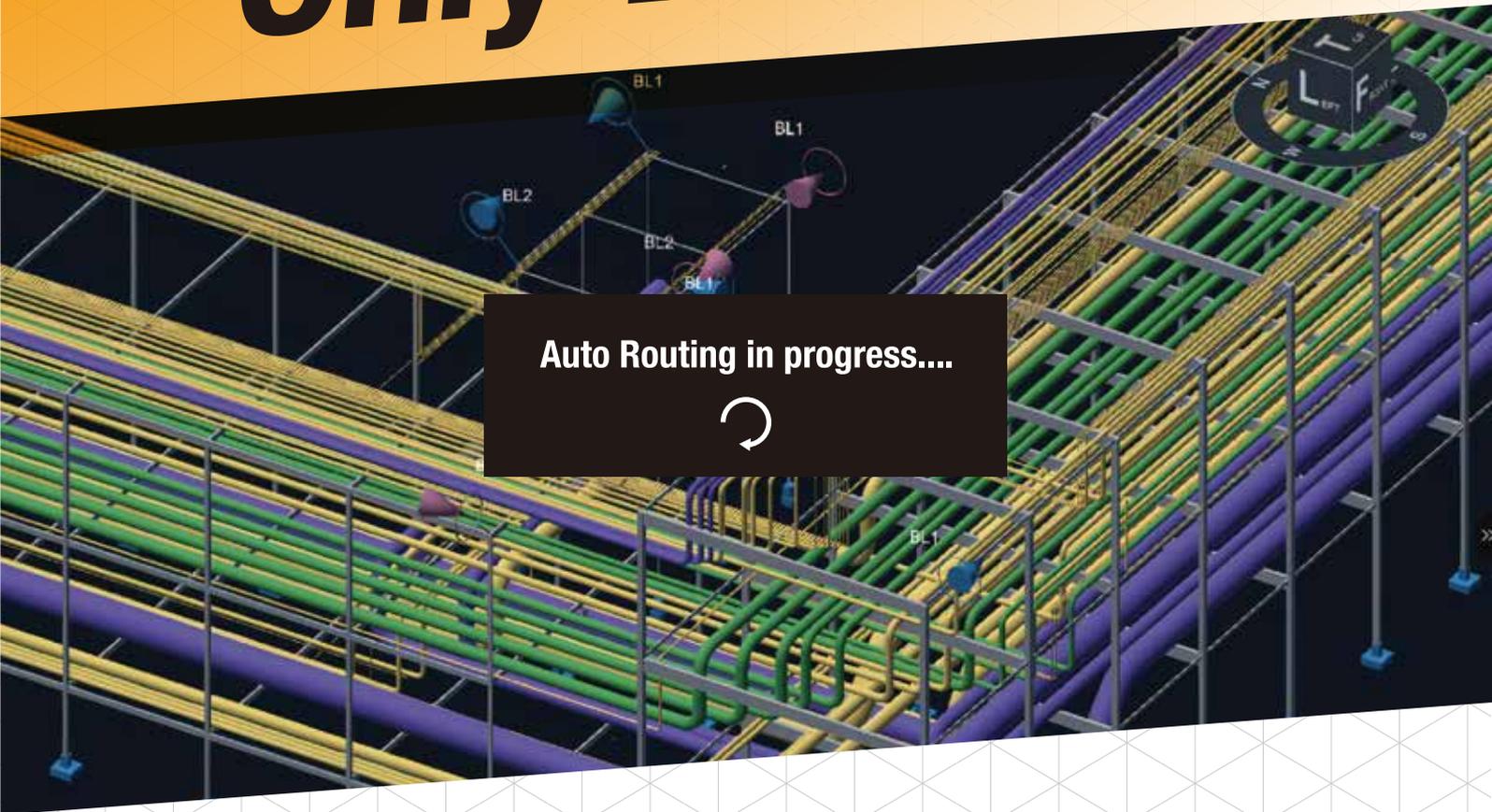




PlantStream

1,000 Piping in Only 1 Minute

*1



Phenomenal Speed and Accuracy

Revolutionize Plant Design with Automated 3D CAD Software

*1 Automatic routing takes 1-5 minutes and it depends on the complexity of line.
Even with an extremely large number of structures and equipment, it takes a few minutes at most.



