

Navigate and Use Open Construction Platform Features

01 Welcome to Open Construction

Welcome to Open Construction. This short orientation will help you understand how the platform is organized before you explore individual features.

Getting Started with OpenConstruction

A short walkthrough

02 Explore Homepage Overview

Let's start on the homepage. This is the front door of OpenConstruction.



OPENCONSTRUCTION
Open Science

Catalog

Insights

Learn

Contribute

Community

Log in

Sign up

Discover open digital assets
for the built environment



171
DATASETS



111
MODELS



31
WORKFLOWS

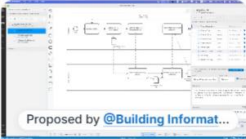


34
OERS

All

Search datasets, models, authors, or tasks

LATEST CATALOG ADDITIONS

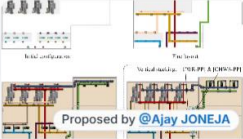


Proposed by @Building Informat...

MODEL2026

IDMxPPM neo-Seoul: An Open-Source Information Delivery Manual (IDM) Authoring Tool Compliant with ISO 29481-1 and ISO...

BIM/IFC · Process Modeling, Information Requirement Modeling, MVD Generation



Proposed by @Ajay JONEJA

DATASET2026

MEP Plant Room Pipe Routing Dataset

BIM/IFC · 7 models



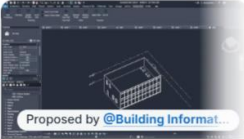
Proposed by @Bharathi Kannan ...

DATASET2026

BIM-Edit Dataset

BIM/IFC, Text · 11 realistic + 36 synthetic models

Community digest



Proposed by @Building Informat...

MODEL2026

Augmented BIM Log-Basr > Real-Time Design Change Monitoring, Selective Rollback, and Design Patching

BIM/IFC, BIM Logs · Design Change Monitoring, Selective Rollback, Design Patching

03 Use Homepage Search Features

You can search across resources and quickly see the main categories: datasets, models, workflows, and educational resources, and you can do quick search for those resources.

 OPENCONSTRUCTION
Open Science

Catalog

Insights

Learn

Contribute

Community

Log in

Sign up

Discover open digital assets
for the built environment

 171
DATASETS

 111
MODELS

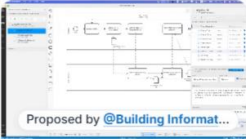
 31
WORKFLOWS

 34
OERS

All

Search datasets, models, authors, or tasks

LATEST CATALOG ADDITIONS

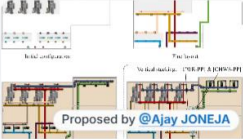


Proposed by @Building Informat...

MODEL2026

IDMxPPM neo-Seoul: An Open-Source Information Delivery Manual (IDM) Authoring Tool Compliant with ISO 29481-1 and ISO...

BIM/IFC · Process Modeling, Information Requirement Modeling, MVD Generation



Proposed by @Ajay JONEJA

DATASET2026

MEP Plant Room Pipe Routing Dataset

BIM/IFC · 7 models



Proposed by @Bharathi Kannan ...

DATASET2026

BIM-Edit Dataset

BIM/IFC, Text · 11 realistic + 36 synthetic models

Community digest



Proposed by @Building Informat...

MODEL2026

Augmented BIM Log-Basr > Real-Time Design Change Monitoring, Selective Rollback, and Design Patching

BIM/IFC, BIM Logs · Design Change Monitoring, Selective Rollback, Design Patching

04 Browse Resources in Catalog

Next, use catalog when you want to browse reusable resources directly. Catalogs are where you can find datasets, models, workflows, and open educational resources.

 OPENCONSTRUCTION
Open Science

[Catalog](#) [Insights](#) [Learn](#) [Contribute](#) [Community](#) [Log in](#) [Sign up](#)

Discover open digital assets for the built environment

 171
DATASETS

 111
MODELS

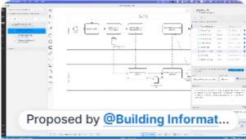
 31
WORKFLOWS

 34
OERS

All

Search datasets, models, authors, or tasks

LATEST CATALOG ADDITIONS

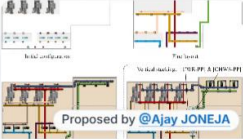


Proposed by @Building Informat...

