ADMIRe Research Data Archiving System

ask-4® Business Solutions

BPM Metastorm
The ADMIRe project

“Establish and pilot a sustainable research data management (RDM) infrastructure for The University of Nottingham. It aims to develop an infrastructure to support the research data lifecycle, acknowledging & responding to differing practices across subject disciplines.”

• Funded by JISC for 18 months
• Collaboration with LRLR, IT Services & RGS
• Monthly project team & Steering Group meetings
• Reporting internally & externally
• System based upon use cases from: ‘Process Model & User Case Analysis’ documentation
## RDM Focus Group Results: Priorities

<table>
<thead>
<tr>
<th>Data Set</th>
<th>RELEVANCE</th>
<th>High</th>
<th>Med</th>
<th>Low</th>
<th>Zero</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata</td>
<td>Description of assets, such as Title, Author</td>
<td>13</td>
<td>10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Paradata</td>
<td>Use of assets, such as Activity, Actor, Context, Date, Volume</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Identity</td>
<td>Allocation of a unique digital identity to each asset (URI, DOI)</td>
<td>9</td>
<td>10</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Files</td>
<td>The digital objects themselves or related assets</td>
<td>18</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Stuff</td>
<td>Real world artefacts that need to be referenced</td>
<td>8</td>
<td>6</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Vocabularies</td>
<td>Standardised terms used in metadata and paradata</td>
<td>6</td>
<td>12</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Licensing</td>
<td>Explicit licensing as open data (e.g. Creative Commons)</td>
<td>2</td>
<td>7</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Copyright</td>
<td>Necessary statements</td>
<td>4</td>
<td>9</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Links</td>
<td>Links to internal and external systems (ePrints, CRIS, RC)</td>
<td>5</td>
<td>8</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>
RDM Technical Infrastructure: Active Data

System Scope
System Scope

RDM Technical Infrastructure: Data Archive
The ADMIRe RDAS solution allows researchers to create a project and create multiple bags assigned to that project.

The solution will allow the creation/maintenance of Metadata within a bag. The solution will capture the bag’s location.

Once the bag is ready for publish, a Digital Object Identifier (DOI) must be created. This can be a manual or an automated process. Once a DOI has been assigned, the Bag is published.

The solution will also capture any requests for changing the bag’s location. The Metadata and DOI will need to be updated after approval.

Approved users are allowed to search for the bags that are marked ‘Open’.

Admin and approved user can then apply administrative tasks and generate reports. Reports can be accessed at a admin or user level.
**Process Flow – Project Map**

**ADMIRe RDAS Project**
- Starting point for creating projects and bags
- What do you want the process to be called?
- Before a project can be active, what are the required fields?

**Create a Project**
- Create a new project

**Update Project Details**
- Update Project Details
- Q: What actions do you want here?

**Active Projects**
- Create a New Bag
- Assign Bags to the project: Raise Flag into the ‘ADMIRe_Bags’ process
- Can any number of Bags be created at any given point?
- Can a Bag be moved to another project?

**Withdraw Project**
- Withdraw Project
- Delete project, which will also delete all bags within the project: Raise Flag in the ‘ADMIRe_Bags’ process

**Project Withdrawn**
- Auto Archive

**Actions applied to all stages**
- Add note to Common
Process Flow - Bag Map Part 1

1. ADMIRe RDAS
   - Controls the Bag's lifecycle within a project
   - Send Email

2. New Bag
   - Create a new Bag. Initiated from the 'ADMIRe_Project' process. The Bag is automatically assigned to the project.

3. Tag
   - UC1: Tag: Collect the Metadata

4. Bag
   - UC2: Bag: Capture file/bag location (URL)
   - UC3: Xfer
   - UC4: Ingest
   - UC5: Update

5. Xfer
   - Update
   - Send Reminder

6. Ingest
   - Add Annotation
   - Add Notes

7. Deleted Bags
   - Who can delete?

8. Edit Bag Details
   - Edit Bag
   - Edit Metadata

9. Edit Bag
   - Update
   - Reminder

10. Project Withdrawn
    - Common Delete
    - Delete Bag

11. Mark TAG Complete
    - Mark BAG Complete

12. Q: What data do we need to capture here? (If any?)
    - Mark XFER Complete
    - Ingest

13. UC12: Annotate
Process Flow - Relocate Map
UC11 - Notify
Request to be notified about a project or key events
@ = Email

Submit Notification Request

Approval by Project Submitter/PI

Approval

Approve

Auto archived after 6 months

Approved

Auto Archive

Archive

Reject
Screenshots - Project Form

Project Overview

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed a urna at purus malesuada eleifend ac lobortis enim. Nullam iaculis

Submitter    Department    Email
Richard Hewson    Information Technology    richard@ask-4.co.uk

Principal Investigator (PI)    Department    Email

Contributors - These users will receive email alerts/notifications. You can enter users as free text in the table below, or search the University of Nottingham database for users by clicking the 'Search' button on the right.

