

A tale of two cities: working together to create new software tools for appraisal

Damien Hassan and Dr Richard Lehane

Preamble

Over the last few years, two government archives on the opposite sides of Australia have been working together to create new software tools designed to assist appraisal processes. This paper is a case study of that collaboration, describing the business drivers, the collaboration and development process, and the software tools themselves.

N.B. This paper refers to *disposal authorities*: these are the conduit by which appraisal decisions are made and approved. In different international jurisdictions, this type of instrument is known by other names such as records retention schedules or disposal schedules.

Appraisal processes in Australia

In Australia, the development of a disposal authority is a joint activity conducted between the government agency to which the disposal authority applies and the government archive which oversees the process. Usually it is the government agency that is responsible for drafting the disposal authority. The government archive provides guidance throughout this process, reviews submitted authorities and recommends amendments as appropriate.

Government agencies typically develop their disposal authorities following analysis of business functions, activities and transactions in accordance with international standard *ISO 15489 – Records Management*, often as part of developing a records classification scheme. The functions, activities and transactions form the structure of the authority and contextualise disposal decisions within the business of the government agency. Under this approach, disposal authorities can apply to records already in the organisation as well as those yet to be created.

When a disposal authority reaches a stage of finalisation – that is, when both the government agency and government archive are satisfied with the document and its decisions – it is submitted for final approval. The approval process for disposal authorities varies across the different jurisdictions in Australia. For some, disposal authorities are reviewed by independent committees and approved by independent boards. For others, approval is made directly by the government archive.

Disposal authorities only take legal effect once formally approved. At this point they can be implemented by government agencies, either by sentencing records for destruction or transferring records for permanent retention with the government archive. Disposal authorities are usually valid for a set period, such as five years, before they require review and the process is begun again.

Traditional approach

Traditionally, disposal authorities have been drafted, managed and published as documents in typical word processing formats. There are several problems with this approach:

- online publication in suitable formats (HTML, PDF) is a cumbersome, manual process;
- information about disposal actions and retention periods is 'locked' within the documents and is difficult to link to records maintained in government agencies or in archival collections;
- it is difficult to search across retention and disposal authorities to identify precedent decisions or analyse trends in retention decisions;
- it is hard to track disposal coverage (identifying which government agencies are covered by retention and disposal authorities) across the jurisdiction.

Working together

To resolve these issues, State Records New South Wales¹ and the State Records Office of Western Australia² have developed new tools for the drafting of disposal authorities and to manage appraisal processes. As both institutions have similar requirements and processes, it was agreed early on to collaborate where possible to share information and to ensure the compatibility of the resulting tools.

This collaboration was broadened to all government archives in Australia and New Zealand through the Australasian Digital Records Initiative (an undertaking of the Council of Australasian Archives and Records Authorities established with the express purpose of pooling resources and expertise to address digital recordkeeping matters).³ As well as supporting standardisation in the area of digital recordkeeping, the Australasian Digital Records Initiative provides a forum for government archives in Australia and New Zealand to work together on like-minded projects.

A key component to the collaboration has been in the development by State Records New South Wales of an XML schema for disposal authorities. This schema underpins the new software tools developed by both State Records New South Wales and the State Records Office of Western Australia.

XML Schema

In 2008, an XML format was proposed in New South Wales as a useful interim step pending development of a complete electronic system for drafting and managing disposal authorities. This approach wouldn't achieve the full benefits of a complete system (such as ORDA) but it would be a step forward.

The essential benefit of adopting an XML format for disposal authorities, as opposed to using MS Word or other word processing software, is that it identifies and labels the data within disposal authorities and the other

¹ www.records.nsw.gov.au

² www.sro.wa.gov.au

³ www.adri.gov.au

associated documents created during the drafting process. From this flows a number of benefits:

- *Uniform style*: because government agencies just provide data, and styles are automatically applied, it is possible to achieve a uniform look for all disposal authorities and styles can be easily changed over time;
- *Import*: possibilities for automatic importing of disposal classes into government agencies' electronic document and records management systems;
- *Track coverage*: greater ability to generate reports and "mine" data (how many disposal classes authorised in a year? how many disposal classes required as archives? what kinds of functions and activities are being required as archives?);
- *Better disposal authorities*: features like hyperlinks, breadcrumb trails, tables of contents and indexes can be automatically generated.

