



Instructions – Frontend

AR/MR applications for workers and supervision in shipyards

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16 April 2024 – Hamburg University of Technology



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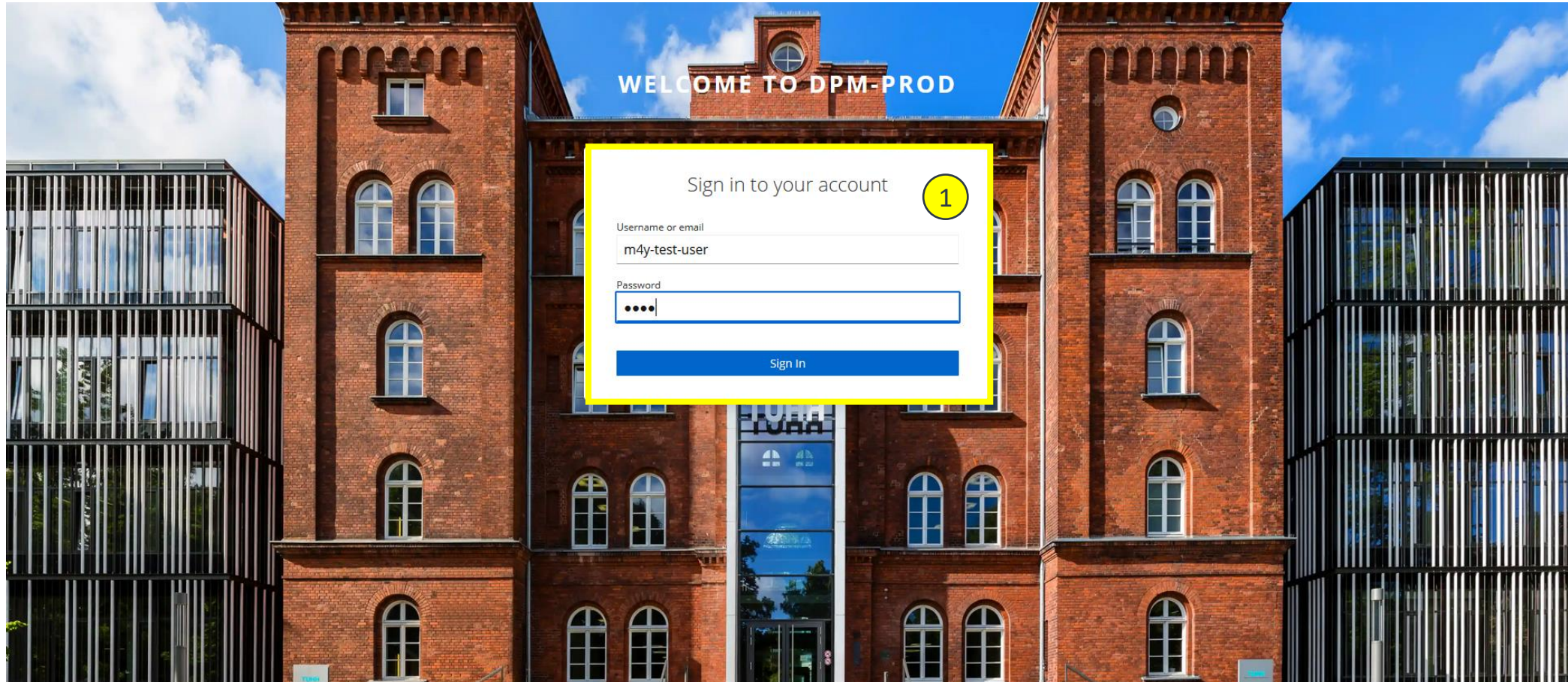
Digital Assistant - System Structure

