Increasing Adoption Through Integrating New Features

PlantVision

B2B | SaaS

2023

What is PlantVision?

PlantVision is a cloud-based tool designed for AEC(1) professionals to manage Plant 3D(2) projects. It offers a range of features and capabilities to streamline the project management process and improve collaboration among team members.

(1) AEC: The Architecture, Engineering, and Construction services

(2) Plant 3D is an Autodesk application targeted to the design and layout of process plant facilities.

What does PlantVision do?

🌐 Centralizes Plant 3D project files from multiple platforms(1) in the cloud.

🤝 Facilitates stakeholder collaboration, regardless of tools.

📝 Enhances design review efficiency.

🔽 Minimizes AEC project rework.

(1) AutoCAD Plant 3D, Advance Steel and Autodesk Revit, and MEP/P&ID.

Who are PlantVision users?

Designers

Contributing to Plant 3D projects, their expertise lies in concept development, schematic design, and construction documentation.

Engineers | Checker

Reviewing 3D models and 2D drawings with a focus on enhancing project quality.

Project Managers

Improving team efficiency by overseeing projects, clarifying goals, streamlining timelines, and cutting costs

What are the problems?

Despite PlantVision's potential, it encountered challenges in adoption due to a lack of critical features for the user base. On the other hand, some features needed improvements in key usability areas such as:

- Efficiency of use
- Lack of consistency
- Unclear information architecture
- Invisible system status
- Lack of error prevention

Design Challenges

The design challenge was mainly about the legacy systems and the inconsistent flows which made it difficult to integrate new features in the existing product.

Goal

Discovering and introducing new essential features for users and improving the usability of existing features with the goal of increasing adoption rate.

Project Overview

My role

Senior Product Designer

- As a key part of the discovery & solution processes.

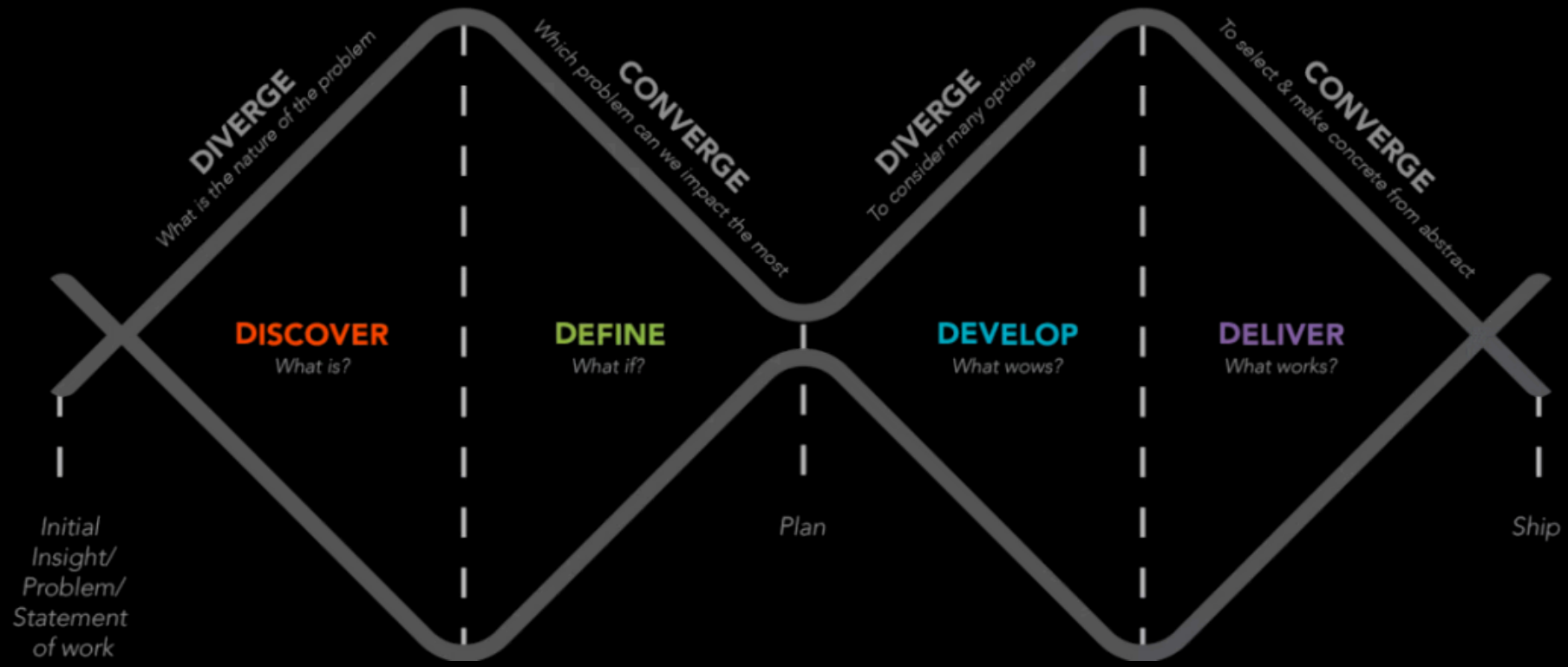
Responsibilities

- Facilitated workshops & discussion
- Solving existing usability issues
- Defining product roadmap
- Defining design strategy

Project timeline

Q3-Q4 2023

My Design Process Approach



Revisiting the Value Proposition

1. Prioritizing features for user experience, focusing on importance and feasibility.

2. Enhancing workflow efficiency, task management, and collaboration.

3. Identifying task status and utilizing project insights to manage projects.

4. Creating a digital 2D drawing review process for time savings, accuracy, and tracking history.

5. Define subscription strategy to boost subscription rates by addressing adoption challenges.

Problem Space

Discovery Planning

Research and analysis

- Deep dives into user needs
- Stakeholder interviews
- Competitor analysis
- Problem Statement

User Requirements | Need & Frustrations

🔑 Needs | 💢 Frustrations

Designer

🔑 Reduce time & design rework.
🔑 Increase efficiency & accuracy.
🔑 Integrate digital files.

💢 Lack of 3D model centralization.
💢 Disorganized project-related documents across platforms.

Checker | Engineer

🔑 Transparent task status.
🔑 Stay informed to make better decisions.
🔑 Easy project updates identification.

💢 Uncertain task progress & timelines.
💢 Overwhelmed by manual 2D review.

Project Manager

🔑 Unlock project insights.
🔑 Boost team efficiency with insights.
🔑 Centralize project files.

💢 Lack of team potential insight.
💢 Uncertain project timelines & status.

Stakeholder Interviews

“”

Project managers often find themselves having to navigate through 3D models, 2D drawings, and data set in order to evaluate project.

Rich / Stakeholder, Former AEC Project Manager

“”

Task progress and timelines are uncertain, and the manual 2D review process is quite time-consuming.

Denny / Consultant, Former AEC checker (engineer)

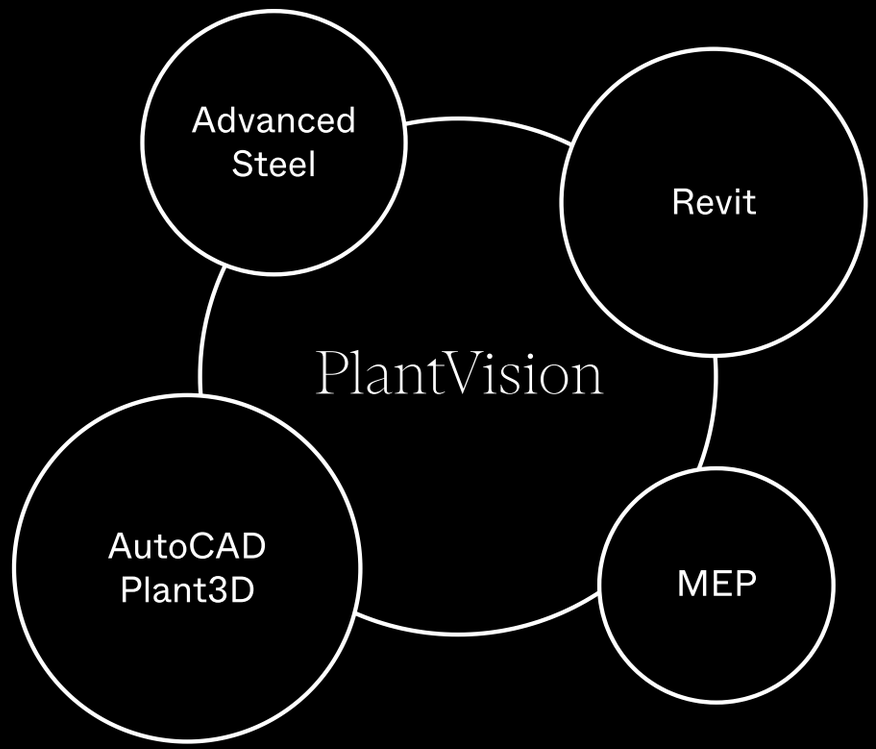
Who are our competitors?

Competitor	**Characteristic**	**Centralizes project files across platforms**	Cloud-Based	Document Management	Project Management	Markup Editor	Enhances Collaboration
BIM360	3D Modeling & Collaboration: AEC Design Tool	🚫	✅	✅	✅	✅	✅
ACC (Autodesk Construction Cloud)	Project & Document Management	🚫	✅	✅	✅	🚫	✅
Bluebeam	Enhance Design review efficiency	🚫	✅	✅	✅	✅	✅
Revit	Plans and tracks various stages in the building's lifecycle	🚫	✅	🚫	✅	🚫	🚫

What sets PlantVision apart from its competitors?

Centralizes plant 3D project files from multiple platforms.

How We Stack Up



Platforms: AutoCAD Plant 3D, Advance Steel and Autodesk Revit, and MEP/P&ID.

Problem Statement

👤 WHO?| ❓ WHAT? | 🤔 HOW? | 🤷 WHY?

The management of AEC projects, faces challenges in coordinating project collaboration across various platforms. He **needs** one platform to digitally centralize 3D models, 2D drawings, and project data in one location **because** this alignment will enhance collaboration between designers and checkers, streamline workflows and improve project efficiency and decision-making.

✨ Solution Space

Design Thinking Workshops Direction

Goal

GoalAchieve alignment on project direction.

