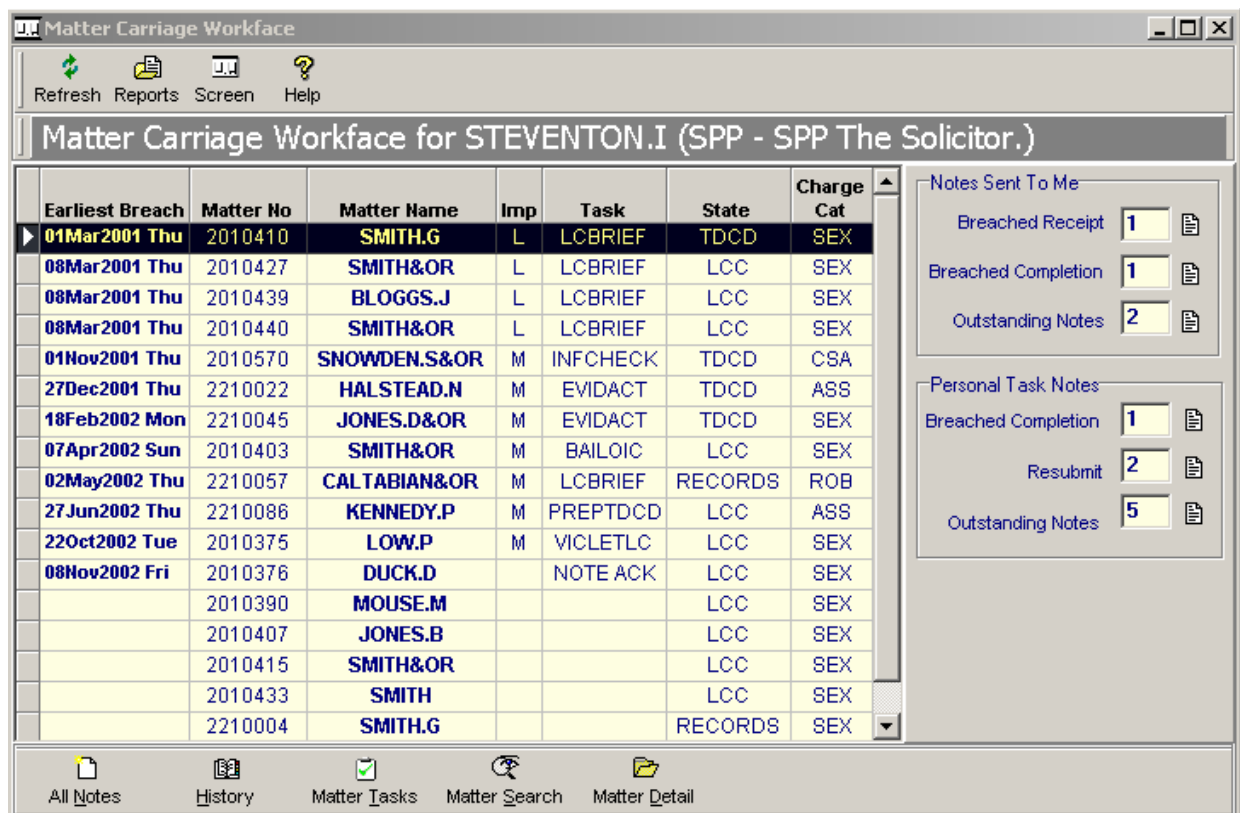
Figure 1

The user simply double clicks the matter to go directly to the file cover or selects from the buttons at the bottom of the screen to review the history, tasks notes etc.
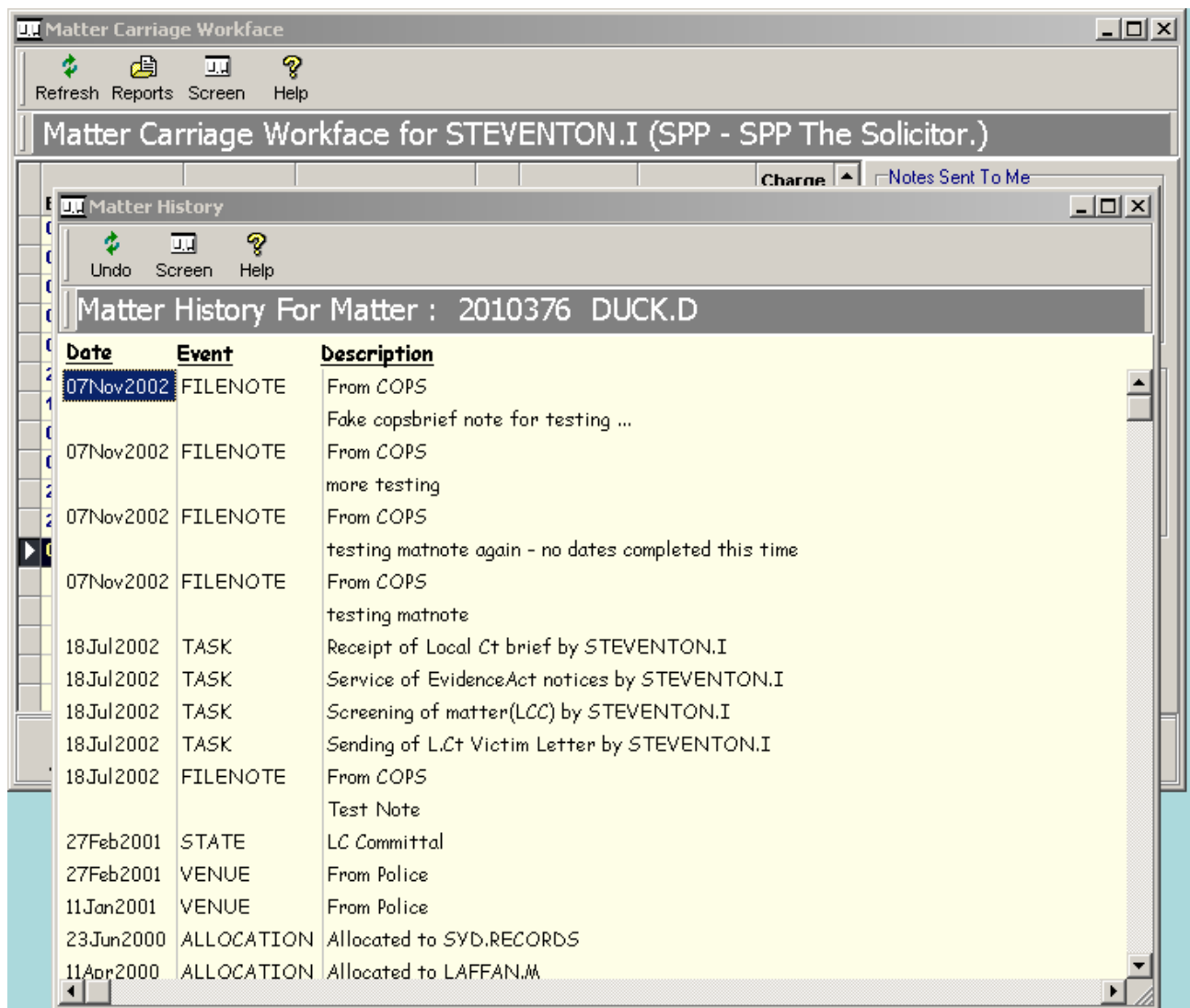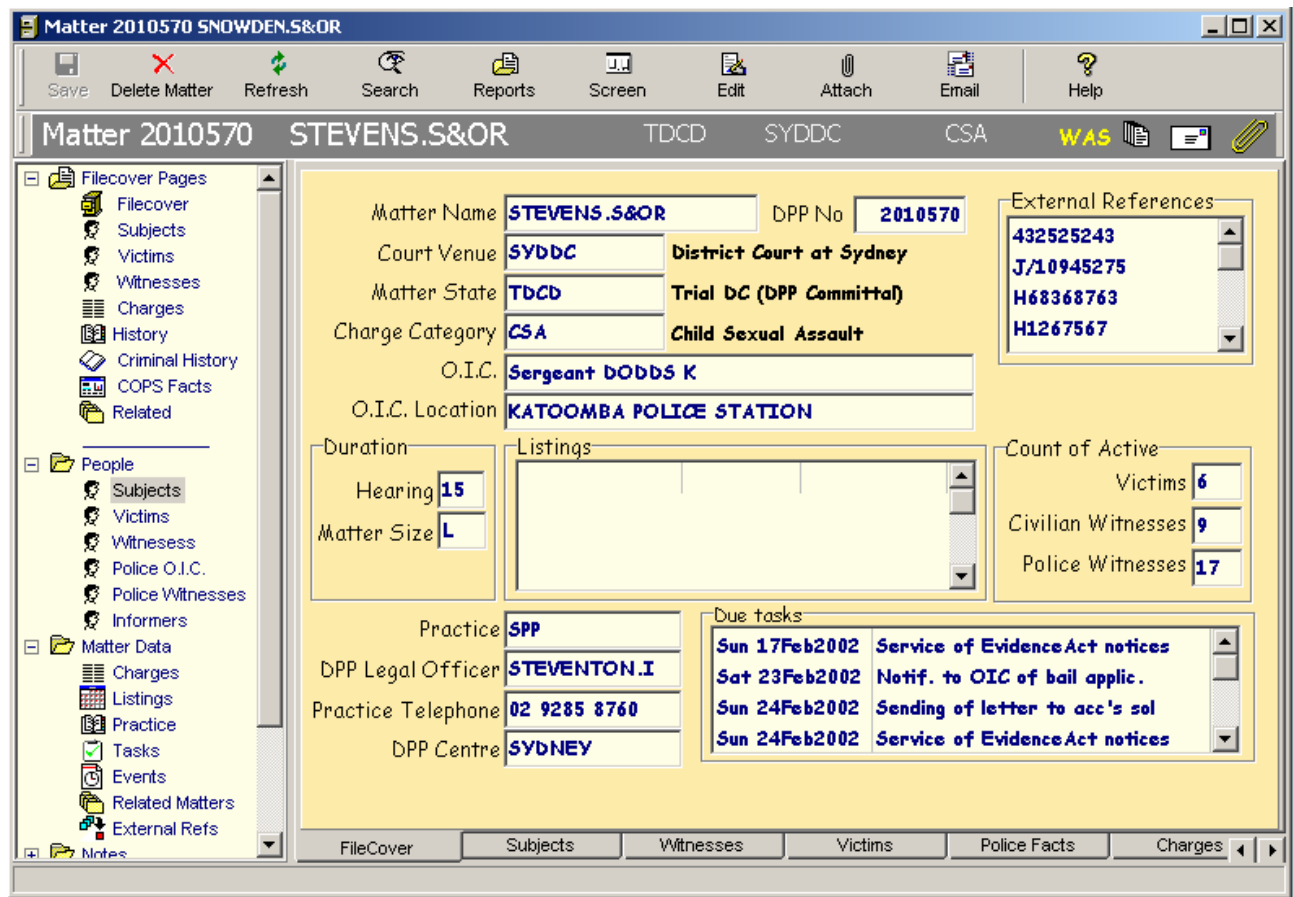
Figure 2

The illustration above **Figure 2** shows the result of selecting the history button on the carriage workface with the matter of DUCK.D highlighted. To proceed to the filecover **Figure 3** the user simply double clicks the matter or clicks the Matter detail button at the bottom of the screen.

4.2.   MATTER FILE COVER

The file cover screen shown below is the hub of matter management and presents an easy to use interface to all of the aspects of a matter, including reviewing and adding people, documents, file notes, events and a whole host of business functions.

Figure 3

A user can navigate using either the tabs at the base of the screen or the tree control on the left or simply double click on a data item to go to more detail. For example the Tasks box in the bottom right hand corner of the screen reveals the popup shown in **Figure 4** allowing for tasks to be completed.
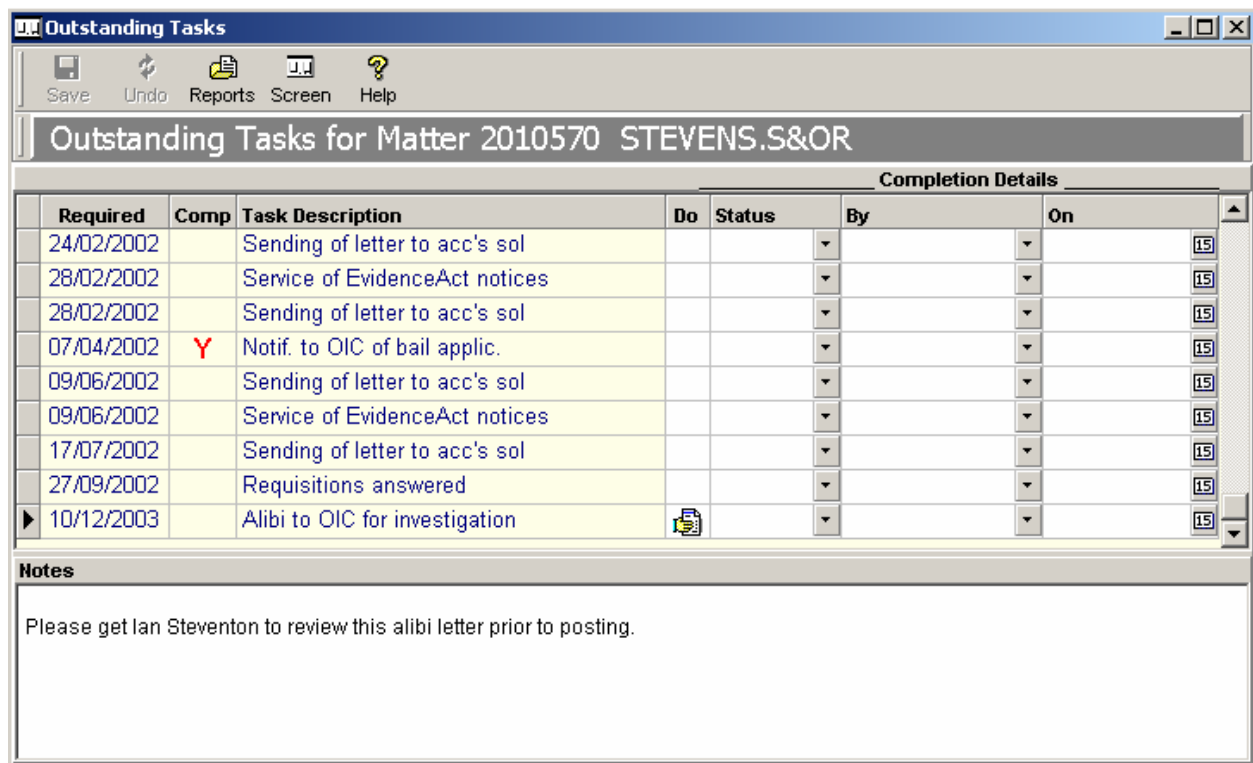
Figure 4

Note the report icon, which appears in the column labelled "Do" this is called a "Do Report" and in this instance the task is completed by the production of a standard document, all that is required is to click the document image and the word document is produced automatically.

4.3. MULTIPLE MATTER INTERFACE

An important feature of matter and practice management is that the user can open many matters at the same time and work on all at once. The application presents a Multi Document Interface (MDI), an example of which is shown in **Figure 5**.
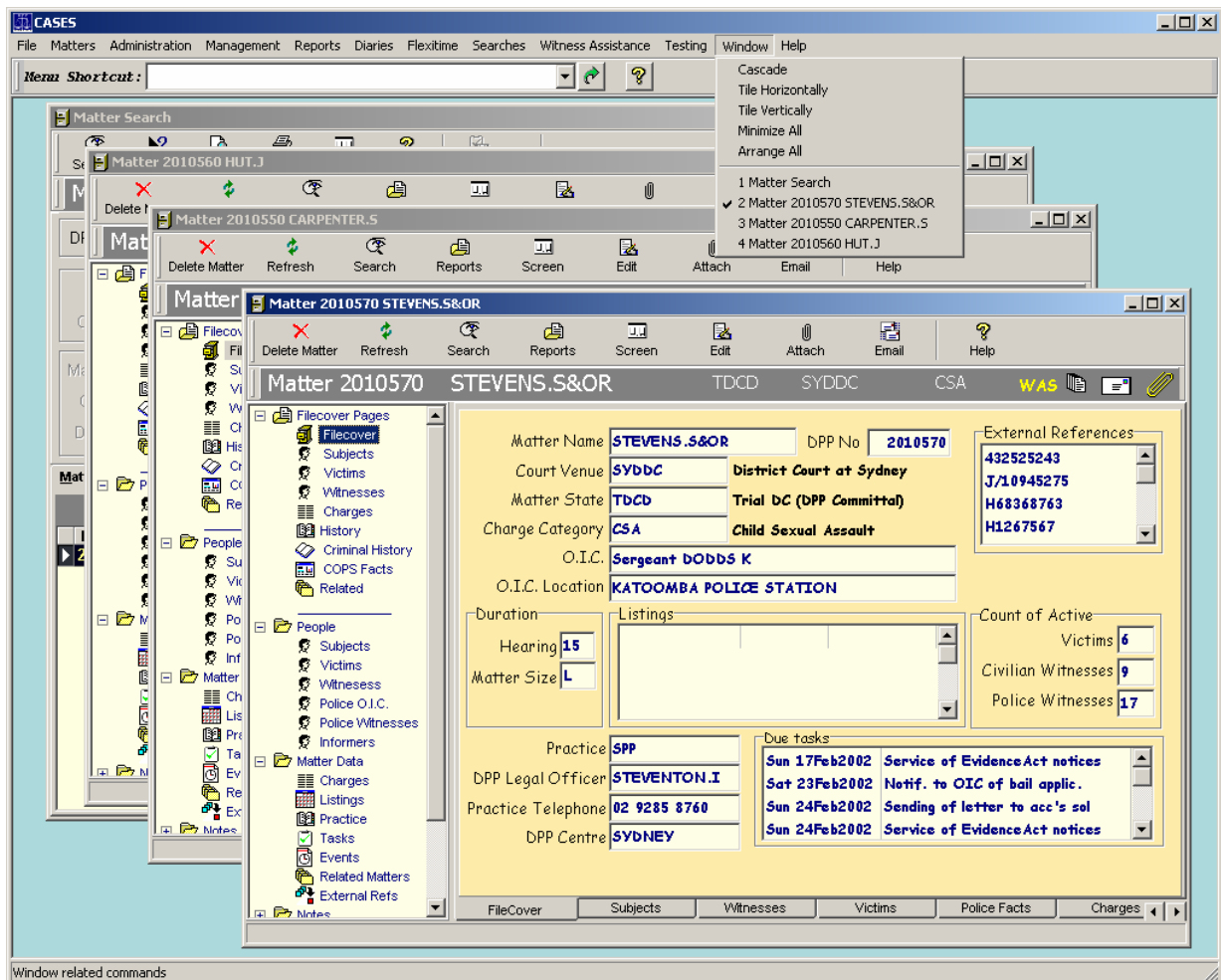
Figure 5

5.   MATTER HISTORY

The matter history screen provides a very powerful facility for reviewing the complete history of a matter within the application, as shown below in **Figure 1**.
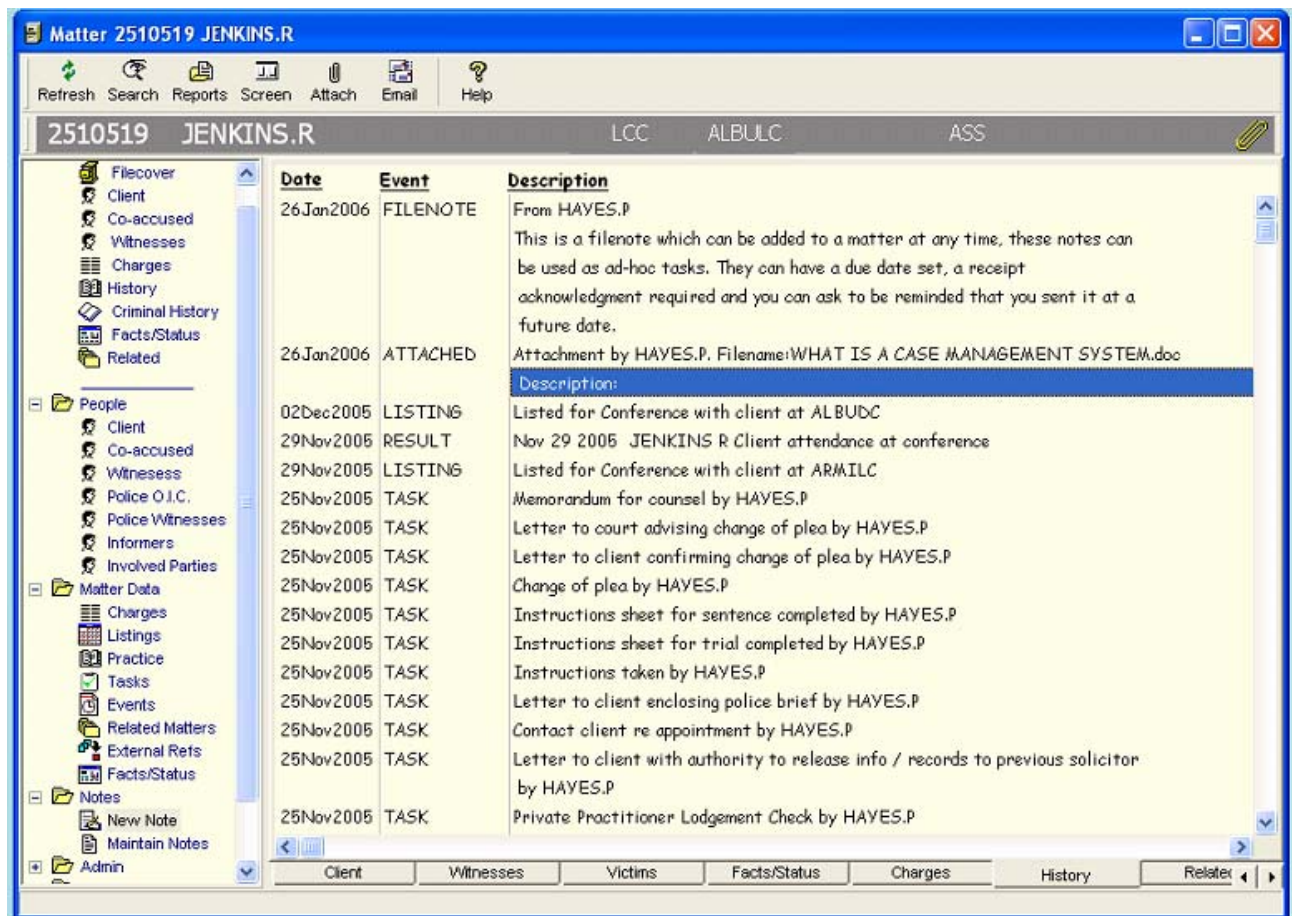
Figure 1

This screen is much more than just an online report it also allows the user to double click any event and been taken directly to the document, email, file note etc and review the full details.

In **Figure 2** below the user has clicked on the FILENOTE event and the system has opened the associated popup.
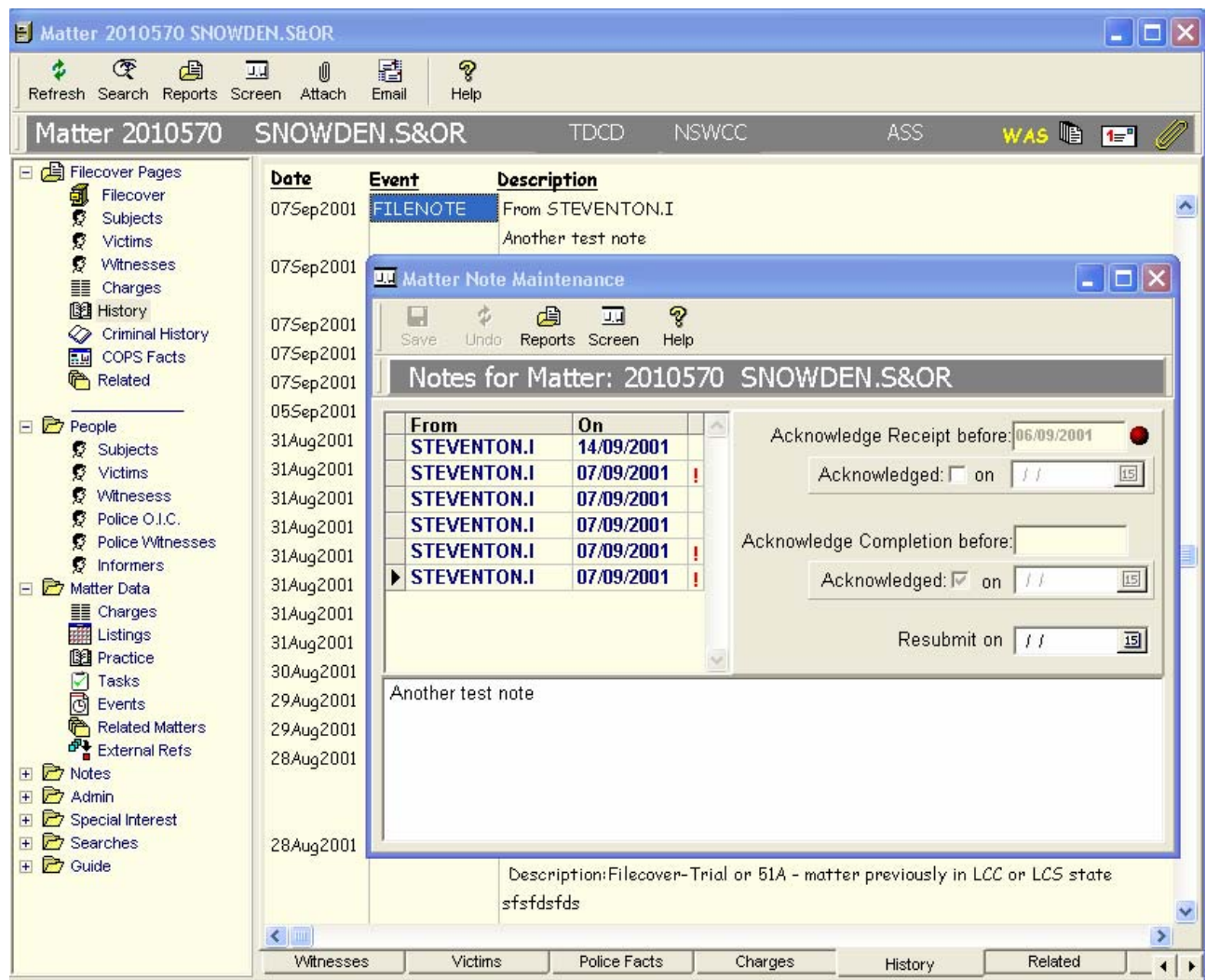
Figure 2

A hard copy is also available by clicking the reports button shown on the toolbar in **Figure 2** this button provides a list of dynamic reports, which can be attached to any CASES screen. The hard copy is produced as a Microsoft Word document and can be used as the basis of a matter summary, which can be provided to others for review. A sample of this document is shown in **Figure 3** below.

Figure 3

6. WORKFLOW DEFINITION

The cases workflow is based on a set of concepts described below.

6.1. STATES

A STATE is a natural subdivision of the procedural process that a Matter can undergo. Defining and connecting a sequence of such States build up the basic workflow in the system.