Supervising Project Management

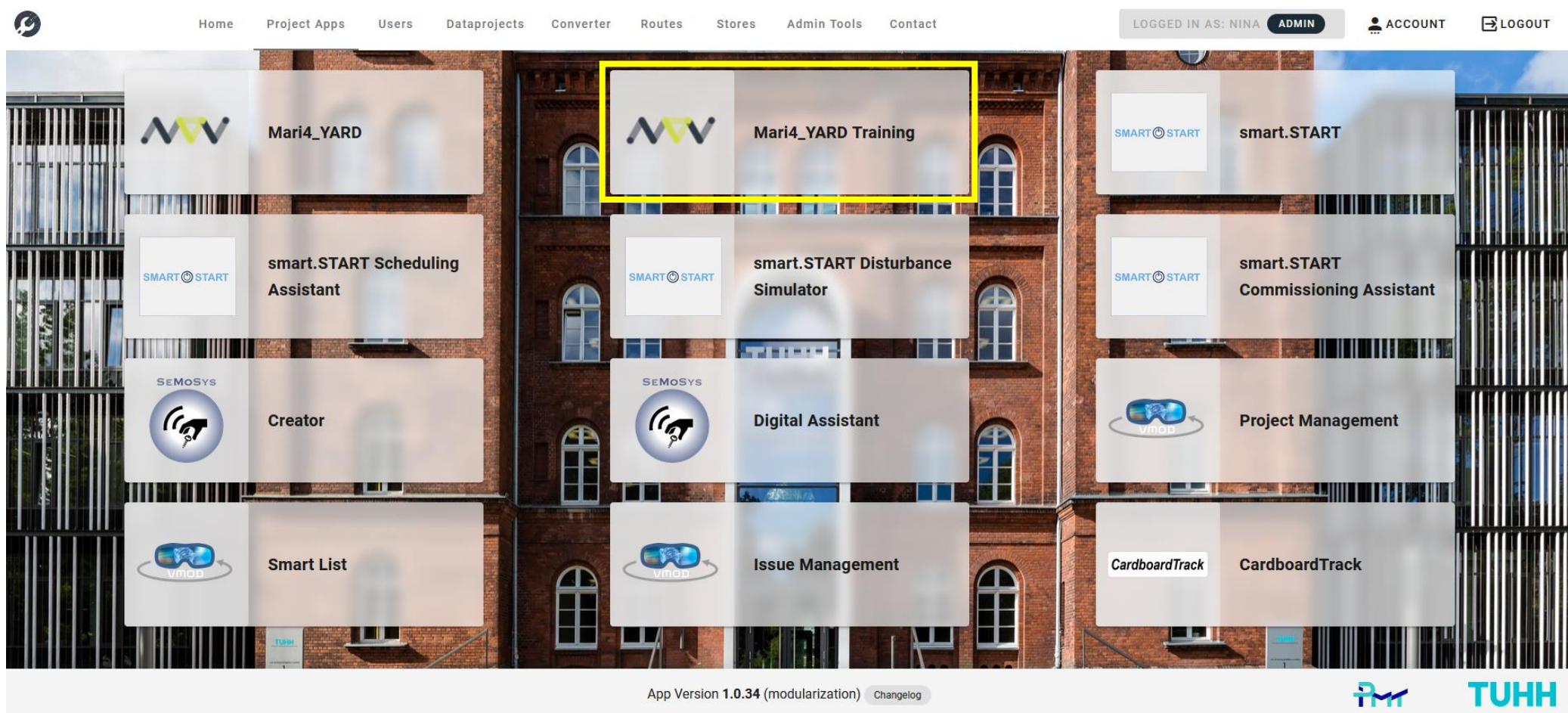


Mobile Execution Application

1. Sign in and open Project App „Mari4_YARD Training“



1. Sign in and open Project App „Mari4_YARD Training“



2. Create new Project

☰ DIA SERVE: Mari4_YARD
MARI4YARD MARI4ALLIANCE
LOGGED IN AS: NINA ADMIN
LOGOUT

🏠 General
📊 Dashboard
📁 Projects **2**

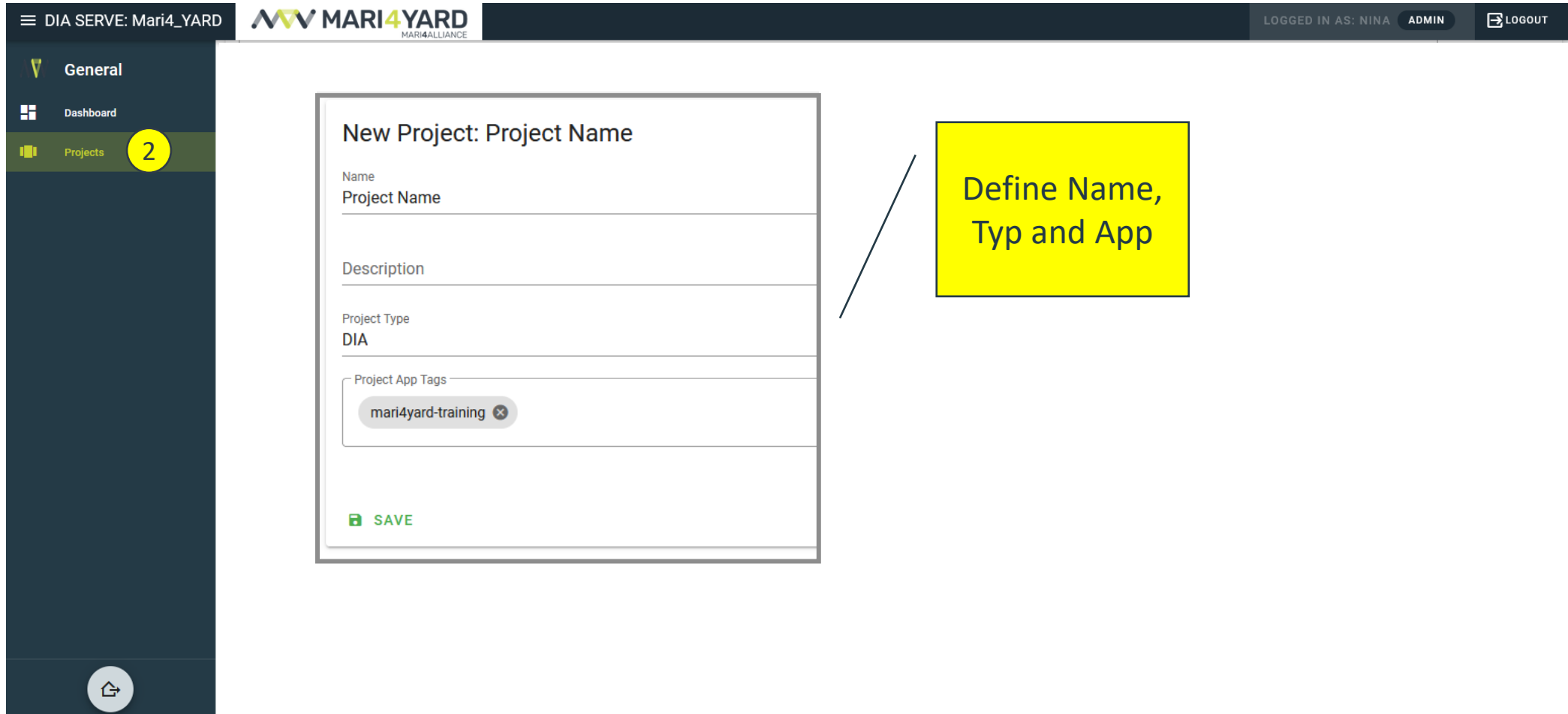
Search Show All

Name ↑	Attributes	Description	Project App Tags (Accessible via App/s)	with Project Role	ID	Actions
— Type: DIA ✕						
M4Y Training 1		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4d9f3e548a7d184ef6d2	
M4Y Training 10		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4e603e548a4e2e4f0777	
M4Y Training 2		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4dab3e548a53a04ef7b6	
M4Y Training 3		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4dc03e548a44e64ef949	
M4Y Training 4		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4dcb3e548a336a4efae3	
M4Y Training 5		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4dd93e548a84884efc80	
M4Y Training 6		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4de83e548af4864efd52	
M4Y Training 7		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4e383e548af22b4f04ef	
M4Y Training 8		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4e433e548a2fc04f05c5	
M4Y Training 9		M4Y	📄 mari4yard 📄 mari4yard-training	No Role	654a4e513e548a4e9f4f069d	
M4Y Training_ext			📄 mari4yard-training	Owner	6617d08594223ba0dd595efc	
NOV485 Test 2			📄 mari4yard 📄 mari4yard-training	No Role	65f2fb4ec5634d6fc06665dd	

