

Turbocharging collaboration

Presented by Modelon

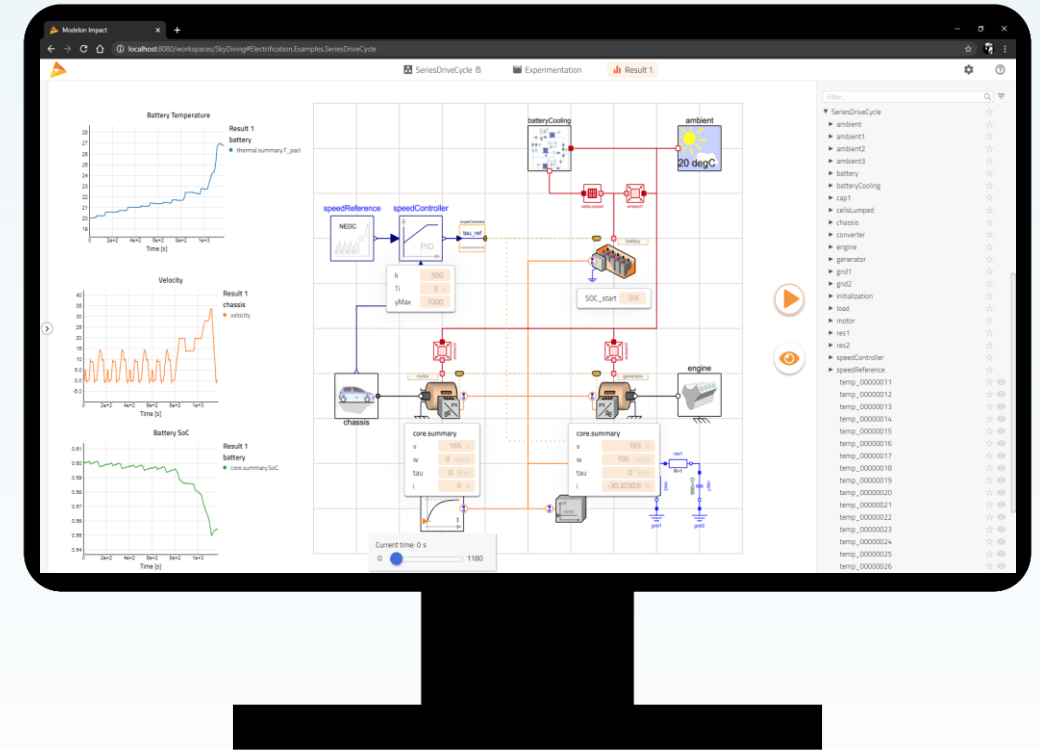
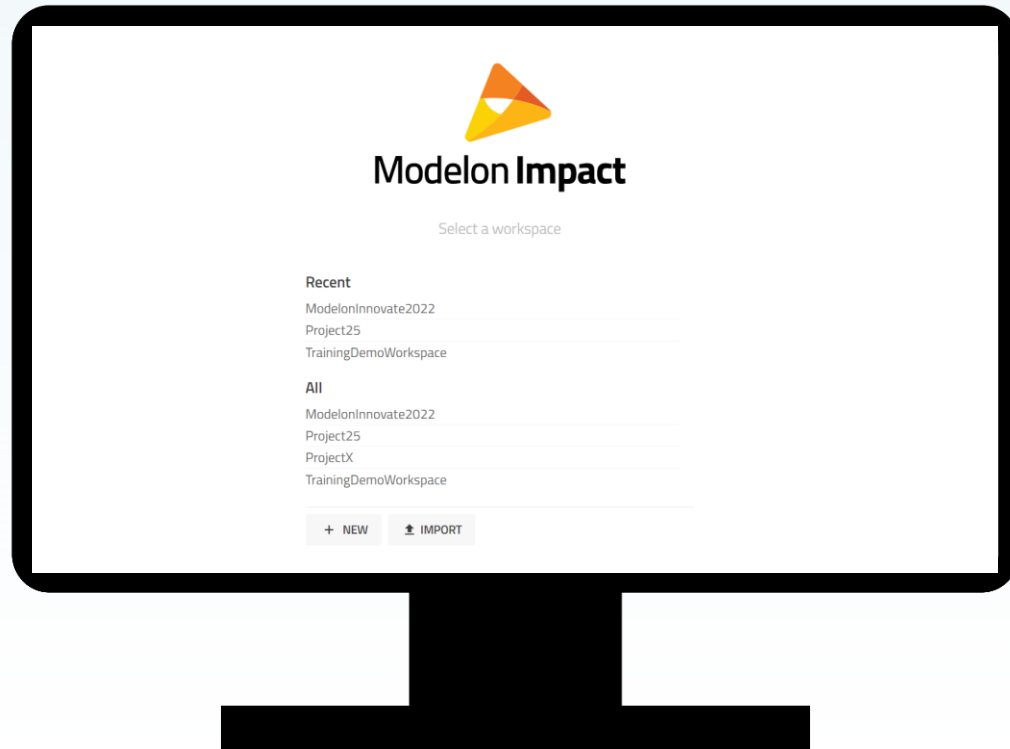


