

Release notes for ShapeDrive SDK 1.5.0 for C++

Version 1.5.0

Previous Version 1.4.0

Release date 29.03.2021

Software description

The ShapeDrive SDK is the software development kit (SDK) for the easy integration of ShapeDrive sensors in user applications.

Programming example in programming languages

- C++

Example projects for development environments

- QT

Supported operation systems

- Windows 7 (x64) or Windows 10 (x64)
- Linux Ubuntu 18.04

Caution

Caution: To use some of the new features a ShapeDrive sensor at least firmware version 1.1.0 AND hardware version 3.5.3 is needed!

New Features

Auto exposure

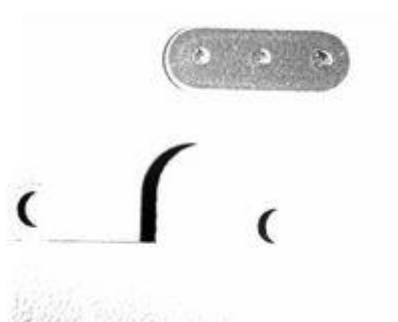
With the new auto exposure feature the sensor adjust the exposure time and gain to an optimum value. Use the command

```
SetAuto exposure
```

The auto exposure is only adjusted once after the command is used.

Example auto exposure:

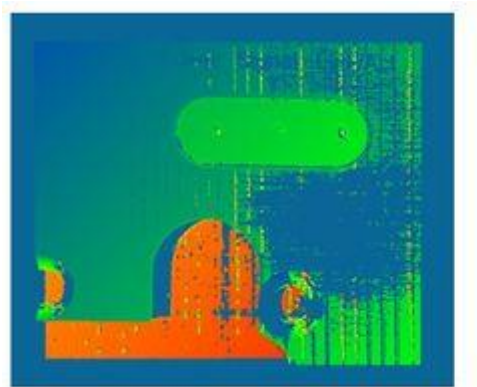
2D picture before auto exposure



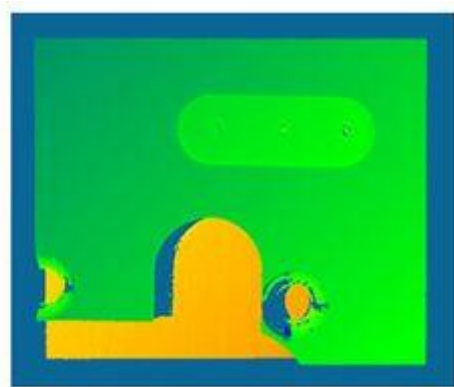
2D picture after auto exposure



3D point cloud before auto exposure



3D point cloud after auto exposure

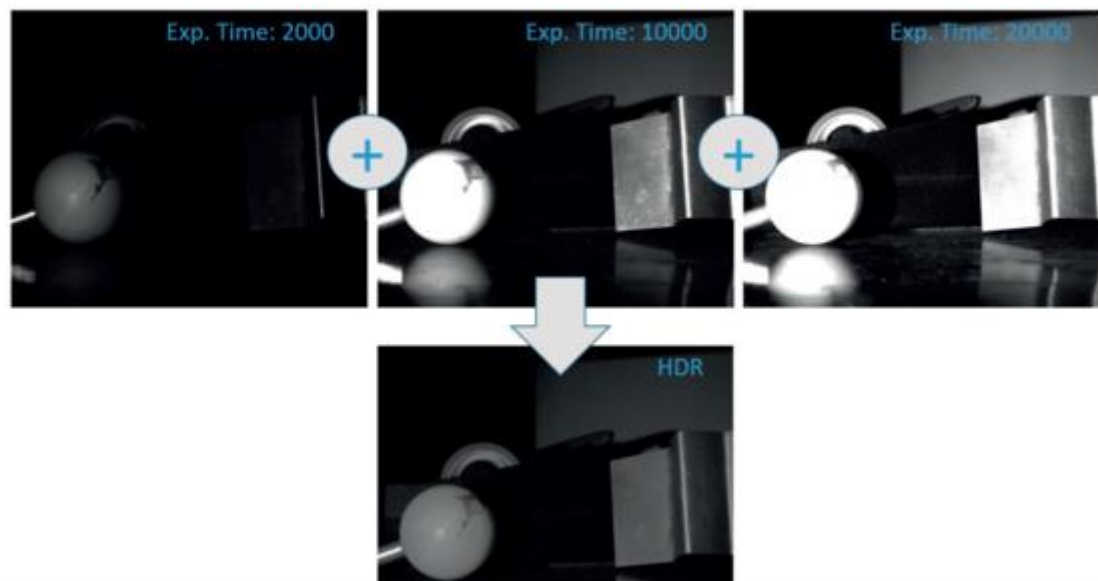


Improvements

HDR mode

A new algorithm is used to generate a HDR pointcloud from several pointclouds with different exposure settings.

Example HDR:



Fading compensation

The fading compensation compensates instabilities of the light power of the sensor during the data acquisition.

The fading compensation is enabled by the command (default is disabled):

```
SetSDKFadingCompensation=1
```

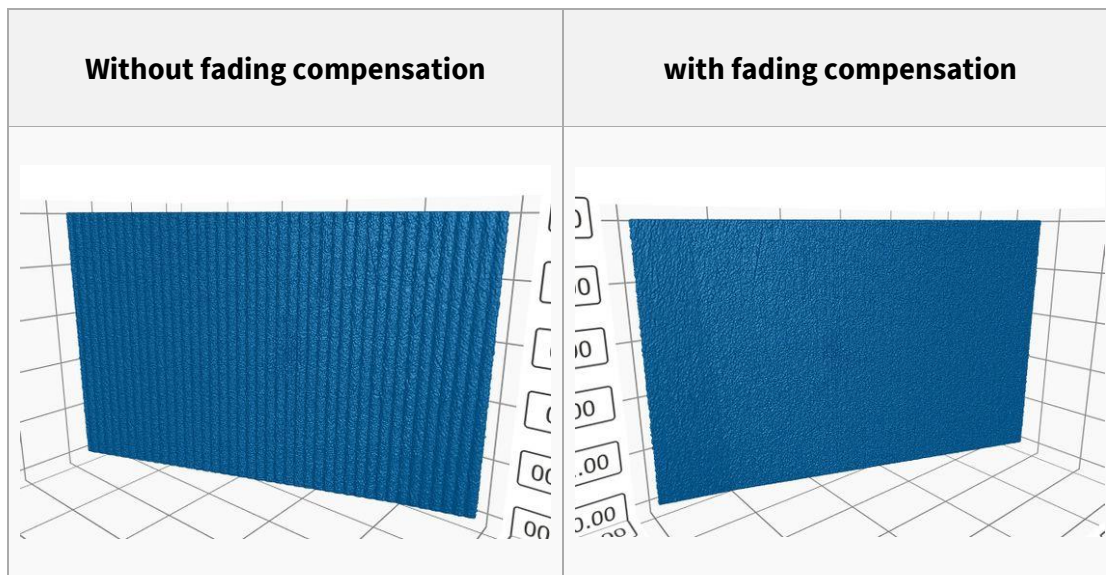
If the fading compensation is disabled and the pointcloud looks good, it is not needed to enable the fading compensation. If there are a periodic signal visible in the pointcloud the fading compensation can remove / reduce this.

Example where fading compensation is useful:

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Bug fixes

Improved performance and stability issues.