A STATE usually corresponds to the level of the matter in the courts hierarchy ie the matter may be before a Local Court and is therefore defined as being within the State "Local Court"

Figure 1

The goal of the system is to move matters through state to take them from input states to completed states in a timely and efficient manner following user defined "best practice". The state transitions are defined and maintained using workflow screens such as illustrated in **Figure 2** below.
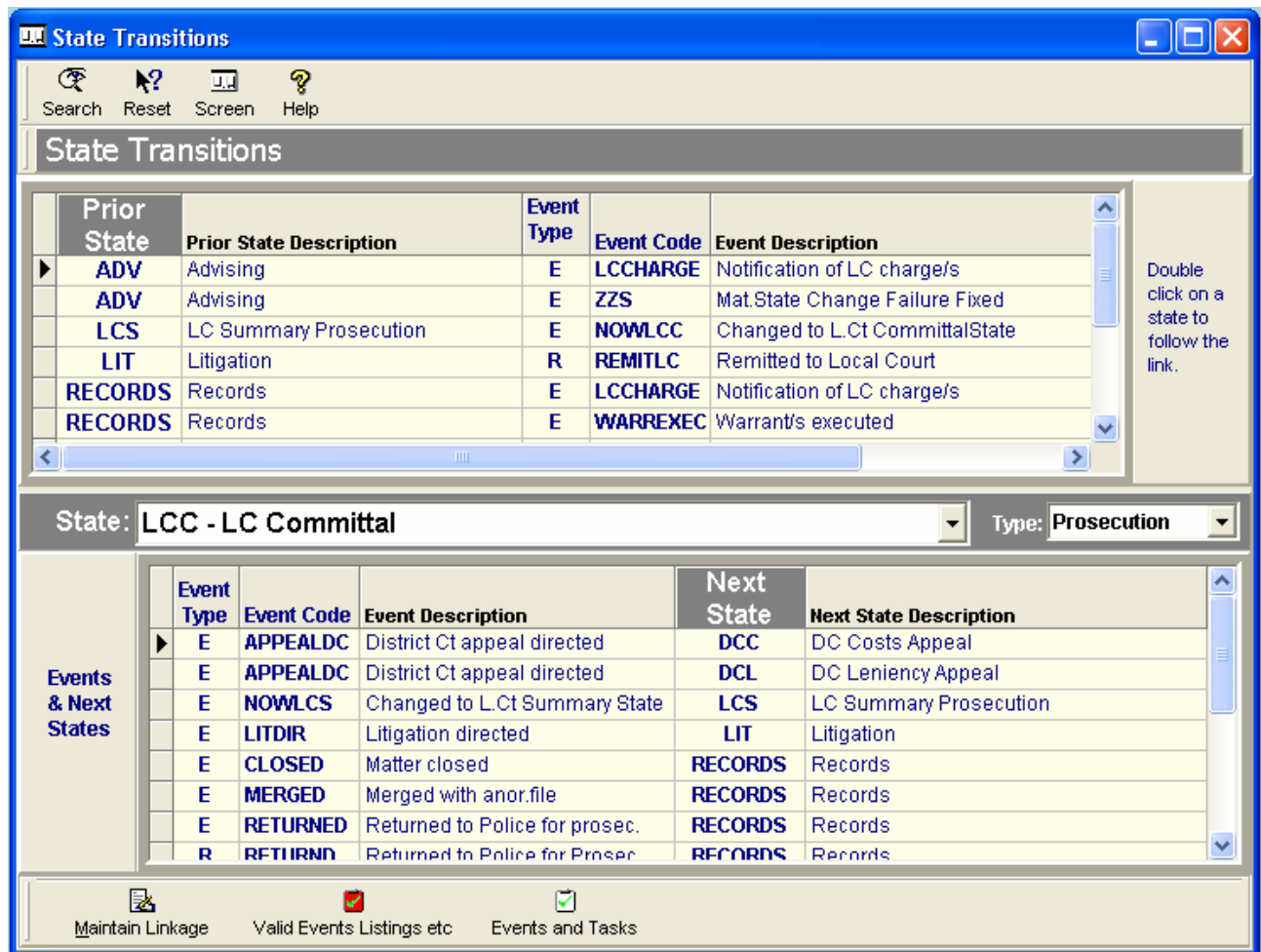
Figure 2

6.2.   TASKS

A TASK is a self-contained piece of work that can be completed on a Matter whilst it remains within one State.

For each State there is a separate list of relevant Tasks. The list of valid Tasks may be varied by the organization when required. These tasks can be compulsory or optional, and the completion of one task can trigger a new set of tasks or tasks can be triggered by an external event. Tasks can also be dynamically created and sent to the creator at a later date or they can be sent to a nominated other person on the system Tasks can be readily automated in the system through the use of a Task Manager - this enables reports or letters to be simply constructed that are driven by the context of the current matter - for example to send subpoenas to all witnesses for a particular court listing requires one mouse click or keystroke .

Figure 3

6.3.   EVENTS

EVENTS are generally things that occur externally. They normally result in a series of related tasks being generated and may also trigger a change in the STATE of the matter.

Events can be listing events, which identify that a matter is listed before a court, or they may be such simple events as the registration of a new matter or the receipt of an alibi letter. Again, all events, tasks & states are completely configurable by the organisation and require no programming changes in the system.

Figure 4

Using these basic concepts CASES provides a simple, clear mechanism for an organization to construct a computerised procedure manual that assists, guides and monitors the performance and management of legal work in the organization. The association of responsibility of staff with matters and tasks enables a comprehensive picture of workload to be identified and monitored, together with detailed review of performance of managers of such staff.
The screen shown in **Figure 5** illustrates the mechanism used to add new possible state changes for particular system events.

Figure 5

7.   SECURITY

7.1.   ACCESS SECURITY

Access to the CASES system is restricted by a login dialog. Once a user has identified themselves to the system their security profile is established.

If the user leaves the computer unattended for a period of time (established by the system administrator on a system or user level) the session will timeout and a password needs to be re-entered.

The system generates random 6 digit (3 alpha and 3 number) login codes, which can also help make password-guessing attacks more difficult (and comply with security policy).

7.2.   SECURITY LEVELS

CASES security is implemented at two levels :
➤   Business function security.
➤   Matter security.

These security levels are described in more detail below.

7.3.   BUSINESS FUNCTION SECURITY

The CASES menu system is dynamic and only reveals business functions to a user for which they have been granted security access.

Security access to business functions is managed by the use of user groups. These groups provide access to a set of related business functions, which can contain groups of functionally related or job related transactions.
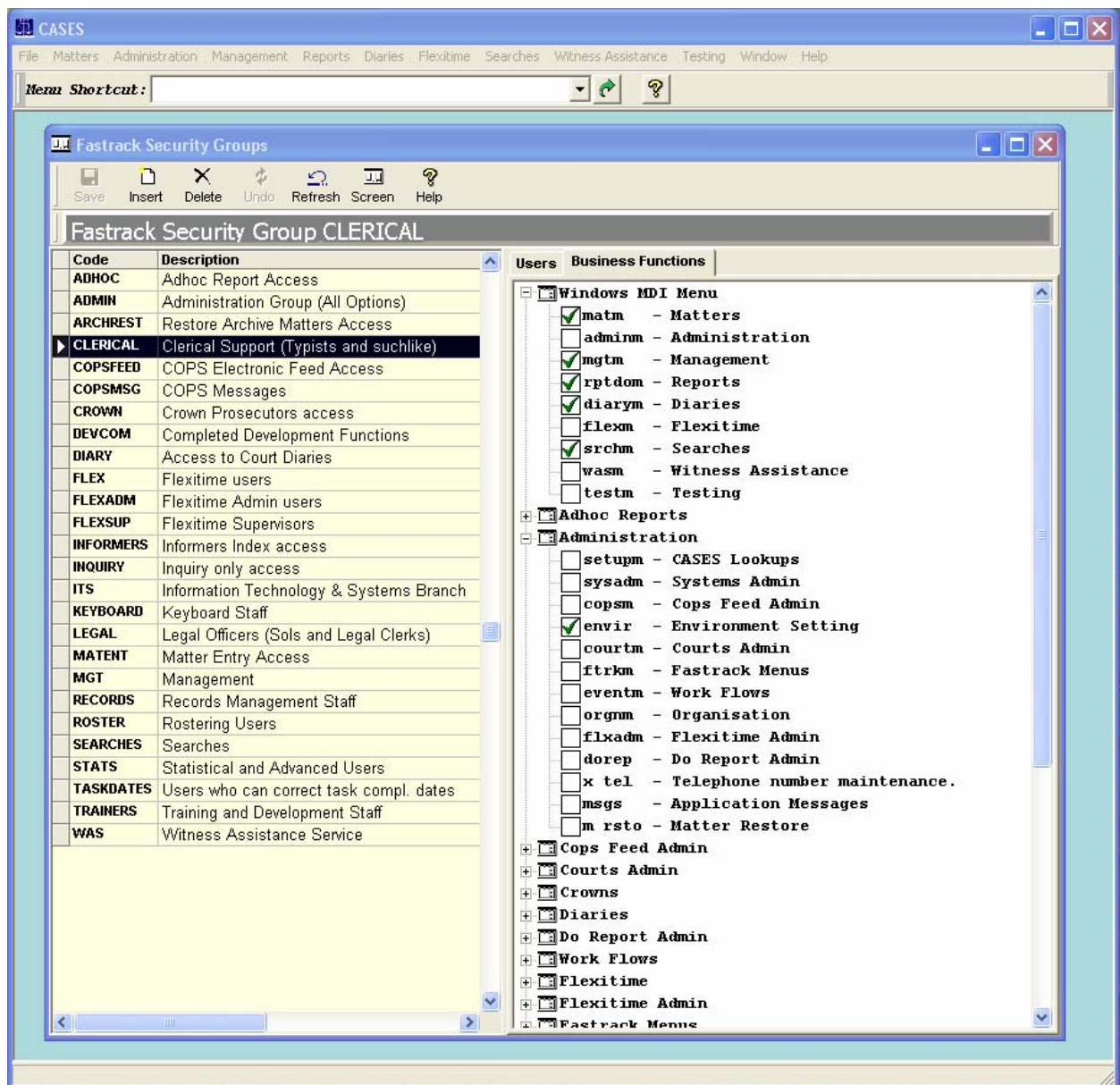
Figure 1

The screen capture above **Figure 1** shows the screen used to create user groups and assign business functions and users to the groups.

The right hand panel shows the business functions and "fasttrack" codes used to gain quick access to these functions. A fasttrack code saves users from having to navigate the menu system for access to business functions they access regularly. These codes can be typed into the Menu shortcut field show in the illustration much like a URL in a web browser. Note that even the main groups which appear in the windows MDI menu can be removed from a users menu providing a very restricted or cut down view of the system.

Figure 2 below shows the users who are members of this group; users can be included or excluded simply by ticking or un-ticking the box. Please note that even though this is development data, login ids have been obscured for security reasons.
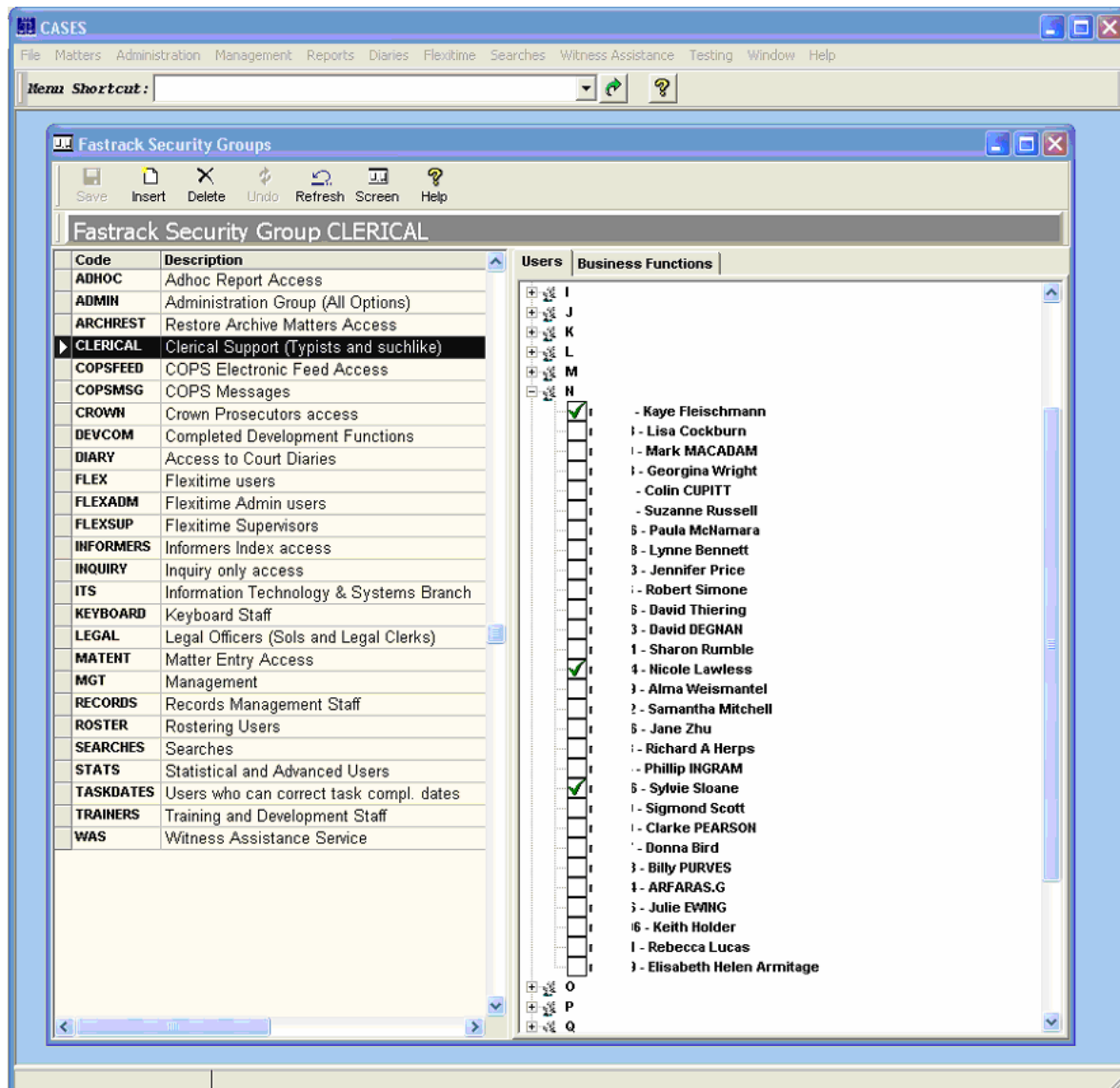
Figure 2

Note that a user can be a member of as many user groups as necessary to provide required access to the system. Typically some user groups are set up to represent roles within the organization, such as clerk or manager and some user groups for grouped and privileged business transactions such as system administration.

7.4.   MATTER SECURITY

Once a user has access to the business functions within the system another layer of security protects the business data objects. In order to view or access a matter the core business object of CASES a user must have security access to that matter. This access is once again handled using sensible defaults (which can be overridden).

All matters within the system are attached to a practice this is a means of grouping cases into bundles of work, another benefit being that if a person is on extended sick leave or leaves the organization their practice can be transferred and covered by another employee. This is a matter of a simple drag and drop of a filing cabinet icon in the organization maintenance

screen **Figure 3**. In this illustration the two Crown clerical support practices are vacant and the case load is being managed by the Clerk to chambers.
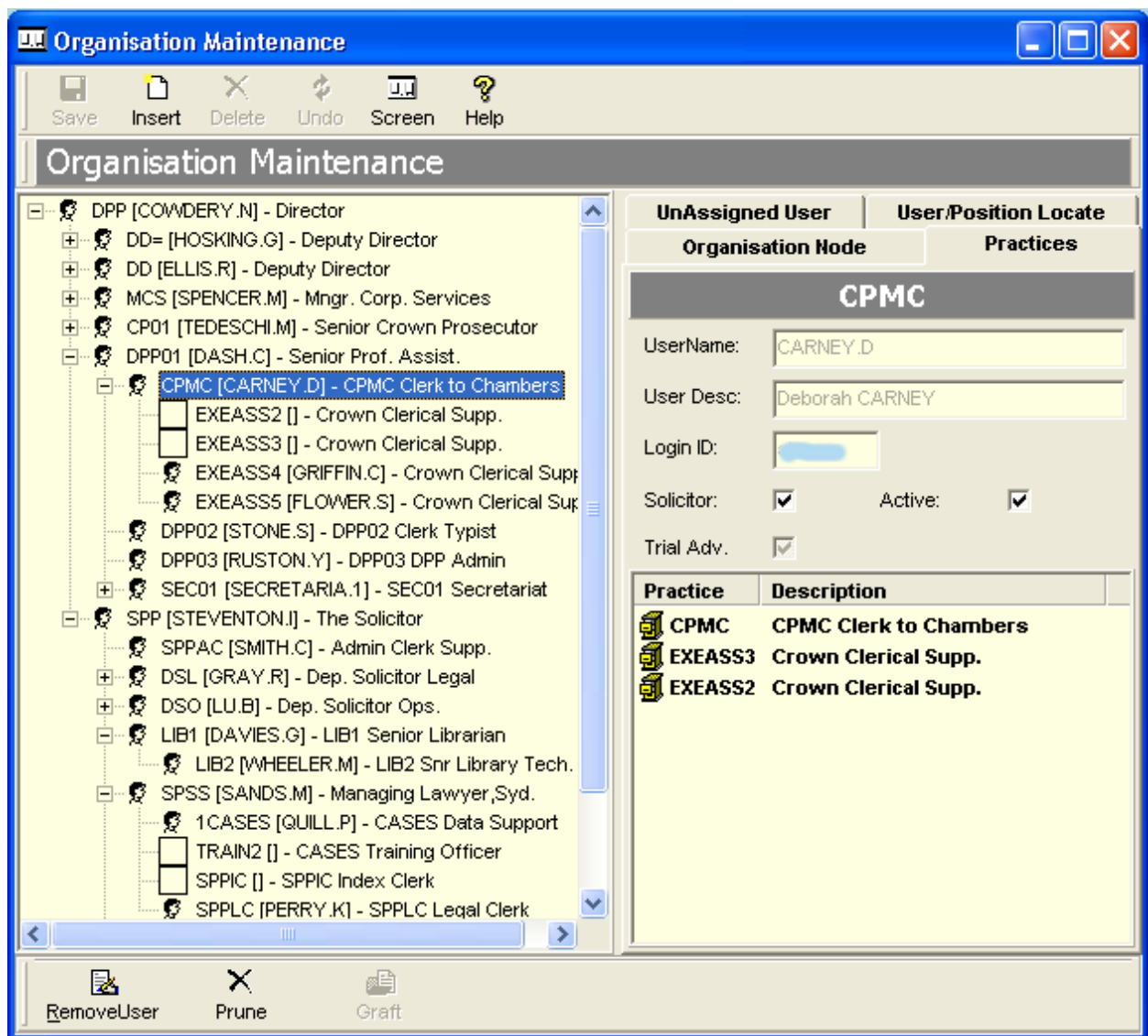
Figure 3

Practices are assigned at any time to a position in the organisation . A position must be filled by a user in order to have practices attached. This gives the user access to the matters within their assigned practice(s), however this also gives access to the matter to their supervisor and their supervisors supervisor all the way up to the head of the organization.

There is also a concept of a set of privileged users who have access to a group of practices in order to access and update the matters . This is typically used to assign access to administrative assistants with group responsibility for posting documents producing reports and other such tasks.

From the matter file cover screen a user can review who has security access to a matter and can actually remove some of the access to others, as shown in **Figure 4** below.
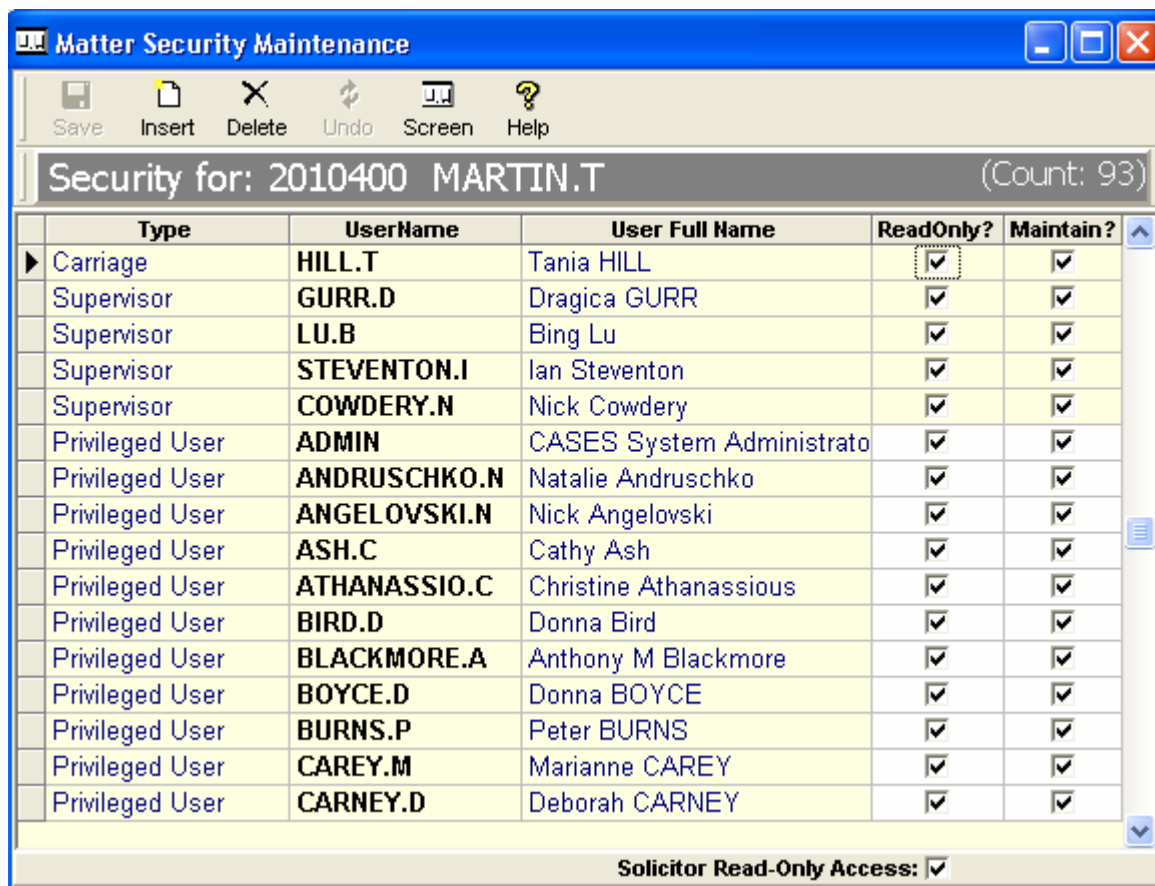
Figure 4

There are even more secure areas of the system where even though access has been granted to the business function, a second password is requested. Such data may even be stored encrypted; such areas include sensitive information such as data pertaining to informers or juveniles.
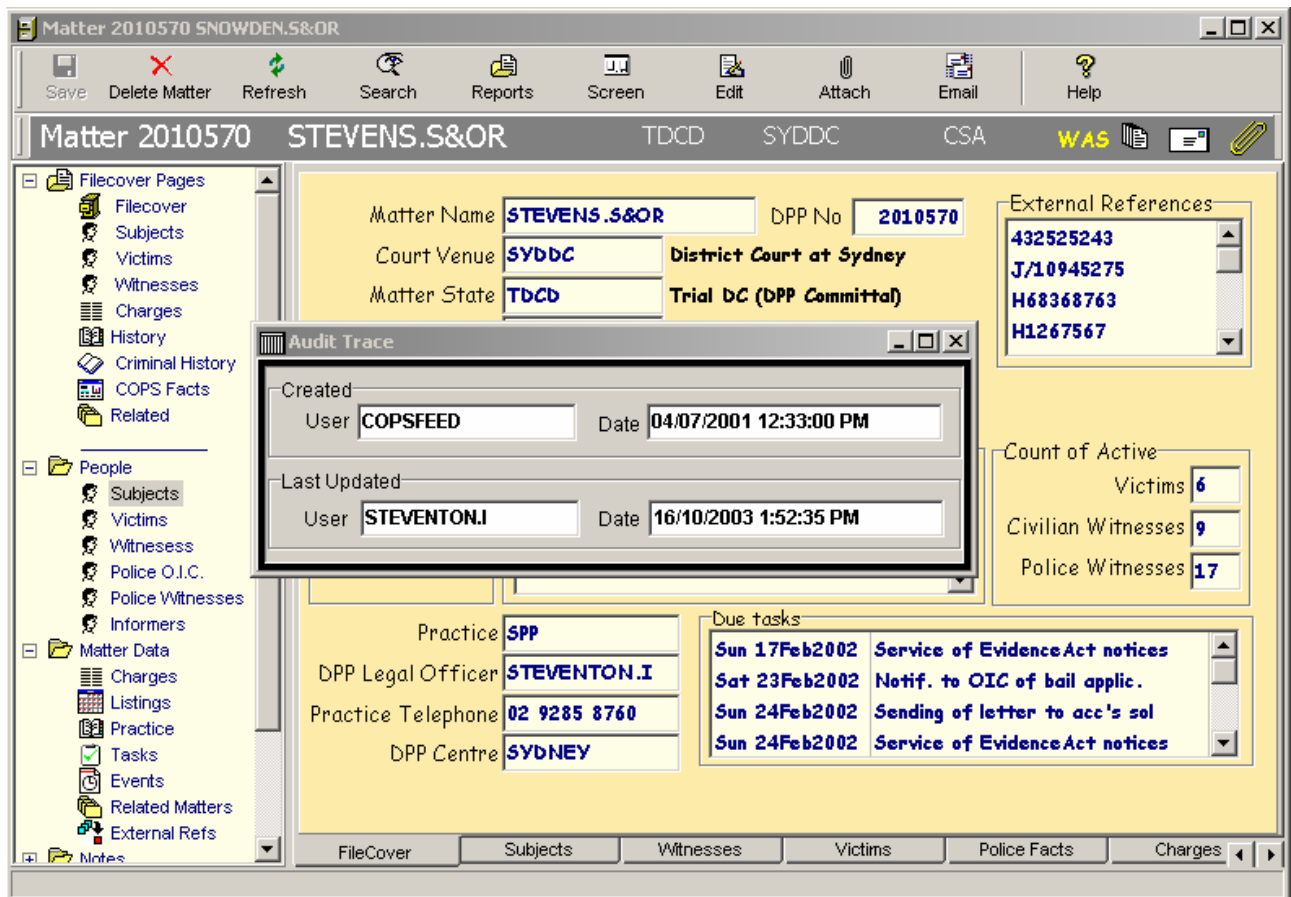
8. AUDITING

CASES maintains three types of audit trail:

➤ Record level auditing

➤ Table level auditing

➤ Session logging.

8.1. RECORD LEVEL AUDITING

Record level auditing is stored in every database table and holds a log of every record recording who created the record and the last user to update. An example of this is shown in **Figure 1**. In most cases deletion of sensitive data is not permitted, for example the only reason the delete matter button appears on the screen below is because the screen capture was produced when logged in with "Delete Matter" privilege. The audit is available by right clicking on the data item and select the audit option from the context popup. In the event of delete audit being required this is implemented using table level audit.

Figure 1

8.2. TABLE LEVEL AUDITING

Table level auditing is used sparingly because of performance implications, a table audit is implemented using table level triggers and all changes to the table are held in an associated audit table. Also by combining the session logging which indicates any UPDATE, INSERT or DELETE that has been performed when and by whom and the associated incremental

system backup it is possible to review any historic delete or change without the overhead of retaining the whole deleted item in both places.

