Case Study
ELBIT

»Creating gigapanoramas, a picture made up of billions of pixels, is only possible on powerful hardware with the right amount of RAM as well as fast processors and disks. The FUJITSU CELSIUS R930 Workstations with an NVIDIA K2000 graphics card, which we have been using for the last year, meets the highest requirements of computing power and reliability.«

Radosław Piotrowski, Owner, ELBIT

The customer

Country: Poland
Industry: Information Technology
Founded: 1996
Website: www.elbit.waw.pl/

The challenge

ELBIT specializes in the creation of gigapanoramas – images consisting of billions of pixels, which, thanks to being able to zoom in very close, are ideal for presenting vast scenic panoramas of cities and landscapes. The creation of these images requires the powerful computing power of computers equipped with the most powerful processors, lots of RAM and with huge disk spaces for data storage.

The solution

ELBIT uses FUJITSU CELSIUS R930 Workstations – an efficient, dual processor computer with an Nvidia K2000 graphics card, four RAID 1TB drives and 128GB of RAM. The latest technology and the best components make this model ideal for particularly demanding applications such as Autopano Giga that is used in ELBIT.

The customer

ELBIT R. i M. Piotrowski was set up in 1996 and is involved in advanced photography projects such as FanTag and Pano360. FanTag is a project that creates a marketing solution which allows the organizers and sponsors of events, at both mass events as well as smaller ones, to display very high-resolution images online.

Pano360 is a project that uses VR photography (spherical, cylindrical panoramas, flat gigapanoramas, panoramic coverage, panoramic aerial photography, stereographic photography, 360×180 spherical video). The use of the latest imaging technology enables high-resolution spherical panoramas to be created. The company also introduces innovative technological solutions related to spherical photography – the integration of panoramas and 3D sound generators, high resolution aerial panoramas using remote-controlled flying models, publication of spherical images on smartphones and tablets, interactive spherical video and the integration of gigapanoramas with social networking mechanisms.

The challenge

Gigapanoramas are images made up of billions of pixels which thanks to the ability to zoom in very close are ideal for presenting vast scenic panoramas. Load-on-request technology is used to publish gigapanoramas online. When a panorama is viewed, only the data necessary for the currently selected view is loaded. This solution can significantly accelerate the loading time of images, while significantly reducing the transfer of data from the server. Making a graphic like this requires many calculations related to the proper adjustment of photos, which requires very powerful hardware.

"We wanted to buy a graphics station with a large amount of RAM and disk space," says Radosław Piotrowski, Owner of ELBIT. "It is not only the pictures that make up the panorama that need to be processed, but also the panorama itself after being put together," adds Piotrowski.

The benefit

- Computing performance required to create gigapanoramas and other advanced graphic applications
- Use of effective processor configurations and high-capacity drives
- Very good price/value ratio
- High reliability

Products and services

- FUJITSU CELSIUS R930 Workstation

The solution

ELBIT creates gigapanoramas during sports events, including Polish national team matches. One of the most spectacular was made at the request of the Polish Football Association when Poland beat Germany in a match played in the EURO 2016 qualifiers. After the game, fans were able to tag themselves (FanTag) on a shared public gigapanorama. The preparation of an image like this is time-consuming and requires the use of special tools. It is necessary, among other things, to take into account the natural movement of people in the pictures.

The benefit

The FUJITSU CELSIUS R930 Workstation provides the required computing performance required by ELBIT to create gigapanoramas and other advanced graphic applications. It has the high-capacity drives and effective processor configurations needed and offers a very good price/value ratio whilst being highly reliable.

Conclusion

"A typical panorama consists of at most a few dozen images, but to create a gigapanorama hundreds and sometimes even thousands of photographs are needed. In this case, a high level of computing power is required, which is provided by the FUJITSU CELSIUS R930 Workstation."

Radosław Piotrowski, Owner, ELBIT

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