<table>
<thead>
<tr>
<th>Full Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe Blogs</td>
<td><a href="mailto:Joe.Blogs@nottingham.ac.uk">Joe.Blogs@nottingham.ac.uk</a></td>
</tr>
<tr>
<td>Mike Smith</td>
<td><a href="mailto:m.smith@hotmail.com">m.smith@hotmail.com</a></td>
</tr>
</tbody>
</table>

Project Details

Project Code    No Project Code
Project Title    Project X
Funding Body
Please Specify
Publisher    ask-4
Project Start Date    26/04/2013    End    31/10/2013

Funding Body Name
Screenshots - Project Bag Overview Form

Project Bag Overview Form

Project Summary - To view the project in more detail, please click the 'Project Overview' Tab at the top.

Controlling Bag Progress List - Click the 'EDIT' button to update the bag details.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Bag Title</th>
<th>Created</th>
<th>Updated</th>
<th>Publication Status</th>
<th>Progress Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIT</td>
<td>BAG-000024</td>
<td>25/04/2013</td>
<td>25/04/2013</td>
<td>Open</td>
<td>Tagged</td>
</tr>
<tr>
<td>EDIT</td>
<td>BAG-000025</td>
<td>25/04/2013</td>
<td>25/04/2013</td>
<td>Open</td>
<td>Tagging in Progress</td>
</tr>
</tbody>
</table>

Create a New Bag (RDAS-000036) - Windows Internet Explorer

Please enter the bag's details below to create a new bag. Once created, this will appear in the 'Controlling Bag Progress List' on the previous screen. Alternatively the bag can be accessed from your To-Do list.

Bag Title: Bag 1
Publication Status: Open
Creation Date: 25/04/2013

Click the 'Ok' button below to create a new bag.
Screenshots - Update Metadata

Edit Metadata (BAG-000025) - Windows Internet Explorer

ADMIR_e_Bags

Bag Details

TAG - Bag's Metadata

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla euismod elit, quis dignissim lectus.

Title

Alternative Title(s)

Researchers(s)

Department(s)

Departmental Affiliations

Ref No: BAG-000025
Project Ref No: RDAS-000036
Screenshots - MINT DOI

Request DOI (BAG-000023) - Windows Internet Explorer

ADMIRE_Bags

Ref No: BAG-000023

Bag DOI

This form relates to 'UC6-MINT DOI' in the 'Process Model & Use Case Analysis'

There are two way for creating a DOI. Manually, and Automated. Please note, a DOI will take upto 24 hours to become active.

Create DOI: Manual

1. Logged into: https://test.datacite.org/mds
2. Click 'Register a new data set' on the left hand side
3. Enter the details below into the online form:

<table>
<thead>
<tr>
<th>DOI:</th>
<th>10.5072/BAG-000023</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL:</td>
<td><a href="http://nottingham.ac.uk">http://nottingham.ac.uk</a></td>
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</table>

XML Document:

<table>
<thead>
<tr>
<th>File Name</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>test.xml</td>
<td>38 bytes</td>
</tr>
</tbody>
</table>

Create DOI: Auto

Click here to generate DOI

OK Cancel
Screenshots - ADMIN - Logs

System Activity Logs

This admin form relates to "UCIS-Admin" in the Process Model & Use Case Analysis

<table>
<thead>
<tr>
<th>Map Name</th>
<th>Ref</th>
<th>From Stage</th>
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<th>Action</th>
<th>Time</th>
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<td>BAG-000024</td>
<td>Tag</td>
<td>Bag</td>
<td>TagComplete</td>
<td>26/04/2013</td>
<td>Mark TAG Complete</td>
<td>uiarh</td>
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<tr>
<td>ADMIRE_Bags</td>
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<td>NewBag</td>
<td></td>
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<td>ActiveProjects</td>
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<td>NewBag</td>
<td>26/04/2013</td>
<td>2 Bag (s) Associated with this Project.</td>
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<td>New Bag</td>
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<td>ADMIRE_Projects</td>
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<td>NewBag</td>
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<tr>
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<tr>
<td>ADMIRE_Bags</td>
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<td>Approval</td>
<td>MntDOI</td>
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<td>Mark XFER Complete</td>
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<td>ADMIRE_Bags</td>
<td>BAG-000023</td>
<td>Bag</td>
<td>Xfer</td>
<td>BagComplete</td>
<td>25/04/2013</td>
<td>Mark BAG Complete</td>
<td>AdminReTest</td>
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<tr>
<td>ADMIRE_Bags</td>
<td>BAG-000023</td>
<td>Tag</td>
<td>Bag</td>
<td>TagComplete</td>
<td>25/04/2013</td>
<td>Mark TAG Complete</td>
<td>AdminReTest</td>
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<td>Bag</td>
<td>Xfer</td>
<td>BagComplete</td>
<td>25/04/2013</td>
<td>Mark BAG Complete</td>
<td>AdminReTest</td>
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</table>
Screenshots - ADMIN - Mapping

