

Fuso Co., Ltd.: Promoting improvements in operational efficiency through IT initiatives.

The future of business illustrated by an integrated water processing company.

Improved enterprise competitiveness by standardising skills and business efficiencies with AutoCAD LT.

Company

Fuso Co., Ltd.

Location

Chuo-ku, Tokyo

Software

Autodesk® AutoCAD LT®

In April 2015, the IT promotion department was established to improve the network environment across the whole company as well as its operational efficiency. AutoCAD LT was introduced by reviewing the CAD software used by the construction department which is a pillar of our business. Continuous use of the functionality installed on the brand-new version of the software helps us make better proposals to customers. Moreover, flexible usage of licences by transferring them across departments has become possible as well as the use of a common data format across the different departments from engineering and construction to operations sites. We aim to improve the trust of our customers, and to ensure even more efficient and effective use of CAD

—Hirahara Shusei
Chief
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Ltd.



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Based on the integrated power of undertaking the whole processes of building water processing facilities, Fuso Co., Ltd. has worked on many domestic processing facilities relating to “water” with their philosophy of “living with water” in mind since its establishment in 1946. One of the missions is to use the limited water source to ensure safe and secure water use.

The strength of the company is in its integrating force which allows the provision of all business related to water processing throughout the facility design, technology development, and production and sales of raw materials. The company is a truly integrated water processing business, just like its name, which enables integrated interaction with a wide ranging set of fields relating to water infrastructure such as the R&D department continuously pursuing water processing technology, the construction department conducting design/implementation/maintenance of water and sewage water systems, the sales department supplying raw materials such as tubes and bulbs, and the manufacturing department making steel plate tubes, water pipe bridges and earthquake proof water tanks, etc.

Smartphones were distributed to all staff in the company in 2013 in conjunction with using a new mail system, which was the first step to be taken to construct a system whereby a customer can be helped ‘whenever, wherever’. Then in 2015, the IT promotion department was established. A cloud-based infrastructure was built, and a review of the ERP system and various cloud applications came into operation. In this initiative, a review of CAD used by the construction department which is a pillar of the business was considered. After the previously used AutoCAD LT perpetual purchasing system, a subscription method in which the term of use can be chosen and an even more flexible licence control is possible, AutoCAD LT licence subscription was introduced.

With the mix-up of software vendors or versions leading to non-transparency of assets and cost management as well as a reduction in accuracy such as incorrect encryption, Mr. Hirahara comments that “Before the establishment of the IT promotion department, individual networks were set up for each department or branch because offices across the country were not connected. Moreover, since the purchasing of hardware and software was being done in each location, there was no tracking of usage nor an accurate grasp of asset management.” The workflow of the infrastructure facility construction, which is the main business of Fuso Co., Ltd., is to firstly create a constructed design after a proposal and discussion with customers by the engineering department, an on-site check of the design by the construction supervision department, and then to implement. In addition, according to Mr. Tanaka, “there are cases when data is passed on to customers in order to promote further business by their own or cases when we tackle the design based on data provided by the customers.” In any case, it’s something which would not be established unless there is an exchange of CAD data between the departments or between partners. Mr. Hirahara said, “At the time, there were many environments such as the various CAD or software versions of different manufacturers, etc.” Software had been bought by each section or office, hence there was no tracking of usage or management of assets across the entire business, so it was hard to say that even licence management was thorough. Furthermore, in respect of problems arising on site, Mr. Kashiwara says,

Unification of CAD software enables simpler knowledge accumulation

Flexibility of asset management due to subscription also a deciding factor

"By CAD not being unified, there were cases in which accuracy worsened because of incompatibility issues as letters were not being encrypted correctly and layers were not appearing in the right way". Depending on the case, the work would need to be restarted from scratch but it was not efficient and careless mistakes were more likely. Ultimately, it created a problem in terms of customer trust. Moreover, the mix of different CAD software meant that the people using them had varying skills: "Veterans that had been using CAD for a long time, particularly from the point of view of "tending to use it in their own way" (Mr. Kashihara). In other words, the situation was that the method of work was different depending on the person, and information regarding what sort of functionality would be used for a particular type of work was not being shared. Therefore, even Mr. Aitani says that "There was a lot of dependency on individual persons' abilities and there were even cases when designs were completed in accordance with the skills of each individual".