Participants

👩 | Product Manager

👩🏿 | Product Owner

👨‍💻 | Tech-Lead

👨👨🏿 | Business Partners

👨🏿‍💼 | Chef Operating Officer

Agenda

📊 Presenting research findings

👥 Identify key users needs

🛑 Review constraints

💡 Start ideations

📋 Prioritize ideas

🎯 Define MVP (Impact/effort matrix)

🏁 Specify milestones and phases

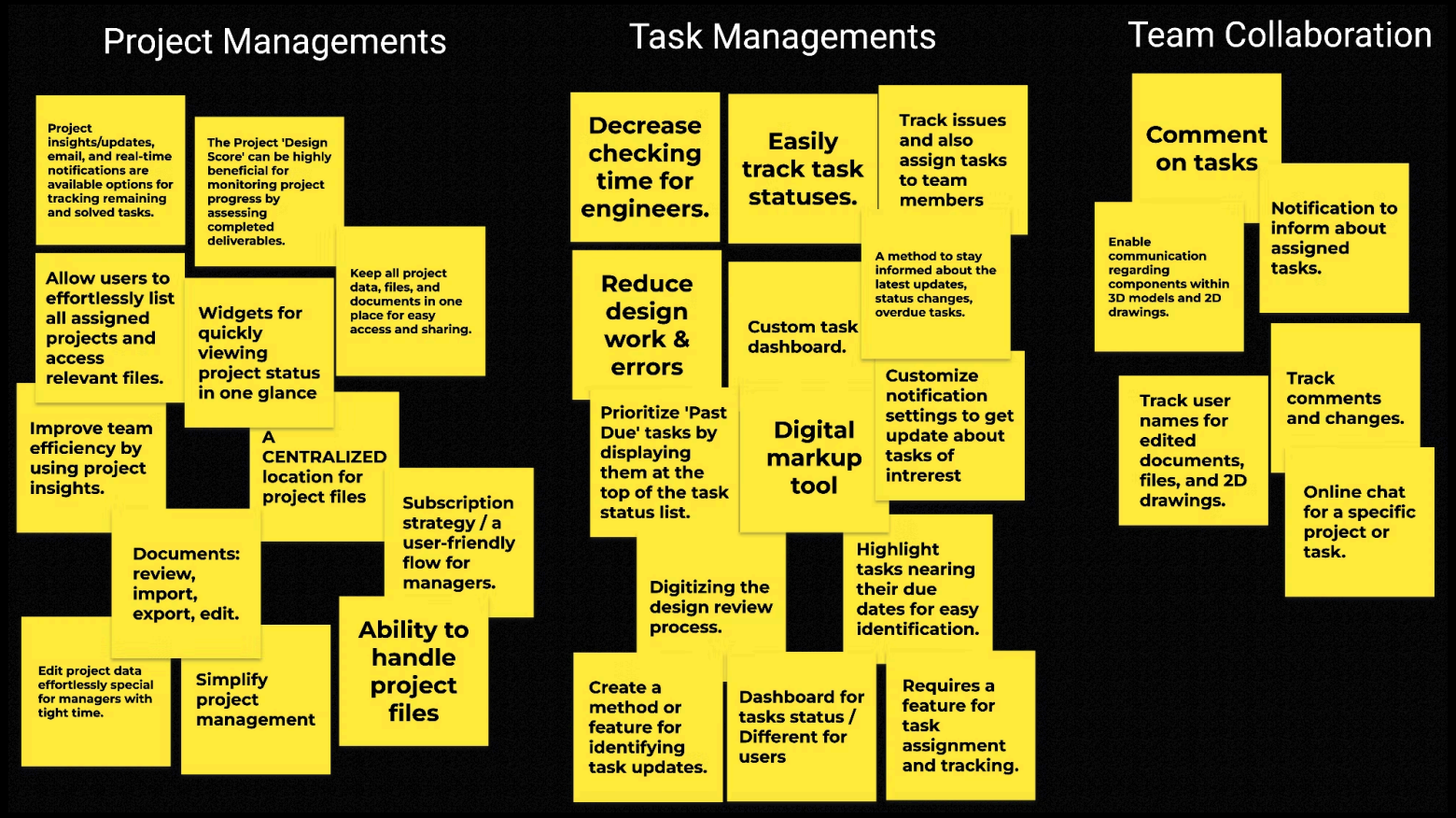
🏆 Definition of success

📌 Assigning responsibilities

🎬 Wrap up

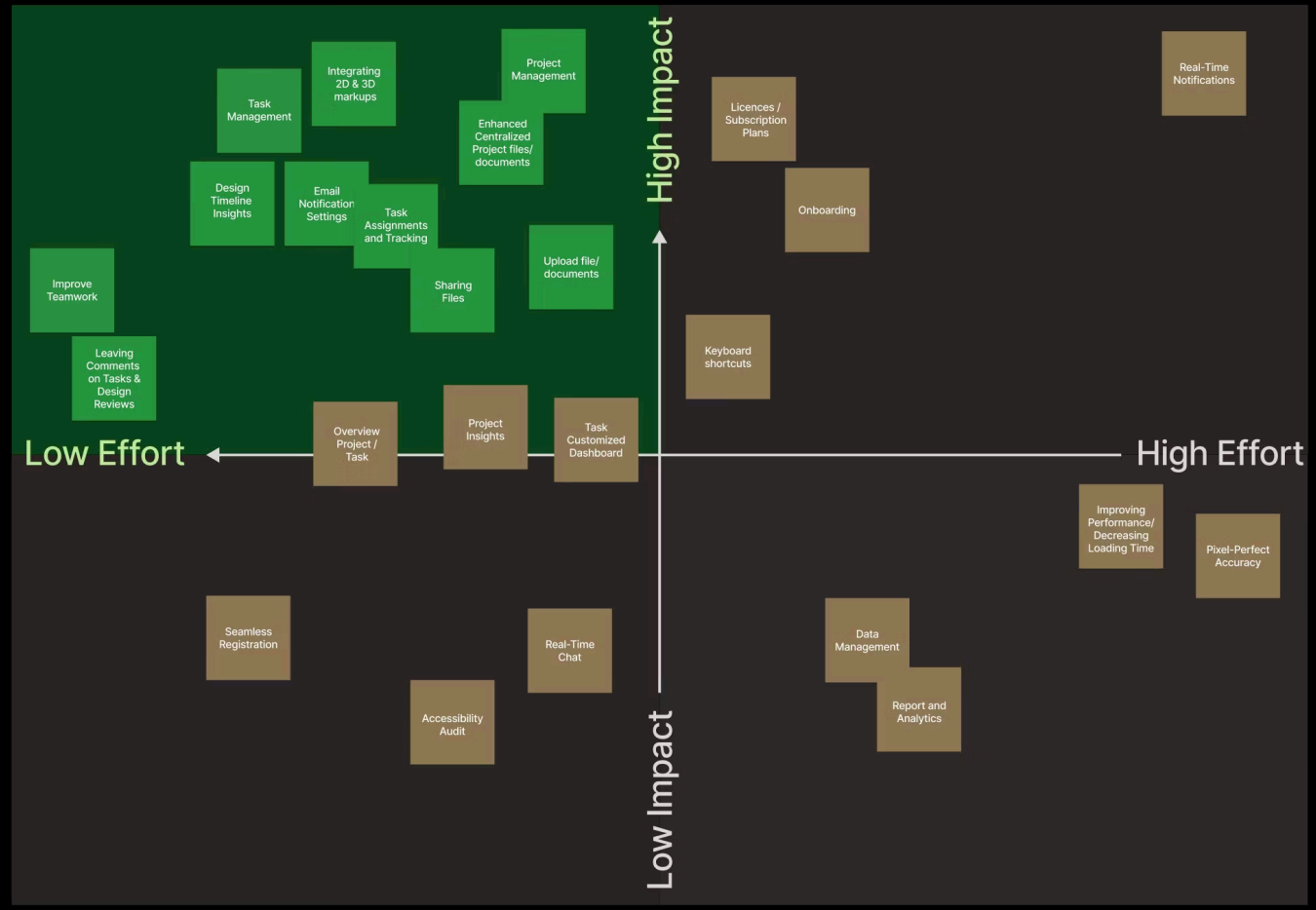
Next step

💡 Collaborative Ideation

