

RAINBOW® 5 APPLICATION SOFTWARE

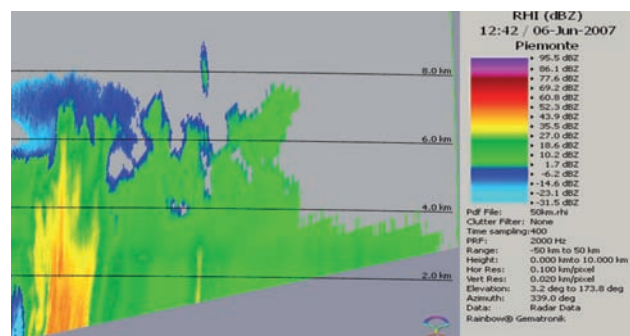
Rainbow® 5 is the most comprehensive, state-of-the-art sensor management system for multi-radar network management, data analysis and display available on the market today. Based on more than 20 years of experience in meteorological software design and development, the new SELEX-Gematronik flagship Rainbow® 5 fulfils all needs for a versatile application in the fields of radar management, weather monitoring/nowcasting, hydrology, aviation and research.

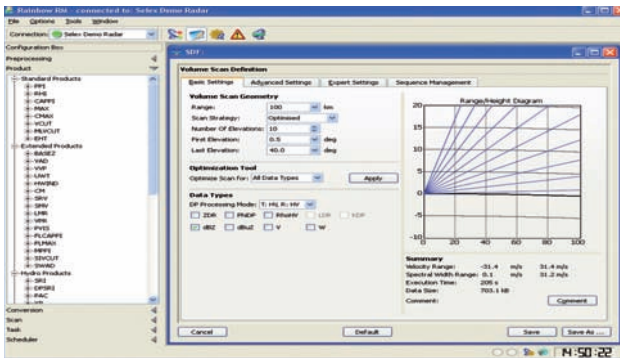
State-of-the-art technologies such as platform independent graphical user interfaces and client-server architecture guarantee full and unique performance. The TCP/IP based communication concept supports heterogeneous multi radar environments.

KEY FEATURES & BENEFITS

- Platform independent: Support of Linux, Unix and Windows XP/7 operating systems
- Client / server architecture
- Multi language / multi unit (SI, Aviation, etc.) support
- Full local and remote radar control
- Support of single and multi radar networks
- Integration of 3rd party weather radars, Doppler lidars, low level wind shear alert systems, weather stations, rain gauges, lightning detection systems, satellite, etc.
- Full range of more than 50 different meteorological products
- Streamlined and consistent graphical user interfaces, easy navigation, drag&drop and touch screen monitor support

- Powerful data analysis, research and display application, Rainbow® DART embedding product generation and cartographic image projections (PROJ4)
- ESRI support
- Rainbow® DART complies with the MDI (Multi Document Interface) standard
- True color support, 24 bit plane standard
- Full scalable product legend supporting up to 256 radar levels and embedded Color Wizard
- Customizable geographic display maps and text annotation
- Dynamic severe weather overlays
- 3D Display and interactive 3D cross section
- Support of BUFR, HDF5, OPERA HDF5, XML, ASCII, UF, NEXRAD Level 2, etc.
- Graphical image export to GIF, PNG, JPG, NetCDF, etc.
- Rainbow® - TITAN interface (www.ral.ucar.edu)
- ATC gateway for Doppler and polarimetric radar information: Asterix CAT008/009 weather messages
- High radar volume update rate due to Rainbow VolumeSplitter®
- GoogleEarth® export





RAINBOW® 5 PRODUCTS

RADAR VOLUME CORRECTIONS

- BBC - Bright Band Correction
- VPC - Vertical Profile Correction
- OCC - Occultation Correction
- ZATC - Attenuation Correction
- 3DCDP - 3D Polar Clutter Map Processing
- SCDC - Sea Clutter Detection and Correction