Outline

- Unit of collaboration – the workspace
 - Workspace artifacts
- Workspace export/import
- Version control 101

Designed for collaboration

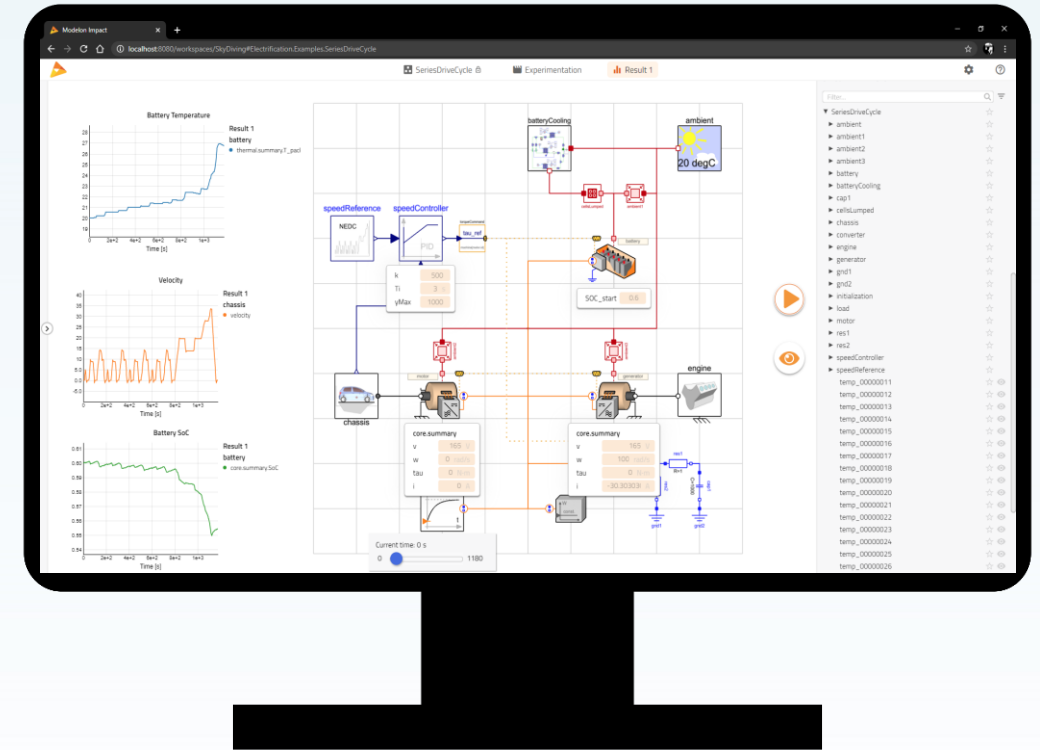
Workspaces are the center for collaboration