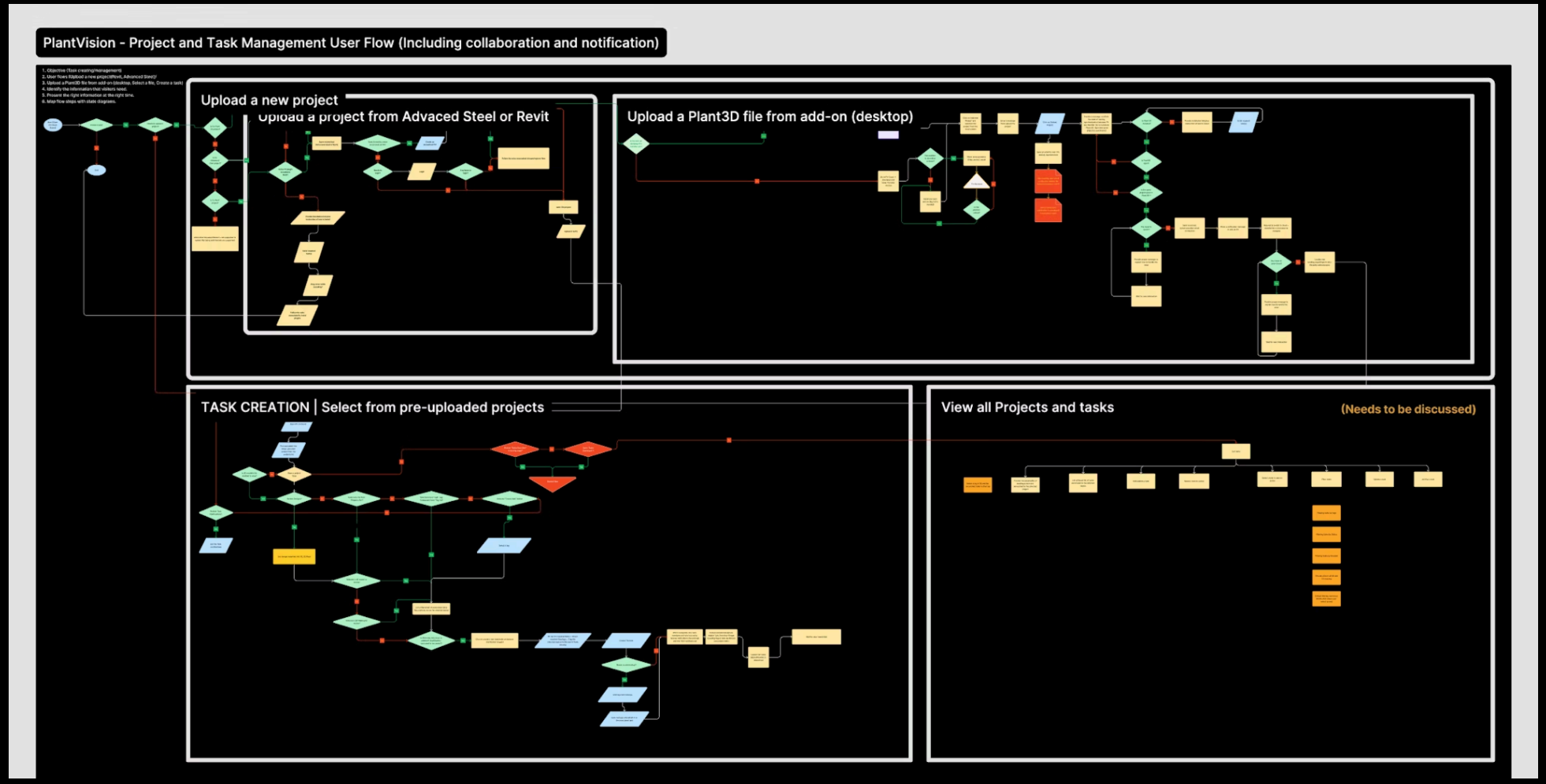


🚀 MVP - Feature Prioritization

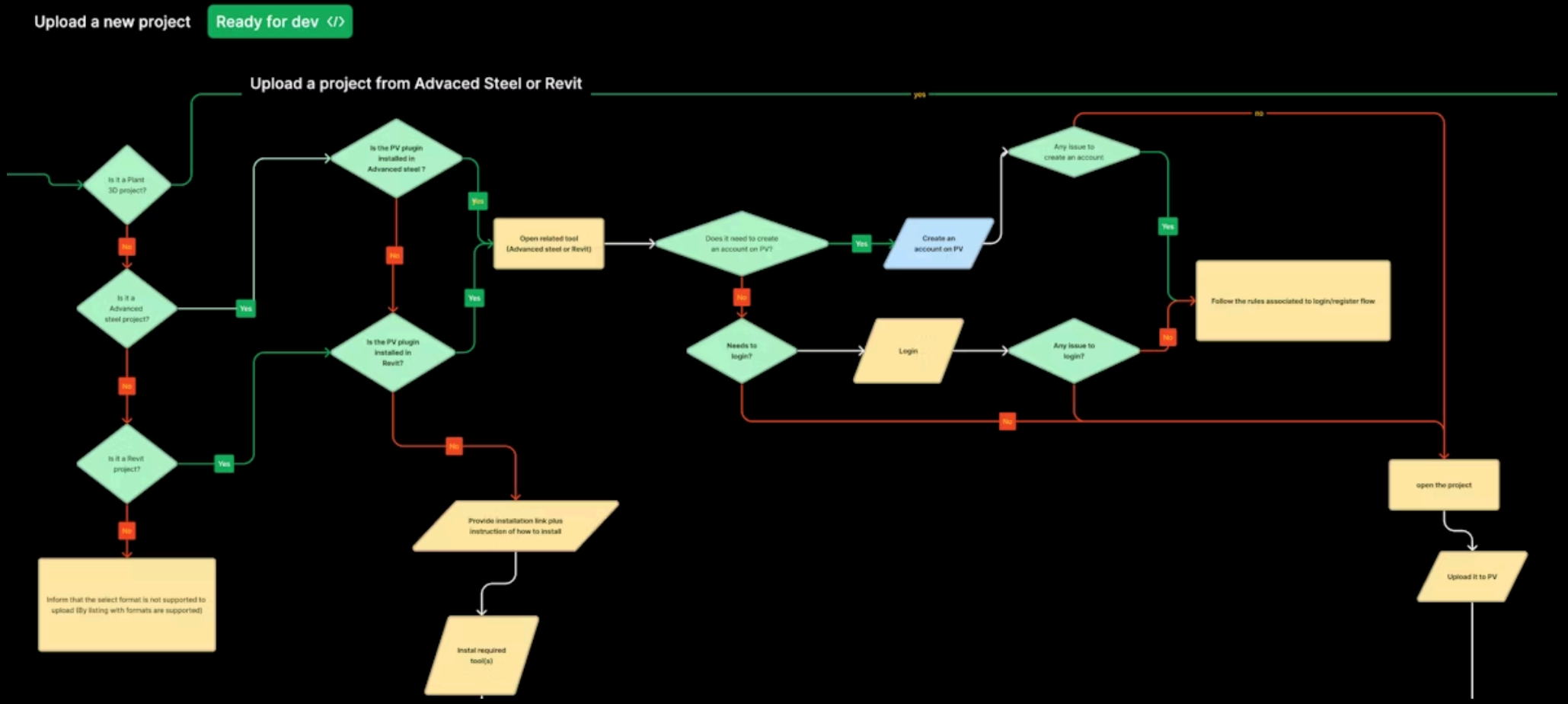
What problems should we focus on?



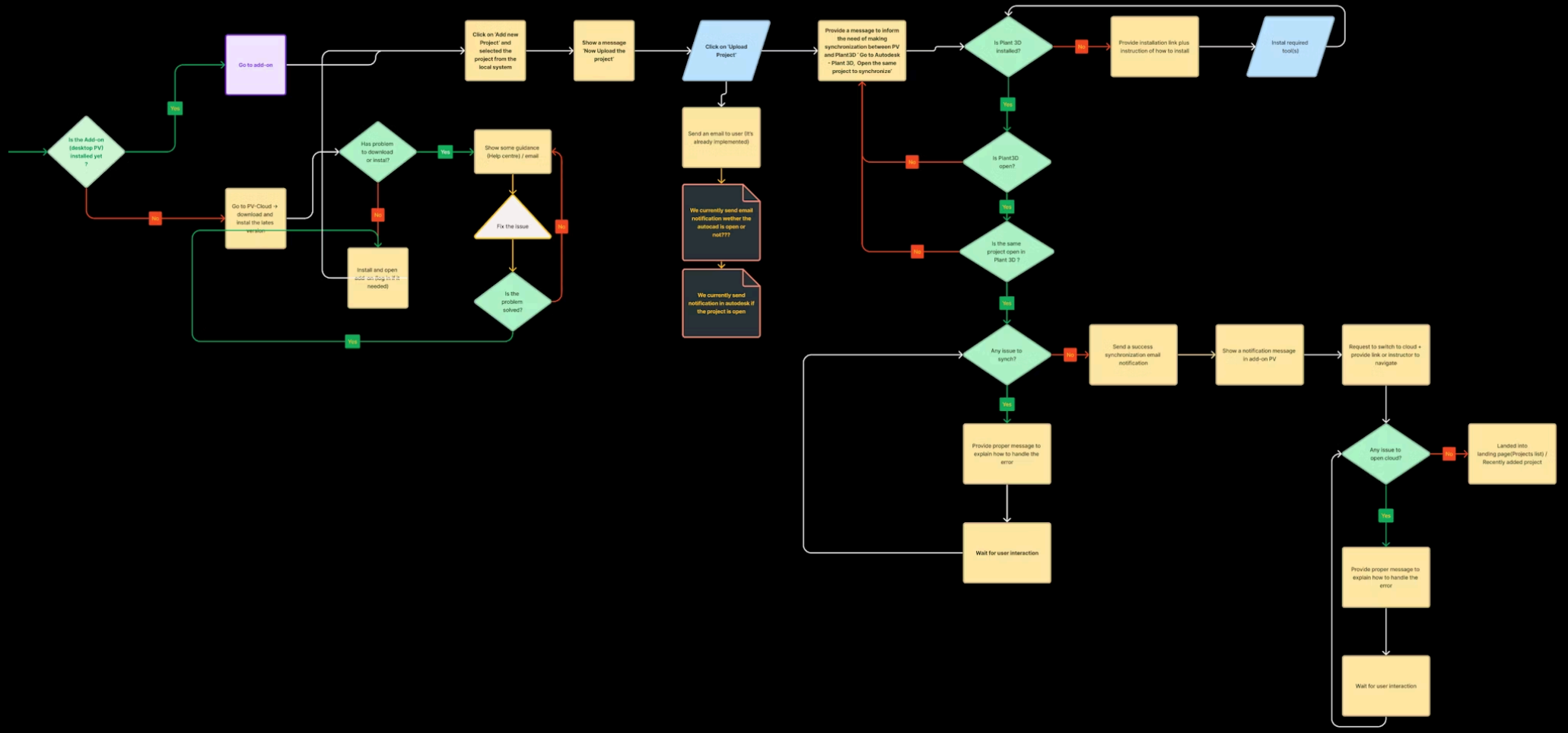
User Flow

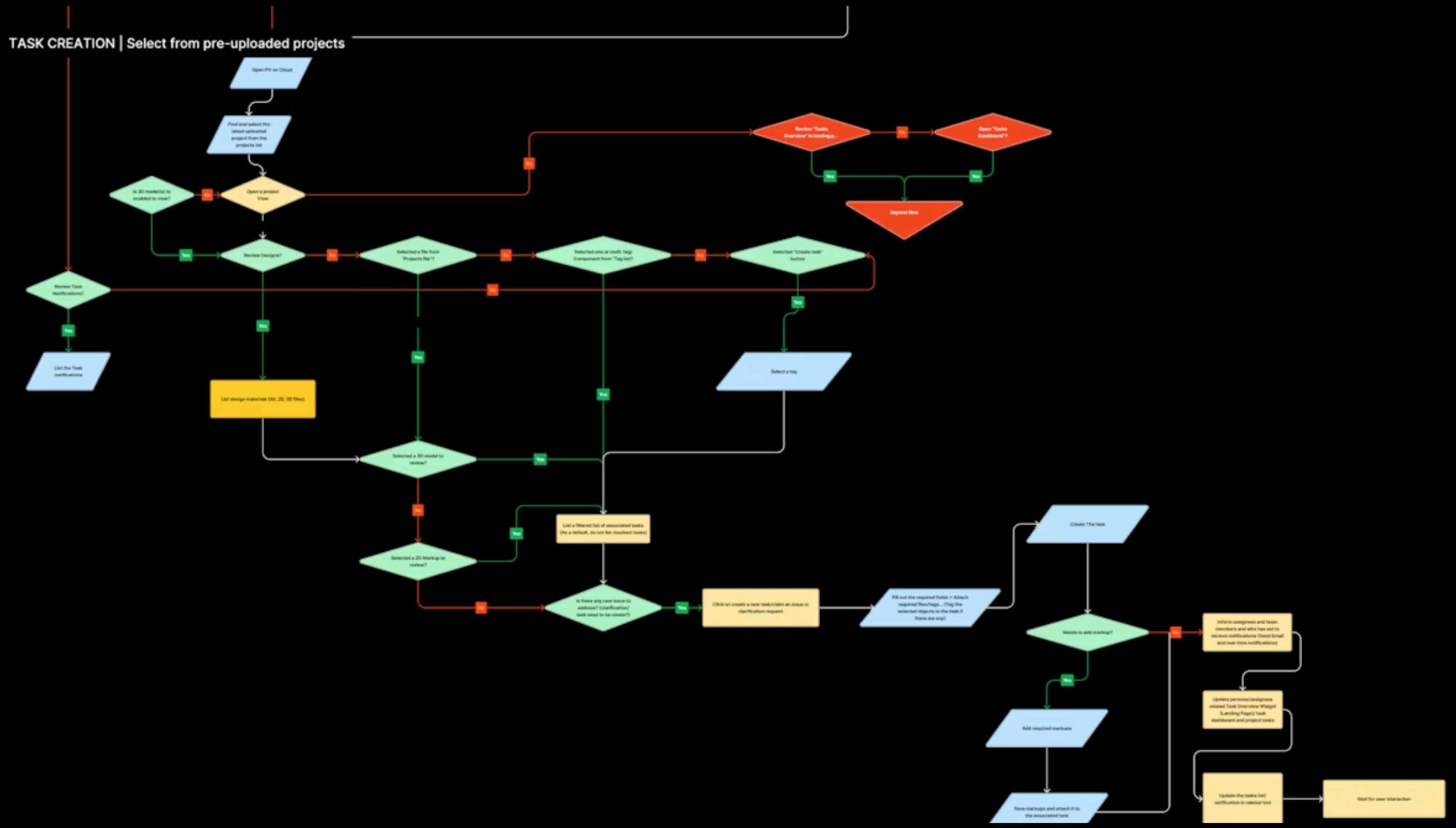

PlantVision - Project and Task Management User Flow (Including collaboration and notification)
Upload a new project
Upload a project from Advaced Steel or Revit
Upload a Plant3D file from add-on (desktop)
TASK CREATION | Select from pre-uploaded projects
View all Projects and tasks
(Needs to be discussed)