🏠
+ NEW PROJECT



2. Create new Project



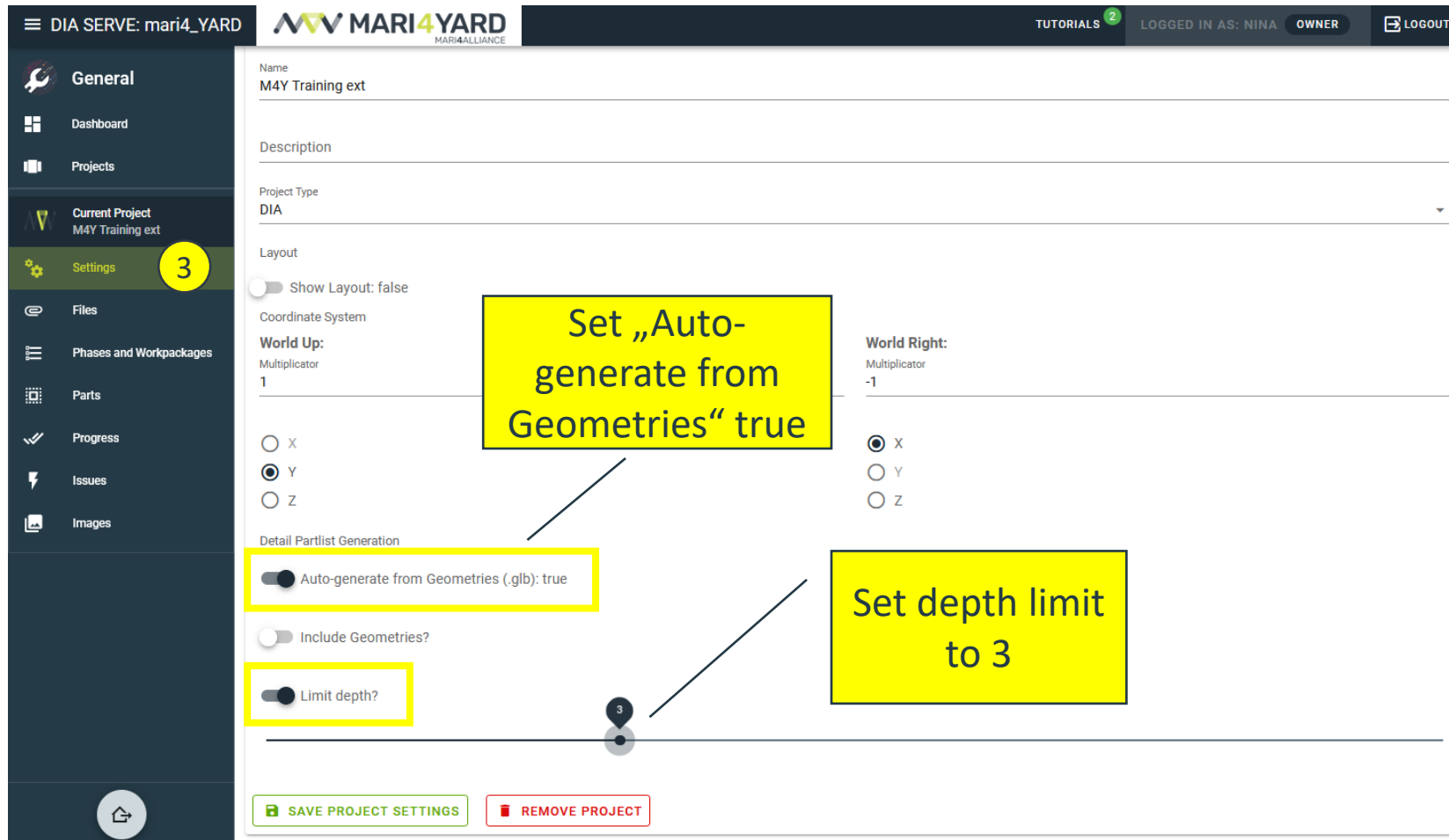
The screenshot shows the MARI4YARD web application interface. The top navigation bar includes the MARI4YARD logo, the user name 'DIA SERVE: Mari4_YARD', and the user role 'ADMIN' with a 'LOGOUT' button. The left sidebar contains navigation options: 'General', 'Dashboard', and 'Projects' (highlighted with a yellow circle containing the number '2'). The main content area displays the 'New Project: Project Name' form. The form has the following fields:

- Name:** Project Name
- Description:**
- Project Type:** DIA
- Project App Tags:** mari4yard-training

A yellow callout box with a diagonal line pointing to the form contains the text: "Define Name, Typ and App". At the bottom of the form is a green 'SAVE' button.



3. Adjust relevant settings



DIA SERVE: mari4_YARD **MARI4YARD** MARI4ALLIANCE TUTORIALS ² LOGGED IN AS: NINA OWNER LOGOUT

General
 Dashboard
 Projects
 Current Project
 M4Y Training ext
Settings 3
 Files
 Phases and Workpackages
 Parts
 Progress
 Issues
 Images

Name
 M4Y Training ext

Description

Project Type
 DIA

Layout
 Show Layout: false

Coordinate System
World Up:
 Multiplier
 1

X
 Y
 Z

Set „Auto-generate from Geometries“ true

World Right:
 Multiplier
 -1

X
 Y
 Z

Detail Partlist Generation
 Auto-generate from Geometries (.glb): true
 Include Geometries?
 Limit depth?

Set depth limit to 3



4. Upload 3D File

☰ DIA SERVE: mari4_YARD
TUTORIALS ² LOGGED IN AS: NINA OWNER LOGOUT

General

Dashboard

Projects

Current Project
M4Y Training ext

Settings

Files 4

Phases and Workpackages

Parts

Progress

Issues

Images

Upload Files

Click to select files or drag & drop files here.

Filename	Size	Upload Progress	Recognized Content	Actions	Warnings
Versuchsumgebung_V04_2024_AngepasstUndAbgespeckt_CADAssi.glb	44.69 Mb	-	-	-	

Rows per page: 10 1-1 of 1

UPLOAD 1 FILES

Files in Project

<input type="checkbox"/>	Released	Filename	File Timestar (Source)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6617d08594223ba0dd595efc_generic_diaphaselist	11/04/2024 14:01:22
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6617d08594223ba0dd595efc_generic_diaworkpackagelist	11/04/2024 14:01:48
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Versuchsumgebung_V04_2024_AngepasstUndAbgespeckt_CADAssi.glb	11/04/2024 10:29:34

Files

« 09_Trainings » ExternalApr2024 » 3D Files

3D Files durchsuchen

Name

Versuchsumgebung_V04_2024_AngepasstUndAbgespeckt_CADAssi.glb

1 Element

5. Define phases and workpackages

DIA SERVE: mari4_YARD TUTORIALS ² LOGGED IN AS: NINA OWNER LOGOUT

General
 Dashboard
 Projects
 Current Project
 M4Y Training ext
 Settings
 Files
Phases and Workpackages 5
 Parts
 Progress
 Issues
 Images

Name	Description	Actions
Unnamed Phase		✎ 🗑

+ NEW PHASE

Edit Phase

Name
First Phase

Description

Progress Kind

CLOSE SAVE

New Workpackage:

Description
= Check status of pipe assembly

Responsible

Start (Plan)
📅 2024-04-17

End (Plan)
📅 2024-04-26

SAVE 🗑

Phase: First Phase 6617dda094223b1f6f5a0878

Overview		PartReferences	Workpackages	Settings
Start (plan)	End (plan)	Description	UserRef	Released
2024-04-11	2024-04-18	Check status of steel structure		<div style="border: 2px solid yellow; padding: 2px;"> <input checked="" type="checkbox"/> </div>

