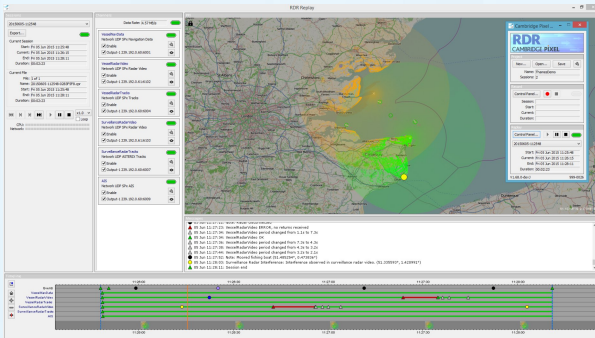


RDR

Radar Data Recording Application



Features:

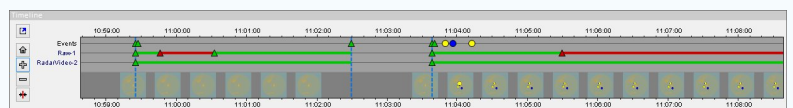
- Complete ready-to-run application software for Windows
- Windows 7/8/10 compatible
- Multiple input channels
- Multiple output channels
- Supported input and output data includes:
 - Primary radar video
 - Primary and secondary track messages
 - ADS-B messages
 - AIS messages
 - Navigation data
 - RTSP network video
 - DirectShow device video
 - Generic network packet (without interpretation)
- ASTERIX data support:
 - CAT-240 (radar video)
 - CAT-48 (plot/track messages)
 - CAT-21 (ADS-B target reports)
- Local GUI and network control
- Recording to local hard drive
- SQL database recording of navigation, track, AIS and ADS-B data
- Screen recording (via special "agent" client application)
- Schedule recordings
- Auto delete of old recording sessions
- Replays radar video in ASTERIX CAT-240 format or as standard radar signals using HPx-300
- Data input/output via network or serial port
- Visual display of data being recorded, including "quick-look" feature
- Timeline display with adjustable timescale
- Data synchronisation across channels
- Event marking (automatic, user-defined, location-based)
- Export recordings

Cambridge Pixel's RDR application provides a full-featured, multi-channel record and replay solution for a multitude of input data types and formats. The RDR application can record radar video data, target tracks, AIS, ADS-B, IFF and navigation data, simultaneously within a synchronised data file structure. RDR is also capable of receiving and recording TV video from DirectShow devices and RTSP network streams, making it a truly versatile recording package.

The RDR application allows the user to create multiple input channels and then set the input data type for each channel. Depending on the data type, different input source options are supported. For example, RDR can accept primary video via Cambridge Pixel's HPx series of radar interface cards or as network data, in SPx format or ASTERIX CAT-240 format. A number of proprietary radar formats may also be supported, from manufacturers such as Simrad, Terma and Navtech. Similarly, NMEA-0183 navigation data sentences may be received via serial port or Ethernet. Defining channels is simple and intuitive, and a "quick-look" feature allows the user to confirm that data is successfully being received.

The RDR application includes an overview display, showing radar video and tracks in the appropriate world-referenced location, on top of a tiled map underlay. A visual timeline display shows the status of each channel as the recording proceeds. The timeline also shows periodic snapshots of the radar video, as well as event markers. Start/stop markers may be set within the timeline allowing replay to be looped within the defined interval or sections of recordings to be exported.

Discrete user-defined events may be logged at the click of a button or received as network input messages. System events (such as loss of channel data) are logged automatically. RDR also supports location-based events, allowing the user to mark where and when a particular type of event occurred. Events are recorded along with the input data as well as being marked on the timeline and, in the case of location-based events, on the overview display.

