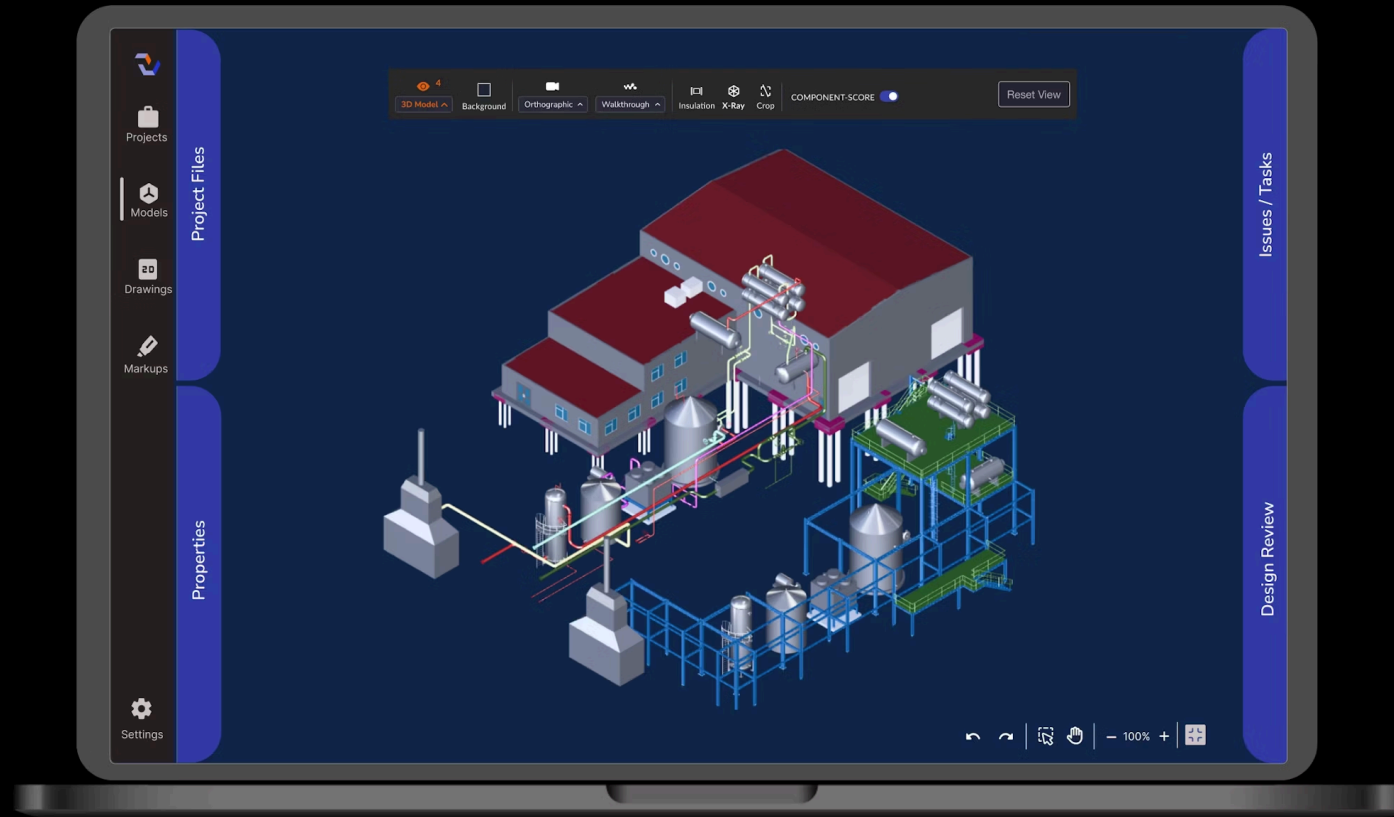


# Increasing Adoption Through Integrating New Features

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.

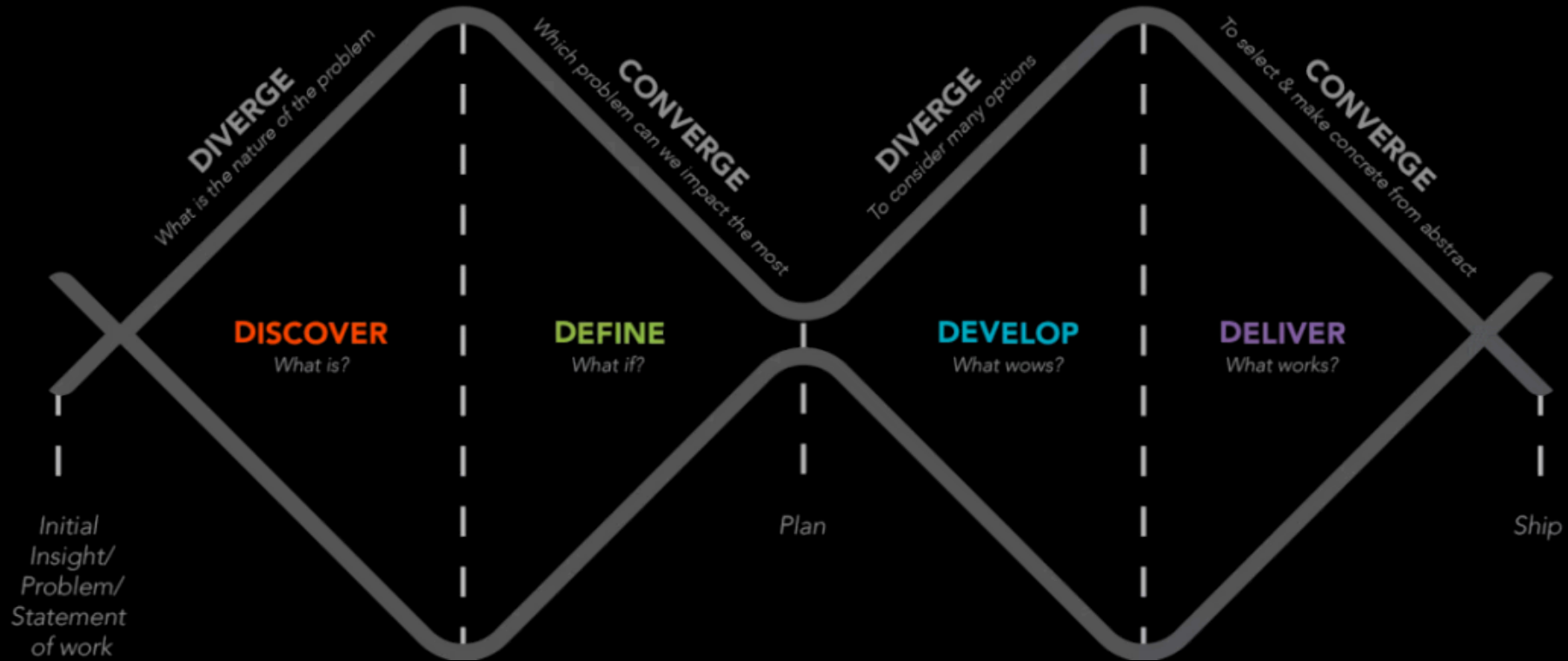
## Responsibilities

- 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	⊘	✓	⊘	✓	⊘	⊘

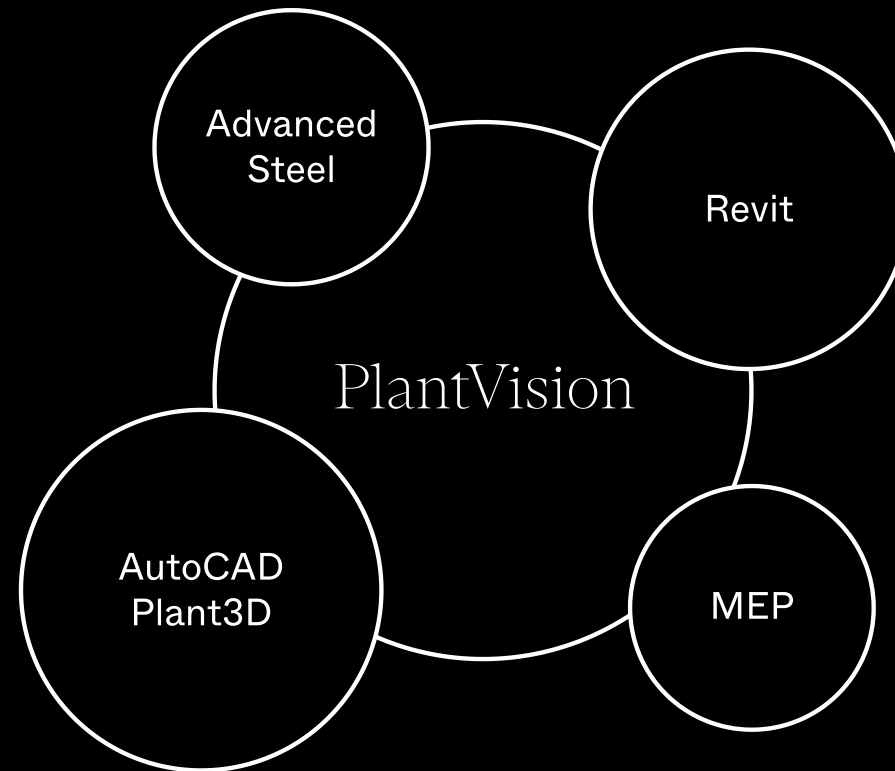
The background is a dark blue, almost black, color with a wavy, metallic sheen. The light reflects off the surface, creating a sense of depth and movement. The text is centered in a white, serif font.

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

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.

 WHO? |  WHAT? |  HOW? |  WHY?



# Solution Space

# Design Thinking Workshops Direction

## Goal

Achieve alignment on project direction.

