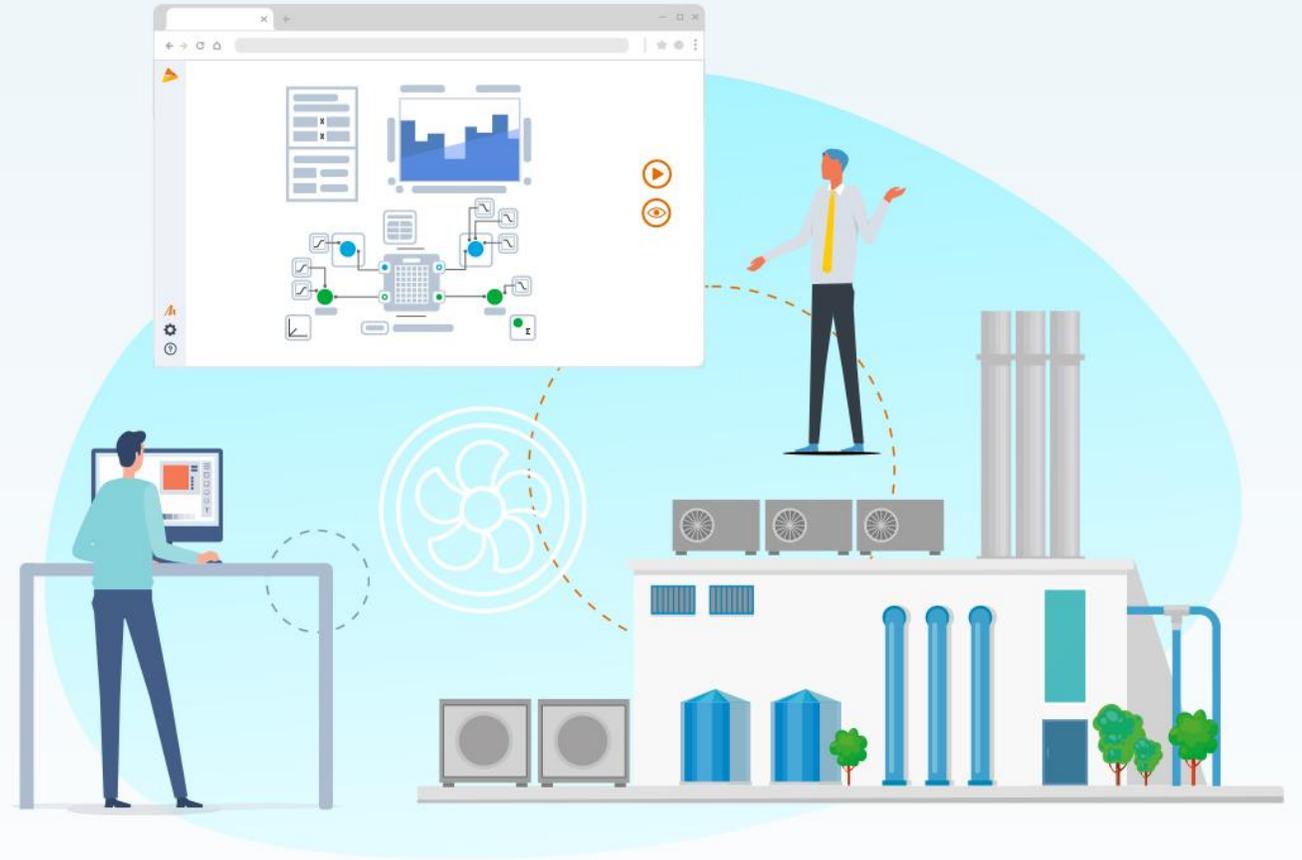


Organization in Modelon Impact

Mathias Strandberg

Principal Application Engineer



Overview

How can I organize my content and work, and how do I maintain it over time?

