

IM502426

Kick-Start Your Upchain Experience

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Learning Objectives

- Discover what functional areas exist in Upchain
- Explore what different users can do in Upchain
- Discover how easy it is to import CAD data
- Explore user workflows from importing CAD data to having it consumed by downstream consumers

Description

In this class, you'll discover what cloud data management is all about and how Upchain can help your organization be more connected and efficient with a focus on user collaboration. We'll help you understand what Upchain is, how you can start using it optimally in minimal time, and what you can achieve with the power of cloud collaboration between different stakeholders.

About the speakers



Product Manager for Upchain located in Croatia.

As a passionate mechatronic engineer who likes to work on electronic, mechanical, and robotic systems projects I always try to see engineering's point of view on the problem. I worked for many years as a mechanical designer in different industries before coming to Upchain. That experience helps me to see ahead what needs to be improved so users can get the best experience with our system.

A product manager within Autodesk, with over 10 years of experience involved within Upchain product (various roles in supporting both customers and the product, involved with all product areas). Specialized in Upchain's bill of material (cBOM, mechanical and electrical BOM handling, service BOM), business processes (investigation requests, change requests, change notices), document management (DMS), administration, and supplier portal.



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Discover what functional areas exist in Upchain and explore what different users can do in Upchain

Today in Upchain users can have the following roles:

1. **Tenant Admin** - Manages a company's administration settings
2. **Project Manager** - Manages projects and related activities.
3. **Mechanical Designer** - Works with CAD systems to create mechanical parts and assemblies
4. **Lead Mechanical Designer** - Builds BOMs and approves CAD models, also works with CAD systems to create mechanical parts and assemblies
5. **Electrical Designer** - Works with CAD systems to create electrical parts and assemblies
6. **Lead Electrical Designer** - Builds BOMs and approves CAD models, also works with CAD systems to create electrical parts and assemblies
7. **Buyer** - Buys required parts or components
8. **Customer** - Views released item data
9. **Customer Manager** - Views released item data
10. **Requisitioner** - Manages ordering parts
11. **Viewer** - Views released item data (such as executives, and shop floor personnel).

Throughout this handout, you will see notes for functions whose primary users are those roles.

You might be using different naming for those roles or one person might be doing a combination of those functions.

More information about roles and their assignments can be found on Upchain help here - [About roles and their assignment.](#)

IMPORTANT NOTE:

All tenant settings and workflows displayed here are Out-of-the-box settings. The tenant was not altered or configured in any way.

Upchain landing page

The page you will see after you have successfully logged in:

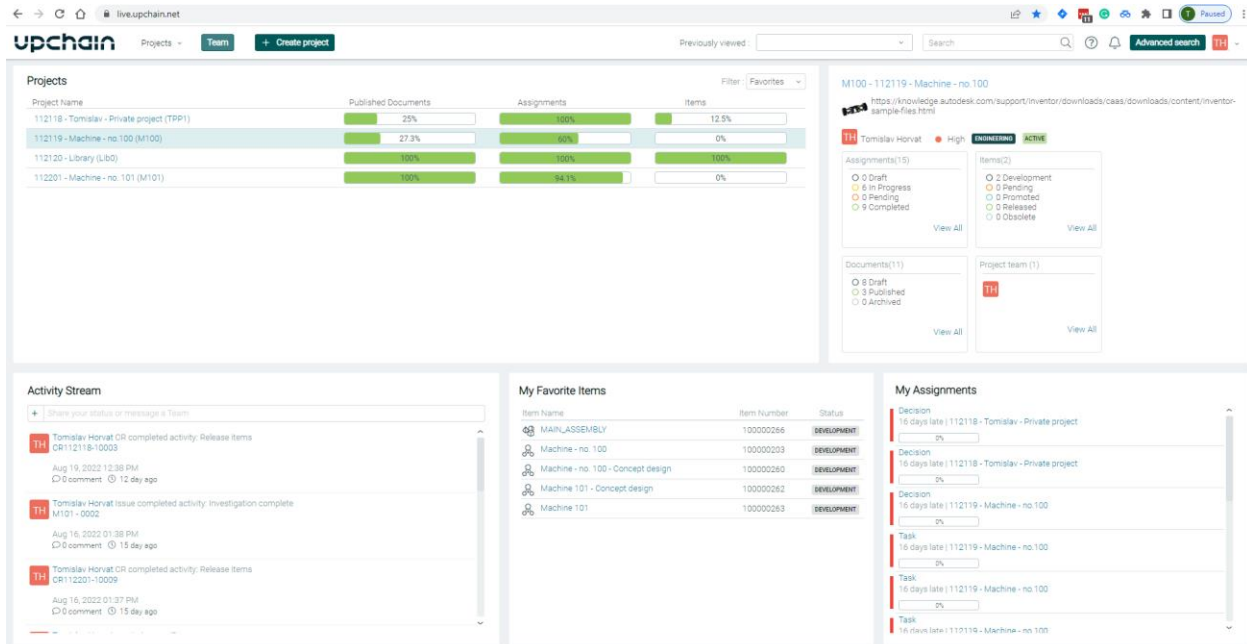


FIGURE 1 UPCHAIN LANDING PAGE

The landing page consists of the following areas – which can be seen in “Figure 2 Breakdown of landing page”:

1. List of public projects, templates, and options to create new ones
2. List of previously opened, quick search, help, Advanced search, access to other pages
3. List of favorite projects
4. Selected project details
5. Activity Stream
6. My favorite items list
7. My assignments

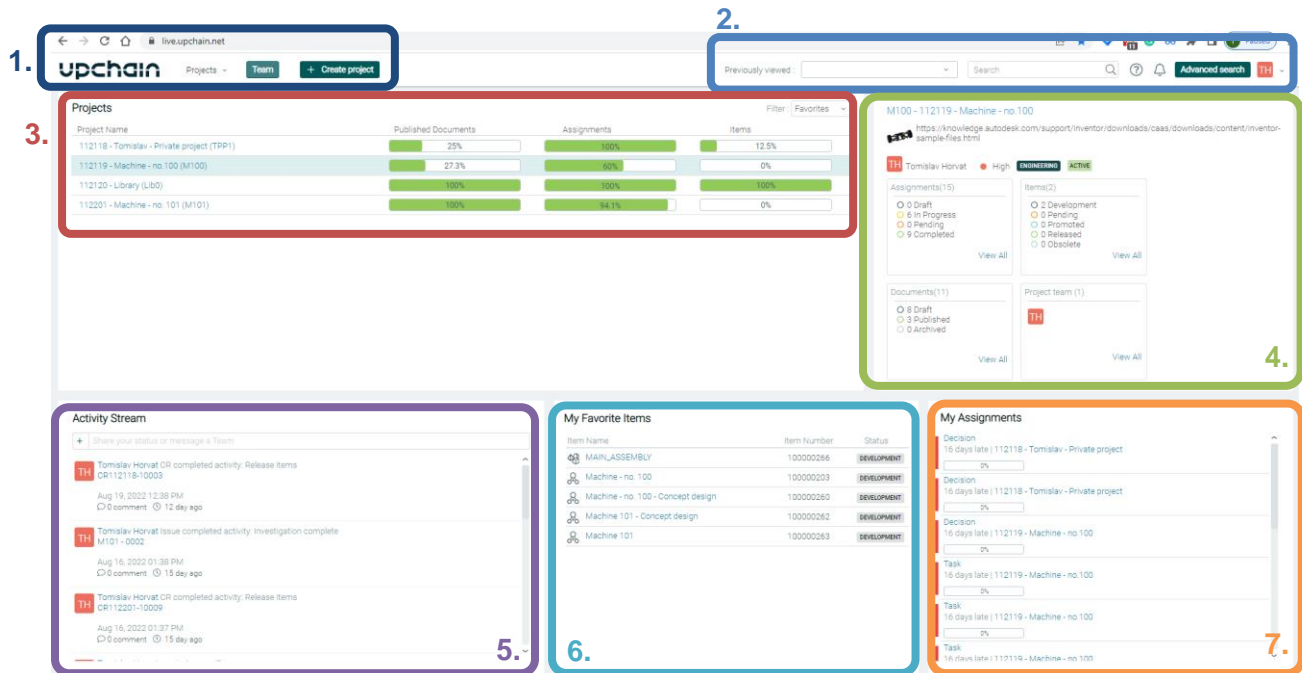


FIGURE 2 BREAKDOWN OF LANDING PAGE

List of public projects

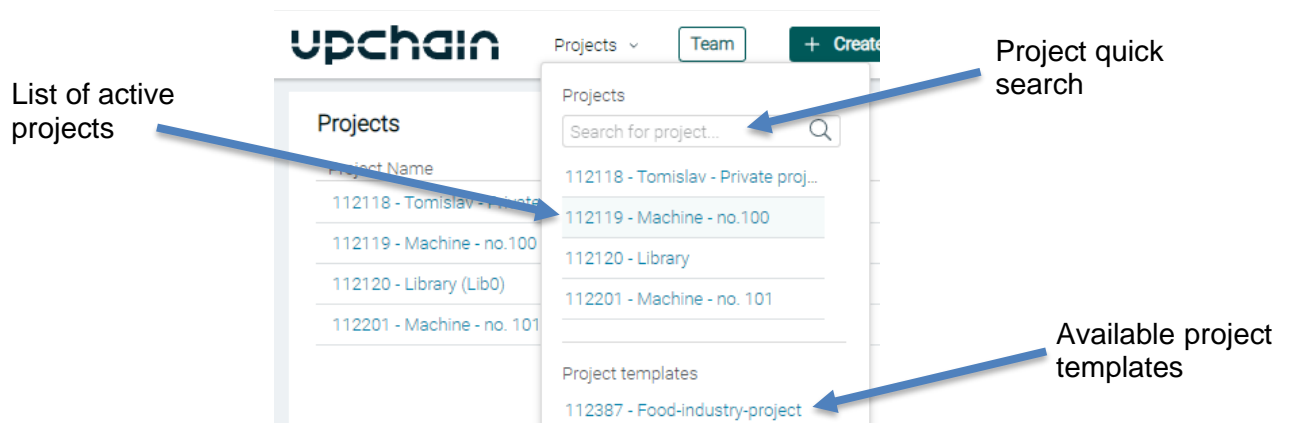


FIGURE 3 LIST OF PUBLIC PROJECTS AVAILABLE TO THE USER

Creating new project

Upchain projects are storage places for your project data. They are containing all information needed to build that project.

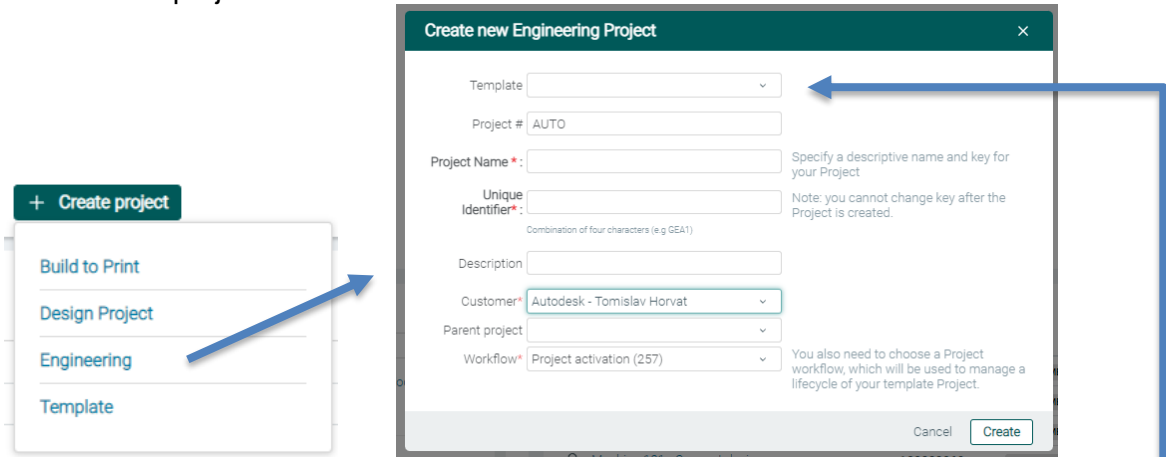


FIGURE 4 CREATING A NEW PROJECT

Creating new template

Project templates are used for creating standard project types. You can create a BOM structure that your business needs, create document categories, and much more.