8.3. SESSION LOGGING

Session logging records all actions performed by users within the system such as OPEN for business transactions and INSERT, SAVE DELETE for data (and even READ for key data items). The level of session logging retained by the system is configurable by the system administrator. The table below shows a small extract from the session log table from a development database session, the columns, which show a matter number, indicate which matter was being accessed at the time and by subsequent business transactions.

loginid	logtime	logtype	programname	logtext
ian	16/10/2003 13:43:01.030	LOGIN	CASES	
ian	16/10/2003 13:43:01.153	OPEN	MatterSrchF	
ian	16/10/2003 13:46:28.873	OPEN	FtrkMnuCodeMntF	
ian	16/10/2003 13:47:07.640	OPEN	FtrkCodeMnuMntF	
ian	16/10/2003 13:47:09.827	CLOSE	FtrkCodeMnuMntF	
ian	16/10/2003 13:51:19.857	CLOSE	FtrkMnuCodeMntF	
ian	16/10/2003 13:51:21.043	CLOSE	MatterSrchF	
ian	16/10/2003 13:51:22.933	OPEN	MatterSrchF	
ian	16/10/2003 13:51:27.967	OPEN	MatterMntF	
ian	16/10/2003 13:51:29.717	MATTER	MatterMntF	2010570
ian	16/10/2003 13:51:58.733	OPEN	MatSubjMntF	
ian	16/10/2003 13:52:02.247	OPEN	PersonMntF	
ian	16/10/2003 13:52:26.060	CLOSE	PersonMntF	
ian	16/10/2003 13:52:27.513	CLOSE	MatSubjMntF	
ian	16/10/2003 14:00:21.280	OPEN	MatOutTaskMntF	
ian	16/10/2003 14:00:29.593	OPEN	MatListMntF	
ian	16/10/2003 14:00:36.950	CLOSE	MatListMntF	
ian	16/10/2003 14:00:39.217	OPEN	MatOutTaskMntF_1	
ian	16/10/2003 14:02:19.030	CLOSE	MatOutTaskMntF_1	
ian	16/10/2003 14:02:19.687	CLOSE	MatterMntF	
ian	16/10/2003 14:02:31.653	OPEN	MatterMntF	
ian	16/10/2003 14:02:32.637	MATTER	MatterMntF	2010550
ian	16/10/2003 14:02:40.297	OPEN	MatOutTaskMntF	
ian	16/10/2003 14:02:42.590	CLOSE	MatOutTaskMntF	
ian	16/10/2003 14:02:43.467	OPEN	MatListMntF	
ian	16/10/2003 14:02:57.843	OPEN	MatMapLinkEntF	
ian	16/10/2003 14:03:00.013	CLOSE	MatMapLinkEntF	
ian	16/10/2003 14:03:05.200	CLOSE	MatListMntF	
ian	16/10/2003 14:03:16.280	OPEN	MatOutTaskMntF	
ian	16/10/2003 14:04:30.060	SAVED	MatOutTaskMntF	

9. PRACTICES

CASES has the concept of a "Practice", matters are never assigned directly to people they are always attached to a practice, a practice resides at an organisational location and is assigned to an authorised system user. This allows for circumstances where people leave the organisation, take leave or are off sick, rather than their matters being unattended their practice can be covered by another staff member in their absence.

9.1. PRACTICE MAINTENANCE

The administration of the organisation structure is managed by the system administrators, or senior users, the system security uses the management hierarchy to control the security access to matters.
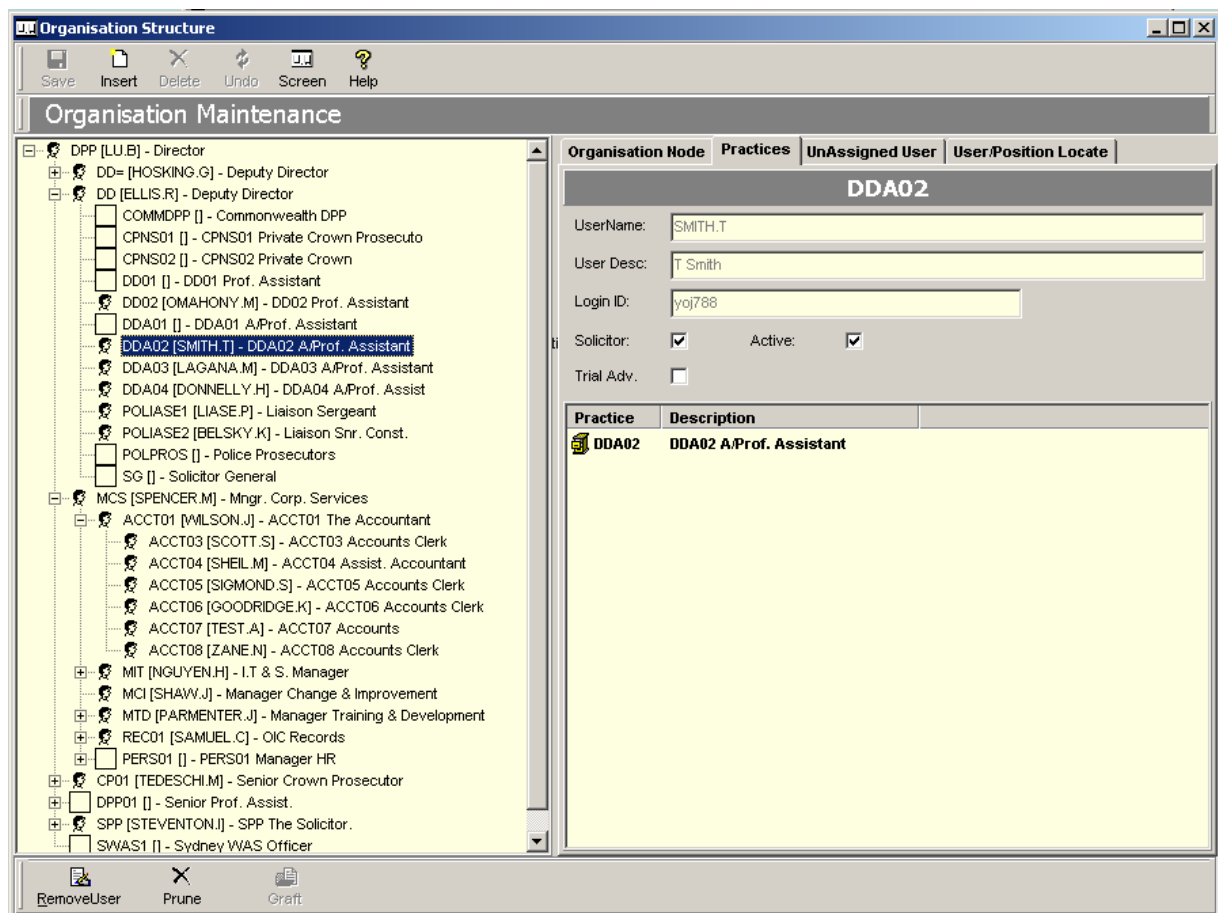
Figure 1

Moving a practice is a simple matter of dragging the filing cabinet icon onto the user tree on the left hand side.

The illustration below shows the situation where a manager is covering a practice for which the organizational position is currently vacant. The manager in position S201 is running both practices until the position is filled obviously this could also be delegated to another.
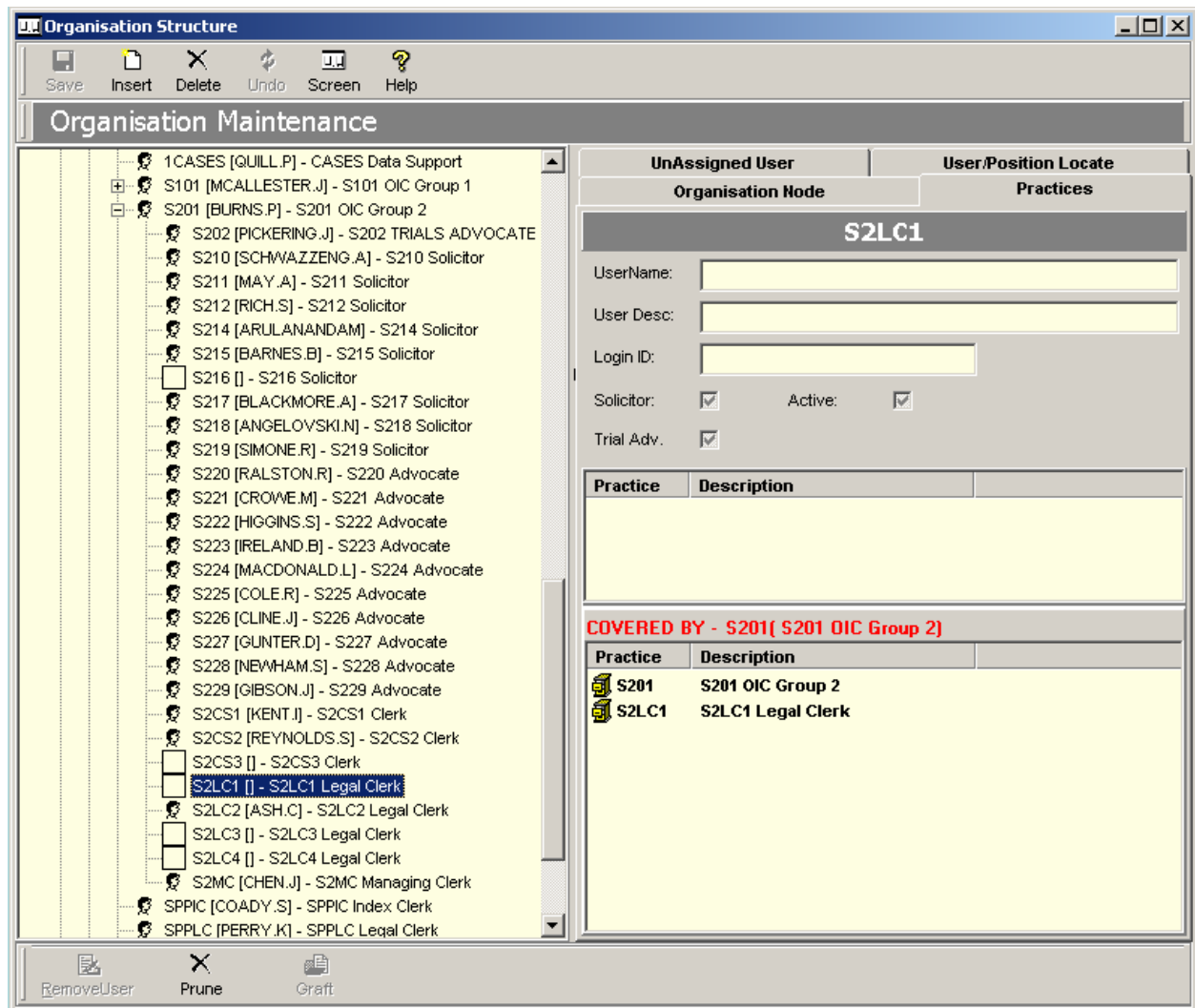
Figure 2

9.2. ASSIGNING A MATTER TO ANOTHER PRACTICE

This is a simple matter for the user who has carriage of the matter, or managers with update clearance the new practice is selected from a drop down list available from the matter file cover.
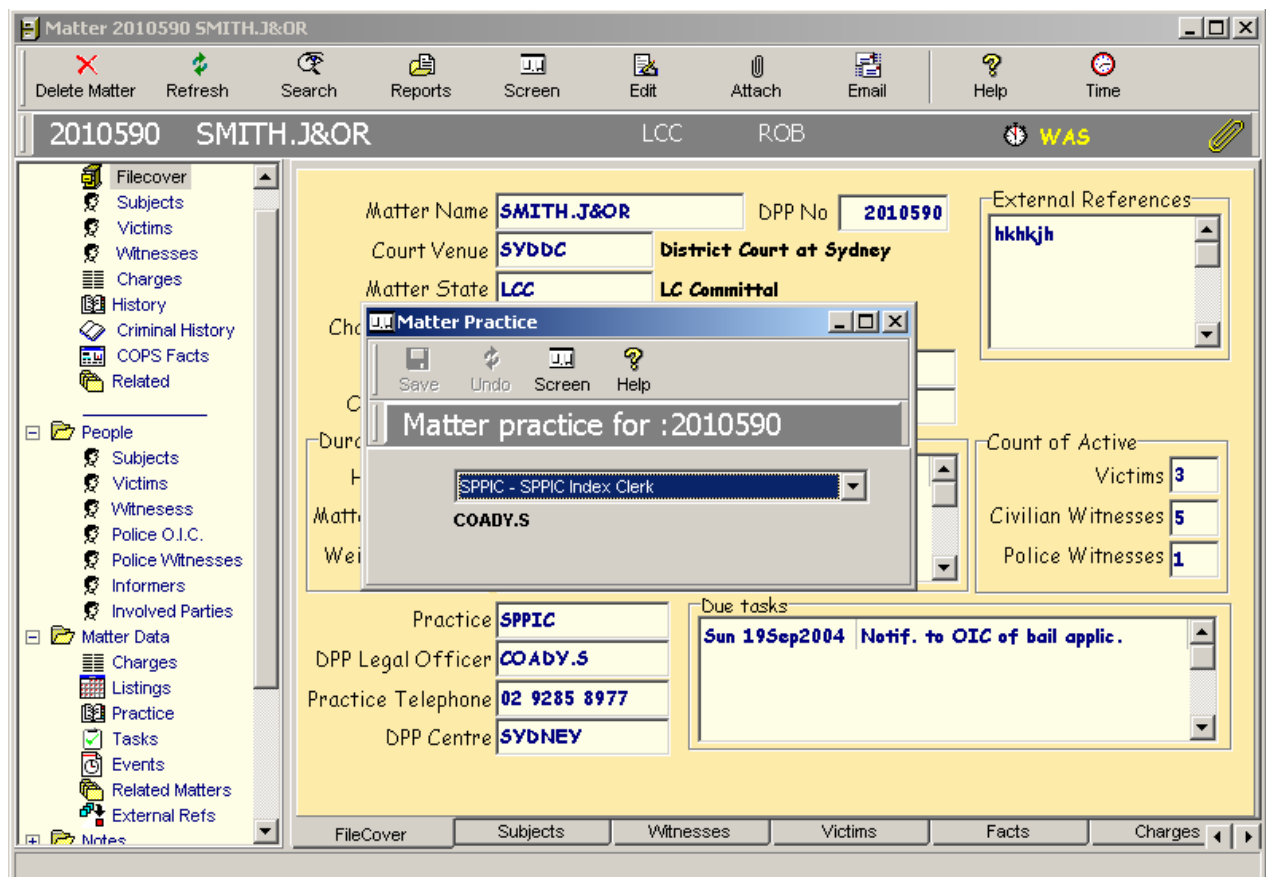
Figure 3

The practice transfer shows up in the matter history as a new ALLOCATION as shown in **Figure 4** above, the matter would then appear on the matter carriage workface of the user assigned to the new practice.
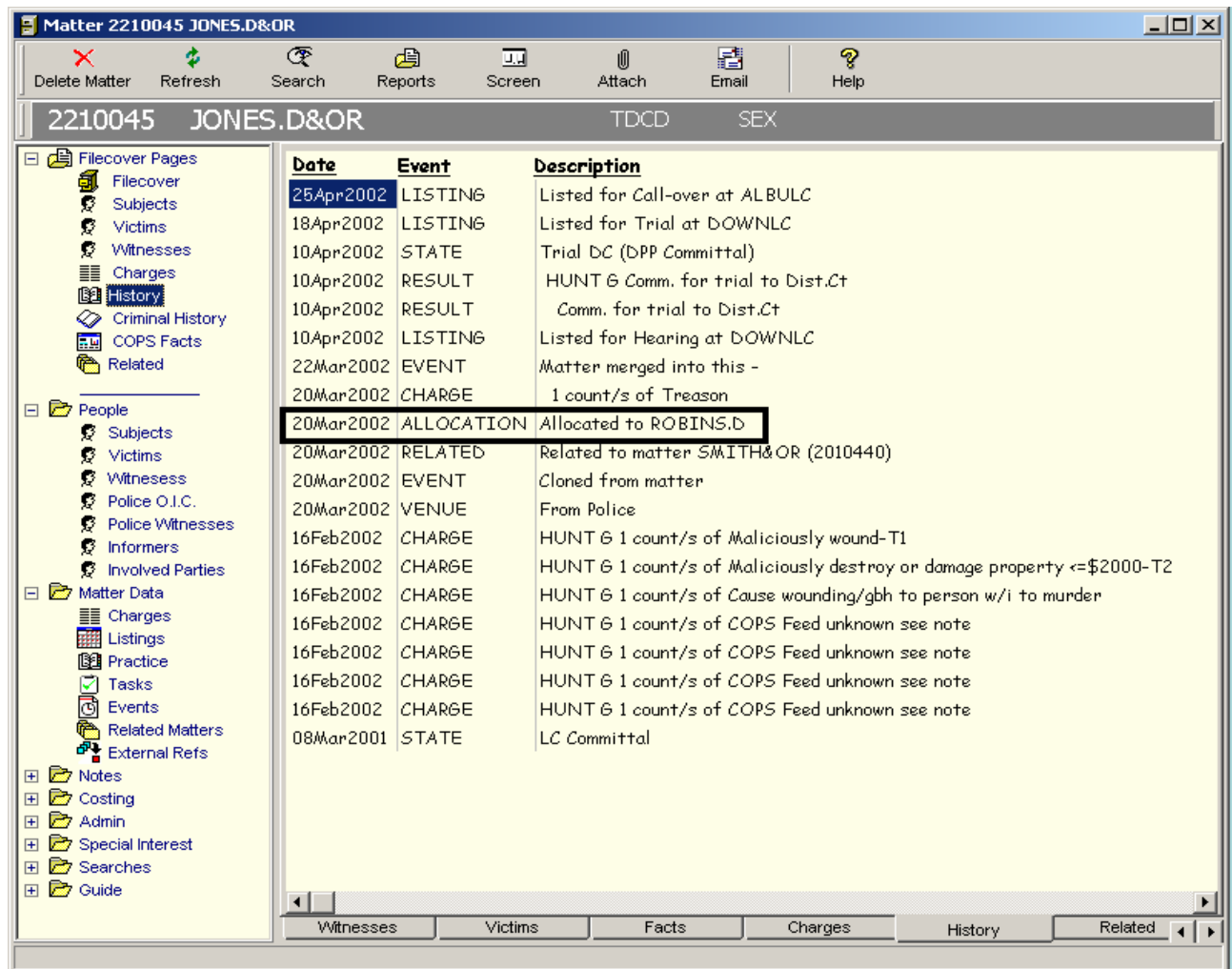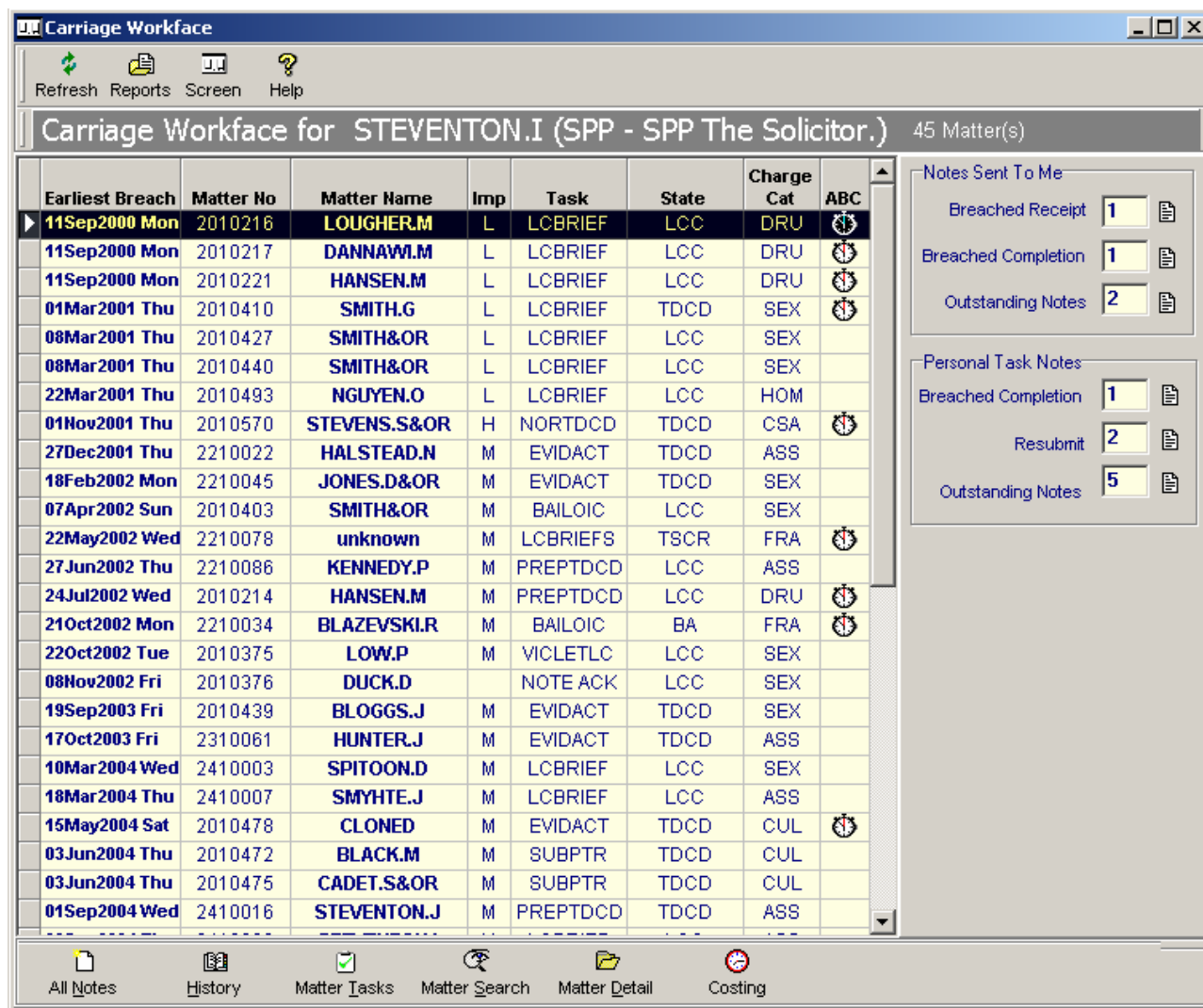
Figure 4

Note that a matter can never, slip between the cracks by being allocated to an inactive or vacant practice.
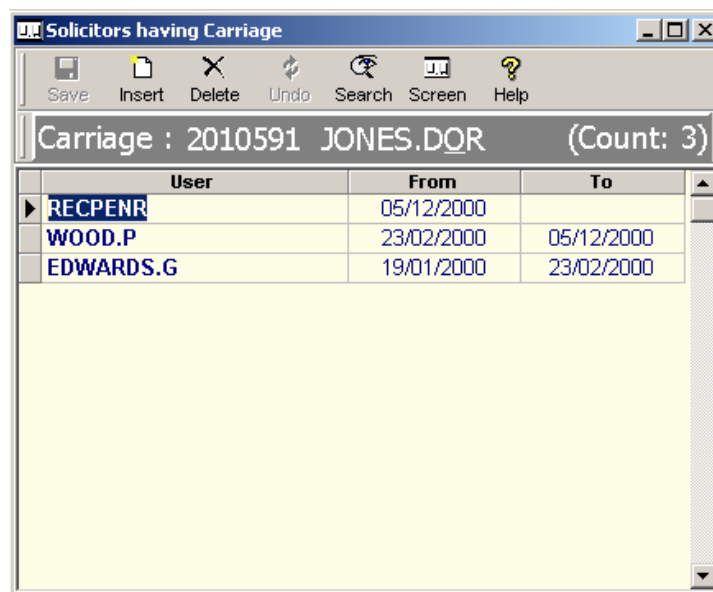
The history of carriage can also be reviewed in the above popup available from the file cover screen.

9.3. MATTER CARRIAGE WORKFACE

Users who are assigned a practice or practices are deemed to have "Carriage" of the practice and all of its associated matters. The screen shown below is used in order to allow the user to quickly review and work with the matters in their practice(s). The user can quickly review and rectify any breaching activities within their practice, review the history of a matter, complete tasks, send and respond to file notes, and even manage whether matters are costed and record time against them for costing purposes. The column headed ABC stands for activity based costing; a stopwatch icon indicated that time is to be recorded for costing purposes.

Figure 5

9.4. MANAGEMENT PRACTICE REVIEW

The practice review screen and reports allow users and managers to drill down and review the allocation and status of weighted and sized caseload throughout the organisation.
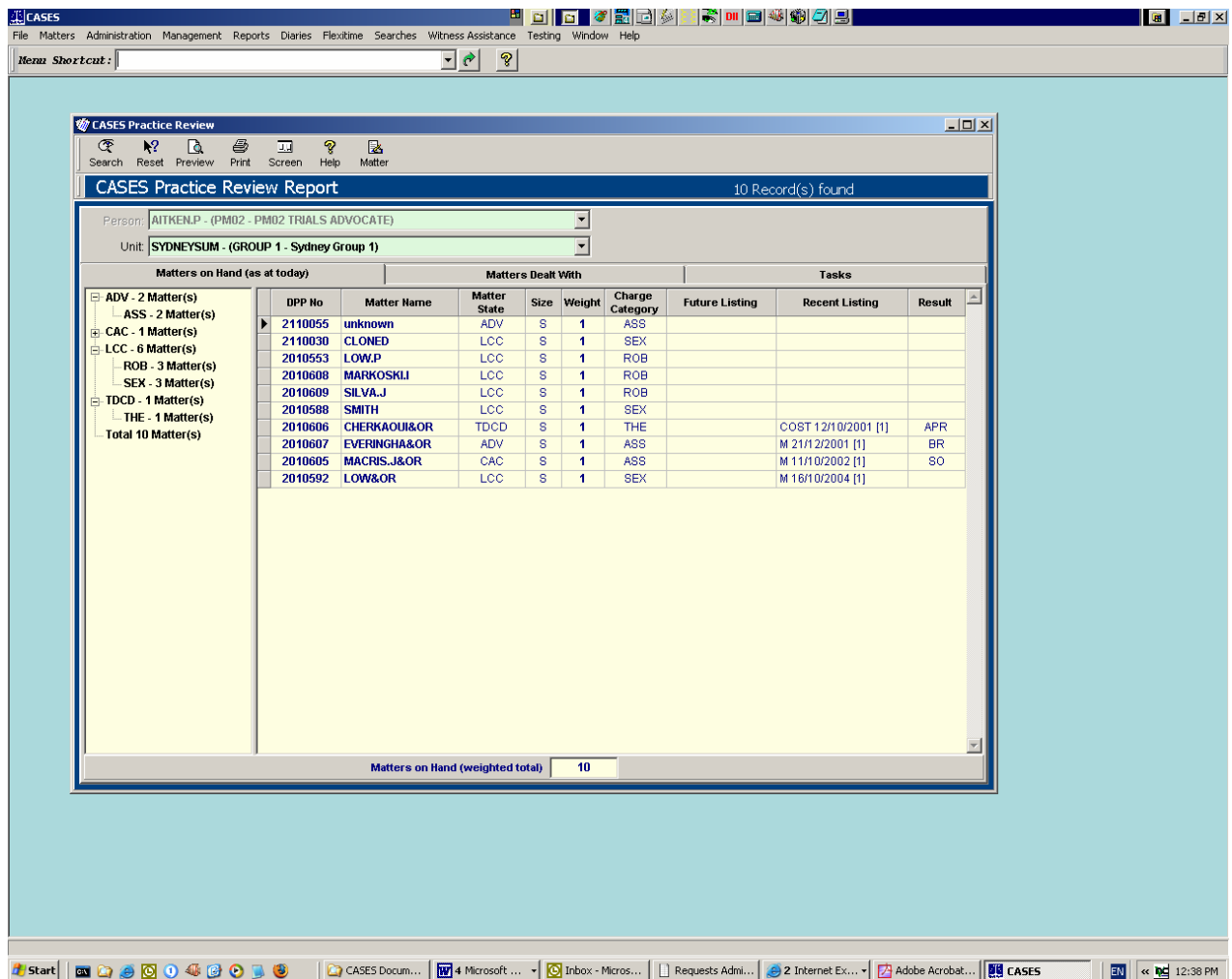
Figure 6

Data at any point can be captured as a Word document and printed, saved in the EDMS or emailed as required.

The screen below allows a supervisor to review the outstanding or breached tasks due in the practices of their reporting group. Note that the review can be restricted by importance, specific or wildcard task codes or date range above and beyond practice.

Figure 7

10. WORKLOAD MANAGEMENT

CASES includes a suite of management review screens designed to give an overview of the workload across the organisation, allowing managers to balance and re-distribute the caseload.