## Participants



| Product Manager



| Product Owner



| Tech-Lead



| Business Partners



| Chief 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

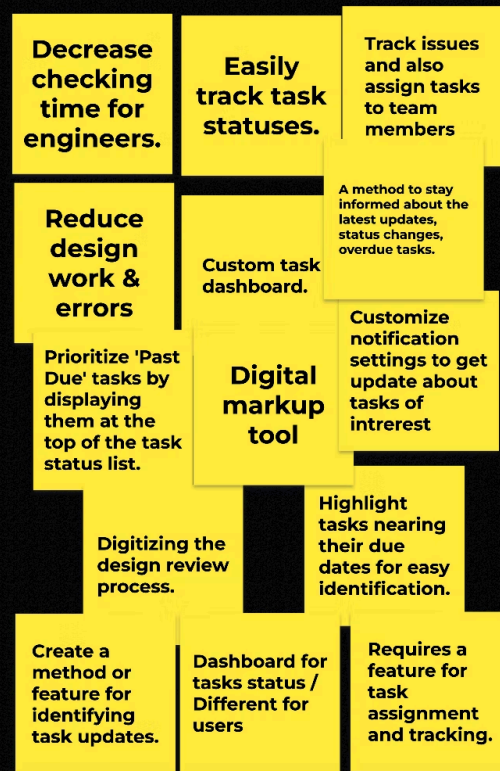


# Collaborative Ideation

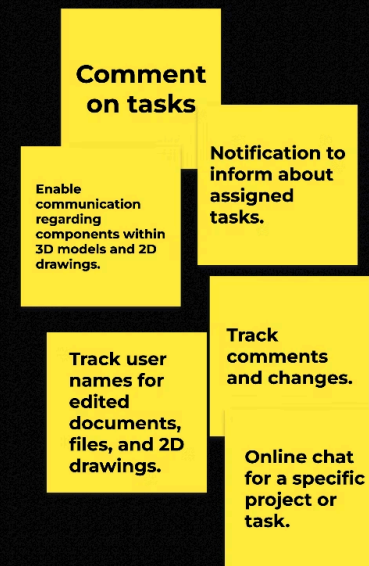
## Project Managements



## Task Managements



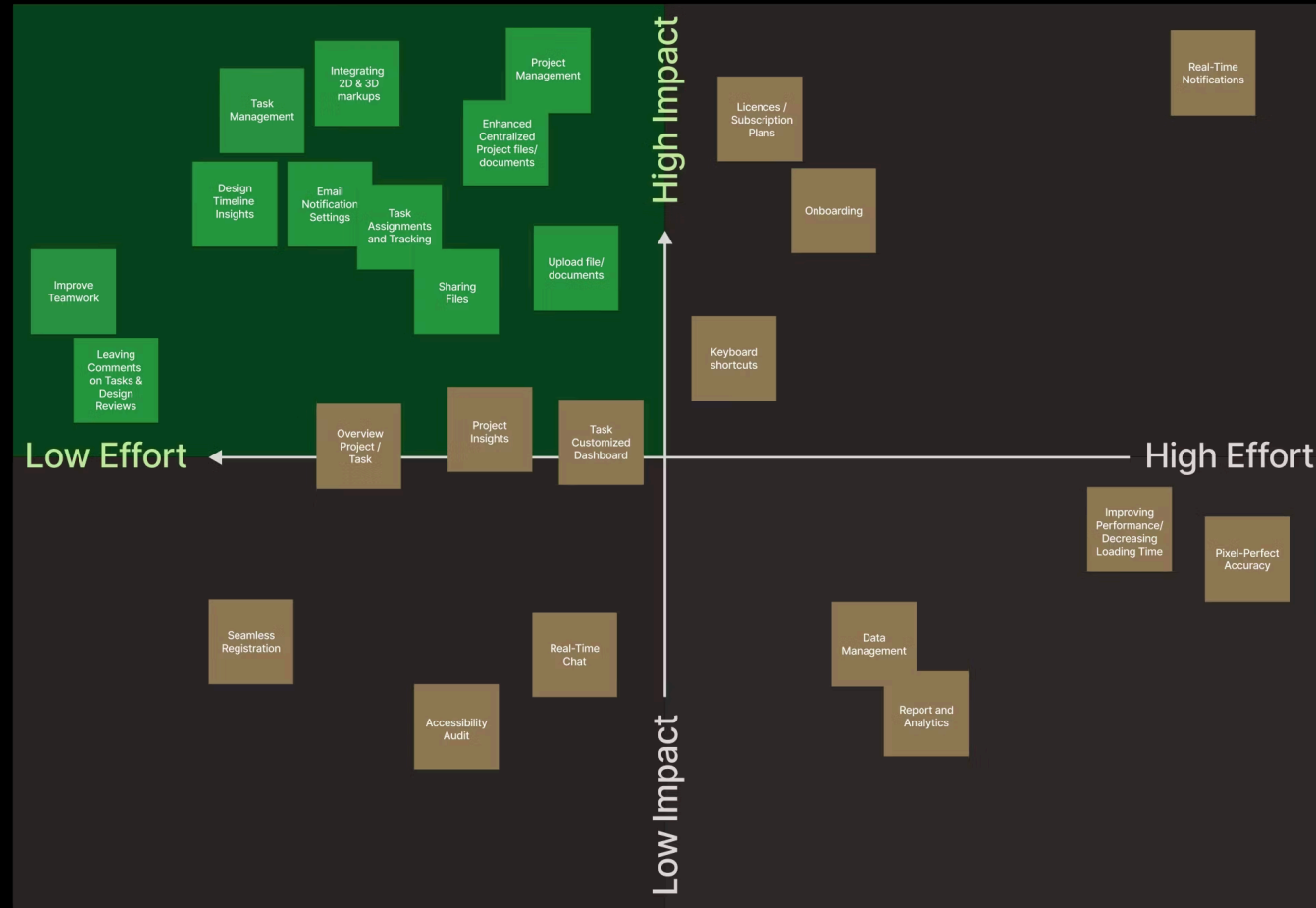
## Team Collaboration





# MVP - Feature Prioritization

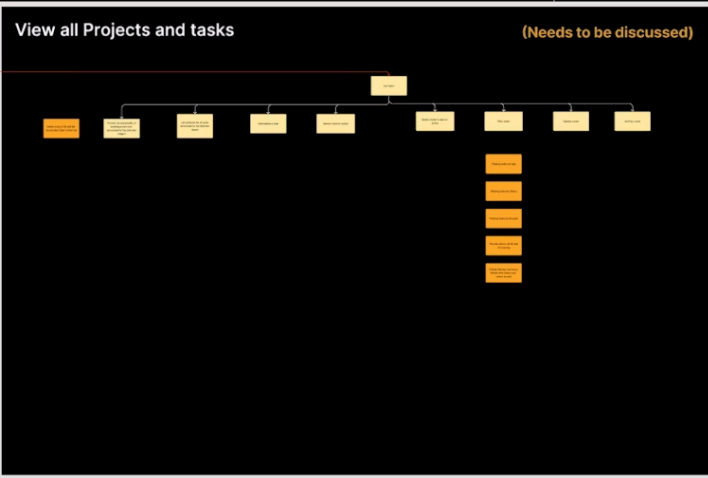
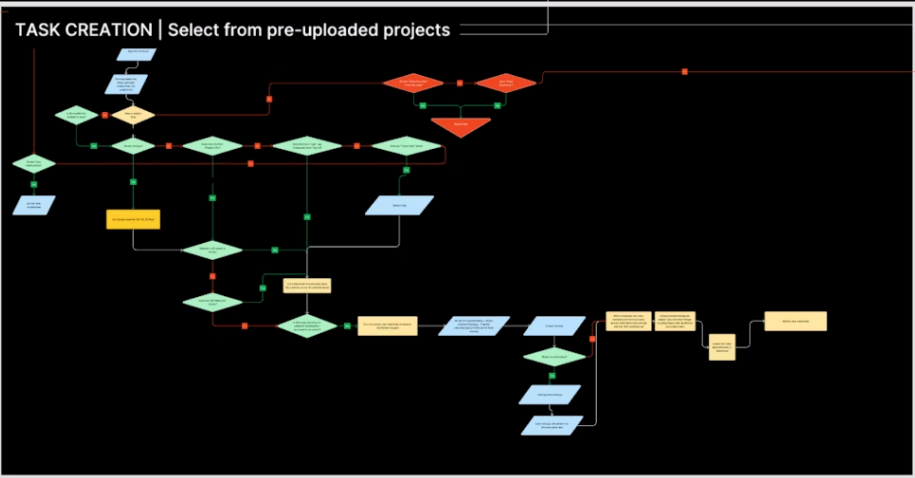
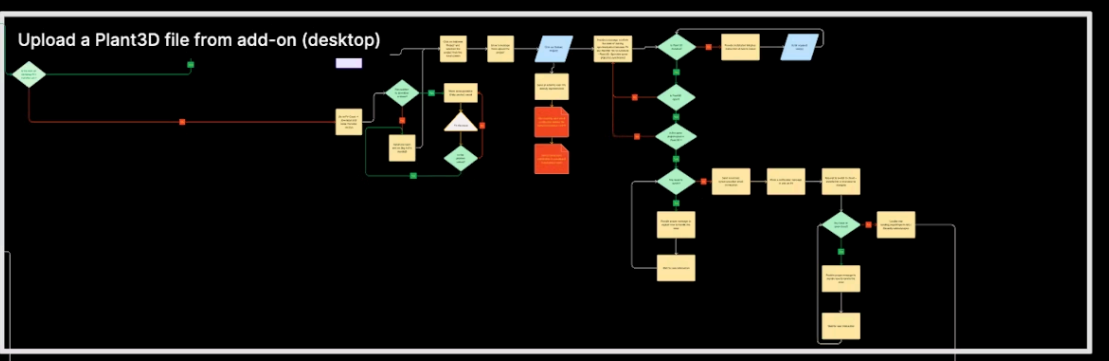
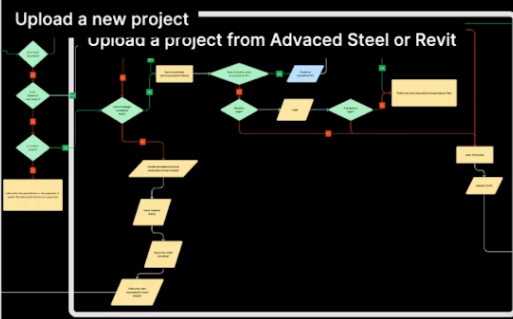
What problems should we focus on?



