

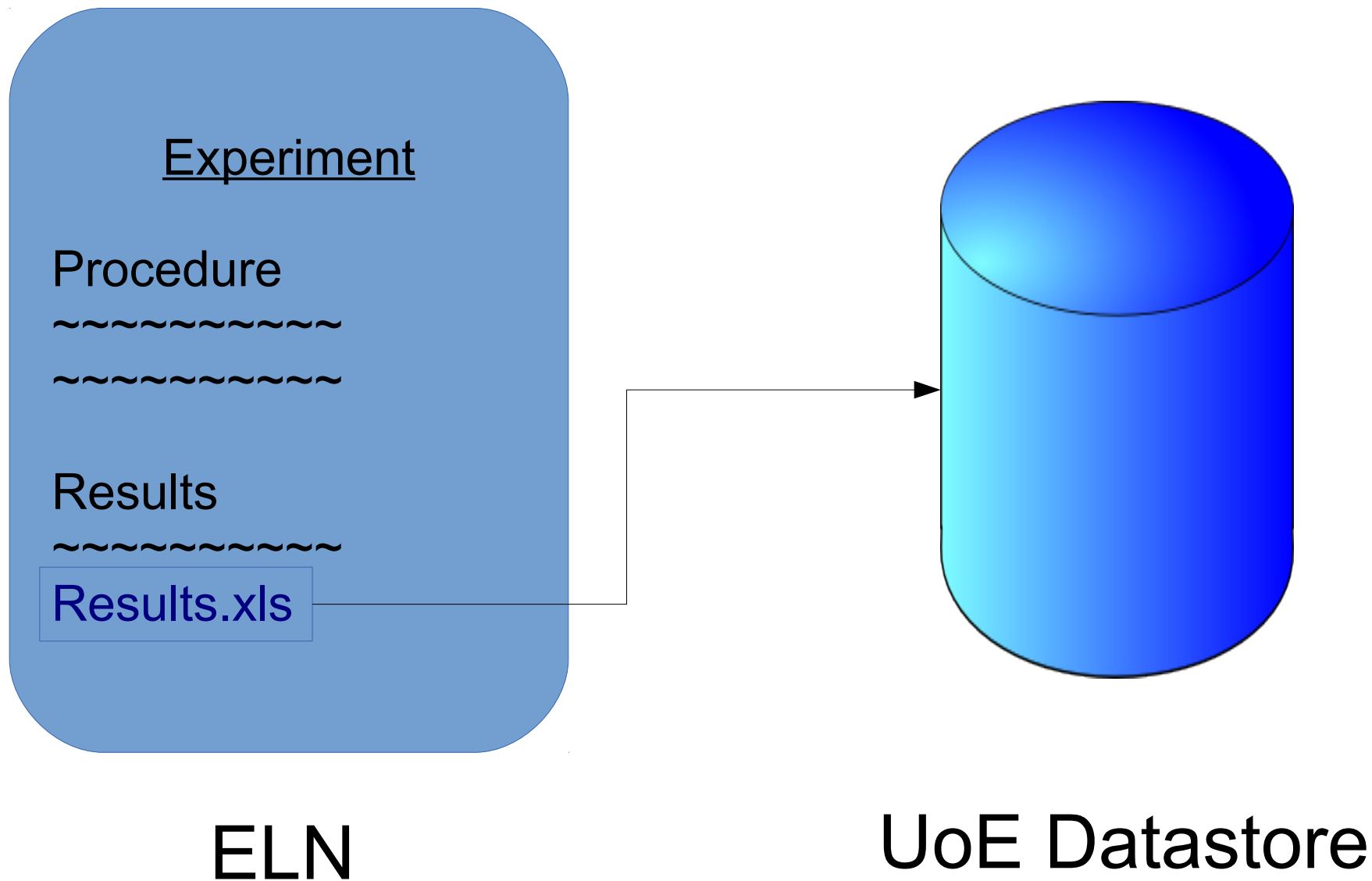
ELNs and RDM: Case Study with RSpace

Nigel Goddard
School of Informatics

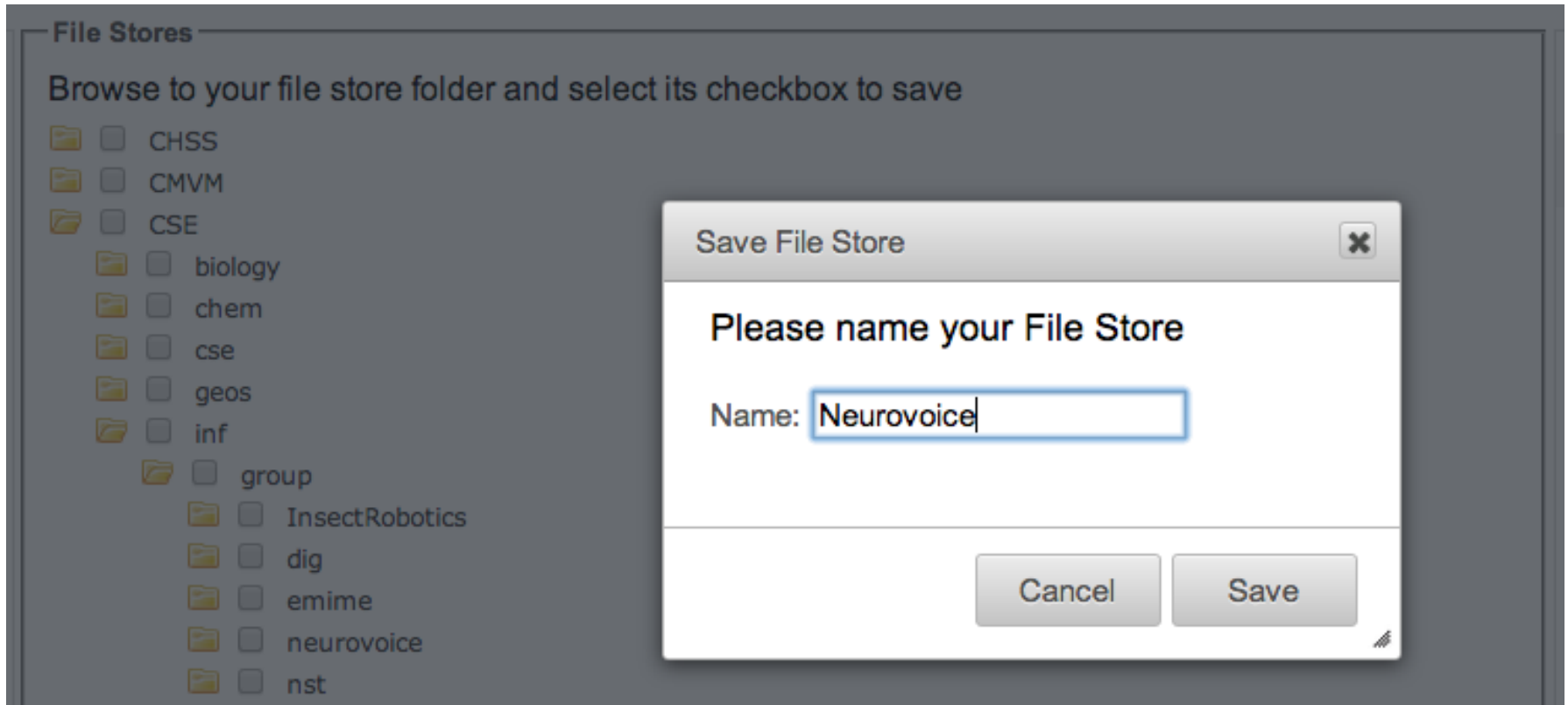
Overview

- Linking to files in Datastore
- Depositing content in Datashare
- Archiving in Datavault

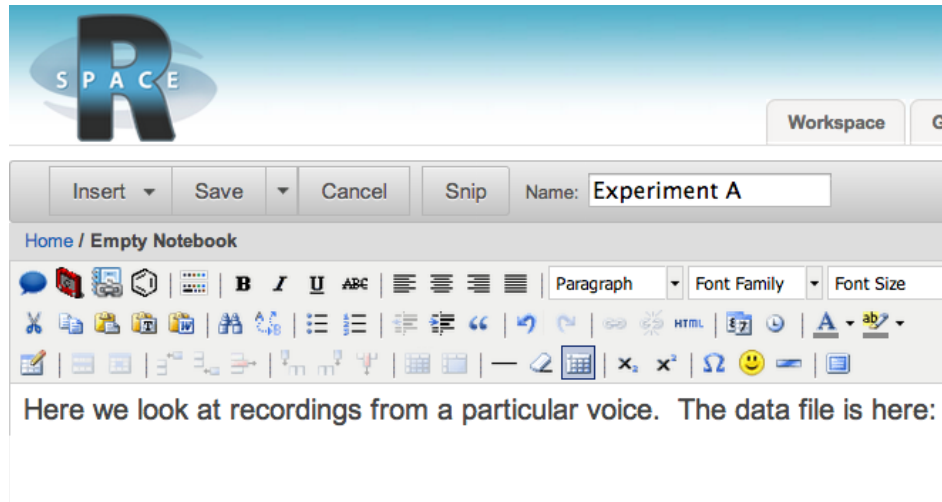
Linking to Datastore



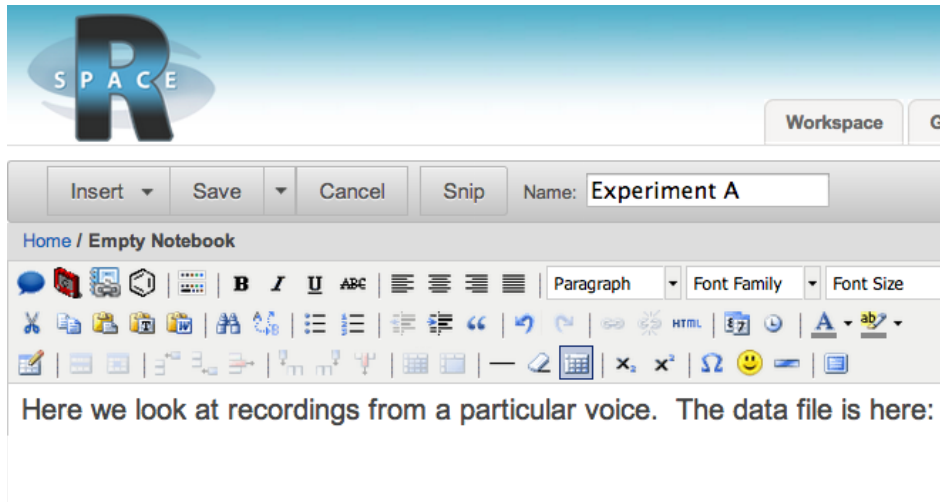
Exposing Datastore File Roots



Linking to a Datastore File



Linking to a Datastore File

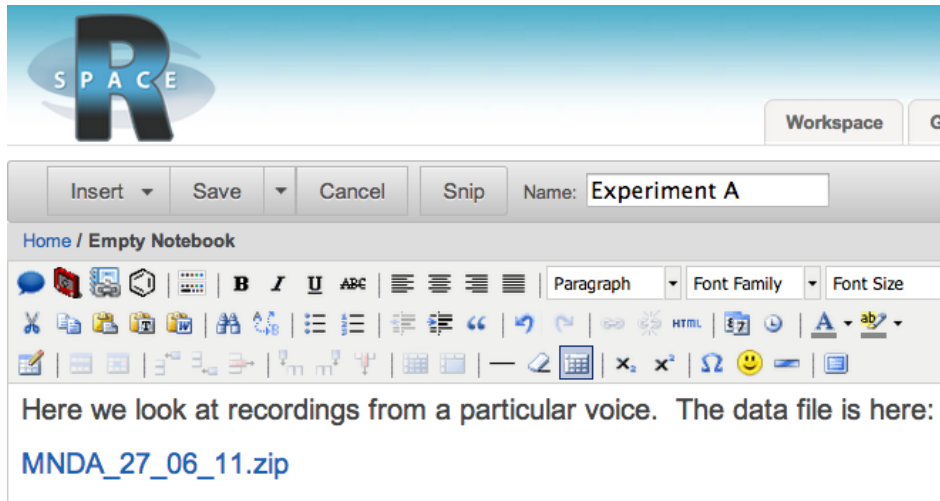


File Stores

File Store: Neurovoice

📁	.TemporaryItems		
📁	.Trash-628401		
📄	<input type="checkbox"/> quota.txt	69	2014-08-24
📁	recordings		
📁	database		
📁	guests		
📄	<input checked="" type="checkbox"/> MNDA_27_06_11.zip	203469205	2011-06-27

Linking to a Datastore File



The screenshot shows the RStudio interface. At the top left is the 'R SPACE' logo. Below it is a toolbar with buttons for 'Insert', 'Save', 'Cancel', and 'Snip'. A text field labeled 'Name:' contains 'Experiment A'. Below the toolbar is a breadcrumb 'Home / Empty Notebook'. A rich text editor toolbar is visible with various icons for text formatting and insertion. The main text area contains the following text:

Here we look at recordings from a particular voice. The data file is here:
[MNDA_27_06_11.zip](#)

File Stores


File Store: Neurovoice






📁	.TemporaryItems		
📁	.Trash-628401		
📄	quota.txt	69	2014-08-24
📁	recordings		
📁	database		
📁	guests		
📄	<input checked="" type="checkbox"/> MNDA_27_06_11.zip	203469205	2011-06-27

Datastore: Designing for the User







- Single Sign On via EASE
- Seamless file access
 - CIFS with user credentials (tbc)
- Multiple file roots per user
 - Idiosyncratic organisation
 - Sharing between users/groups

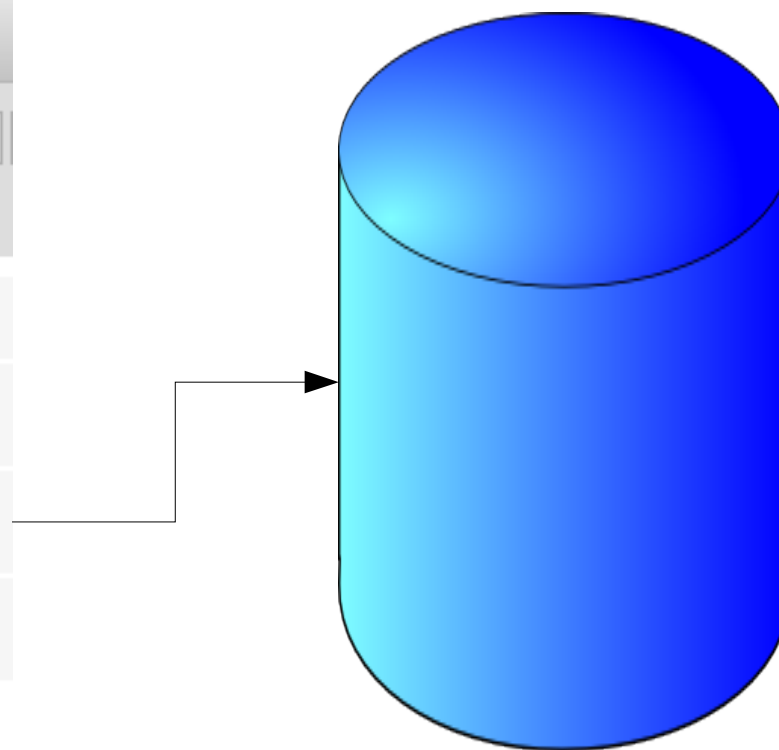
Exporting to Datashare

Create ▾ List Tree 

 Copy  Move  Rename  Delete  Export PDF

Home / Projects

Options	Type	Owner	Name
<input type="checkbox"/>		admin	Energy Lab 
<input checked="" type="checkbox"/>		admin	Non-Domestic 
<input type="checkbox"/>		admin	TEDDI project 



ELN

UoE Datashare

Adding metadata

Copy Move Rename Delete Export PDF Export Zip Archive Export to Repository

Home / Projects

Options	Type	Owner	Name
<input type="checkbox"/>		admin	Energy Lab ⓘ
<input checked="" type="checkbox"/>		admin	Non-Domestic ⓘ
<input type="checkbox"/>		admin	TEDDI project ⓘ

Records per page: 10

Required Information for Repository Deposit

Enter your name. Put any forename(s) in the first box and your last name in the second

Enter the publishing institution, followed by any school or department, eg University of Edinburgh, School of GeoSciences, Institute of Geography

Enter a title for the deposit

Enter the names of any contributors who created the contents of the deposit, with first and then surname. Use 'Add' to add contributors and 'X' to remove

Cancel Deposit

RSpace – Edinburgh DataShare integration: Backend platform

- Edinburgh DataShare has three interfaces/APIs
 - Web-UI
 - Python
 - SWORD (simple Java based web-service which supports repository deposits)
- RSpace uses the SWORD Interface
- The SWORD server accepts a file for deposition if a METS description file is provided

Four part METS implementation in RSpace – Datashare integration

- RSpace uses the standard METS header
- DMD -- field definitions are based on Dublin Core
 - Four required fields in Edinburgh DataShare -- contributor, publisher, title, and data creator -- must be completed as part of the deposit through RSpace
 - Additional optional fields can be filled in later by DataShare administrator:
 - FUNDER, SPATIAL_COVERAGE, TIME_PERIOD, DATA_CREATOR, AVAILABLE_DATE, DESCRIPTION_ABSTRACT, DESCRIPTION_TOC, LANGUAGE, RELATION_VERSION_OF, RELATION_REFERENCED_BY, SUPERCEDES, RIGHT, SOURCE, SUBJECT_KEYWORDS, SUBJECT_CLASSIFICATION, ALTERNATIVE_TITLE
- All zipped files and their mime-types (e.g. application/pdf, text/html) are included
- A structure map describes the full structure and relationships between the above three elements

RSpace – Edinburgh Datashare integration: Workflow

- Front end trigger
 - An RSpace user selects files/folders/notebooks to be deposited from RSpace, and starts the deposit process
- Backend to support the user workflow
 - RSpace extracts the associated data and resources from its database and file-store
 - These are turned into xml files
 - METS is used to describe the zip file and each selected file
 - The xml, resource, and METS files are zipped into a zip file for archiving
 - The DSpace SWORD client deposits the zip file to DataShare after an authentication and validation procedure
 - File deposited in Collection associated with Depositor

Archiving in Datavault

- Datavault functionality/API not yet specified
- Anticipate use of XML zip archive
- Many requirements to be determined
 - e.g., searching, restoration

RSpace and RDM