Some screens from the workload management area of CASES are shown below. These are just a sample of the online screens and transactions available in this area.
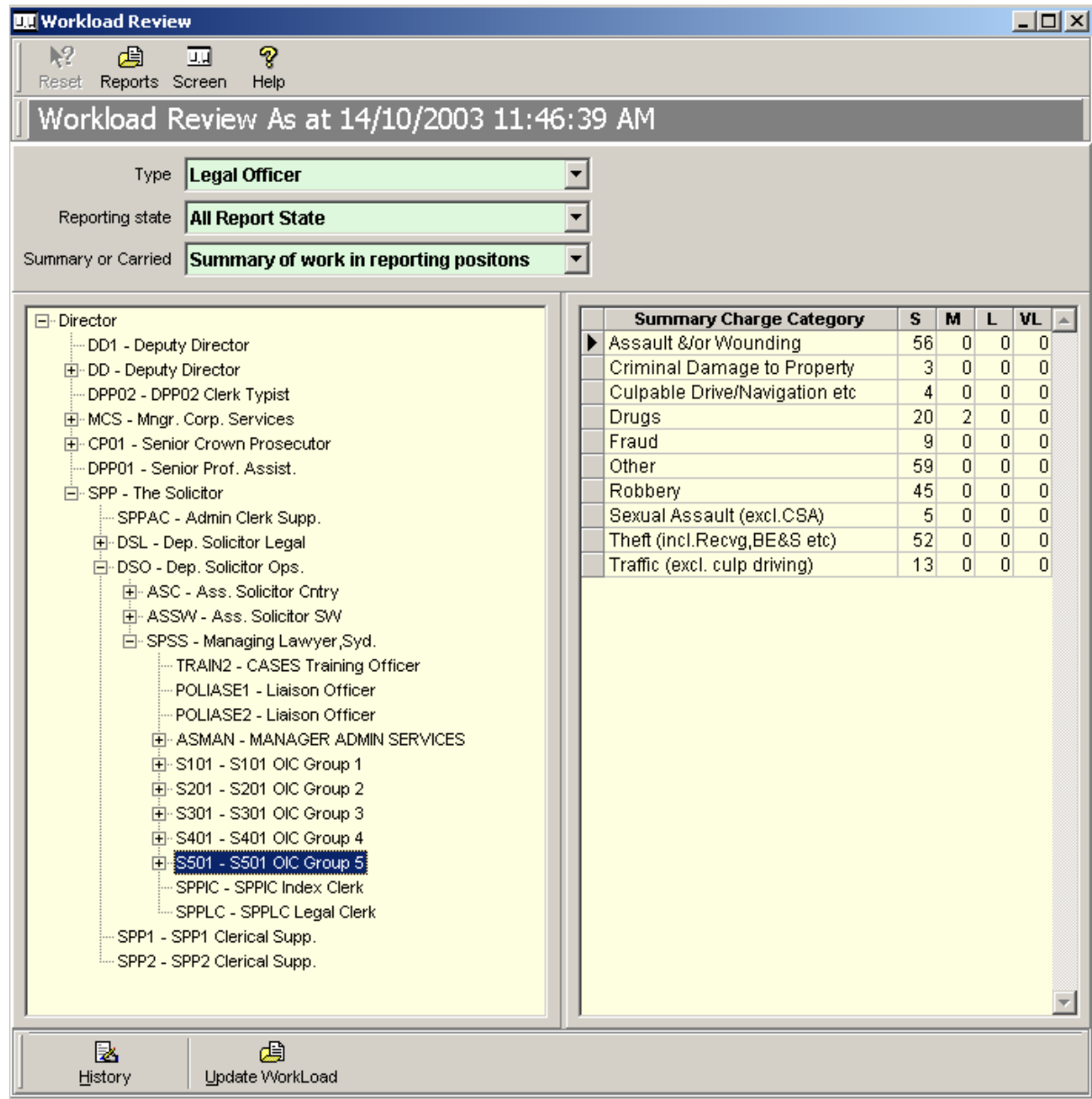

Figure 1

Each of these screens allows a supervisor to drill down into organisational areas allowing a top down review of the workloads across the operational groups.
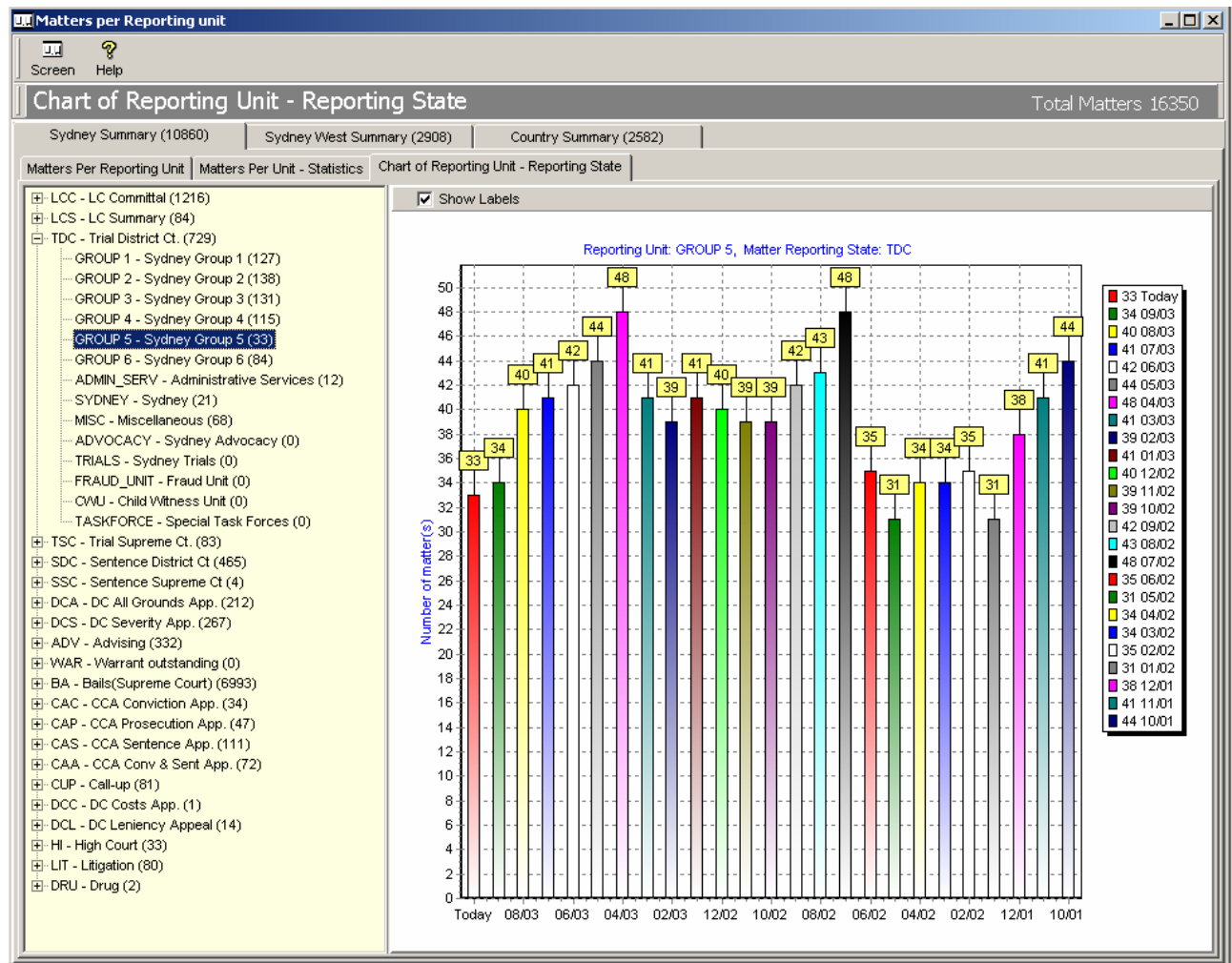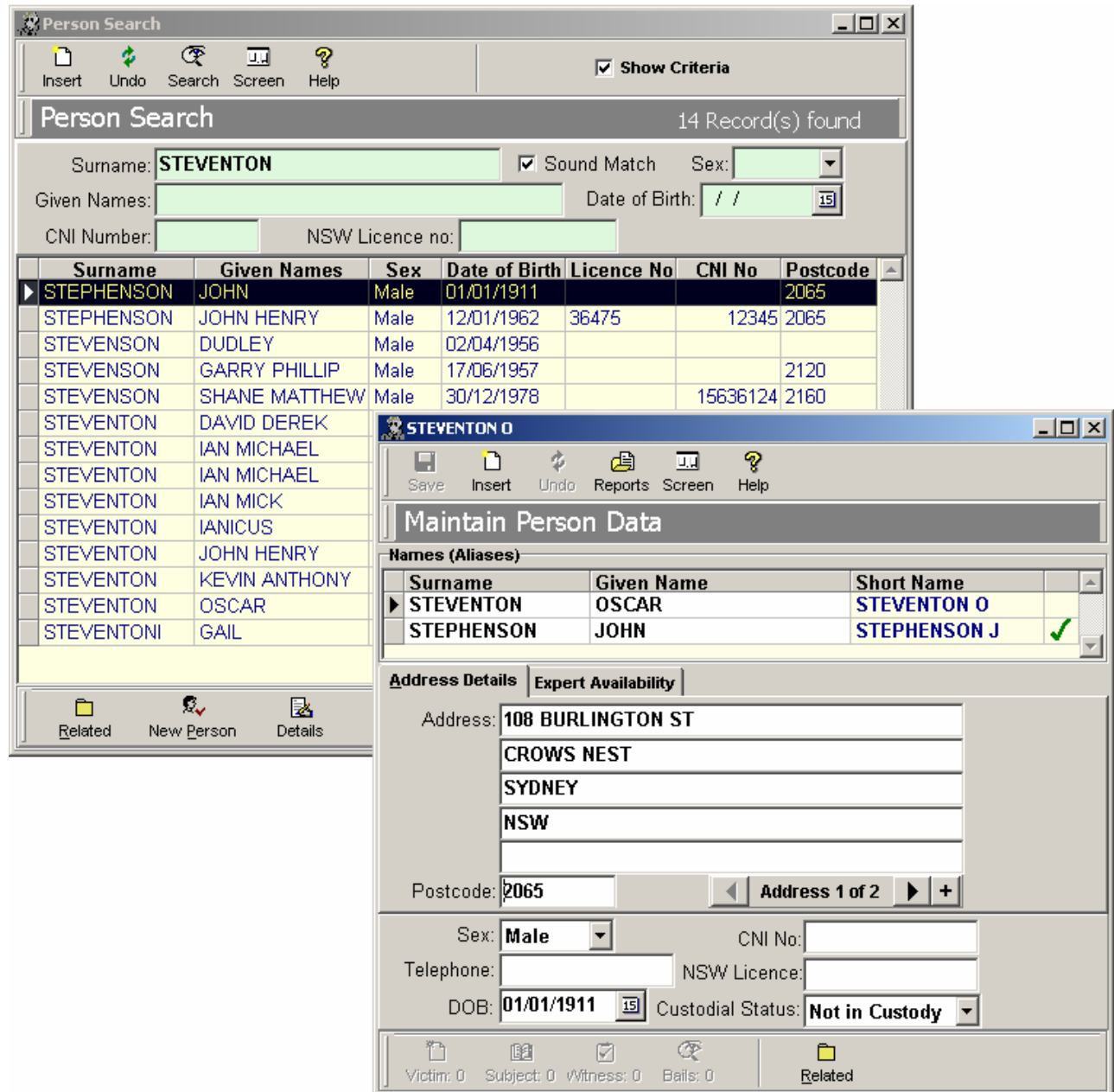
Figure 2

Screens use both graphical and numeric presentation to allow supervisors to review workload.

Matters per Reporting unit

Screen   Help

Matters Per Unit - Statistics   Total Matters 16350

Sydney Summary (10860) | Sydney West Summary (2908) | Country Summary (2582)

Matters Per Reporting Unit | Matters Per Unit - Statistics | Chart of Reporting Unit - Reporting State

End Of Month Counts for TDC

Reporting Unit	Today	09/03	08/03	07/03	06/03	05/03	04/03	03/03	02/03	01/03	12/02	11/02	10/02	09/02	08/02	07/02	06/02	0
Sydney Group 1	127	127	123	110	114	111	128	129	129	124	130	139	139	137	139	142	152	1₄
Sydney Group 2	138	129	118	110	120	158	154	156	153	150	154	154	156	146	138	145	136	1₂
Sydney Group 3	131	130	134	146	152	147	147	144	134	138	144	135	133	138	125	119	114	1₀
Sydney Group 4	115	126	127	126	127	162	156	151	154	143	141	136	159	152	161	143	133	1₃
Sydney Group 5	33	34	40	41	42	44	48	41	39	41	40	39	39	42	43	48	35	3₁
Sydney Group 6	84	88	83	86	87	59	60	63	70	72	67	60	57	56	48	50	54	5₆
Administrative Services	12	10	10	6	7	6	9	8	8	8	9	11	13	8	9	11	16	1₃
Sydney	21	23	25	23	23	22	22	22	27	24	27	22	24	25	25	26	23	3₄
Miscellaneous	68	65	60	64	56	50	49	45	43	42	41	39	34	33	28	27	26	2₆
Sydney Advocacy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sydney Trials	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fraud Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Child Witness Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Task Forces	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	729	732	720	712	728	759	773	759	757	742	753	735	754	737	716	711	689	6₆

Monthly Percentage Change for TDC

Reporting Unit	Today	09/03	08/03	07/03	06/03	05/03	04/03	03/03	02/03	01/03	12/02	11/02	10/02	09/02	08/02	07/02	06/02	0
Sydney Group 1	0%	3.2%	11.8%	-3.5%	2.7%	-13.2%	-0.7%	0%	4.0%	-4.6%	-6.4%	0%	1.4%	-1.4%	-2.1%	-6.5%	4.1%	-1
Sydney Group 2	6.9%	9.3%	7.2%	-8.3%	-24.0%	2.5%	-1.2%	1.9%	2%	-2.5%	0%	-1.2%	6.8%	5.7%	-4.8%	6.6%	11.4%	2.
Sydney Group 3	0.7%	-2.9%	-8.2%	-3.9%	3.4%	0%	2.0%	7.4%	-2.8%	-4.1%	6.6%	1.5%	-3.6%	10.4%	5.0%	4.3%	4.5%	-9
Sydney Group 4	-8.7%	-0.7%	0.7%	-0.7%	-21.6%	3.8%	3.3%	-1.9%	7.6%	1.4%	3.6%	-14.4%	4.6%	-5.5%	12.5%	7.5%	0.7%	-5
Sydney Group 5	-2.9%	-15%	-2.4%	-2.3%	-4.5%	-8.3%	17.0%	5.1%	-4.8%	2.5%	2.5%	0%	-7.1%	-2.3%	-10.4%	37.1%	12.9%	-8
Sydney Group 6	-4.5%	6.0%	-3.4%	-1.1%	47.4%	-1.6%	-4.7%	-10%	-2.7%	7.4%	11.6%	5.2%	1.7%	16.6%	-4%	-7.4%	-3.5%	-1
Administrative Services	20%	0%	66.6%	-14.2%	16.6%	-33.3%	12.5%	0%	0%	-11.1%	-18.1%	-15.3%	62.5%	-11.1%	-18.1%	-31.2%	23.0%	-7
Sydney	-8.6%	-8%	8.6%	0%	4.5%	0%	0%	-18.5%	12.5%	-11.1%	22.7%	-8.3%	-4%	0%	-3.8%	13.0%	-32.3%	3₀
Miscellaneous	4.6%	8.3%	-6.2%	14.2%	12%	2.0%	8.8%	4.6%	2.3%	2.4%	5.1%	14.7%	3.0%	17.8%	3.7%	3.8%	0%	0⁰
Sydney Advocacy	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
Sydney Trials	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
Fraud Unit	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
Child Witness Unit	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
Special Task Forces	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø

Figure 3

11. PARTY DATABASE

11.1. PERSONS & ORGANISATIONS (PARTIES)

All persons or organisations (parties) known to the system are recorded in a self-contained repository. This party data is then associated with a matter by virtue of the role the party performs in the matter such as subject, victim, and witness.

Figure 1

The illustration above shows a simple search by surname including "sounds like" and also illustrates the person details administration popup showing aliases and indicating which is the current "best" name for the person. This person also has two addresses on record as indicated beneath the address in the above **Figure 1**.
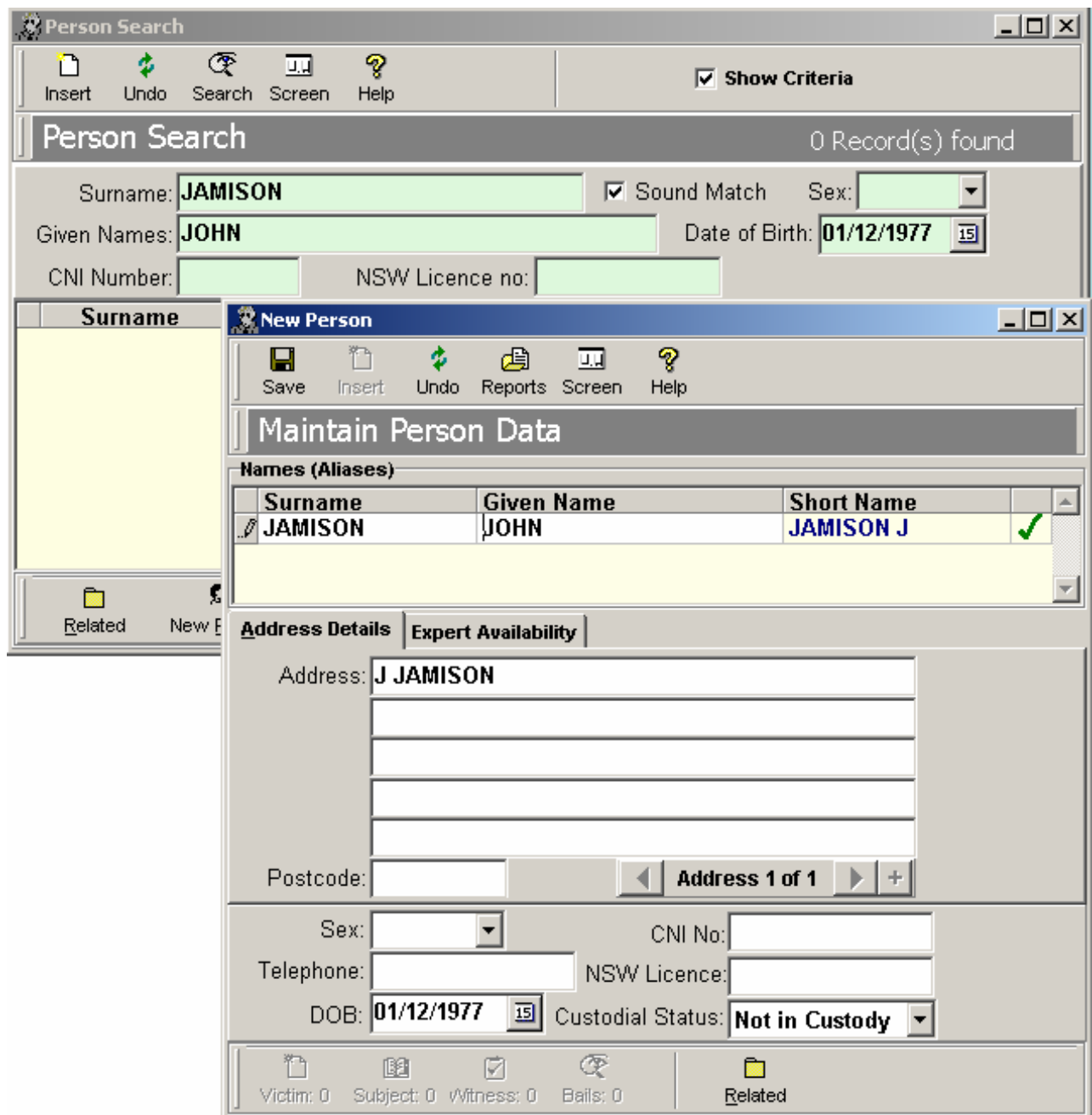
No new person can be created in the system without first performing a basic search for the person **Figure 2**. If the search is unsuccessful then the details used in the search automatically become part of the person entry **Figure 3** (avoiding re-typing). This prevents unnecessary re-entering of existing persons and more importantly allows the system to display all matters that a person is associated with no matter what role the perform.

Figure 2

Figure 3 illustrates the state the person data comes up in when the "Yes" button is clicked in the previous dialog much of the data has been pre-populated.

Figure 3

CASES can also be configured to support a party database containing persons only, organisations only or a mixture of the above; this is achieved with a single configuration parameter set by the system administrator, attributes and search criteria change accordingly. **Figure 2** below shows the search screen where the party type has been set to permit both, selection occurs in the drop down list at the top of the screen.

Figure 2

12. SEARCHING

There are a number of powerful search screens in the application including matter, person and document searches as described below.

12.1. MATTER SEARCH

The matter search allows a user to enter a number of key matter related attributes and find all related matters. In the illustration shown in **Figure 1** the user has requested all maters where a related subject has a surname, which sounds like "STEVENTON". The obvious problem here being that more than one subject matches the criteria. Rather than show a list of matters, the system show a list of people who match, by choosing any person or set of persons from the list the matters shown on the other search result tab are those where the selected person(s) are the subject or one of the subjects. If the person was attached under an alias the Surname field would show something like "SMITH aka STEVENTON".

Figure 1

In **Figure 2** below the user has selected one of the people from the list and moved to the matter tab to review the matters in which this person is a subject.

Figure 2

12.2.   MATTER TEXT SEARCH

It is also possible to search for all matters that contain a text string in the various textual fields of the matter record **Figure 3** shows a search for the word "test" in the development database. All instances of the targeted word are highlighted in red in the target text.
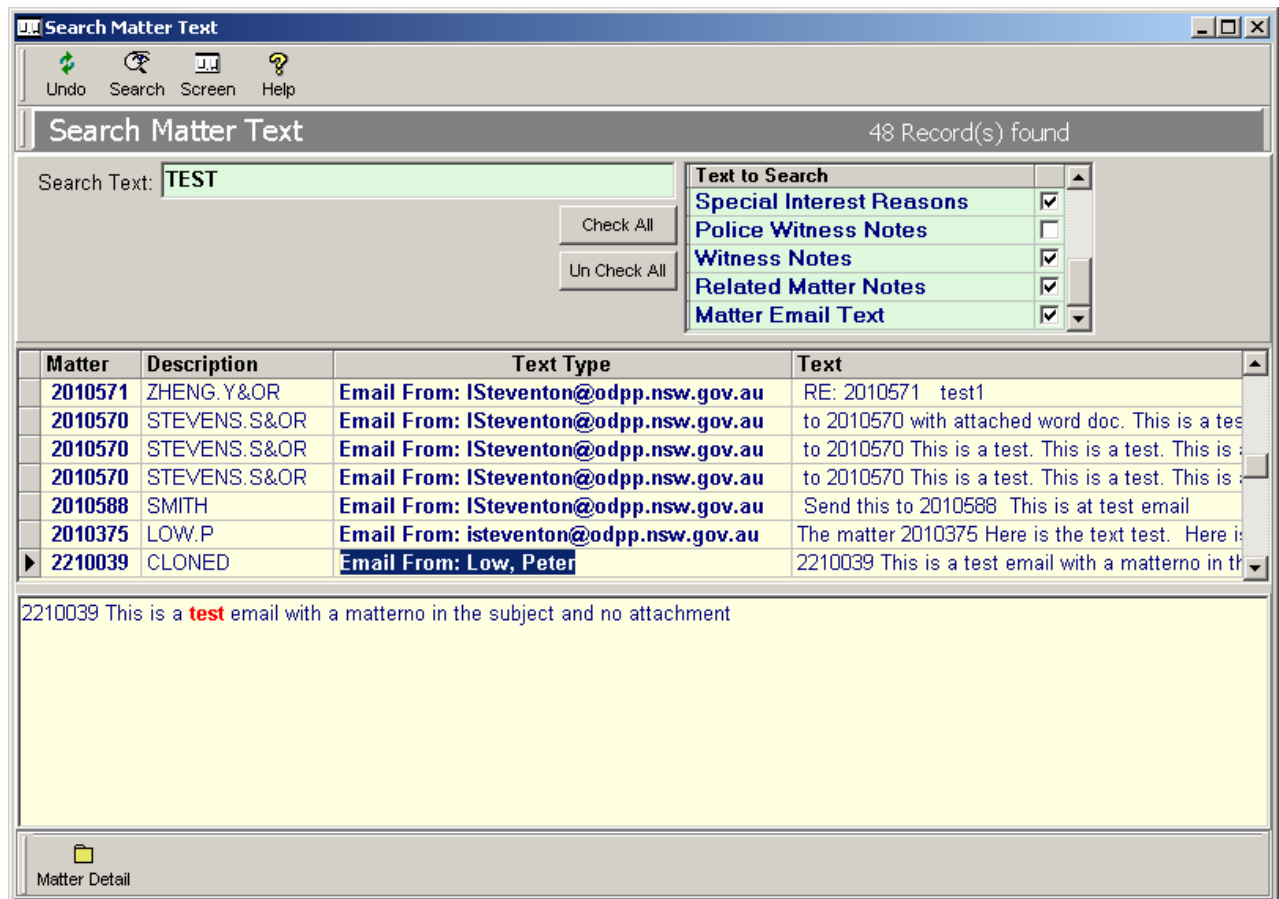
Figure 3

12.3. DOCUMENT SEARCH

The illustration below **Figure 5** show a simple document search using the integrated document management server, this search relates document to matter workflow data. A more detailed description of document searching and document management within CASES can be found in the document "CASES Document Management".
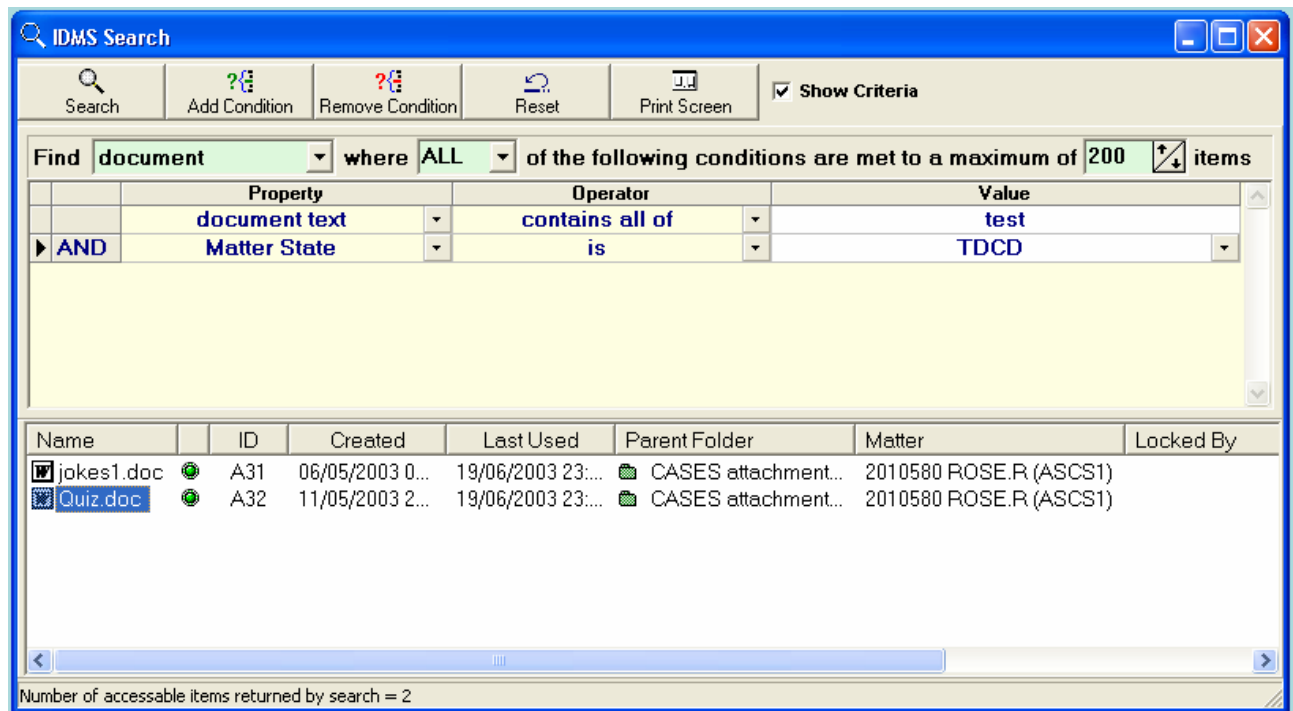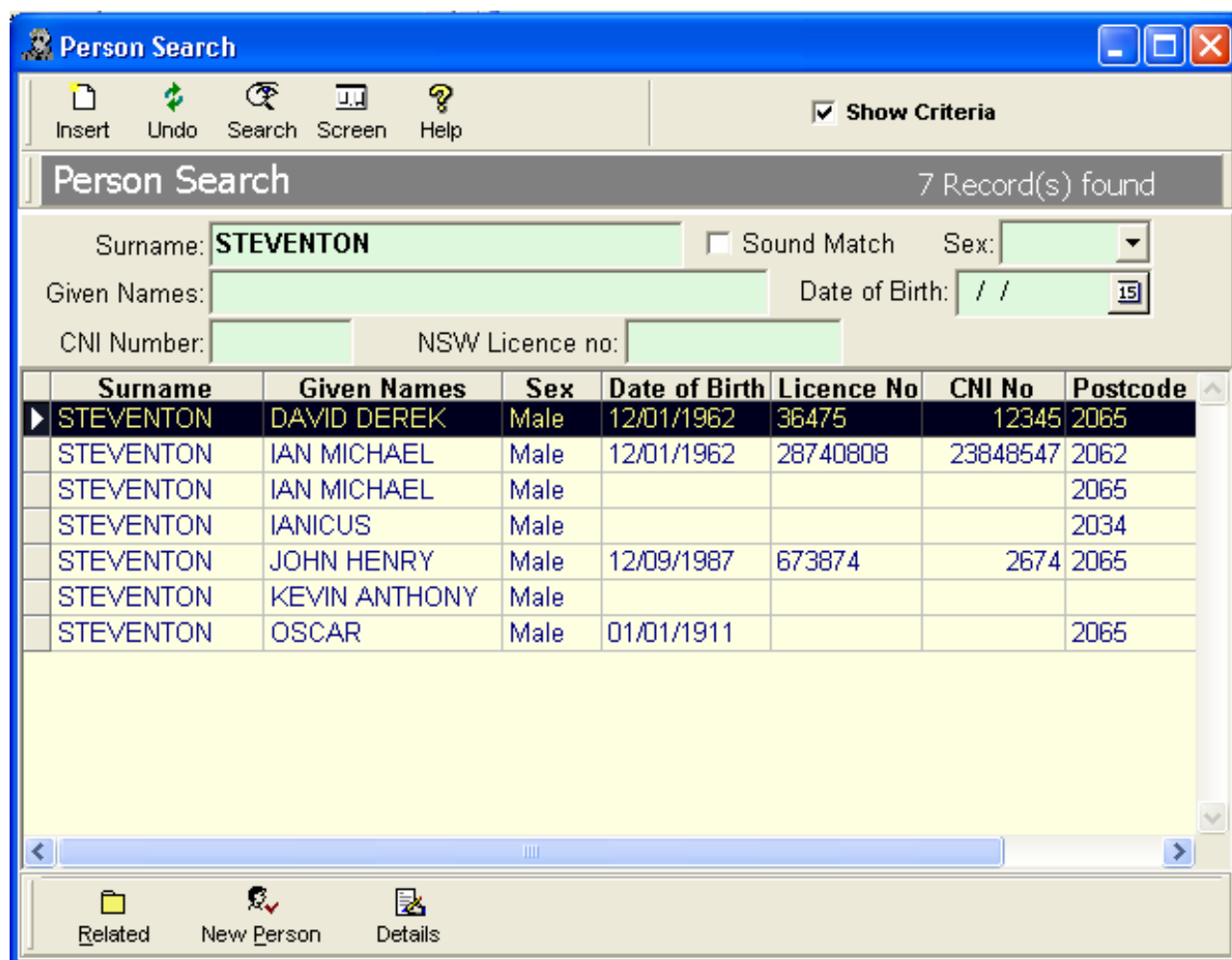
Figure 4

12.4.   PERSON SEARCH

The person search allows a user to enter a number of key person related attributes and find all related people. In the illustration shown in **Figure 3** the user has requested all people with a surname of STEVENTON, **Figure 4** shows people where the surname sounds like "STEVENTON".