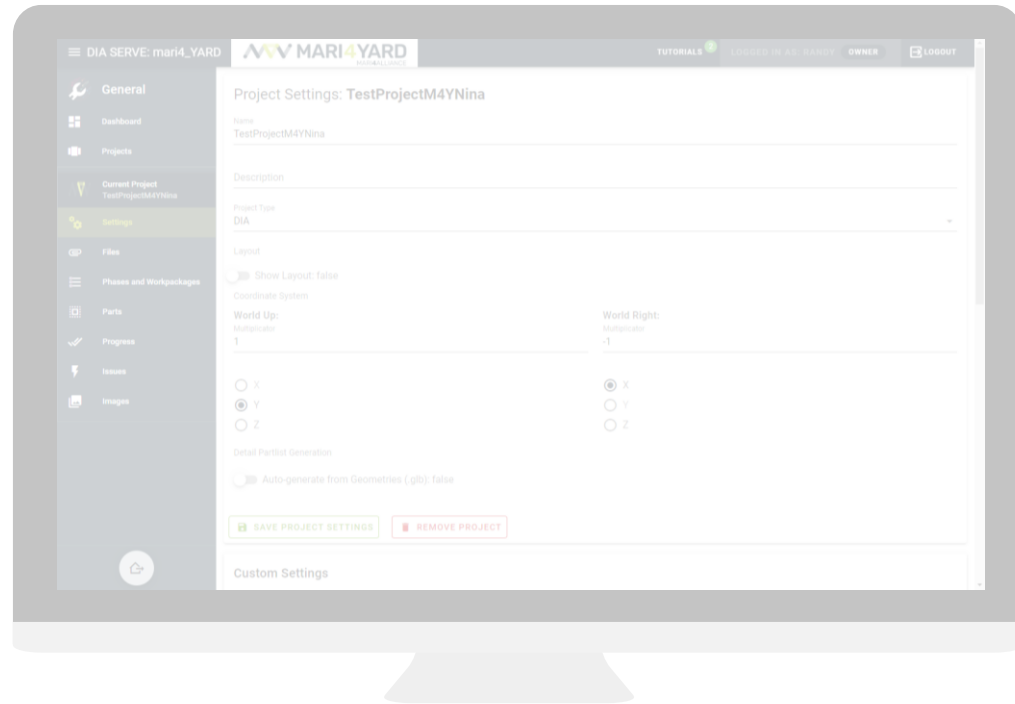
NEW WORKPACKAGE

5. Define phases and workpackages

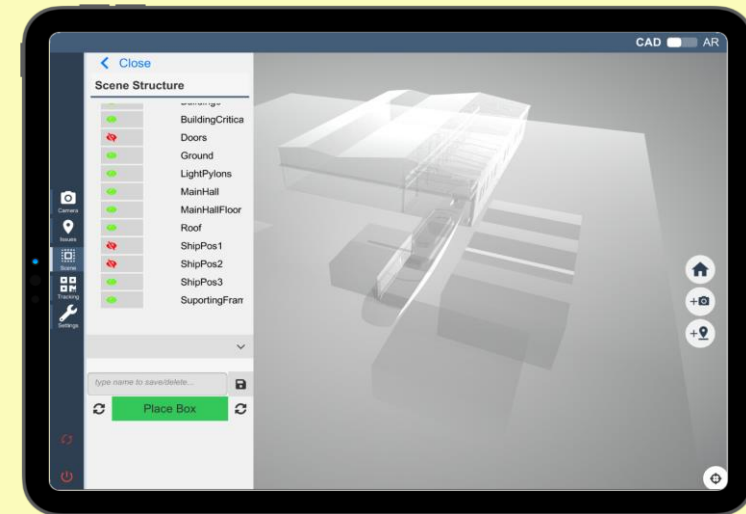
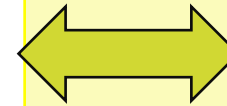
The screenshot shows the MARI4YARD web interface. The top navigation bar includes 'DIA SERVE: mari4_YARD', the MARI4YARD logo, 'TUTORIALS 2', 'LOGGED IN AS: NINA', 'OWNER', and 'LOGOUT'. The left sidebar contains a menu with items: General, Dashboard, Projects, Current Project (M4Y Training ext), Settings, Files, Phases and Workpackages (highlighted with a yellow circle and the number 5), Parts, Progress, Issues, and Images. The main content area is titled 'Phase: First Phase 6617dda094223b1f6f5a0878' and has an 'OVERVIEW' button. Below the title are four tabs: 'Overview', 'PartReferences' (highlighted with a yellow box), 'Workpackages', and 'Settings'. Under the 'PartReferences' tab is a table with columns: Part, Description, Progress, Status, Workpackage, and Actions. The table is currently empty with the text 'No data available'. Below the table are two buttons: 'SELECT PARTS' and 'SAVE', both highlighted with yellow boxes. A yellow arrow points from the 'SELECT PARTS' button to a modal window titled 'Select Parts'. The modal window has a search bar, a checkbox for 'Hide parts with existing geometry file', and a filter dropdown set to 'EBOM, MBOM'. It displays a tree view of parts under the folder 'Versuchsumgebung_V04_2024_AngepasstUndAbgespeckt_CADAssi'. The 'Montage' folder is expanded, and 'Ceiling' is checked. At the bottom of the modal, there are two buttons: 'Check status of steel structure' and 'Check status of pipe assembly', both highlighted with yellow boxes. A yellow box with the text 'Assign parts to workpackages' has an arrow pointing to the modal. At the bottom right of the modal, there is a button 'ASSIGN 201 PARTS' with a document icon, also highlighted with a yellow box.

Assign parts to workpackages

Digital Assistant - System Structure



Supervising Project Management



Mobile Execution Application



1. Login

App Version 0.9.4 (1) [DIAV5-M4Y]

