CASE STUDY:
Airport Control Center Düsseldorf Airport

In order to make processes more effective, improve internal coordination and through this achieve a higher punctuality for the passengers, the operators of Düsseldorf’s airport set up the Airport Control Center (ACC) as a central point of coordination for ground operation.

As the centerpiece, a 12 meter long video wall made of 20 eyevis 55” EYE-LCD-5500-M-USN-LD monitors visualizes camera signals, radar data and site plans of the airport. In this way the wall offers all necessary information for a central optical site depiction of the airport and its involved partners at a glance.

Around 3 million Euros were invested in the ACC by the airport’s operators. As a modern control center the ACC improves the efficiency of the cooperation of all positions involved in air traffic. Since October 2012 around 15 experts of the airport, the transportation companies, the Federal Police and handling companies are working together in one room. Moreover, there is a constant connection to the German Air Traffic Control and the German Weather Service.

On the video wall current camera views, weather data, the flight plan, the software Performance Manager for traffic surveillance and forecast as well as the new AirportMap, an interactive site plan for current events at the airport, are flexibly displayed. This central visualization structures the flow of information. In addition, all processes can be coordinated, necessary resources can be budgeted and possible weaknesses can be identified early on.

“We also successfully use eyevis products in other areas of the airport. So with regard to future service works it suggested itself to go with eyevis for the ACC”, Stefan Beitelsmann, Director of Aviation and Central Infrastructure Management at the Airport Düsseldorf, explains.

Since the video wall was supposed to display freeze images as well as video data, it was required to be able to display different DVI sources. Thereby, besides the realization of an IP-interface between the monitor wall and the video system, the HD resolution as well as IP-Capture was necessary. For the visualization of the up to 24 IP camera signals, eyevis’ engineers relied on a very own IP-Decoder solution. For this hardware decoding of the IP-signals, the camera signals are fed through separate slot cards – not through a software which additionally runs on the operating netPIX-Controller. This lowers the workload of the controller and makes it more fail-safe.

Thanks to the netPIX-Controller the free scalability and positioning of the images on the video wall is guaranteed. Depending on site situation or requirements, camera images can be enlarged and moved or for instance be replaced by extensively displayed satellite data. The Full-HD resolution and the Direct-LED-Backlight of the eyevis LCD displays furthermore guarantee a detailed and homogeneously illuminated visualization of all data. The minimal bezels of only 5.7 mm between active image areas of the displays allow for a good depiction of contents even over several displays.

INSTALLED PRODUCTS

| 20x EYE-LCD-5500-M-USN-LD (55” Ultra-Super Narrow Bezel LCD-Display with LED-illumination and Full HD resolution) |
| 1x NPX-4820R-D2-IP24-G1.0 (High-end Graphics-Controller) |