Revolutionize Plant Design with Automated 3D CAD Software

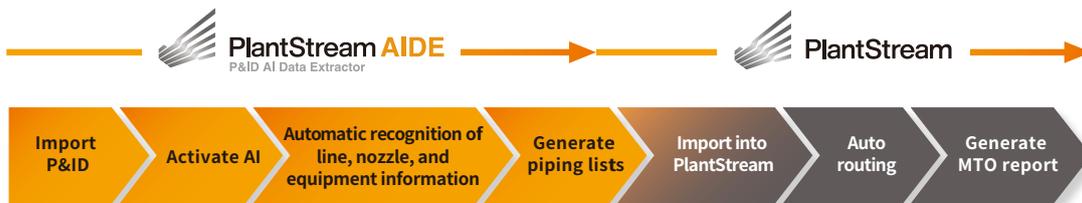
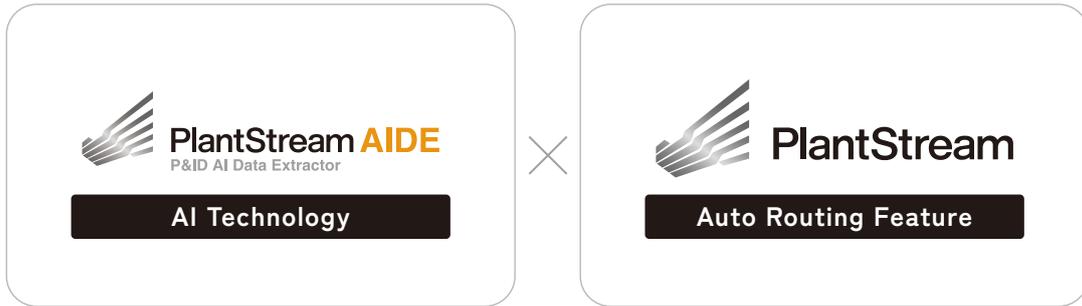


Accelerate P&ID to 3D Modeling Workflow with AI

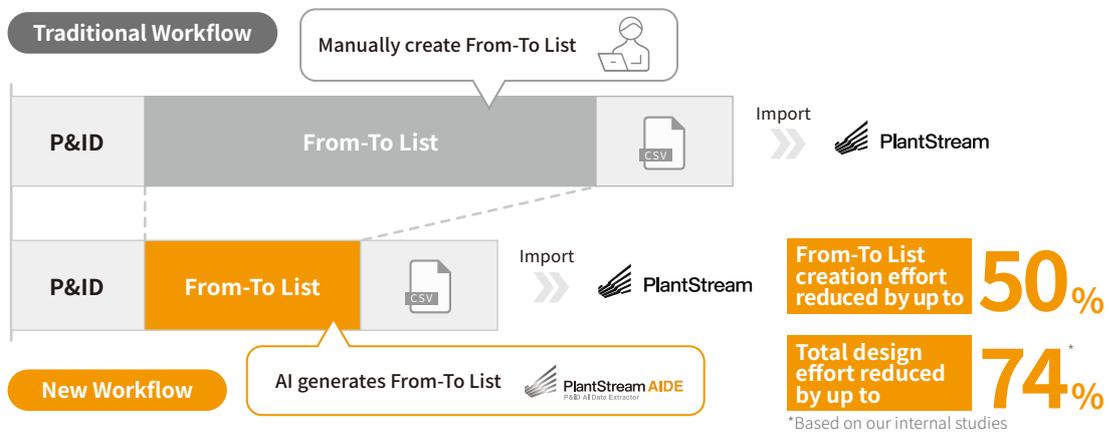


AI-driven Workflow

PlantStream AIDE's AI technology, combined with PlantStream's automatic routing, enables end-to-end automation—from P&ID data extraction to 3D modeling and MTO generation.



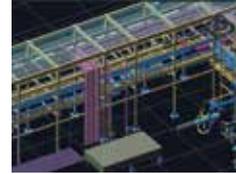
Benefits



Features

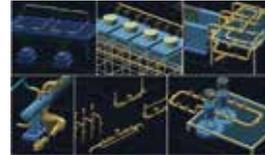
✓ Auto Routing

Automatically route around 1,000 pipes per minute with results optimized for real-world engineering considerations. Pipe routing takes into account rack layer assignments, sequencing, process requirements and more.



✓ Block Pattern

Equipment and piping layouts are pre-templated, allowing for easy placement via drag-and-drop, and intuitive 3D design adjustments through parameter tuning.



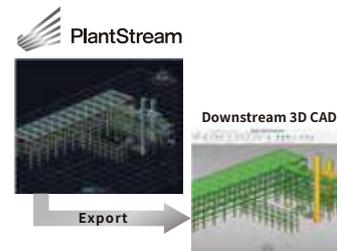
✓ MTO and Work Volume Output

PlantStream provides accurate MTO (Material Take Off) and Work Volume output for precise costs estimation from initial design, enabling calculating expenses early and precisely.