# User Flow

## PlantVision - Project and Task Management User Flow (Including collaboration and notification)

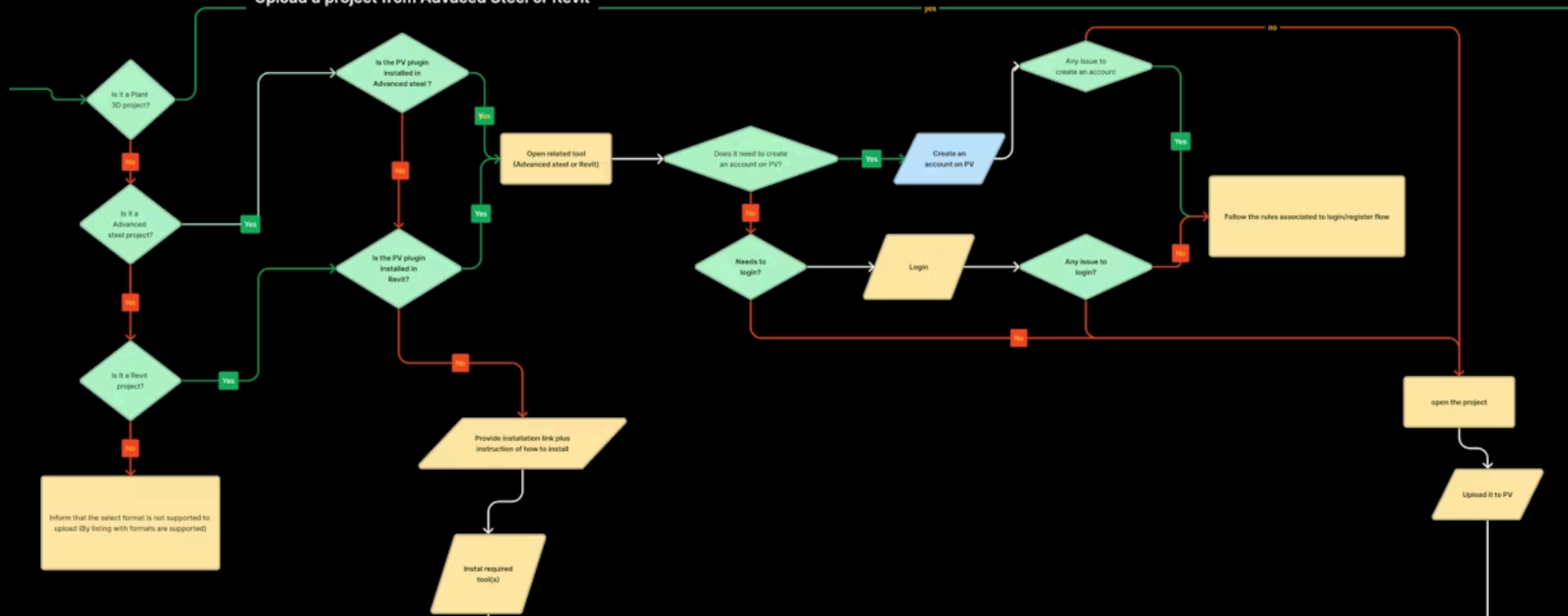
- 1. Click on 'New Project Management'
- 2. User flow: Upload a new project (Advanced Steel)
- 3. Upload a Plant3D file from add-on (desktop)
- 4. Upload a project from Advanced Steel or Revit
- 5. Review the right information at the right time
- 6. Use the flow with each step



