

SPx Open Access



Key Features:

- Simplified access to radar video in CPR recordings
- Decode recordings from RadarView, RDR Data Recorder or SPx Server
- Select start and end time from recording
- Select channel from multi-channel recording
- Supports analysis and algorithm development
- C++, .NET and MATLAB support with examples
- Windows and Linux supported
- Option to include RDR for new recordings
- Wide range of radars supported

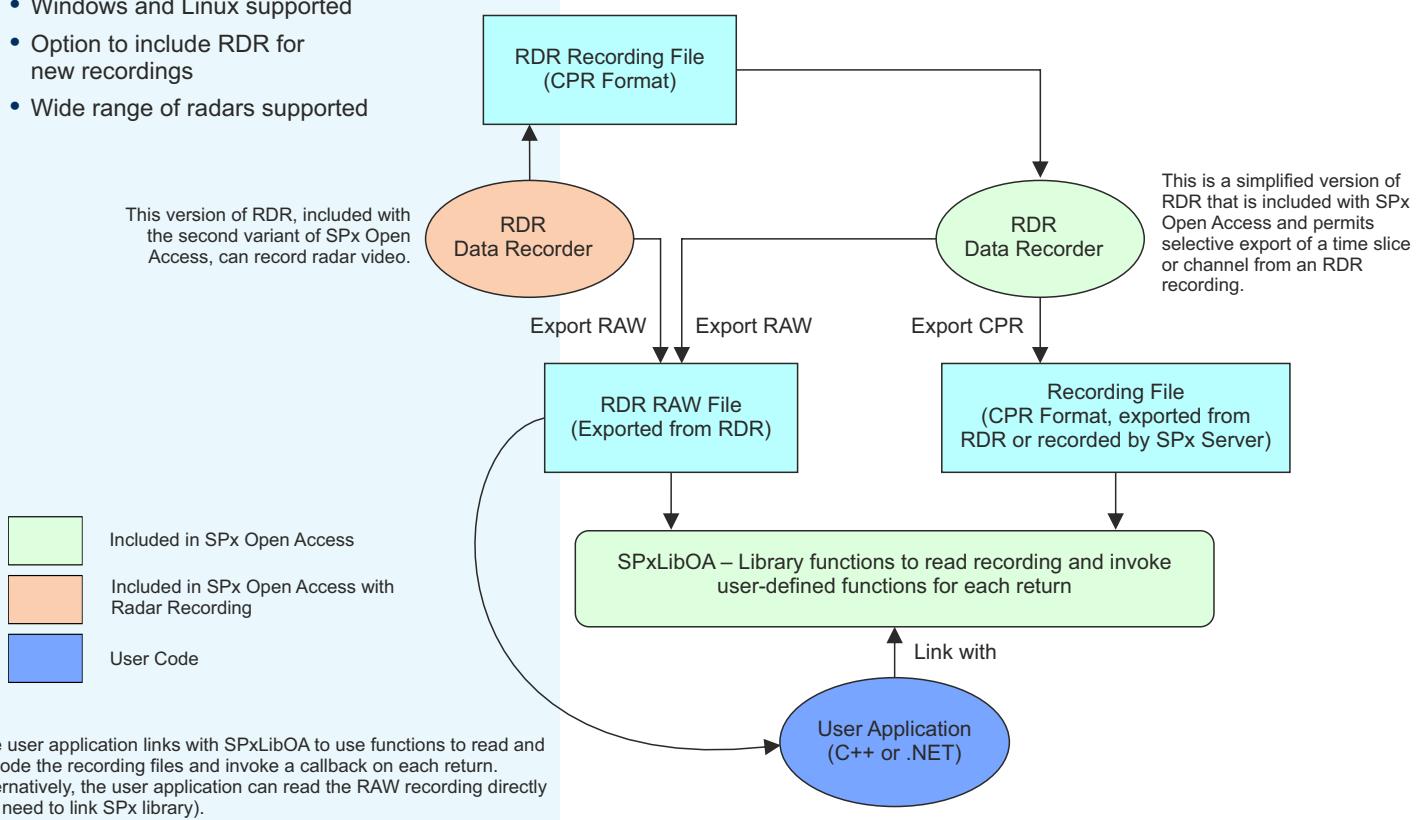
SPx Open Access is a set of software tools and libraries that support reading and decoding of Cambridge Pixel Recording (CPR) files taken from SPx Server, RadarView or RDR Data Recorder (or other Cambridge Pixel applications with recording function). This supports the development of custom code in C++ or .NET to analyse radar recordings, for example for new algorithm development.