Login To DIASERVE

tegridy-ext

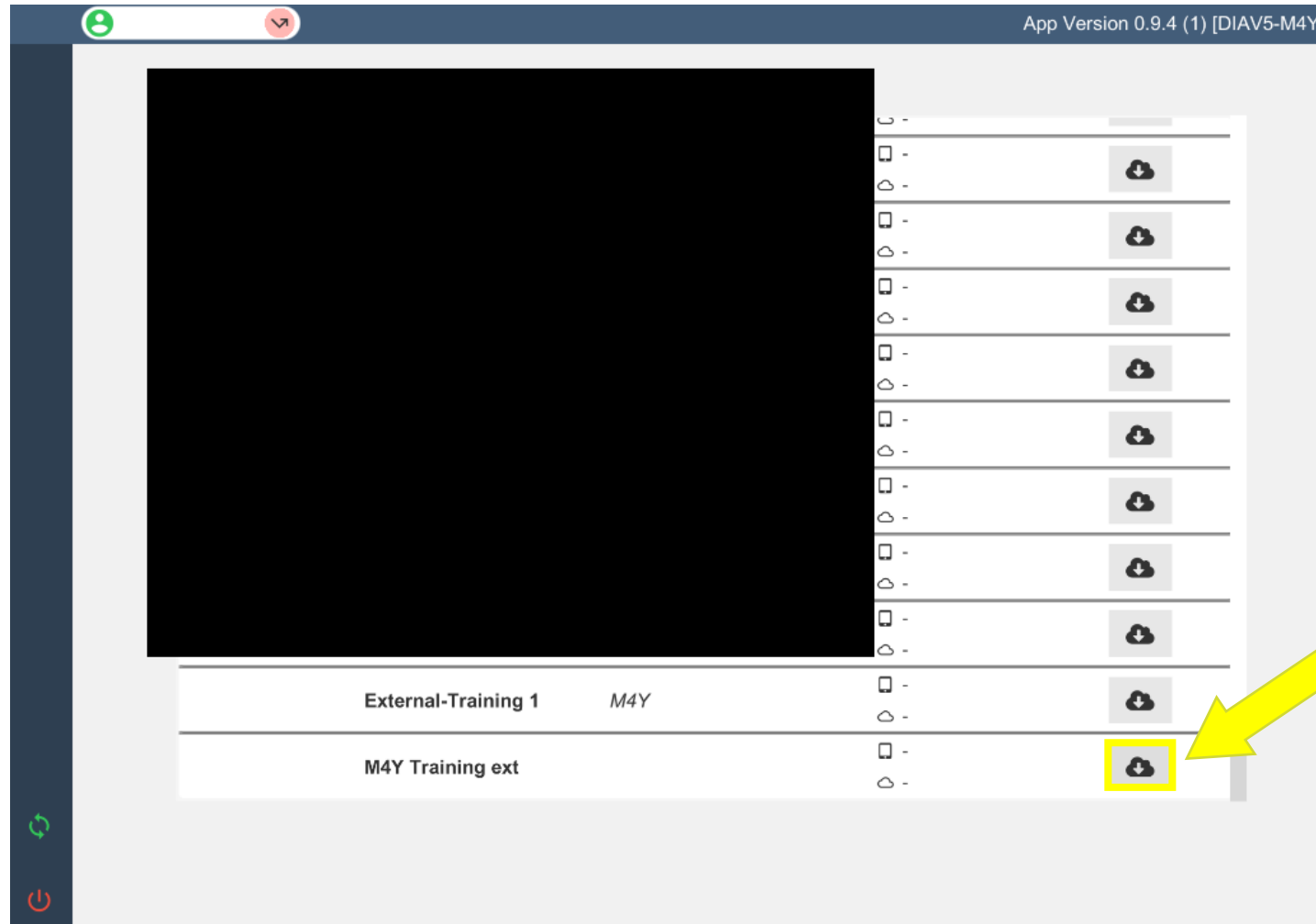
m4y-test-user

Login

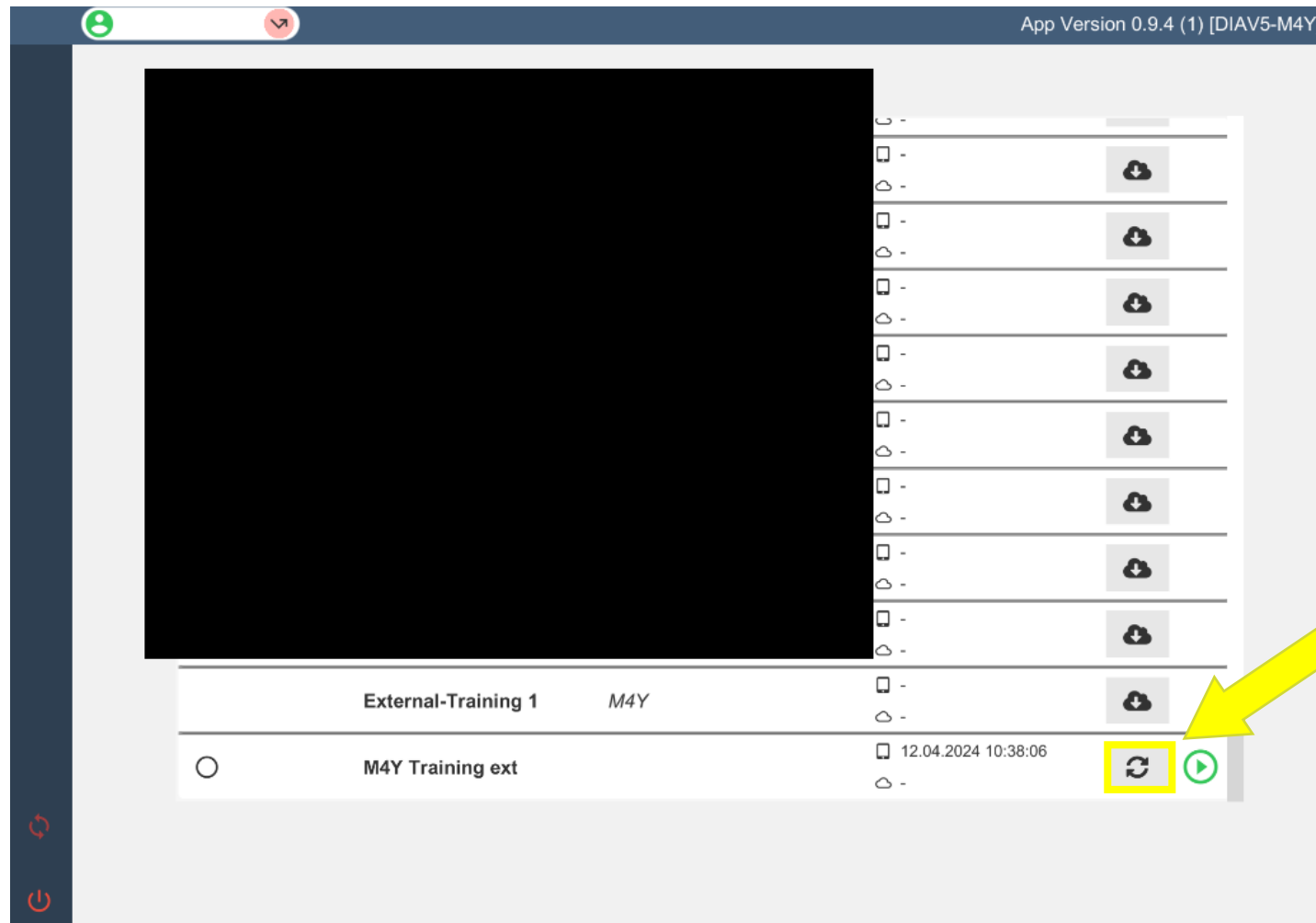
Remember Me



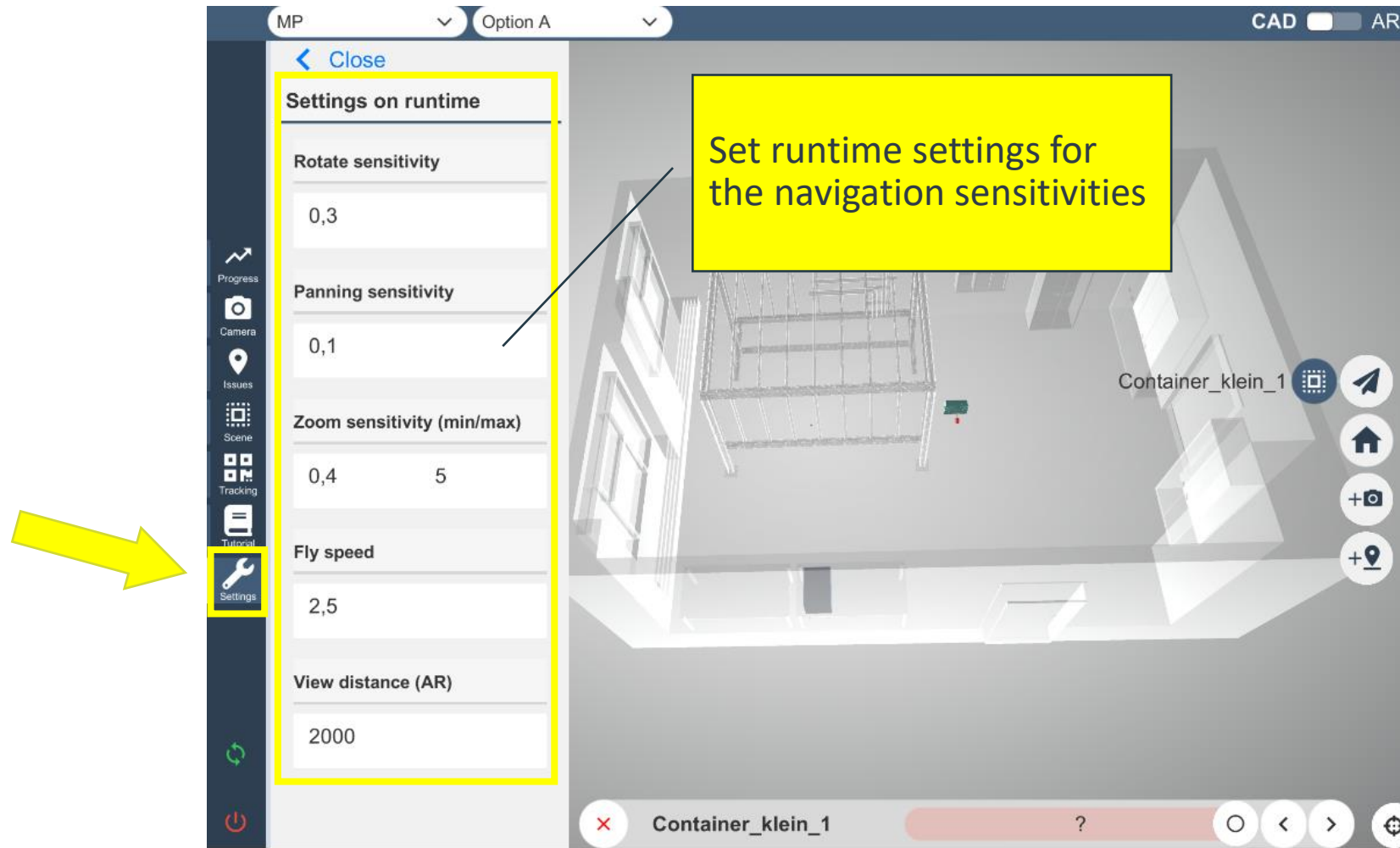
2. Initial Prozess Synchronization and choose Project