Close-up Look



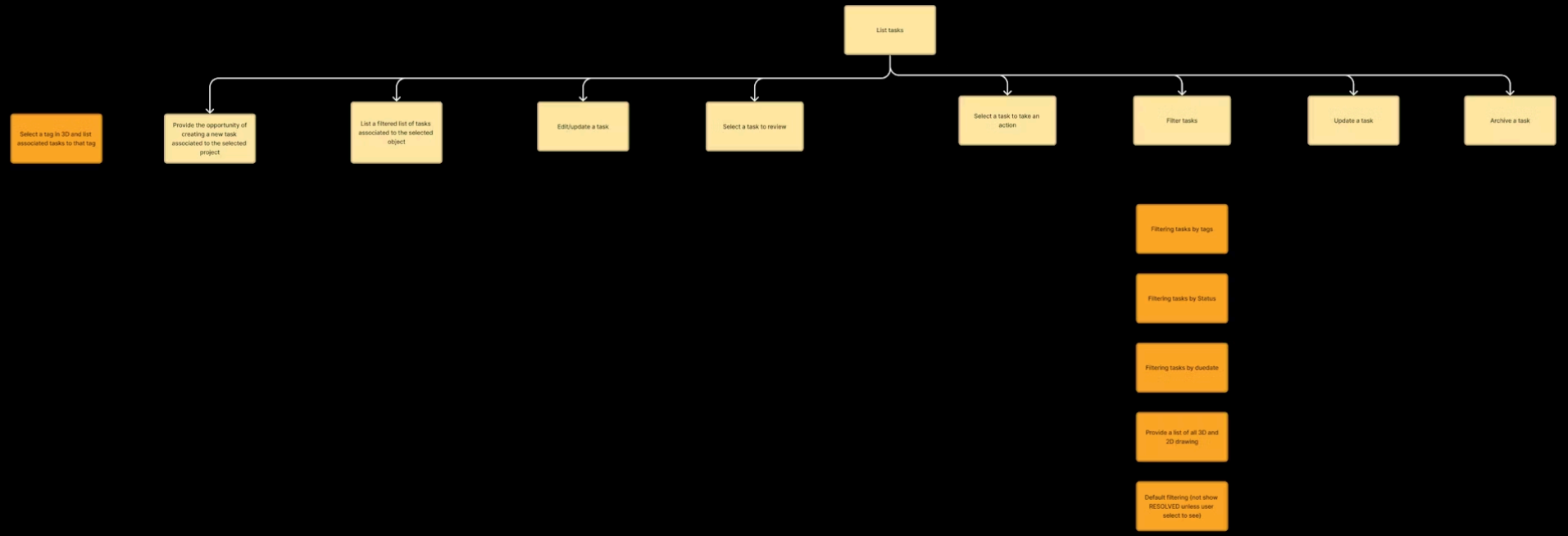
Upload a Plant3D file from add-on (desktop)




TASK CREATION | Select from pre-uploaded projects
Open PT on Cloud
Find and select the latest uploaded project from the projects list
Is 3D model(s) to enabled to view?
Open a project View
Review "Tasks Overview" is landing p...
Open "Tasks Dashboard"?
Impact Box
Review Designs?
Selected a file from "Projects file"?
Selected one or multi tag/ Component from "Tag list"
Selected "Create task" button
Review Task notifications?
List the Task notifications
List design materials (AI, 2D, 3D files)
Select a tag
Selected a 3D model to review?
Selected a 2D Markup to review?
List a filtered list of associated tasks (As a default, do not list resolved tasks)
Is there any new issue to address? (clarification/ task need to be create?)
Click on create a new task/claim an issue or clarification request
Fill out the required fields + Attach required files/tags... (Tag the selected objects to the task if there are any)
Create The task
Needs to add markup?
Add required markups
Save markups and attach it to the associated task
Inform assignees and team (members and who has set to recieve notifications (Send Email and real-time notifications)
Updata permits/assignees related Task Overview Widget (Landing Page)/ task dashboard and project tasks
Update the tasks list/ notification in related tool
Wait for user interaction

View all Projects and tasks

Task Dashboard (requirements)