MODEL2026

IDMxPPM neo-Seoul: An Open-Source Information Delivery Manual (IDM) Authoring Tool Compliant with ISO 29481-1 and ISO...

BIM/IFC · Process Modeling, Information Requirement Modeling, MVD Generation



Proposed by @Ajay JONEJA

DATASET2026

MEP Plant Room Pipe Routing Dataset

BIM/IFC · 7 models



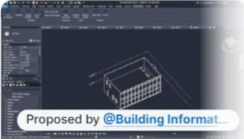
Proposed by @Bharathi Kannan ...

DATASET2026

BIM-Edit Dataset

BIM/IFC, Text · 11 realistic + 36 synthetic models

Community digest



Proposed by @Building Informat...

MODEL2026

Augmented BIM Log-Basr > Real-Time Design Change Monitoring, Selective Rollback, and Design Patching

BIM/IFC · BIM Logs · Design Change Monitoring, Selective Rollback, Design Patching

05 Search and View Catalog Details

Within each catalog, you can search, filter, browse resources, and open detailed records to learn more about a resource and access its original source.



Catalog

Insights

Learn

Contribute

Community

Log in

Sign up

Datasets

Models

Workflows

OERs

open digital assets

for the built environment

171 DATASETS

111 MODELS

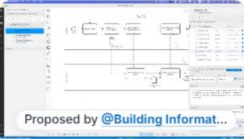
31 WORKFLOWS

34 OERs

All

Search datasets, models, authors, or tasks

LATEST CATALOG ADDITIONS

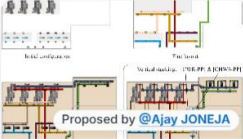


Proposed by @Building Informat...

MODEL2026

IDMxPPM neo-Seoul: An Open-Source Information Delivery Manual (IDM) Authoring Tool Compliant with ISO 29481-1 and ISO...

BIM/IFC · Process Modeling, Information Requirement Modeling, MVD Generation



Proposed by @Ajay JONEJA

DATASET2026

MEP Plant Room Pipe Routing Dataset

BIM/IFC · 7 models

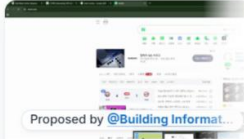


Proposed by @Bharathi Kannan ...

DATASET2026

BIM-Edit Dataset

BIM/IFC, Text · 11 realistic + 36 synthetic models



Proposed by @Building Informat...

MODEL2026

Augmented BIM Log-Basr > Real-Time Design Change Monitoring, Selective Rollback, and Design Patching

BIM/IFC, BIM Logs · Design Change Monitoring, Selective Rollback, Design Patching

Community digest



Catalog

Insights

Learn

Contribute

Community

Log in

Sign up

Catalog > Dataset

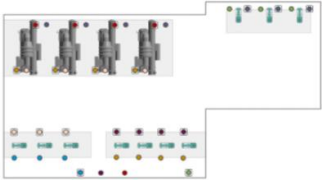
Back to catalog

BIM/IFC

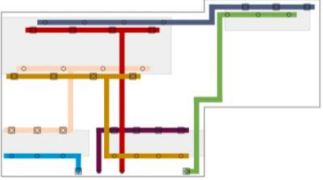
Automated Pipe Routing

MEP Layout Optimization

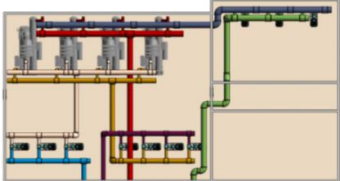
CC BY 4.0



Initial configuration

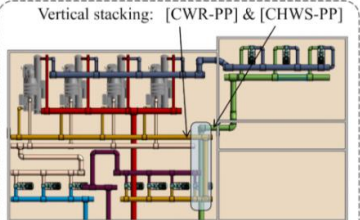


Fine layout



3D BIM model

Vertical stacking: [CWR-PP] & [CHWS-PP]



As-built model

Media from public websites are © their respective creators unless otherwise noted.

