Bird Detection by Gradiant

Video-based Bird Detection and Classification

Bird Detection by Gradiant is a video-based intelligent bird surveillance system, targeting multiple purposes, such as biodiversity monitoring, protection of wildlife in high risk scenarios such as wind farms, or bird activity control in secured areas, such as airports.

Video-based Bird Detection and Classification by Gradiant exploits the latest advances in Artificial Intelligence to provide accurate results in real time, suited for different scenarios like airports, onshore and offshore wind farms, etc. The system offers a range of deployment alternatives and can be used to process live video from fixed and PTZ cameras, or legacy CCTV systems. Its main features include:

✓ **Reliable AI-based** Bird Detection and Classification using cutting-edge Deep Learning architectures and curated data.

✓ Detection adapted to a variety of **environments** (maritime, forest, etc.) and with the possibility to classify bird's family.

✓ Compatible with **fixed, and PTZ cameras**, as well as most legacy CCTV systems.

✓ REST API for **seamless integration** with third party legacy surveillance and monitoring systems.

✓ **Automatic logging** for evidence reporting and historical data analysis.

Detection Performance

- ✓ Accurate bird detection and counting from ground cameras (either fixed or PTZ)

- ✓ Accurate classification in challenging environments

- ✓ Accurate detection of small and large birds. Reference detection ranges for an AXIS P3727-PLE camera at a 1920x1080pix resolution:
  < 162m for 0,68m wingspan
  < 382m for 1,60m wingspan

- ✓ Detection of birds down to 5x5 pixels.

Integration

- ✓ REST API for easy integration with legacy or ad-hoc monitoring and surveillance infrastructure

- ✓ Includes MySQL database for log storage and reporting

Deployment

- ✓ Public Cloud based deployment available for hassle free management

- ✓ Server based deployment on premises available: One Linux x86_64 host with Docker 19.03 support recommended for up to 8 cameras

- ✓ NVIDIA GPU graphics card with CUDA support for real time multi camera scenarios.

- ✓ Possibility of deployment in sites with of low or no connectivity