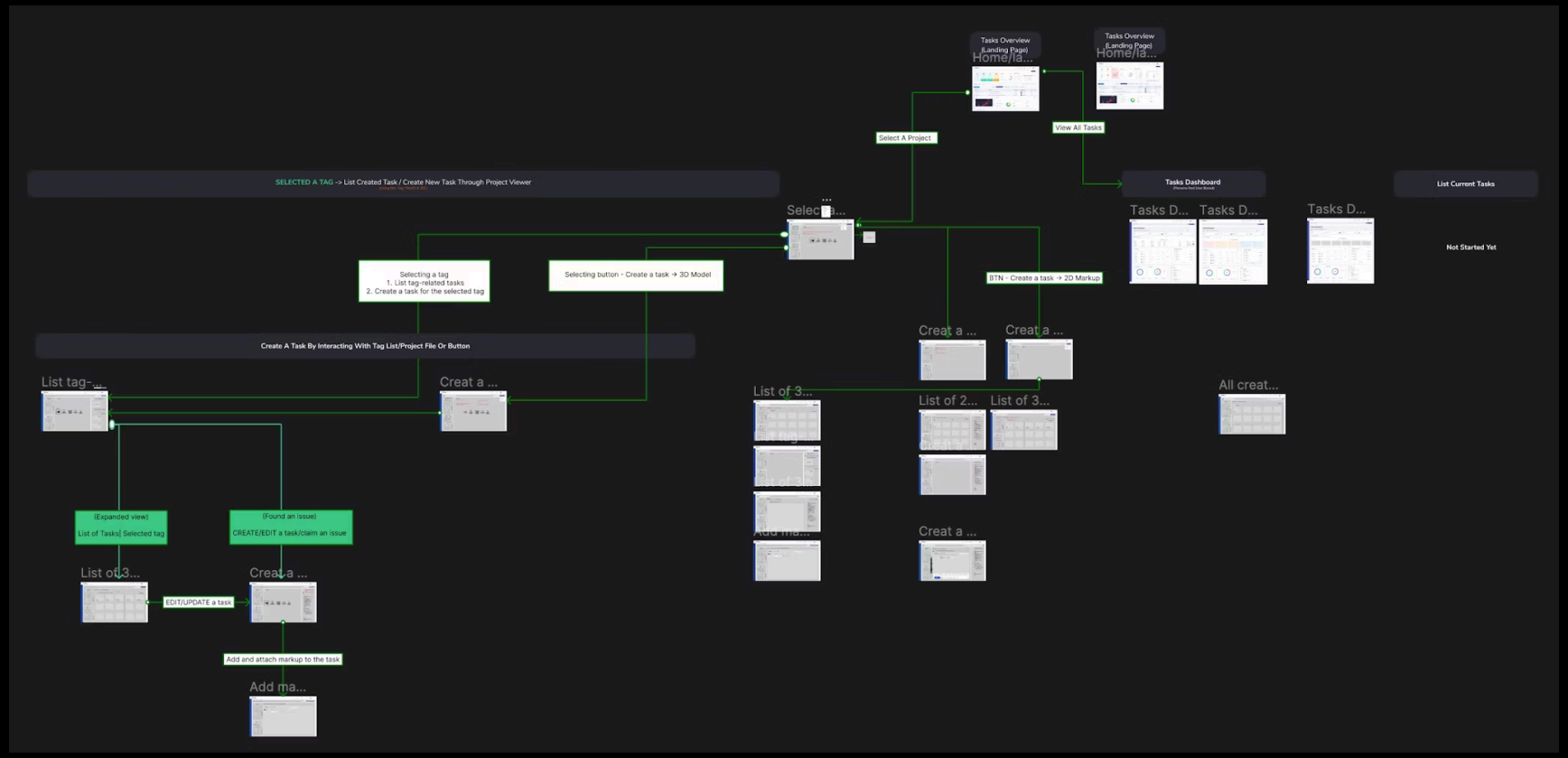
Design

1. Project Management

2. Task Management

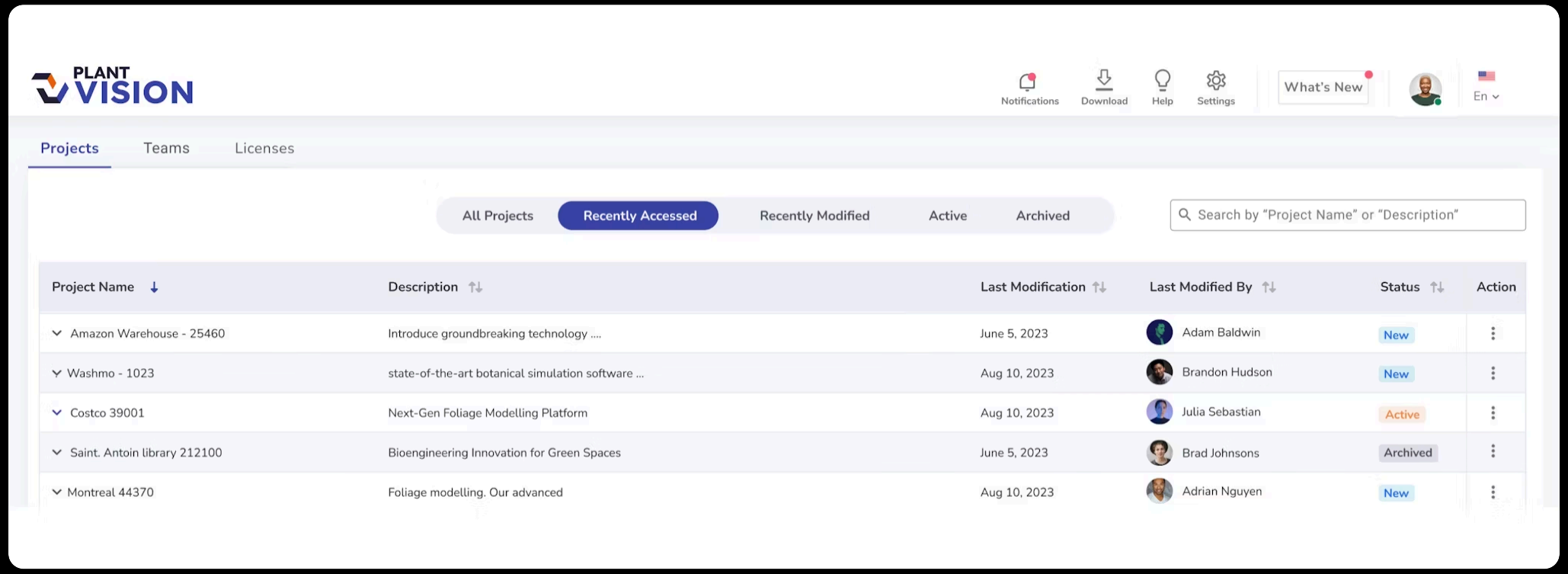
3. Collaboration

Low-Fidelity | Wireframing



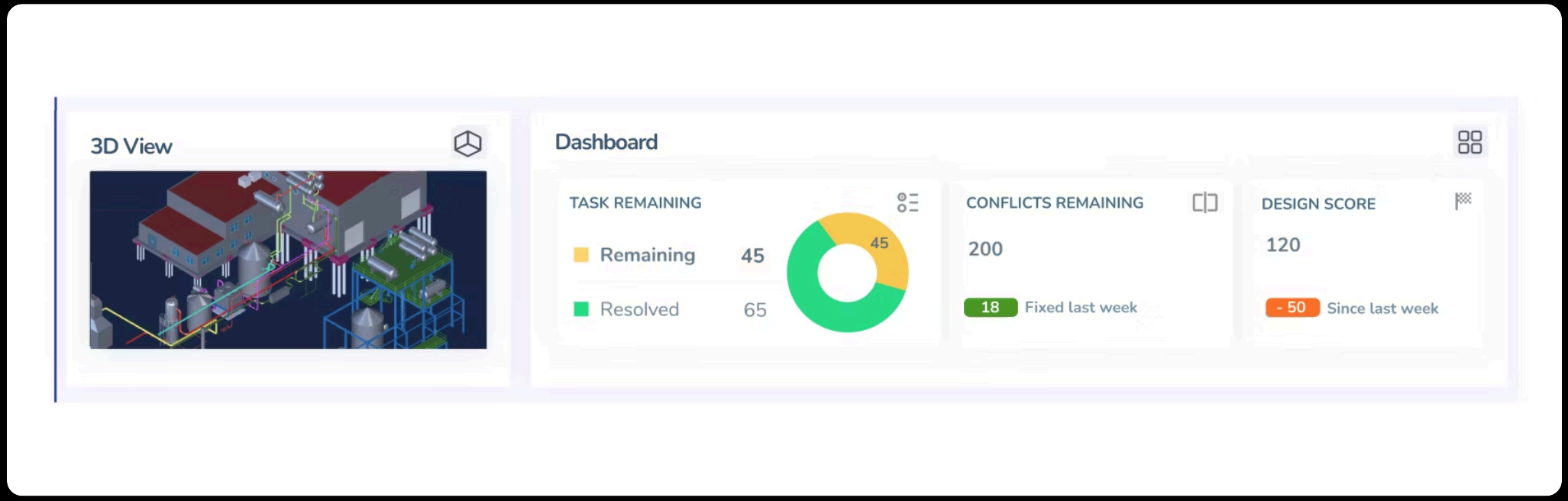
Centralized Projects

- Reduces tool-switching
- Simplifies access to relevant project information
- Enhances teamwork and communication
- Merges project documents in the cloud



Project Insights

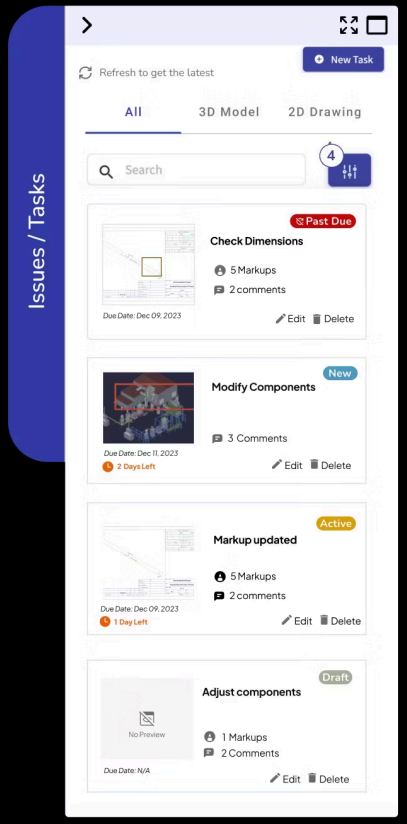
- Provides insights for easier project management.
- Facilitates progress monitoring
- Addresses issues more efficiently.
- Enhances project organization.



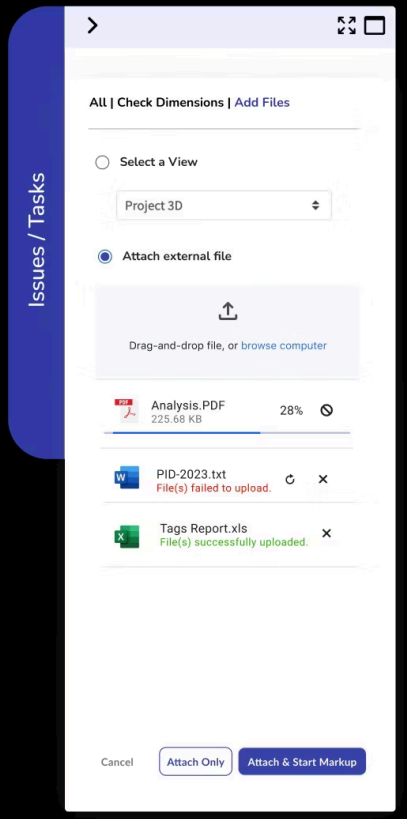
Plant 3D Project Repository

- Facilitates instant access to 3D models, 2D drawings, project files, and documents
- Provides interactive 3D models

