CANARIE Research Software Portal

Overview

The CANARIE Research Software Program funds the development of innovative software to accelerate scientific discovery in Canada. You can learn more about the program at canarie.ca/software. Go ahead, we'll wait.

The *Research Software Portal* at science.canarie.ca allows researchers and research software developers to find and learn about software contributed by program participants and by members of the greater research community. All software registered with the Portal is free to use for research purposes by anyone, anywhere[1].

What types of software are listed on the portal?

The Portal supports *Research Platforms* and *Research Software Services* in separate registries. *Research Platforms* are software components that do most of what you need to support your research workflow, from data acquisition to storage management to compute scheduling to visualization. *Research Software Services* are software components that perform a single function.

Where does this software come from?

Research projects funded by CANARIE contribute software back to the Registry – both as *Research Platforms* and *Research Software Services*. Additionally, any software developer is welcome to contribute Platforms and Services to the Registry for use by other research teams.

> Discover free software to enable scientific research.

> Accelerate your time to discovery by making use of existing software, developed for research by researchers.

> Contribute your own research software to help fast-track future scientific discoveries

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[1] Inrastructure and software licensing restrictions may apply.

The Registries

The contents of each Registry are presented in a list format that provides overview information for all contributed software. This overview contains basic information about each *Platform* and *Service* and is designed to let you quickly determine which software resources might meet your needs. We've even listed software that is currently under development as coming soon, so that you don't waste valuable research dollars duplicating software that is already being developed by another group.

Research Software Service Registry

Registry of software services free to use for research purposes.

To learn more about the program, read Introduction to CANARIE Research Software. To learn more about an individual service, click on the service name below.

Services 1 to 20 of 43 |◀ ◀◀ **1** 2 3 ▶▶ ▶| 20 ⇕   ☑ Hide 'Coming Soon'

Service Name ▲	Owner ⇕	Category ⇕	Research Subject ⇕	Status	Availability
● ActiveFolders - Share data between computing centres and devices	Cybera and University of Alberta	Other	Data transport and transport protocols	✓	100.0%
● Annotation Storage Service	CRIM	Data Storage and Retrieval	Store and manipulate large amounts of JSON - LD compliant annotations	✓	100.0%
● Batch Cloud Processing Service	CANFAR @ University of Victoria	Resource / Cloud Management	Multi - Discipline	✓	96.9%
● Batch Services	University of Victoria	Resource / Cloud Management	Multi - discipline	✓	99.2%
● BrainBrowser Surface Viewer Web Service	McGill University	Data Visualization	Multi - discipline	✓	98.2%
● CANARIE Reference Service (DAIR Alberta)	CANARIE	Other	Software and development	✓	99.8%
● CANARIE Reference Service (DAIR Quebec)	CANARIE	Other	Software and development	✓	99.8%
● Cangeo	CRIM	Data Visualization	Cartography	✓	98.3%
● CBRAIN Data Service	McGill University	Data Manipulation	Multi - discipline	✓	99.4%
● CICSTART CML Script Client	University of Alberta, Department of Physics, Space Physics	Workflow / Service Scheduling	Multi - Discipline	✓	99.5%

Details, Details, Details

Want to learn more about a registered software resource? Simply click on the resource's name at the left side of the Registry list, which will link to the details page for that resource. We've asked all software contributors to provide a standard documentation set so that you can learn all there is to know about each resource from this one location.

Overview
Statistics
Related resources
Details ▾
External links for this project.
Documentation
Licence
Provenance
Release Notes
Source Code
Support
Try Me

The reference implementation of the Research Software API for services revision 6

Category :	Other
Created By :	CANARIE
Research Subject :	Software and development
Support Email :	support@science.canarie.ca
Type : ❶	Managed
Version :	3.0
Release Date (UTC):	2014-04-28 16:14:39
Tags :	CANARIE reference RPI service

You'll be able to read the user documentation, understand the licensing, learn how the software provenance is managed and locate source code, in cases where the source has been made available by the creators. Most importantly, you'll see information on obtaining support. All CANARIE Research Software Program participants are committed to providing support to get other researchers using their software effectively in a minimum amount of time.