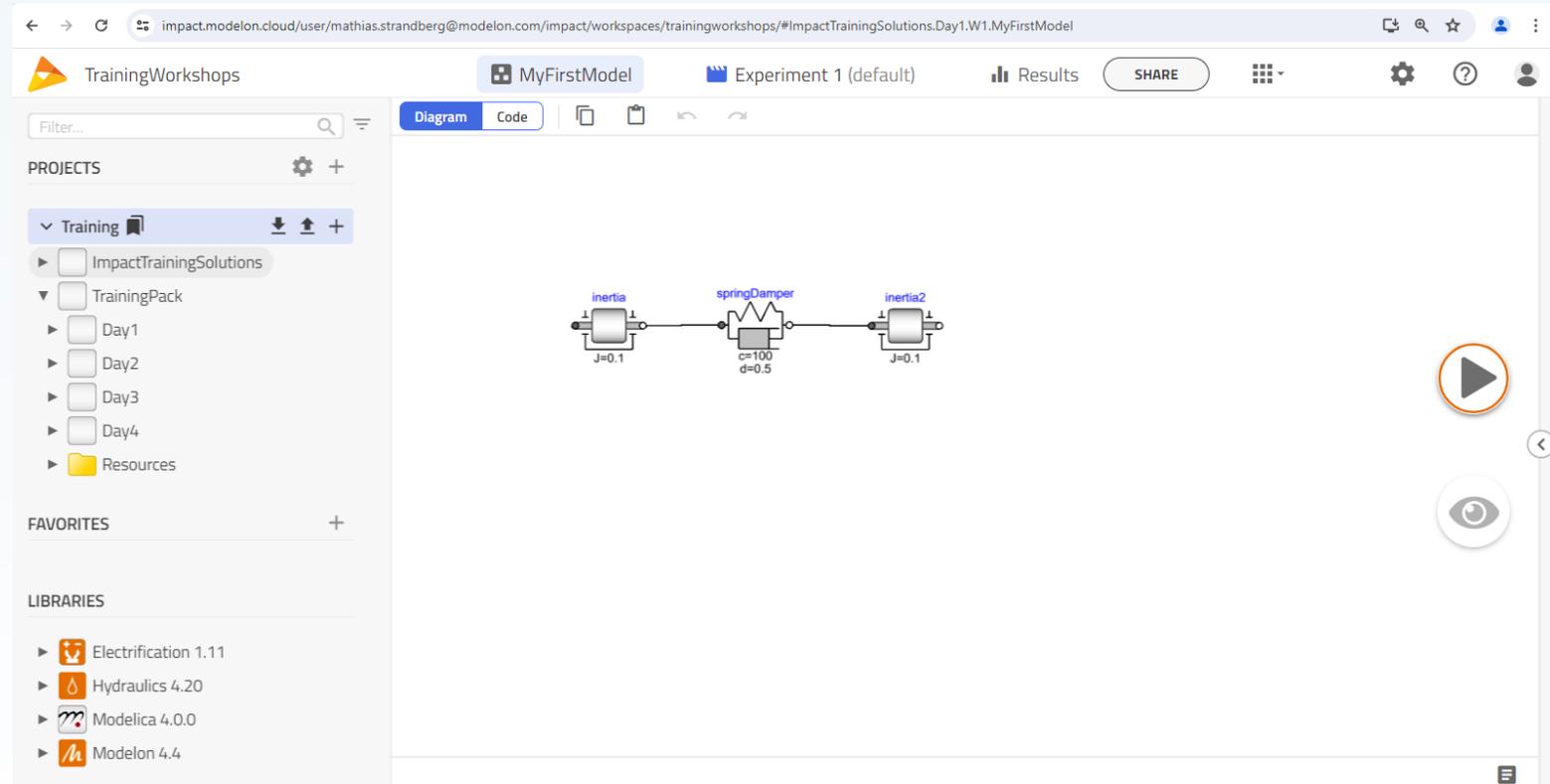
- What is a (Ref: Training Workspace)
 - Workspace
 - Project
- Sharing Content
- Version upgrade (Ref: Getting Started Workspace)

