

RP Giessen Fish Observation Center

“For us it’s important to have a reliable video surveillance system that provides analysis and quick evaluation of fish migration, while allowing us to display the detailed footage to visitors. Aimetis Symphony delivers all of this to us.”

Ursula Rock
Technical Clerk



Customer Profile

The Upper Fisheries Authority, located in Hessen, protects the domestic waters, habitat, and aquatic biological communities for native fish populations.

Summary

Aimetis Symphony™ and video analytics enable the Upper Fisheries Authority of the RP Giessen to monitor, record, and analyze fish migration despite unfavorable underwater visibility. False alarms caused by air bubbles have been reduced to a minimum via a refined analytics configuration menu using clear object recognition and tracking, despite low visibility underwater. Without waiting for a fish migration live event, which does not happen all the time, RP Giessen desired the ability to show footage of migrating fish by using past video compilations for visitors to the fisheries information center to view any time.

Challenge

In 2007 a new fishway was put into operation in the city center of Gießen amWehr at the Kinkel mill. It was the aim of the new center to deliver a rich variety of native fish fauna into the flowing water to ensure strong biodiversity. A special observation room for visitors was at the heart of this effort in order to raise public awareness for the protection of underwater species.

In the underwater area, Lahn cameras were installed to track and record fish movements around the clock. A particular challenge was false alarms and reliable object tracking. False alarms could be caused by difficult to prevent bubbles in the water and overall water turbidity. Ultimately, RP Griessen wanted to achieve significant, trouble-free filming for an exact scientific evaluation, and, in addition, compile footage for the creation of demonstration films.

Solution

In underwater applications, a Vivotek 6120 PTZ camera was installed. The software initially reacted to air bubbles and similar non-relevant water movements, causing multiple false alarms. It was then decided to replace the old software with the Aimetis Symphony video management software and video analytics. The built-in motion detection analytics were configured for a grid line view of 5 pixels and 5 columns, making it possible to avoid and reduce false alarms.

An addition, a Panasonic BB-HCM580CE 21-fold optical zoom camera was installed indoors in the water information center. With Aimetis Symphony, the task of video management and analysis for indoor monitoring was easy. Thanks to the automatic zoom function and built-in "Advanced Motion Tracking" video analytic, the motion tracking camera keeps fish continuously in view, regardless of limited visibility.

Another plus with Aimetis Symphony, video recordings are easily converted into mpeg files. This makes processing the video simple and allows for easy downloading on the Internet or for the demonstration in the visiting room. This is done via compilations of event recordings, which are projected from a laptop in combination with a projector on a large screen for visitors to watch and enjoy.

Technology and Integration

- ▶ Aimetis Symphony Professional and Enterprise Licenses
- ▶ IP and Dome Cameras

Results

- ▶ Significant reduction in false alarms
- ▶ Accurate tracking of fish migration
- ▶ Reliable and convenient analysis of video data
- ▶ Constant available video montages of fish migration for demonstration purposes