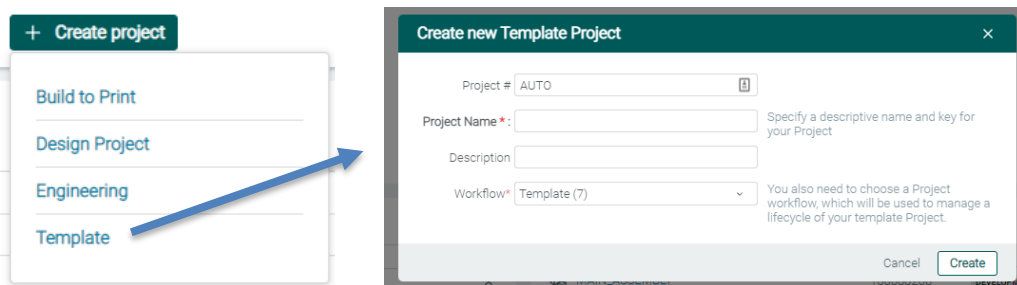


FIGURE 5 CREATING A NEW TEMPLATE

Previously viewed

List of previously opened objects in Upchain so users can quickly navigate back to them.



FIGURE 6 PREVIOUSLY OPENED OBJECTS IN UPCHAIN

Quick search

A quick search can be used for quick searching of activities, documents, and items.

00000026-AA-Customer ...

Quick search											
SUSPENSION <input type="button" value="All Results (5)"/>											
Activities (0) <input type="button" value="Export results"/>											
Documents (0) <input type="button" value="Export results"/>											
BOM (5) <input type="button" value="Export results"/>											
Copy	Activity Creation	Item Name	Status	Item Number	Major Revision	Minor Revision	Version	Legacy Item Number	Creator	Creation Date	Revision Note
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION	RELEASED	100000261	AA	00	000		Tomislav Horvat	Aug 15, 2022	Initial Release
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION	RELEASED	100000204	AC	00	000		Tomislav Horvat	Aug 15, 2022	removed part
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION	RELEASED	100000204	AB	00	000		Tomislav Horvat	Aug 14, 2022	note
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION_SPRING	RELEASED	100000254	AA	00	000		Tomislav Horvat	Aug 14, 2022	Initial Release
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION	RELEASED	100000204	AA	00	000		Tomislav Horvat	Aug 14, 2022	Initial Release

FIGURE 7 QUICK SEARCH

Advanced search

With Advanced search, users can construct queries with different search criteria to find what they need.

Advanced search filters

AND

Item Version

Match All

Item Name

contains

SUSP

+

+

Project

Match All

Project #

equals

112119

+

+

Go to	Copy	Item Name	Item Number	Item major revision	Item minor revision	Item
<input type="checkbox"/>	<input type="checkbox"/>	FRONT SUSPENSION ADJUSTM...	100000232	AA	00	00
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION_SPRING	100000254	AA	00	00
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION	100000204	AC	00	00
<input type="checkbox"/>	<input type="checkbox"/>	SUSPENSION	100000261	AA	00	00

FIGURE 8 ADVANCED SEARCH

Additional options

Inside of additional options users can:

1. Update their profile page
2. Access Administration if they have a tenant admin role
3. Download latest plugins
4. View manufacturers

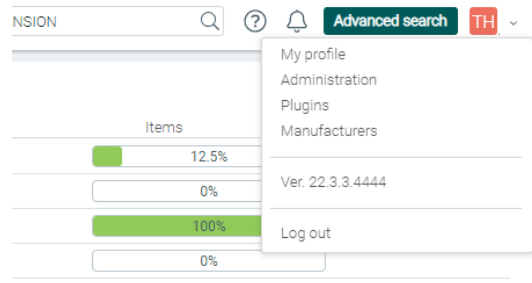


FIGURE 9 ADDITIONAL OPTIONS

Upchain Administration

Upchain Administration is a place where Tenant administrators can modify system behavior, modify or create new workflows, invite new users, and much more.

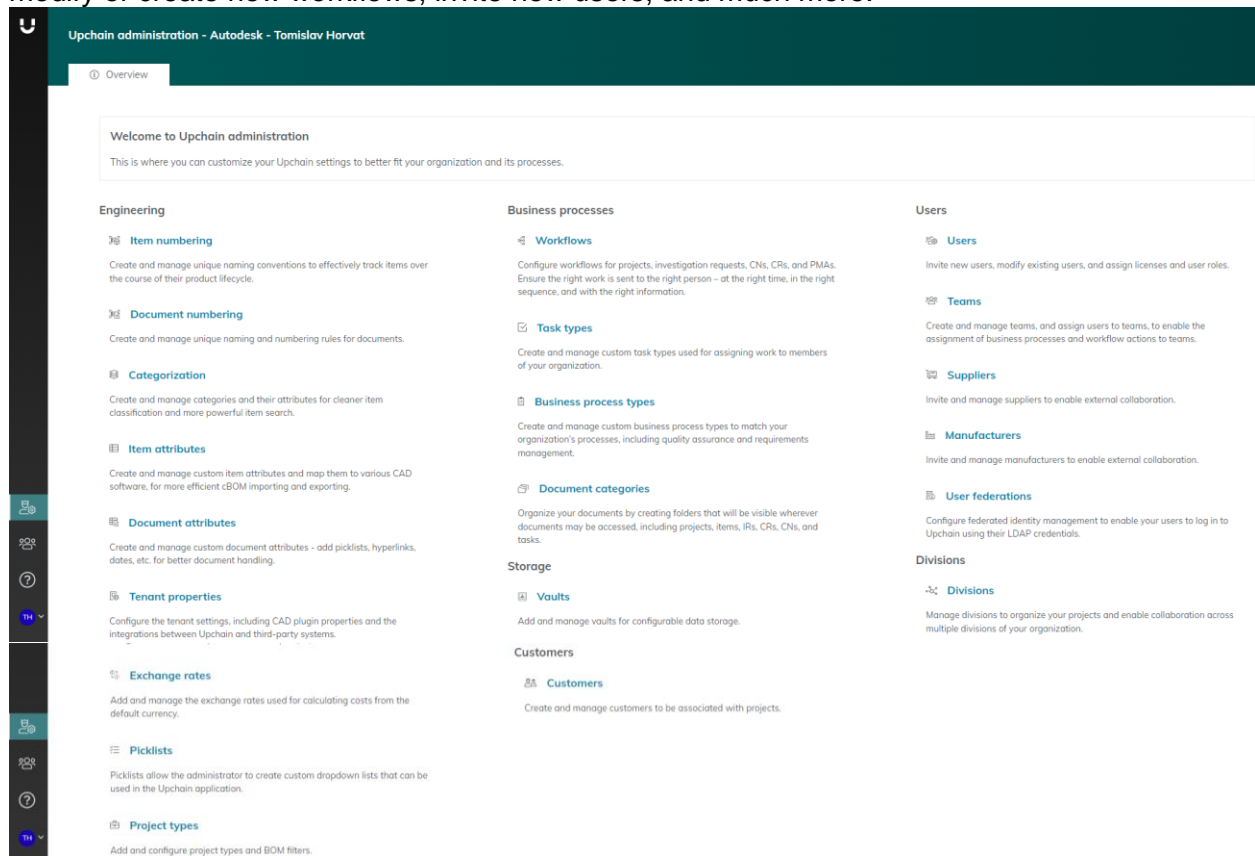


FIGURE 10 UPCHAIN ADMINISTRATION PAGE

Favorite projects

This is a list of projects that are favored by the user for quick access. In the top-right section, the user can change from favorited to all active or draft types.

Projects				Filter: Favorites
Project Name	Published Documents	Assignments	Items	Favorites All Active Draft
112118 - Tomislav - Private project (TPP1)	<div><div></div></div> 25%	<div><div></div></div> 100%	<div><div></div></div> 12.5%	
112119 - Machine - no.100 (M100)	<div><div></div></div> 23.1%	<div><div></div></div> 62.5%	<div><div></div></div> 0%	
112120 - Library (Lib0)	<div><div></div></div> 100%	<div><div></div></div> 100%	<div><div></div></div> 100%	
112201 - Machine - no. 101 (M101)	<div><div></div></div> 100%	<div><div></div></div> 94.1%	<div><div></div></div> 0%	

FIGURE 11 FAVORITE PROJECTS

Project details

Project details will show basic project information to the user without the need to go deeper into it.

Projects				Filter: Favorites
Project Name	Published Documents	Assignments	Items	
112118 - Tomislav - Private project (TPP1)	<div><div></div></div> 25%	<div><div></div></div> 100%	<div><div></div></div> 12.5%	
112119 - Machine - no.100 (M100)	<div><div></div></div> 23.1%	<div><div></div></div> 62.5%	<div><div></div></div> 0%	
112120 - Library (Lib0)	<div><div></div></div> 100%	<div><div></div></div> 100%	<div><div></div></div> 100%	
112201 - Machine - no. 101 (M101)	<div><div></div></div> 100%	<div><div></div></div> 94.1%	<div><div></div></div> 0%	

M101 - 112201 - Machine - no. 101

TH Tomislav Horvat ● Low **ENGINEERING** **ACTIVE**

Assignments(17)

- 0 Draft
- 1 In Progress
- 0 Pending
- 0 Released
- 16 Completed

[View All](#)

Items(2)

- 2 Development
- 0 Pending
- 0 Promoted
- 0 Released
- 0 Obsolete

[View All](#)

Documents(1)

- 0 Draft
- 1 Published
- 0 Archived

[View All](#)

Project team (1)

- TH**

[View All](#)

FIGURE 12 PROJECT DETAILS

Activity Stream

The activity stream is a list of the last actions done inside of the users' tenant. It also gives the ability to post messages.

Activity Stream	
+ Share your status or message a Team	
TH	Tomislav Horvat posted Welcome to project 112387 - Food-industry-project on Project 112387 - Food-industry-project 0 comment 8 hour ago
TH	Tomislav Horvat CR completed activity: Release items CR112119-10005 Sep 01, 2022 11:50 AM 0 comment 1 day ago
TH	Tomislav Horvat CR completed activity: Release items CR112118-10003 Aug 19, 2022 12:38 PM 0 comment 14 day ago

FIGURE 13 ACTIVITY STREAM

My favorite items

This is the list of items that the user wants to have quick access to. This way they do not need to search for the item but they can come to it with one click.






My Favorite Items		
Item Name	Item Number	Status
 MAIN_ASSEMBLY	100000266	DEVELOPMENT
 Machine - no. 100	100000203	DEVELOPMENT
 Machine - no. 100 - Concept design	100000260	DEVELOPMENT
 Machine 101 - Concept design	100000262	DEVELOPMENT
 Machine 101	100000263	DEVELOPMENT

FIGURE 14 MY FAVORITE ITEMS SECTION

My assignments

My assignment is the list of tasks that have been assigned to this user. It gives the user the possibility to easily see what tasks are pending his input.

My Assignments	
Decision	17 days late 112118 - Tomislav - Private project
<div><div></div></div>	0%
Decision	17 days late 112118 - Tomislav - Private project
<div><div></div></div>	0%
Decision	17 days late 112119 - Machine - no.100
<div><div></div></div>	0%
Task	17 days late 112119 - Machine - no.100
<div><div></div></div>	0%
Task	17 days late 112119 - Machine - no.100
<div><div></div></div>	0%

FIGURE 15 MY ASSIGNMENTS SECTION

Project details

Project details will be loaded once we enter the project. It consists of two main sections: project details and project navigation.