Figure 5

In **Figure 4** below the user may choose any person from the list and show the matters where this person is involved and the nature of their involvement. The user may then proceed directly to the filecover for any matter in this list by a mouse click.

Figure 4

12.5.   LEGISLATION SEARCH

CASES contains a searchable database of legislation which in the case of legal data is populated from the Judicial Commission using an agent to keep the data synchronized. The search shown below shows a user searching for all legislation containing the word JUNKET anywhere in the text, the search is not cases sensitive.

Figure 7

13. REPORTING

CASES provides the following reporting capabilities.

➤ Online reports or query screens.

➤ Printed reports using WordReports or Automating Microsoft Excel.

➤ Ad-hoc reports using any SQL based reporting tool.

13.1. ONLINE REPORTS OR QUERY SCREENS

These allow users to make inquiries of the system and review data without producing large amounts of paper. These reports where printed for staff on a daily, weekly or monthly basis, until it became apparent that they where comfortable using the online review. All of these online queries allow column re-ordering, sorting, print preview and printing as "WordReport" documents.

Figure 1

The above online query screen shows a simple parameter and result table query where the outcome can be previewed and printed. **Figure 2** below shows the results of pressing the preview button, note that test and development reports are automatically watermarked to prevent posting in error, this is done by the application not by maintaining multiple variants of document templates.

13.2. PRINTED REPORTS USING WORDREPORTS

CASES has its own integrated document and report production tool described in the section "CASES Word Reports", note that this was used to produce the report in the illustration below **Figure 2**.

Figure 2

13.3. AD-HOC REPORTS USING ANY SQL BASED REPORTING TOOL

Since the CASES database uses an industry standard database (Microsoft SQL Server, Oracle or Sybase) any commercially available end user reporting tool can be used to create reports. This is however under the control of the system administrator and is usually provided through limited access logins to maintain system performance and data security.

It is also quite straightforward to provide quick ad-hoc responses to user enquiries using SQL by IT programming staff.

14. WORD REPORTS

Word Reports is a reporting tool, which is built into CASES and permits the generation of documents in Microsoft Word format.

Users construct templates using Microsoft Word, and populate these templates with data sourced from different data repositories.

A report consists of a template and a set of associated data sources, each of these data sources can be drawn from a standard library of existing data sources, which can be extended by programming staff or end users.
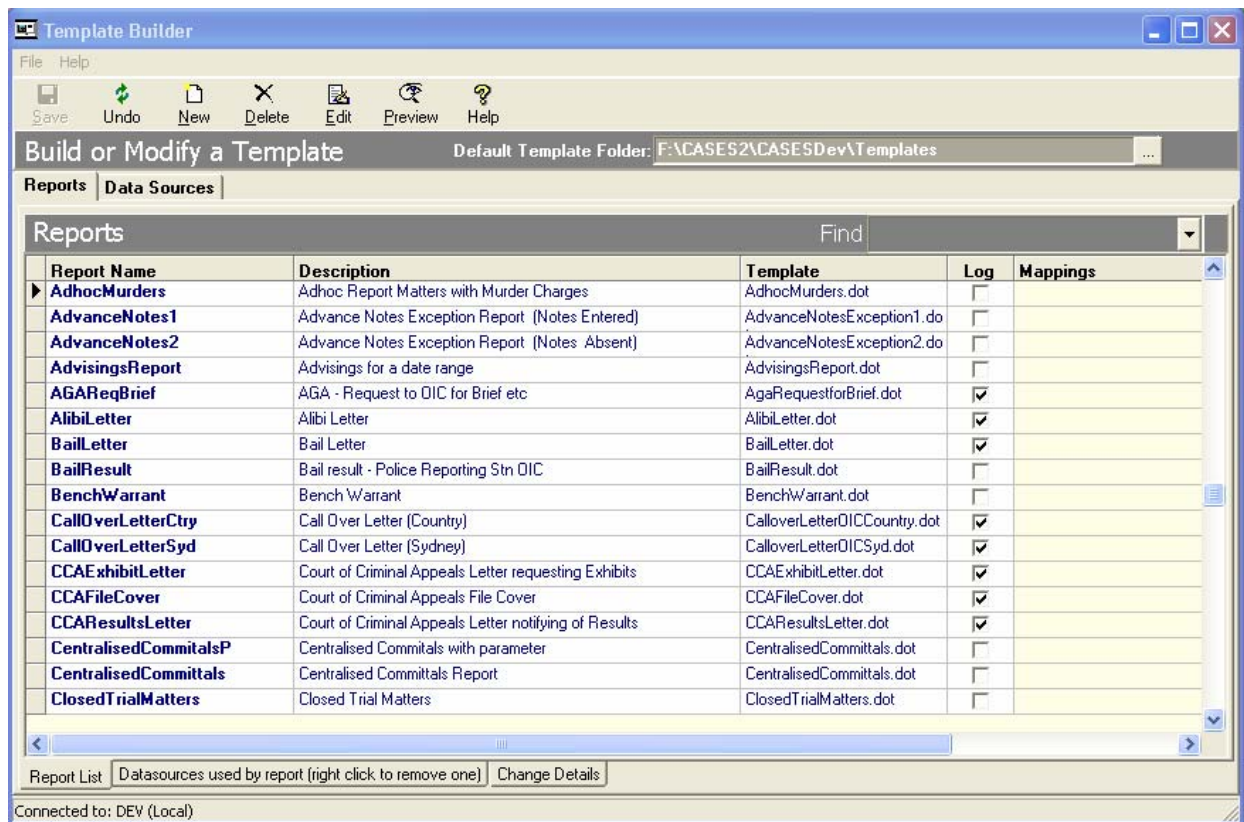
Figure 1

The above illustration **Figure 1** shows the set of defined reports in the database. **Figure 2** below shows the library of available data source definitions.
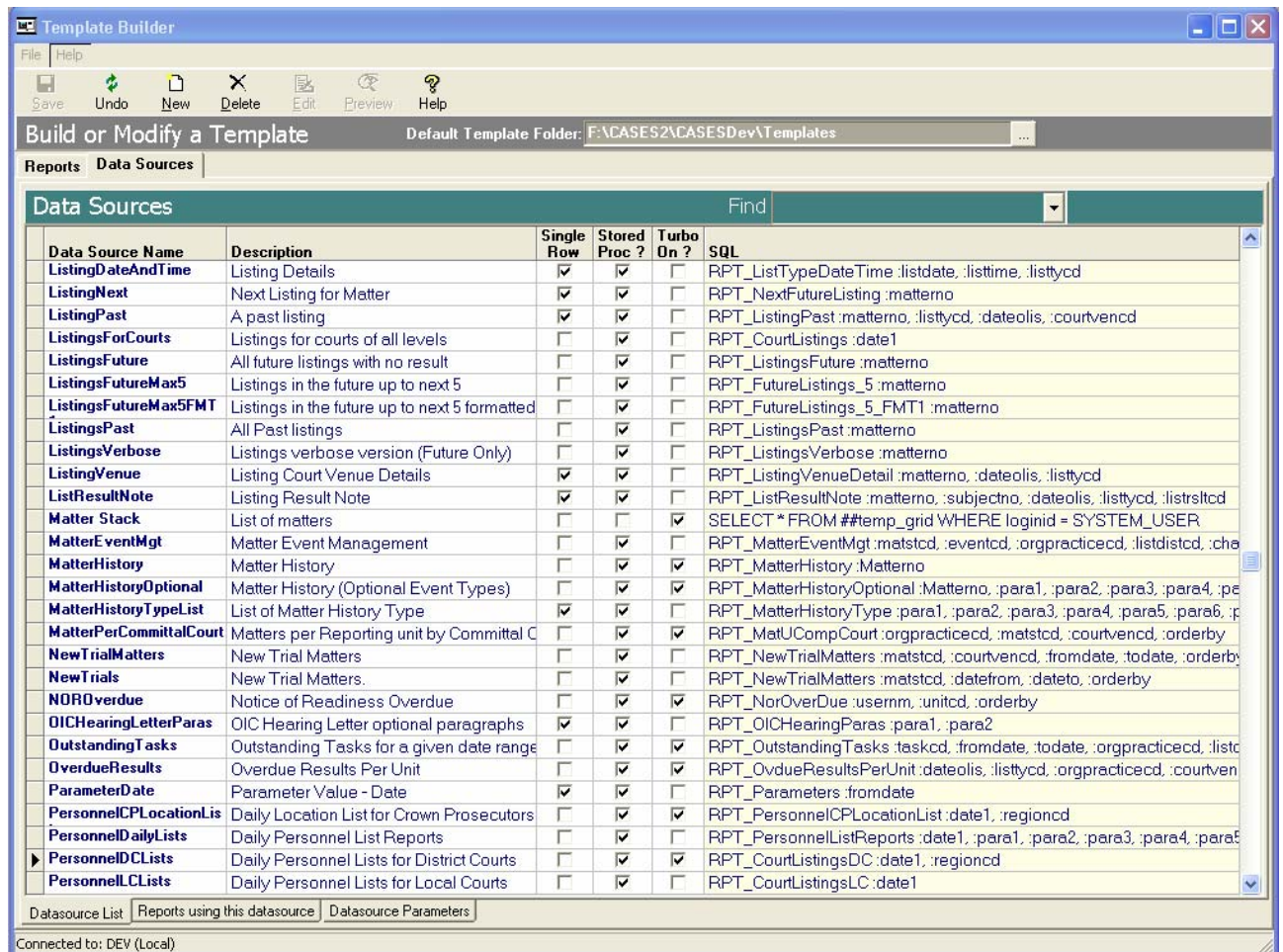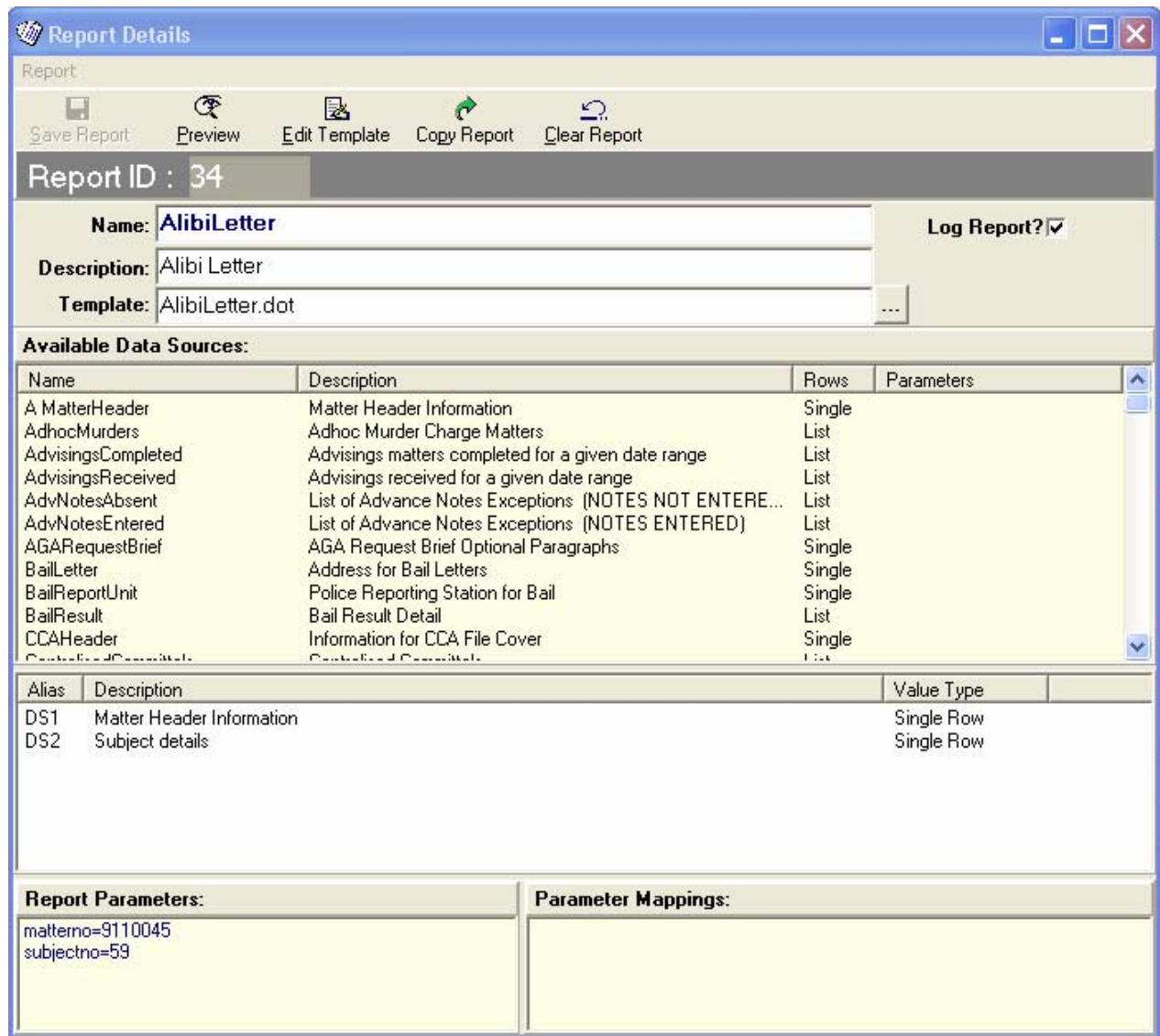
Figure 2

The above illustration shows the library of available data sources which are available for users to draw into their standard report templates. This is done in the report definition screen shown in **Figure 3**, the report is the drawing together of a standard template document and a set of data sources.

Figure 3

Once the report definition is complete, the template is then edited using Microsoft Word and any data items, which are available in the chosen data source(s), can be placed on the template as they will appear at runtime. Data sources can also provide Tables of data, which allows statistical reports to be generated, and quite complex report layouts implemented quite easily, an example of a Word Report using tabular data is the Matter history document as shown in the document "CASES Matter History".

The illustration below **Figure 4** shows a user updating a standard report template using the Data Fields from the popup presented by Word Reports.
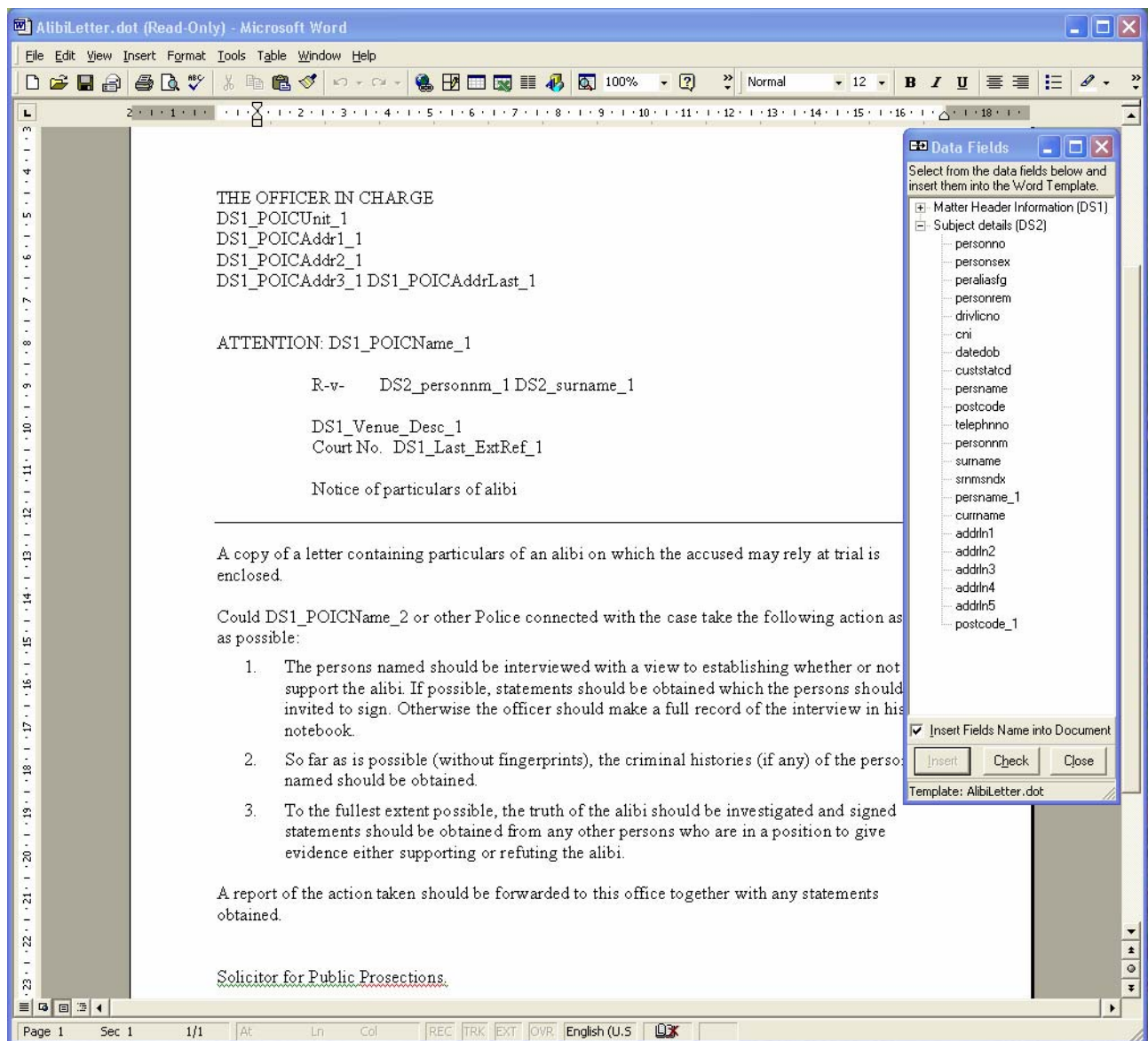
Figure 4

Once the library of standard letters and reports is built up, these documents can be associated with tasks and screens within the standard cases workflow. **Figure 5** below shows how the system administrator can associate any defined report with any screen in the system, when a users presses the report button at the top of any screen a drop down list of valid reports for this screen is shown in **Figure 6**.
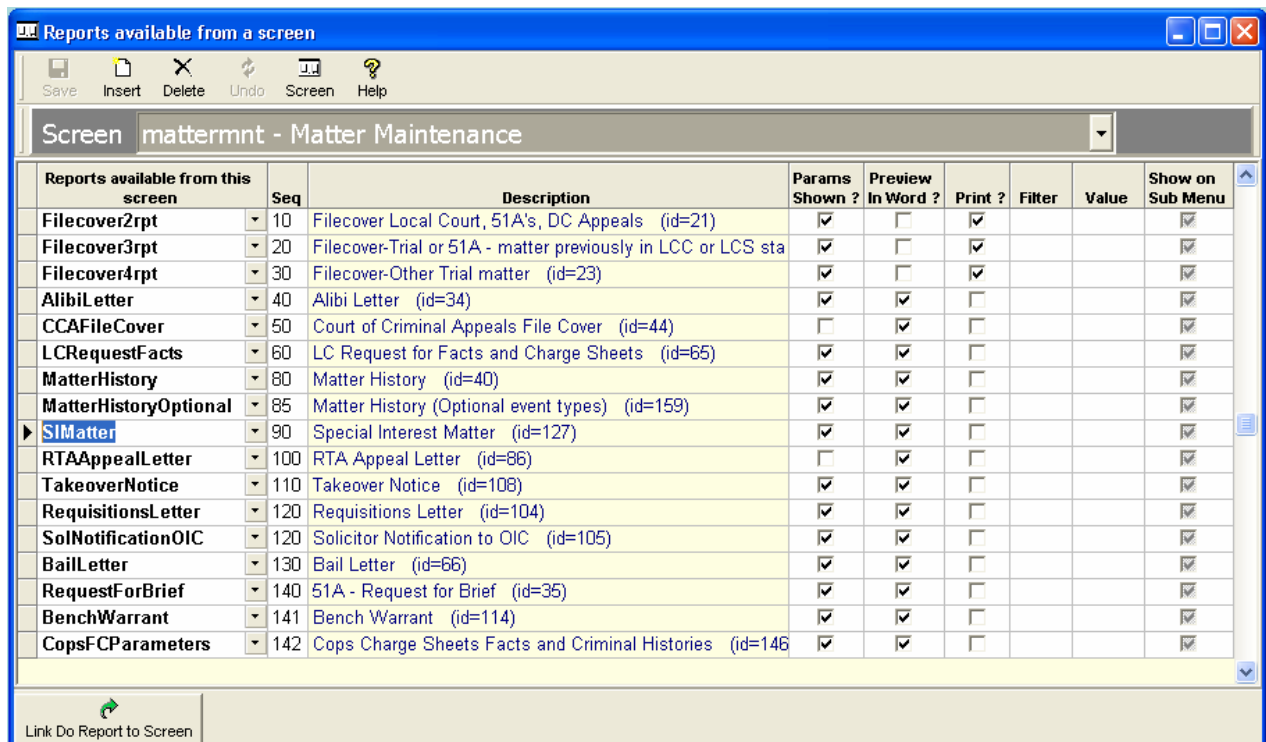
Figure 5

The screen above shows the list of defined reports, which have been attached to the "Reports" button on the form shown below. This screen also allows the behaviour to be controlled, some reports will just print others will show a parameter dialog, others will preview as a word document.
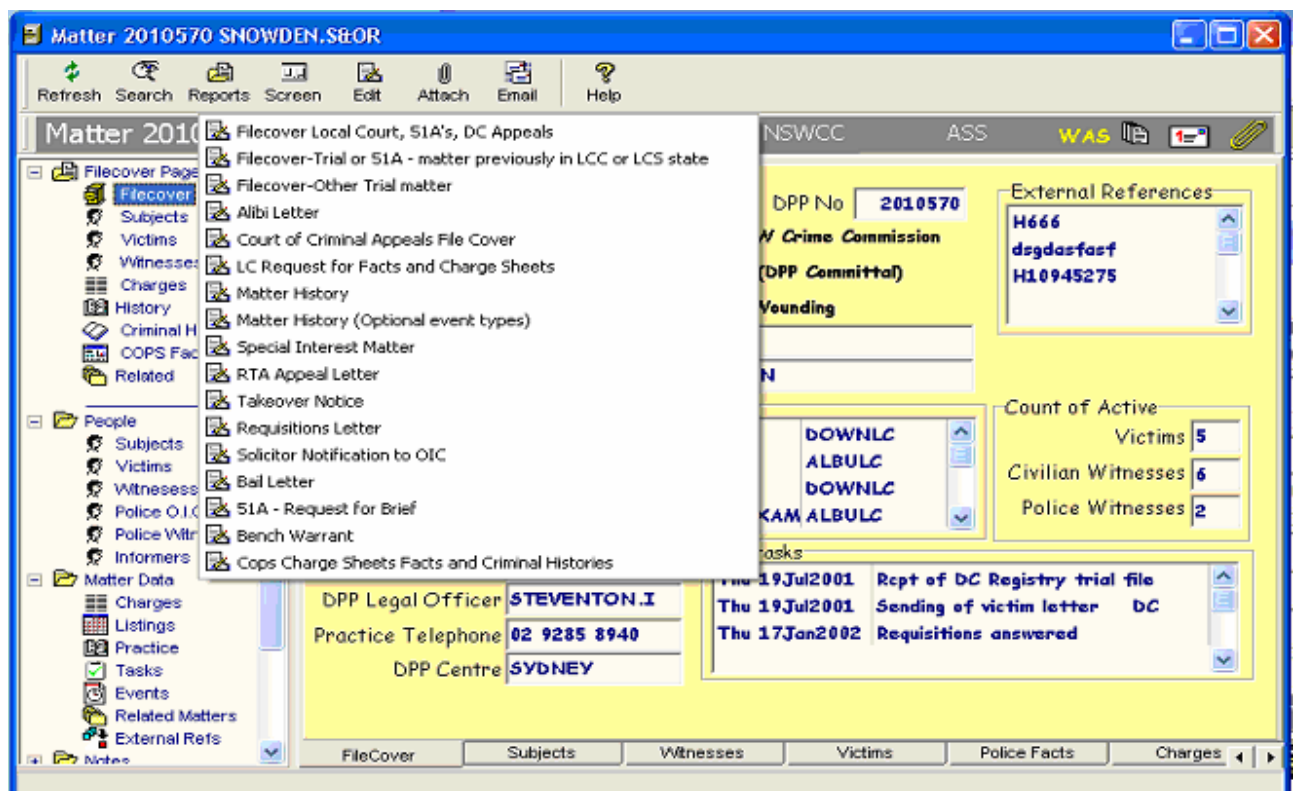
Figure 6

When the user selects a report from this list the parameter requirements for the report are checked against the "dynamic context" of the current screen. If all of the parameters can be derived from the users current context, then no parameter entry is required. This allows reports to be attached to forms where not all parameters are available. If the parameter requirements are not all met from context then a generic parameter screen appears with all of the "Known" values ready populated and the required fields available as data entry items. Note that even if all parameters are known, it can be set that the parameter screen should always be shown to the user as shown in **Figure 5**. If the report has been set to preview in word then the document appears in Microsoft Word and can be printed directly from there, otherwise the document appears on the users default printer.

