Innovative video solution for traffic telematics applications

Panomera® is a completely novel camera technology, which was specially developed for the all-encompassing video surveillance of expansive areas. With Panomera®, huge widths, as well as areas with large distances can be displayed with a completely new resolution quality, in real time and at high frame rates of up to 30 fps. With Panomera®, a huge area can be surveyed from a single location, and depending on the customer’s needs, the resolution can be scaled nearly limitlessly.

Innovative multifocal sensor technology
Panomera® enables reliable, cost-effective surveillance of motorway hard shoulders. Until now, this function has entailed the use of pan and tilt heads, with significant maintenance effort. However, this solution has one fundamental drawback: When scanning a stretch of road, the camera can only ever keep certain sections in view, the overview is lost. Furthermore, the moving, mechanical parts are highly prone to wear, and shorten the service life of the components. With Panomera® on the other hand, it is possible to provide continuous surveillance and automatic analysis of long sections of road from a single location.

Traffic analyses
Panomera® Traffic offers traffic analyses for motorways, trunk roads, tunnels and urban roads in real time. The analysis modules have been designed specifically for the Traffic sector. They are based on the proprietary Dallmeier texture model, which means they are unaffected by fluctuations in outdoor lighting conditions. The analysis also includes image stabilizing mechanisms that can be used with plannable, affordable masts to significantly reduce the risk of false alarms. Panomera® Traffic is able to reliably detect objects as small as 15 x 15 x 15 cm (6 x 6 x 6 inches) from distances up to 250 m (820 ft). So Panomera® Traffic is ideally equipped to provide effective assistance for hard shoulder release instructions. There are also modules for detecting people, stationary and stop-and-go traffic as well as wrong-way drivers. In addition to the above, the traffic data module can be used to capture vehicle classifications, speeds and vehicle-to-vehicle distances.

The system is equipped with many validation processes for events. For this, there is a quality-of-video module, which delivers a continuous estimate of visibility conditions, controls the analyses and associated events, and provides the operator in charge with objective decision making criteria for the situation as it happens.