Radar video is recorded in polar format, where each radar return is stored, possibly compressed, as a sequence of amplitude values for different ranges for a specific angle. Each radar return may be recorded individually, or several returns may have been combined together. For developers wanting to inspect the radar returns or develop new processing algorithms, the ability to access the recorded data is required. This capability is available with the standard SPx Development libraries, but SPx Open Access provides a streamlined subset of capabilities and supporting tools that simplify the access to the data.

SPx Open Access Versions

There are two variants of SPx Open Access. The standard version provides the libraries and tools to access an existing recording file which has been created by an existing Cambridge Pixel application. For example, an existing SPx Server application with a recording license may have been used to capture radar video of a situation of interest. The recording file is then read by the Open Access library functions and control is provided to invoke user code in C++, .NET or MATLAB in a Windows or Linux application. Sample applications in Visual Studio and Linux are provided as a framework to show how this works.

The second variant of SPx Open Access expands the standard version to include a version of RDR Data Recorder that may be used to make recordings. This version of RDR is licensed to support acquisition, display and recording of radar video. It may be used to record any format of radar video that is supported by RDR. Note that where a special unlock code is needed to access radar video, for example with Simrad and Furuno radars, then an extra licence is needed.



The user application links with SPxLibOA to use functions to read and decode the recording files and invoke a callback on each return. Alternatively, the user application can read the RAW recording directly (no need to link SPx library).

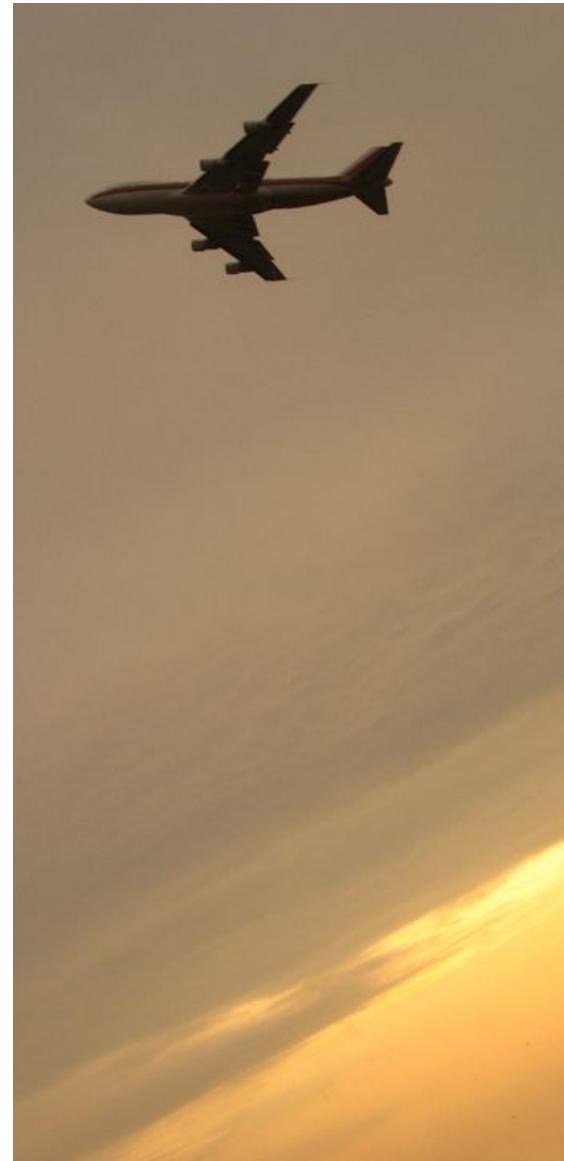
DATASHEET

**Specification**

Platform:	Windows 11. Linux (for programmatic access).
Licence:	Provided as a USB dongle or a licence file associated with a specific PC.
Development Platform:	Visual Studio.
Radar Recording:	Capability provided with 540-510 (Windows only). SPx network format. ASTERIX CAT-240. Simrad, Furuno, Raymarine. Consult factory for other formats. Acquisition from radar signals supported with HPx radar interfacing cards.
Recording Files:	Reads CPR radar recording files.
Export:	Select start and end time for export. Select channel for multi-channel recordings.
Visualisation:	Timeline to view recordings and select regions of interest.
Software Examples:	Provided for C++, C sharp and Linux.

Ordering Information

540-500	SPx Open Access.
540-510	SPx Open Access with Radar Recording. (Supports capture of radar video in ASTERIX CAT-240 video and from analogue radars with suitable HPx card. Input from Furuno and Simrad radars is supported with an additional unlock code for the radar.)



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