✓ Import and Export

PlantStream's import function allows utilizing equipment and piping lists generated from intelligent P&ID data. 3D models in PlantStream can be seamlessly exported to major 3D CAD software for the detailed design phase.



Applicable Design Phase

PlantStream supports the efficient execution of spatial design in the early stages of a project.



Point

PlantStream seamless data conversion to downstream 3D CAD Software makes the transition to EPC detailed design and other processes smoothly.

Data Export Function

Software E

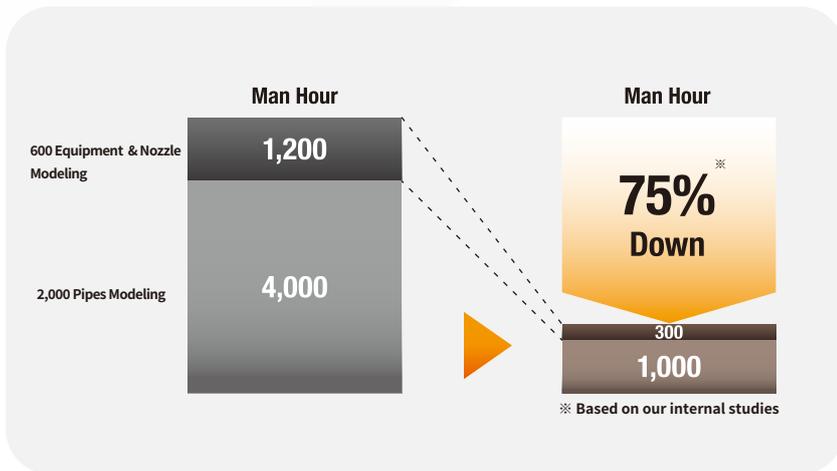
Software S

PlantStream Advantages

01

Man-Hour Reduction

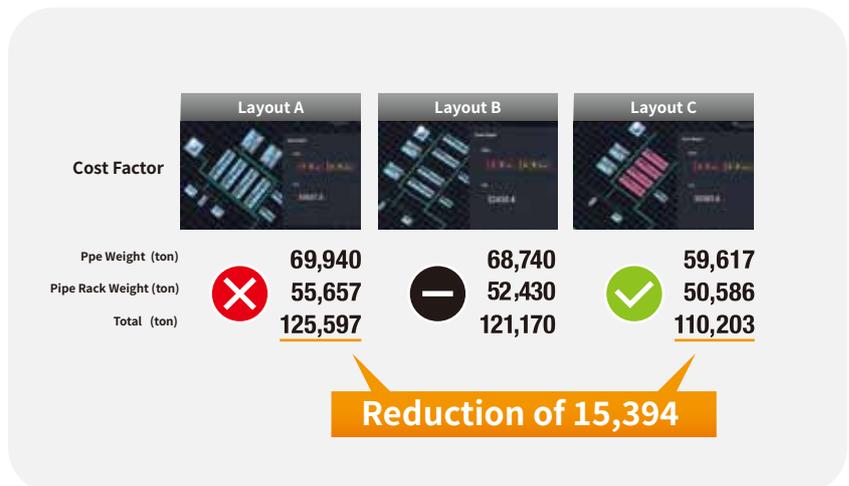
PlantStream's Auto Routing enables about 75% cut in man-hours required for initial 3D spatial design.



02

Layout Optimization

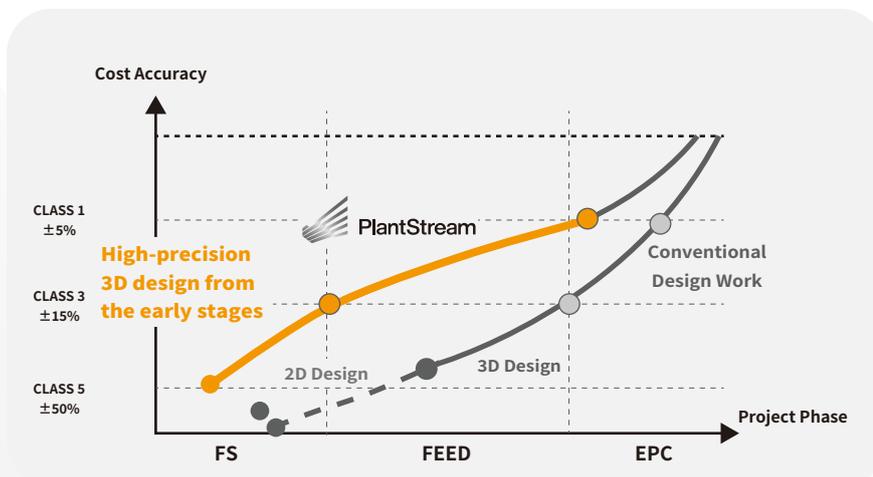
The auto-routing feature enable easy rerouting of pipelines, allowing for the quick creation of multiple layouts. As a result, it is possible to select the optimal layout from various perspectives such as material quantity, safety, and ease of maintenance.