# Close-up Look

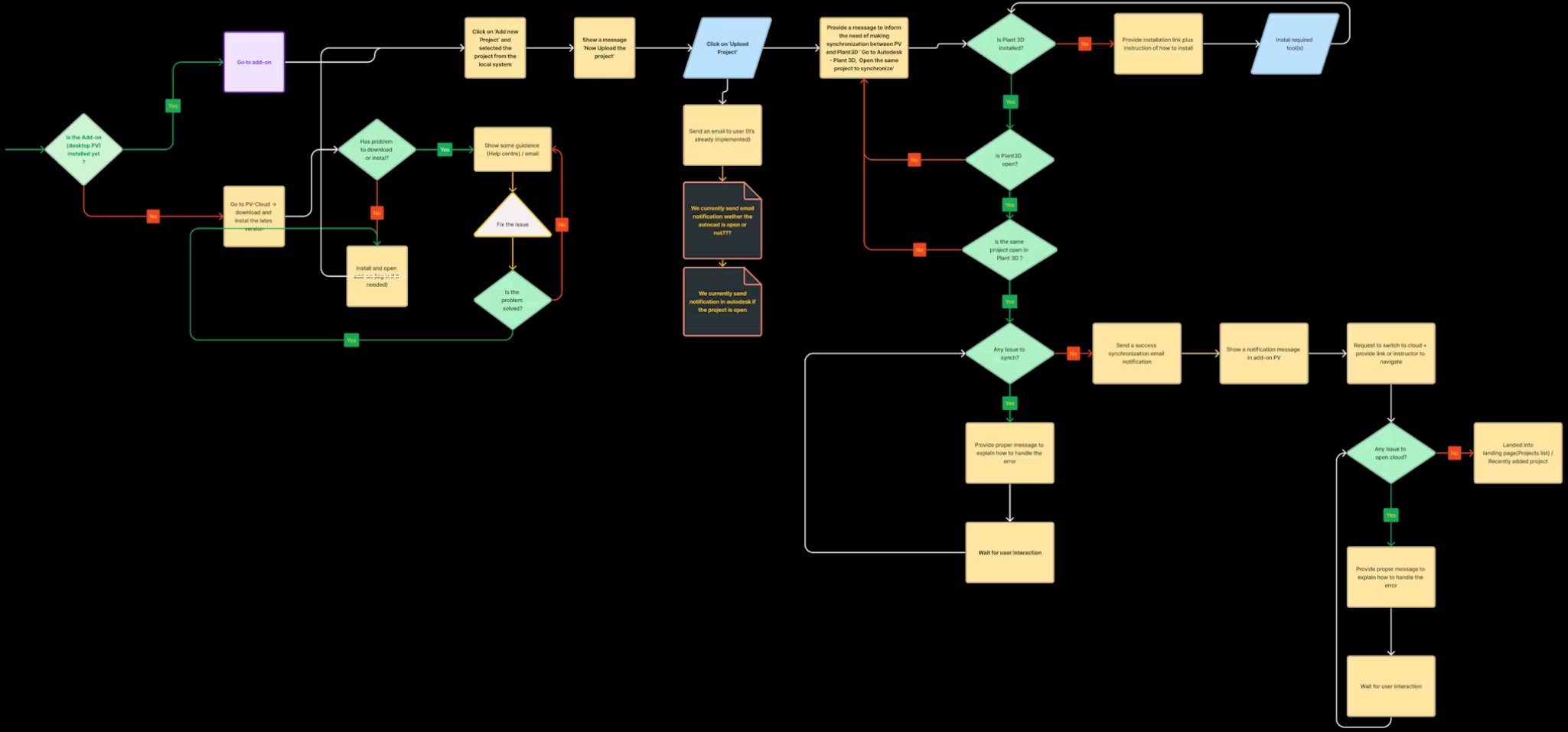
Upload a new project Ready for dev </>

## Upload a project from Advanced Steel or Revit

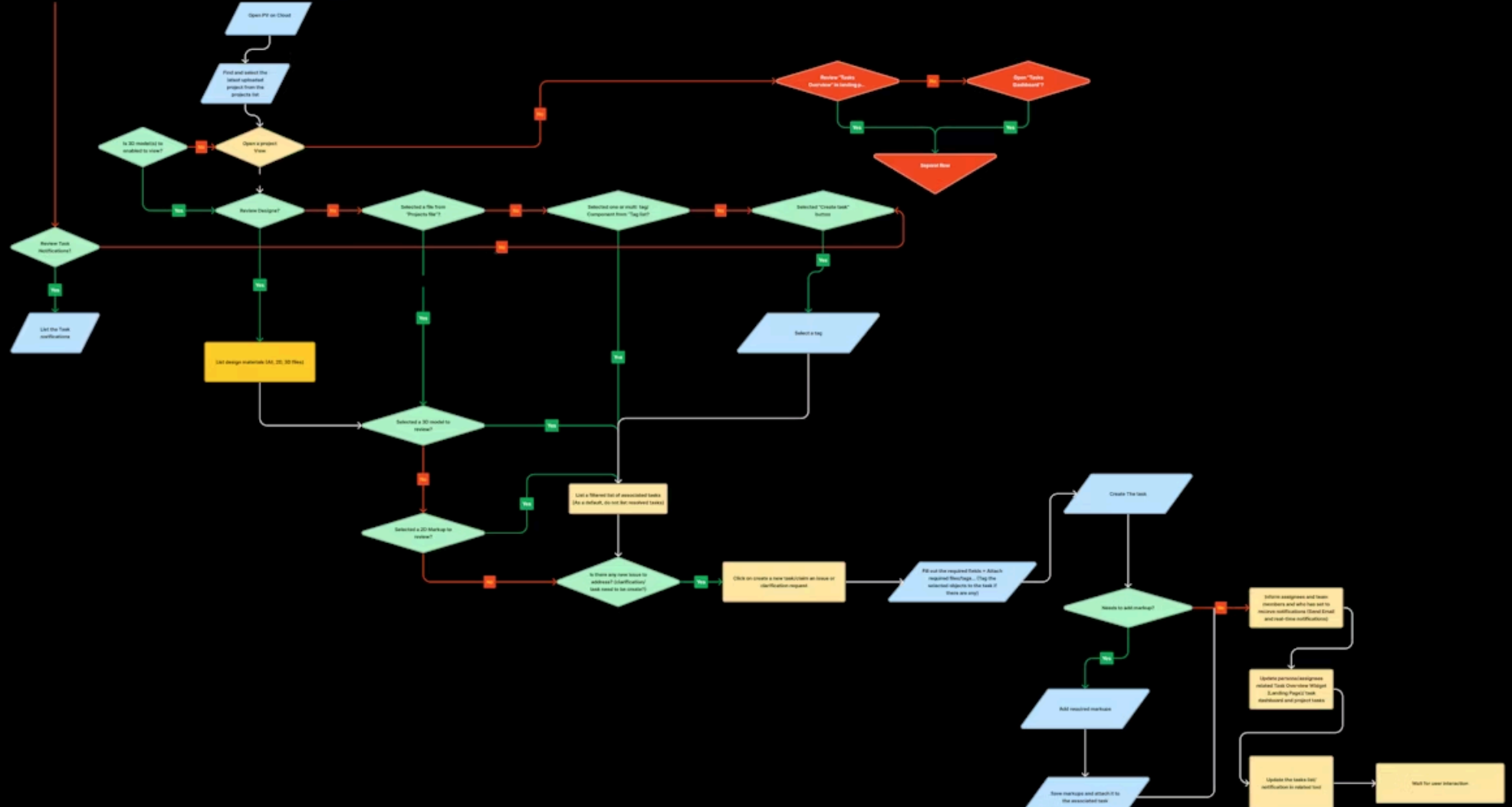




# Upload a Plant3D file from add-on (desktop)

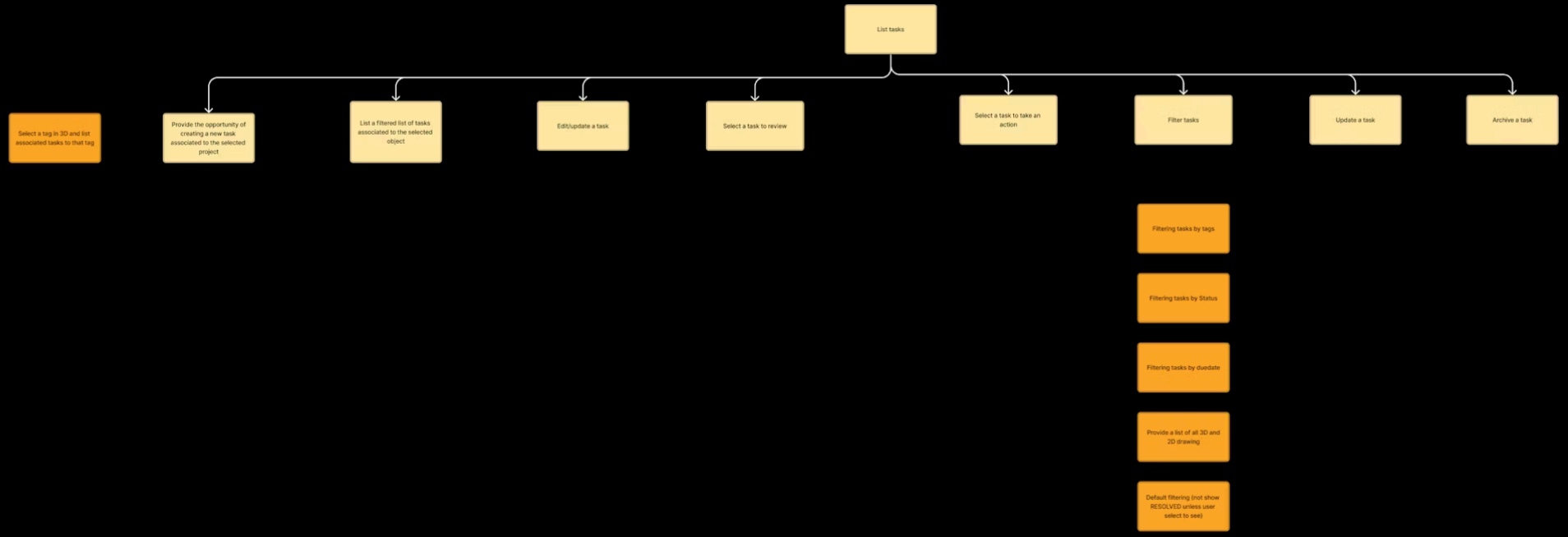


# TASK CREATION | Select from pre-uploaded projects



View all Projects and tasks

# Task Dashboard (requirements)



# Design

1.

Project Management

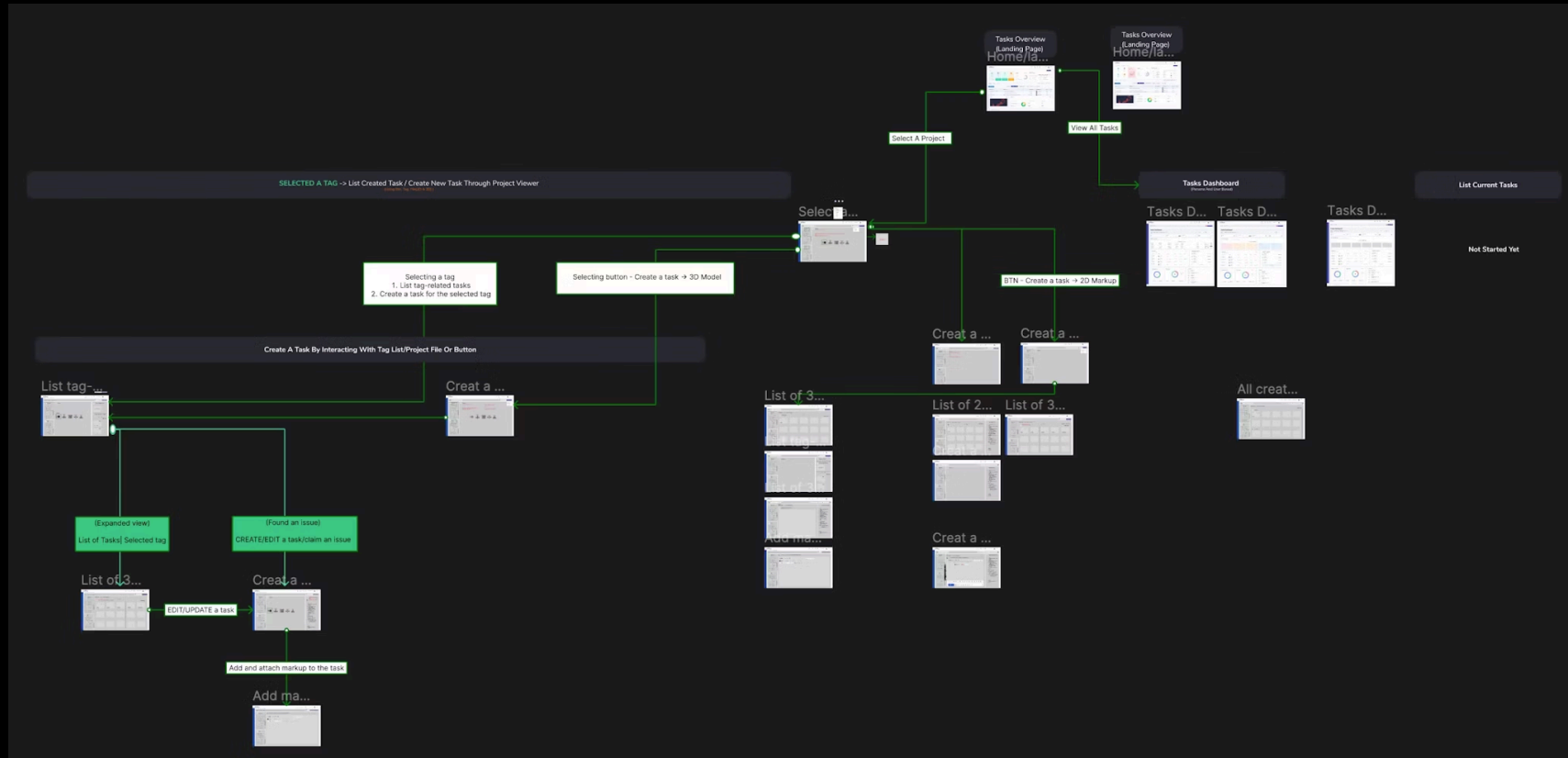
2.

Task Management

3.