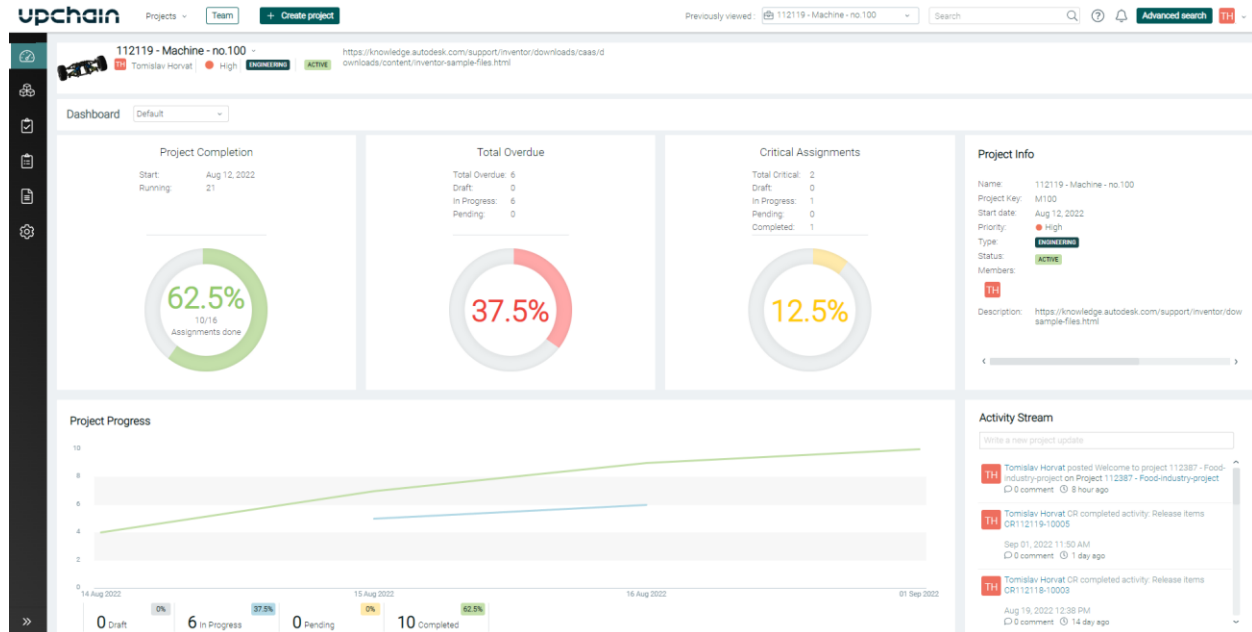


FIGURE 16 MAIN PROJECT DASHBOARD

Project detail – default dashboard

On Project details – default dashboard users can view:

1. Project number, name, the project manager leading the project, status, and description.
2. What is the project status, the health of the project, how many assignments are active, how many tasks are overdue, and what is the health of critical assignments. On the bottom right, they can also view the last activity on the project.
3. With the dashboard option, users can switch from Default to Design dashboard.

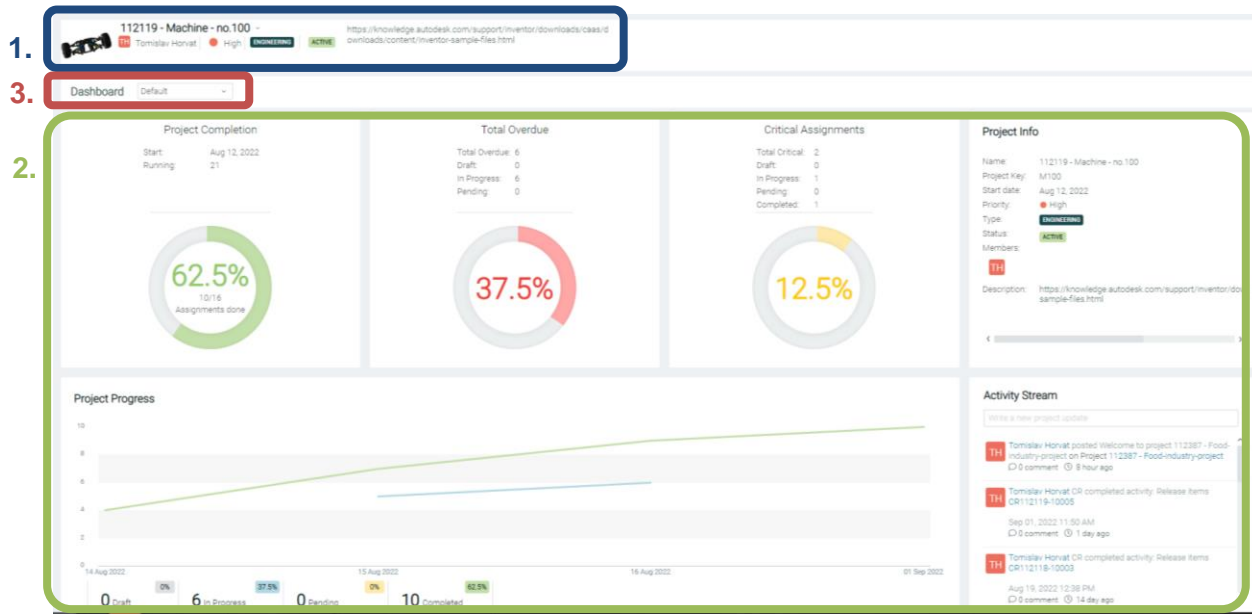


FIGURE 17 BREAKDOWN OF THE DEFAULT PROJECT DASHBOARD

Project details – design dashboard

Users can open a designed dashboard where they can view:

1. Recently created objects in that project
2. Items that they have locked in that Project
3. On the top right list of their assignments in the scope of this project
4. On the bottom right list of recent project activity

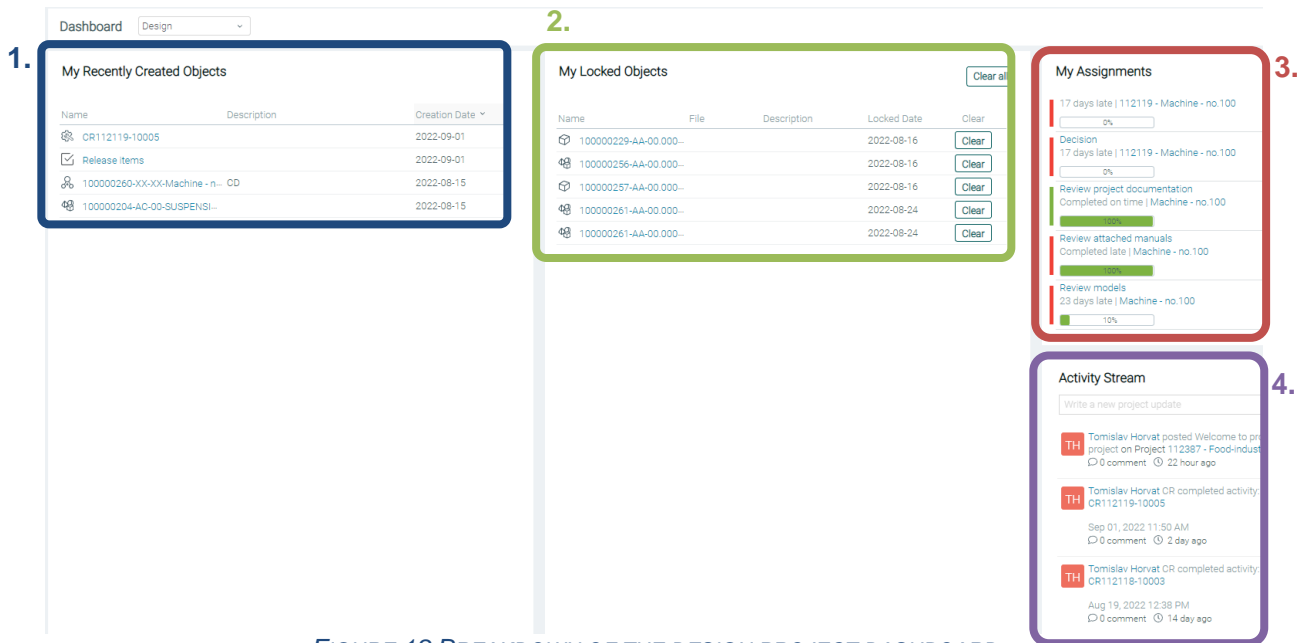


FIGURE 18 BREAKDOWN OF THE DESIGN PROJECT DASHBOARD

Project navigation

Project navigation can be used to quickly access different parts of a project:

1. Project Dashboard – gives information about the project
2. BOM – Engineering bill of material needed to build the project
3. Project Management – used for project planning and tracking project status
4. Business processes – access to project processes like change requests, investigation requests, change notices, requirements, and quality assurance
5. Documents – project documentation
6. Project Settings – project information, members, privacy, and status



FIGURE 19 PROJECT NAVIGATION

BOM – Project Engineering bill of materials

A project engineering bill of materials is what you would need to manufacture or purchase to build the project. The window consists of the following sections:

1. BOM – used to quickly drill down to the needed part of the BOM
2. Options to add items to the BOM or export the whole BOM
3. BOM filters – different representations of BOM
4. eBOM (sBOM) – the detailed display of that part of BOM with all the metadata
5. A contextual menu that is used to manipulate or view BOM, or generate BOM reports
6. eBOM filters – different representations of eBOM data
7. eBOM views – user set up BOM data visualizations
8. Right pane – detailed information about selected Item

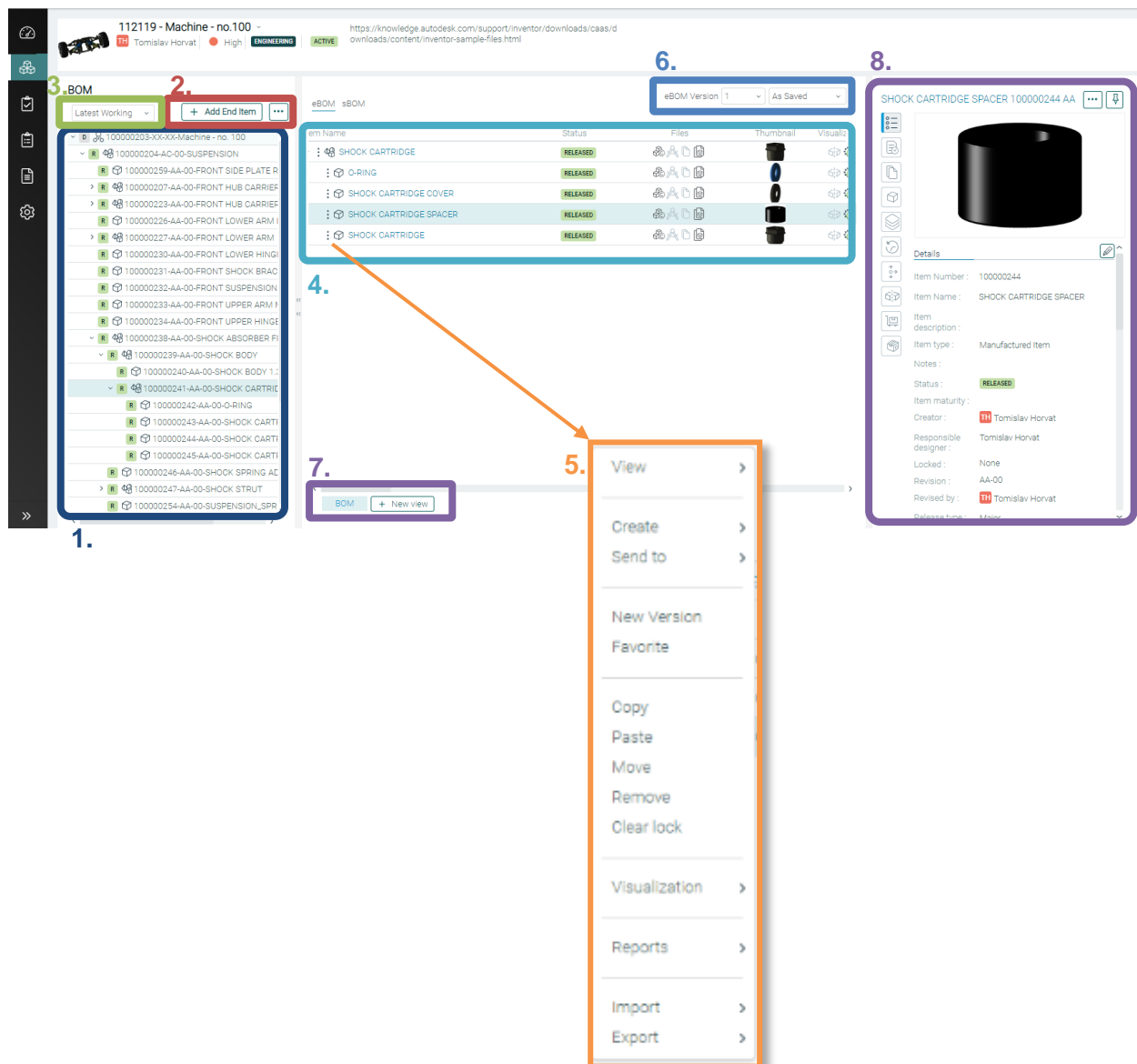
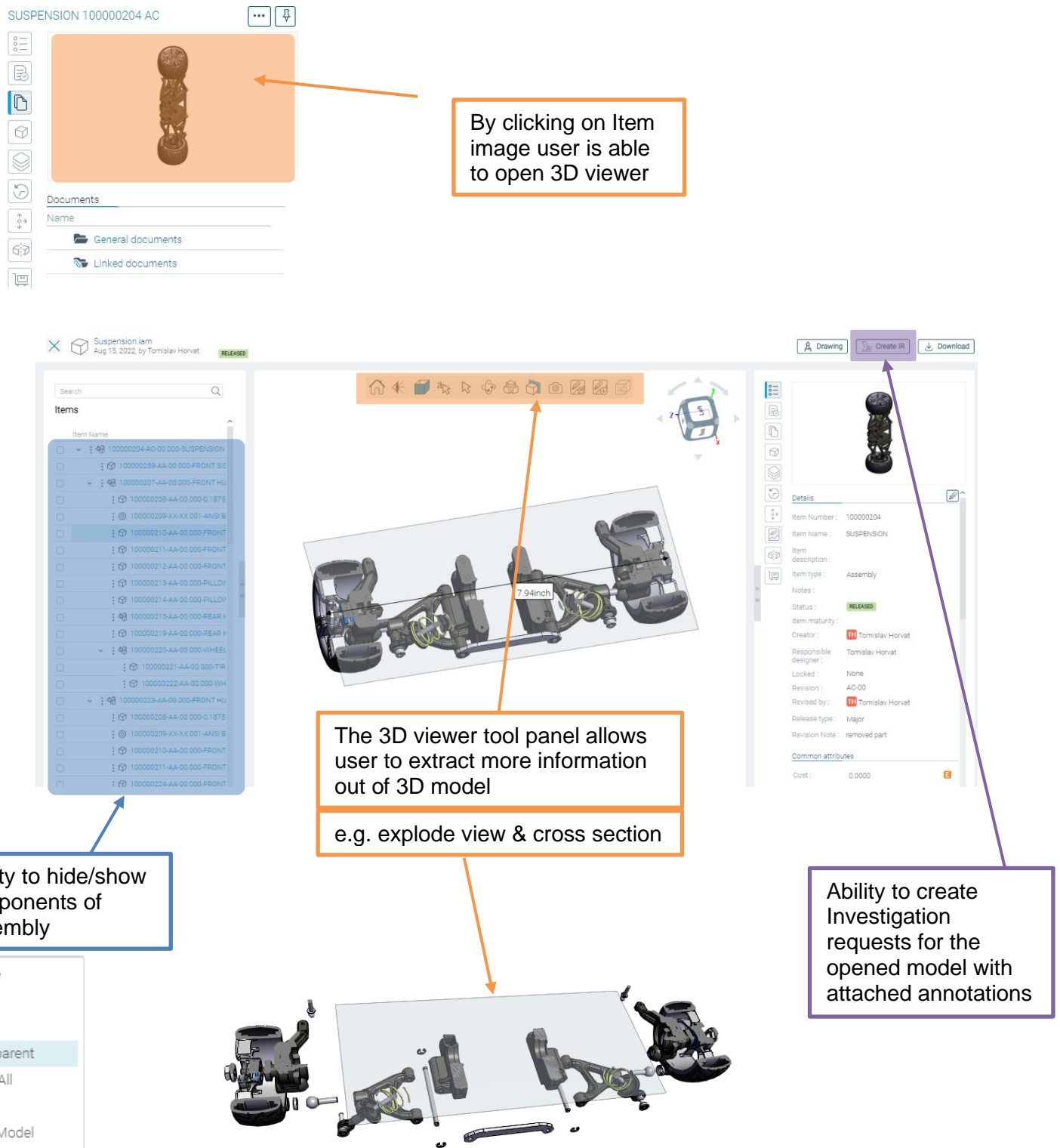