MEP Plant Room Pipe Routing Dataset

Fanxing Zhang, Kechang Zhu, Ajay Joneja • 2026

BIM/IFC

Automated Pipe Routing

MEP Layout Optimization

OVERVIEW

What this dataset contains

QUICK FACTS

YEAR

2026

MODELS

7

CLASSES

7

TASKS

Automated Pipe Routing

MEP Layout Optimization

MODALITIES

BIM/IFC

LICENSE

[Creative Commons Attribution 4.0 International](#)

DATASET ACCESS

Access dataset

View paper

SHARE

Share or Copy Link

07 Review Dataset License Terms

Click the checkbox to confirm you have reviewed the license terms for this dataset.

The screenshot shows the Open Science website interface. The top navigation bar includes links for Catalog, Insights, Learn, Contribute, and Community, along with Log in and Sign up buttons. The main content area displays the dataset 'MEP Plant Room' by Fanxing Zhang and Kechang Zhu, categorized under BIM/IFC and Automated Pipe Routing. A modal window titled 'BEFORE YOU CONTINUE' and 'Review dataset license' is overlaid on the page. The modal contains the following information:

- LICENSE TERMS:** CC BY Creative Commons Attribution 4.0 International
- You are free to:**
 - Share:** copy and redistribute the material in any medium or format for any purpose, even commercially.
 - Adapt:** remix, transform, and build upon the material for any purpose, even commercially.
- The licensor cannot revoke these freedoms as long as you follow the license terms.**
- Under the following terms:**
 - Attribution:** Give appropriate credit, provide a link to the license, and indicate if changes were made.
- No additional restrictions:** Do not apply legal terms or technological measures that legally restrict others from doing anything the license permits.
- Notices:** No warranties are given. The license may not give you all permissions necessary for your intended use; other rights such as publicity, privacy, or moral rights may limit how you use the material. This summary highlights key license features for convenience and has no legal value. Review the original license terms before using the material. If any license item is unclear, please contact the authors or the original provider before using this resource.

At the bottom of the modal, there is a checkbox labeled 'I have reviewed the license terms for this dataset.' which is highlighted by a white callout box with the text 'Check license terms' and an arrow pointing to it. To the right of the checkbox are 'Cancel' and 'Open dataset source' buttons.

08 Open Insights Analytics Overview

Next, open Insights to understand the broader landscape of AEC data, models, tasks, and performance. Start with Analytics for a high-level view of the OpenConstruction catalog. Here, you can explore patterns across tasks and applications, datasets and models, data modalities, license information, geographic coverage, and how the catalog is growing over time.



Catalog

Insights

Learn

Contribute

Community

Log inSign up

Catalog Analytics

OVERVIEW

Summary statistics across tasks, applications, datasets, and models indexed in OpenConstruction.

Tasks172

Applications67

Datasets and Models171/111

PATTERNS

Top Coverage Patterns

Datasets

Models

Tasks · 172 categories

Object Detection60 datasets / 24 models

Semantic Segmentation39 datasets / 14 models

Image Classification11 datasets / 1 model

Image Captioning9 datasets / 2 models

Point Cloud Segmentation6 datasets / 3 models

Visual Question Answering8 datasets / 1 model

Show top 12

Applications · 67 categories

Safety Monitoring15 models

Site Understanding15 models

Construction Drawing Understanding9 datasets / 4 models

Structural Condition Monitoring9 models

3D Reconstruction3 datasets / 1 model

Automated Structural Design4 models

Show top 12

09 Explore Benchmark Features

Then open Benchmark when you want to examine evaluation evidence more closely. The Benchmark Explorer lets you browse benchmark tasks and applications, identify the datasets and models associated with them, and inspect reported performance results.



Catalog

Insights

Learn

Contribute

Community

Log inSign up

Benchmark Explorer

Search benchmarks...→

Browse Benchmarks

BENCHMARK RECORD

Benchmarks are included when a defined task is evaluated on specified data using stated protocols and metrics. Cards organize comparable method results.

CONTRIBUTE

Community members can suggest a benchmark or update results through the workspace. [Submit benchmark update](#) or email support@openconstruction.org.