Projects and Workspaces

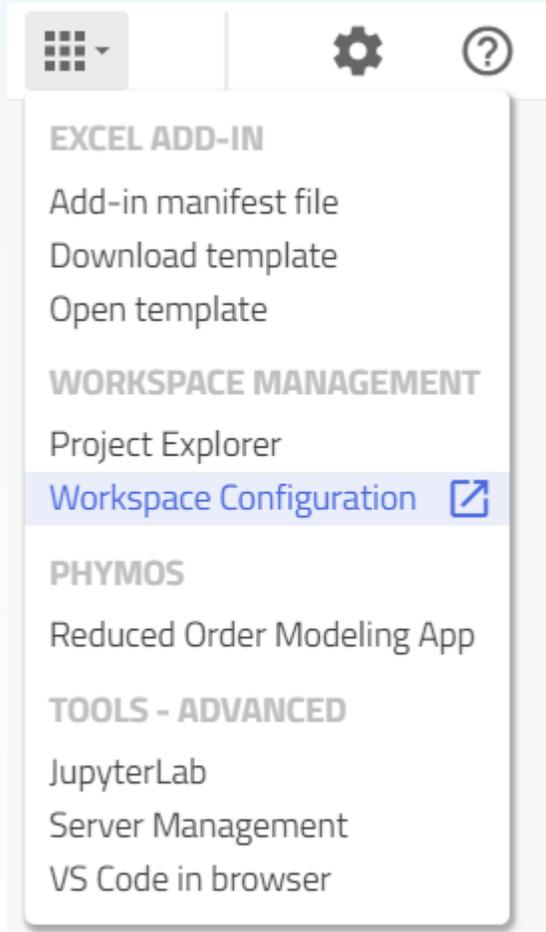
Modelon

Workspaces

- Collection of everything you need!
- Source code
 - Projects:
 - Modelica Libraries
 - Library dependencies
 - Stickies and views
 - Experiment definitions
 - Custom functions
- Generated Artifacts
 - Results
 - FMUs
 - logs