3. Final Synchronization



5. Adjust relevant settings



MP Option A CAD AR

Close

Settings on runtime

Rotate sensitivity
0,3

Panning sensitivity
0,1

Zoom sensitivity (min/max)
0,4 5

Fly speed
2,5

View distance (AR)
2000

Container_klein_1

Progress
Camera
Issues
Scene
Tracking
Tutorial
Settings

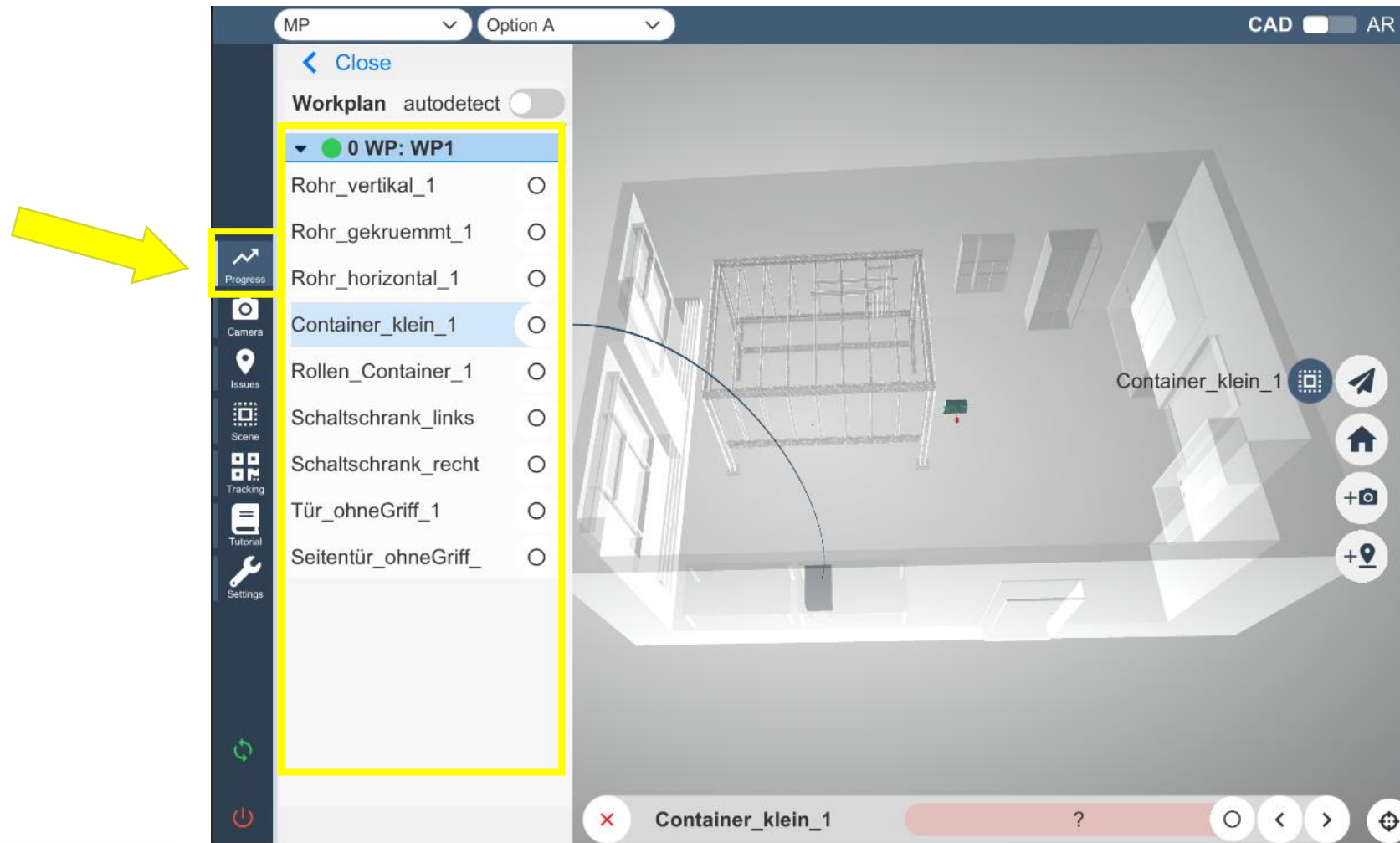
Set runtime settings for the navigation sensitivities