Designed for collaboration

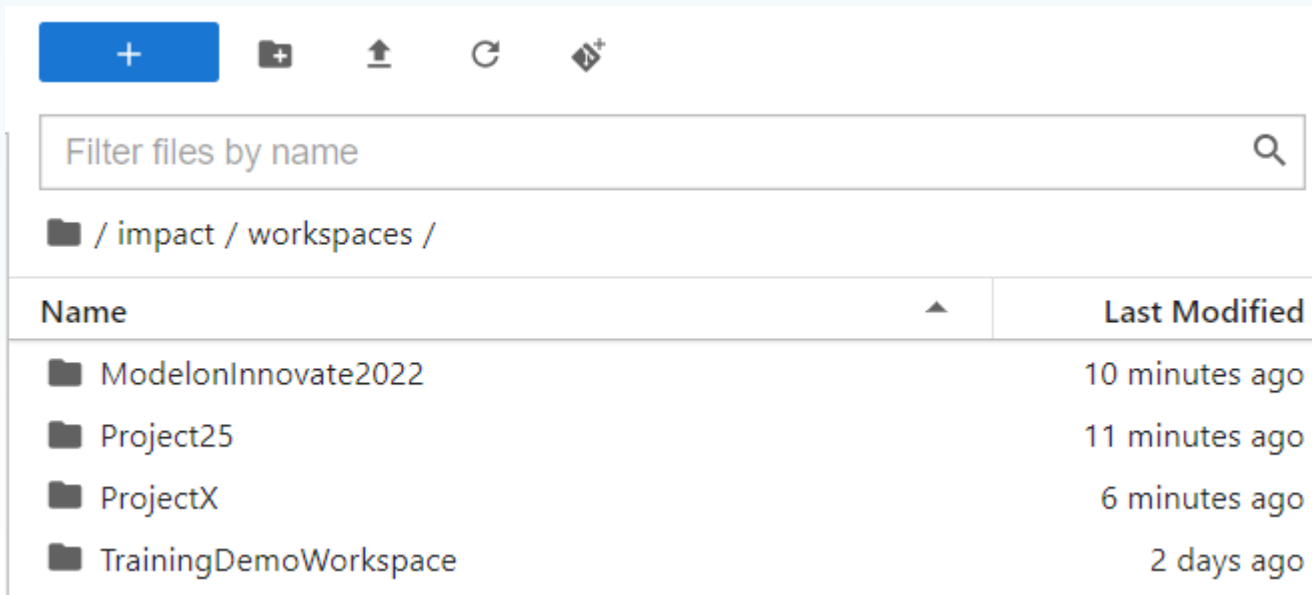
Workspaces contains:

- Model Libraries
- Experiments
- Views (stickies and plots)
- Settings
- Generated artifacts:
 - Results
 - FMUs



Stored in the Cloud

- All workspace content can be found in `/impact/workspaces/`



Name	Last Modified
ModelonInnovate2022	10 minutes ago
Project25	11 minutes ago
ProjectX	6 minutes ago
TrainingDemoWorkspace	2 days ago