AutoCAD LT enables skill sharing across the whole company Making flexible licence management across departments possible

"There are two main factors which led to the decision to introduce AutoCAD LT on a large scale with 160 subscriptions: being able to always use the brand-new version and making licence management across the whole company easy," said Mr. Hirahara. The fact that CAD software had been originally collated into AutoCAD LT is based on the fact that among the data used for communication between the customers and the collaborating companies, the DWG format was being mainly used as the standard format. The problem of compatibility due to version mismatch is further disappearing with the introduction of AutoCAD LT. Moreover, Mr. Aitani commented that "In the past, even small modifications would be made by the collaborating company who created the original data and new data provided again. By allowing shared use of CAD, we can process such modifications ourselves, which speeds up work". An advantage of AutoCAD LT includes the fact that licences can be allocated across departments. Flexible and easy licence management responding to the business circumstances is also possible such as moving accounts temporarily to departments requiring a lot of work. Changes are beginning to appear in work sites too. During the introductory training, it was said that the veteran workers who had been using CAD in their own way realised that 'there is such a functionality' and

showed enthusiasm toward AutoCAD LT. In such circumstances, Mr. Tanaka says about the future that "By using the same CAD software, a common language with others can be attained resulting in more people to discuss concerns with.

Then the areas where there were differences in skills will be standardised, and in addition to the progress in improving business efficiency, knowledge will be accumulated". Mr. Aitani is also keen on this point, saying "We want to promote the use of databasing that suits individual skills using specific work examples as the shared template in a smooth transition from the previous environment to AutoCAD LT as well as further improvements in efficiency." The relationship with customers also provides work advantages. Mr. Kashihara, responsible for construction supervision, says that "With an even more realised image, it allows for even more precise construction. Hence we want to gain the customers' trust in order to form a cycle that generates follow-up jobs". Furthermore, Mr. Tanaka is feeling a good response. "If we make a proposal in respect to customer's challenges that could be a potential lead, at least we can have interactive communication. In that case, there is a benefit in using AutoCAD LT which is highly versatile."

Promoting the acceptance of future business with higher proposal capacity Good anticipations in relation to dealing with BIM and CIM

Even when looking at it from an operations point of view, AutoCAD LT is said to be easy to introduce. As it is easy to keep tracking on its usage, the benefits of purchasing the licence can be easily justified to the business group. Mr. Hirahara says "In respect of the account number and whether 100 or 200 subscriptions is appropriate, it is thought that a further proposal aimed at the operations group through the management of use is possible." Even more effective operations making use of the high level of flexibility with the licence contract are intended. In the future, Fuso Co., Ltd. is aiming to accept more larger-scale cases for which communication is possible starting from the proposal stages with data sharing using AutoCAD LT within the company and with customers as the basis. For this reason, they are aiming to strengthen the whole business by standardising the skills across the whole company as well as further improving operational efficiency. In an environment like this, there is a developing need for extensive help as well as creating the case database. Mr. Tanaka, in respect of the response to BIM and CIM, says "through this review, we should be able to show the direction of our company and how we intend to move on in the future". Mr. Aitani says, "A non-expert looking at the design won't see what the problems may be. In order to share the problems with the customers and create potential business, I feel the great value in dealing with the effect of BIM and CIM." Today, when they are on the verge of welcoming a new development in business, expectations for Autodesk are high.



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Established August 1946

Business Plant design/implementation/maintenance management/operation management/raw material sales, steel plate deformed tube design and manufacture relating to water infrastructure

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