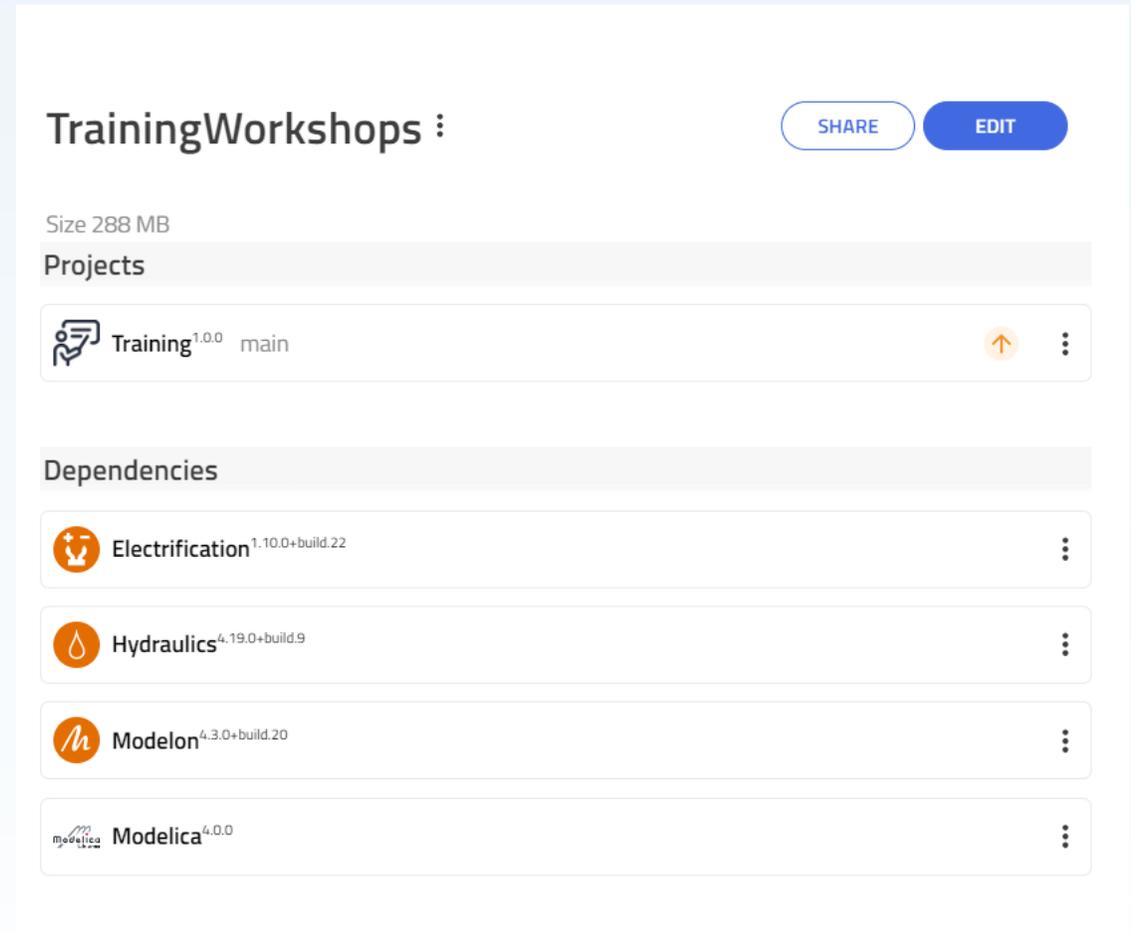


Workspace Management



The screenshot shows a dropdown menu with the following sections and items:

- EXCEL ADD-IN**
 - Add-in manifest file
 - Download template
 - Open template
- WORKSPACE MANAGEMENT**
 - Project Explorer
 - Workspace Configuration** (highlighted with a blue bar and an external link icon)
- PHYMOS**
 - Reduced Order Modeling App
- TOOLS - ADVANCED**
 - JupyterLab
 - Server Management
 - VS Code in browser



The screenshot displays the 'TrainingWorkshops' workspace configuration page. At the top right, there are 'SHARE' and 'EDIT' buttons. Below the title, the size is listed as 'Size 288 MB'. The page is divided into two main sections: 'Projects' and 'Dependencies'.

Projects

- Training^{1.0.0} main (with an upload icon and a three-dot menu icon)

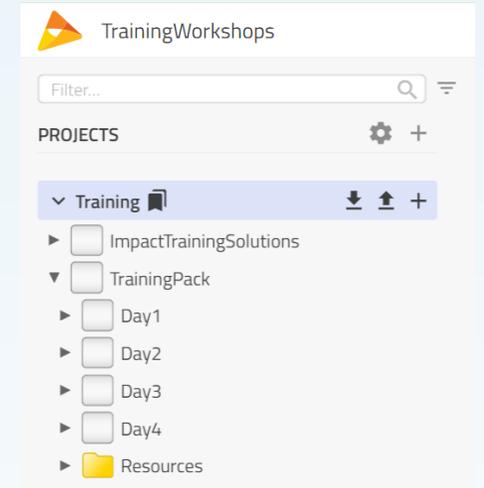
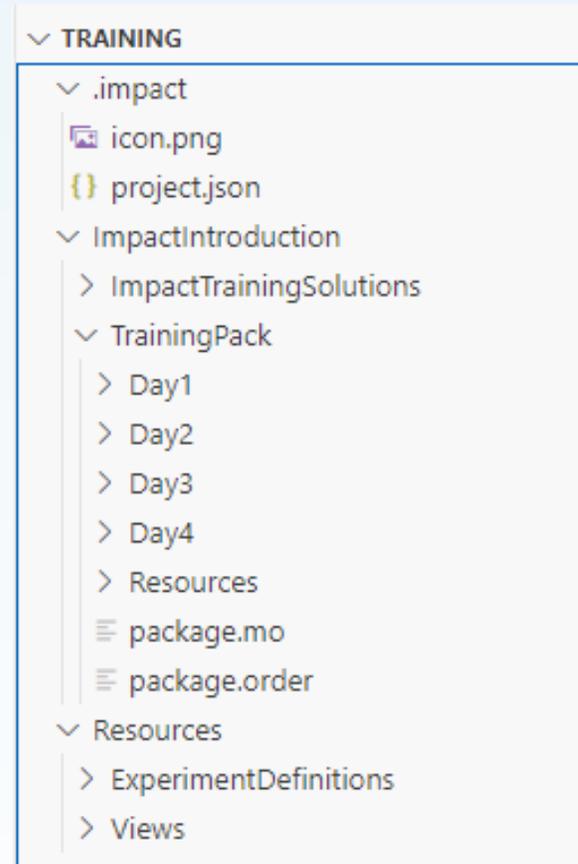
Dependencies