Workspace Content

Results

Compiled models/FMUs

Modelica Libraries

📁 / ... / workspaces / demo /

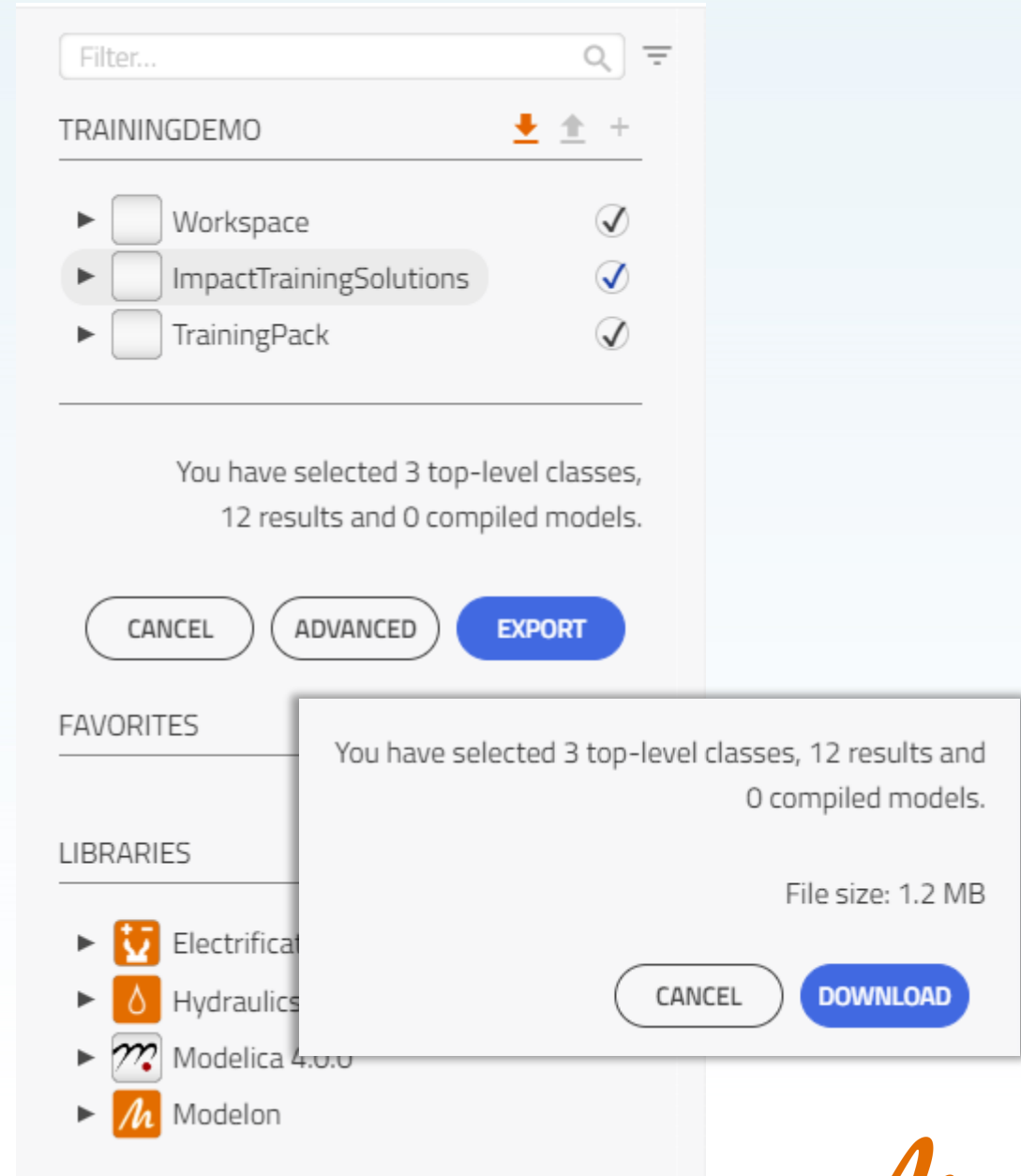
Name	Last Modified
📁 custom_resources	4 minutes ago
📁 experiments	3 minutes ago
📁 model_executables	3 minutes ago
📁 model_libraries	3 minutes ago
📁 settings	a minute ago
📄 meta.json	4 minutes ago

created_epoch: 1665072603
version: "0.10"

https://help.modelon.com/latest/reference/impact_directory/

Workspace export

- Complete aggregated .zip file
- Defaults:
 - Results included
 - FMUs excluded



Demo

Workspace export

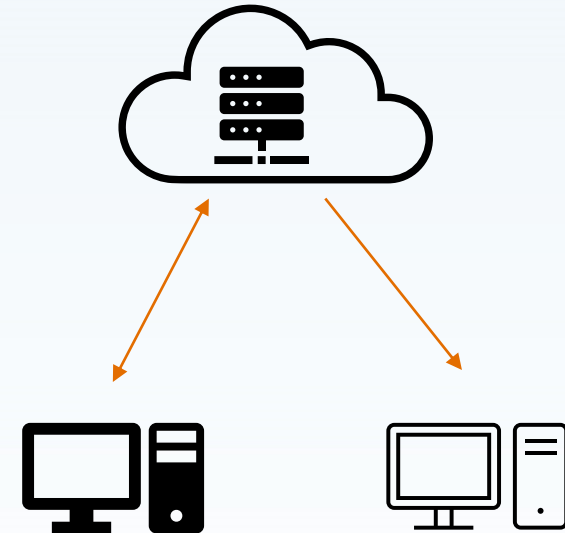
- Create snapshot
- Easy way to share the complete setup
- Easy to import