15. FILE NOTES

15.1. ATTACHING FILE NOTES

CASES file notes can be attached to a matter by anyone with access to do so; file notes are treated as tasks in their own right and support the concept of a resubmit. A file note can have a due date, be breached and be resubmitted to the sender as a reminder; file notes appear along side tasks on the users matter carriage workface. File notes can be used as ad-hoc tasks in their own right where a user wants to request some unusual activity be carried out on a file by a due date.
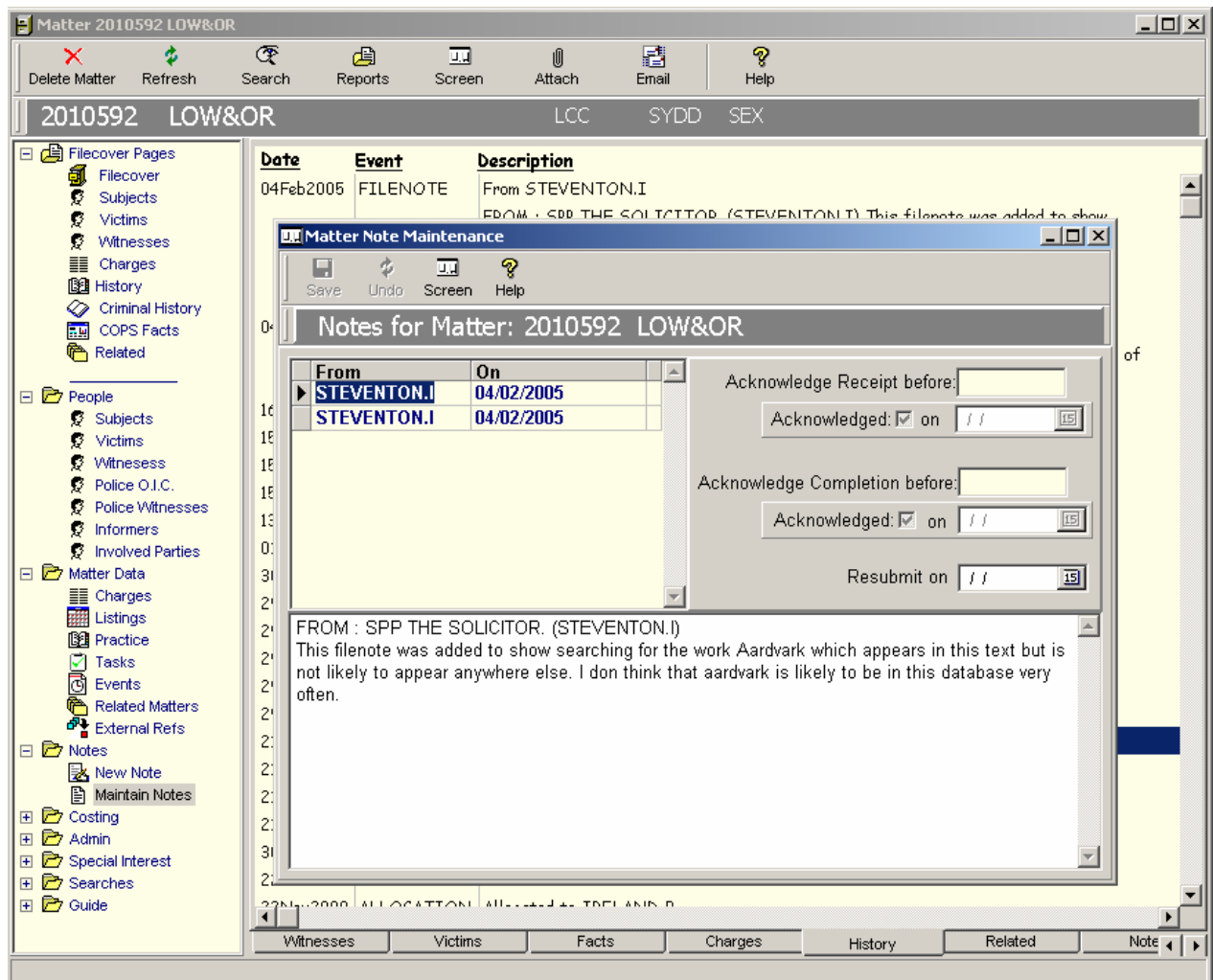
Figure 1

The above illustration **Figure 1** shows the file note maintenance function chosen from the tree on the left hand side of the underlying file cover. Notes can be acknowledged, completed and resubmitted from here or on the matter carriage workface.

15.2. COMPLETING AND ACKNOWLEDGING FILE NOTES

Figure 2 shows the user acknowledging or completing notes from their carriage workface without having to go into the matter.
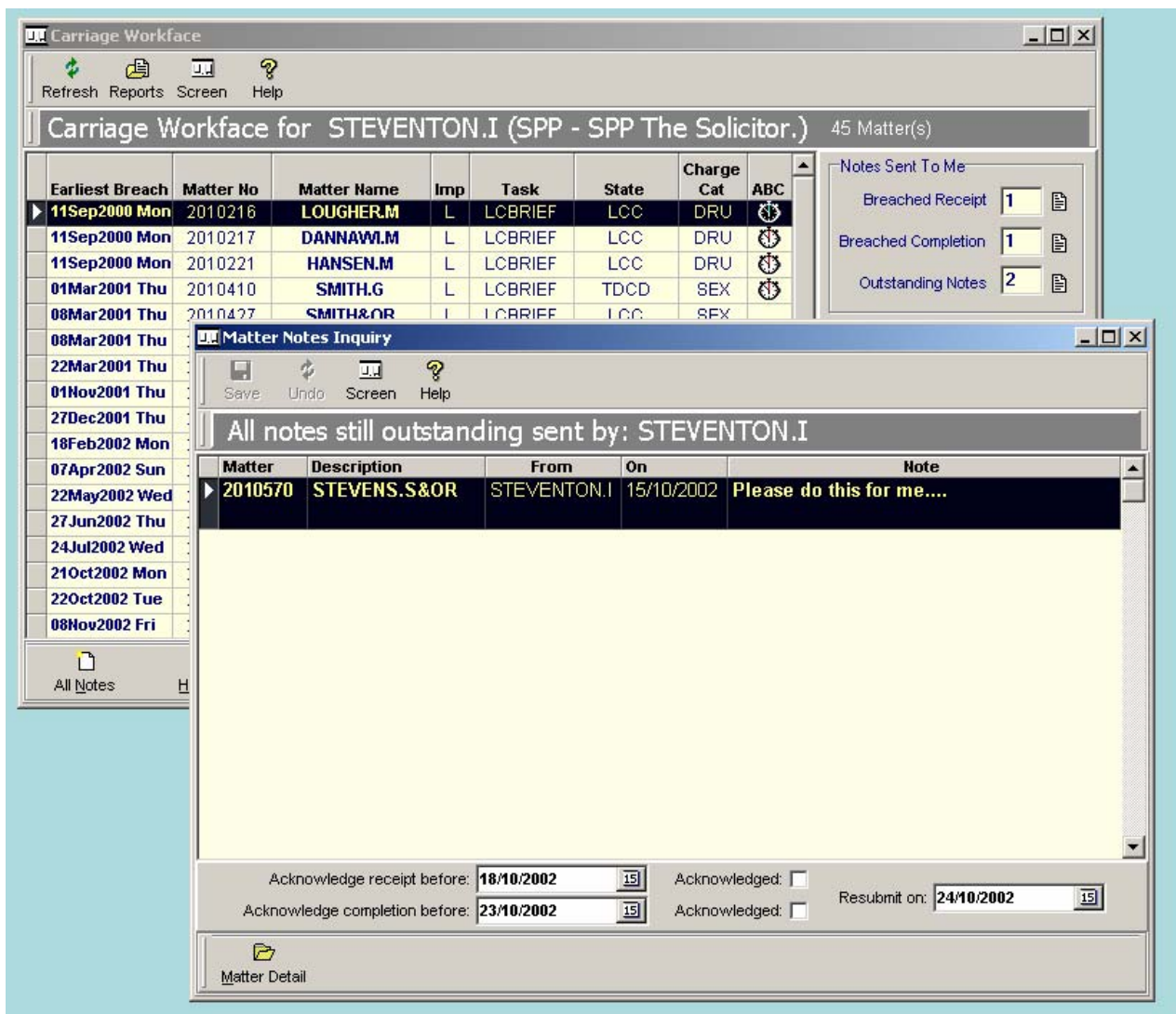
Figure 2

15.3.   FILE NOTES IN THE MATTER HISTORY

All notes which are attached to a matter appear in summary form in the matter history as shown in **Figure 3**.
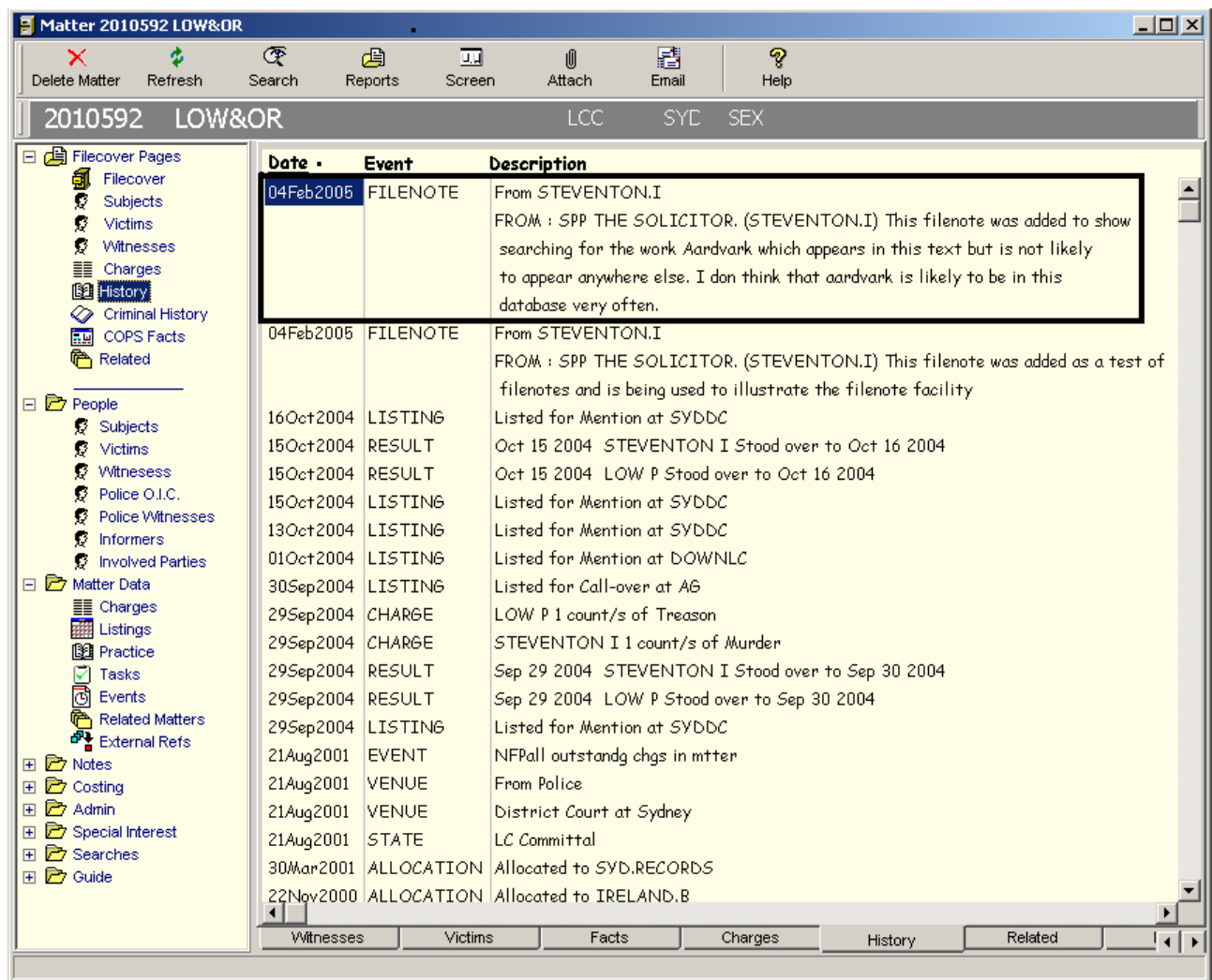
Figure 3

15.4.   TEXT SEARCH IN FILE NOTES.

Also notes can be searched using the matter text search capability as shown below in
Figure 4.

Search Matter Text

Search Matter Text   1 Record(s) found

Undo   Search   Screen   Help

Search Text: AARDVARK

Check All

Un Check All

Text to Search	
Matter Notes	☑
COPS Facts	☐
COPS Antecedents	☐
COPS Indictment Text	☐
Listing Result Notes	☐

Matter	Description	Text Type	Text
2010592	LOW&OR	Matter Note	FROM : SPP THE SOLICITOR. (STEVENTON.

FROM : SPP THE SOLICITOR. (STEVENTON.I)
This filenote was added to show searching for the work **Aardvark** which appears in this text but is not likely to appear anywhere else. I don think that **aardvark** is likely to be in this database very often.

Matter Detail

Figure 4

16.   DOCUMENT MANAGEMENT

CASES uses a document repository to store any documents associated with a matter, whether they where produced by the matter as word reports documents or attached to the matter. Attached documents can be of any type. CASES refers to the document repository as IDMS or Integrated Document Management System. The interface between CASES and the IDMS is implemented using an abstraction layer allowing connection to a logical or generic document repository. CASES has its own document repository or can be configured to connect to industry standard repositories. Currently the only supported repository is form Objective Corporation however others can be accommodated on request through the abstraction layer.

The key business benefits of integrated document management to CASES are:

➤   The document repository becomes searchable for research and precedent.

➤   Documents are held once,

➤   Documents are audited for change.

➤   Documents are backed up from a single source.

➤   Documents are version controlled with full change history and locking.

➤   Compliance with State Records and best practice record keeping.

Figure 1 below shows how to perform a simple document search from within CASES for any document in the repository containing the complete word "test'
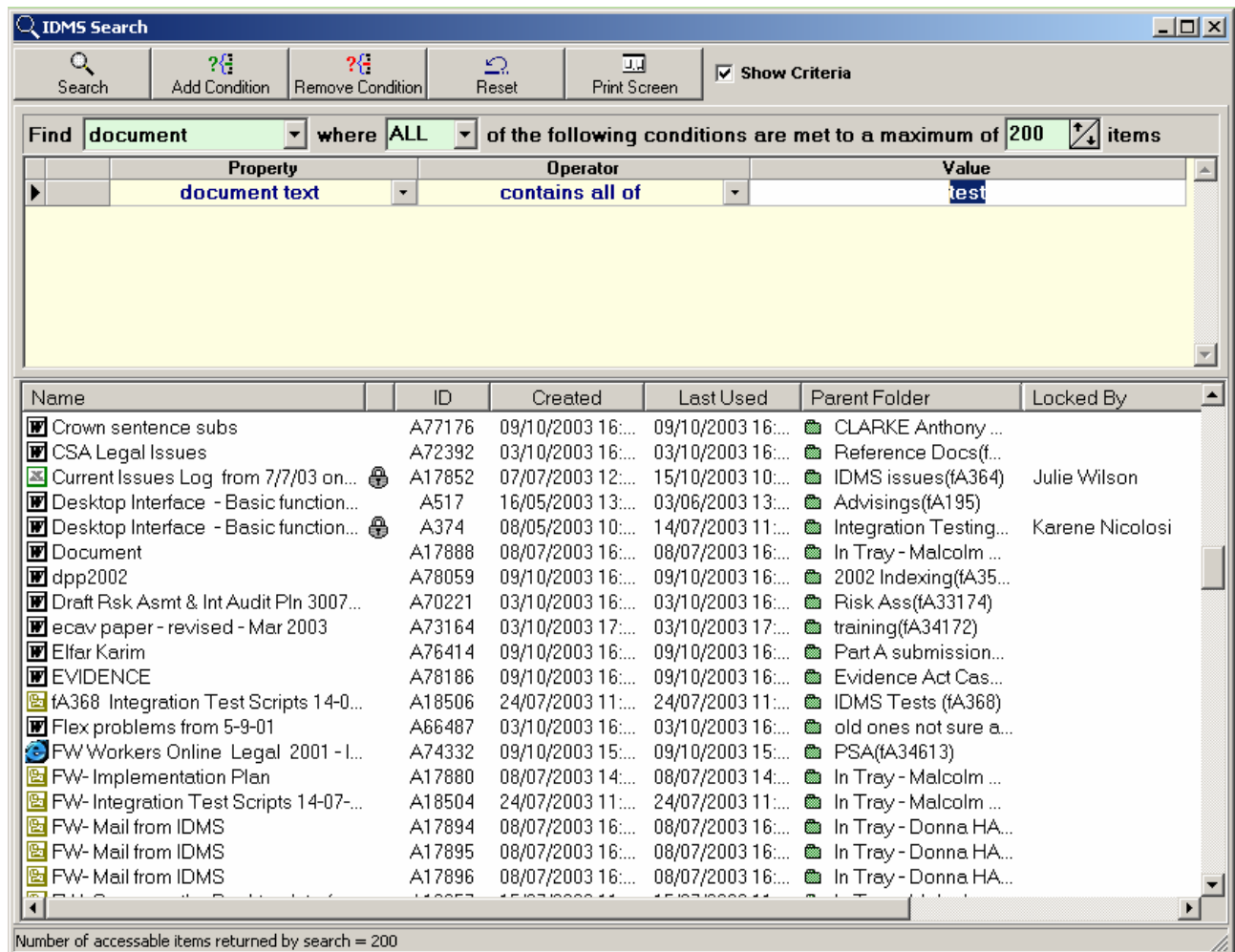
Figure 1
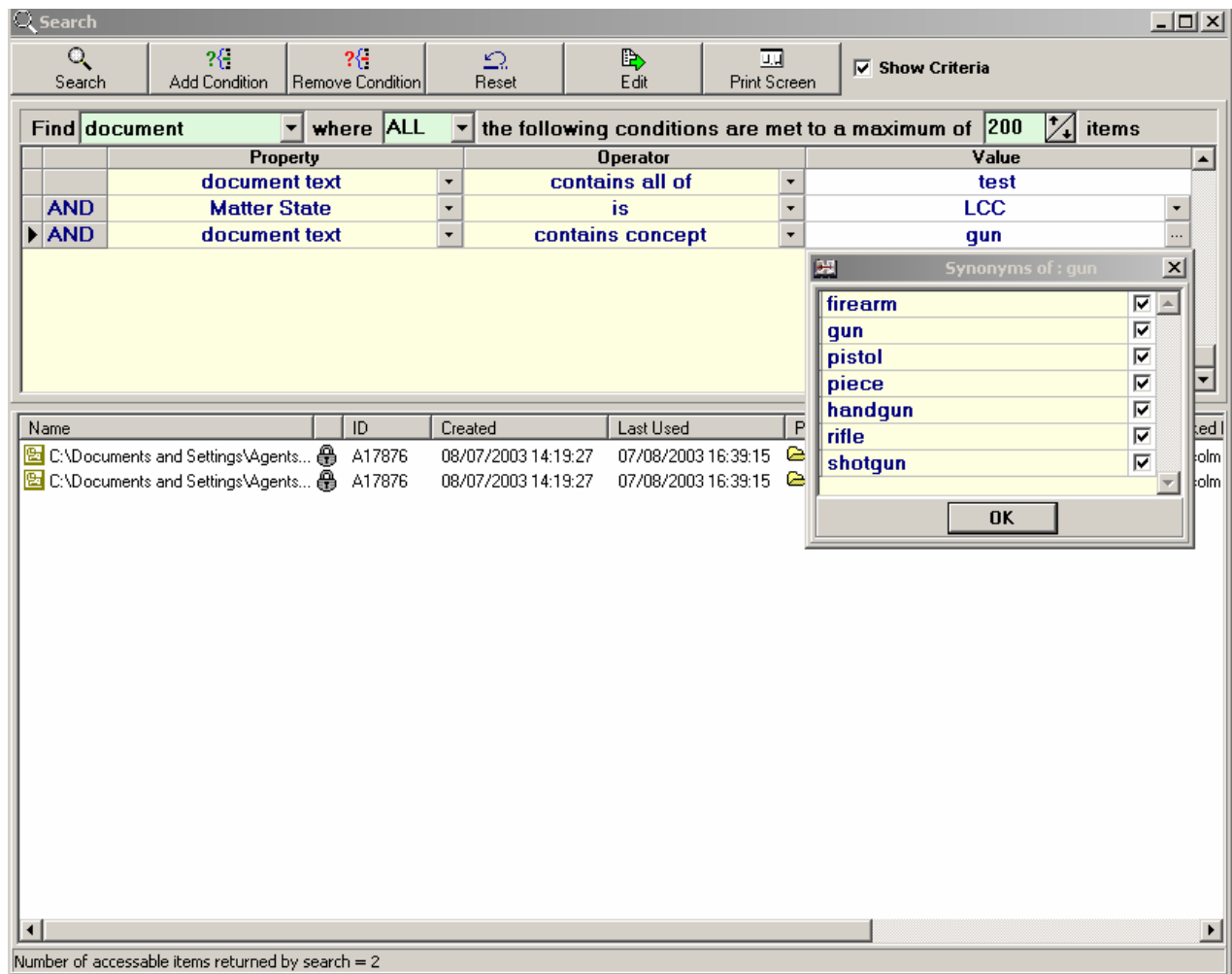
Figure 2

Figure 2 above shows a more complex "Hybrid" search where the user has requested all documents which mention the word test AND the concept "gun" AND the document is associated with a matter whose current status in the workflow is LCC "Local Court Committal" (the description appears in the dropdown).

A conceptual search uses a thesaurus to include all known synonyms of the supplied search term and allows the user to exclude any deemed inappropriate. There is also a keyword search used for document classification for records management.

Any document can be attached to a matter when documents are attached a paperclip icon appears on the right hand side of the status header on the matter file cover, as shown below.
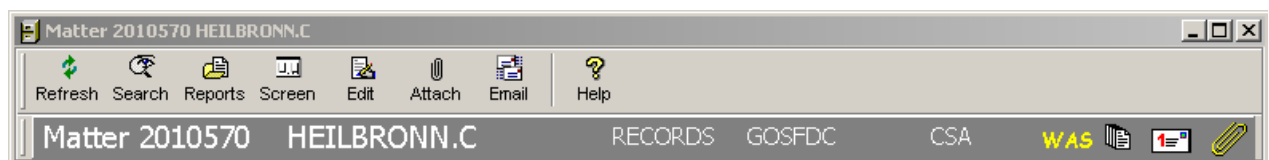
Figure 3

The user can either double click the paperclip or the attach button on the toolbar to present the popup shown in **Figure 4**, the document stack indicates that there are saved documents

from this matter and the email envelope indicates that there are emails (the red "1" indicates one of which is unread).
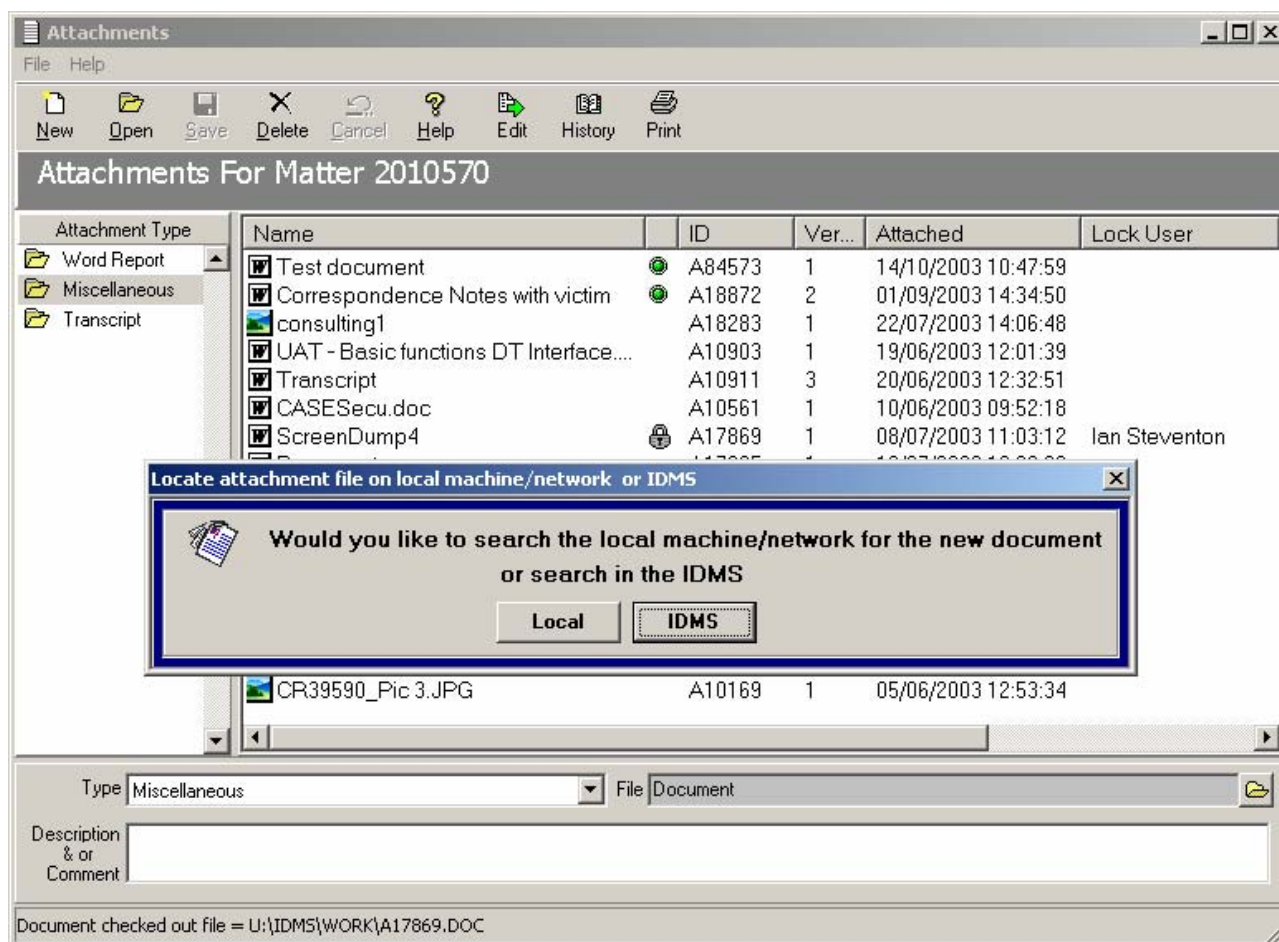
Figure 4

The green LED icons on the attachment screen show that the user has EDIT clearance as opposed to a RED led which just implies READ access to the document. A padlock clearly indicates that the document is being edited and is checked out. The dialog shown appears when the New button is pressed on the toolbar, this allows users to add new documents to the repository as matter attachments or search the repository for existing document and attach them (research and precedent documents).

The attachment type panel on the left shows all types of document, which are currently attached to this matter (not all types which exist). The Word report section shows all documents, which have been produced from this matter and stored in the repository. It is not compulsory that all documents produced be stored this is a function of the definition of the document.

17. PAPER CAPTURE

Since many of the documents associated with the processing of matters are received as hard copy documents (particularly in the legal process). CASES provides a mechanism to capture such documents and attach them to the correct matter turning them into a searchable resource. A prime business driver is that this should be a PUSH process and not require users to:

➤ Set a PC into SCAN mode

➤ Go to the scanner,

➤ Scan the document,

➤ Go back to the PC attach to CASES.

