Reuse of Japanese Infrastructure Has Increased with ZWCAD

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>
> — *AJDS staff*

Against the backdrop of population aging and environmental protection, the focus of developing infrastructure has shifted from quantity to reuse in Japan.

To this end, All Japan Data Service Co., Ltd. (AJDS for short) was founded in 1991 in Tokyo with the mission of providing comprehensive information through field surveys and data analysis. So far, they have spread to Nagoya, Osaka, etc. and have taken on 125 professionals, such as architects, engineers, and surveyors.

Safe and Stable Access to Drawings Anytime Anywhere

Since they mainly inspect structures (bridges, tunnels, etc.), traffic facilities, geological bodies, and urban planning, a powerful CAD solution is a must. However, the overheads have gradually risen higher so that they started looking for a budget-friendlier one. For decades, free CAD software had been tested occasionally, but quickly dismissed due to a lack of stability and the inconvenience caused.

Around 2012, on the recommendation of CHAM, the Japanese ZWSOFT partner, AJDS decided to try ZWCAD. The first test was to assess its stability. When opening large topographic maps in ZWCAD, they were happy to find the process not only stable, but also fast.

Besides, its interfaces and commands are familiar to the technicians, which resulted in lower costs of relearning and training. Moreover, permanent licenses in the form of network licenses and dongles can be

used in the office and on-site, respectively, boosting efficiency and facilitating collaboration. Network licenses, in particular, helped them maximize the utilization of software resources and minimize the costs.

All things considered, they adopted ZWCAD and appreciated the icing on the cake, "An important reason for making this decision is that salespeople of CHAM genuinely care about our opinions."

More Efficient Bridge Inspection Thanks to Powerful APIs

So far, tens of thousands of regular bridge inspections have been carried out by AJDS. In 2017 alone, they have inspected over 8,500 times. However, they used to suffer setbacks during such activities because the free CAD software they tested don't support APIs. The lack of APIs led to complicated and faulty data synchronization because they couldn't use their internal application, which integrates the results of bridge inspections into the database and generates reports.
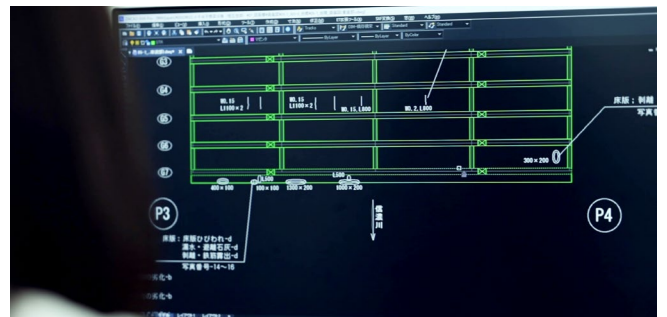

Thanks to the robust APIs and customizable UI of ZWCAD, it is possible to synchronize the inspection drawings with corresponding annotations via the

application program. "Porting our program to ZWCAD via the .Net interface has been trouble-free," AJDS technicians acknowledged. Being able to use their program in ZWCAD has greatly improved their productivity while human errors slumped.

Better Management of Roads with Handy CAD Functions

Apart from bridges, tunnels are essential to road traffic as well. Since their locations usually allow of no detour, maintenance is vital. Visual inspection, rebound hammer test, leak detection, and ultrasonic testing are routinely conducted. Also, photos of the concrete are taken and processed to accentuate the cracks. Then, technicians will insert the processed raster images into ZWCAD with the IMAGE command, trace the damages using PLINE or LINE, and annotate them with ellipses, leaders, and MTexts.

Likewise, to create and edit road profiles, they would first insert images (JPGs, TIFFs, etc.) in ZWCAD and then outline with PLINE. With the standard blocks representing road signs stored in the Design Center, they can easily access and use the ones needed.

Balancing environmental preservation and urban development has always been a worldwide dilemma. Luckily, professionals at AJDS will continue monitoring the safety of social infrastructure and assisting the recycling of them with their considerable experience, expertise, and ZWCAD. They concluded, "ZWCAD is a complete and stable solution that makes our inspection and design of facilities easier than ever. We wish to sustain the long-term relationship with ZWSOFT."