Company
Fujitec Co., Ltd.

Location
Hikone City, Shiga Prefecture

Software
Autodesk® Inventor®
Autodesk® Revit®
Autodesk® AutoCAD®
Autodesk® Vault
Autodesk® BIM 360®
Autodesk® VRED™

Creating the future of global urban functions through advanced use of 3D CAD, BIM, and cloud

By utilizing the cooperation of Autodesk products, brush up the in-house integrated production system

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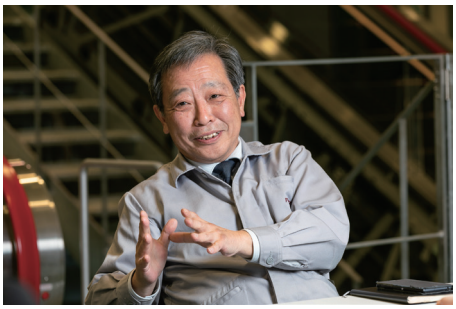
– **Keiji Tsuyama**
Fujitec Co., Ltd.
Managing Executive Officer, General Manager of Sales Engineering Division



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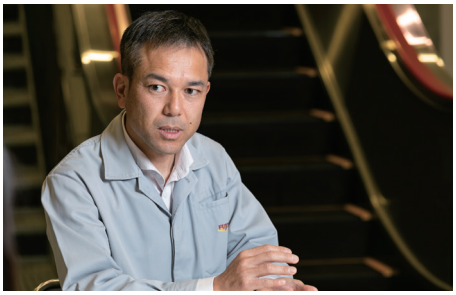
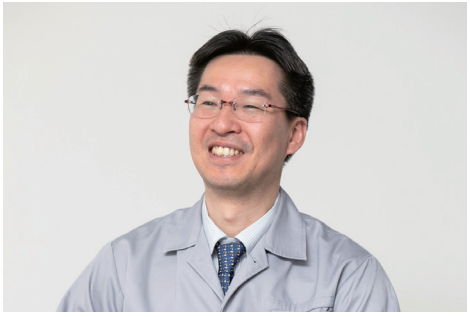


Kenji Yamamoto
Fujitec Co., Ltd.
General Manager of Process Management Department, Digital Innovation Division



Haruo Miki
Fujitec Co., Ltd.
Digital Innovation Division
System Management Department

Create BIM data required for business negotiations with customers in Autodesk Revit

Fujitec Co., Ltd., headquartered in Hikone City, Shiga Prefecture, is engaged in the manufacturing, research and development, production, sales, installation, and maintenance of spacial mobility systems such as elevators. The company brand "FUJITEC", which we usually see casually when we ride elevators and escalators, has set a slogan of "single world market" since its establishment in 1948, and has a history of actively expanding overseas ahead of other companies. Today, it has offices in more than 24 countries and regions around the world.

Since 2012, the company's BPR promotion project that promotes "Business Process Re-engineering," has been actively reviewing its business processes. The company consistently manufactures small parts in-house and maintains the installed elevators, and has a long history of promoting efficiency in each process. Keiji Tsuyama, Managing Executive Officer and BPR Promotion Project Leader, said,

"Elevator manufacturers like us start work from our relationship with our customers, the builders. Drawings are the basic component of a contract when talking with customers. BIM has been available in Japan for about 10 years, but it was actively introduced to the customers in around 2017. The customers and us can check various contents with 3D models that we sent in Autodesk BIM 360 on the cloud, so that is a big advantage for all parties. We still use both 2D drawings and 3D, but 3D will become mainstream in the future. We believe that further efficiency will be achieved if we can complete the approval drawings with Autodesk Revit. In other words, if we come to an agreement with the BIM model and get approval from the drawings that originated from it, or if the drawing itself needs to be a simple drawing, I think that we will have a great advantage. We want to move forward from there."