- Electrification^{1.10.0+build.22} (with a three-dot menu icon)
- Hydraulics^{4.19.0+build.9} (with a three-dot menu icon)
- Modelon^{4.3.0+build.20} (with a three-dot menu icon)
- Modelica^{4.0.0} (with a three-dot menu icon)

Projects

- Modelica source code
- Additional artifacts
- Project definition file

- Can be version controlled!

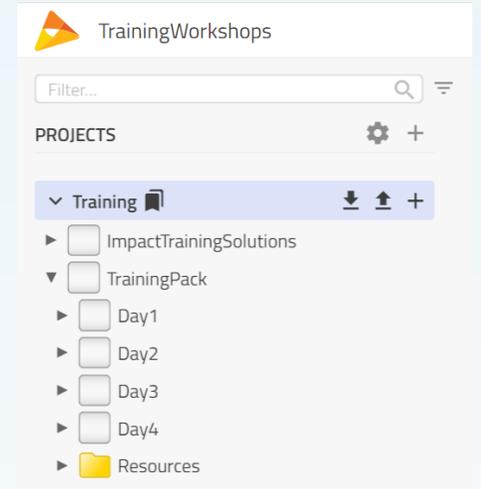


Projects

- Modelica Libraries
- Library dependencies
- Stickies and views
- Experiment definitions
- Custom functions

- Can be version controlled!

```
{} project.json X
Training > .impact > {} project.json > ...
1  {
2    "name": "Training",
3    "format": "1.0.0",
4    "dependencies": [
5      {
6        "name": "Electrification",
7        "versionSpecifier": "1.11.0+build.54"
8      },
9      {
10     "name": "Modelon",
11     "versionSpecifier": "4.4.0+build.50"
12   },
13   {
14     "name": "Modelica",
15     "versionSpecifier": "4.0.0"
16   },
17   {
18     "name": "Hydraulics",
19     "versionSpecifier": "4.20.0+build.55"
20   }
21 ],
22 "content": [
23   {
24     "relpath": "ImpactIntroduction/TrainingPack",
25     "contentType": "MODELICA",
26     "name": "TrainingPack",
27     "defaultDisabled": false,
28     "id": "ad1199843d7b49c483283e52763fc79a"
29   },
30   {
31     "relpath": "ImpactIntroduction/ImpactTrainingSolutions",
32     "contentType": "MODELICA",
33     "name": "ImpactTrainingSolutions",
34     "defaultDisabled": false,
35     "id": "a66b3657b58243c9a13ed286f474d372"
36   },
37   {
38     "relpath": "Resources/Views",
39     "contentType": "VIEWS",
```