Monitoring Contributed Software

Documentation is great, but before you commit to using software contributed by others, you'll want to make sure that it will be available when you need it. This is particularly true when using software hosted by someone else – software as a service. CANARIE has defined a lightweight protocol that we use to measure the availability of contributed software resources and their documentation. A 28-day graph of this availability is presented on the Details page for each contributed resource.
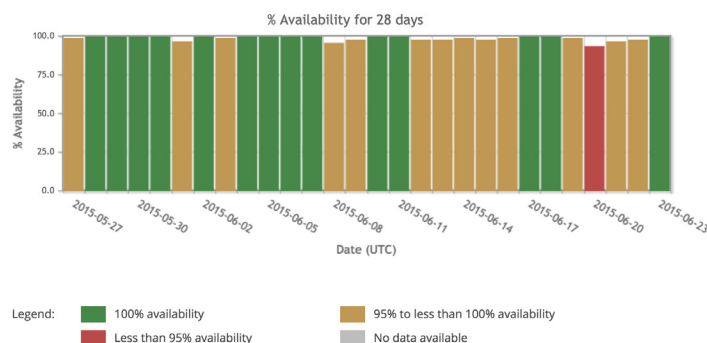
Availability

Current Status	7 Day	28 Day
✓	98.2%	98.8%

% Availability for 28 days

Legend:
- 🟩 100% availability
- 🟥 Less than 95% availability
- 🟨 95% to less than 100% availability
- ⬜ No data available

Extras for Software Contributors

Since the Portal is monitoring contributed software resources for availability, we have added extra features for contributors. We monitor resource usage and provide the owners with 28-day usage graphs, allowing you to easily spot trends and detect loading issues.

Don't have a monitoring system? We can notify you if your software or documentation becomes unavailable. We support email notification, a polled RESTful API and Nagios. Even if you have a monitoring system of your own, we can augment it by providing monitoring from outside your local network.
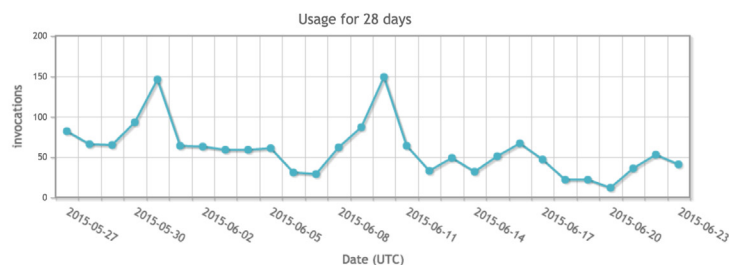
To ensure that your contributed software conforms to the monitoring protocol before you deploy it, we've provided a validation tool. A special unpublished mode that allows for long term monitoring before your resource is made public is also available.

Usage

Total	7 Day	28 Day
25,424	233	1,645

Usage for 28 days

Specifications

User Login	Canadian Access Foundation (CAF) — use your institutional credentials without the need to create a new account.
Language Support	English, French
Research Platform Information	Creator, Research Subject (from NSERC code tables), support email, type*, version, release date, user documentation, license, provenance, release notes, source code**, support procedures, fact sheet, online demo or video
Research Software Information	Category***, Creator, Research Subject (from NSERC code tables), support email, type*, version, release date, user documentation, license, provenance, release notes, source code**, support procedures, online demo or video
Notification of Software Availability Failure	Owners of affected software notified by email. A RESTful interface and Nagios support are also provided.
Monitoring	Users provide documentation endpoints and implement a simple RESTful API for managed* services and platforms.
Testing Support	Monitoring protocol validators for contributed Services and Platforms; Unpublished mode for private long-term testing
Examples	CANARIE provides monitoring protocol refernce implementations for both services and platforms

*The following software types are supported:

- Managed — a live, online instance of the software is deployed by the creator on their own hardware/cloud resources. Users access this instance across the network
- Self-deployed — users deploy their own private instance of the software which is typically accessed across the network
- Integrated — software is released in a format (libraries, source code) which allows it to be included in other software systems at build time

**Source code availability is dependent on the license selected

***Category indicates what part of the research workflow a service supports and is one of: Data Manipulation, Data Storage and Retrieval, Data Visualization, Resource/Cloud Management, Sensor Management/Data Acquisition, Service Registration/Discovery, User Management/Authentication, Workflow/Service Scheduling