Collaboration

# Low-Fidelity | Wireframing



# Centralized Projects

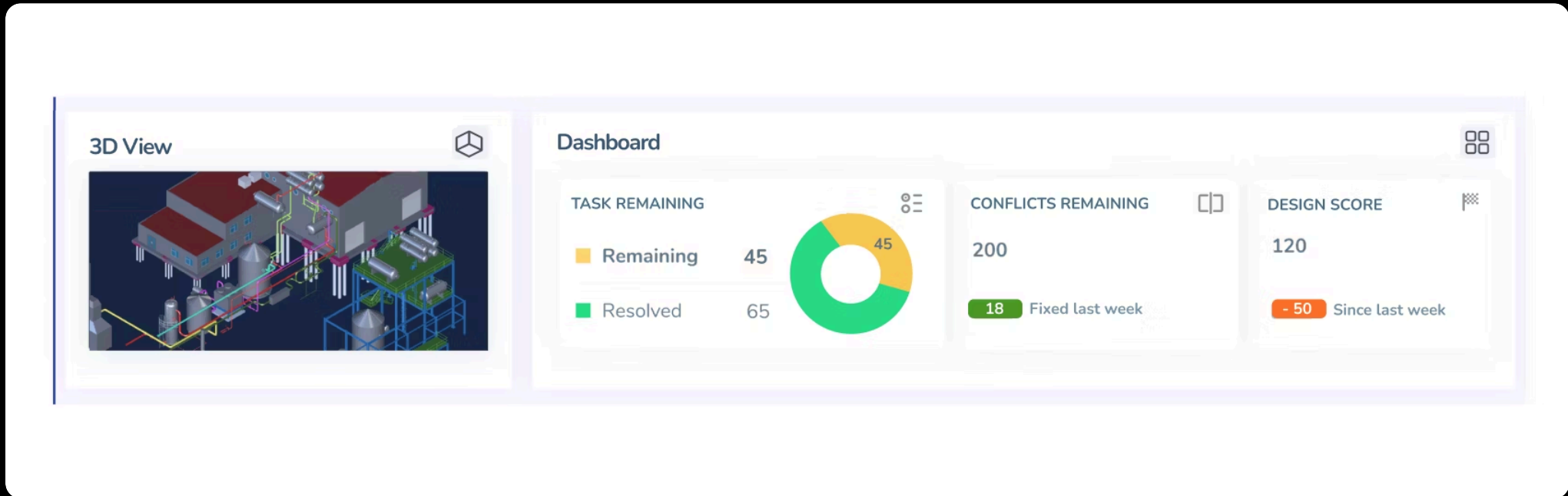
- Reduces tool-switching
- Simplifies access to relevant project information
- Enhances teamwork and communication
- Merges project documents in the cloud

The screenshot displays the PLANT VISION web application interface. At the top left is the PLANT VISION logo. The top right navigation bar includes icons for Notifications, Download, Help, and Settings, along with a 'What's New' notification, a user profile icon, and a language selector set to 'En'. Below the navigation bar are tabs for 'Projects', 'Teams', and 'Licenses'. The main content area features a filter bar with options: 'All Projects', 'Recently Accessed' (selected), 'Recently Modified', 'Active', and 'Archived'. A search bar is positioned to the right of the filter bar with the placeholder text 'Search by "Project Name" or "Description"'. Below the filter bar is a table listing projects with columns for Project Name, Description, Last Modification, Last Modified By, Status, and Action.

Project Name ↓	Description ↑↓	Last Modification ↑↓	Last Modified By ↑↓	Status ↑↓	Action
Amazon Warehouse - 25460	Introduce groundbreaking technology ...	June 5, 2023	Adam Baldwin	New	⋮
Washmo - 1023	state-of-the-art botanical simulation software ...	Aug 10, 2023	Brandon Hudson	New	⋮
Costco 39001	Next-Gen Foliage Modelling Platform	Aug 10, 2023	Julia Sebastian	Active	⋮
Saint. Antoin library 212100	Bioengineering Innovation for Green Spaces	June 5, 2023	Brad Johnsons	Archived	⋮
Montreal 44370	Foliage modelling. Our advanced	Aug 10, 2023	Adrian Nguyen	New	⋮