Version Control

Version Control System

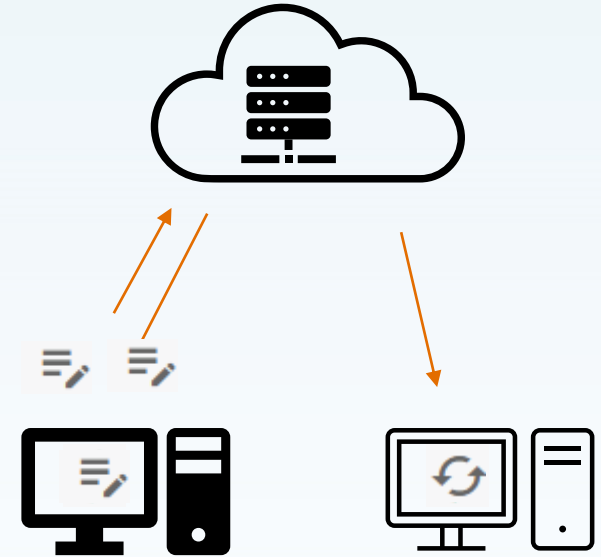
- Did it work yesterday?
- I emailed you a new version!
- Modelon Impact allows connection to external version control system

<https://git-scm.com/doc>



Baseline workflow

- Clone code from remote repository
- Change code
- Stage changes
- Document and commit
- Push to remote repository

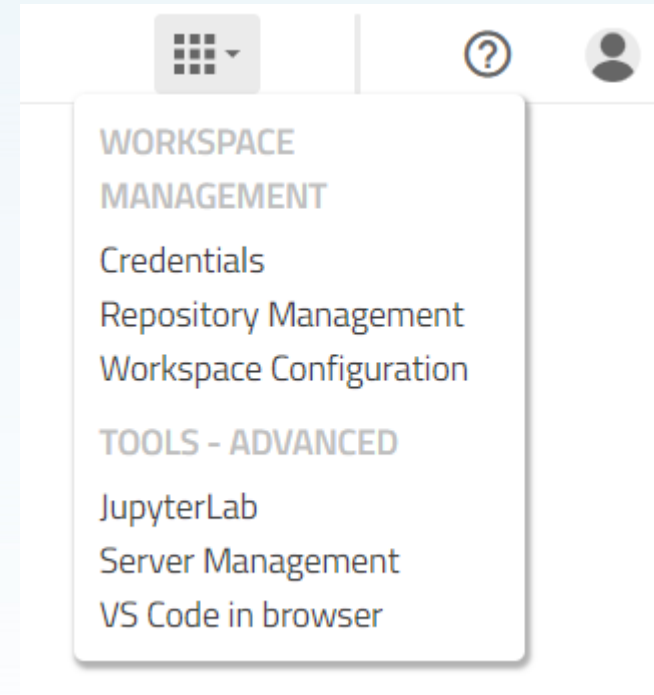


Tools

- Credentials
- Repository Manager
- Workspace Configurator

Expert:

- VS Code



Credentials Manager

Workspace

Repositories

Credentials

https://svn. [redacted]

https://svn. [redacted]

https://github.com

User name

user.name

Token

.....