Mapping Permissions

This admin form relates to 'UC15-Admin' in the 'Process Model & Use Case Analysis'.

<table>
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<tr>
<th>Role</th>
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<th>Xfer</th>
<th>Ingest</th>
<th>Update</th>
<th>Mint</th>
<th>Publish</th>
<th>Relac...</th>
<th>Search</th>
<th>Access</th>
<th>Notify</th>
<th>Annot...</th>
<th>Check</th>
<th>Report</th>
<th>Admin...</th>
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<tbody>
<tr>
<td>Administrator</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
</tr>
<tr>
<td>Approved User</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Curator</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td></td>
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<tr>
<td>Registered User</td>
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<tr>
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<td>Yes</td>
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</table>
### BAG Contents Not Checked

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<tr>
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<th>Bag Ref</th>
<th>Bag Title</th>
<th>Progress Status</th>
<th>Created</th>
<th>Updated</th>
<th>File Location</th>
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</thead>
<tbody>
<tr>
<td>RDAS-000024</td>
<td>BAG-000021</td>
<td>bag 4</td>
<td>Tagging in Progress</td>
<td>24/04/2013</td>
<td>24/04/2013</td>
<td><a href="http://www.google.com">www.google.com</a></td>
</tr>
</tbody>
</table>

### BAG Contents Checked

<table>
<thead>
<tr>
<th>Project Ref</th>
<th>Bag Ref</th>
<th>Bag Title</th>
<th>Progress Status</th>
<th>Created</th>
<th>Updated</th>
<th>File Location</th>
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</thead>
</table>

- **Mark BAG as Checked**
<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Project Ref</th>
<th>Bag Ref</th>
<th>Bag Title</th>
<th>Status</th>
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<tbody>
<tr>
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<td>BAG-000022</td>
<td>Bag1</td>
<td>Ready for Transfer</td>
</tr>
<tr>
<td>Funding Source 10</td>
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<td>BAG-000023</td>
<td>Bag2</td>
<td>Ready</td>
</tr>
<tr>
<td>Funding Source 10</td>
<td>RDAS-000034</td>
<td>BAG-000022</td>
<td>Bag1</td>
<td>Ready for Transfer</td>
</tr>
<tr>
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<td>BAG-000023</td>
<td>Bag2</td>
<td>Ready</td>
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<tr>
<td>Funding Source 10</td>
<td>RDAS-000034</td>
<td>BAG-000022</td>
<td>Bag1</td>
<td>Ready for Transfer</td>
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<tr>
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<td>RDAS-000034</td>
<td>BAG-000023</td>
<td>Bag2</td>
<td>Ready</td>
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<tr>
<td>Funding Source 10</td>
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<td>BAG-000022</td>
<td>Bag1</td>
<td>Ready for Transfer</td>
</tr>
<tr>
<td>Funding Source 11</td>
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<td>BAG-000023</td>
<td>Bag2</td>
<td>Ready</td>
</tr>
<tr>
<td>Funding Source 11</td>
<td>RDAS-000034</td>
<td>BAG-000022</td>
<td>Bag1</td>
<td>Ready for Transfer</td>
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<tr>
<td>Funding Source 11</td>
<td>RDAS-000034</td>
<td>BAG-000023</td>
<td>Bag2</td>
<td>Ready</td>
</tr>
<tr>
<td>Funding Source 11</td>
<td>RDAS-000034</td>
<td>BAG-000022</td>
<td>Bag1</td>
<td>Ready for Transfer</td>
</tr>
</tbody>
</table>
Next steps

• Continuation of Research Data Archive pilot
  – Is it fit for purpose?
  – What are the costs going forward?
  – Benefits versus other repository software?
• Allocate funding for development
• Handover to RDM stakeholders post-ADMIRe