

Academic Computer Centre CYFRONET AGH



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Supporting open science, technical aspects of data repositories deployment and management

Why The Dataverse Project?



Open source research data repository software



Enjoy full control over your data. Receive web visibility, academic credit, and increased citation counts. A personal Dataverse collection is easy to set up, allows you to display your data on your personal website, can be branded uniquely as your research program, makes your data more discoverable to the research community, and satisfies data management plans. Want to set up your personal Dataverse collection?



Seamlessly manage the submission, review, and publication of data associated with published articles. Establish an *unbreakable link* between *articles in your journal* and *associated data*. Participate in the open data movement by using a Dataverse collection as part of your journal data policy or list of repository recommendations. Want to find out more about journal Dataverse collections?



Establish a research data management solution for your community. Federate with a growing list of Dataverse repositories worldwide for increased discoverability of your community's data. Participate in the drive to set norms for sharing, preserving, citing, exploring, and analyzing research data. Want to install a Dataverse repository?



Participate in a vibrant and growing community that is helping to drive the norms for sharing, preserving, citing, exploring, and analyzing research data. Contribute code extensions, documentation, testing, and/or standards. *Integrate research analysis, visualization* and *exploration tools*, or other research and data archival systems with the Dataverse Project. Want to contribute?



Why The Dataverse Project?

- Numerous installations
- Community support

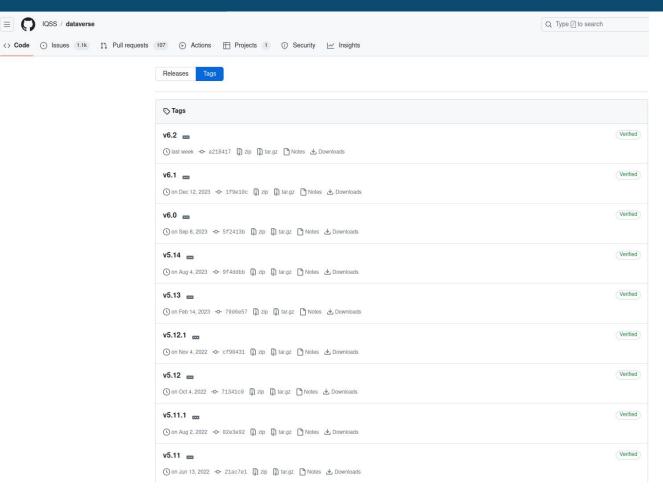




- Code contribution
- Global problem one solution

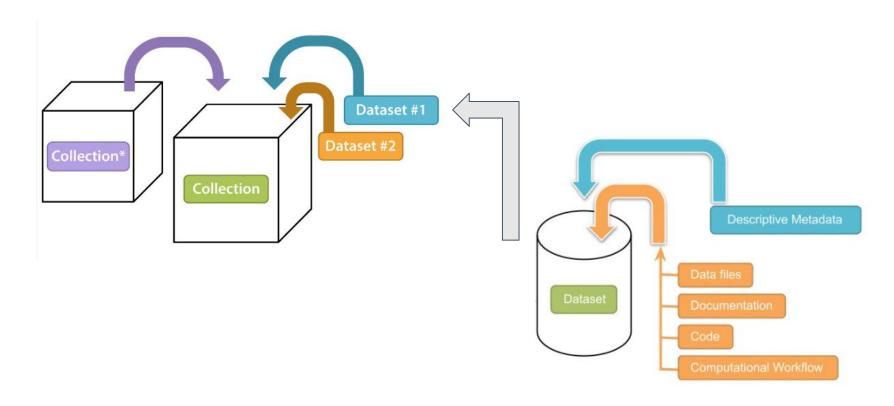


Dataverse repository





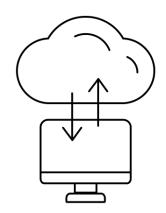
Metadata, collections, repositories





Inside Dataverse installation

- Virtual machine
- HTTP server
- Firewall
- Java
- Ansible
- Rserve
- ...and more











Dataverse foundations



Open source object-relational database https://www.postgresql.org/

Payara Server Enterprise is an open source application server https://www.payara.fish/

