Sensor Integration in the Security Domain

Bastian Köhler, Felix Opitz, Kaeye Dästner, Guy Kouemou

Defence & Communications Systems
Defence Electronics
Integrated Systems / Air Dominance & Sensor Data Fusion Engineering (ISEG42)
Wörthstraße 85
89077 Ulm
{bastian.koehler, felix.opitz, kaeye.daestner, guy.kouemou}@eads.com

The Sensor Integration Package addresses data fusion and sensor management. A complete sensor suite consisting of ground surveillance radar and electro optical sensor is encapsulated as a generic higher level sensor which simplifies and optimises integration tasks. The Sensor Integration Package fuses measurements of ground surveillance radar, long range infra red camera, long range daylight camera and laser rangefinder with terrain data and results of a video processor software. The results of the fusion process are fused tracks which are provided on an external interface to a command and control system (C2). The Sensor Integration Package also provides an interface for monitoring and controlling the sensors involved. This allows a project specific modification of the sensor equipment with only minor effects on the interface to the C2 system and ensures a high level of reusability. The sensor integration package can be used in systems that cover

- Security: Border security, security for critical facilities

- Protection: Camp protection, convoy protection, anti asymmetric warfare

- Defence: Battlefield surveillance, reconnaissance, BMC4I systems, naval combat management system