3.0.0	FIRE MANAGEMENT	The function of managing fire prone land, including the use of fire to achieve land management objectives. Also includes the prevention and control of fires in areas managed by the Agency.		
3.3.0	Fire planning	The activity of developing and implementing fire plans for an area or district which describe natural resources and proposals for managing fires. See FIRE MANAGEMENT - Incidents for records relating to specific fire incidents.		
3.3.1		Fire management plans for individual reserves.	Retain minimum of 1 year after plan is superseded, then destroy	Plans are maintained as up to date working documents to instruct staff on risks, priorities and actions required. Once superseded, old plans have limited internal reference use.

(Word version of an example disposal authority)

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<Term itemno="3.0.0" type="function">
<TermTitle>FIRE MANAGEMENT </TermTitle>
<TermDescription>
<Paragraph>The function of managing fire prone land, including the use of fire t
</TermDescription>
<Term type="activity" itemno="3.3.0">
<TermTitle>Fire planning</TermTitle>
<TermDescription>
<Paragraph>The activity of developing and implementing fire plans for an area
<SeeReference>
<TermTitleRef>FIRE MANAGEMENT</TermTitleRef>
<TermTitleRef>Incidents</TermTitleRef>
<SeeText>for records relating to specific fire incidents.</SeeText>
</SeeReference>
</TermDescription>
<Class itemno="3.3.1">
<ClassDescription>
<Paragraph>Fire management plans for individual reserves.</Paragraph>
</ClassDescription>
<Disposal>
<RetentionPeriod unit="years">1</RetentionPeriod>
<DisposalTrigger>plan is superseded</DisposalTrigger>
<DisposalAction>Destroy</DisposalAction>
</Disposal>
<Justification>
<Paragraph>Plans are maintained as up to date working documents to instru
</Justification>
</Class>

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(XML version of the same authority)

State Records NSW published its *XML schema for retention and disposal authorities* in 2009.⁴ Rather than simply representing disposal authorities in their final, approved form, this schema seeks to encompass each of the major stages in their lifecycle: from drafting and reviewing, through approval, issuing and management, until their eventual expiry or revocation. The schema includes processes relevant to these different stages, such as:

- the supply of contextual information along with draft retention and disposal authorities (agencies provide supporting documentation including elements like administrative histories);
- the exchange of comments with each new draft;
- and the recording of significant events affecting the status of retention and disposal authorities (submission, issue, being superseded, etc.).

Advantages of this holistic approach are a tight linking of related information, simpler and more efficient drafting processes (a single XML document to construct for each project rather than a set of different word documents), and improved control and management of disposal authorities over time (including possibilities for more granular control in the future, i.e. the management of individual terms and disposal classes).

Authority Editor

A key drawback of XML as a format is that, unlike word processing formats, it cannot be expected that government agency staff will have experience using XML and drafting XML as raw text is not intuitive. For this reason, State Records NSW also developed a custom software application for drafting and transforming disposal authorities in XML.

(Authority Editor – form entry view)

⁴ Available at http://www.records.nsw.gov.au/schemas/rda/SRNSW_RDA.xsd

Authority Editor is a full implementation of State Records' XML schema.⁵ It is a client application packaged for MS Windows (it can also run on Linux and Mac OS systems). *Authority Editor* is free and State Records NSW has published the source code online under a GPL license. Key features of the program are a form entry view with tree navigation for simple inputting of data, a 'review view' that provides a readable view for easily navigating and reviewing XML documents, and a transform engine that applies XSL stylesheets to authorities to generate HTML, MS Word or edited versions of disposal authorities.

A database driven approach

Before the XML schema was developed, the State Records Office of Western Australia had been interested in capturing disposal authorities into a database and having in place a dedicated system to manage appraisal processes (i.e. registration of disposal authorities, workflow, monitoring review dates, etc.).