Container_klein_1

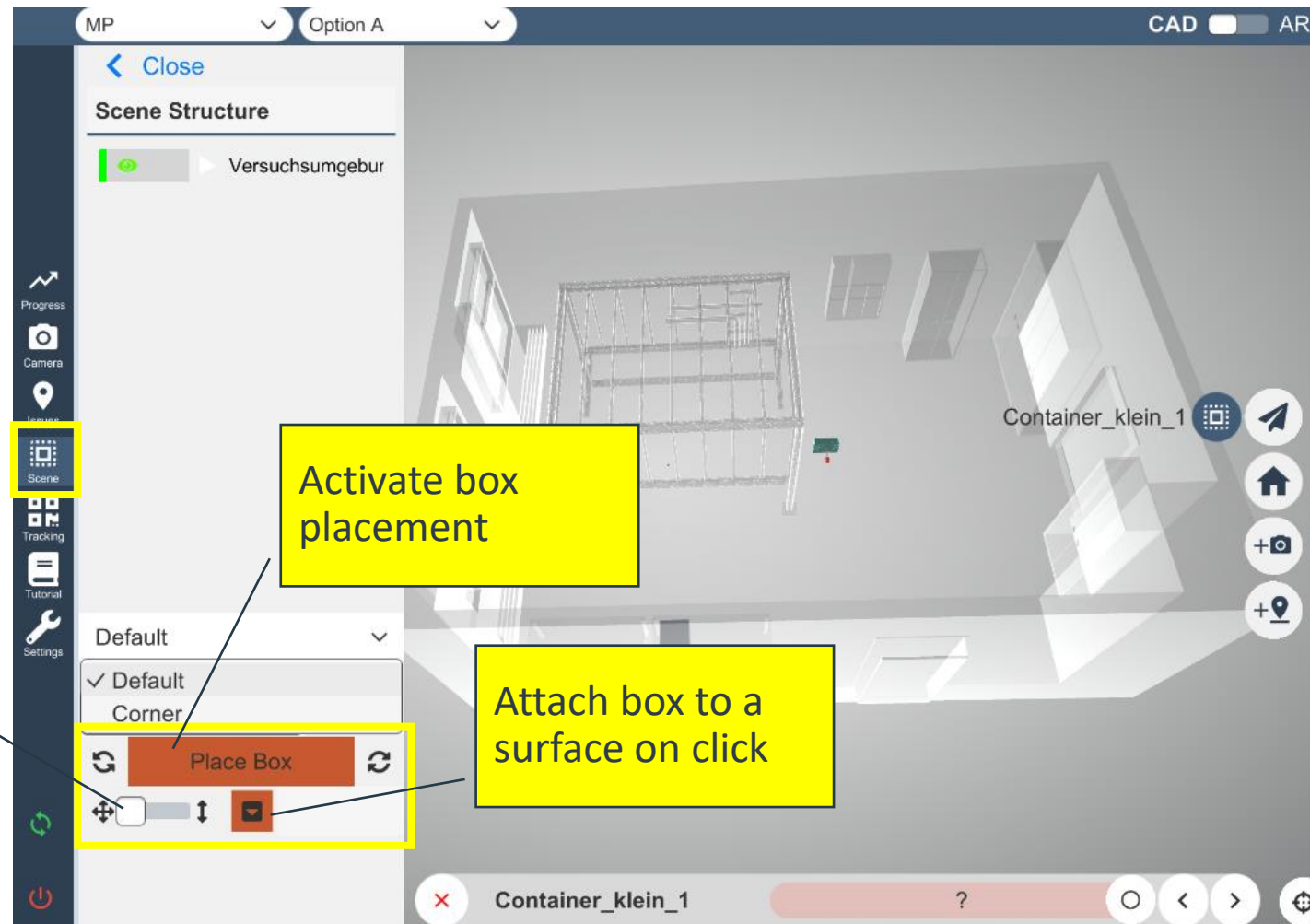
Container_klein_1 ?



5. Check Workplan with steps



6. Box Placement in 3D Model



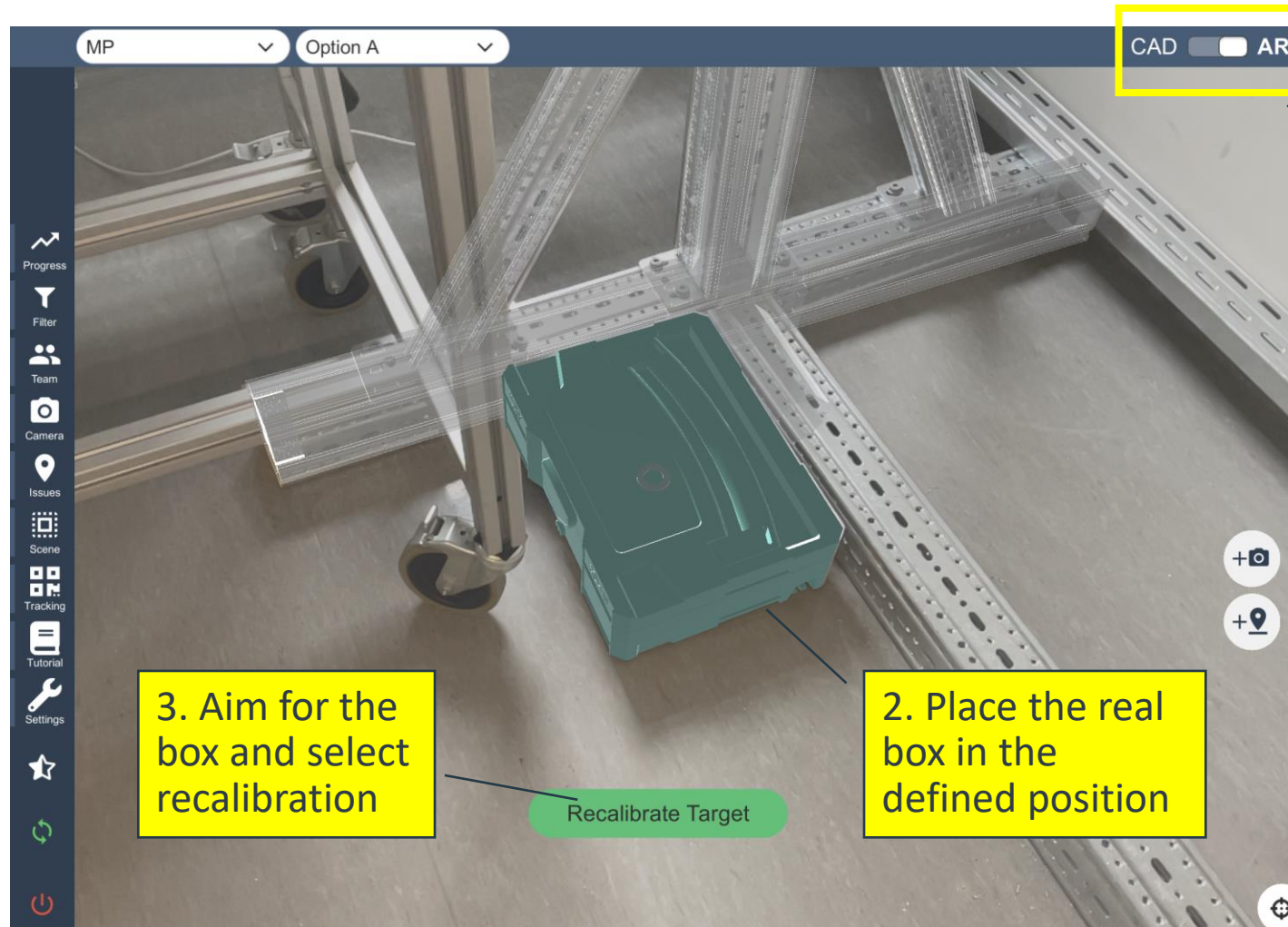
Swicht from horizontal to vertical movement