Version and Icon

```
TRAINING
├── .impact
│   ├── icon.png
│   └── project.json
├── ImpactIntroduction
│   └── ImpactTrainingSolutions
├── TrainingPack
│   ├── Day1
│   ├── Day2
│   ├── Day3
│   ├── Day4
│   ├── Resources
│   ├── package.mo
│   └── package.order
└── Resources
    ├── ExperimentDefinitions
    └── Views
```

```
.impact > {} project.json > ...
1  {
2  "name": "Training",
3  "format": "1.0.0",
4  "version": "1.0.0",
5  "icon": ".impact/icon.png",
6  "dependencies": [
7  {
8  "name": "Electrification",
9  "versionSpecifier": "1.11.0+build.54"
10 },
11 {
12 "name": "Modelon",
13 "versionSpecifier": "4.4.0+build.50"
14 },
15 {
16 "name": "Modelica",
17 "versionSpecifier": "4.0.0"
18 },
19 {
20 "name": "Hydraulics",
21 "versionSpecifier": "4.20.0+build.55"
```

TrainingWorkshops :

SHARE EDIT

Total Size: 1.7 MB Fmus Size: 0 bytes Experiments Size: 0 bytes

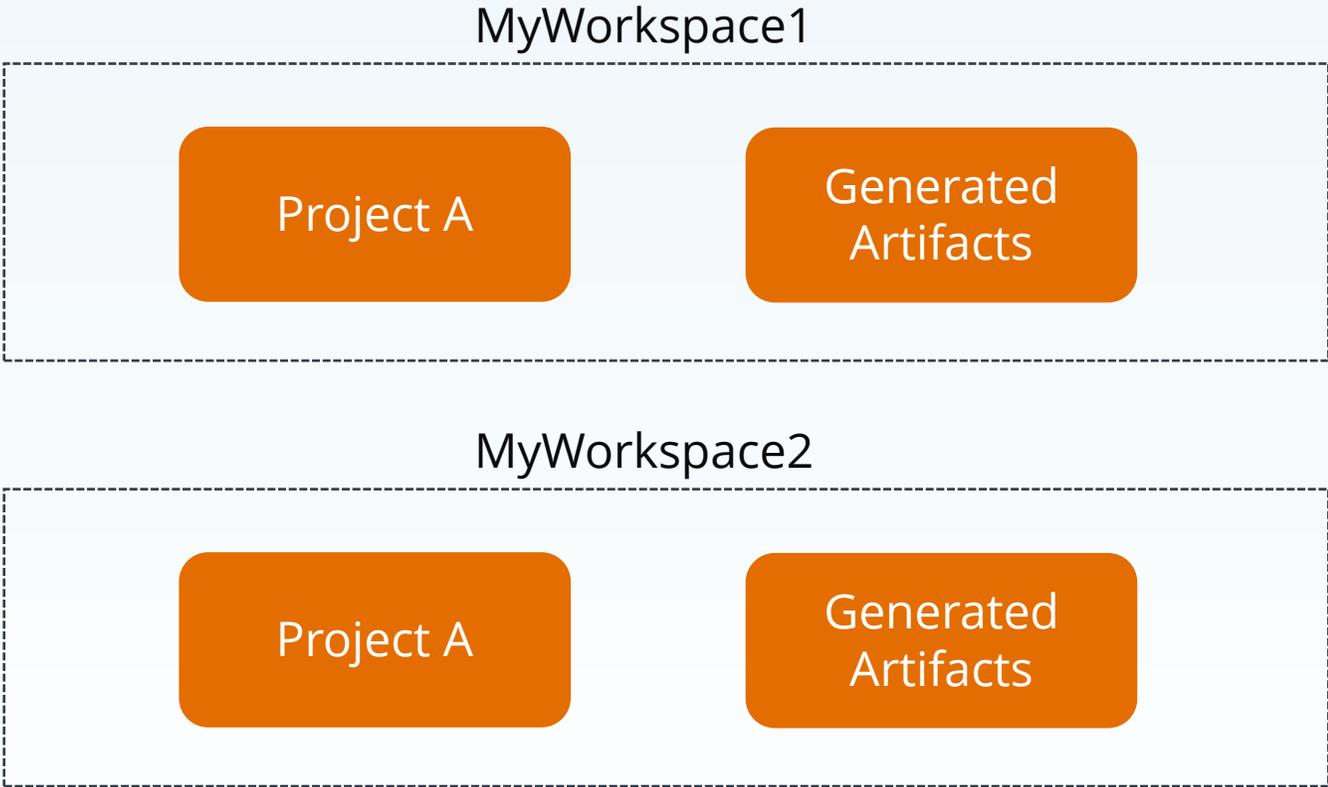
Projects

- Training^{1.0.0} main

Dependencies

- Electrification^{1.11.0+build.54}
- Hydraulics^{4.20.0+build.55}
- Modelon^{4.4.0+build.50}
- Modelica^{4.0.0}

