

ERDIS - ELDIS RADAR DISPLAY SYSTEM



ERDIS - ELDIS Radar Display System – it is an ATC Centre system developed by the ELDIS Pardubice company, designed for the ATC centers, i.e. ACC, APP and TWR workplaces.

ERDIS is an important element of the ATC systems, which crucially participates on establishing and outfitting the set of means for the air traffic control in the air space of the regional control centre and in the terminal controlled airport area. It processes data from particular cooperating systems enabling safe air traffic control, and it also actively communicates with surrounding systems:

- Regional and airport radars Primary surveillance radars (PSR) and monopulse surveillance secondary radars (MSSR) including the S-mode extension.
- Data and information systems ADS-B, ADS-C, CPDLC, AFTN, METEO, INFO,...
- Radio and telephone communication systems
- Unified time distribution system (NTP,...)

Data Interfaces and Processing

- Reception and displaying the AD, MTD and METEO analogue video signals from the airport PSR primary surveillance radar.
- Reception, processing and displaying digital data from the PSR and MSSR radars.
- Configurable data inputs formats (ASTERIX, AIRCAT 500, MARTELLO, APOI, CD2,...),
- Standardized data outputs (ASTERIX).
- AFTN Interface Automatic exchange of flight plans.
- QNH Interface Automatic/manual update of QNH for correct altitude display.
- Detection STCA (short term conflicts), MSAW (minimum safe altitude warning) and DAIW (danger area infringement warning)
- S-Mode data reception and processing
- RDPS Radar Data Processing Server process selected input radar data lines and generate composite multiradar information
- FDPS Flight Data Processing Server process all types of flight data information on AFTN network
- AIDS Aeronautical Information Data Server receive and process aeronautical data (NOTAMs), meteorogical broadcast messages (MET), aerodrome information, aeronautical charts
- DLPS Data Link Processing Server control processing of Data Link information (CPDLC, ADS-B, ADS-C)
- DRPS Data Recording and Playback Server system objective documentation provide:
 - Synchronized data recording and replaying, incl. voice communication channels, data links, flight information

- Data recording at RAID field and duplication on external media (DVD, DAT tapes, ...).
- Exporting replayed situation to the AVI file.
- CCMS central control and monitoring system.
- RDD and TDU Radar Data Display and Tabular Data Display are designated for presentation above mentioned data on controller and maintenance workstations.



ERDIS System Characteristics

- The system is open, extendable, configurable, safe.
- The system meets standards and recommendations of EUROCONTROL for ATC systems.
- User friendly HMI.
- ERDIS system is designed for H24 continuous operation.
- Dual LAN compatibility for system reliability and data security enhancement.
- Data and communication servers use automatically switched MASTER STANDBY system for the hot-swap backup safety.
- Configuration of air traffic control workplaces into the system, and activation of the targets handing over capability (HAND OVER) to particular workplaces.
- Multi-layered Display Map/objects shown in distinct layers.
- Display and editing map backgrounds, their time activation and deactivation.
- In dependence on the workplace type and processing level, targets of following type can be displayed:
 - Plot from particular connected PSR and MSSR output
 - Track from particular connected PSR and MSSR and passive systems output
 Combined multiradar information
 - Track / Flight Plan Correlation Automatic or manual association of FPL and track data.
- Dynamic Zoom and Off- centering Supported by mouse and/or keyboard.
- User-defined Views Selectable and configurable through intelligent toolbar buttons.
- Picture In Picture Display
- Cursor Lines Approximating arrival time, distance, track and altitude.
- Prediction Vector Dynamic selection of speed vector
- Target history position displaying (sequential quenching of analogue video signal, digital targets position "History dots")
- Colour-coded Tracks Configurable colour coding for tracks (Emergency, Warnings, Correlated, Non-correlated, Controlled, Selected, etc.)
- Dynamic Labeling Cursor-sensitive expansion of track labels.
 - Essential and extended label for targets,
- Alarm Generator Emergency (SSR: 7500, 7600, 7700).
- Flight Plan Database Containing active and repetitive flight plans.
 - Flight Plan Editor Integrated easy-to-use editor (detailed/short form).
 - Displaying electronic strips,
 - Strip printer interface



Contact address:

ELDIS Pardubice, s.r.o. Dělnická 469 530 03 Pardubice Czech Republic tel: +420 466 052 443÷5 fax: +420 466 670 423 E-mail: marketing@eldis.cz www.eldis.cz