



The paperless construction site - further towards digital construction processing

KIBAG, a Swiss civil engineering company, is taking the last step towards a paperless construction site with the digital site office. All workers and contractors can view the fully digitized construction plans there and edit them directly. For work on the construction site, the foreman has a TOUGHBOOK G2 at his disposal, which shortens execution times and minimizes construction errors.

“ With the Panasonic solution, we bring digital tools and thus the latest technology directly to the construction site. Not only is productivity improved, but the construction profession is also more attractive. ”

Mario Sülz, Kibag
Bauleistungen AG

Client - Kibag Bauleistungen AG

Location - Zurich, Switzerland

Challenge

The implementation of a paperless working environment outdoors. The aim was to create a solution with which all parties involved can electronically share, view, process, comment on the plans and construction documents and visualize the next work steps at a central location.

Solution

With a complete solution consisting of Panasonic TOUGHBOOK G2 tablets including docking stations and Panasonic Pro displays in the newly designed digital site office, everyone in construction works directly with the digital construction documentation, without detour via paper printouts.



Digital work for everyone

KIBAG is a pioneer in the implementation of digital projects. "Since we had already digitized all relevant workflows in our office, it was only logical to also digitize the last step up to the construction site. In other words, to implement BIM2Field and make it available up to the foreman," explains Manuel Weyermann, Project Manager Digitalization at KIBAG Bauleistungen. Thus, the project of a digital site office was created.

In the site office, a central component of every construction site, the planning and execution documents are available in paper form for all parties involved. However, the work steps on paper cannot be processed and confirmed automatically, no 3D models can be displayed and the immediate feedback interface to the planning department is missing. KIBAG wants to solve exactly this challenge together with Panasonic Business. The aim is to have all information and workflows digitally available on the construction site and to digitally view and process steps such as execution details, work instructions, orders, delivery documents, logistics processes, or reporting directly on site on the construction area.

The BIM site office solution developed in the pilot project consists of a Panasonic TOUGHBOOK G2 tablet with docking station and a high-resolution 4K, 49" Panasonic Pro Display of the SQ1 series with built-in Cynap Pure Wireless Presentation System. A 4G Wi-Fi router with outdoor antenna ensures stable network connections. All together housed in a small construction container, which

can then be flexibly set up on various construction sites. "The format is ideal for different construction projects and phases," says Mario Sülz.

Advantages of the digital psite office

So far, the foremen on the construction sites at KIBAG have worked with paper plans from the office. Changes had to be initiated via the office, digitally entered and then printed out and delivered for the construction site. In the future, there will be timely updates and two-way communication, which is particularly helpful if the reality on the construction site deviates from the planning specifications. "The fact that we are always up to date during construction is the biggest advantage," says Manuel Weyermann. "This saves valuable execution time and minimizes errors. And we get immediate feedback from our construction sites if it gets stuck somewhere."

TOUGHBOOK for the harsh conditions on construction sites

The KIBAG construction site managers appreciate the new digital site office concept and its equipment. "We are very satisfied with the Panasonic TOUGHBOOK devices. They are easy to hold in the hand and are robustly built for use on the construction site. What I really like is the long battery life, which lasts a full shift. The touch display of the TOUGHBOOK G2 is easy to read in bright sunlight and can also be operated with work gloves. The Toughbook can easily withstand rain, dust, cold or heat. The entire Panasonic solution is simple and intuitive to use," says Renó Meinel, foreman at KIBAG.

Digitalization for more flexibility

"What I particularly like about the Panasonic solution is that external partners can connect and share their content from mobile phones, tablets or notebooks very flexibly on the screen via the wireless interface. For example, a subcontractor can display his plans from his tablet, regardless of the operating system, without cables, adapters or installation," Manuel Weyermann continues. Because the Panasonic display has an SDM slot for recording a Cynap Pure module for wireless image transmission of all common formats such as Miracast, AirDrop, Chromecast and others. Devices can transmit content adhoc to the Panasonic SQ1 display regardless of operating system and resolution. This means that architects, supply partners, craftsmen and inspection specialists can also easily use the digital Panasonic site office to communicate with the team.

Panasonic - a reliable partner

It was very important for KIBAG to find a technically mature, reliable solution. "We selected Panasonic devices because we have many years of experience with these devices on the construction site. They are very rugged and suitable for everyday construction site use and will still be available in the same form factor in a few years' time," says Mario Sülz Project Manager at KIBAG.