FIGURE 20 BILL OF MATERIALS SCREEN

3D Viewer

Users can view 3D model representation without the need for CAD software and get additional information from it.



The screenshot displays the 3D Viewer interface for a suspension assembly. The main view shows a 3D model of the suspension. On the left, there is a 'Documents' panel with a search bar and a list of items. A blue arrow points from the 'Ability to hide/show components of assembly' annotation to the 'Items' list. Below this, a blue box contains a list of actions: Isolate, Zoom, Hide, Transparent, Show All, Add IR, and Open Model. An orange arrow points from the 'e.g. explode view & cross section' annotation to the 3D model, which is shown in an exploded view. Another orange arrow points from the 'The 3D viewer tool panel allows user to extract more information out of 3D model' annotation to the top toolbar. A purple arrow points from the 'Ability to create Investigation requests for the opened model with attached annotations' annotation to the 'Create IR' button in the top right. A text box on the right side of the interface provides details about the item, including its number, name, description, type, status, maturity, creator, designer, locked status, revision, and release type.

SUSPENSION 100000204 AC

By clicking on Item image user is able to open 3D viewer

Documents

Name

General documents

Linked documents

Suspension iam
Aug 15, 2022, by Tomislav Horvat

RELEASED

Search

Items

Item Name

- 100000204-AC-00-000-SUSPENSION
- 100000259-AA-00-000-FRONT SIC
- 100000207-AA-00-000-FRONT HU
- 100000208-AA-00-000-Q 1875
- 100000209-KX-XX-001-ANSI B
- 10000010-AA-00-000-FRONT
- 100000211-AA-00-000-FRONT
- 100000212-AA-00-000-FRONT
- 100000213-AA-00-000-PILLOV
- 100000214-AA-00-000-PILLOV
- 100000215-AA-00-000-REAR
- 100000219-AA-00-000-REAR
- 100000220-AA-00-000-WHEEL
- 100000221-AA-00-000-TIR
- 100000222-AA-00-000-VIH
- 100000223-AA-00-000-FRONT HU
- 100000208-AA-00-000-Q 1875
- 100000211-AA-00-000-FRONT
- 100000213-AA-00-000-FRONT
- 100000224-AA-00-000-FRONT

7.94inch

The 3D viewer tool panel allows user to extract more information out of 3D model

e.g. explode view & cross section

Ability to hide/show components of assembly

Isolate

Zoom

Hide

Transparent

Show All

Add IR

Open Model

Ability to create Investigation requests for the opened model with attached annotations

Drawing

Create IR

Download

Details

Item Number : 100000204

Item Name : SUSPENSION

Item description :

Item type : Assembly

Notes :

Status : RELEASED

Item maturity :

Creator : Tomislav Horvat

Responsible designer : Tomislav Horvat

Locked : None

Revision : AC-00

Revised by : Tomislav Horvat

Release type : Major

Revision Note : removed part

Common attributes

Cost : 0.0000

FIGURE 21 3D VIEWER SCREEN

Project management

Project managers can plan out project execution and follow if the project is on track. They can easily view project critical path or available slack.

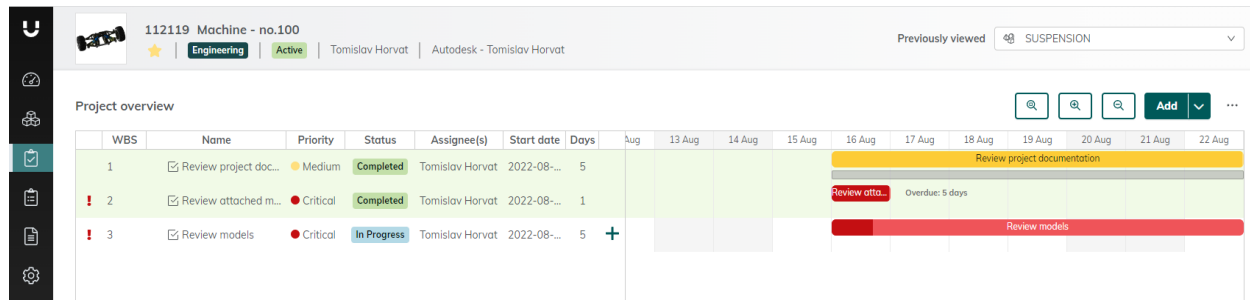


FIGURE 23 PROJECT MANAGEMENT

Each of the milestones, stage gates, or tasks will have a settable set of attributes, assignees, documents, etc.

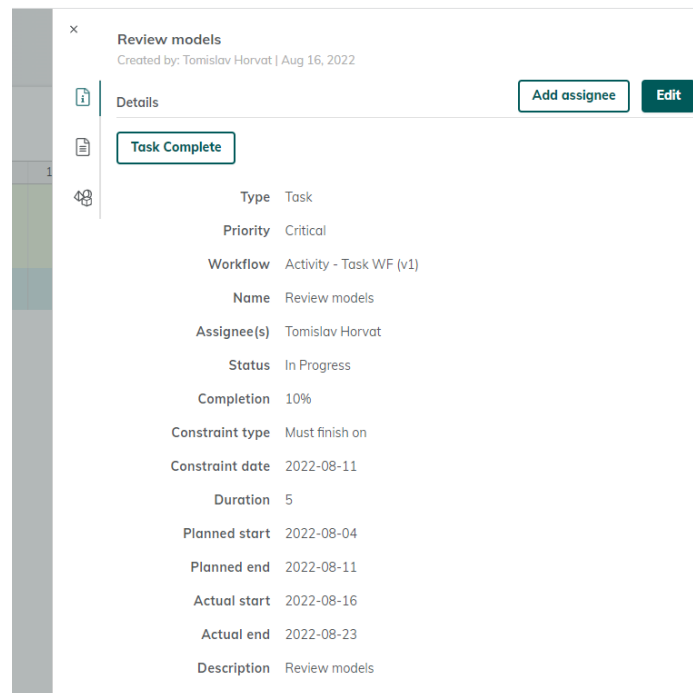


FIGURE 24 EXAMPLE OF TASK ATTRIBUTES

Business processes

Inside of business process section users can view, review and contribute to the following out-of-the-box processes:

1. **Requirements** – The requirement management interface helps you keep track of your requirements, assign them to specific people, attach documents to them, link them to items, link them to other requirements and QA processes, and create child tasks and requirements.
2. **Investigation requests** – Investigation requests (IR) are business processes that describe a problem with a product. They initiate the change process and promote discussions within the organization or with partners, to help determine the impact of a change and the best possible solution.
3. **Change requests** – A Change request (CR) is used to describe a suggested enhancement or problem with a product, and is a written request that defines a set of affected items to be released. A change request can also be used to obsolete an item and update an item's maturity level.
4. **Change notice** – You can send an assembly through a Change Notice (CN) workflow to order it.
5. **Quality assurance** – The quality assurance interface helps you keep track of your QA processes, assign them to specific people, attach documents to them, link them to items and create child tasks and QA processes.

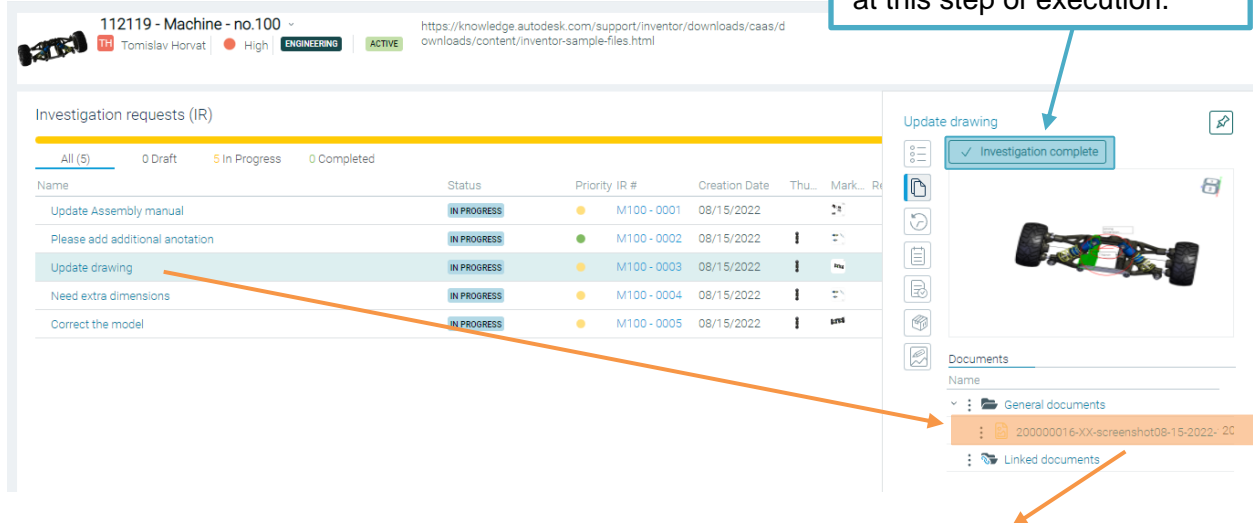
For further clarification please review the help articles on this [Upchain help page](#).