One of the main drivers for this was the large number of disposal authorities the State Records Office of Western Australia was reviewing and managing as a result of new recordkeeping legislation.⁶ Under this legislation, all State and Local government organisations in Western Australia must have an approved disposal authority in place. This significant undertaking was achieved in 2007 thanks to a small but dedicated Recordkeeping Services team at the State Records Office and the co-operation of government record managers and recordkeeping consultants.

Initial work in a database driven approach to appraisal was conducted in 2006 when the State Records Office of Western Australia received proof of concept funding to develop a prototype system. The aim of this was to assess the type of functionality required as well as potential technical solutions. The proof of concept not only demonstrated the viability of this approach but was instrumental in securing funding to develop a production system. In 2009, a project to develop a dedicated system for managing appraisal processes and capturing disposal authority data commenced. This system was developed as an Australian Digital Records Initiative project led by the State Records Office of Western Australia. Fundamental to this project – and a key input – has been the XML schema referred to previously, as well as the *Authority Editor* tool which demonstrates how the schema works in operation. In a sense, the system can be likened to using *Authority Editor* but in a database-driven context.

Of course, a name had to be given to the new system: the Online Retention and Disposal Application. Development of the software commenced in 2011 and the system is now fully operational.

Online Retention and Disposal Application (ORDA)

To backtrack a little, ORDA has been developed to satisfy the following business needs:

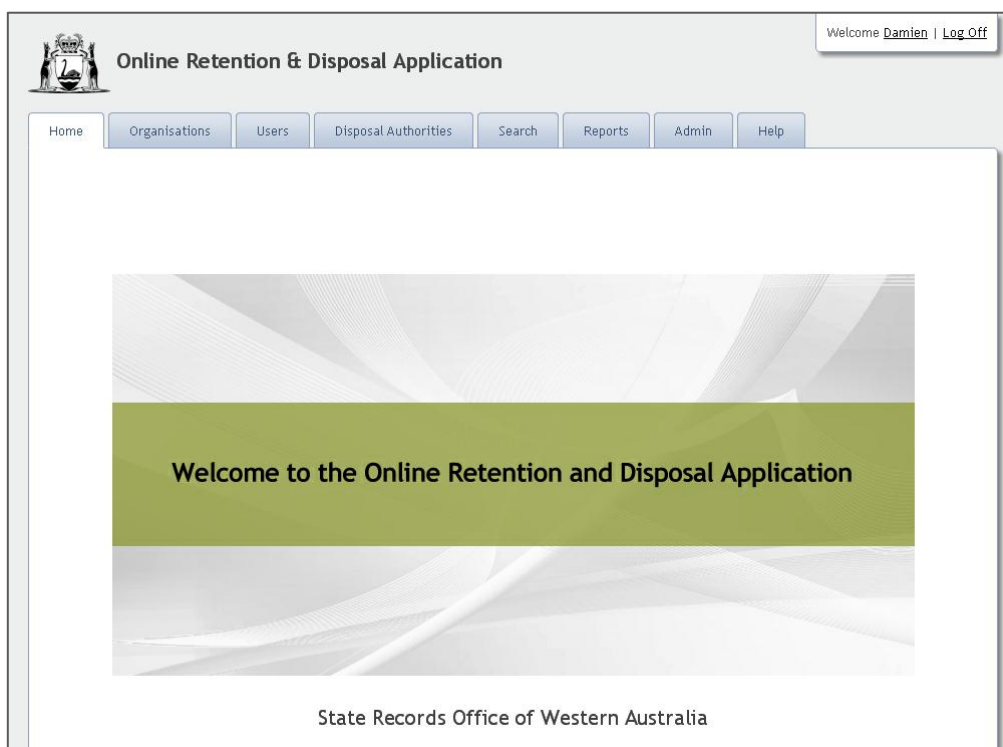
⁵ Application and source code available at <http://srnsw.github.com>

⁶ The *State Records Act 2000* (Western Australia).