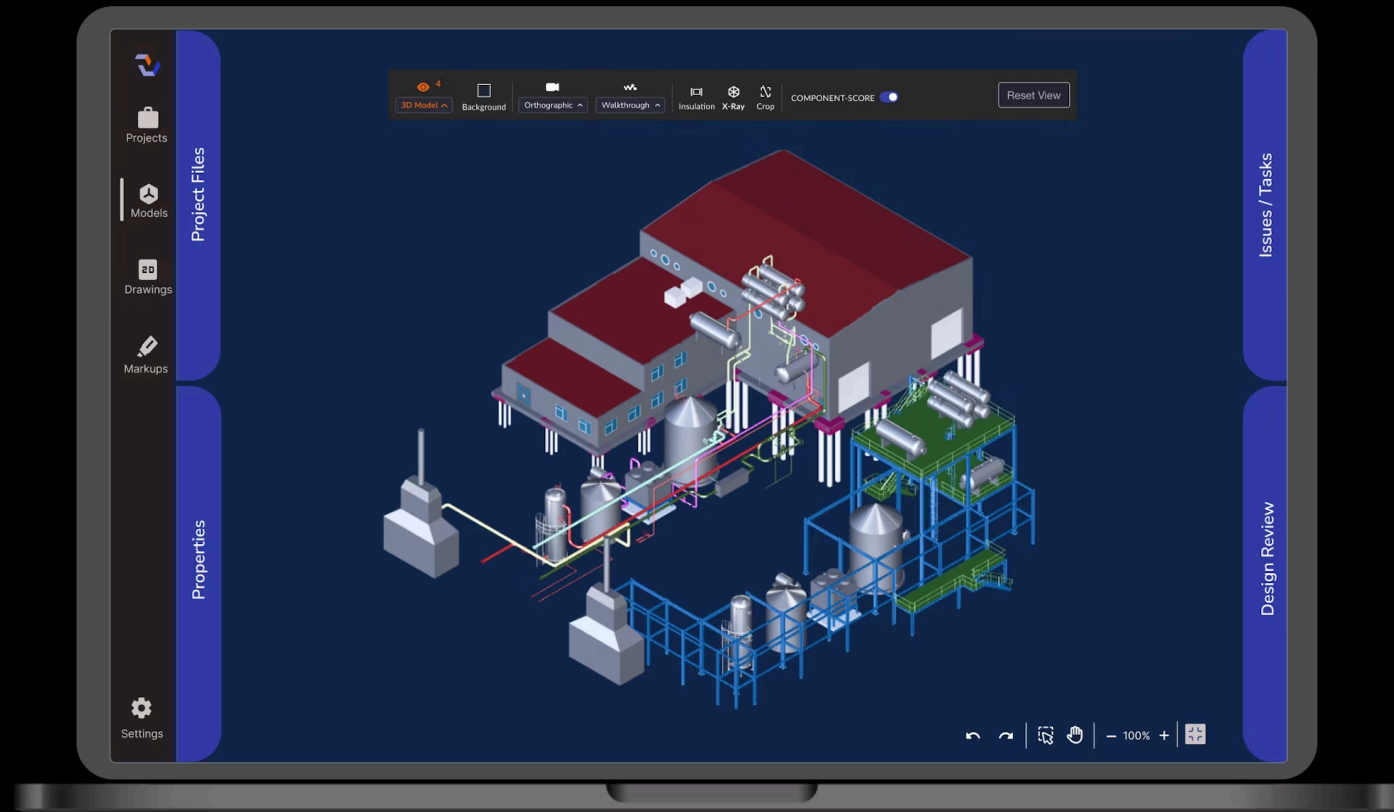
# Project Insights

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



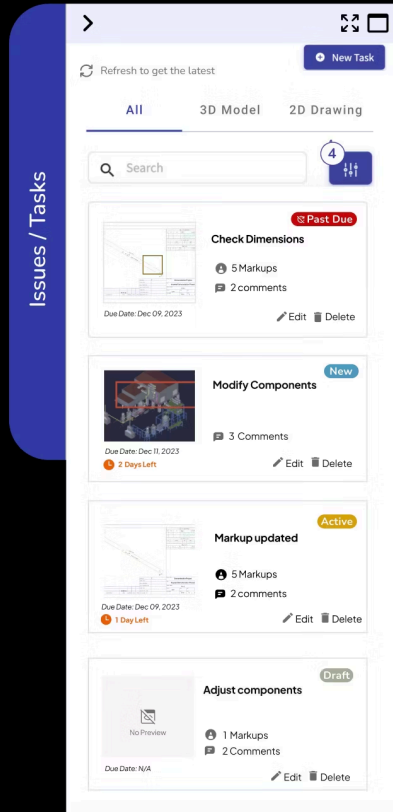
# Plant 3D Project Repository

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

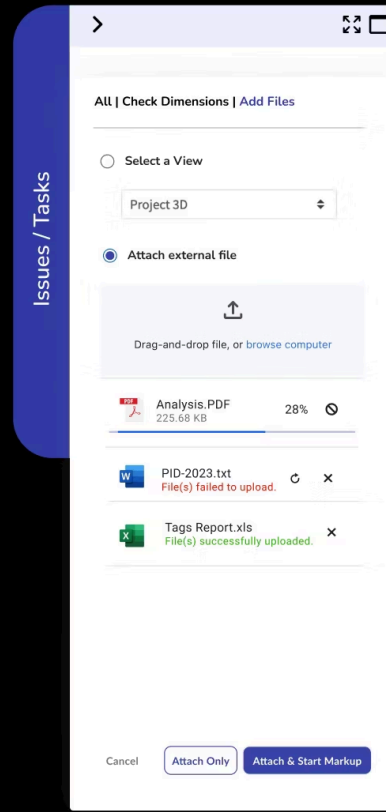




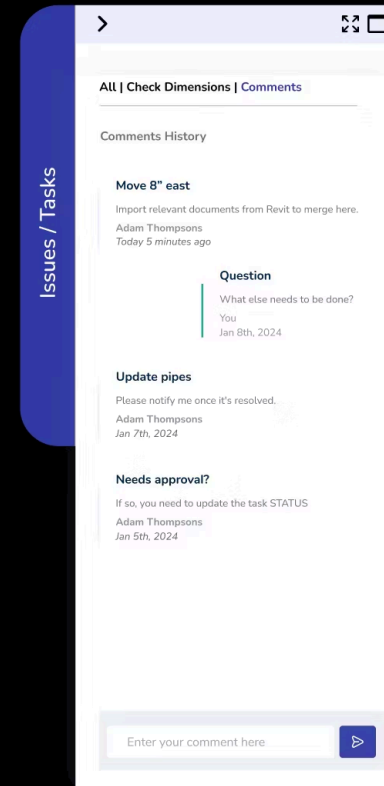
# Simplifies Task Tracking



# Streamlines File Sharing

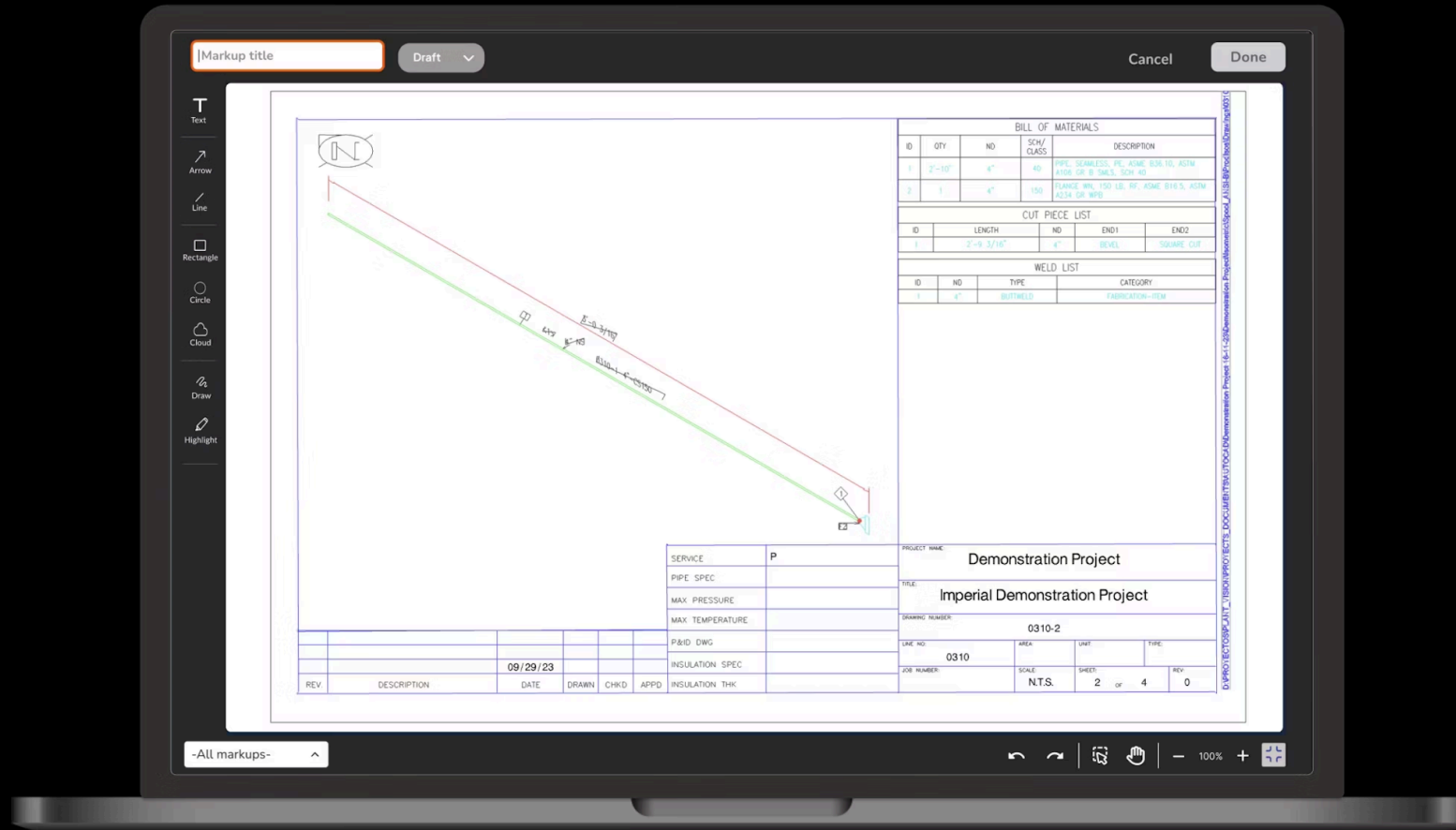


# Enhances Communications



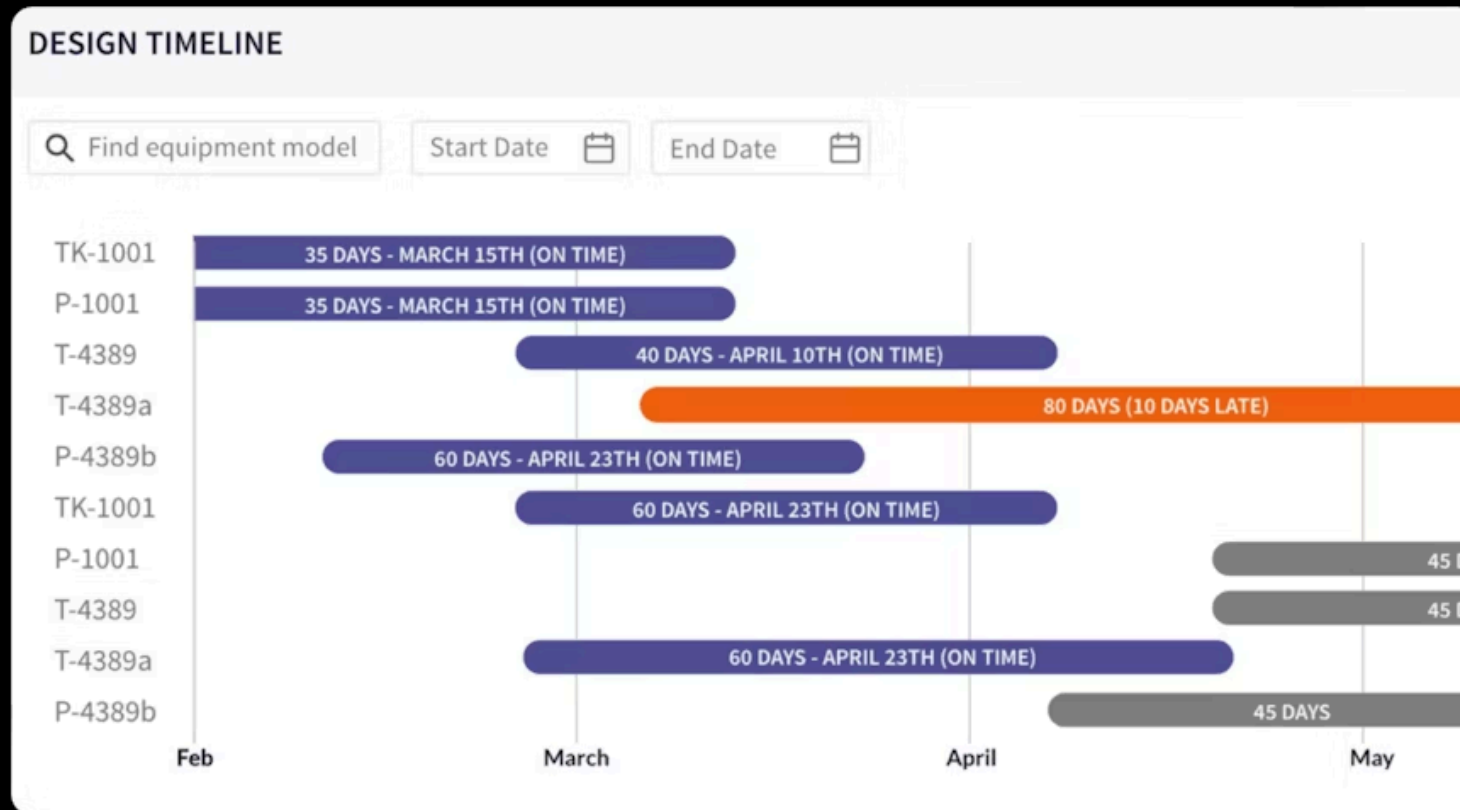
# Design Review Improvement

## Markup editor process



# Decision-Making Enhancement

Provides 'Design Timelines' & 'Task Notifications Settings'

