



HP DESIGNJET T2300 eMFP CREATES A DIGITAL ARCHIVE OF EXPERIENCED ENGINEERS' VALUABLE KNOW-HOW



MAEDA

Maeda Corporation is one of Japan's leading general construction companies. It has been involved in a huge range of major construction projects in Japan and overseas, including the famous Seikan Tunnel, which links the Japanese islands of Honshu and Hokkaido. The Stonecutters Bridge, a new Hong Kong landmark opened in 2009, is another of the company's major success stories.

Maeda Corporation is also well known for its fictional 'Fantasy Marketing Department.' This is a unique part of the company's planning, which publishes cost estimates and construction schedules for famous fantasy structures from science fiction and anime, imagining how these would actually be constructed with real building technology following the fictional details as far as possible. The Fantasy Marketing Department is a highly popular feature on the company's website and won Japan's leading prize for science fiction.

Presentations becoming ever more crucial

Because of Japan's long economic slowdown, the country's construction industry has been operating in a tough climate for some time. With every company going full out to win work, presentations are more important than ever. Maeda Corporation has put significant effort into improving the materials it produces, for example using computer modelling as one way to beat the competition in presentations.

"In presentations, impact is key. Paper sizes for printing have increased. We want to show our ideas on a big scale, and customers increasingly want to see designs on A0 rather than A1," says Maeda Corporation's Takashi Tsunagawa. Tsunagawa leads a team handling design in a group implementing BIM in Maeda Corporation's building design department.

In the past they had to get presentation materials produced by the printing centre, which was on another floor of the building.

"We wanted to use our time for preparing presentations as efficiently as possible. We thought that if we could produce large-size print-outs within our department, we could keep control over the data right up to the final stages, including colour adjustments, and lower our printing costs. So we started to look at reorganising our printing," says Tsunagawa.

The department reviewed its overall workflow and determined that a multifunction printer would be more efficient than conventional large-sized printers. Tsunagawa says that the strongest support, especially from staff involved in construction supervision, was for the HP Designjet T2300 eMFP, with its large-format scanning capability.

"We thought the HP Designjet T2300 eMFP met our requirements because of its economical price for a large format multifunction printer and its outstanding cost performance," says Tsunagawa.

Archiving the valuable know-how of experienced engineers

"Construction supervision involves ensuring that works are constructed in accordance with their drawings and specifications. Supervisors check that information from the construction site matches the design intent and, if there seem to be changes, they get the information back to the site. This not only improves the quality of the building, it also improves the quality of the works. Their work produces a huge volume of drawings checked in red ink, which is vital to share with people on site."



HIT PRINT



“Being able to print out presentation materials and make large format copies in our own department has made our work more efficient. Creating a digital archive of experienced engineers’ hand-written documents, using the large format scanning function, has also helped to improve the quality of our buildings.”

Takashi Tsunagawa
Team Leader (Design), BIM
Promotion Group
Construction Design Department 1
Maeda Corporation

In the course of construction projects, copies of these checked drawings must be made, which previously often involved taking the originals to the printing centre.

The need for physical space for storage of huge drawings created another problem. “Red-inked drawings are valuable documents that leave a record of the knowledge and opinions of experienced engineers. They are also instructive for younger engineers, but we had to throw most of them away after projects were completed, because of a lack of storage space.” says Tsunagawa.

In other words, most of these red-inked drawings, which represented a store of valuable know-how and which provided useful information for going back over the progress of projects, were being thrown away once they had fulfilled their purpose just because there was no room to store them.

All of these problems were eliminated by the HP Designjet T2300 eMFP, a large format multifunction printer that can copy and scan, and of course print.

“By using the HP Designjet T2300 eMFP’s large-format scanning function, we can very easily turn those checked drawings into PDFs. Solving the problem of storage space means that we can print whenever we need to, which also means we can communicate with sites online. This allows construction supervisors to greatly improve the efficiency of their work, and, by creating an archive of checked drawings, has enabled them to improve the quality of their work.”

Digitisation allows drawings to be shared

Construction supervision is needed for design, construction, fitting out, electrical work etc. Tsunagawa says that the HP Designjet T2300 eMFP fits well with a trend at Maeda Corporation to integrate the drawings for checking these and consolidate their management.

In a recent project, for example Tsunagawa says that by aggregating all the information for each floor of the building on an A0 drawing and sharing this, he has made it available as a reference for all.

“Because the drawings are managed by people, and multiple staff are involved, it is difficult to know where they are stored, and which rubric is where. If you integrate them into one, it makes them easier to manage, but the drawings are bound to become bigger. The HP Designjet T2300 eMFP is well able to cope with this because it can print sizes up to B0.”

In the past, the norm was to cut and paste the drawings to be used in meetings, but doing away with size restrictions has meant a huge increase in efficiency, says Tsunagawa. He also mentions that the HP Designjet T2300 eMFP can be used with ‘HP ePrint & Share’, which has now been launched in Japan. Using cloud technology for large format drawings is a new concept, and he expresses the hope that it can be used to increase efficiency and share drawings.

The HP Designjet T2300 eMFP has not only shown its worth in printing large-format presentation materials as the brochure promised; it has also changed the workflow of Maeda Corporation and helped to improve quality, not least by creating a digital archive of experienced engineers’ know-how.

AT A GLANCE

Industry sector:
Architecture, Engineering
and GIS

Business name:
Maeda Corporation

Headquarters:
Japan

CHALLENGE

- To allow large format printing of presentation materials, which used to be handled by the printing centre on a different floor of the building, and the large format copying needed for construction supervision, to be handled within the department.

SOLUTIONS

- Using the HP Designjet T2300 eMFP has allowed the department to handle not only its own printing and copying, but also scanning.

RESULTS

- Allowing large format printing and copying to be handled within the department has increased efficiency
- The large format scanning function allows the checked drawings produced in construction supervision to be easily digitised. Creating a digital archive of experienced engineers’ valuable know-how increases efficiency
- Taking advantage of the ability to print in B0 size has integrated a variety of drawings and allowed consolidated management

To learn more, visit www.hp.com/go/graphicarts



HIT PRINT

© 2011 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

4AA3-7339EEW, Created November 2011