☒ Git ☐ SVN

DELETE CANCEL SAVE

NEW CREDENTIAL

Repository Manager

Clone a local copy

The screenshot shows a 'NEW WORKING COPY' dialog box. On the left is a sidebar with three items: 'Workspace' (home icon), 'Repositories' (orange box icon), and 'Credentials' (key icon). The 'Repositories' item is selected. The main area has a top bar with three repository icons: 'New' (orange circle with a plus), 'P302-AE-Team' (SVN icon), and 'Training' (Git icon). Below this, the 'NEW WORKING COPY' section contains several input fields: 'Repository URL' with the value 'https://svn.company.com/repo', 'Username' with 'user.name', 'Remote display name' (empty), and 'Token' (masked with dots). At the bottom, there are radio buttons for 'Git' (selected) and 'SVN'. Below the radio buttons is a 'Branch / tag' field with 'main / master'. At the very bottom are 'CANCEL' and 'CLONE' buttons.

Workspace
Repositories
Credentials

New P302-AE-Team Training

NEW WORKING COPY

Repository URL
https://svn.company.com/repo

Username
user.name

Remote display name

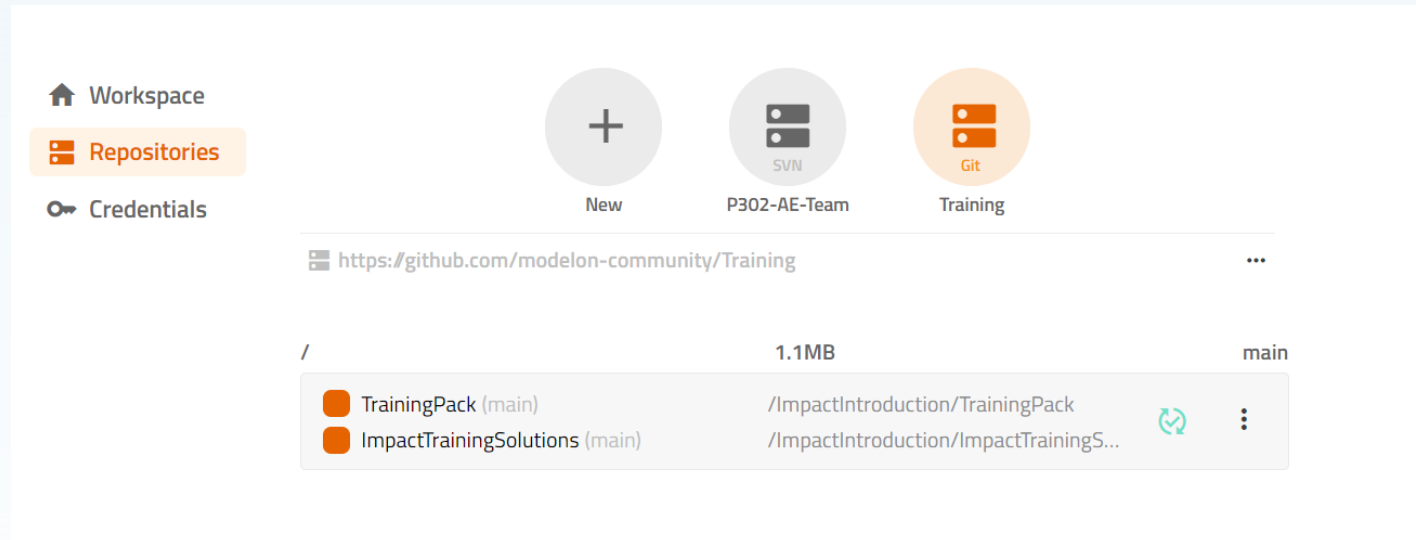
Token
.....

☒ Git ☐ SVN

Branch / tag
main / master

CANCEL CLONE

Repository Manager



Workspace configuration

Workspace

Repositories

Credentials

Workspace name

Demo

EDITABLE LIBRARIES

ImpactTrainingSolutions (main) X

TrainingPack (main) X

main

Drop libraries here to include them as editables

DEPENDENCIES

Electrification 1.8 X

Hydraulics 4.17 X

Modelon 4.1 X

Drop libraries here to include them as dependencies

CREATE WORKSPACE

AVAILABLE LIBRARIES

mathias (trunk)