Investigation requests

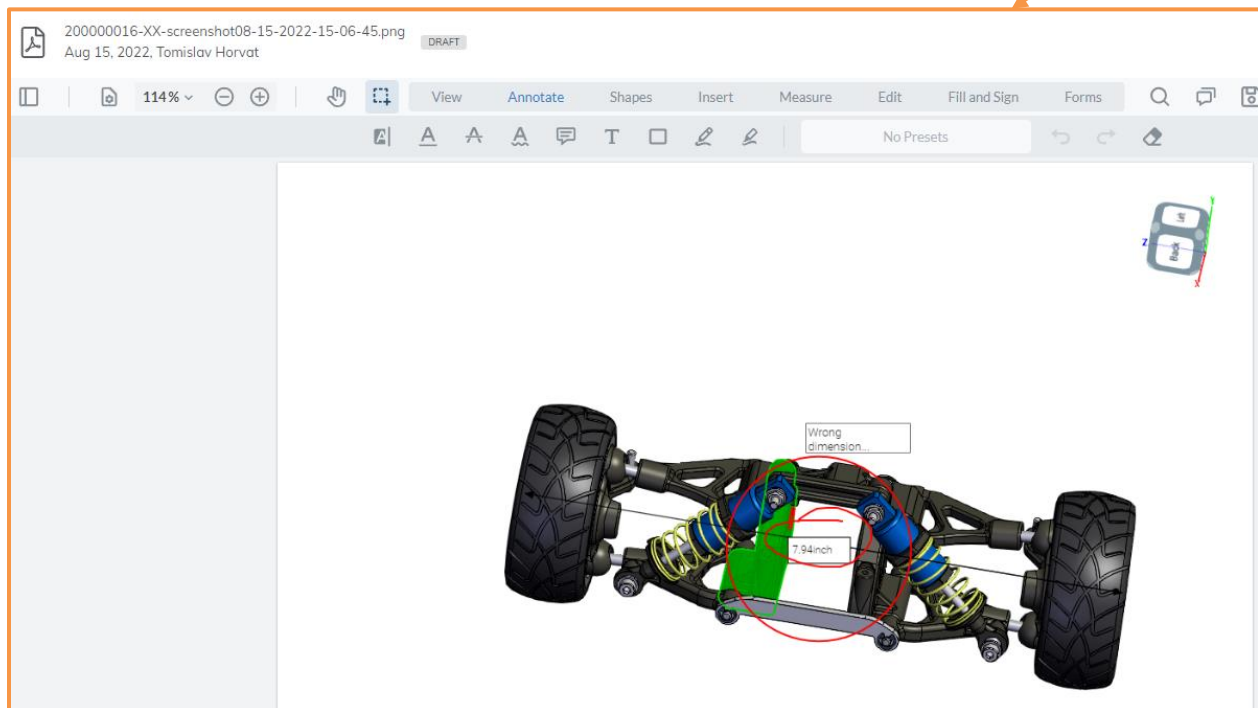
Users can create, view, review, and complete investigation requests. Investigation requests are driven by configurable workflows. It is possible to have multiple investigation requests for specific investigations or one bigger investigation workflow which then can branch into the needed investigation.

This is an example of an active investigation request.

Available IR workflow options at this step of execution.



Name	Status	Priority	IR #	Creation Date	Thu...	Mark...	Re
Update Assembly manual	IN PROGRESS	High	M100 - 0001	08/15/2022			
Please add additional anotation	IN PROGRESS	High	M100 - 0002	08/15/2022			
Update drawing	IN PROGRESS	High	M100 - 0003	08/15/2022			
Need extra dimensions	IN PROGRESS	High	M100 - 0004	08/15/2022			
Correct the model	IN PROGRESS	High	M100 - 0005	08/15/2022			



The user is able to view with what annotation investigation request was created and for which item.

FIGURE 25 EXAMPLE OF INVESTIGATION REQUEST

Change requests

The change request is used to propagate the change throughout the BOM. It is the mechanism to review and activate the change from development status to released one. The released status is a signal to downstream consumers that the Item version is ready for consumption. Item consumption might vary on Item maturity – e.g. Item that is released to be ordered for 3D printing is not ready to be mass produced.

Example of completed CR:

Change requests (CR)

All (5) 0 Draft 0 In Progress 0 Pending 5 Completed 0 Cancelled

Name	Status	Priority	Thumbnail	Markup	Assignee	Creator
CR112119-10005	COMPLETED				TH	TH
CR112119-10004	COMPLETED				TH	TH
CR112119-10003	COMPLETED				TH	TH
CR112119-10002	COMPLETED				TH	TH
CR112119-10001	COMPLETED				TH	TH

Decision name: Release Items, Role: Project Manager, User: TH, Completed By: TH, Date: 14 Aug 2022...

CR112119-10001 Workflow completed! Reject

Details
Created: Tomislav Horvat

Description:

Duration: 20 days
Actual start: Aug 14, 2022

Info
Status: COMPLETED
Workflow: ECR Workflow(286)
Type: ReleaseOrder
Priority: Medium
Customer: Autodesk - Tomislav Horvat
Parent project: Autodesk - Tomislav Horvat

Items in CR. Affected items must have their release type and revision note populated

The user is able to review past CRs

Workflow: ECR Workflow(286) Workflow completed Reject

Items Paste Item Remove Item

Item Name	Status	Release type	Revision Note	Item Number	Thumbnail
SUSPENSION	RELEASED	Major	Initial Release	100000204	
ANSI B18.22.1 - NO. 5 - NARROW - TYPE B	RELEASED			100000205	
E-CLIP	RELEASED	Major	Initial Release	100000206	
FRONT HUB CARRIER L	RELEASED	Major	Initial Release	100000207	
0.1875 S&LL STUD .375	RELEASED	Major	Initial Release	100000208	
ANSI B18.2.4.4M - M5 X 0.8	RELEASED			100000209	
FRONT AXEL	RELEASED	Major	Initial Release	100000210	

Documents All Documents (0 @ 2 h) (0 @ 2 h) Draft (0 @ 0 h) Published (0 @ 0 h) Archived

Name Document Num... Original File Name

General documents

- 2000000029-XX-Item document - DFMEA.xlsx
- 2000000030-XX-Item document - Tolerance analysis.xlsx

Linked documents

Activities

Decision name	Role	User	Completed By	Date	Step explanation	Action
Release Items	Project Manag...	TH	TH	16 Aug 2022, ...		Release Items ✓

Documentation needed for the release

All user activities on the CR

Workflow actions: ECR Workflow(286)

Step	Action	Step owner	
1	Start	Tomislav Horvat	Start Workflow
2	Update	Tomislav Horvat	Update WF status to Work in Progress - WorkInProgress
3	Update	Tomislav Horvat	Update Item status to Approval Pending - Approval Pending
4	Task	Tomislav Horvat	Release items
5	System	Tomislav Horvat	Release items
7	Update	Tomislav Horvat	Update WF status to Completed - Completed
8	Stop	Tomislav Horvat	Stop Workflow

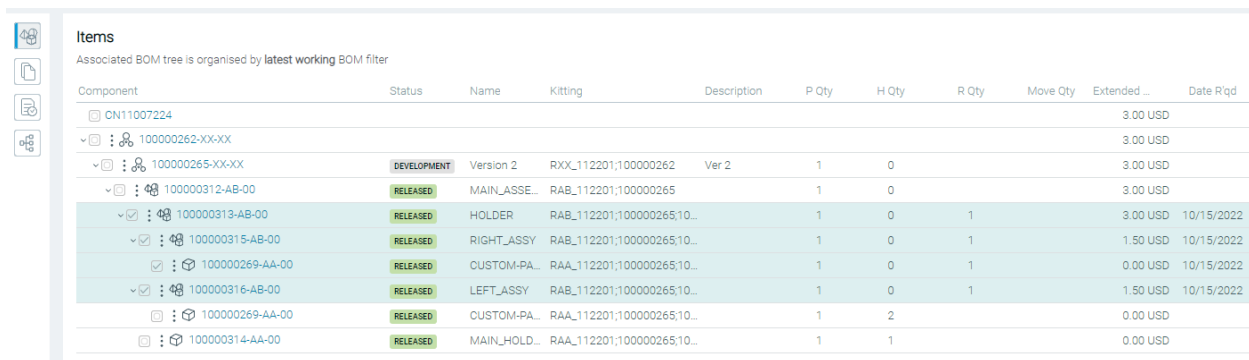
Audit trail of each CR workflow step

FIGURE 26 EXAMPLE OF CHANGE REQUEST

Change notice

You can send an assembly through a Change Notice (CN) workflow to:

1. Order parts of an assembly or end item. The quantities recorded against each part reflect the number of units required to create one unit of the assembly or end item.
2. If you have extra parts in your warehouse, those parts can be put through a CN workflow to track their return.
3. Get a list of orphaned items. Orphaned items are items that are in Upchain but outside any BOM structure. This list can be used to identify returns or to redistribute.
4. Transfer quantities ordered of an older version of an item to the order that contains the new version of the item.



Items

Associated BOM tree is organised by latest working BOM filter

Component	Status	Name	Kitting	Description	P Qty	H Qty	R Qty	Move Qty	Extended ...	Date R'qd
CN11007224									3.00 USD	
100000262-XX-XX									3.00 USD	
100000265-XX-XX	DEVELOPMENT	Version 2	RXX_112201;100000262	Ver 2	1	0			3.00 USD	
100000312-AB-00	RELEASED	MAIN_ASSE...	RAB_112201;100000265		1	0			3.00 USD	
100000313-AB-00	RELEASED	HOLDER	RAB_112201;100000265;10...		1	0	1		3.00 USD	10/15/2022
100000315-AB-00	RELEASED	RIGHT_ASSY	RAB_112201;100000265;10...		1	0	1		1.50 USD	10/15/2022
100000269-AA-00	RELEASED	CUSTOM-PA...	RAA_112201;100000265;10...		1	0	1		0.00 USD	10/15/2022
100000316-AB-00	RELEASED	LEFT_ASSY	RAB_112201;100000265;10...		1	0	1		1.50 USD	10/15/2022
100000269-AA-00	RELEASED	CUSTOM-PA...	RAA_112201;100000265;10...		1	2			0.00 USD	
100000314-AA-00	RELEASED	MAIN_HOLD...	RAA_112201;100000265;10...		1	1			0.00 USD	

FIGURE 27 EXAMPLE OF A CHANGE NOTICE

With proper usage of CNs, requisition managers can track that all needed components have been ordered.

Documents

Here users can find all documents that are related to this project. They can attach, review, link, and revise project documentation. The recommendation is to keep all project documentation in one place.

Configurable actions for document workflow



The screenshot displays the Autodesk University Documents interface. At the top, a header bar shows the project name "112119 - Machine - no.100" and a URL. Below this, a "Documents" section lists various files. A table lists documents with columns for Name, Document Number, Original File Name, Status, and Version. The table includes documents like "200000032-XX-SUSPENSION.pdf", "200000033-XX-assembly-picture-from-3d-viewer.PNG", and "200000019-XX-Industry certification requirement.pdf". A blue box highlights the "Configurable actions for document workflow" section, which includes buttons for "Publish" and "Reject". A green box highlights the "Every document can be check-out, released and revised" section, which includes a "Check out" button. A green box highlights the "All supported file formats can be viewed in 2D viewer" section, which includes a "2D viewer" button. A green box highlights the "Download" section, which includes buttons for "Download", "Import Viewable Files", "Open Pdf Web Viewer", "Check out", "Follow", "Clone", "Move", "Rename", "Remove", and "Share".