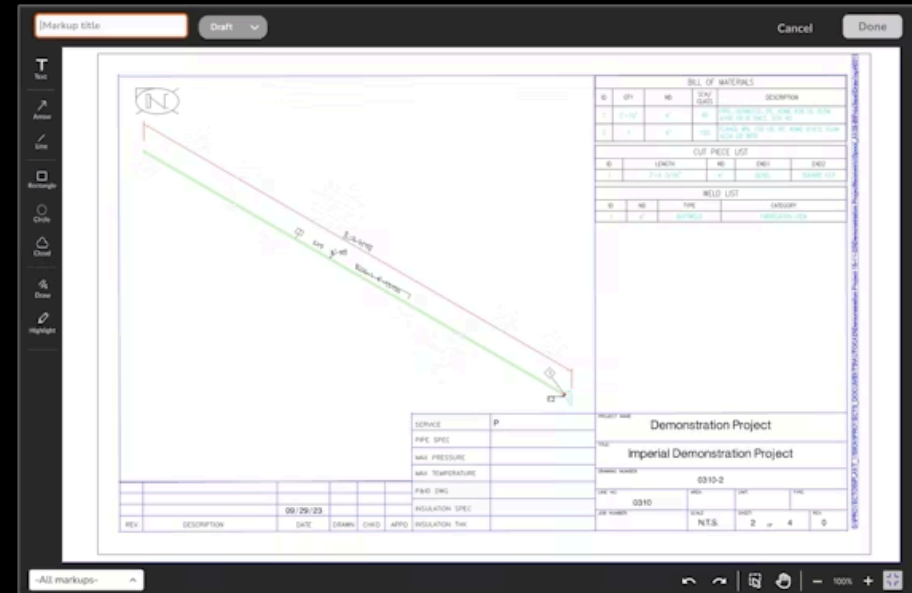
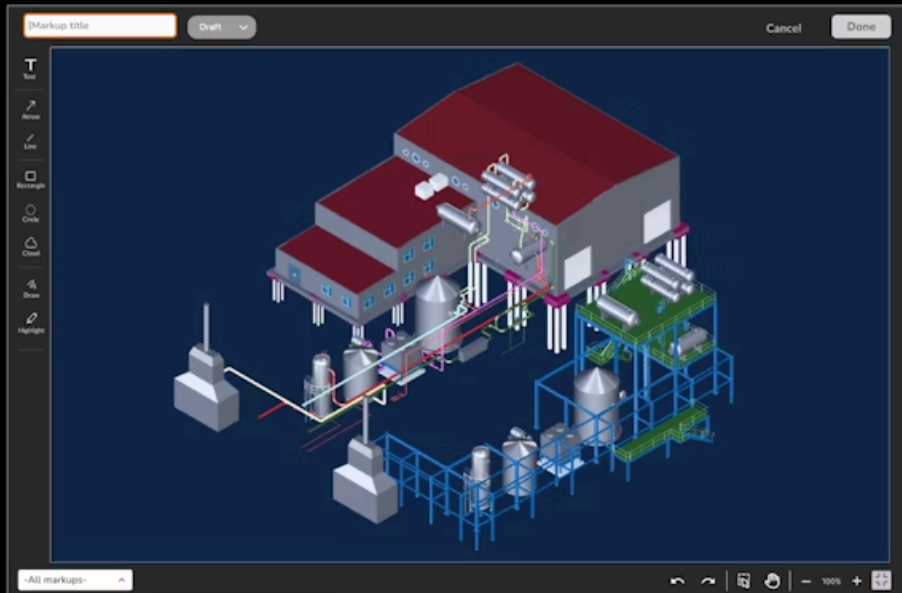


The Notification Settings form allows users to customize their notification preferences. It includes sections for notification delivery, user selection, priority, status, and dates.

- Receive Notifications:**  (Selected)
- Delivery Method:**  Email only,  In-app only,  Both
- Created By:** All users (Select a user...)
- Assigned To:** All assignees (Select a user...)
- Priority:** High (Selected), Medium, Low
- Status:** New (Selected), Active, Resolved, Archived, Rejected, Past Due
- Dates:** Start date: July 24, 2023 (Yesterday); End date: July 25, 2023 (today)

# Improvements

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





Before /

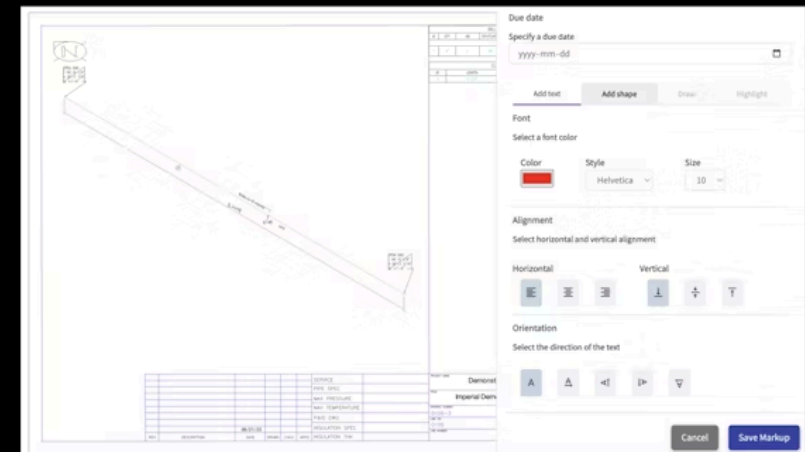
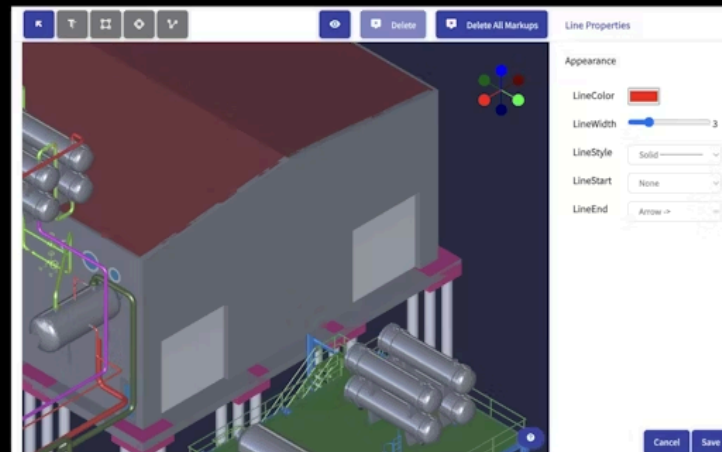


After

# Design Review

## 3D Model vs 2D Drawing

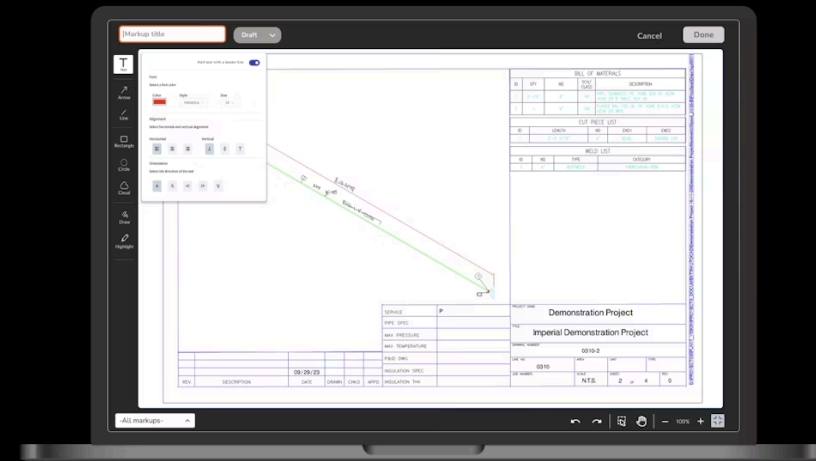
Before



# Design Review

3D Model vs 2D Drawing

After



# Project Management

The screenshot displays two views of the PLANT VISION software interface. The top view shows the 'Home' page with a navigation sidebar on the left containing 'Home', 'Workspace Management', and 'Team Management'. The main content area is titled 'RECENTLY ACCESSED PROJECTS' and contains a table with the following data:

Name	Description	Last Seen
Demonstration Project 27	Imperial Demonstration Project	12/15/2023, 11:06 AM
Drawing1.dwg 6	Drawing1.dwg	12/14/2023, 3:56 PM

Below the table, there is a section for 'Latest Stable Build - v10.40.1560' with 'Fixed Bugs' and a list of updates: '6554 - Advance Steel Drawing Upload Low Text Clarity'. At the bottom, there are icons for 'Plant Vision + Plant 3D Plugin', 'Advance Steel', and 'Revit', along with download links for 'Plant Vision x32.msi' and 'Plant Vision x64.msi'.

The bottom view shows the 'Workspace Management' page. It features a search bar and a table of workspaces:

Workspace Name	Last Date Updated	Status
Project 1-02-24v6Test123	2/1/2024, 8:57 PM	IN PROGRESS
PCloud Sample300124v2	1/30/2024, 8:19 PM	IN PROGRESS
rsL_basic_sample_family02-02-24	2/2/2024, 3:36 PM	IN PROGRESS
Area 100 Equipment.dwg 1	8/24/2023, 2:54 PM	IN PROGRESS
New Joist.dwg 1	3/14/2023, 6:19 PM	IN PROGRESS
SmallProject 6	7/25/2023, 5:35 PM	IN PROGRESS
Project 13-04-23 1	1/30/2024, 5:01 PM	IN PROGRESS
Project 13-04-23 1	11/14/2023, 3:30 PM	IN PROGRESS

The screenshot shows a laptop displaying the PLANT VISION software interface. The top navigation bar includes 'Projects', 'Teams', and 'Licenses'. The main content area is titled 'Projects' and features a search bar and a table of projects:

Project Name	Description	Last Modification	Last Modified By	Status	Action
Amazon Warehouse - 25400	Introduce groundbreaking technology ...	June 5, 2023	Adam Baldwin	New	
Washmo - 1023	state-of-the-art botanical simulation software ...	Aug 10, 2023	Brandon Hudson	New	
Costco 39001	Next-Gen Foliage Modelling Platform	Aug 10, 2023	Julia Sebastian	Active	
Saint Anton Library 212100	Bioengineering Innovation for Green Spaces	June 5, 2023	Brad Johnsons	Archived	
Project name max long	Foliage modelling. Our advanced	Aug 10, 2023	Adrian Nguyen	New	
University of Michigan	Bioengineering Innovation for Green Spaces / More information will be provided	June 5, 2023	Adam Baldwin	Active	