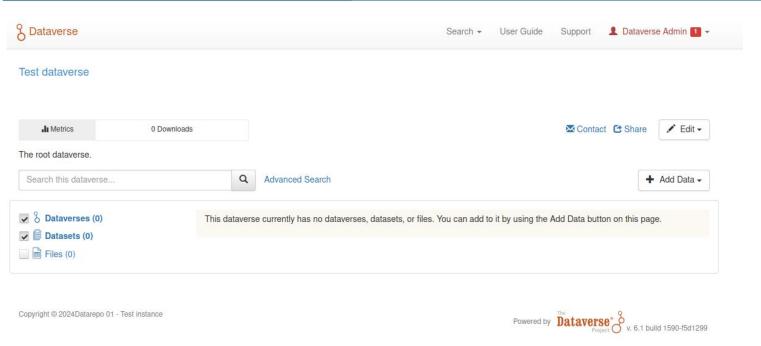




Open source enterprise search platform https://solr.apache.org/



Pre-production stage



- Testing application, new configuration, updates, deployment of a new version
- Custom solutions
- Reproducing potential errors
- Pre-implementation readiness (data steward training)



Storage and network



- Why objective storage?
 - Cost-Effectiveness
 - Scalability
 - Durability and Reliability
 - Accessibility



- High-efficiency network
 - The PIONIER network enables communication with major national and foreign computing centres. International connectivity is achieved through the GEANT scientific network
 - The data link layer is implemented using Juniper Networks and Cisco Systems equipment while the hardware layer involves 10 Gigabit Ethernet technologies
 - reliability of over 99%



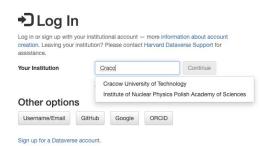
IdP, SSO, Log in

Integration with Central Authentication Database:

- SSO Single Sign-On
- Managing one account (creating, deleting)
- Privilege management

Configuration:

- Shibboleth, identity framework for identity
 management across multiple systems or organizations
- SAML is a standard protocol used for secure exchange of authentication and authorization









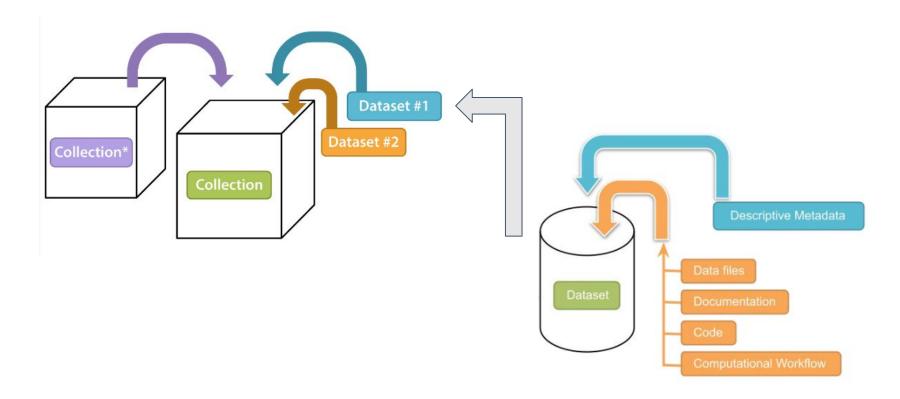
Update, upgrade, monitoring

- Backup policy
 - Open science = big data
 - Data protection (risk management)
 - Data repositories requirements (certification)
- Monitoring
 - SSL/TLS certificates, usage of resources:
 CPU, RAM, storage
- Software version control
- CVE tracking
 - Continuous monitoring
 - Patch management