Image



Instance Segmentation

≡ 4 benchmarks



Object Detection

≡ 3 benchmarks



Image Captioning

≡ 1 benchmark



Object Counting

≡ 1 benchmark



Oriented Object Detection

≡ 1 benchmark

Point Cloud



Point Cloud Semantic Segmentation

≡ 2 benchmarks



Scan-to-BIM

≡ 1 benchmark

10 Watch Tutorial Walkthrough Videos

Use Learn when you need guidance on how to use OpenConstruction or want to better understand its standards and practices. The Tutorial area provides short walkthrough videos for common tasks, such as finding resources, submitting contributions, and reporting issues



CatalogInsightsLearnContributeCommunityLog inSign up

GALLERY

Tutorial Videos

Submit an Asset

Prepare key metadata and submit with confidence.

1234

PDF guide

Report an Issue

Fix broken links, metadata, and license concerns.

1234

PDF guide

Find the Right Data

Search, filter, verify, and refine.

1234

PDF guide

More Tutorials Coming Soon

FAQ

Submission and Review Guidance

01 What resources can I submit?

11 Review Documentation and Policies

The Documentation area provides more detailed guidance, including the OpenConstruction metadata schema, guides and frameworks, contribution guidelines, policies, references, and other technical documentation.

OPENCONSTRUCTION
Open Science

CatalogInsightsLearnContributeCommunityLog inSign up

TUTORIALS

▶ OpenConstruction Tutorials

Featured Tutorial

OpenConstruction
TUTORIAL

Find the Right Dataset

A short user walkthrough

1 Search

2 Filter

3 Verify

4 Refine

02:36

DATASET DISCOVERY TUTORIAL

Find the Right Dataset

A short walkthrough for using OpenConstruction filters and metadata to identify a reusable dataset.

- Search and filter datasets by format, category, location, date, and license.
- Review metadata signals before deciding whether a dataset fits your task.
- Use the companion PDF as a checklist for search, filtering, verification, and refinement.

PDF guide

GALLERY

Tutorial Videos

Submit an Asset

Prepare key metadata and

Asset Details

Title

Description

Category

Location

✓

Report an Issue

Fix broken links, metadata, and license concerns.

Issue Report

Broken link detected

Metadata incomplete

License concerns

Metadata

Title

Author

License

12 Save Resources in Workplace

Workspace is the interactive part of OpenConstruction. After signing in, you can save resources, organize them into collections, add notes, compare candidates, and export what you have gathered. Click the Log in button to access your Open Construction account and personalized workspace.

[Catalog](#)
[Insights](#)
[Learn](#)
[Contribute](#)
[Community](#)

Library

Activity

Credentials

Settings

Personal Library

All types
Newest saved

☐ Exact object
 [Compare JSON](#)
[CSV](#)

DATASET

BIM-Edit Dataset

Added 8/25/2026

Create (add elements), Update (modify elements), Delete (remove elements), Direct task

[View](#)

DATASET

MEP Plant Room Pipe Routing Dataset

Added 8/25/2026

Complex room - standard,
Complex room - tee prohibition,
Complex room - with columns,
Simple room - reconfiguration

[View](#)

13 Contribute and Collaborate

Finally, use Contribute when you want to add a new resource, improve an existing record, report a correction, or help steward the ecosystem. OpenConstruction is designed not only for discovering open resources, but also for improving and maintaining them collaboratively.



[Catalog](#) [Insights](#) [Learn](#) [Contribute](#) [Community](#) [Log in](#) [Sign up](#)

Contribute to OpenConstruction

WAYS TO HELP

Propose Resources

- Add a dataset, model, workflow, or OER using the workspace submission form.
- Share links, source metadata, and enough context for others to evaluate the resource.
- Help fill gaps in tasks, modalities, and domains across AEC.

[Submit resource →](#)

Improve Existing Records

- Correct metadata, add missing licenses, improve links, and clarify abstracts or tags.
- Strengthen discoverability by refining tasks, modalities, and structured fields.
- Report broken links, outdated resources, or inconsistent labels.

[Report correction →](#)

Review and Steward

- Review proposed additions for quality, attribution, and licensing completeness.
- Help new contributors prepare submissions that are easier to merge and maintain.
- Support module-level curation as the catalog grows.

[Contact us →](#)

Build the Platform

- Contribute to schemas, validation scripts, benchmarks, UI improvements, and guides.
- Help shape roadmap priorities through issues, support requests, and implementation work.
- Active contributors may grow into longer-term stewardship roles.

[GitHub repo →](#) [Contact us →](#)