Clearly, this procedure is inefficient.

The paper capture agent works in the following manner:

➤ The scanner must support some form of "SEND" which allows a programmable button to send the scanned document to either an FTP address, Email box or shared network folder.

➤ Standard cover sheets are provided for each of the destinations that documents can be scanned to, these can be a CASES Matter, an Email Address or a Document Management folder.

➤ The paper capture agent watches for any new documents arriving in the SEND folder for the scanner(s).

➤ The scanned document is converted to a searchable PDF document using Adobe Paper Capture (single license required) to convert from multiple TIFF files.

➤ The agent extracts and parses the text from the PDF looking for the cover page(s). If a routing page is found then the agent reads the matte number, or email address or IDMS folder id and sends the searchable PDF to the correct destination.

This can be used even without CASES (and currently is) to allow users to scan to searchable PDF and email the results to themselves without support staff intervention.

This process happens behind the scenes, to a user the mechanism is simply create a document stack walk to copier and press 1 or two buttons. The procedure for ODPP users is shown on the next page.

17.1. SCANNING PROCEDURES

The procedure for scanning and automatically sending documents using the Canon ir6000i photocopier series are as follows:

1. Place the document with the destination cover sheet on the automatic feeder of the photocopier.
2. Select the 'Send' tab on the photocopier screen. This will change the view to the screen shot below. Then select the 'Paper Capture' button. 'Paper Capture' will then be highlighted in blue in the white area.

Note: When scanning two-sided documents select the 'Two-sided original' button on the right hand side of **Figure 1** below.
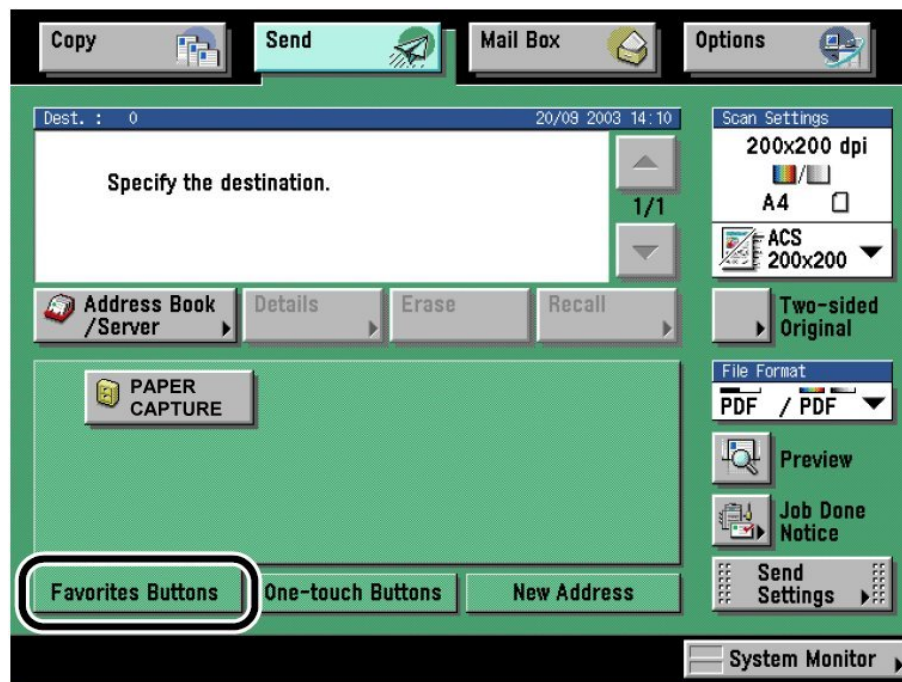
Figure1: Screen Image on the Photocopier for the 'Send' tab

One this button has been selected, press the Green button on the photocopier as you would normally select to copy a document

An example of the cover sheet used for the agent is shown below, these coversheets are included in CASES and can be produced from the filecover or edited as a word processing document, much like a fax coversheet. The example shown below is a cover sheet, which will tell the agent to attach the following pages to CASES matter 2010550 as a file called "Court Result", the comments are included in the CASES attachment.
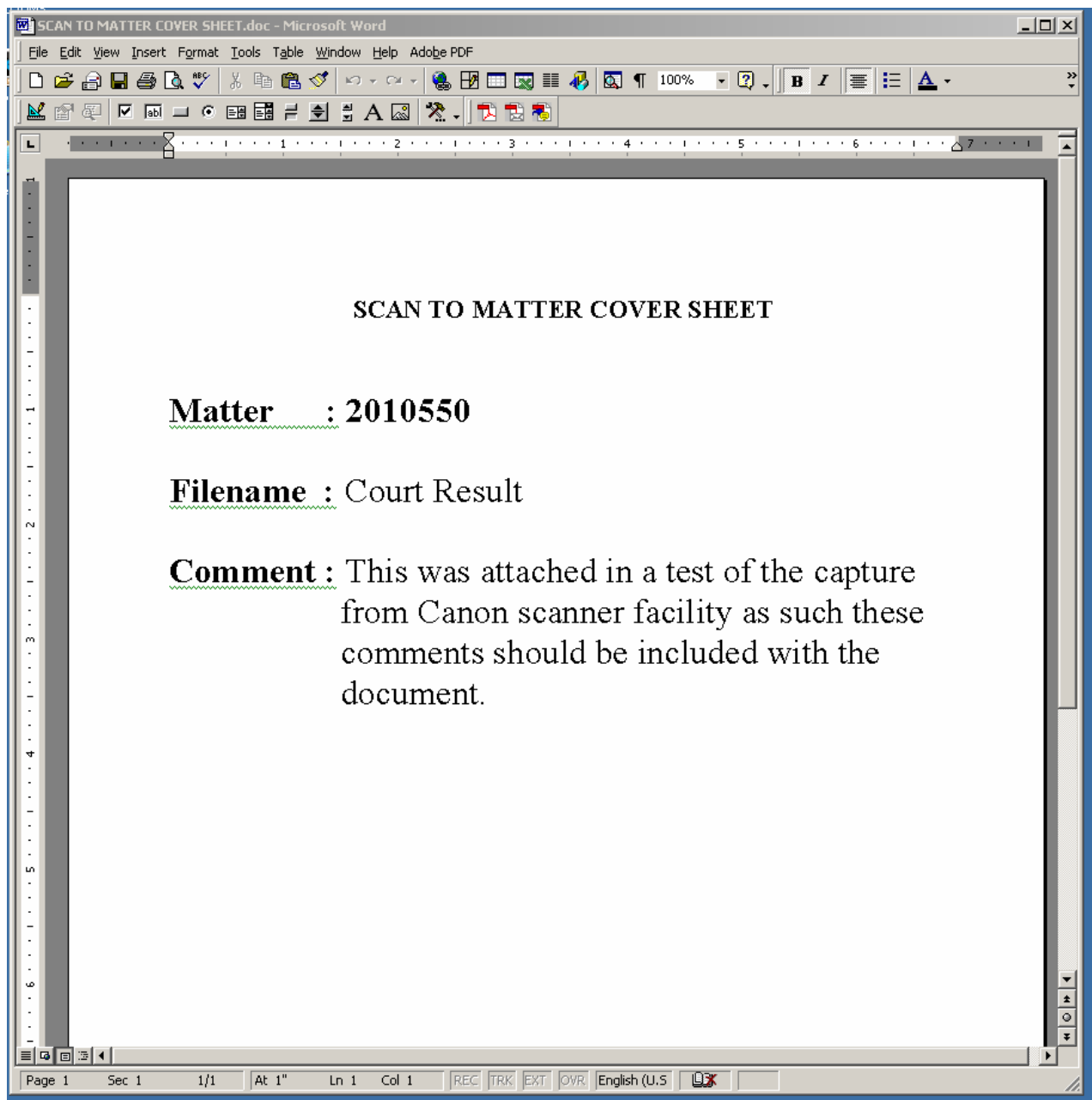
The cover sheet below would send the following pages to an email address as an attached searchable PDF document.

SCAN TO EMAIL COVER SHEET

Email : isteventon@odpp.nsw.gov.au

Filename : AcrobatTraining

Comment : My training course notes for acrobat 5.

Creator : Ian Steventon
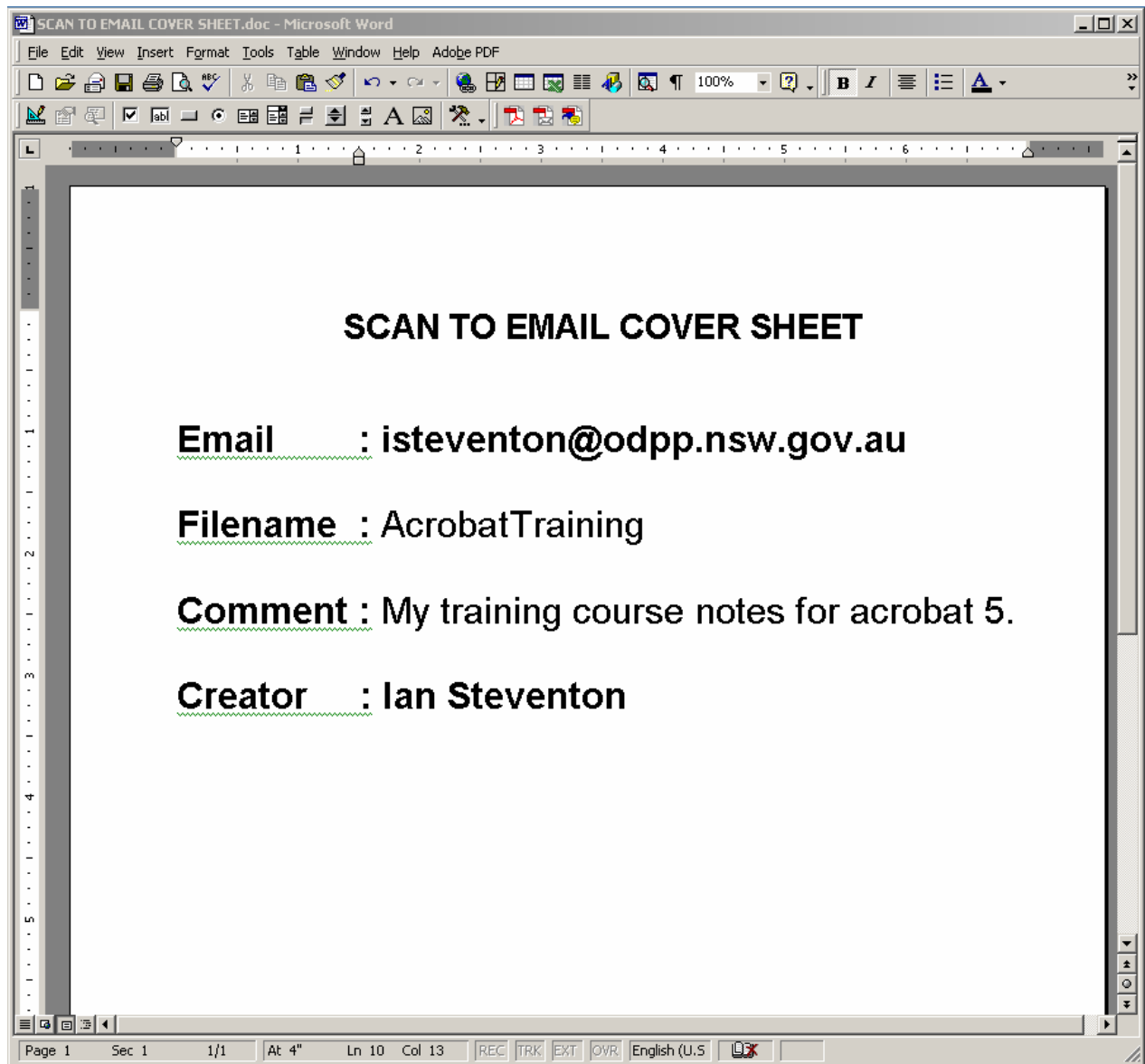
18. ACTIVITY BASED COSTING

Activity based costing permits matters to have time recorded against them and subsequently appear in the costing reports which allow the review of individual matter costs or average cost by type, size and other attributes.

The costing figures are based on the hourly rates for the staff members who recorded the time, and is sourced from the HR system, using an agent built for this purpose.

It is not compulsory to cost all matters by default.

If a matter is flagged for costing then the stopwatch icon appears on the matter search and carriage workface screens as show in the illustrations below (**Figure 1** and **Figure 2**).

Figure 1

Figure 2

When the matter is flagged for costing, time is recorded against the various activities, which can be completed in the course of processing the matter. **Figure 3** below shows the screen provided by the system for recording this time.
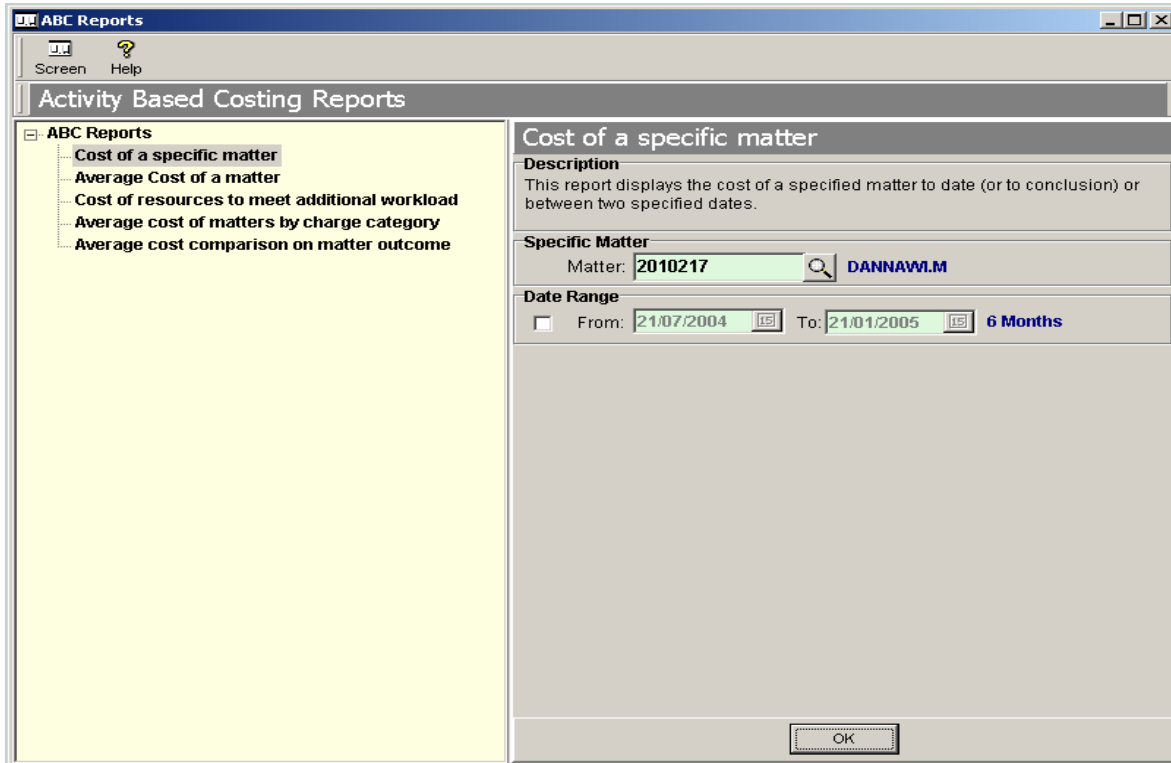
Figure 3

Once the time has been recorded for a matter there is a reporting suite, which allows costs to be reported across the organisation, or for specific matters, the report selection screen is shown below and an example of the user designed screen showing the costing breakdown for a simple matter, **Figure 4** and **Figure 5**.
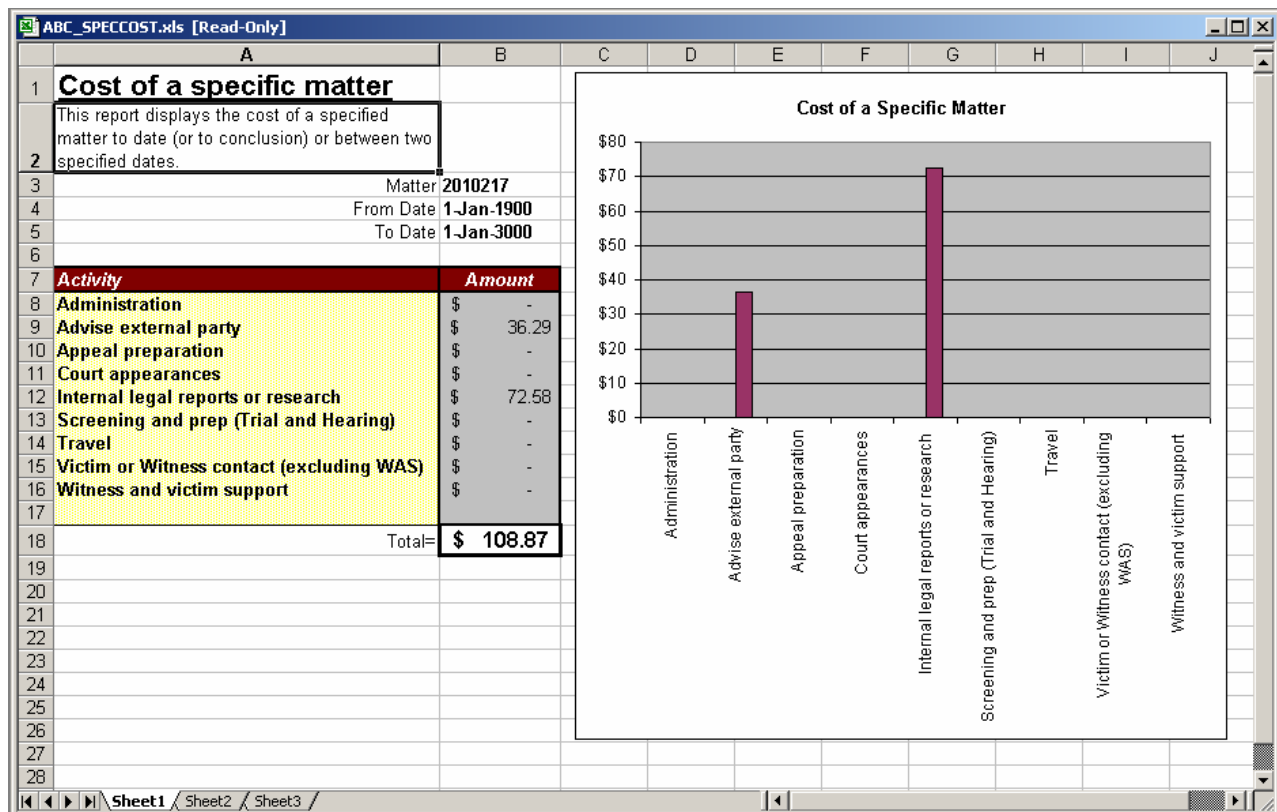
Figure 4

Figure 5

19. ADMINISTRATION

19.1. ADMINISTRATION MENU

Cases includes an extensive suite of administration facilities to manage and configure the application, a sample of some of the functions in the administration menu are shown in **Figure 1** and **Figure 2** below.
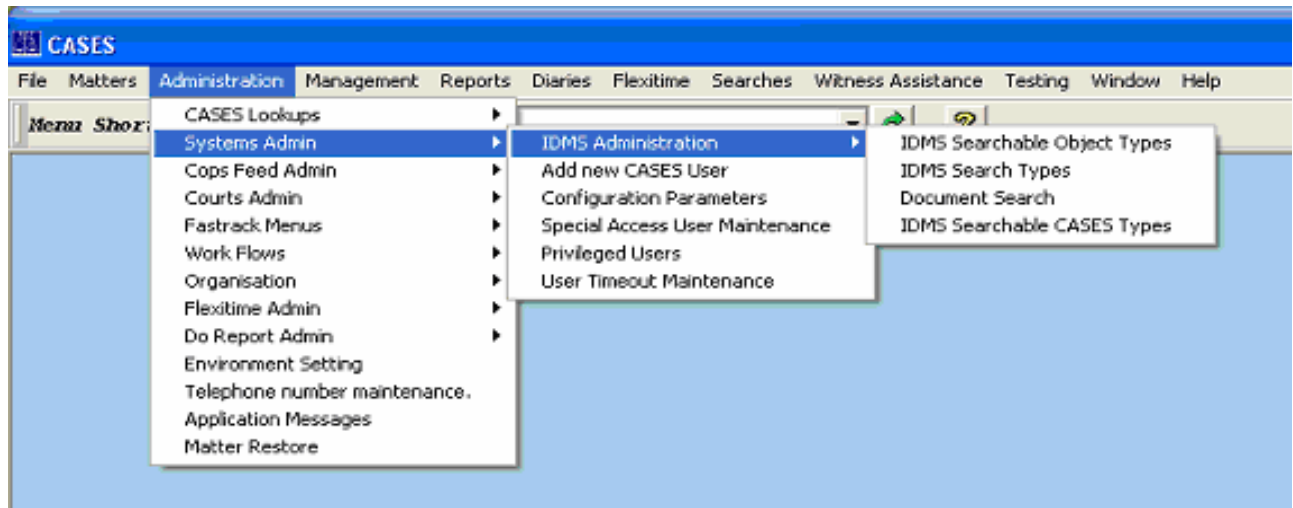
Figure 1
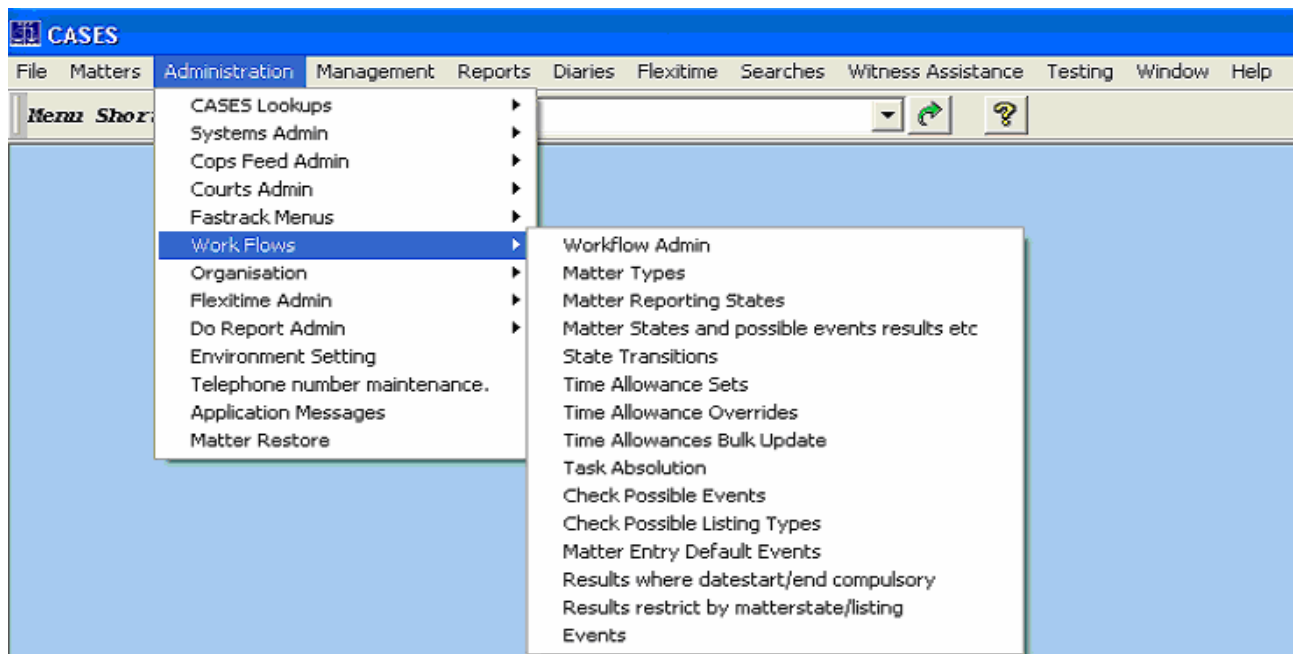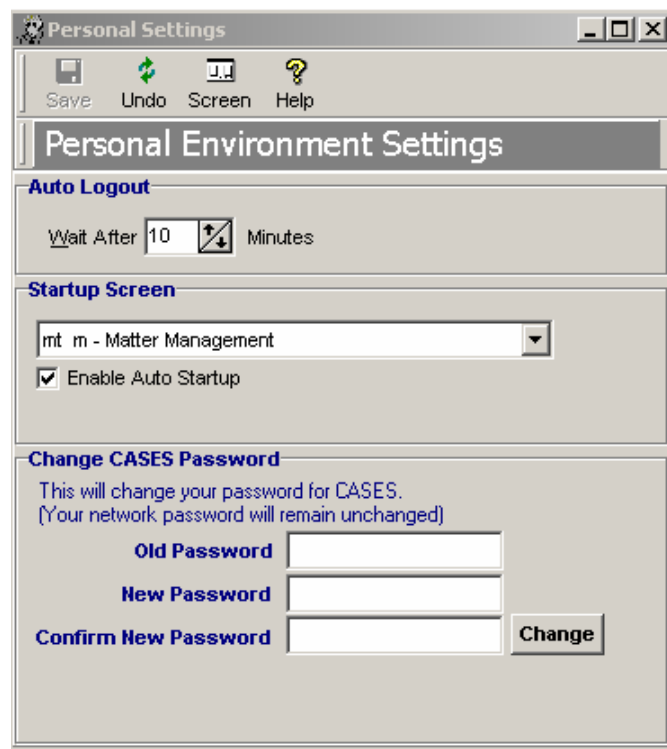
Figure 2

19.2. ADMINISTRATIVE FUNCTIONS

All of the administrative functions are intuitive and easy to use, a small set of these functions can be provided to end users, this can be controlled using security groups (see CASES Security document).

An example of this is the environment popup shown in **Figure 3** below, which allows a user to modify their password, initial screen, and system timeout (within a range set by the administrator).

Figure 3

An example of one function from the administration menu is adding a new user to the system, the simple screen below is used to achieve this. The login ID is generated randomly to comply with an organisational standard (which can be varied). The screen auto populates all fields after the surname, once again to an organisational standard. The simplicity of the screen hides all complexities including allocating the user a practice, creating accounts in the SQL server and IDMS (document management) server and much more.

Figure 4

The workflow administration screens are described in the document CASES Workflow definition, the security administration screens are described in the document CASES Security.

Another example of a system administration function is the definition and structure of the system menus, this allows the system administrator to redefine the layout and grouping of business functions and assign shortcut codes for them. The screens used for defining the short codes for business functions and for placing those codes on menus and sub menus are shown in **Figure 5** and **Figure 6** below.

Figure 5
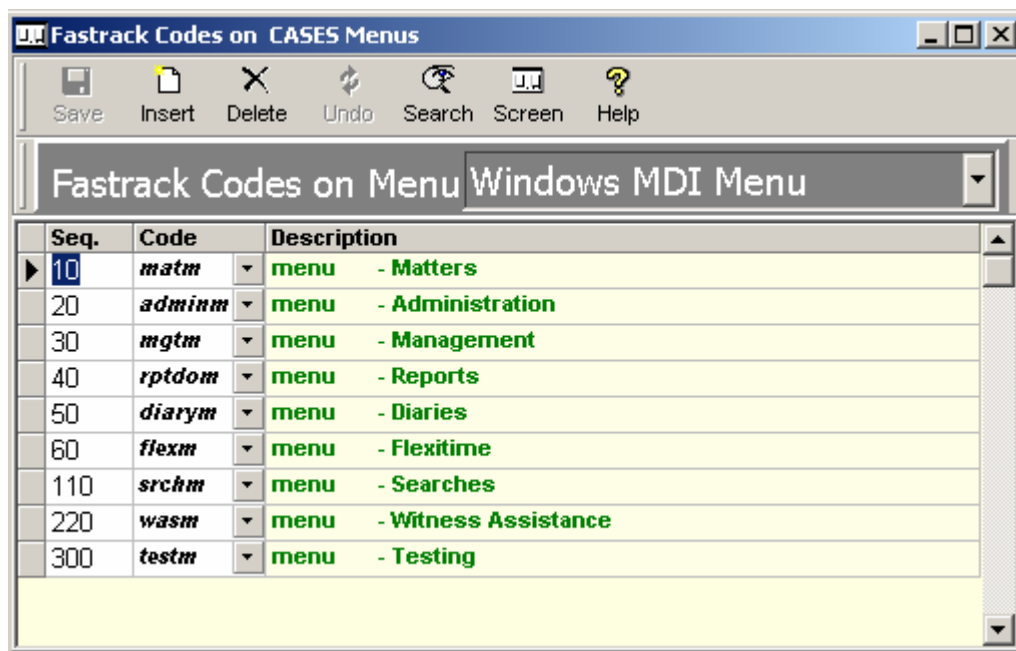
Figure 6

19.3.   TABLE OF ADMINISTRATIVE FUNCTIONS

The table below provides brief descriptions of some of the system administration functions available to the system administrator and delegates, it is illustrative and not the complete set.