03

Improving the Estimation Accuracy of Initial Design

Leveraging industry-leading design expertise, our auto piping, cable routing, and equipment templates ensure the effortless creation of highly precise 3D models, comparable to models by skilled plant engineers, elevating initial design quality.



Comment from Customer



Yuji Mihara

Section Leader / Piping Digital Engineering Transformation Section

Client Type : Contractor



“PlantStream will enable us to quickly, easily, and concretely conceptualize new plant designs”

PlantStream has an increasing number of users since its implementation in Chiyoda, thanks to its intuitive interface that makes it easy for designers to learn. With over 150 internal users already, it has become widely used primarily in the early stages of project lifecycles such as FS and Pre-FEED. Also we recently started to use in FEED and EPC.

Against the background of accelerating decarbonization and carbon neutrality efforts, our company is also pushing for innovation in our business portfolio. Amidst these changes, we are increasingly dealing with plants that are globally untested. However, by using PlantStream, we are now able to present "plants that no one has ever seen" in 3D at the initial stages of FS and Pre-FEED. We believe that PlantStream will enable us to quickly, easily, and concretely conceptualize new plant designs for the increasing number of emerging fields in the future.

AsahiKASEI

Kazufumi Ezaki

Senior Professional Chemical Engineer Lead Expert
Senior Manager
Plants Project Dept. Engineering Center
Corporate Production Technology



Client Type : Plant Owner

“Improved design accuracy and speed in FS/FEED process allow engineers to more focus on basic design tasks”

We, the Owner's Engineering Department of Asahi Kasei Corporation, are involved in the project from the "planning" stage of our new plant construction. In this process, it is crucial to improve the accuracy of the initial phases, FS/FEED. However, existing 3D CAD software can be complex to operate and it takes time to learn, even for skilled engineers. In contrast, PlantStream stood out for its ease of use and intuitive 3D modeling features, but what really caught our attention was the "auto-routing" function.

It enables the user to set up piping racks and to specify the start and end points of each pipe within the data, and with just one click, the entire piping route plan is completed.

This means that even with thousands of pipes, the data can be visualized in just a few seconds, significantly improving design productivity.

By being able to create accurate project plans in a short amount of time during the FS/FEED phase, we believe that engineers can focus their time and energy on the "basic design" of the project.



SMS group

Francesco Scariti
Senior Design Engineer

Tumolo Luigi
Head of General Engineering

Client Type : Contractor



“PlantStream is really fast”

I give one real example that helped me a lot. In the gas treatment plant there are different units connected so there is never enough space. So when I tried to re-arrange the battery of heat exchanger from one unit to another, it only took me a few seconds to find the right fit. As next step I created all related pipes connecting with the heat exchanger and extracted the bill-of-quantity from two different layout options. Within 10 minutes I found not only the more suitable location for the equipment but also identified saving of 10 tons of materials. Such findings can help the offer phase of a project greatly.

Customer References



Features

✓ P&ID Analysis Feature

AI analyzes P&ID drawings and automatically extracts line, nozzle, and equipment IDs

✓ User-Friendly Editing Feature

Misrecognized items can be easily identified and corrected with a single click

✓ Change Tracking

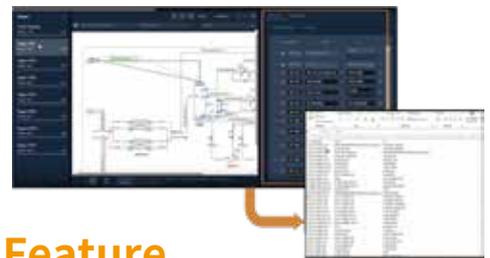
Streamlines the identification of modified areas when P&ID changes

✓ Automatic From-To List Generation Feature

Automatically generates a From-To list with one click based on AI-extracted data

✓ Auto Routing Integration Feature

The extracted From-To list can be directly imported into PlantStream, enabling batch piping design through the automatic routing function.



Benefits of PlantStream AIDE

01

Reduce Man-hours
by up to 74%

※Based on our internal studies



02

Significantly Reduce
Human Errors



03

Reflect P&ID Changes Instantly
in the 3D Model



Request a Demo