Creating workspaces



Demo

- Set up a workspace with Library dependencies
- Inspect workspace in VS-Code
- Inspect .project file

Collaboration

Modelon

Setting up a workspace for collaboration

- Check-out projects
- Create workspace
- Add needed projects
- Done!

ADD PROJECT

This will add a version controlled project. To read more about version control, [go to the Help Center](#).

Repository URL
https://github.example.com/myrepo

Branch / tag: main / master Type: Git, Subversion

> ADVANCED OPTIONS

AUTHENTICATION

Username: first.last

Token:

After importing, add to workspace as: Project

Open in [Modelon Impact](#) or [VS Code](#)

TrainingWorkshops MyFirstModel Experiment 1 (default) Results SHARE

Filter: [search]

PROJECTS

- Training
 - ImpactTrainingSolutions
 - TrainingPack
 - Day1
 - Day2
 - Day3
 - Day4
 - Resources

FAVORITES

LIBRARIES

- Electrification 1.11
- Hydraulics 4.20
- Modelica 4.0.0
- Modelon 4.4

Sharing a snapshot

- Creates a complete copy on cloud storage.
- Can include results and fmu:s
- No connection to GIT

- Updates can be pushed
- Receiver needs to accept update

The screenshot displays the Modelon Impact workspace interface. On the left, a sidebar contains navigation options: Workspace (selected), Projects, Libraries, Published, and Credentials. The main area shows the workspace name 'TrainingWorkshops' with buttons for 'SHARE' and 'EDIT'. Below this, it indicates 'Total Size: 30 MB' and 'Fmus Size: 9.0 MB'. A 'Projects' section lists 'Training main'. A 'Dependencies' section lists 'Electrification 1.11.0+build.54', 'Hydraulics 4.20.0+build.55', 'Modelon 4.4.0+build.50', and 'Modelica 4.0.0'. A 'Publish workspace' dialog is open, showing options for 'Published workspace' (selected) and 'Configuration'. The dialog includes a 'PUBLISH' button and a summary box stating 'Workspace size: 1.1 MB' and 'Everyone in your organization will have access to this snapshot.'

Sharing a configuration

Intended:
Professional development work
and collaboration

Allows:
Sharing a workspace
configuration through link

Needed:
Repository access to all project
dependencies

Everyone can add and update
models and source code

The screenshot shows the Modelon Impact workspace management interface. On the left is a sidebar with navigation options: **Workspace** (selected), Projects, Libraries, Published, and Credentials. The main content area displays the workspace name "TrainingWorkshops" with "SHARE" and "EDIT" buttons. Below this, it shows "Total Size: 30 MB" and "Fmus Size: 9.0 MB". A "Projects" section lists a project named "Training" with a "main" branch. A "Dependencies" section lists several dependencies: "Electrification" (1.11.0+build.54), "Hydraulics" (4.20.0+build.55), "Modelon" (4.4.0+build.50), and "Modelica" (4.0.0). A modal dialog is open over the dependencies, titled "Publish workspace" and "App mode". It contains the text "Share this workspace with other Modelon Impact users." and two radio button options: "Published workspace" (which would create a self-contained snapshot and includes a checkbox for "Include results and compiled models") and "Configuration" (which is selected and shares the workspace configuration). A summary box in the modal states "Workspace size: 1.1 MB" and "Everyone in your organization will have access to this snapshot." A "PUBLISH" button is at the bottom right of the modal.