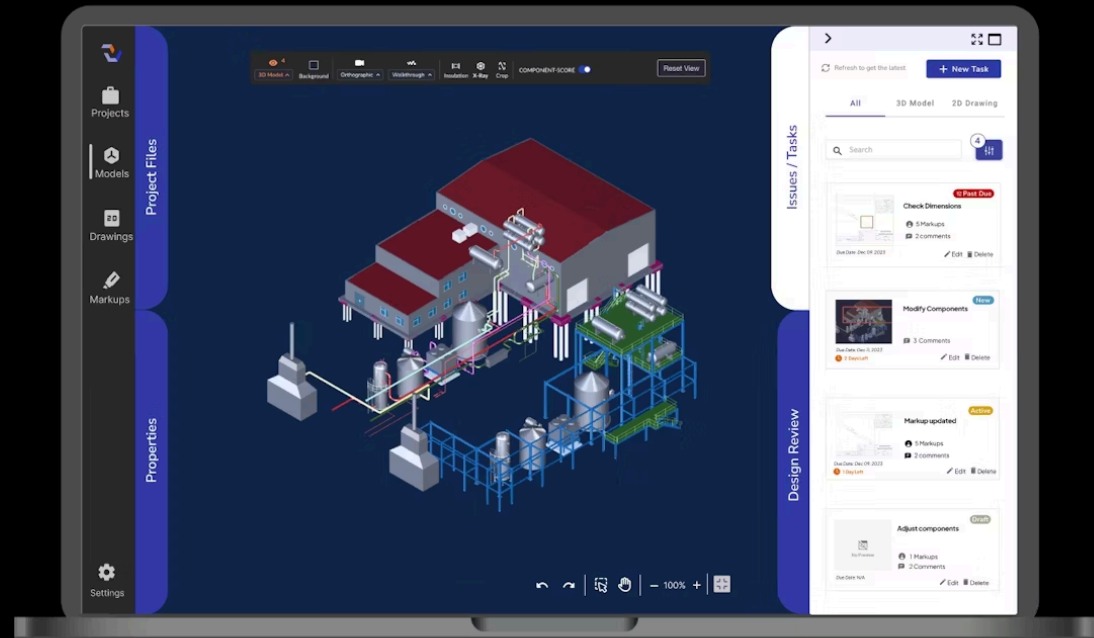
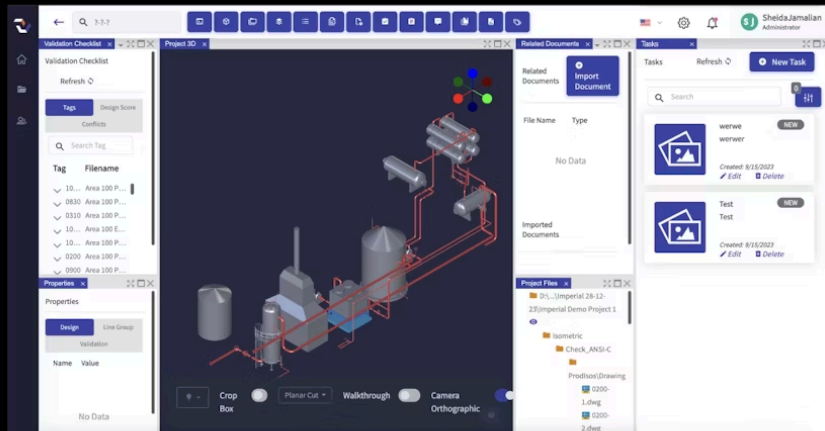
Below the table, there is a '3D View' section showing a 3D model of a building. To the right, there is a 'Dashboard' section with several metrics:

- TASK REMAINING:** A donut chart showing 45 Remaining (yellow) and 65 Resolved (green) tasks.
- CONFLICTS REMAINING:** 200 conflicts remaining, with 18 fixed last week.
- DESIGN SCORE:** 120 design score, with a decrease of 50 since last week.

At the bottom, there is a 'Project name max long' entry with a 'Text table' and a 'New' button.



# 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.

The screenshot displays the PLANT VISION dashboard. At the top, there are navigation icons for Notifications, Download, Help, and Settings, along with a 'What's New' notification and a user profile. The main section is titled 'TASKS OVERVIEW' and contains four cards: 'Projects 45', 'Tasks 35' (with a sub-card 'Waiting my review X'), '3D Models 20' (with a sub-card 'My 3D Modelling Tasks Y'), and '2D Markups 15' (with a sub-card 'My 2D Markup Tasks Z'). To the right is a 'My Tasks Overview' section for 'Dec 2023' showing a donut chart with '5' tasks and a list: 1 Overdue, 2 New, 2 Remaining, and 0 Pending. Further right is a 'Notifications' section for 'Top Tasks / projects' with a table listing items like '3D-Model', '2D-Markup', and 'Reports' with their respective statuses.

Below the tasks overview is a navigation bar with 'Projects', 'Teams', and 'Licenses' tabs. A search bar is present with the text 'Search by "Project Name" or "Description"'. Below this is a filter bar with buttons for 'All Projects', 'Recently Accessed', 'Recently Modified', 'Active', 'Archived', 'Recently Added', and 'Upload project'. The main content is a table of projects:

Project Name ↓	Description ↑↓	Last Modification ↑↓	Last Modified By ↑↓	Status ↑↓	Action
Amazon Warehouse - 25460	Introduce groundbreaking technology ...	June 5, 2023	Adam Baldwin	New	⋮
Washmo - 1023	state-of-the-art botanical simulation software ...	Aug 10, 2023	Brandon Hudson	New	⋮
Costco 39001	Next-Gen Foliage Modelling Platform	Aug 10, 2023	Julia Sebastian	Active	⋮
Saint. Antoin library 212100	Bioengineering Innovation for Green Spaces	June 5, 2023	Brad Johnsons	Archived	⋮
Montreal 44370	Foliage modelling. Our advanced	Aug 10, 2023	Adrian Nguyen	New	⋮

# Coming Next

## Introducing Overview

A quick review of high-priority updates

**My Overview**

My tasks X | Passed due date Y | All projects Z

My Top 5 To-Do Tasks

List View | Grid view

Overdue | Rejected | Rejected | New | New

Notifications

Project name	Assigned	Task title	Due date	Status	Progress
Project name	John Doe	Task title	15 Dec, 2023	Low	
Project name	John Doe	Task title might be long	5 Dec, 2023	Yellow	

My Recently Created Tasks

Notifications

Project name	Assigned	Task title	Due date	Status	Progress
Project name	John Doe	Task title	15 Dec, 2023	Low	
Project name	John Doe	Task title might be long	5 Dec, 2023	Yellow	
Project name	John Doe	Task title Task title	4 Dec, 2023	Very high	
Project name	John Doe	Task title	10 Dec, 2023	High	

My Immediately Tasks

My Total Tasks

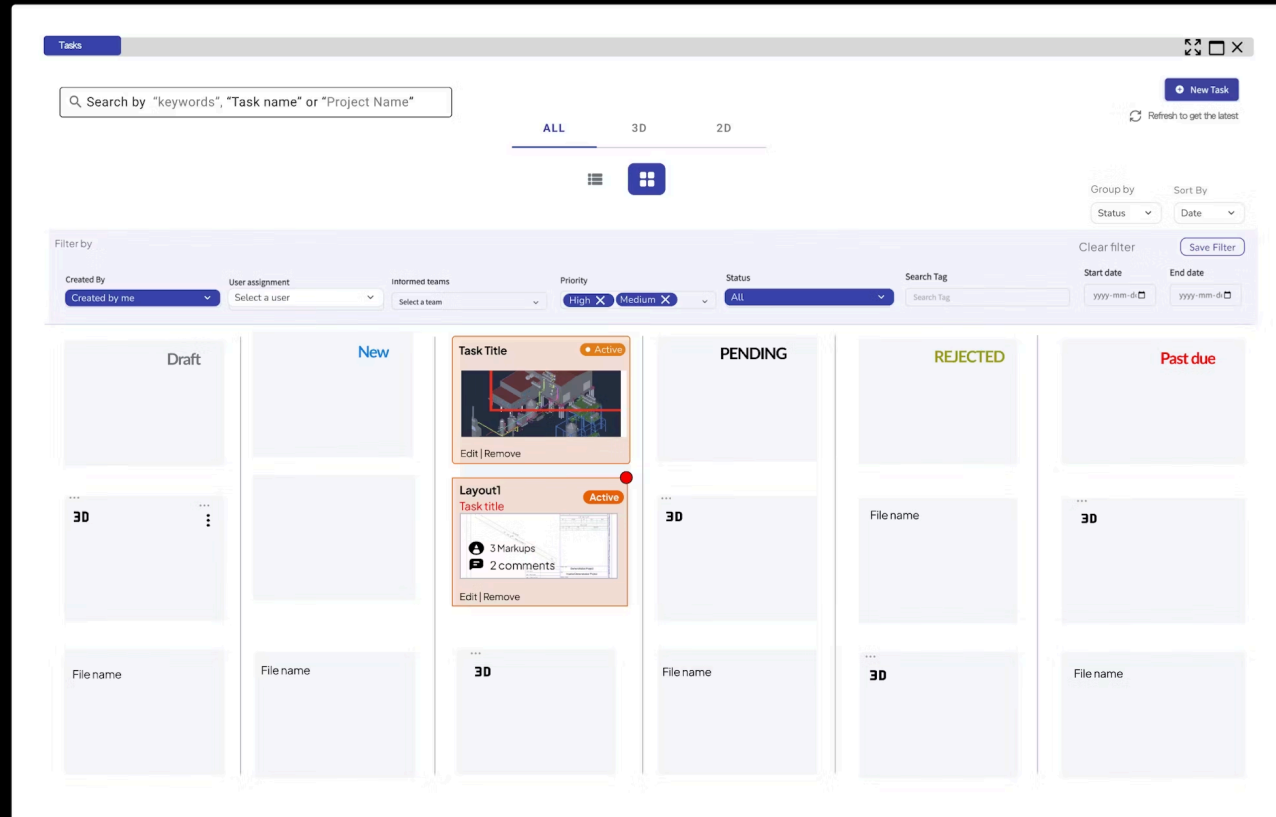
Comments

- Today 09:46 Ready to review
- Today 09:00 New Task recorded #ML-3467
- Date Time Approved
- Date Time New Task recorded #ML-3467
- Date Time Project meeting
- Date Time New Task recorded #ML-3467

# Coming Next

## Optimizing Task Management

The power of  
customized dashboard  
to identify critical tasks



# Thank You

Sheida Jamalian

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