Name	Document Number	Original File Name	Status	Version
General documents				
Assembly pictures				
200000032-XX-SUSPENSION.pdf	200000032	SUSPENSION.pdf	DRAFT	V2
200000033-XX-assembly-picture-from-3d-viewer.PNG	200000033	assembly-picture-from-3d-viewer.PNG	IN REVIEW	V1
200000019-XX-Industry certification requirement.pdf	200000019	Industry certification requirement.pdf	DRAFT	V1
200000020-XX-Assembly Manual.pdf	200000020	Assembly Manual.pdf	DRAFT	V1
200000021-AA-Space restriction.xlsx	200000021	Space restriction.xlsx	PUBLISHED	V1
200000022-XX-Product specification.pdf	200000022	Product specification.pdf	DRAFT	V1
200000023-AA-Customer kick-off presentation.pptx	200000023	Customer kick-off presentation.pptx	PUBLISHED	V1
200000024-XX-Handling manual.docx	200000024	Handling manual.docx	IN REVIEW	V1
200000025-XX-Instruction sheet.docx	200000025	Instruction sheet.docx	IN REVIEW	V1
200000026-AA-Customer concept design proposal.pptx	200000026	Customer concept design proposal.pptx	PUBLISHED	V1
Linked documents				
200000011-XX-200000010-XX-Assemb	200000011	200000010-XX-Assembly Manual (1).pdf	DRAFT	V1
200000015-XX-200000010-XX-Assemb	200000015	200000010-XX-Assembly Manual (1).pdf	DRAFT	V1

Workflow: Document Approval (201)
 Created: Sun Sep 04 2022 11:59:52 GMT+0200 (Central European Summer Time)
 Creator: Tomislav Horvat
 Version: 001
 Revision: 001
 Last Modified: Today

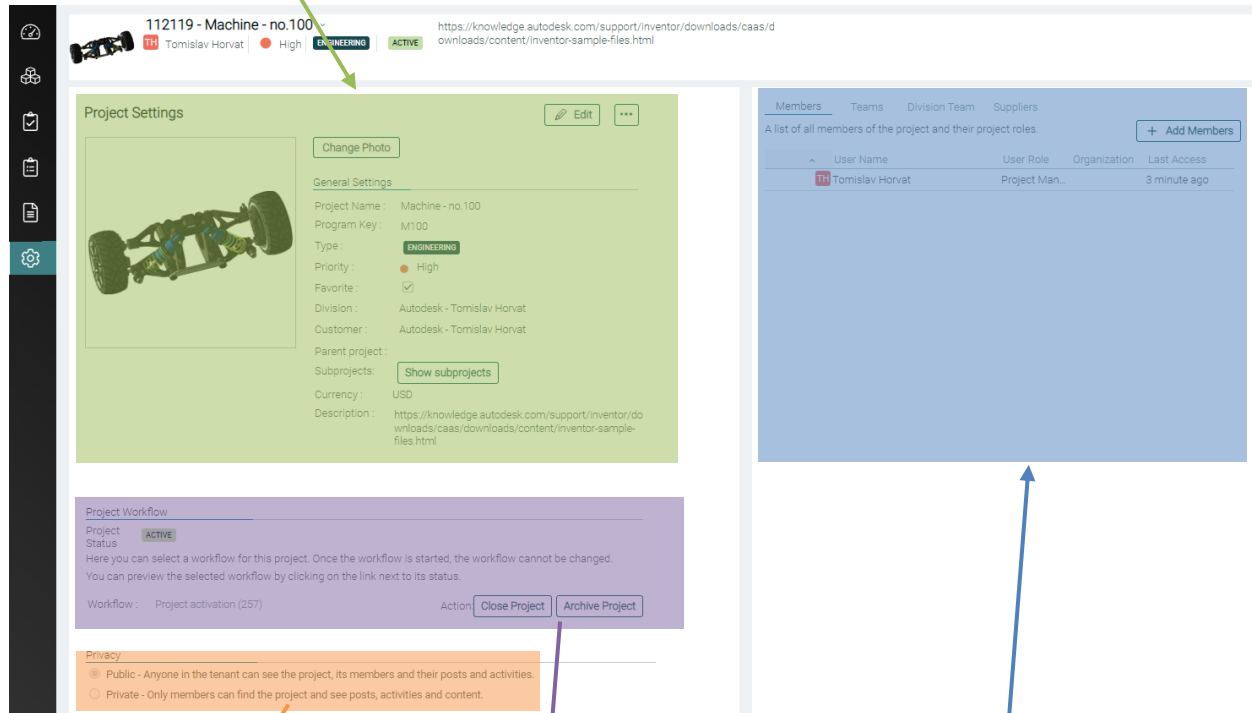
2D viewer

FIGURE 28 EXAMPLE OF PROJECT DOCUMENTS

Project Settings

A project setting is a place where project administrators are adding new members to the project, enter project detail, manage the project lifecycle, and set the privacy of the project.

Here project manager can edit project data



Project workflow lifecycle options

Project accessibility

Here project manager can add members and assign them roles. He can also add Teams, Division teams and project Suppliers.

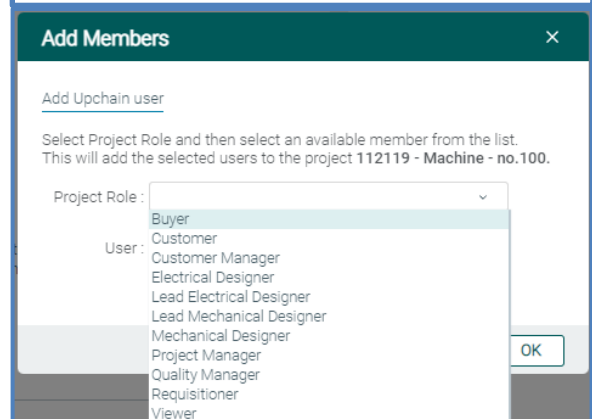


FIGURE 29 EXAMPLE OF PROJECT SETTINGS

Discover how easy it is to import CAD data and explore user workflows from importing CAD data to having it consumed by downstream consumers

The upchain CAD plugin has the same functionalities regardless of your system as long as its version is listed as a supported CAD version. You can see the supported CAD version in this help article - [What does Upchain support?](#)

CAD plugin – home view

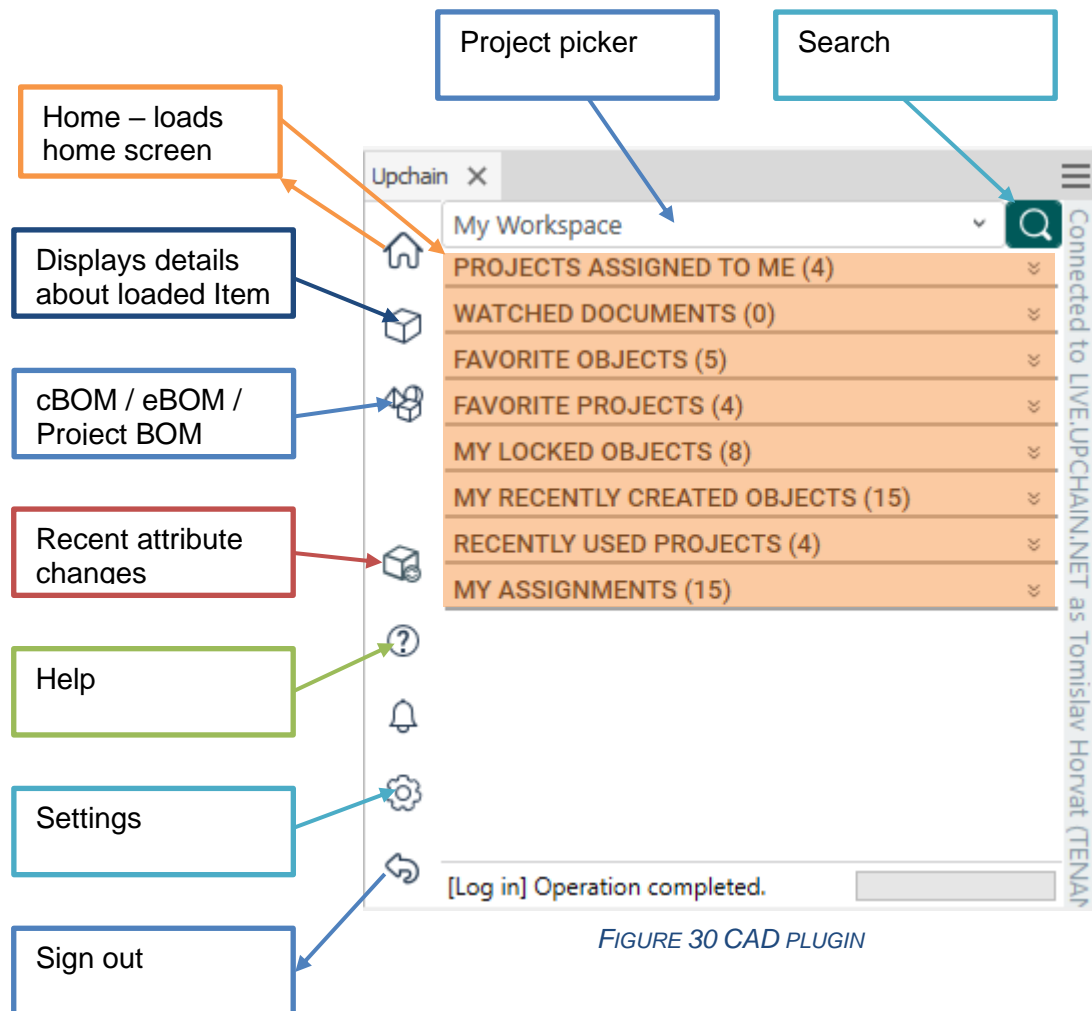
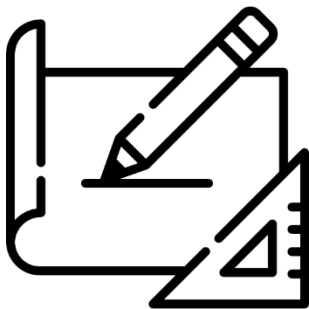


FIGURE 30 CAD PLUGIN

Demo flow



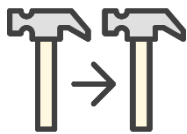
CAD engineer
creates content



Release manager
releases content



Procurement gets
BOM list



CAD engineer clones
design for the new project



BOM is created for the
new files



BOM is uploaded for
the new files



Review process is started
for the new Items



Unreleased design is
submitted to release



Attaching release
documentation



Item is reviewed and
ready to be released



Design is released



Released design is
send to CN



Items are selected for
requisition



Attaching requisition
documentation



Selected Items are
requisitioned

CAD engineer selects a project using a project picker from which he wants to clone the design:

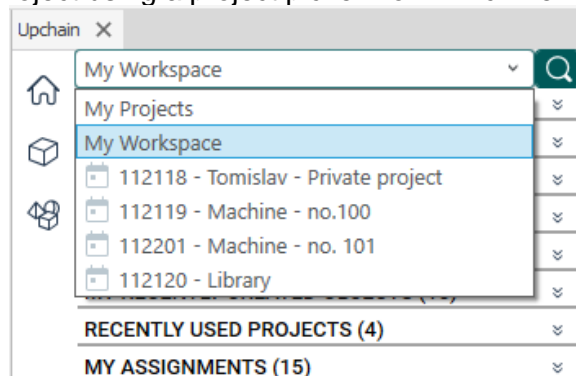


FIGURE 31 CAD PLUGIN PROJECT PICKER

The project is loaded displaying project information:

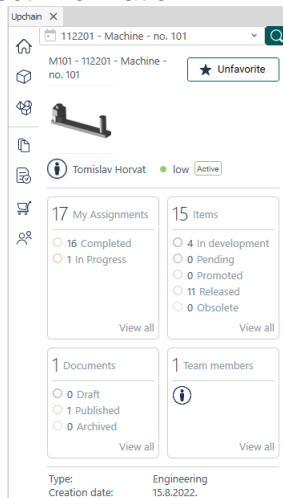


FIGURE 32 CAD PLUGIN PROJECT INFORMATION

The user navigates to BOM, Project BOM, and finds the version he wants to clone. cBOM is a CAD representation of files that are found on CAD tool navigation. eBOM is engineering BOM which is needed to build that product. Project BOM is the same eBOM view that the user sees on the web application.

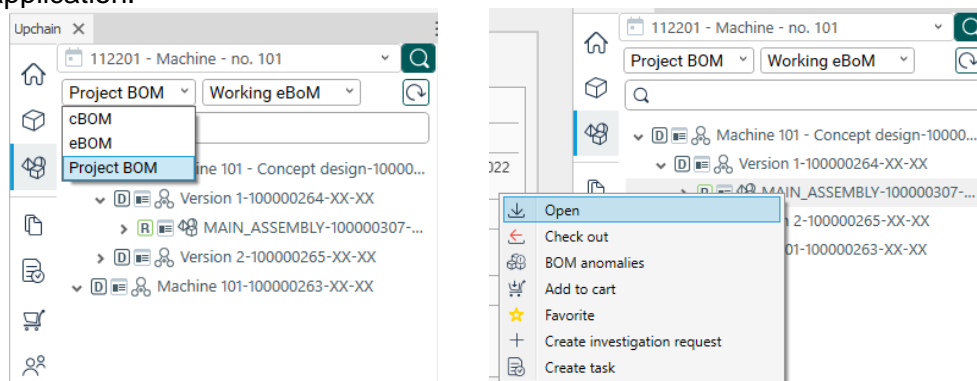


FIGURE 33 EXAMPLE OF LOADING EXISTING CAD DATA IN CAD PLUGIN

When the user is opening or checking out the files from the system he will see the download window screen. On that screen user can choose does he wants to download the drawings as well as CAD files. If he is performing checkout he will also be able to choose which files he wants to mark that is checkout by him – mark them that he is working on them.