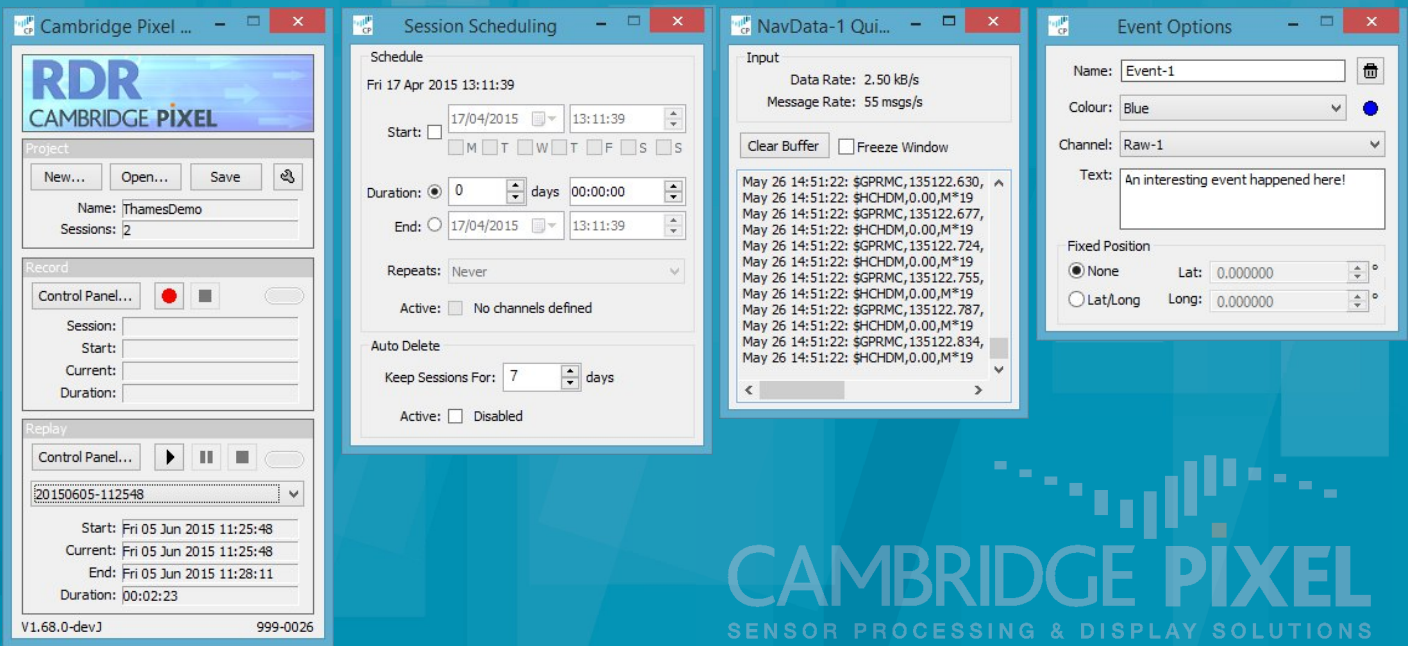


On replay, data may be output via user-defined output channels, routing the data to an appropriate physical output. For example, AIS data may be replayed out onto the host system's serial port or Ethernet port, regardless of which one it was input via. For radar video replay, the application is fully compatible with Cambridge Pixel's HPx-300 radar output card. RDR can therefore be used as part of an analogue radar record and replay system. Replay mode provides convenient navigation features, such as allowing the user to jump to specific times or events.

RDR includes a recording scheduler, allowing for recording sessions to be started at specified dates and times. Sessions may also be set to repeat with a selected frequency and the scheduler can delete sessions that are older than a specified age. This allows RDR to be configured for continuous capture of the last *n* days of data.

The RDR graphical user interface provides full control over the application for configuration and operation. Operation of the application may also be controlled via a socket-based control interface, allowing clients to manage recording and replay remotely. ■

DATA SHEET



Operating Systems

Windows 7/8/10

Number of Input Channels

Limited only by host system
 (maximum 3 HPx hardware input or output channels)

Supported Inputs

Radar Video: SPx format, ASTERIX CAT-240, HPx hardware input, proprietary radar manufacturer network formats (consult factory)

Track reports: SPx format, ASTERIX CAT-48

AIS: NMEA-0183 from serial or network

Navigation data: NMEA-0183 from serial or network

Camera Video: RTSP network stream or DirectShow device

Screen capture: Via "Agent" client

ADS-B: ASTERIX CAT-21 or 112-bit extended squitter

Other network data: Record any network data without interpretation

Supported Outputs

Radar Video: SPx format, ASTERIX CAT-240 or HPx-300 hardware output

Track reports: SPx format, ASTERIX CAT-48

AIS: NMEA-0183 to serial or network

Navigation data: NMEA-0183 to serial or network

ADS-B: ASTERIX CAT-21 or 112-bit extended squitter

Camera/screen video: RTSP network stream

Other Network data: Replay any network data without interpretation

Local Display

Situational display: Radar video and track PPI display
 Tiled maps underlay
 Location-based event markers

Timeline: Chronological display of channel status and event markers
 Adjustable timescale
 Radar video snapshots

Status indicators: Overall system health
 Individual channel status

"Quick Look": Provides overview of incoming data

Recording Scheduler

Specify date and time for recording
 Set recording duration and repetition interval
 Auto delete of historic sessions

Control

Local GUI: User interface for local control and configuration

Network API: C++ / .NET programming interface for remote control

For more information,
 please contact: