



Repository Junction Broker (RJB)

What it is

The RepNet RJ Broker is a tool for automated research output content delivery from data suppliers into multiple repositories. The Broker will deliver a SWORD-mediated content ingest into IRs which have registered for the service. Transferred contents may be metadata-only or metadata-plus-digital-object items (mainly covering research articles but potentially other contents too). In order to be able to ingest these, repositories need to feature SWORD endpoints (see the SWORD factsheet for learning more about this).

How it works

In order to deliver the content to repositories, the RJ Broker first identifies authors' affiliations for a given research article. Institutional affiliations are then automatically associated to repositories where the content should be delivered into. The target repositories should previously have been enabled for automated content reception by making them SWORD-compliant. The RJ Broker will initially work on DSpace, EPrints and Fedora-based repositories, for which SWORD endpoint enabling and running is quite simple.

The RJ Broker can be operated as a 'Lite' service to ingest standard metadata sets-plus-objects into the current metadata element profiles at IRs via their default SWORD importer. However, the 'Full' RJB service envisions delivery of additional metadata covering FunderID, GrantID and embargo period. This will meet RIOXX (plus major stakeholders') requirements, but won't be able to be brought into service until RIOXX has been successfully implemented on IRs.

Configuring a repository for ingesting content via its SWORD endpoint

Besides having a running SWORD endpoint available, IRs need to carry out several config updates in order to be able to receive and ingest the content transfers. For example, the following four aspects need to be configured for DSpace:

1. SWORD Ingester;
2. Package Ingester;
3. A mapping between the SWORD ingester and the Package Name;
4. A cross-walker to be used by the Package Ingester to convert the submitted metadata to the internal DSpace metadata.

Use cases for SWORD-mediated content ingest

The RJ Broker has already been successfully tested on test EPrints, DSpace and Fedora repositories at EDINA. After previous enabling of their SWORD endpoints, test metadata+item transfers have used SWORD 1.3 protocol to deposit packages into EPrints 3.3, DSpace 1.8.x and Fedora 3.6.2.

Test RJ Broker-mediated transfers are currently being delivered into live repositories, such as Dspace-based Spiral repository at Imperial College or Eprints-based City Research Online (CRO) IR at City University London.

Spiral (Imperial College London)

Preliminary RJB-mediated test transfers have been carried out with the Imperial College London. A set of 103 EuropePMC articles has been transferred into a test instance of the Spiral institutional repository, which runs on a DSpace 1.7 platform. Once the transfer has been proved technically feasible, a further stage in the content delivery testing is currently addressing metadata quality issues for the ingested items. Once these have been tackled, a third testing stage will deal with de-dup strategies and improved workflows for delivering items into the specific collections they belong to.

The screenshot shows the Spiral: Imperial College Digital Repository interface. At the top, there is a navigation bar with links for 'Prospective Students', 'Students', 'Alumni', 'Staff', 'Business', and 'Media'. Below this is a search bar and a 'Go' button. The main header area includes the text 'Spiral: Imperial College Digital Repository' and a 'Return to the Imperial homepage' link. A user is logged in as 'rjb-sword@edina.a...' with a 'Logout' link. Below the header, there are links for 'Home', 'Communities & Collections', 'Issue Date', 'Author', 'Title', 'Type', 'Submit Date', and 'Contact us'. The main content area features a search bar with an 'Advanced Search' link and a colorful graphic. Below this, the user's profile 'My Spiral: rjb-sword' is shown, along with a 'Tasks in the Pool' section. A message states: 'Below are tasks in the task pool that have been assigned to you.' A table lists these tasks with columns for Date, Item, Submitted To, Submitted By, and Type. Each task has a 'Perform This Task' button.

Date	Item	Submitted To	Submitted By	Type	
11-Jun-2013	Localized reactive badger culling increases risk of bovine tuberculosis in nearby cattle herds.	RJBroker	rjb-sword	Unspecified	Perform This Task
11-Jun-2013	Influence of ivabradine on reverse remodelling during mechanical unloading.	RJBroker	rjb-sword	Unspecified	Perform This Task
11-Jun-2013	Identification of functionally important residues in TFP1 Kunitz domain 3 required for the enhancement of its activity by protein S.	RJBroker	rjb-sword	Unspecified	Perform This Task
11-Jun-2013	Genome-wide association studies of asthma in population-based cohorts confirm known and suggested loci and identify an additional association near HLA.	RJBroker	rjb-sword	Unspecified	Perform This Task
11-Jun-2013	Inference of temporally varying Bayesian networks.	RJBroker	rjb-sword	Unspecified	Perform This Task
11-Jun-2013	Autopsy confirmed multiple system atrophy cases: Mayo experience	RJBroker	rjb-sword	Unspecified	Perform This Task

City Research Online (CRO) – City University London

A set of EuropePMC articles has also been smoothly ingested into the City Research Online (CRO) repository, which runs on EPrints 3.2. Minor issues in metadata quality are also being worked upon, together with strategies for making the article full-text versions openly available. The RJ Broker transfer into EPrints 3.2 is by far the easiest use case at the moment, and there are plans to extend its application to further institutions. The next challenge for the RJB is tackling issues related to content ingest into EPrints 3.3 – which is run by institutional repositories at many research-intensive HEIs.

Date	Item	Type	Source	
24 Jun 2013 10:46	Effect of telehealth on quality of life and psychological outcomes over 12 months (Whole Systems Demonstrator telehealth questionnaire study): nested study of patient reported outcomes in a pragmatic, cluster randomised controlled trial.	Article	Live Archive	
24 Jun 2013 10:46	Episodic memory and episodic future thinking in adults with autism.	Article	Live Archive	
24 Jun 2013 10:46	Are rehabilitation services for patients in UK eye clinics adequate? A survey of eye care professionals.	Article	Live Archive	
24 Jun 2013 10:46	Getting a grip: different actions and visual guidance of the thumb and finger in precision grasping.	Article	Live Archive	