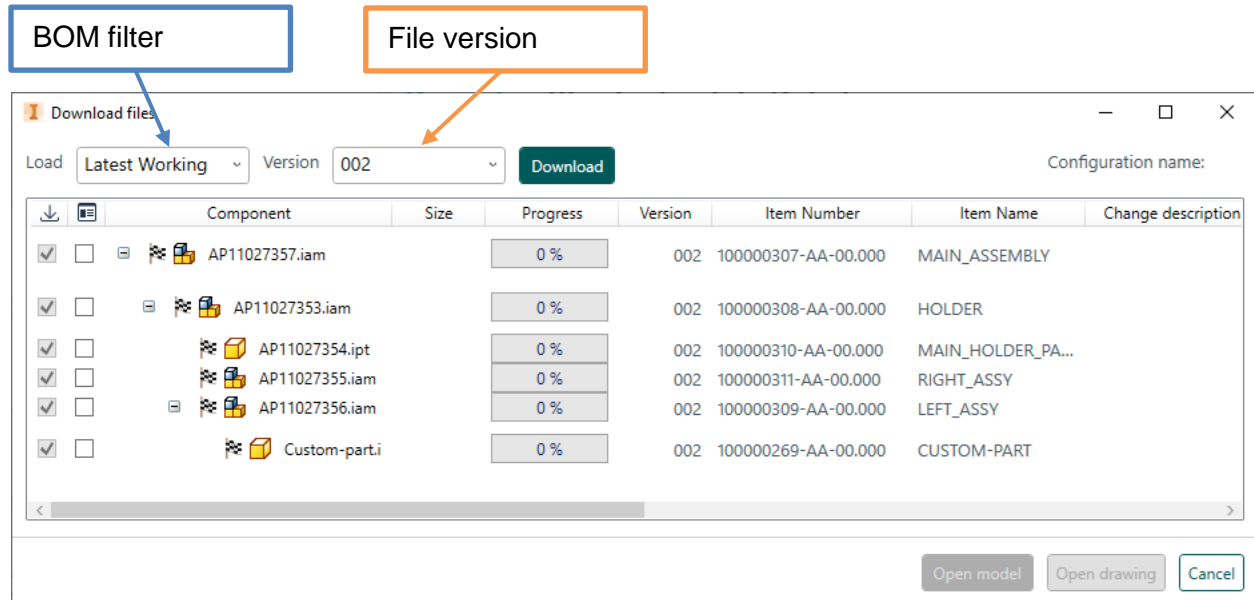


FIGURE 34 DOWNLOAD WINDOW

After refresh user will see a cBOM tree populated with Items that correspond to the models that are designed in CAD software. Files are downloaded to the „c:/home“ folder in a flat structure.

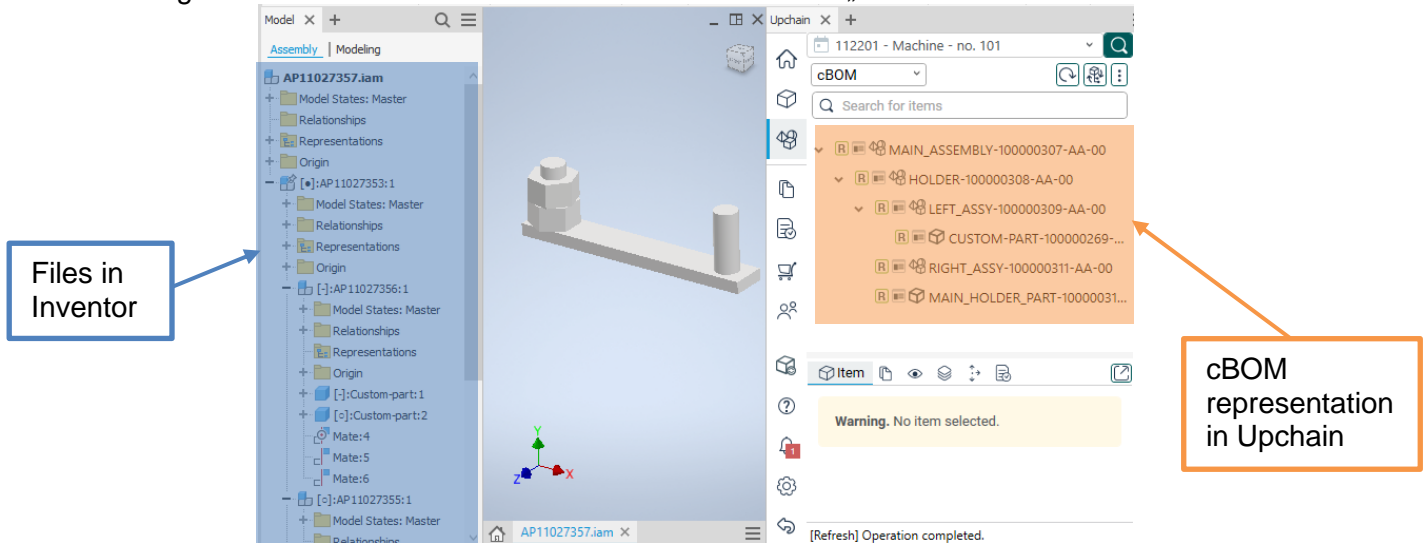
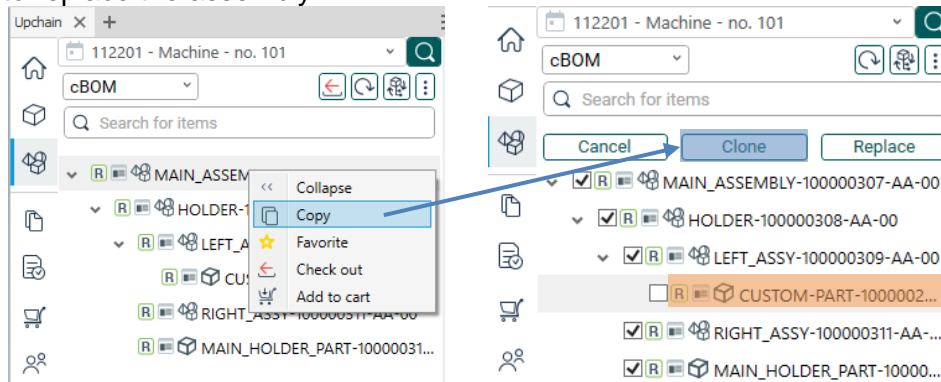


FIGURE 35 CBOM IN CAD PLUGIN

Copy option can be chosen by right-clicking the target assembly. After that user can choose either to clone or to replace the assembly.



For unselected file new version will not be created

FIGURE 36 COPY-CLONE OPTION IN CAD PLUGIN

After the clone operation (*Not registered*) mark can be seen by the files that have been selected for clone operation. Users can bring new files into the system by selecting „Check in“.

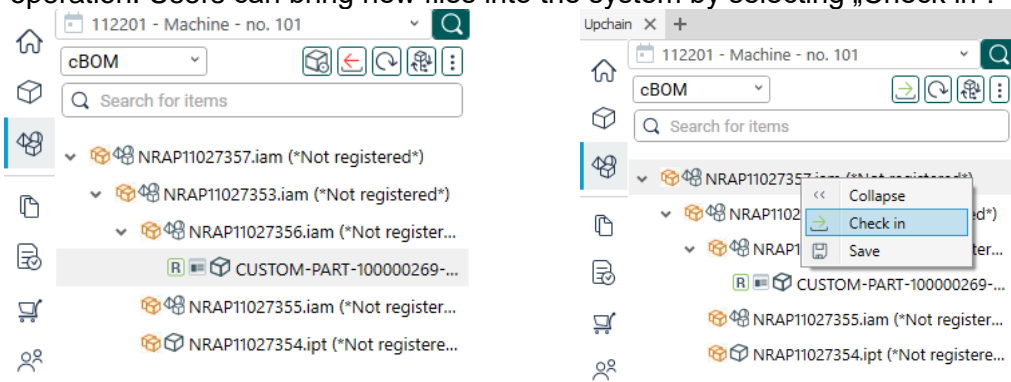


FIGURE 37 CHECK-IN OF NEW DATA IN CAD PLUGIN

Before uploading files user must specify a location of where will the files be in the BOM. That is done in the Item picker:

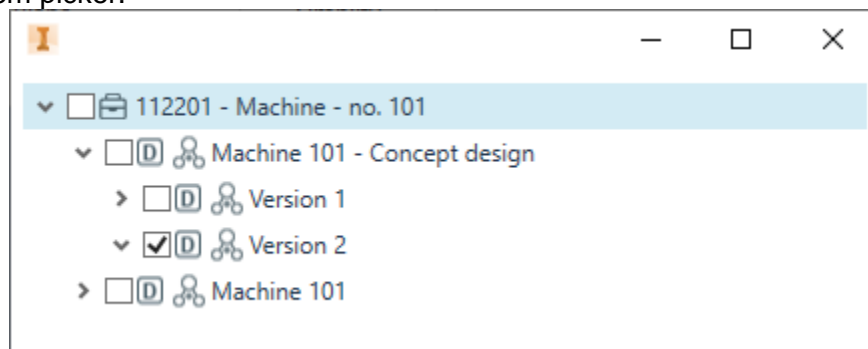


FIGURE 38 CHECK-IN PROJECT PICKER IN CAD PLUGIN

After selecting the project user will see the BOM wizard which will show him what data will be transferred into the system. User can also choose if he wants to create Items out of files. Cloned assembly is appended to the end of cBOM as a reference and it has a red X. That means it will not be linked to the new eBOM.

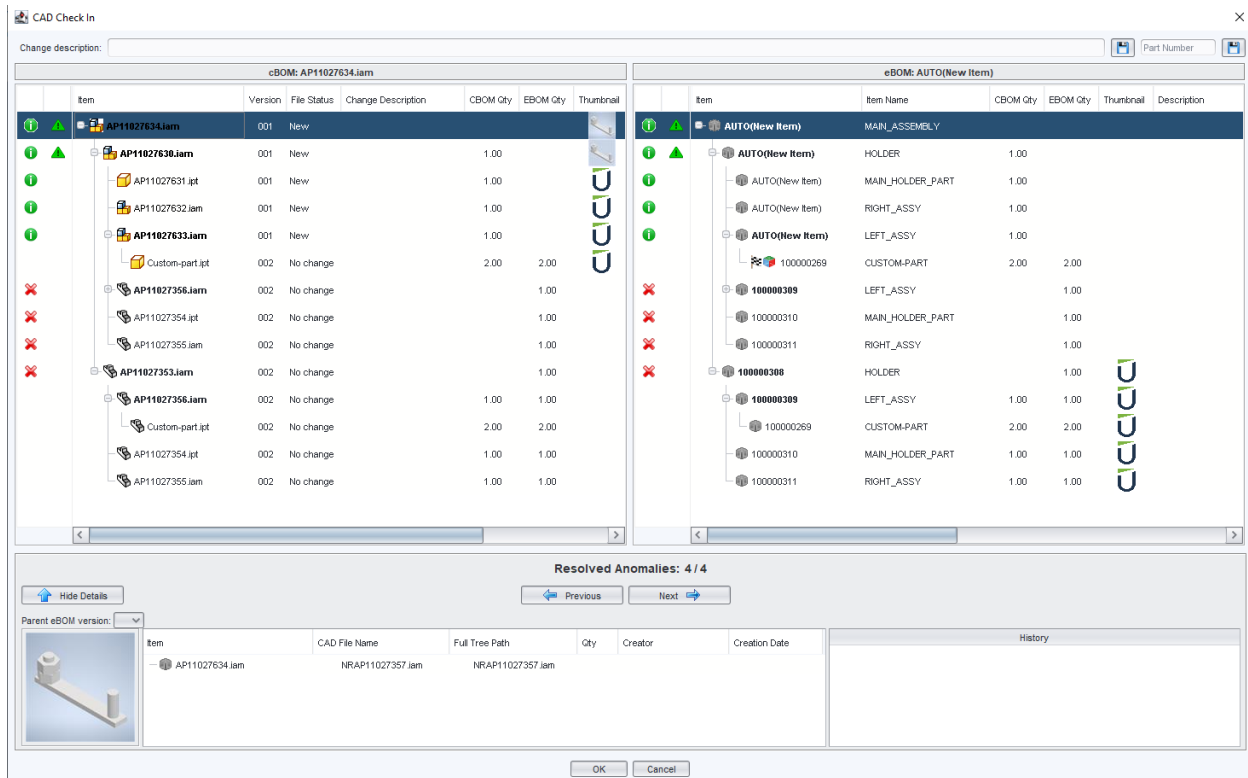


FIGURE 39 BOM WIZARD IN CAD PLUGIN

After BOM wizard new Items are created in the system with development status. That means they have not been approved for downstream consumption. Users can send them to CR from the plugin by using the cart option:

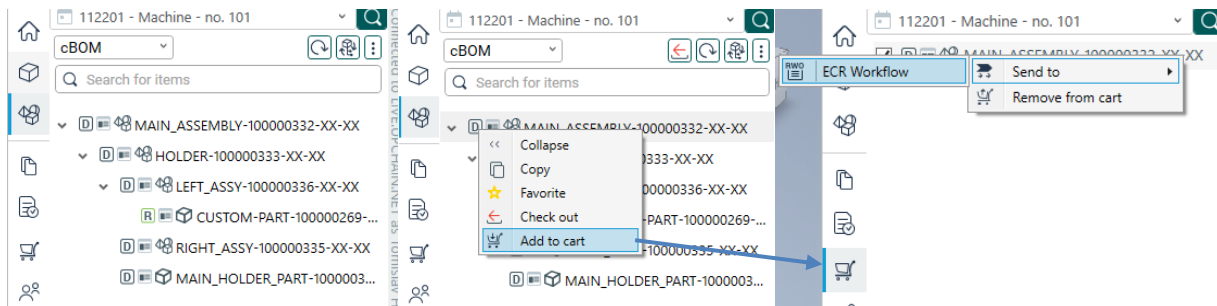
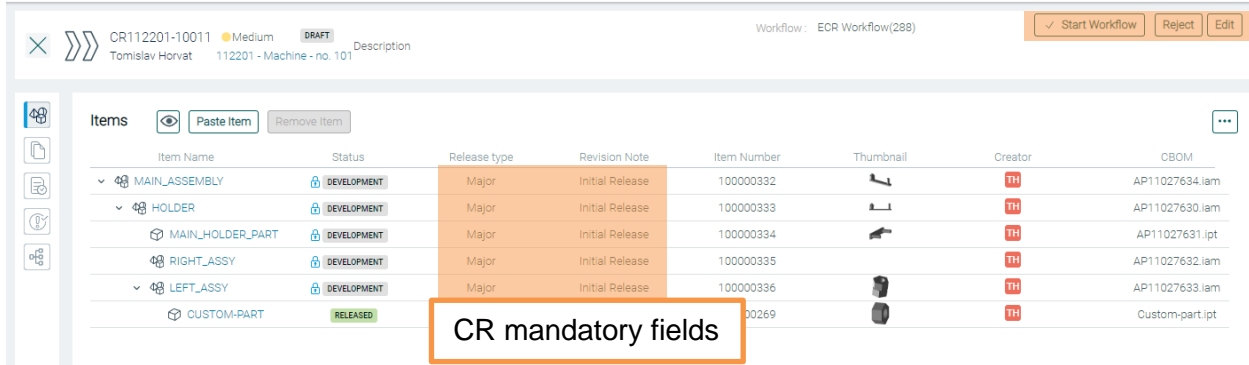


FIGURE 40 SENDING DATA FOR RELEASE USING CAD PLUGIN

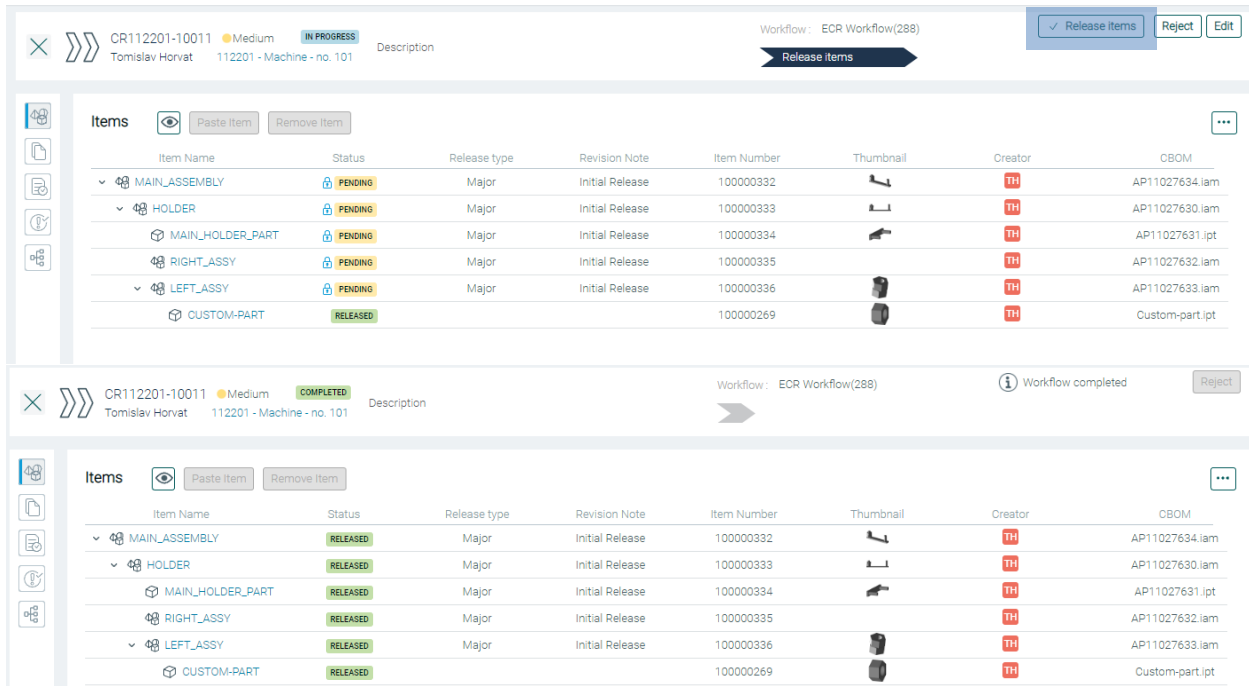
After sending the item to CR, CR will load it on the web where the CAD engineer uploads the needed release documentation and starts the release flow.



Item Name	Status	Release type	Revision Note	Item Number	Thumbnail	Creator	CBOM
MAIN_ASSEMBLY	DEVELOPMENT	Major	Initial Release	100000332		TH	AP11027634.iam
HOLDER	DEVELOPMENT	Major	Initial Release	100000333		TH	AP11027630.iam
MAIN_HOLDER_PART	DEVELOPMENT	Major	Initial Release	100000334		TH	AP11027631.ipt
RIGHT_ASSY	DEVELOPMENT	Major	Initial Release	100000335		TH	AP11027632.iam
LEFT_ASSY	DEVELOPMENT	Major	Initial Release	100000336		TH	AP11027633.iam
CUSTOM-PART	RELEASED			100000269		TH	Custom-part.ipt

FIGURE 41 PREPARING DATA FOR RELEASE

Once the change request has been started, the release manager needs to review if company release rules are being followed – e.g. correct documents describing the change are attached, and approve or reject the change. CR workflow can be configured in a way that it can be allowed to engineer to go back to the design and do certain modifications to it – e.g. add missing notes to the drawing. Once items are marked for release they will change their state from development to release.



Item Name	Status	Release type	Revision Note	Item Number	Thumbnail	Creator	CBOM
MAIN_ASSEMBLY	PENDING	Major	Initial Release	100000332		TH	AP11027634.iam
HOLDER	PENDING	Major	Initial Release	100000333		TH	AP11027630.iam
MAIN_HOLDER_PART	PENDING	Major	Initial Release	100000334		TH	AP11027631.ipt
RIGHT_ASSY	PENDING	Major	Initial Release	100000335		TH	AP11027632.iam
LEFT_ASSY	PENDING	Major	Initial Release	100000336		TH	AP11027633.iam
CUSTOM-PART	RELEASED			100000269		TH	Custom-part.ipt

FIGURE 42 RELEASING BOM ITEMS

Once BOM is released it is ready to be used by downstream consumers. That can be achieved by sending it through a change notice. Change notice is used to mark in the Upchain system that certain BOM has been consumed – e.g. ordered item cannot be ordered multiple times.

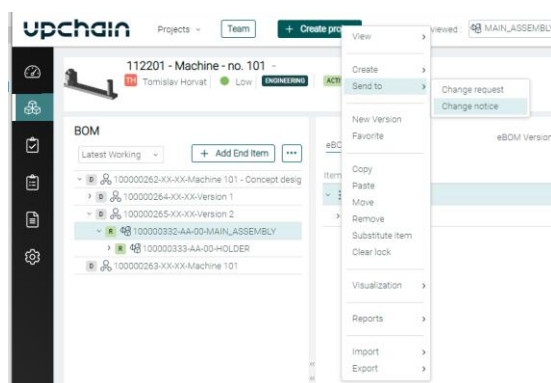


FIGURE 43 CREATING A CHANGE NOTICE

CN11007261

Tomislav Horvat

APPROVED

CN type: Regular Requisition

112201 - Machine - no. 101

Description :

Redistribute Items

Show Orphaned

Workflow: Requisition Work...

Discard

Workflow completed

48

<

FIGURE 44 COMPLETED CHANGE NOTICE

BONUS-1: CR configurable workflows

For more information about what manual tasks you can automate with Upchain and how it can help you to achieve better efficiency through automated checks please look at the following class:

TR502410 - How to Automate Release Process with Upchain

Description:

While most of us can recognize the benefits of automated release processes, some may not know how to take advantage of those available within Upchain. We will demonstrate how to create automated data checks based on different data types and how to incorporate them into the release process. We will also show how one process workflow can be used for multiple data types and how the automated data checks follow different workflow paths based on the detected data type submitted into a release. In the end, we will show where within Upchain you can find audit trail information related to the release process.

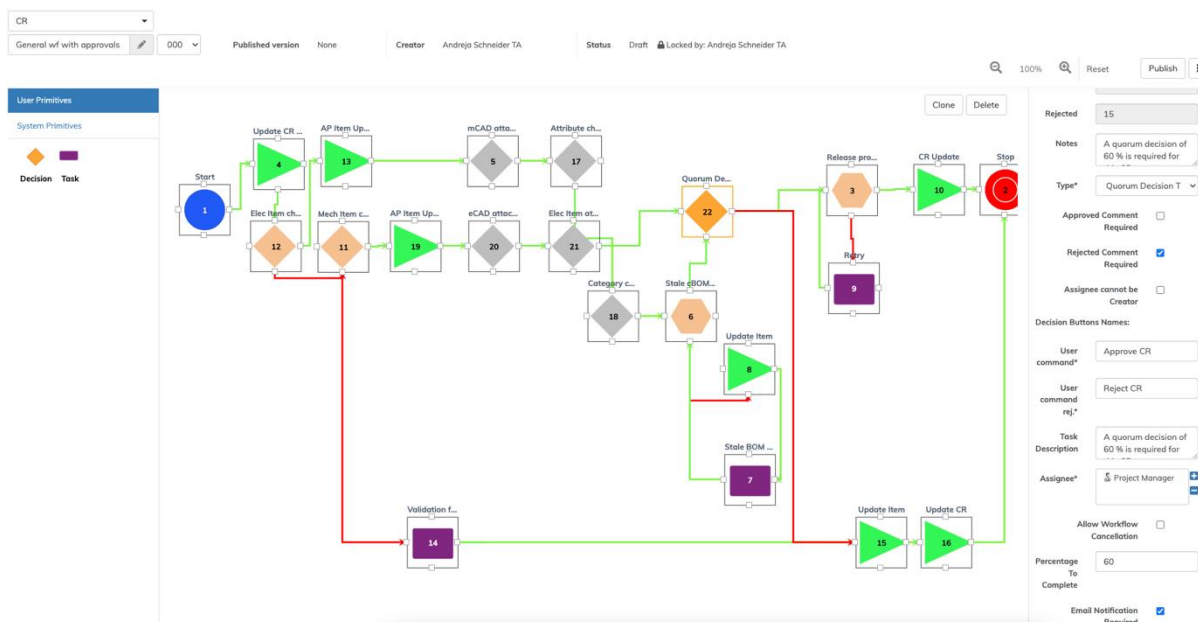


FIGURE 45 CUSTOM CR WORKFLOW FROM TR502410 CLASS