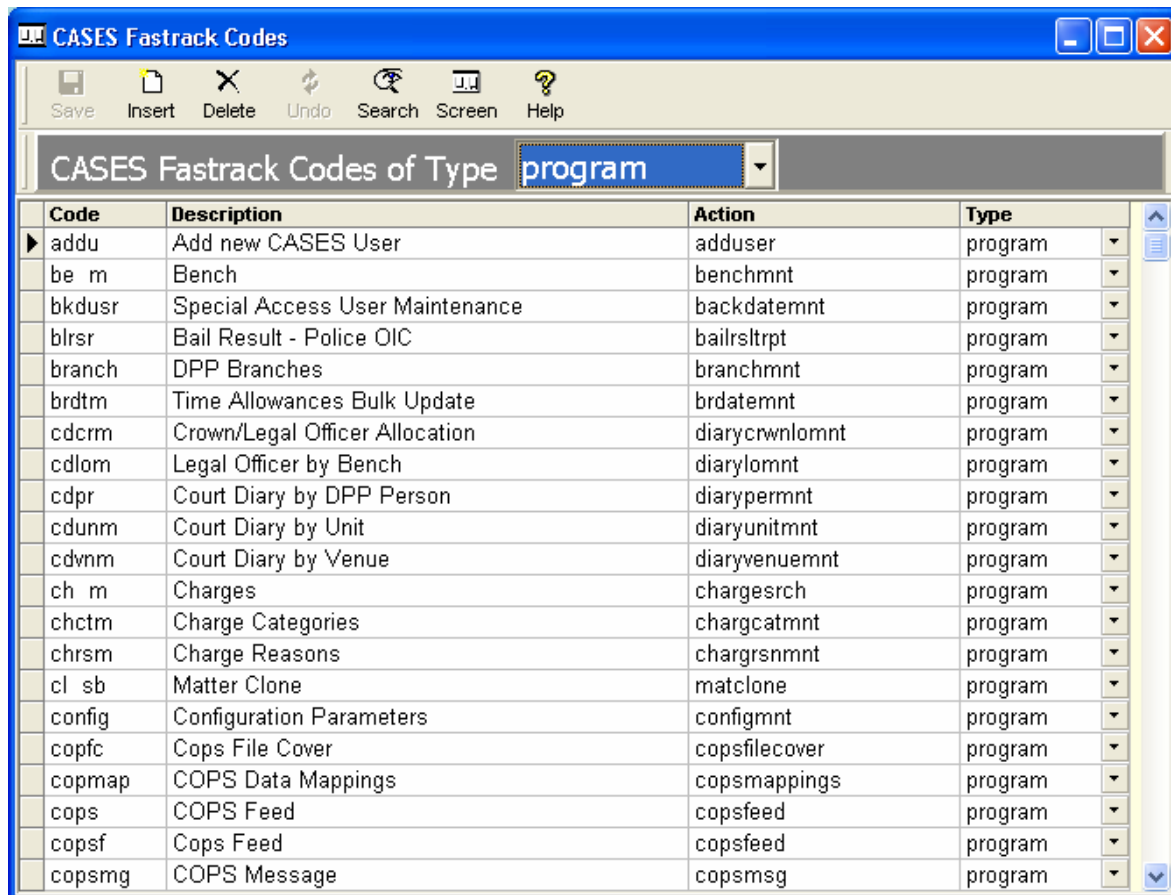| Menu	Code	Program	Description
adminm	Envir	Environment Setting	Allows user to personalise their settings to reduce the timeout to less than the standard 10 min and select their startup screen.
copsm	copmap	COPS Data Mappings	Maps COPS titles to CASES titles
courtm	be m	Bench	Maintain list of judges/mags
courtm	ctlvm	Court Levels	Maintain court levels eg district local etc
courtm	ctrgm	Court Region Maintenance	Maintain administrative regions eg syd, syd west etc
courtm	ctrmm	Court Rooms	Maintain court rooms for a given court
courtm	ctvnm	Court Venues	For ODPP office and court level possible venues are maintained
courtm	ld m	DPP Centres	Maintains which centres are in which regions and time allowance set for the centre
eventm	brdtm	Bulk Update Of Time Allowances	Maintain set time allowances for specified task
eventm	ev m	Events	Maintain valid events in starting event type and list the tasks associated with the event, time limits and control of event
eventm	evsti	Check Possible Events	Maintain which events possible in which states
eventm	lrst	Results restrict by matter state/listing	Maintain result codes disallowed for a given matter state and listing combination
eventm	lrst1	Results where date start/end compulsory	Maintain listing results which require a start and end date
eventm	ltsti	Check Possible Listing Types	Check of possible states for listing type
eventm	medflt	Matter Entry Default Events	Maintain startup state and event and whether default date is today and if it is required
eventm	mplkm	State Transitions	Maintain linkages between prior matter state, events and current matter state and matter type and future states
eventm	mr m	Matter Reporting States	Maintain matter reporting states used for generating stats and whether included in workload
eventm	ms m	Matter States	Maintain matter state and valid external events listing types/results/help for a given matter type and reporting state
eventm	mttym	Matter Types	Maintain matter types
eventm	tkabm	Task Absolution	Maintain event type and events which absolve tasks
eventm	tmovm	Time Allowance Overrides	Maintain task time allowance overrides by charge category
eventm	ts m	Time Allowances	Maintain time allowance sets
flxadm	branch	DPP Branches	Maintain list of branches
flxadm	flxadj	FLEX Adjustment Codes	Miantain list of flex adjustment codes
flxadm	flxcal	FLEX Calendar	Maintain list of flex periods and public holidays
flxadm	flxtcd	FLEX Task Codes	Maintain list of task codes to be used to assign to to with the day.
flxadm	flxusr	FLEX User Maintenance	Maintain flex user, supervisor, number of hours and whether the user works a seven day week.
flxadm	sect	DPP Sections	Maintain list of valid sections
ftrkm	ft m	Fastrack Codes	Maintains list of fastrack codes, description, action performed and whether it refers to a menu, program or needs to be given a parameter
ftrkm	ftcdm	Fastrack Codes on Menus	Maintain which codes are on which menus
ftrkm	ftstm	Default CASES Entry Point	Sets default entry point to CASES for a user

ftrkm	mn m	Fastrack Security	Assigns who has access to which menus and functions on those menus
orgnm	or m	Organisation Structure	Maintain organisation structure and position to person to practice links
orgnm	prusm	DPP Users	Maintain ODPP users, short name, long name, active/inactive and whether they are solicitors
orgnm	ru m	Reporting Units	Maintain groupings of units for the purposes of stats reporting
orgnm	uprc	User Practice Inquiry	Search a short name or practice and find out the other
setupm	chctm	Charge Categories	Maintain charge categories used for reporting
setupm	chrsm	Charge Reasons	Maintain list of reasons for activating/inactivating charges
setupm	lo m	Locations	Maintain ODPP offices, physical address and telephone number
setupm	mtszm	Matter Size	Maintain matter size categories, corresponding number of days allocated, and sequence they appear in list
setupm	plti	Police Officer Titles	Maintain list of CASES police officer titles
setupm	plunm	Police Units	Maintain list of CASES police unit, address and tel details
setupm	pntym	Penalty Types	Maintain penalty types ERROR Program not found
setupm	um m	Units of Measure	Maintain units of measure eg time is days ERROR Program not found
sysadm	addu	Add new CASES User	Used to add a user to CASES and creates the login in SQL and IDMS
sysadm	bkdusr	Back Dating User Maintenance	Maintain list of users with ability to backdate items usually restricted.
sysadm	config	Configuration Parameters	Maintain system parameter such as physical location of attachments directories, mail attachment, criminal histories etc
sysadm	usrto	User Timeout Maintenance	Maintain user timeout setting.

20. MENUS

20.1. FASTTRACK MENUS

The fasttrack menu system provides for the dynamic menu shown at the top of the application window. This menu is designed by the system administrator and can be modified on the fly. The menu options which appear are security and context sensitive, see the "CASES Administration" and "CASES Security" documents for how this is administered.
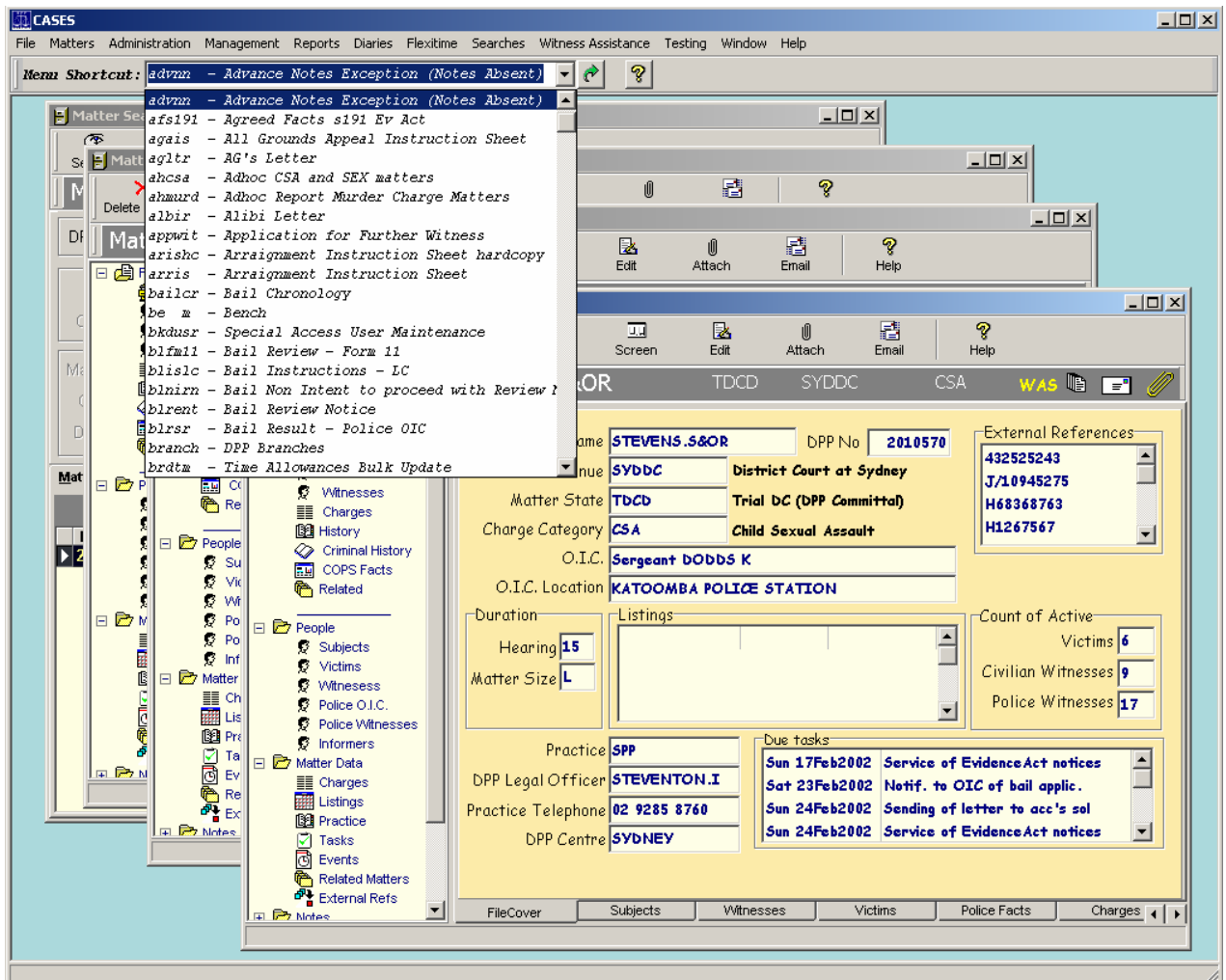
Figure 1

The illustration above shows how "fasttrack codes" can be used to navigate to specific business functions using the Menu Shortcut box, much like a URL in a browser. The code is automatically completed once it is unique ie to access "albir" above only "al" would have to be typed. Also codes can be selected from the alphabetically sorted dropdown as shown above, this allows users to quickly navigate to frequently used functions.

21. PERSONALITY FILES

CASES system configuration is controlled using "*personality files*". These files can be simply exported and imported to impart a *flavour* to *CASES* for each implementation. This feature allows a site to make modifications to *CASES* and then provide the modifications to another site by simply emailing the personality file. This is particularly useful in the initial setup and the ongoing support of *CASES*.

This is best illustrated using a simple example modifying a label on a screen to remove the reference to ODPP. Screen Labels are amongst the simplest modifications that are controlled by system configuration. More complex features such as document management, Soundex searching etc. are modified in the same manner.

Firstly a system administrator can select to edit a field label as illustrated below. Note that this applies to most field labels, column headings and form titles throughout the system.
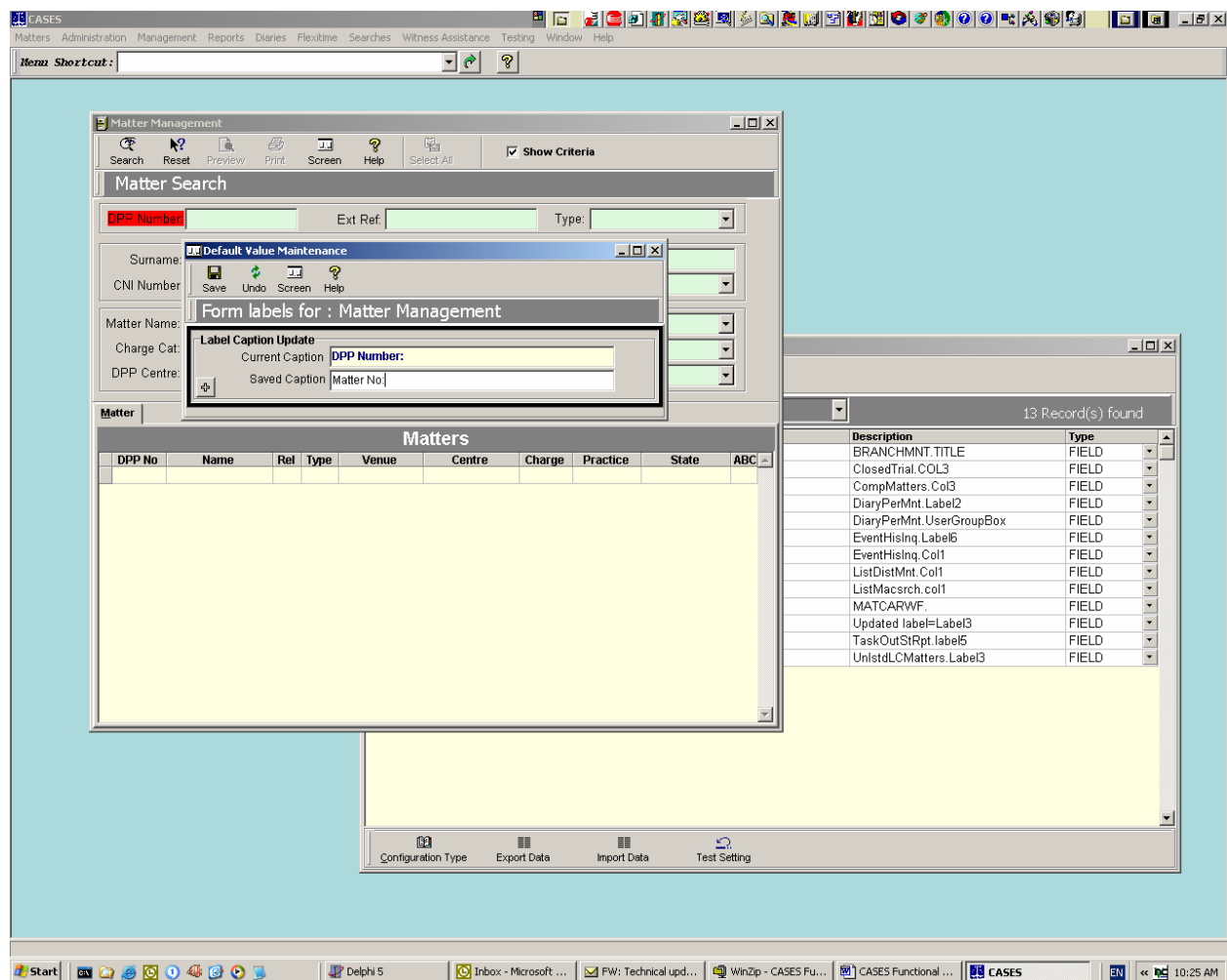
Figure 1 Updating screen label text

It is also possible to review all of the customizable labels for this form by expanding the popup using the button in the bottom left corner as below.

Figure 2 Updating all screen labels

The modification to the field is stored in the system configuration tables. A changed value is highlighted for 24hours.Changes can also be audited at any time.

The information held in the system configuration can be exported to a "personality file".

The personality file can then be imported into a different CASES instance. Existing configuration values are only overwritten if they are cleared prior to import. This allows for personalities to be merged as well as exchanged.

As the personality file is imported, the changed values are highlighted to the administrator.
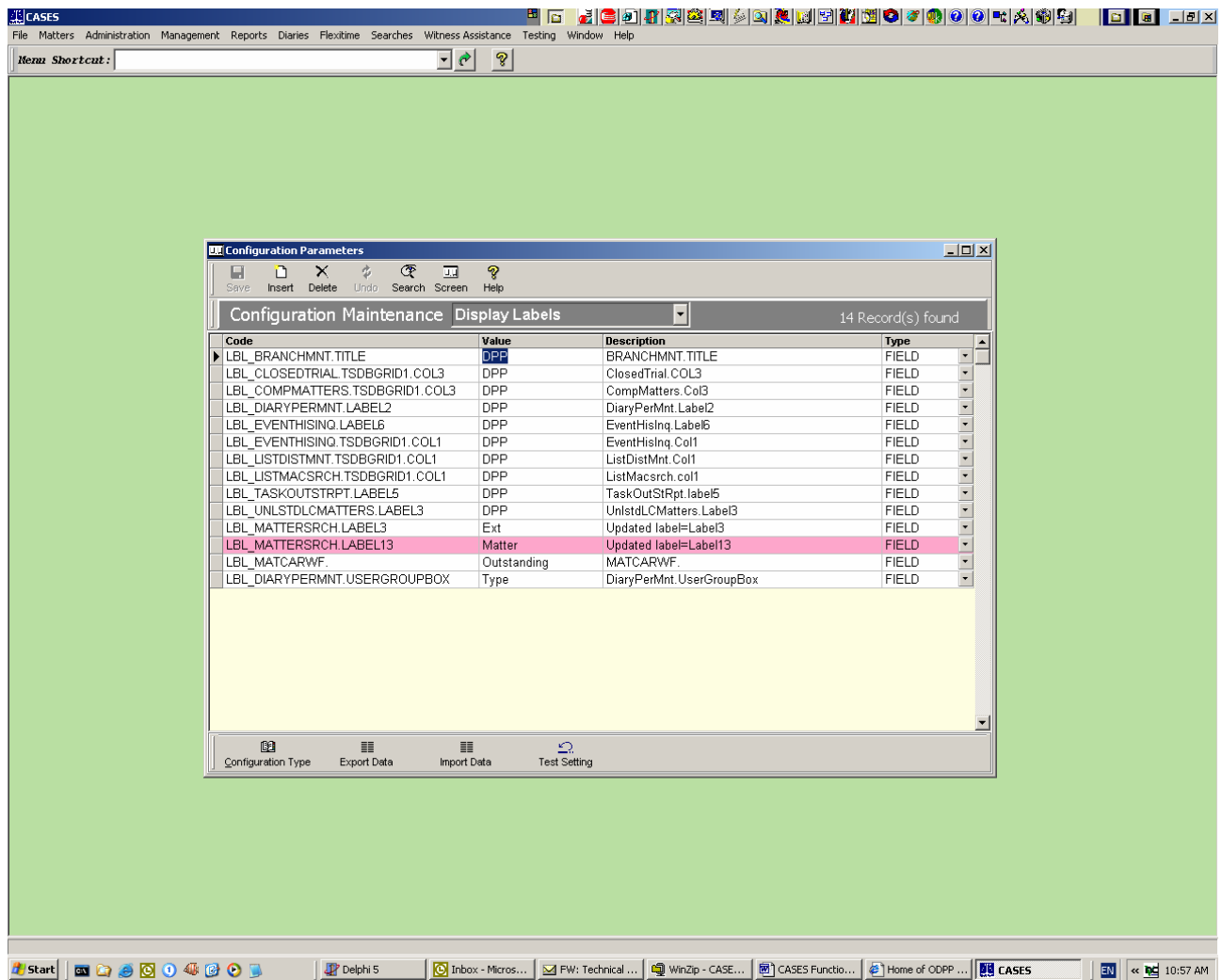
Figure 3 Personality file update mechanism

22.   AGENTS

Cases agents are autonomous software modules, which encapsulate an interface between CASES and other applications. An agent handles any external source of information provided to CASES as a feed. Also an agent handles any data fed to other systems from CASES. These agents are all based on an inheritable item from the class library, which includes various capabilities with minimal development effort. A typical task for an agent is to accept a data feed from another agency, parse, cleanse and upload this data into a quarantine area in a database for user-guided acceptance into the system. Such a feed is used to accept the overnight charges arriving from the NSW Police service into the CASES database. This data comes from an ADABAS database over an MQ Series feed and to the system users a screen appears which allows them to review and accept the charges with a few mouse clicks.

There are a number of existing agents some of which are described below.

eMailToFile Agent.	This allows files of known format to be mailed to a specified address. If the sender was an authorized user then the file is uploaded to a local folder (an example of this allows a remote agency to update an intranet web page)
eMail Agent.	This allows users to send email directly to CASES matters (if their address is authorized). Very useful for forwarding email relevant to the matter and "copying a matter in" to a correspondence.
MQSeries Agent.	This accepts data on an MQseries feed parses and uploads it into a quarantine area.
eBrief Agent	This accepts a feed containing an AES encrypted composite set of brief documents with an XML description file. The file is automatically decrypted, unzipped, the XML is parsed and the documents are then converted to a large composite PDF suite of documents.
CHRIS Agent	The CHRIS Agent can be used to monitor changes made in the CHRIS human resource system and propagate the changes to other business systems. An example of its use is to monitor approved employee leave applications and automatically update the CASES roster to show the person is not available and also to show a reminder on the users Flex sheet.
Microsoft Access Agent	This agent accepts can upload data from access databases into the system. An example of its use is to accept new and updated charge codes from the Judicial Commission and update the CASES tables accordingly.

This is not a complete list of the agents.

There are a number of class library implemented features, which can be plugged together in the construction of these agents:

➤   Email access using Microsoft Outlook or POP3 mailboxes.

➤   AES encryption/decryption.

➤   ZIP compression.

➤   XML parsing.

➤   MQ Series file and secure data transfer.

➤   PDF creation.

➤   CHRIS through Vision files and or MSSQL.

➤   SUN Financials (work in progress).

➤   Logging to screen and file. (logs can be automatically emailed to nominated users)

➤   Configuration settings through registry and INI file.

> ➤ Authentication and SQL access using Microsoft MDAC to databases.

The screen capture below, **Figure 1**, shows an agent which is collecting and sending and receiving messages to a server using FTP, for relay using MQ series messages. The icon indicates that an error has been encountered and the log file will be mailed to user "cdash" for action.
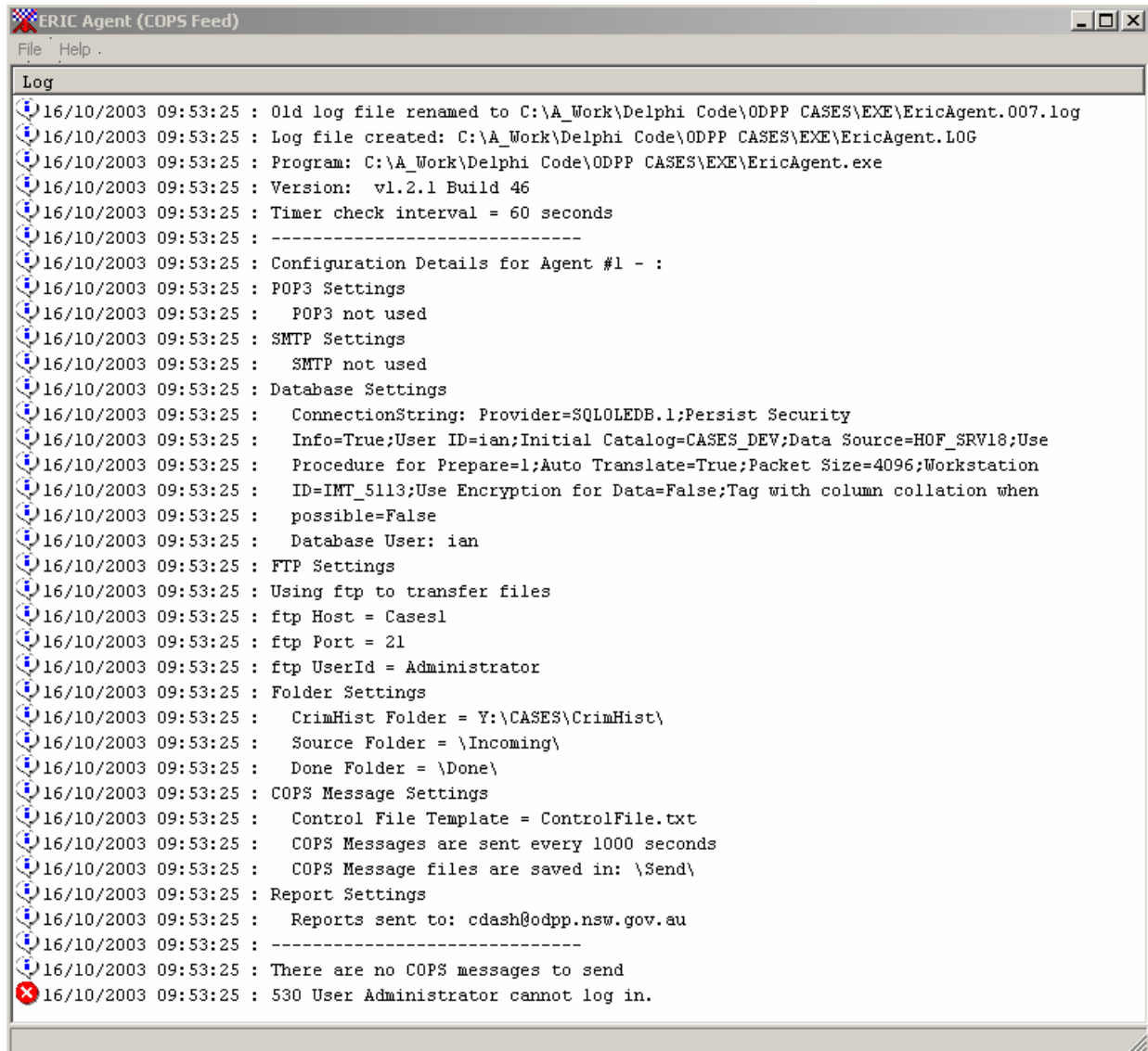

Figure 1

23. DATA MIGRATION

A suite of data migration tools has been developed for transferring data into CASES from legacy systems and allowing the bulk loading of data. An example shown below can be pointed to a network or local drive containing a structured hierarchy of user documents, this hierarchy is copied into the CASES document repository and metadata generated for the EDMS.