- to provide a fit-for-purpose system to manage appraisal processes, from initial drafting of disposal authorities; their review and subsequent approval; and their cancellation as they are replaced in time by updated authorities;
- to provide a flexible and simple-to-use tool for external users when drafting their authorities and to leverage the efficiencies that a systems-based approach can provide (via drop-down options, linking to general authorities, etc.);
- to benchmark disposal decisions against a wider appraisal framework and to provide automated reports for such;
- to review authorities and provide feedback to external users via the system using tagged commenting fields;
- to provide external users with the ability to search existing disposal precedents as they develop their own authority, to assist informed decision-making;
- to allow the import of disposal authority data from third-party tools as well as export capability to support disposal within EDRMS;
- to provide reporting capability to track management of appraisal processes;
- to capture and store disposal authority data and to be able to use that data in different ways and for different purposes.

Although this is not the place to detail all aspects of system functionality and design, a summary of key points will follow.

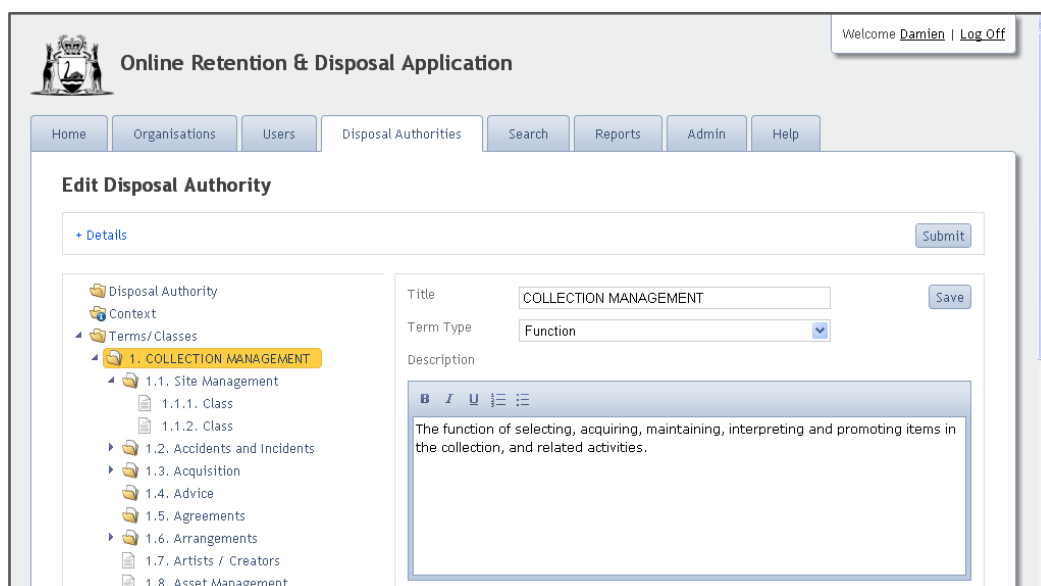
ORDA is web-based. Internal/external users need only a web browser to access the system. The system is not dependent upon a specific web browser.



(ORDA landing page for internal user)

There are different levels of access to the system depending on user roles. An internal (i.e. State Records Office) user with full access rights can register new organisations/users/disposal authorities, manage look-up menus, create help topics, etc. An external user (i.e. agency records manager or private records consultant) has limited system access directed toward preparing/submitting their disposal authority (although they can search across other approved disposal authorities, import/export disposal authority data, etc.).