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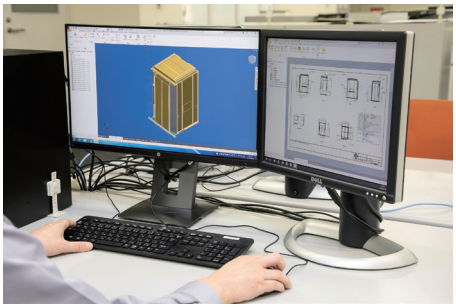
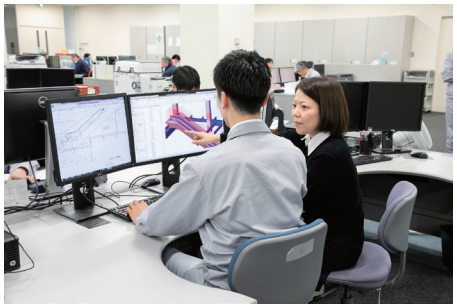


The design of the elevator escalator
Using AutoCAD and Inventor



Internal communications also go smoothly based on Revit BIM data

Necessary data is also passed directly from Inventor

Fujitech, as an elevator manufacturer, is involved in both sides of the manufacturing industry, playing a part in the building equipment field, while also being the mainstream of manufacturing. Therefore, Autodesk AutoCAD, which has been used in the construction industry for many years as standard software for 2D CAD, spans two areas of architecture and manufacturing; Autodesk Revit, BIM software that supports 3D architectural design, and Autodesk Inventor, 3D CAD software for manufacturing, are used in-house in specialized ways. Kenji Yamamoto, Process Management Department, said,

"We use models and IT and aim for advanced mass customization. If you can create a model automatically from what's designed in Inventor, the manufacturing data can be used in the factory as it is, so it can be used effectively in terms of “manufacturing”. Elevators have standard specifications and order specifications, and must have a speedy design and production system according to the specifications. It is possible to reduce the time between specification decisions and manufacturing by using Inventor."

Haruo Miki from the System Management Department, involved in bulk management of data, talks about the digitization of the drawings and databases as follows.

"Since the early 90s, we have been managing the database of drawings. All hand-drawn drawings from the beginning of the company have been digitalized. I think it’s almost 100 percent covered. These days, we're using 3D CAD as well as 2D, so you can browse the model while rotating it in 3D view, and the attribute information and configuration information of the 3D models are displayed. We use Autodesk Vault for data management for 3D CAD, but in the future, I would like to further accelerate 3D and make it work well."

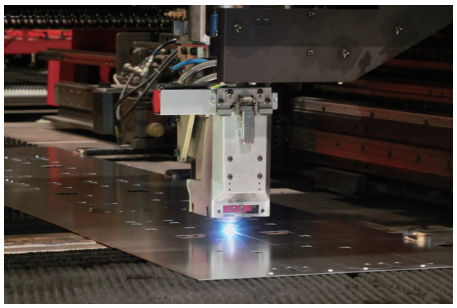
The use of 3D CAD is not limited to departments involved in design. The company, responsible for the maintenance of installed elevators, has field engineers that use smartphones and tablets on-site to easily view the 3D data of the models. 3D CAD changes the way we handle breakdowns and troubles. This is because the arrangement can be made quickly so that failed parts can be easily replaced. In addition, from map data from your own company system, the data is devlved through on the site and zooming in, if you look at the component structure and drawings, you can check the 3D model from macro to micro.

In addition, Mr. Miki says, “I can feel a great future” for BIM 360, the construction management software.

“We are using IT based on “Cloud First” and “Mobile First”. With BIM 360, you can access building project data anytime, anywhere, you can include our models, such as the Revit family, in the models you have prepared, and in the future, you will be able to manage 2D drawings. I hope this will be connected to the confirmation applications and installation drawings we use. It is a great advantage for us as equipment manufacturers the way we scrutinize data thoroughly through the cloud, rather than the conventional meeting with customers in face-to-face meetings. If that happens, I think we can shift it to Cloud First."

At the same time, the company has many sites in Japan and overseas, with many people working outside the company, and the use of mobile and cloud is prosperous. The fact that you can't work without returning to the office is almost gone. In addition, it is possible to say that further application of the cloud is essential as business is expanding around the world.

In the 21st century, as urbanization continues, there is no doubt that the demand for elevators will continue to rise. In addition, the company's willingness to use AI and VR always looks to the future.



Actual sheet metal processing

Head Office “Big Wing”