CIROH DocuHub and Portal: A Unified Knowledge Management Platform for collaborative Water Research

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Background

The Cooperative Institute for Research to Operations in Hydrology (CIROH) maintains Portal and DocuHub as complementary websites to support discoverability, documentation, and collaboration across the hydrologic research community. These platforms evolved based on user feedback and community needs, forming the backbone of CIROH's knowledge management ecosystem.

CIROH Portal

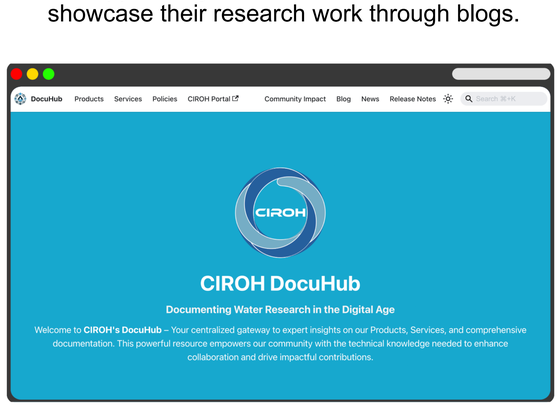
A frontend hub that brings together CIROH web apps, datasets, publications, and training materials in one place, making it broadly discoverable and accessible to the hydrologic community and the public.

1. Showcases web applications and tools (GitHub) coming out of CIROH.
2. Aggregates datasets (Hydroshare) used in CIROH projects all in one place.
3. A collection of publications and papers (Zotero) featuring CIROH and NOAA's collaborative research in hydrology.
4. A list of presentations on CIROH research projects collected from workshops and conferences.
5. Open courses (Hydrolearn101) designed for learners at all levels seeking to deepen their understanding of water science.

CIROH DocuHub

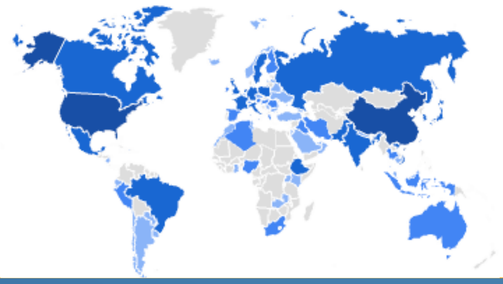
A centralized technical documentation hub for researchers to get insights on CIROH projects and enhance collaborations within the consortium.

1. Overviews of CIROH products and tools, primarily pulling from GitHub README files and documentation.
2. A detailed documentation of IT resources (both cloud and on-premise) available to CIROH researchers.
3. Monthly news updates from CIROH science team.
4. An opportunity for consortium member to showcase their research work through blogs.



Google Analytics

1. There are over **4000** combined active users across CIROH portal and DocuHub
2. Top user regions include **U.S, China, Singapore, India, and Canada.**

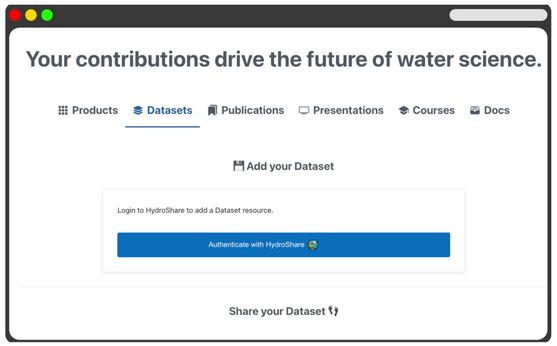


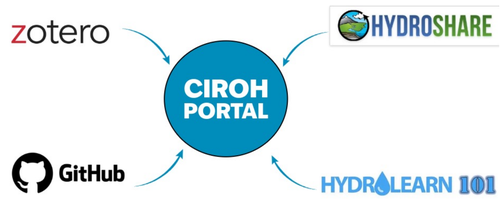
CI/CD Workflow

1. Website source code changes, such as new functionality or content updates, is submitted via GitHub or as per contribution guides on websites.
2. All such contribution undergo a pull request (PR) review process to ensure correctness of content and functionality.
3. Once approved, the GitHub Actions CI/CD pipeline pushes the changes to an online staging environment, where they can be previewed.
4. When a batch of changes is ready for deployment, a GitHub tag signals the CI/CD pipeline to mirror the staging environment's content to the main website.

Community Contribution

The CIROH Portal includes a dedicated Contribute page where community members can submit their datasets, publications, presentations, courses, and web applications to add it to the website.





Two Platforms, One Purpose

1. Portal emphasizes discoverability and public engagements through open access to CIROH related tools, applications and datasets.
2. DocuHub provides precise technical information on specific tools and services, prioritizing depth and technical accuracy for active users.
3. Both serve important but distinct roles in our information ecosystem.

Future Directions

1. Improve contribution workflows with improved templates.
2. Expand google analytics for deeper user and product insights
3. Integrate more CIROH tools, datasets, and publications for unified navigations
4. Potential merge of Portal and DocuHub into a unified CIROH platform to simplify user navigation and reduce content redundancy.

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