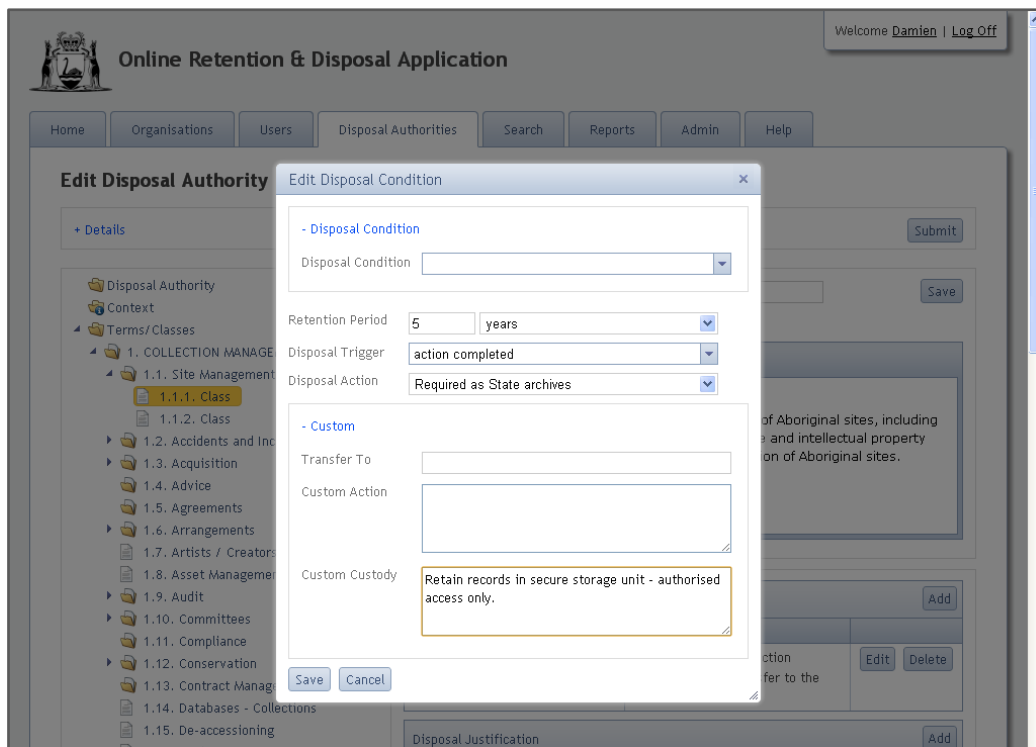
After a disposal authority is registered in ORDA (and an organisation/s and external user have been linked to that authority), the external user receives an email notification so they can commence drafting their authority (or importing it if having used a third-party tool). The disposal authority would typically follow a Function-Activity-Class structure but by virtue of the underlying XML schema there is great flexibility to create other types of 'nodal' structures. Terms/classes with a disposal authority can be added/edited/moved via the tree menu by the external user as they develop their disposal authority.



(View of Edit screen for a selected disposal authority: the authority's terms/classes are displayed on the left; descriptions for each term/class are displayed on the right)

To make the process a bit easier for external clients (and to assist in standardising information submitted), the external user can use pre-populated menus where they are available.

The menu options available through ORDA are internally managed so can be changed in time as the need arises. In adding a disposal condition for a given record class, the external user can select available options are relevant to that decision. The underlying schema provides great flexibility for custom options when they may need to be used.



(View of Edit screen with pop-up menu for adding a disposal condition to a record class)

The system provides a Review screen so that the whole disposal authority is set out as a table with the ability for users to add comments against any element. At each node (i.e. 'Term' or 'Class'), there is linking back to the corresponding node in the editing screen to make navigation fairly seamless.

The Review screen displays the disposal authority as a single table with colour delineation between Function-Activity-Class nodes. This screen allows the user to add comments/queries as the disposal authority is assessed. It also allows basic editing although the main editing happens via the Edit screen.

No.	Term Title	Description	Disposal Action	Custody	Disposal Justification	Restricted Access	Comments
1.	COLLECTION MANAGEMENT [Top]	The function of selecting, acquiring, maintaining, interpreting and promoting items in the collection, and related activities.					
1.1.	Site Management	The activity of managing Crown land that is of cultural, historic or scientific significance.					★ Here is a comment... Damien Hassan 27/07/2012
1.1.1.		Aboriginal Sites - Management Records relating to the management and assessment of Aboriginal sites, including liaison with site custodians regarding Aboriginal culture and intellectual property pertaining to such sites.	Required as State archives	Retain 5 years after action completed, then transfer to the SRO.		Section 76 - Permanent restricted access status applies	

(View of Review screen for a selected disposal authority. User comments can be added via this screen or the Edit screen. Comments not yet resolved are identified with a red star)

There are various export options available including exporting a disposal authority with the traditional look and feel of a document. It would typically be this document that is exported and submitted for endorsement and approval processes.

The system logs all parts of the workflow for a given disposal authority in a history table. ORDA captures each version of a disposal authority as an XML file and via the history table, any version can be viewed and exported as required in XML, text or as a Word document.