STANDARD METEOROLOGICAL PRODUCTS

- PPI - Plan Position Indicator
- RHI - Range Height Indicator
- CAPPI - Constant Altitude PPI
- MAX - Maximum Display
- CMAX - Column Maximum
- VCUT - Vertical Cut
- MLVCUT - Multi Line Vertical Cut
- EHT - Echo Height offering
 - Echo Top
 - Echo Base
 - Layer Maximum
 - Echo Thickness

EXTENDED METEOROLOGICAL PRODUCTS

- BASEZ - Base Reflectivity
- MPPI - Multi PPI Display
- VAD - Velocity Azimuth Display
- VVP - Volume Velocity Processing
- UWT - Uniform Wind Technique
- LMR - Layer Mean Reflectivity
- VPR - Vertical Profile of Reflectivity
- FLCAPPI - Flight Level CAPPI
- FLMAX - Flight Level MAX
- SWAD - Severe Weather Analysis Display
- SMV - Spectrum at Maximum Velocity
- SRV - Storm Relative Velocity
- PVIS - Point Visibility Analysis
- SIVCUT - Significant Intensity Radial VCUT

HYDROLOGICAL PRODUCTS

- SRI - Surface Rainfall Intensity
- VIL - Vertically Integrated Liquid
- PAC - Precipitation Accumulation
- RIH - Rainfall Intensity Histogram
- RSA - River Sub Catchment Accumulation
- PRT - Point Rainfall Total
- RGPR - Rain Gauge Radar Total

SHEAR PRODUCTS

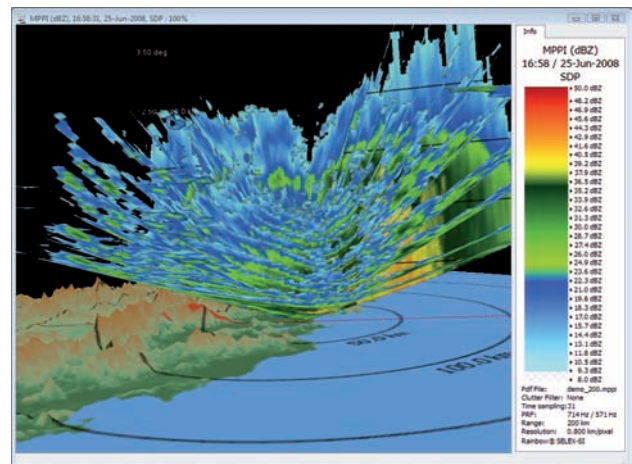
- ROSHEAR - Runway Oriented Shear
- SHEAR - Shear Wind Detection 1D, 2D and 3D
- HSHEAR - Horizontal Shear
- VSHEAR - Vertical Shear
- LTB - Layer Turbulence

METEOROLOGICAL PHENOMENA DETECTION/ANALYSIS

- LRFC - Lightning Risk Forecast
- ZHAIL - Hail Detection
- GF - Gust Front Detection
- SSA - Storm Structure Analysis
- MESO - Mesocyclone Detection
- VERG - Vergence Product
- TVD - Tornado Vortex Detection
- SWI - Severe Weather Indicator offering
 - Storm Structure Analysis
 - Mesocyclone Detection
 - Vergence Detection
 - Microburst Detection
- DSD - Dust Storm Detection
- VPBD - Vertical Profile of Bird Density
- VADC - Volcanic Ash Detection and Classification
- VATR - Volcanic Ash Tracking

FORECASTING AND WARNING PRODUCTS

- RTR - Rain Tracking
- CTR - Centroid Tracking
- WRN - Feature Detection and Warning



DUAL POLARIZATION

- DPATC - DP based attenuation correction
- PHI2KDP - PHI DP filtering and KDP derivation
- ECLASS - Echo Classification
- DPSRI - DP Surface Rainfall Intensity
- DPFLA - DP Freezing Level Analysis

SENSOR & DATA INTEGRATION

- COMP - Radar Composite Product
- RB-SAT - Satellite Image Integration
- RB-RG - Rain Gauge Data Integration
- RB-AWS - Automatic Weather Station Integration
- RB-LDS - Lightning Detection System Integration
- RB-NWP - Numerical Weather Prediction Model Interface