



'IS makes our work far easier with images and overlaid design data in hand'

'We can make sure whether the IS catches the center of prism by the image on the display.'

Tanaka Construction Industrial Company Limited (Towada, Aomori Prefecture) is undertaking a large highway improvement project on Kamikita Road, linking the cities of Hachinohe with Aomori. The company, which bought a Topcon IS (Imaging Station) two years ago, bought an additional two units for the highway project. The job required moving a huge volume of dirt (400,000 cubic meters), so they purchased the additional IS units to increase the efficiency and productivity of the one-person survey or as-built checks.

Masaru Ueno, company planning department, at first had problems with learning the intricacies and technology of the IS. But quickly he mastered the IS for one-person survey by producing images and



From left: Jun Shimizume, Hideki Kubota and Masaru Ueno.

"Kantokusan.V" — the Japanese field measurement software for construction on field controller. He said, "Now, we can't carry out proper job execution without the IS, especially in the area of progress check of the cross sections. The IS makes the work so convenient that foremen of different work sites request the IS for their work sites." Ueno also said, "The big advantage of the IS is the sighting point is displayed in the field controller being utilized by the prism-person. When it comes to the as-built check, the controller displays the center lines and cross section profile of design data overlaid on actual image of slope face. These make our work far easier, because we can use it intuitively."

Hideki Kubota, manager of the construction department, highly praised the speed of side shots with the one-person survey method. "When we measure the points over 100m, there was often some difficulty in communication between surveyor at instrument and prism-person. On the other hand, in case of one-person survey, each of us can work at our own pace. Moreover, we feel comfortable since we can make sure whether the IS catches the center of prism by the image on the display. Even if the IS

loses the prism, it's very simple to make the IS turn to the prism and track again. The prism-person only needs to touch the prism shown on the display."



Jun Shimizume, construction department, emphasized that he can use it according to his senses of sight and hearing. "We can also stake-out by myself, without a surveyor at the instrument. We can reach the stake-out points quickly by the images of the sighting points and the guiding sound of the field controller."

The company's employees are eager to use the IS. Ueno said, "We're expecting to get new construction projects by using all of functions of IS, such as scanning or as a part of compaction control system. To keep ahead of our competitors, we'd like to gain our ability to fully utilize the IS and its system for various execution works before ICT-aided construction become more popular." Additionally, he said, "The company employees were excited about using the IS because it raised their technical skills considerably."