Demo

- Snapshot sharing
- Configuration sharing

Version Upgrade

Modelon

New Modelon Impact version is out!

- What happens now?
- Libraries:
 - New Library suite
 - Oldest versions removed
- Execution environment:
 - Compiler updated

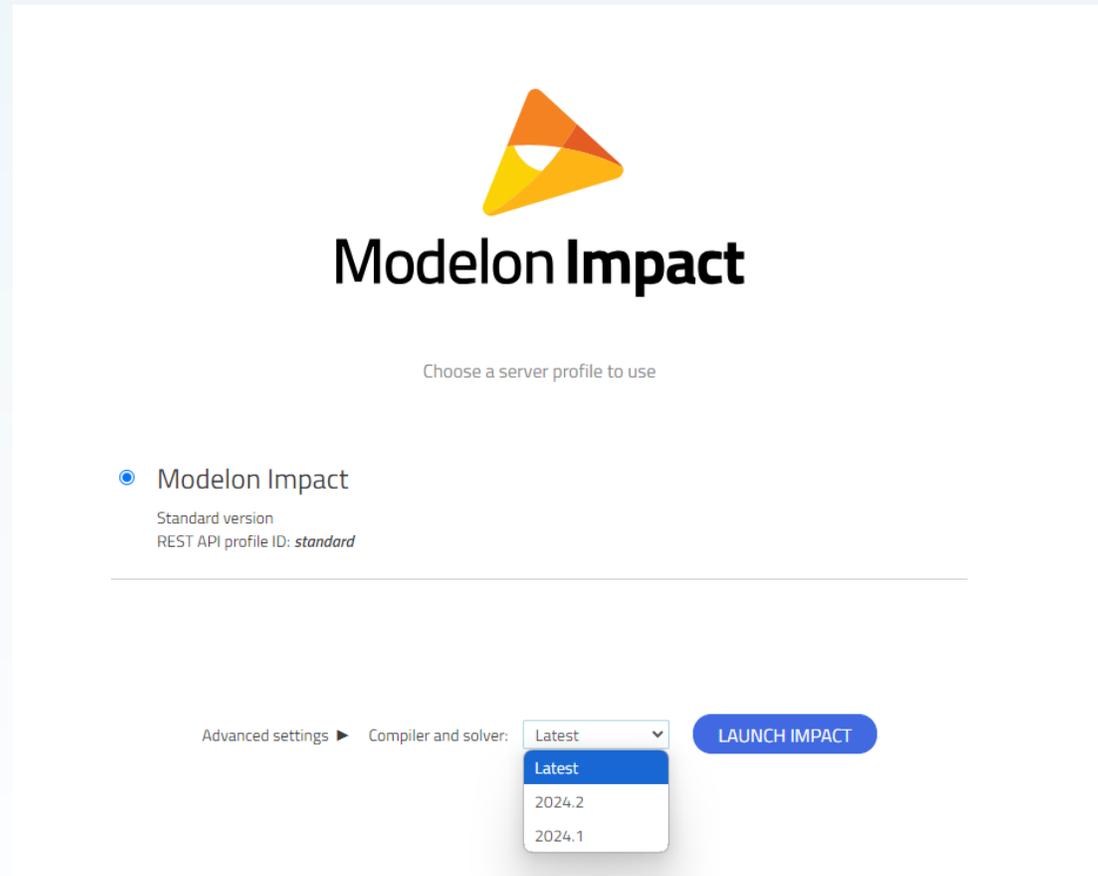
Libraries

- We keep 3 releases available

Library release	General availability at Modelon Cloud	Removal from Modelon Cloud
2023.2	June 2023	Q1 2025
2024.1	Feb 2024	Q3 2025
2024.2	Sep 2024	Q1 2025

Execution Environment

- Possible to stay on older compiler
 - One release cycle



Demo - upgrade

- Workspace/project upgrade to latest library release

Thank you!

Questions?

Modelon



Accurate Simulations. Better Decisions.