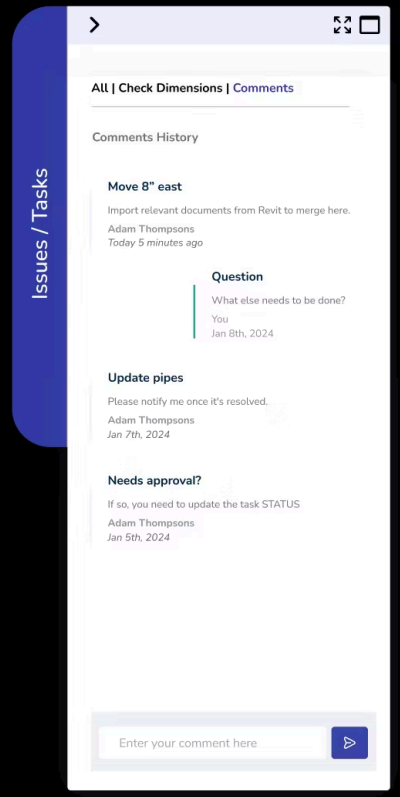
Simplifies
Task Tracking



Streamlines
File Sharing

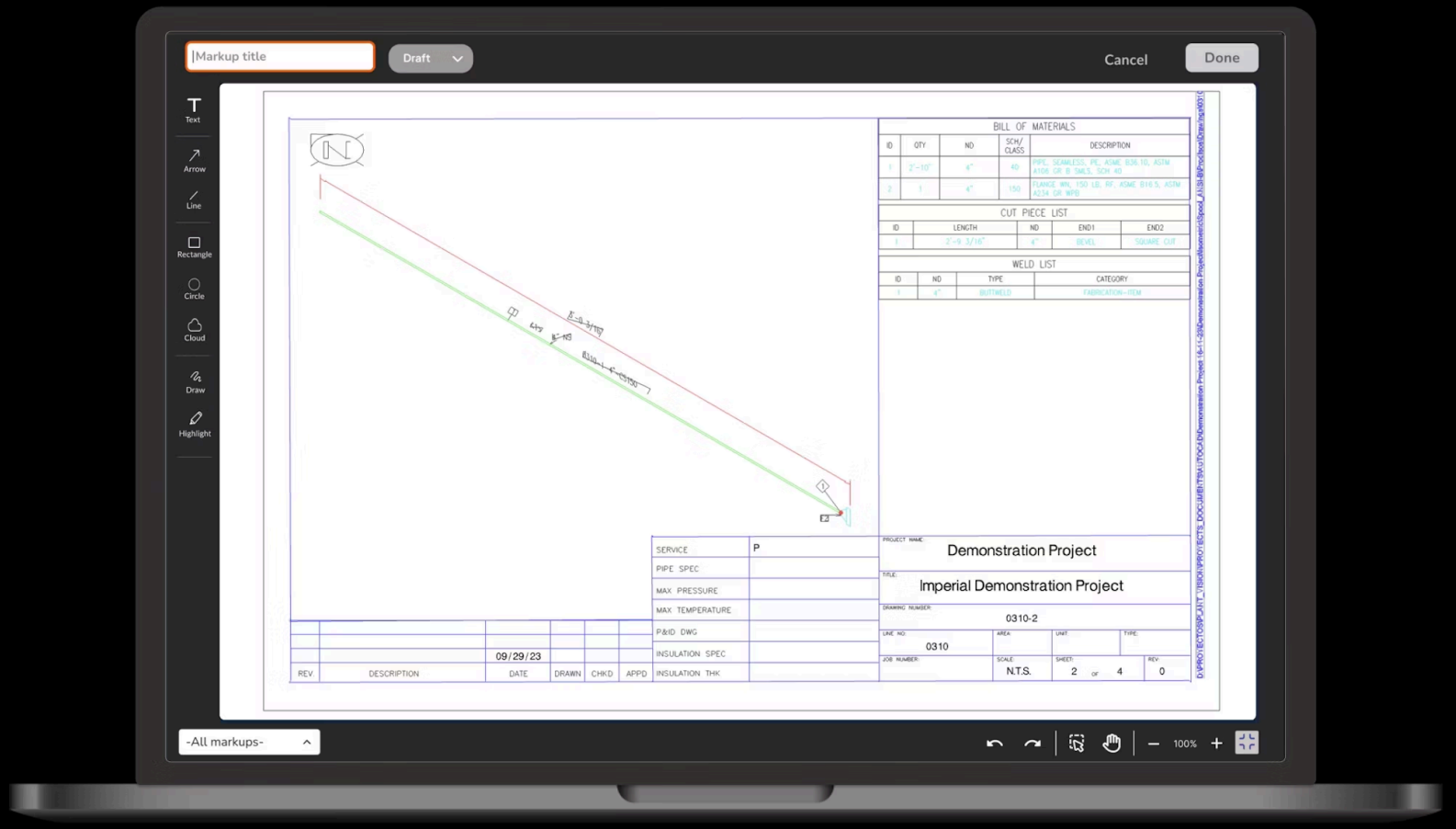


Enhances
Communications



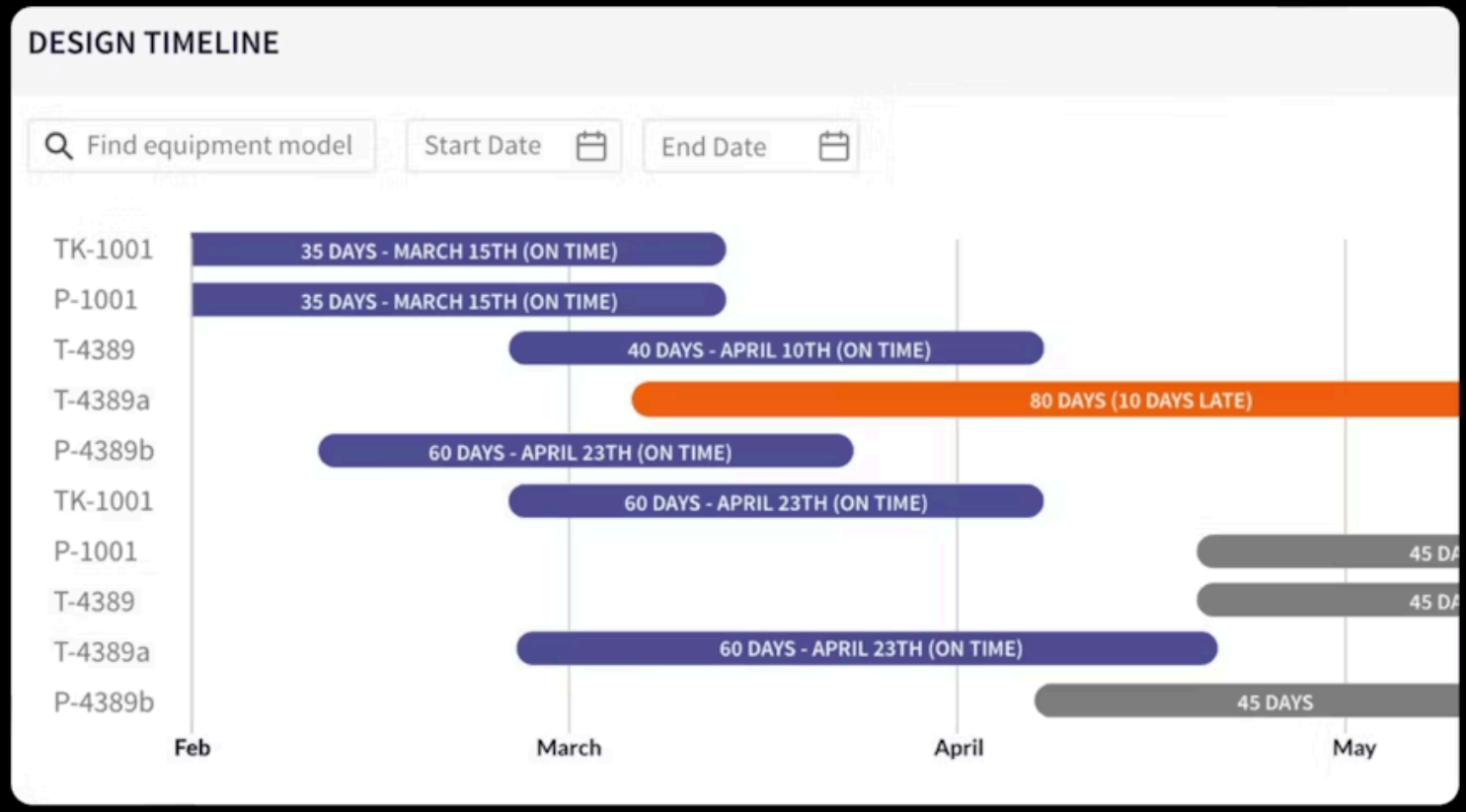
Design Review Improvement

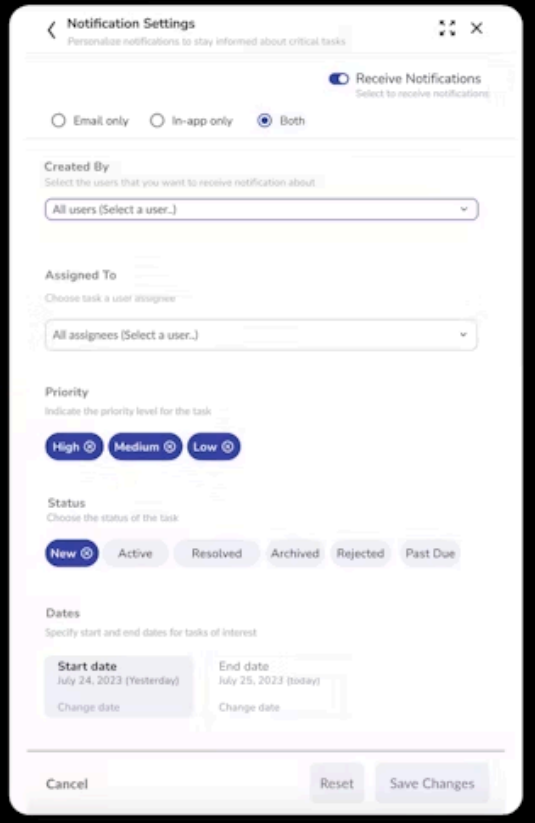
Markup editor process



Decision-Making Enhancement

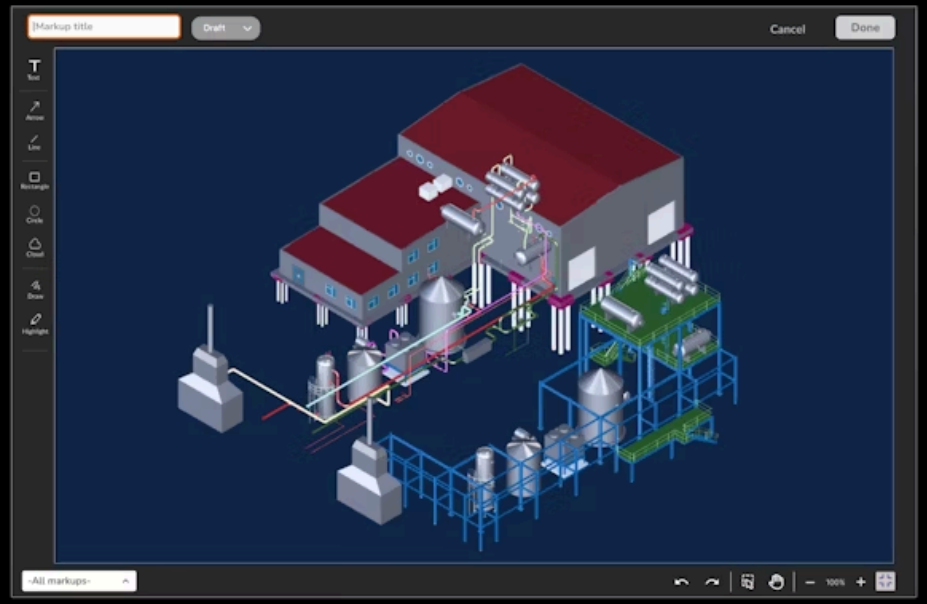
Provides ‘Design Timelines’ & ‘Task Notifications Settings’

