

RiWAVELib

for RIEGL Full Waveform Laser Scanners

- Easy access to waveform data acquired by RIEGL instruments
- Common interface for SDF and WFM file format
- Index-based search for time stamps within the data stream

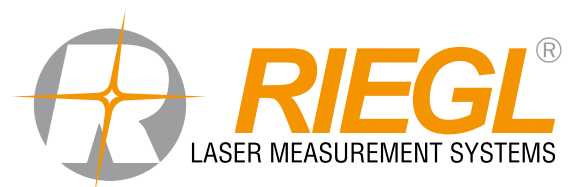
RiWaveLib provides straightforward and well-documented access to the digitized echo signals recorded by selected RIEGL laser scanners during data acquisition. The digitized echo signals, also known as waveform data, are the basis for the so-called full waveform analysis which deduces ranging information and additional data from the waveforms. Additionally, the library enables access to the time stamp and measurement direction for each measurement and thus enables the user to calculate point cloud data based on their own algorithms for the full waveform analysis.

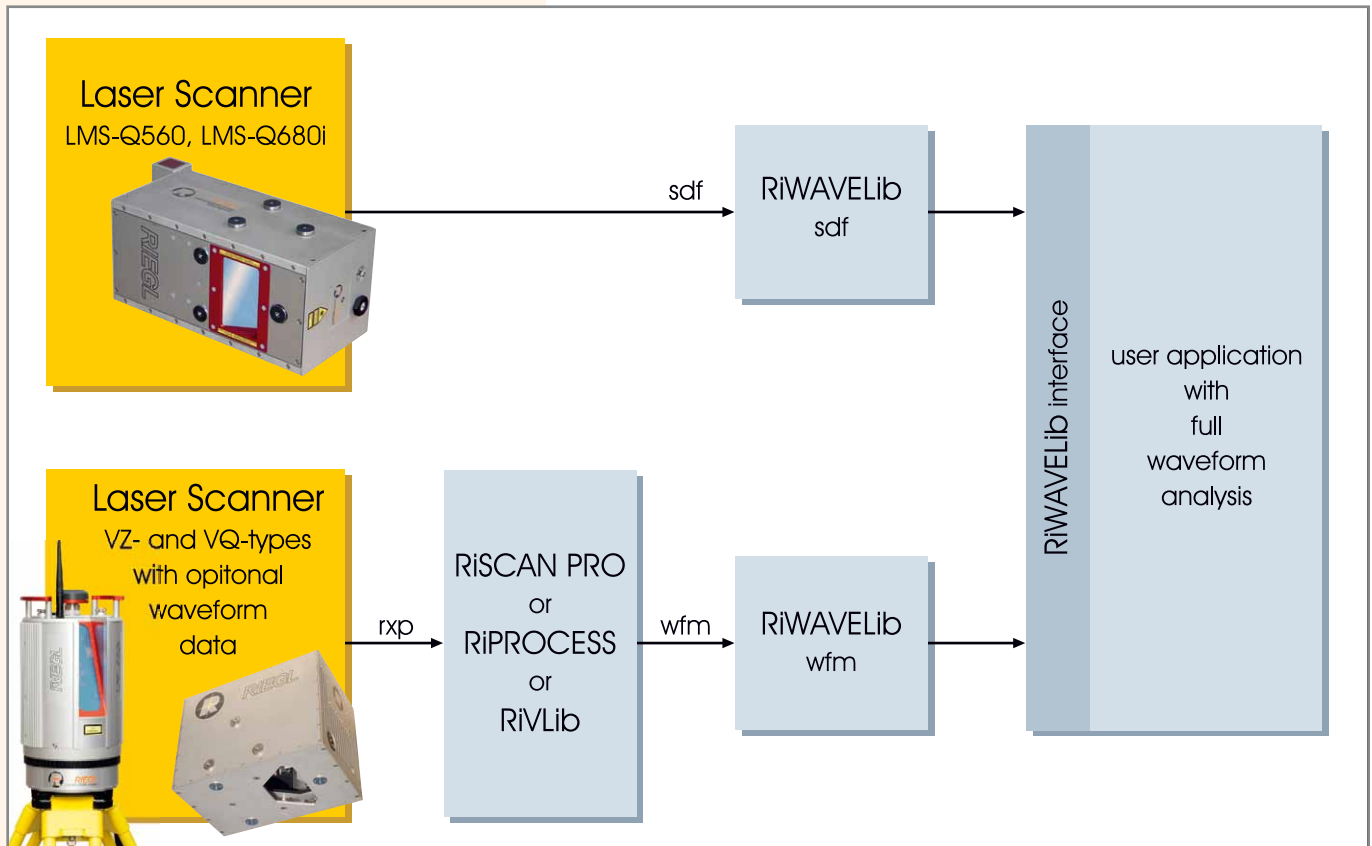
RiWaveLib provides access to both waveform data formats used by RIEGL, the SDF file format used by RIEGL LMS-Q560 and RIEGL LMS-Q680(j), and the WFM file format as used by the RIEGL VZ- and VQ-type Laser Scanners with waveform data option. The application programmer gets access to the waveform data for both file formats using a common interface.

