hemeria

hyperia VT
(multi-target video tracker)

HEMERIA designs, produces and maintains HYPERIA VT, a multi-target video tracker affording the capability to detect and track multi targets of interest inside a video stream.

Automatic target acquisition and multi target tracking

Extrapolation of trajectories

Full-scale operation

land & sea

tested & validated by French Army

applications

TRAJECTOGRAPHY, OBSERVATION, ATTITUDE

hyperiaVT

features

- Automatic target acquisition and tracking
- Multi-criteria target detection (filtering and discrimination of echoes) according to size, vector and shape
- Tracking based on pixel values or real values if the tracker receives enough information
- Different types of algorithms can be used to track a certain type of target and adapted to its environment (distant target distorted by atmospheric disturbances, close high-contrast target in a cloudy environment, close target against landscape background, etc.)
- Multi-target tracking and automatic tracking of selected target (which becomes the main target)
- Tracking can be switched on demand to a new selected target (each tracked target is automatically assigned a number)
- Automatic reacquisition if the main target is lost
- Algorithms tailored to visible or infrared camera sensors
- Trajectory extrapolation based on platform movements if the tracker receives enough nformation
- Time synchronization
- Detection algorith : centroïd / edge / combined
- Configurable scenario suitable for multiple drops

video sources

- Digital HD SDI 1280x720 50-Hz / 1920x1080 25-Hz video
- CoaXPress 100-Hz digital video
- Analogue video
- All digital video formats supported via adaptation of the video acquisition input stage

interfaces

- Control interface : Gigabit Ethernet, XML format
- Transmission of target positions : Gigabit Ethernet, KVL format based on MISB ST 0601 and MISB ST 0903 standards
- Graphical configuration application supplied for PC

other features

- Validation of complex scenarios using 3D HIL simulations

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