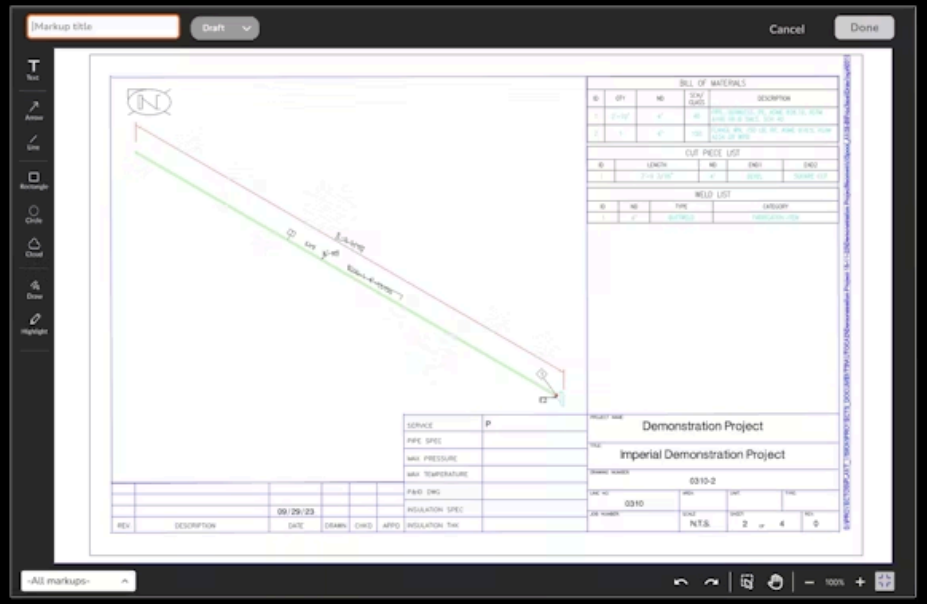




Improvements

Integrated & consistent design for markup | 3D models & 2D drawings



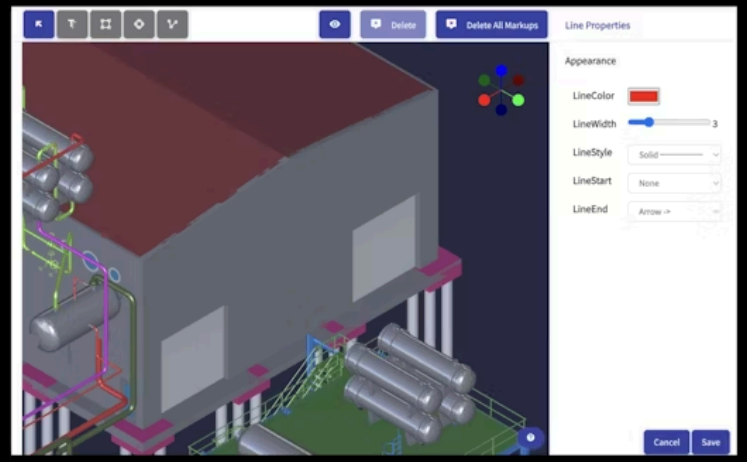


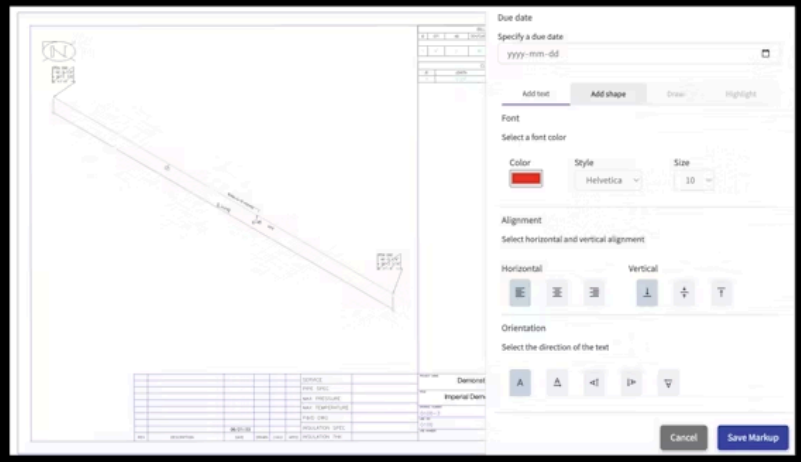
Before / After

Design Review

3D Model vs 2D Drawing

Before

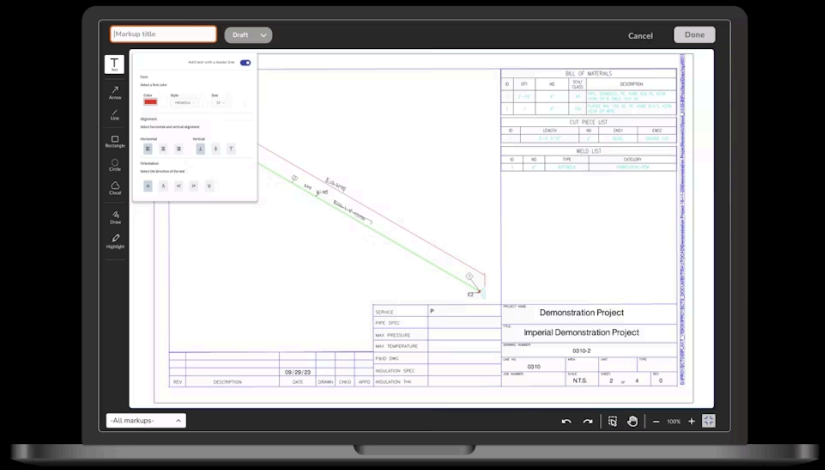




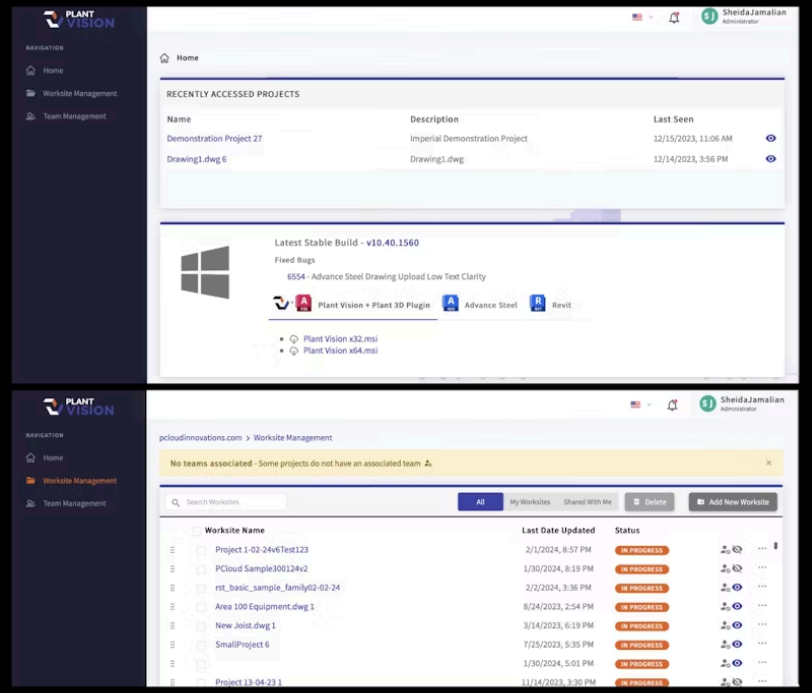
Design Review

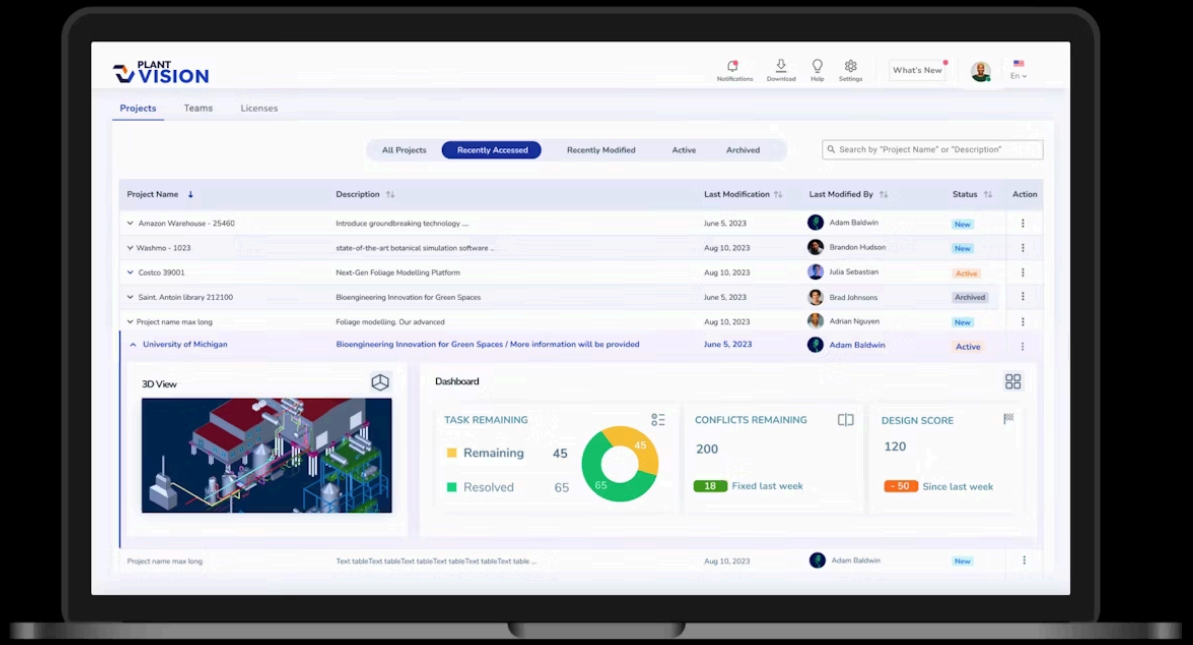
3D Model vs 2D Drawing

After

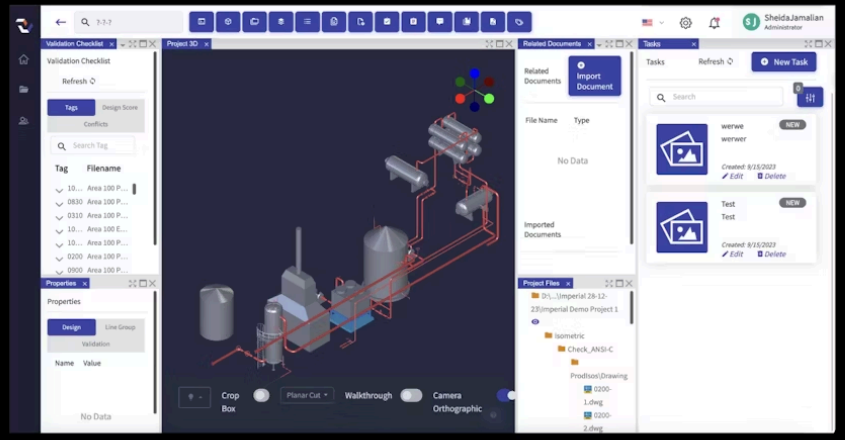


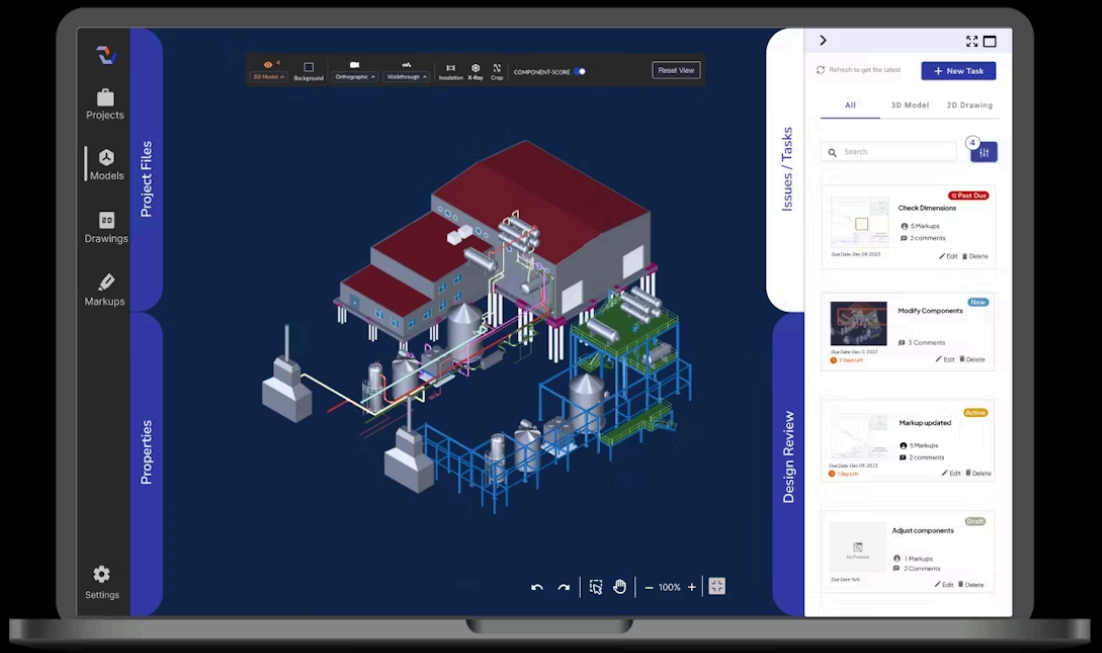
Project Management





Task Management





Outcomes

120

Corporations showed interest in new features at the 2023 Autodesk University event in Las Vegas.

37%

Increase in user adoption among project managers

Takeaways

1.

Revisiting the value proposition before adding new features gave us a clear direction from the start to focus on relevant solutions.

2.

Focusing on problems that cover the needs of all user segments, rather than focusing on only one, helped us create a more impactful solution.