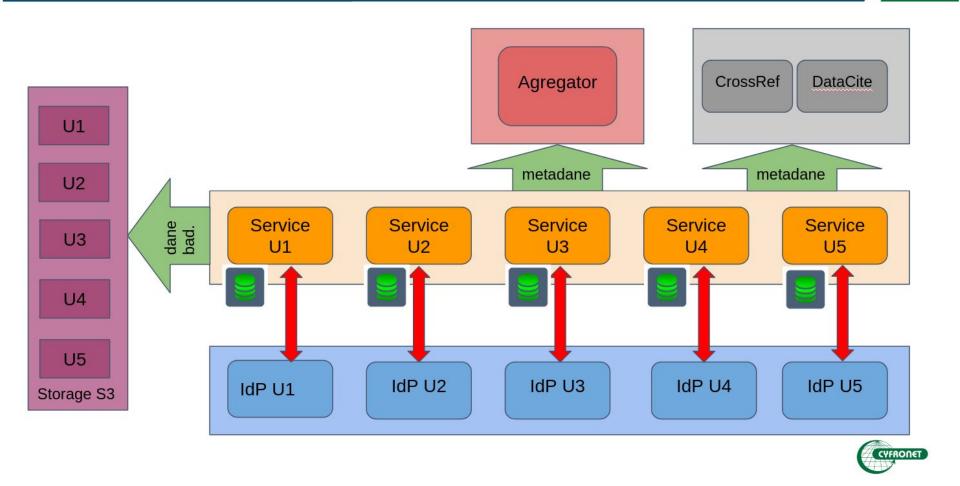


Basic architecture - quick reminder





Final architecture



Branding your repository

- Visual identity
 - logo
 - colours
 - typography
- Custom design elements
- Brand consistency

RODBUK

Web accessibility

The Academic Computer Centre Cyfronet AGH undertakes to ensure the accessibility of website rodbuk.pl (https://rodbuk.pli) in accordance with the provisions of the Act of April 4, 2019 on Digital Accessibility of Websites and Mobile Applications of Public Entities.

Date of website publication: 2023-02-28

The declaration was last reviewed and updated: 2023-09-25

Status in terms of compliance with the Act

The website is partially compliant with the Digital Accessibility of Public Entities' Websites and Mobile Applications Act due to the incompatibilities or exclusions listed below.

Content not available

- With some documents for downloads, there is no indication of the language of the document. Only the
 title of the document can suggest what language the document was created in,
- Some graphic elements do not have alternative text,
- . Some site elements do not comply with the minimum requirements for contrast,
- . Some elements do not inform about the change of context (transition to another page),
- . Some text elements may not comply with the minimum line height requirement,
- · Some pages may not contain headers...
- Graphical components of institutional collections, and also datasets, i.e. data files with metadata
 describing them, are made available within the repository's website by its users, so they represent
 content that, while in the possession of Academic Computer Centre Cyfronet A6H, has not been
 created by or for Academic Computer Centre Cyfronet A6H or acquired by it. In accordance with
 Article 3.2 para. 5(a) of the Act, it does not apply to those elements of the website.

Keyboard shortcuts

You can use standard browser keyboard shortcuts on the website.

body f font-family: 'Poppins', sans-serif; margin: 0; padding: 0: body { padding-bottom: var(--dv-footer-h-mobile); background-color: var(--dv-bg-primary); color: var(--dv-text); dmedia (min-width: 768px) { body { padding-bottom: var(--dv-footer-h-desktop); color: var(--dv-link) !important; a.btn-primary { color: white !important:

```
window.addEventListener("scroll", function(event){
    var nav = document.getElementBvId("navbarFixed");
        nav.style.borderBottom = "solid lox #e7e7e7";
        nav.style.boxShadow = "4px 4px 6px #0000000f";
        nav.style.boxShadow = "none":
var nav = document.getElementById("navbarFixed");
nav.style.border = "none";
nav.style.boxShadow = "none";
var changeImgTime = 5000;
function changeImg(){
    const slides = document.getElementById("hero-logo-carousel").querySelector("[data-slides]");
    let newIndex = [...slides.children].indexOf(activeSlide) + 1;
    if(newIndex >= slides.children.length) newIndex = 0;
    slides.children[newIndex].dataset.active = true;
    delete activeSlide.dataset.active;
    setTimeout("changeImg()", changeImgTime);
window.onload = changeImg;
const t = (id, content) => {document.getElementById(id).innerHTML = content;}
const langPL = document.querySelector("[title='Jezyk']");
```



Customization



Brand the application with landing page & custom UI



Ensure web accessibility



Serve static documents & custom URLs



Final product

RODBUK

RODBUK Cracow Open Research Data Repository

RODBUK was founded on the initiative of Board of Directors of the Cracow Library Group. RODBUK is co-created by six Cracow universities:

- · AGH University of Krakow,
- · University of Physical Education in Krakow,
- · Cracow University of Technology,
- · Krakow University of Economics,
- · Jagiellonian University in Kraków,
- University of the National Education Commission, Krakow.







Search all dataverses...





Deposit data in your Institutional Collection:







Cracow University of Technology



of Economics

University of the National Education Commission, Krakow

uken



of Physical Education in Krakow

...is final product possible?



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Thank you for your attention