Searching capability within the system is designed to assist with informed decision-making and allows for existing precedents to be easily checked. Internal and external users can search across all approved disposal authorities using various options such as globally by government sector or specifically by terms and descriptions within the body of disposal authorities. The system provides links to matching parts in approved authorities or a summary of matching information can be generated as a report. In some instances, a disposal authority may be suppressed from external searching if it contains information of a confidential nature. Although this would rarely be used, there is the facility within ORDA that allows the administrator to apply such suppression where this is justified.

On the management side, the system provides different report options including capturing the corpus of approved disposal authority data or filtering that information in different ways. This provides the ability to use – and reuse – disposal authority information for other parts of archival activity such as in prioritising archival transfers and monitoring the ongoing transfer process. Reports can be exported in a variety of formats.

DA Number	Organisation	DA Title	Sector	Approval Date	Organisation Editor	SRO Reviewer	No. of Classes	No. of Archives	% of Archives	Archives (Red)
2012-001	Department of Agriculture	Test DA	Business and Industrial Development	10/02/2012	John Brown	Mary Jones	3	1	33.33 %	<div style="width: 33.33%; background-color: red;"></div>
2012-002	Department of Planning	Ad Hoc Schedule for the Department of Lands	Infrastructure and Communications	10/02/2012	John Brown	Mary Jones	1	1	100.00 %	<div style="width: 100%; background-color: red;"></div>
2012-003	Department of Transport	Retention and Disposal Schedule for the Department of Transport	Infrastructure and Communications	10/02/2012	John Brown	Mary Jones	79	27	34.18 %	<div style="width: 34.18%; background-color: red;"></div>
2012-004	Department of Sustainability	Retention and Disposal Schedule for the Department of Commerce	Conservation and Environment	10/02/2012	John Brown	Mary Jones	61	5	8.20 %	<div style="width: 8.20%; background-color: red;"></div>
2012-005	Department of Agriculture	General Disposal Authority for Human Resource Records	Business and Industrial Development	20/02/2012	John Brown	Mary Jones	10	4	40.00 %	<div style="width: 40.00%; background-color: red;"></div>
2012-006	Department of Agriculture	FA0294 (Government advertising)	Business and Industrial Development	10/02/2012	John Brown	Mary Jones	16	6	37.50 %	<div style="width: 37.50%; background-color: red;"></div>
2012-007	Department of Buses	Retention and Disposal Schedule for Departmental Records	Infrastructure and Communications	22/02/2012	John Brown	Mary Jones	99	36	36.36 %	<div style="width: 36.36%; background-color: red;"></div>
2012-008	Department of Buses	Retention and Disposal Schedule for Departmental Records	Infrastructure and Communications	23/02/2012	John Brown	Mary Jones	40	3	7.50 %	<div style="width: 7.50%; background-color: red;"></div>
2012-018	Department of Infrastructure	Retention and Disposal Schedule for Department of Infrastructure	Business and Industrial Development	28/02/2012	John Brown	Mary Jones	3	3	100.00 %	<div style="width: 100%; background-color: red;"></div>

(A report generated from ORDA showing the percentage of record classes identified as State archives, across a cluster of disposal authorities)

As part of its undertaking with the Australasian Digital Records Initiative, the State Records Office of Western Australia has agreed to share ORDA with those government archives in Australia and New Zealand who wish to adopt it. The source code for the application is currently retained by the SRO.

Although a decision is yet to be made about release of ORDA for wider international use, the State Records Office of Western Australia welcomes any enquiries from the international archives community about its use in overseas jurisdictions (email: sro@sro.wa.gov.au).

Conclusion

This case study demonstrates the benefits of collaboration and how working together can achieve better results than working in isolation.

The writers also trust that this paper gives the international community an insight into some of the innovative work that continues to be conducted within the Australasian archives community, work typically conducted within minimal budgets. This is just one example of new archival initiatives in Australasia – there are many others currently being conducted in this part of the world. We hope our international colleagues get to hear about some of these during this week's Congress.

Parts of this paper, particularly those relating to ORDA, have been adapted from the article "The Online Retention and Disposal Application: a new approach to managing appraisal processes", published in *Comma* 2011.1 (2012) © Liverpool University Press. The original article can be accessed at <http://liverpool.metapress.com/content/122452/>.