

# CAATs that Byte

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## CAATs that Byte

The office of the Auditor General was established in 1901 under the authority of the *Audit Act 1901*, the fourth act to be passed by the first assembly of the Commonwealth Parliament in Australia.

In 1997, the *Auditor-General Act 1997* replaced the *Audit Act*, and was enacted on the 1 January 1998. Under this Act the independence and mandate of the Australian National Audit Office (ANAO) was further strengthened, as the Auditor-General had become an 'Officer of the Parliament'.

The Information Technology Audit section (IT Audit) is part of the Assurance Audit Services Group (AASG) of the ANAO and exists to provide an integrated audit support service to all business units within the organisation. The IT Audit team has the responsibility for the management and delivery of IT audit activities to two separate groups, being AASG and the Performance Audit Services Group (PASG). The primary objective of the IT Audit section is to provide independent information technology (IT) assurance through the detection and evaluation of risks faced by Australian Government entities in their adoption and use of existing and emerging technologies.

There are currently seventeen members of IT Audit, each with a range of educational and workplace skills and experiences. The variety of technical, accounting, auditing and graduate backgrounds provides the ANAO with a diverse team capable of successfully undertaking many of the challenges with which it is faced.

One of the key services offered by IT Audit is the provision of Computer Aided Audit Techniques (CAATs) to analyse and interrogate client data. The Australian Auditing Guidance Statement (AGS) 1060 'Computer Aided Audit Techniques' issued by the Auditing and Assurance Standards Board of the Australian Accounting Research Foundation defines CAATs as 'computer programs and data the auditor uses as a part of the audit procedures to process data of audit significance contained in an entity's information systems'.

## CAATs Development

Over the past two years, the ANAO has committed and invested considerable time and resources into the development of an integrated and standardised approach to the use of CAATs within our organisation. Top-level commitment, including the individual commitment of Audit Managers to refining their audit methods, has been essential in developing this approach.

Various initiatives and activities have been required to enable CAATs to be used effectively within our organisation:

- The rollout and support of local and network versions of IDEA© software;
- Provision of in-house, IT Audit developed training on the use and application of IDEA© software;
- Staff attendance at externally provided training, including MS Access© and SQL;
- Purchase and implementation of SAP Assure© audit software, including the Assure Integrity© SAP Analysis module;
- Externally provided staff training in the configuration and use of SAP Assure© software;
- Purchase and implementation of BindView© IT Security and Configuration software;
- Externally provided staff training in the configuration and use of BindView© software;
- Purchase of a dedicated, high performance, high capacity server;
- Purchase of portable data storage devices;
- Assignment of resources to complete projects for standardised CAATs suites;
- Alterations to our audit methodology have been made; and
- Increased liaison and integration with financial statement auditors.

## The Challenges and the Benefits

The benefits of adopting CAATs within our audit methodology have not been immediate, as our organisation has had many challenges to overcome. A high degree of commitment has been required from all levels of the ANAO, from those designated with decision making responsibilities to those assigned project and field work tasks. Modifications to existing and accepted work practices have had to be made that have required change management approaches to overcome resistance and obstacles.

Challenges faced before some of the tangible benefits of CAATs have been realised have included:

- Setup costs;
- Training costs;
- Time required to initially develop a data analysis approach;
- Understanding the differing data structures between applications and entities;
- Ability to retrieve data from environments with a non-downloading security policy;
- Data privacy requirements;
- Data security classifications;
- Data processing and technology constraints; and
- Data storage restrictions.

These challenges have provided our staff with the opportunity to apply and develop their management, technical, and problem solving skills. As a result, our organisation has a staff profile that is increasingly skilled and competent in the use of various data analysis applications and techniques. The continuing ability of our organisation to adapt to a changing audit environment has been demonstrated by its commitment to the adoption of new audit technologies such as CAATs. The application of CAATs within the audits undertaken by the ANAO is dynamic, and the use of data analysis techniques is expected to provide the ANAO with ongoing benefits.

The benefits and efficiencies realised by the ANAO in the development, adoption and implementation of CAATs have included:

- Time and resource savings;
- Capacity to analyse larger quantities of audit related data;
- Financial efficiencies;
- Broader testing coverage; and
- Improved knowledge and understanding of data structures and audit environments.

## Analysis Undertaken

CAATs are used by the ANAO IT Audit team to provide assurance in both Financial Statement and Performance audits. Various types of data analysis are undertaken, and the suite of tools used and the capacity of the team is continuously expanding.

Examples of the CAATs undertaken by the IT Audit team include:

- Reasonability checks;
- Comparisons against business rules;
- Cross matching;
- Gap and duplicate detection;
- Exception reporting;
- Recalculations;
- Identification of data anomalies;
- Verification of segregation of duties;
- IT Security benchmark and gap analysis;
- Transaction authorisation and delegation checks;
- Population analysis; and
- Audit sampling.

## The Outlook for CAATs within the ANAO

Although the use of data analysis techniques by auditors is not a new concept, the implementation of a developed CAATs approach by the ANAO is a relatively recent initiative. Whilst the benefits of the implementation of CAATs have not always been realised immediately, with the continued support and commitment from all areas of our organisation, and the ongoing support of our audit clients, the adoption of CAATs across the ANAO service groups is becoming increasingly prevalent. It is anticipated that through the continued use of enabling technologies and products such as IDEA© and SAP Assure© that the suite of CAATs able to be provided by the IT Audit team will continue to rapidly develop. The use of CAATs and similar audit techniques by the IT Audit team and other areas of the ANAO makes it apparent that CAATs are rapidly becoming firmly ingrained in the current and emerging audit methodologies used by the ANAO.

