

In search of “BIM for an architectural design firm” - BIM improves quality

[Azusa Sekkei](#)

Azusa Sekkei, the integrated architectural design firm, is celebrating its 66th anniversary this year. With designs including Tokyo International Airport’s domestic line passenger terminal and Saitama Stadium, this firm is responsible for many well-known buildings, and its advanced techniques have established its reputation for excellence. The firm implemented BIM relatively early. Last year, Azusa Sekkei entered an open competition for the trial project “Shinjuku Labor Advisory Government facility design assignment” announced by the Ministry of Land, Infrastructure, Transport and Tourism; the condition for entering the competition was the utilization of BIM, and the firm won the competition. We asked Mr. Anno, the head of the design department, and others about their approach to BIM using ArchiCAD as the main software application.



Daylight study

“Our implementation of BIM started in 1996, although at the time the word “BIM” wasn’t commonly used, and 3D CAD was more mainstream,” according to Mr. Yasuno. The first attempt to introduce 3D CAD from the US captured the staff’s attention and many architects challenged the implementation of the tool. However, 3D CAD at the time was still in its early days as an architecture design tool, and thus the challengers’ high expectations were not met, almost ending the hype. Still, 3D CAD prevailed among a few users within the firm along with the interest for other 3D-related applications, and the momentum grew again in the industry in 2009 with the arrival of the BIM era. “The word ‘BIM’

took the industry by storm and the interest of the architects also increased. That’s when we said to ourselves, ‘let’s do it’ and we decided to first prepare the working environment for that,” Mr. Yasuno said. After much consideration, the firm came up with a unique BIM environment, which focused on the personality and intent of the architects. They tested two BIM applications, one of which was ArchiCAD, with the intention that the architects could choose which application they would prefer working with according to their styles and needs. In other words, the firm tried to offer the freedom of choice for the architects so that they could optimize the BIM environment for themselves. The outcome of this objective came surprisingly fast and showed distinct results. Many of the architects naturally chose ArchiCAD, and those who selected the other BIM application soon switched to ArchiCAD.

3D CAD that knows what architects want and what the design workflow demands

“When I first joined the company I was using different 3D CAD software, but I didn’t quite like the result of the rendering, and I ended up using other 3D tools for that purpose. However I wasn’t really satisfied with that either. When ArchiCAD was introduced in the firm, I tried it, and the feeling of it was very close to what I was looking for, and it was also easy-to-use. It just felt right,” said Mr. Ishino. Mr. Ishino and Mr. Yasuno, who are both core members of the team, speak with emotional involvement about the many trials and variety of tools. On the other hand, the young architect, Mr. Hakata, had the chance to experience a number of 3D tools, including ArchiCAD, when he was a student. “To be honest, I didn’t really ‘decide’, but after trying out many kinds of tools, naturally I ended up using ArchiCAD. The users at the firm have also increased. I would like to learn even

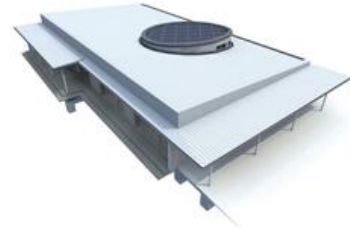
more to increase my skill level. I believe acquiring ArchiCAD skill will be important for architects in order to build their career in the future,” Mr. Hakata said. Another young architect, Mr. Ishii, was using another 3D CAD application on his first actual project. However, he recently tried ArchiCAD on another project proposal, and was very much surprised. “Even though it was my first time using ArchiCAD, it was so easy to use. The ease-of-use made an impression on me since I was struggling with another similar application from another developer. For instance, when you draw, if you wish to check forms or proportions of parts, you can instantly open the 3D model without interrupting the workflow,” said Mr. Ishii.



Interior Design



Structure Design



Roof Design

Mr. Yasuno points out not only the excellence of the product, but also the useful training materials as the reason for the popularity of ArchiCAD in the firm. “There is a training guide called ‘ArchiCAD Magic’, which is really easy to understand. Going through it once, I could understand ArchiCAD as well as the general concepts and advantages of BIM. It was a very useful tool for implementing BIM.”

Architectural design firm should be seeking “BIM that improves the quality of architecture”

It has been two years since the firm started using full-fledged BIM. It has not used BIM for actual projects so much just yet, but Azusa Sekkei has been increasingly applying BIM in planning, design and presentations mainly on project proposals. Although it is still in the first stage of implementing BIM, and they are still fumbling a bit, the advantages of BIM have begun to show, and the know-how is growing.

“The main objective for our firm is to design well – consistently - and also to seamlessly pass our design on to the general contractors. There is no doubt that BIM is a crucial tool for us to achieve these aims,” Mr. Yasuno said. With ArchiCAD, it is possible to simulate a building regularly in order to check the “actual look” while working on the design. BIM improves each step of the design workflow, not to mention the seamless communication of coordinated design because of its 3D model base. “We can create the image quickly and accurately based on the clients’ requests. This way, we can get their approval quickly, and the fast response allows us to proceed without any doubts. Consequently, the quality of the final product improves,” said Mr. Doi. Azusa Sekkei believes that “the BIM that improves product quality” is the true BIM for architectural design firms, compared to “the BIM that builds with efficiency” of the general contractors. “Of course, it would be the best if both sides benefitted equally, but it will take more time for us to get there. Knowing that, first we would like to establish BIM for the architectural design firm. We recently started a working group for a BIM manual, where the architects who use ArchiCAD can share their know-how. In parallel, projects that require full-fledged BIM are starting to roll. We would like to continue to pursue “architectural design firm BIM” in our own way,” Mr. Yasuno said.

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