AirConditioning 1.24

AircraftDynamics 1.7

EngineDynamics 2.9

EnvironmentalControl 3.13

FuelCell 1.15

FuelSystem 5.2

HeatExchanger 2.9

HydroPower 2.15

IndustryExamples 1.1

JetPropulsion 2.4

LiquidCooling 2.9

Pneumatics 2.13

ThermalPower 1.24

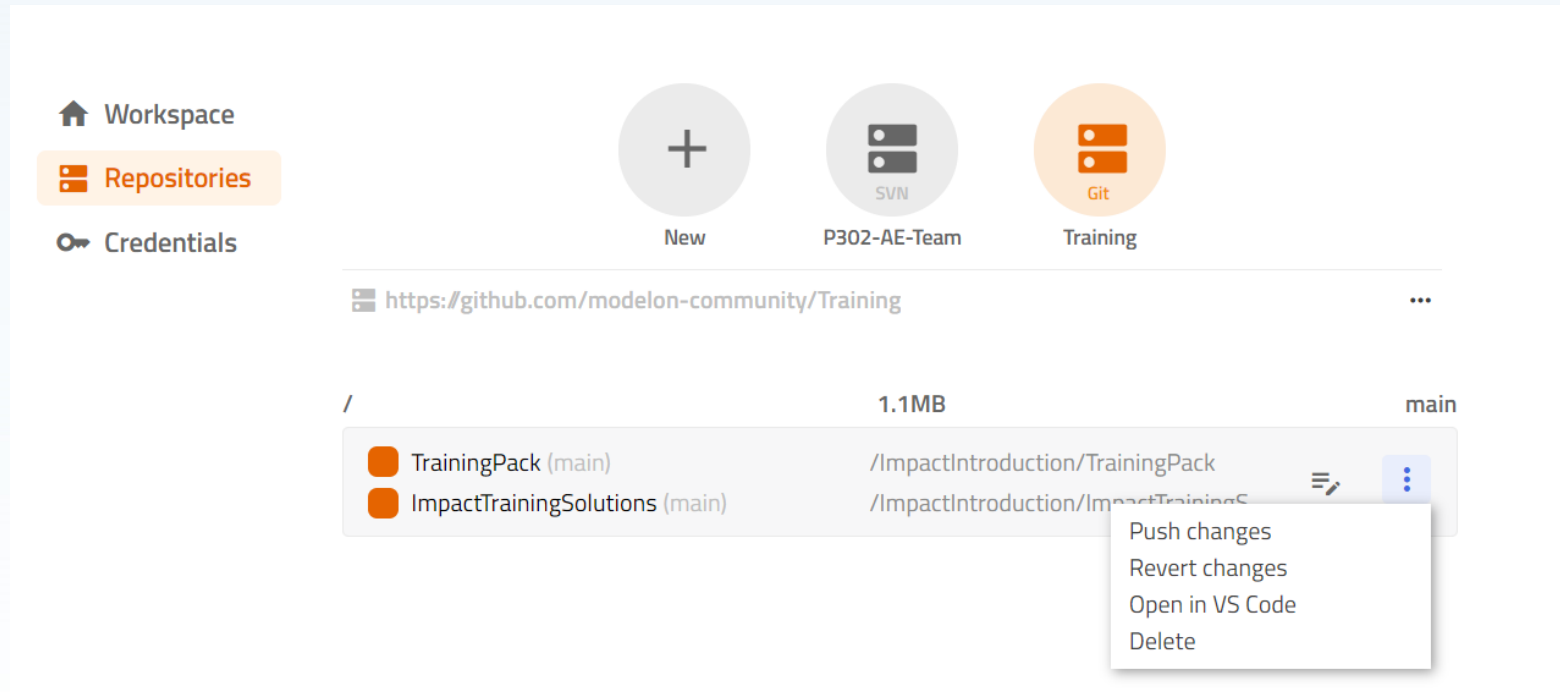
ThermoFluidPro 1.24

VaporCycle 2.9

VehicleDynamics 4.1

[Clone/checkout new library](#)

Managing changes



Demo

Future release

- New upcoming workspace definition
- Allow workspaces to be versioned
- Easier to collaborate!
- Sharing workspace with a link!



Accurate Simulations. Better Decisions.