Activate box placement

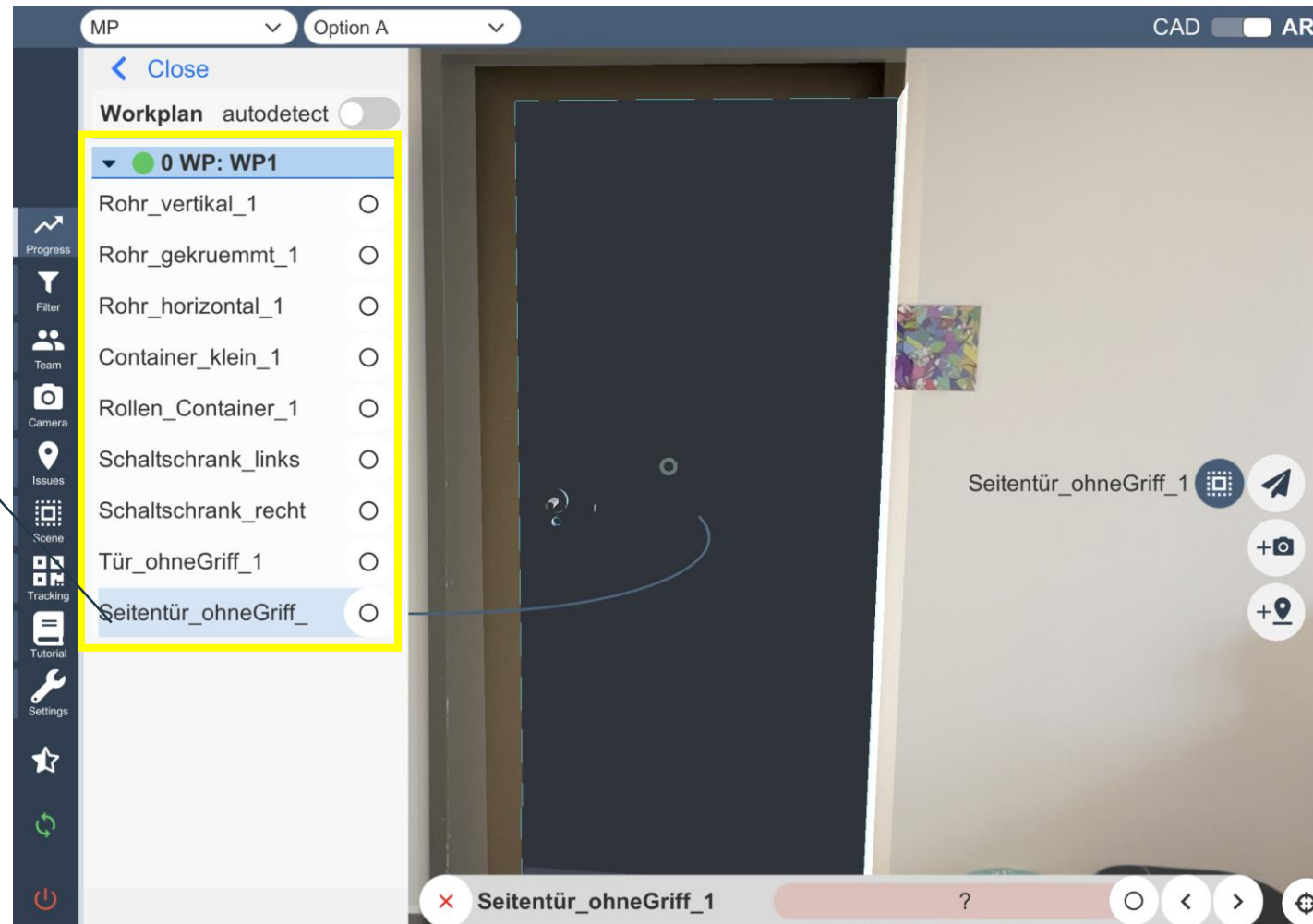
Attach box to a surface on click



7. Box Placement in AR Mode

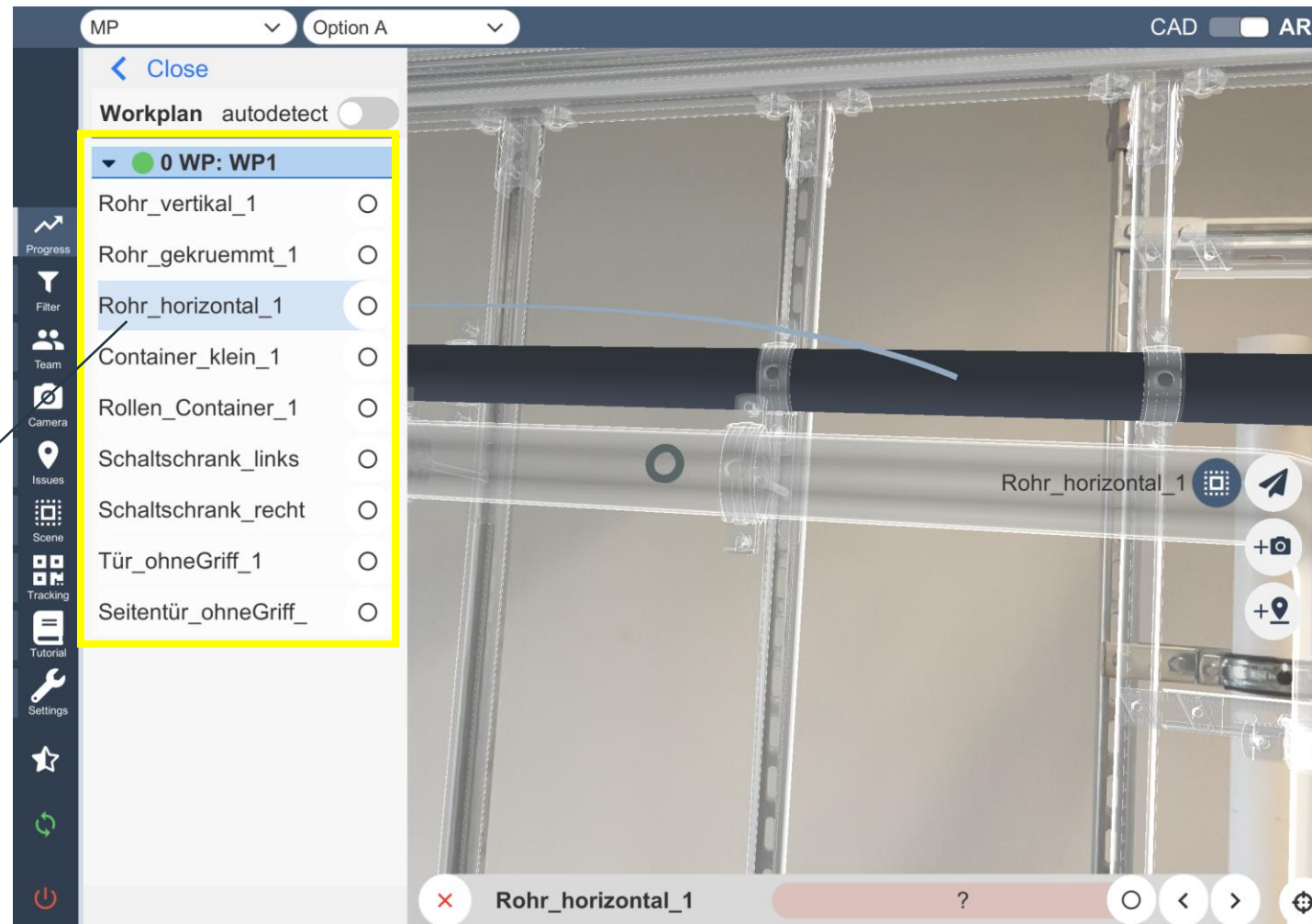


8. AR Navigation – Example Door



Navigate in AR to check assembly status

8. AR Navigation – Example Pipe



Navigate in AR to check assembly status