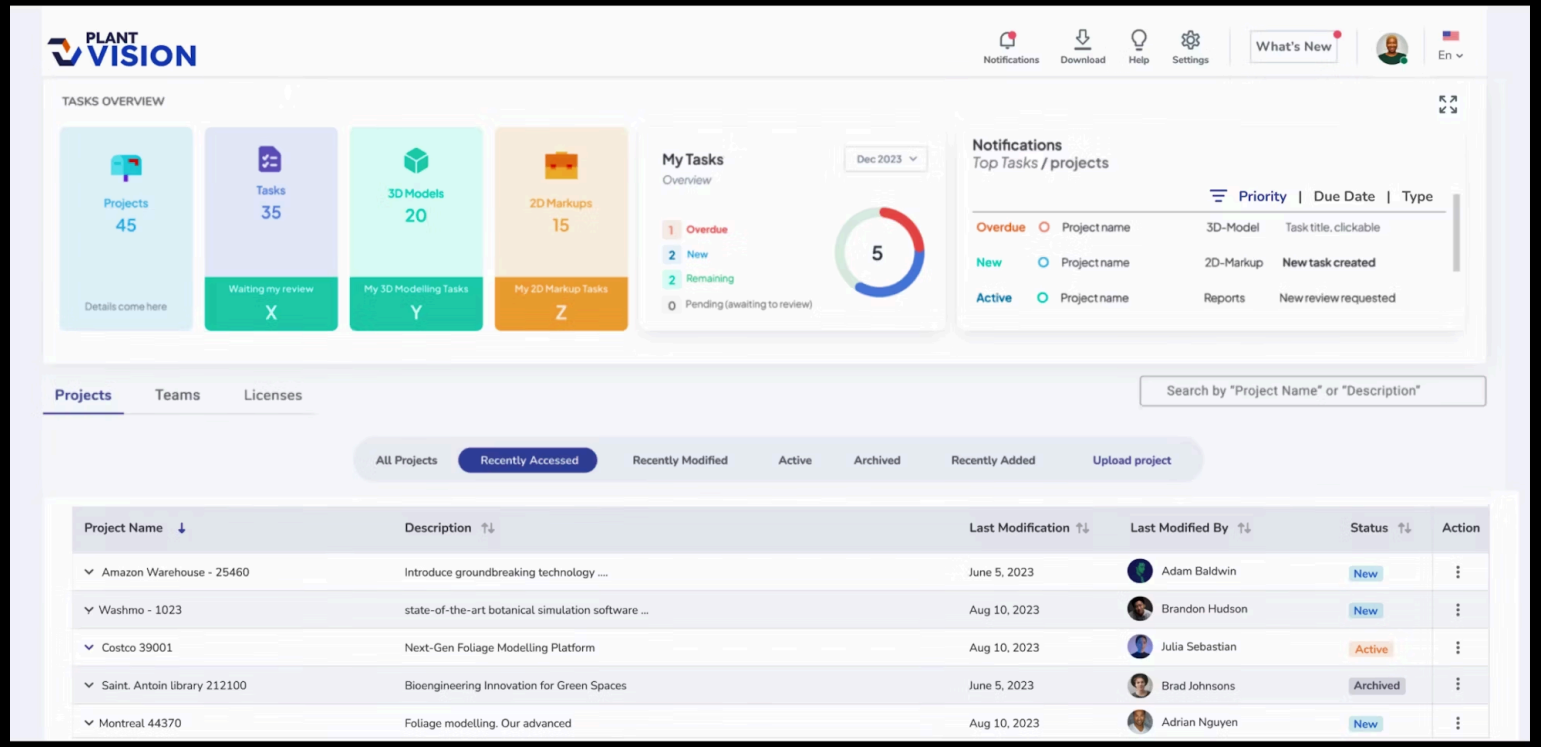
3.

Analyzing the competition to find the main gaps in the market helped us a lot in finding solutions that set us apart from the competition.

Coming Next

Improving Project Insights

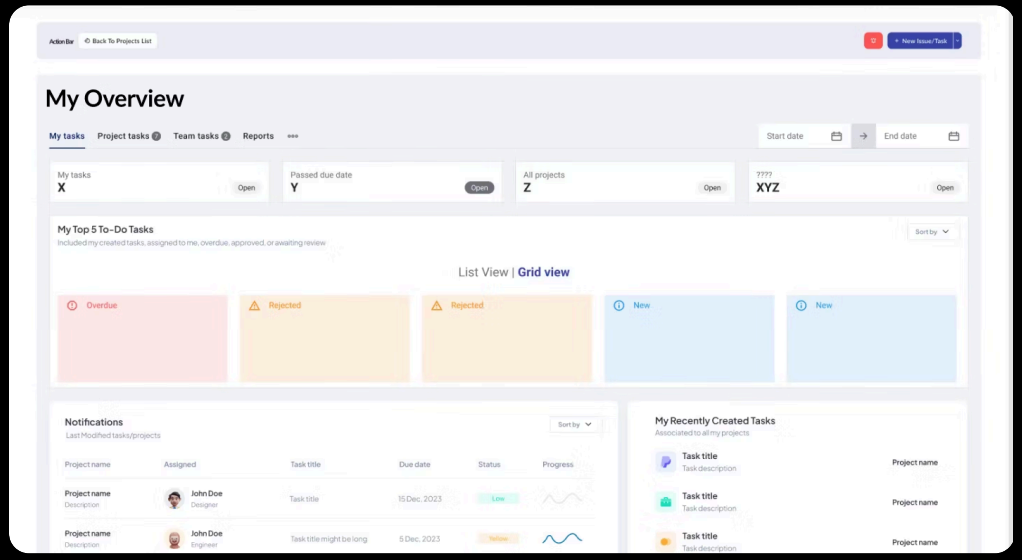
For immediate decision-making.

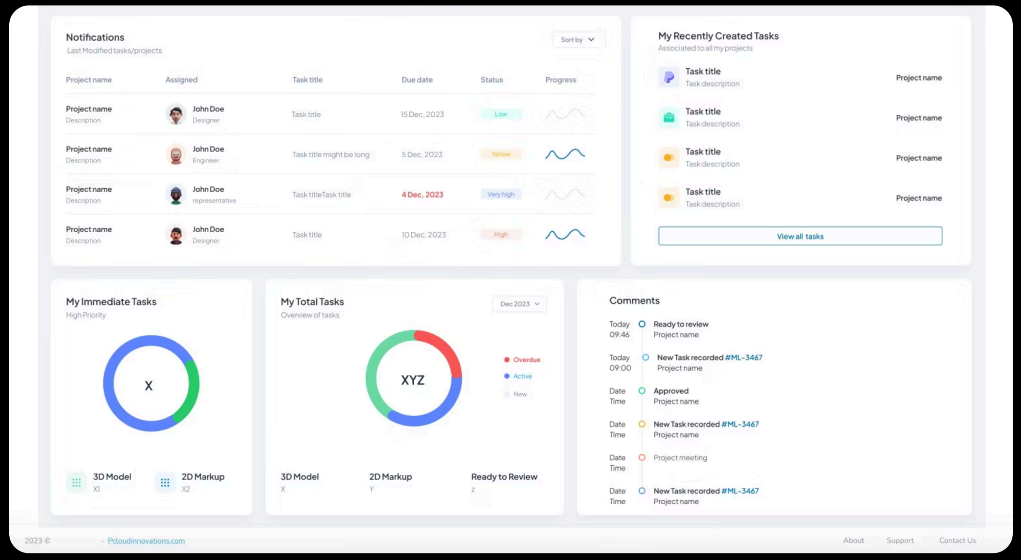


Coming Next

Introducing Overview

A quick review of high-priority updates

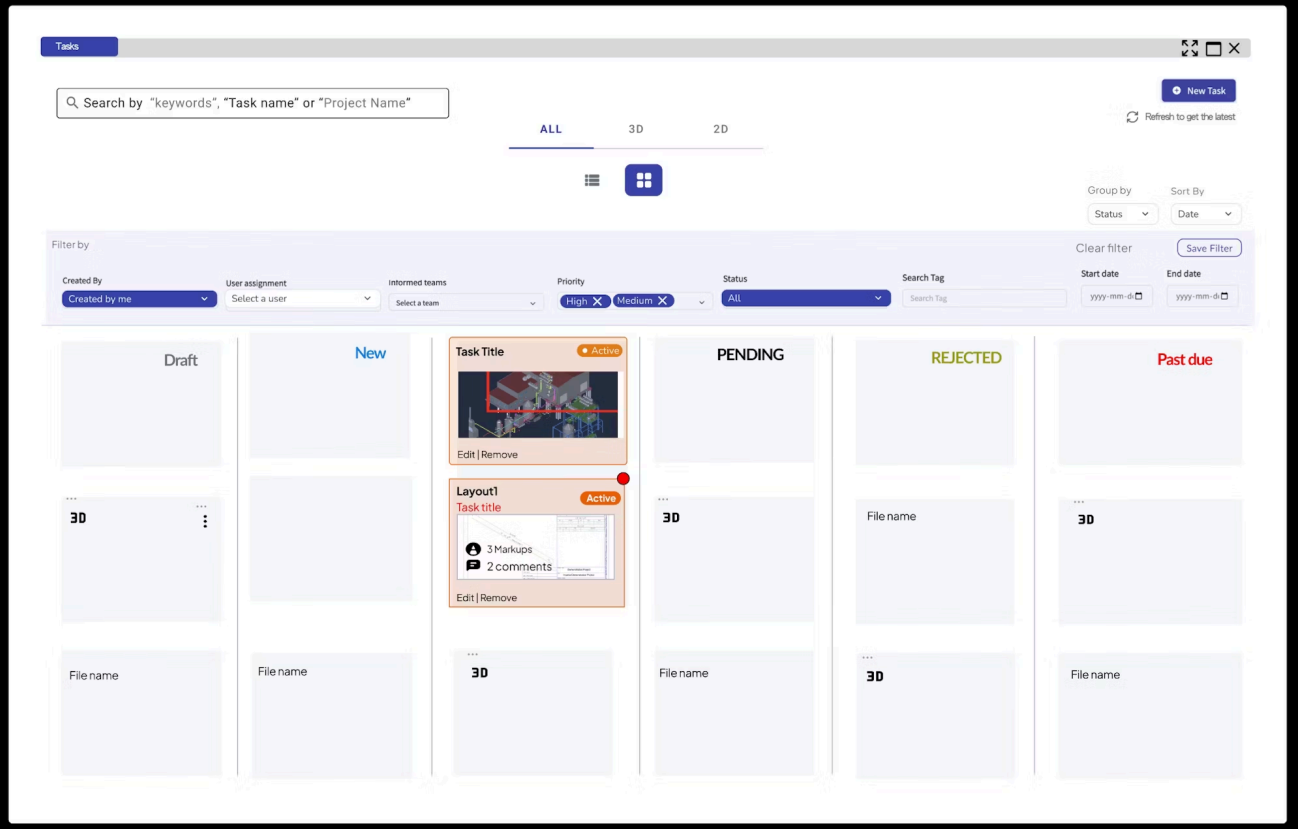




Coming Next

Optimizing Task Management

The power of customized dashboard to identify critical tasks



Thank You

Sheida Jamalian

sheida.jam@gmail.com

www.sheidajamalian.com

linkedin.com/in/sheida-jamalian

(514) 553-9977