- Library's interface uses standard C conventions
- Can be used from various programming languages like C, C++, Pascal and Python
- Both Linux and Windows® are supported

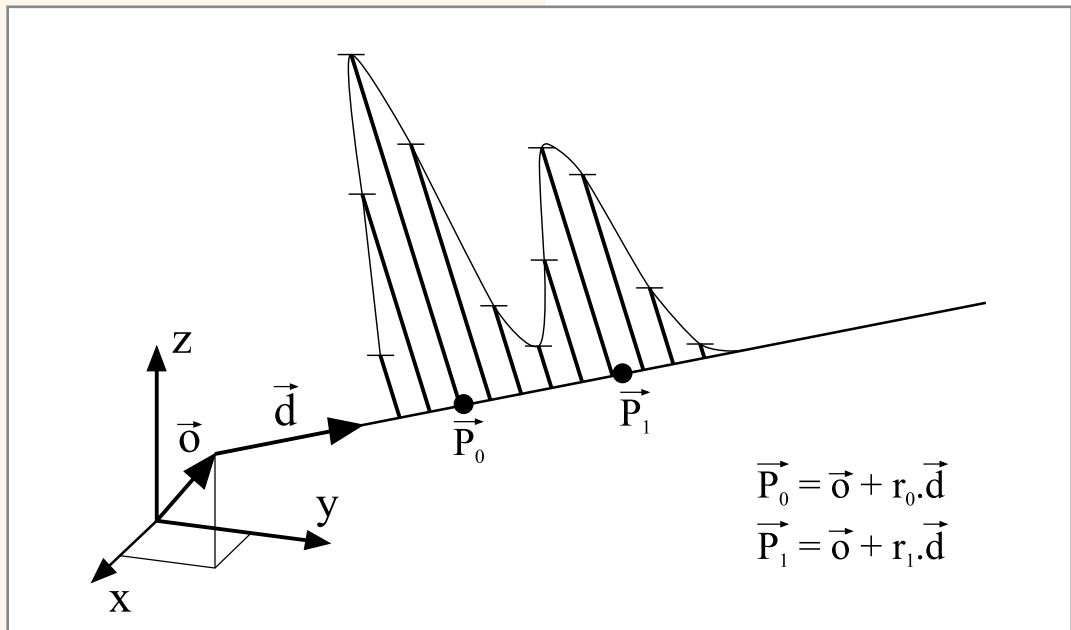


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RiWAVELib data flow diagram



Visualisation of sample data attached to laser beam axis: x, y and z represent the scanner's coordinate system, o denotes the origin of the laser range measurement, and d is the normalized direction vector of the laser beam axis, both for the actual scan angle.



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