

感知真实! Sensing Reality

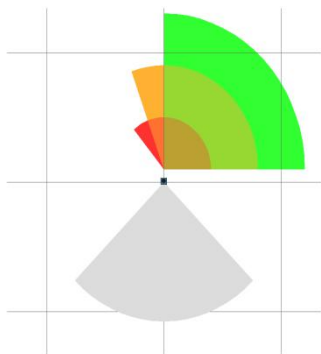
2D 安全激光雷达软件 2D safety lidar software

# OForge

## 快速使用手册 Quick User Manual

适用于以下系列产品 : Applicable to the following series of products

LR-1B, LR-1BS...



请使用产品前阅读本手册, 以获得最佳的产品性能.

Please read this manual before using the product for best product performance.

务必妥善保管本手册, 以方便日后查阅.

Be sure to keep this manual properly for future reference.

OFOMCN-1B/1BS-202012

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# 1 软件安装 Software Installation

软件安装需要满足以下条件:

- Windows 7、Windows 8 或 Windows 10 系统

- 2G 及以上内存容量
- 至少 10M 可用硬盘空间

Software installation should meet the following conditions

- Windows 7, Windows 8 or Windows 10 system
- No less than 2G memory capacity
- At least 10M free hard disk space

请按照以下步骤安装软件：

1. 下载链接 <http://cn.ole-systems.com/sh/Oforge.rar>
2. 打开软件安装包，双击 OForge.exe 安装程序
3. 尽量关闭其他运行中的应用程序，杀毒软件
4. 自行设定软件安装位置，完成安装

Please follow the steps below to install the software:

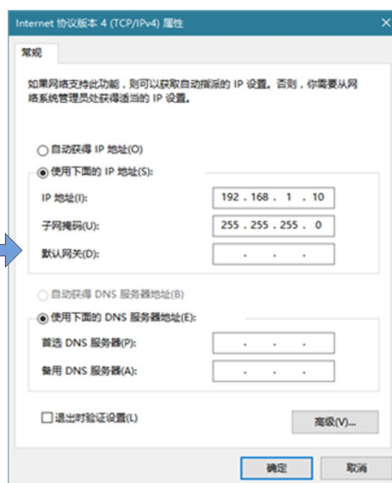
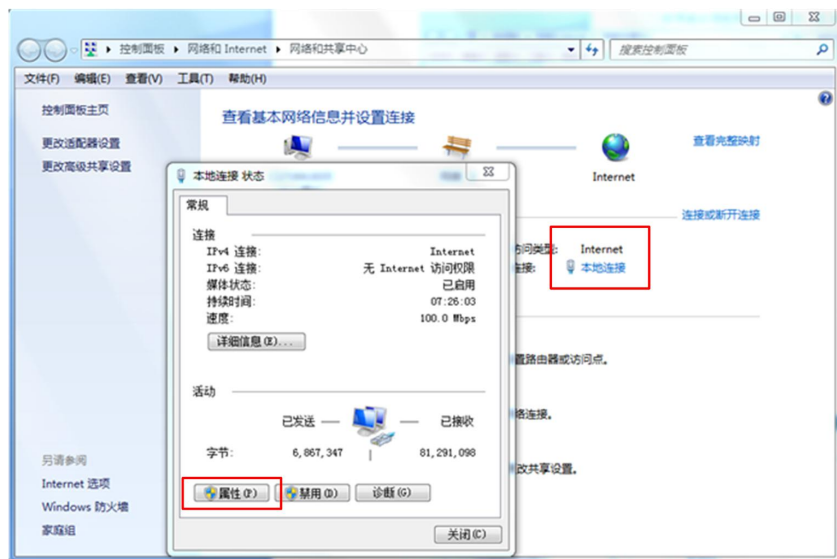
1. Download link <http://cn.ole-systems.com/sh/Oforge.rar>
2. Open the software installation package and double-click the OFORge.exe installer
3. It's better to close other running applications and anti-virus software
4. Determine the installation location of the software to complete the installation

## 2 网络配置 Network Configuration

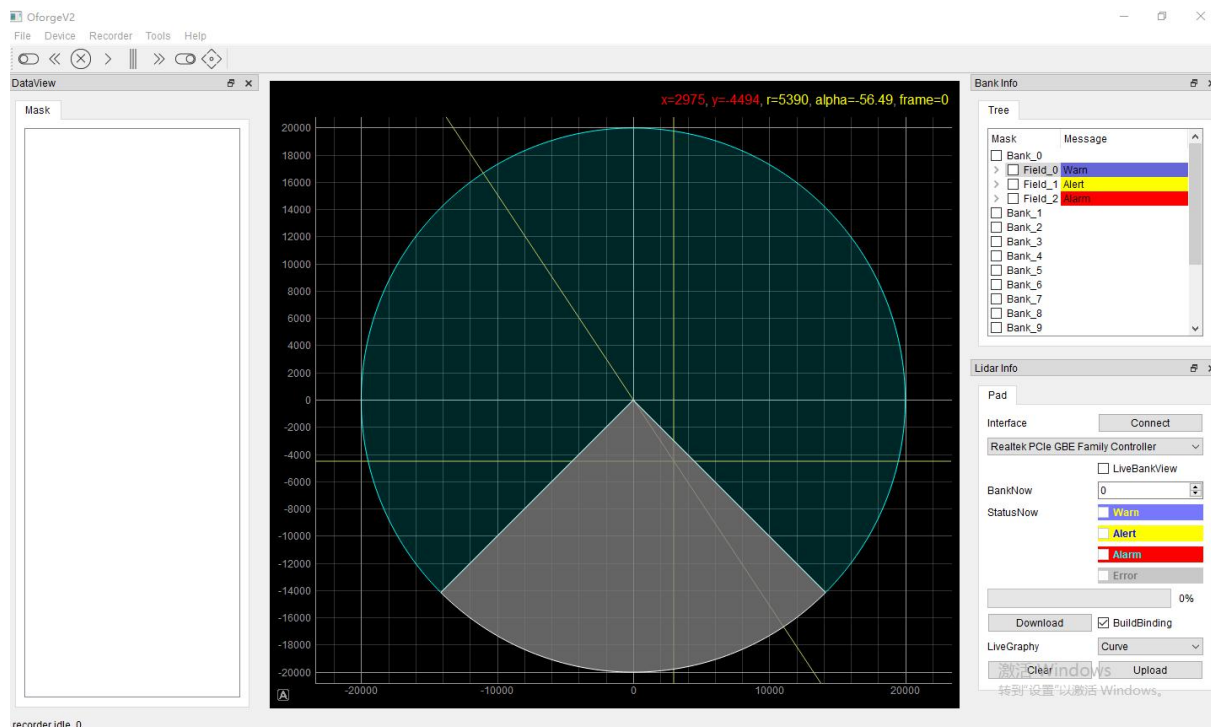
1. LR-1B 与电脑之间采用标准以太网 RJ-45 接口连接，遵循 UDP 协议，点云数据包端口号为 2368。 The standard Ethernet RJ-45 interface is used to connect LR-1B and the computer, following the UDP protocol, and port number of the point cloud data packet is 2368

2. IP 地址设置时，激光雷达和电脑两者 IP 必须设定在同一子网内，且不能冲突。LR-1B 的默认 IP 地址为 192.168.1.100，具体以出厂报告为准。电脑 IP 设置为 192.168.1.10，子网掩码 255.255.255.0。IP 设置流程如下所示。

When setting the IP address, the IP of the lidar and the computer must be set in the same subnet without any conflict. The default IP address of LR-1B is 192.168.1.100, which is subject to the factory report. The computer IP is set to 192.168.1.10, and the subnet mask is 255.255.255.0. The IP setting process is shown below.



### 3 软件界面 Software interface



### 3.1 菜单栏 Menu Bar

菜单栏组成如下图所示。 The composition of the menu bar is shown below

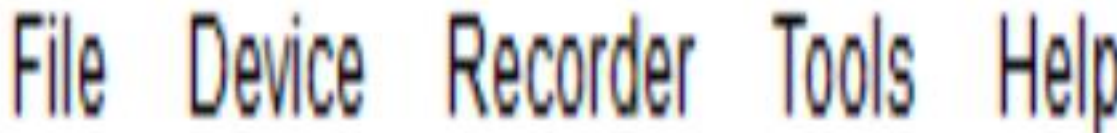


图 4 菜单栏 Figure 4 Menu bar

菜单栏中各项的具体说明如下表所示。

The detailed description of each item in the menu bar is shown in the table below.

表 1 菜单 File

Table 1 Menu File

File (文件)	
OpenMaskFile	打开电脑保存的 bank 文件 Open the bank file saved on the computer
SaveMaskFile	将雷达的 bank 文件保存到电脑 Save the bank file of radar to the computer

表 2 菜单 Device Table 2 Menu Device

Device(配置) Device (configuration)
用来选择雷达型号和添加雷达配置文件 Used to select radar model and add radar configuration file.

表 3 菜单 Recorder Table 3 Menu Recorder

Recorder(录相机)
暂时未开放 Not yet enabled

表 4 Tools Table 4 Tools

Tools (工具)	
Spreadsheet(电子表格)	显示 Data View 界面 Display the Data View interface
BankInfo(bank 信息)	显示 Bank Info 界面 Display the Bank Info interface
LidarInfo(雷达信息)	显示 Lidar Info 界面 Display the Lidar Info interface
LidarParameter	修改雷达基本参数。!!! 修改 IP 之后需要重启激光雷达才能生效。Modify the basic parameters of the radar.!!! The lidar should be restarted to take effect after IP is modified.
LidarIPdiscover	获取初始化雷达的 IP 地址。需要固件支持。Obtain the initial IP address of the radar. Need firmware support.

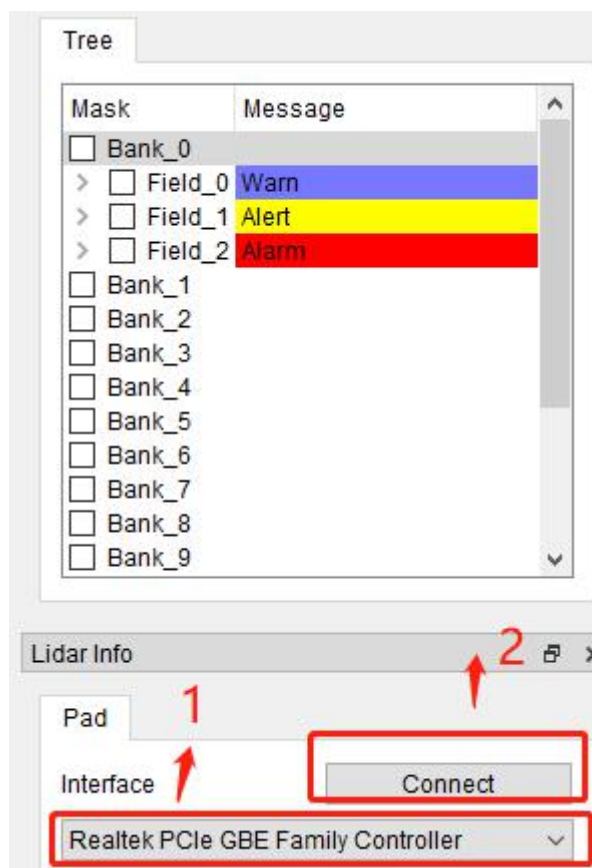
表 5 Help

Help(帮助)
显示软件版本 Show software version

## 4 软件使用 Software usage

### 4.1 连接雷达 Connect the radar

- 1.选择网卡 Choose a network card
- 2.点击 connect,即可连接上雷达 Click connect to connect to the radar



## 4.2 绘画 Bank Painting Bank

1. 雷达共有 16 个 Bank,序号为 Bank\_0 - Bank\_15

1. There are 16 banks in the radar, with the serial numbers of Bank\_0-Bank\_15

2. 每组 Bank 可以添加三个区域红黄蓝, 对应 Filed\_2,Filed\_1,Filed\_0.可通过打勾选项确定区域是否使用

Each bank can add three fields: red, yellow and blue, corresponding to Filed\_2, Filed\_1, Filed\_0. Determine whether to use the field by checking the option.

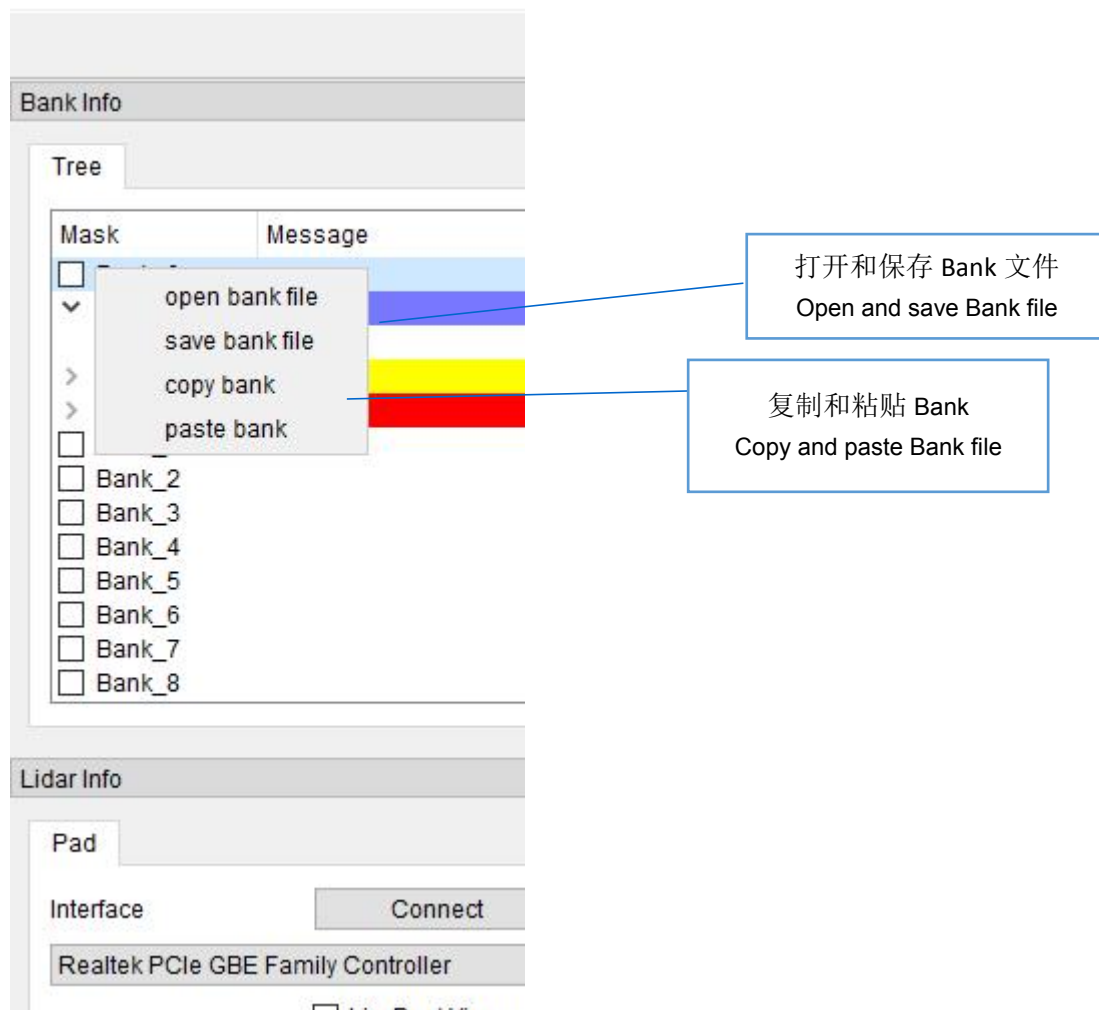
3. 选中 Bank 后, 右击 Filed 如下图

After selecting Bank, right-click Filed as shown below



4. 右击 Bank 可以对 Bank 进行操作  
Right-click on Bank to operate the Bank



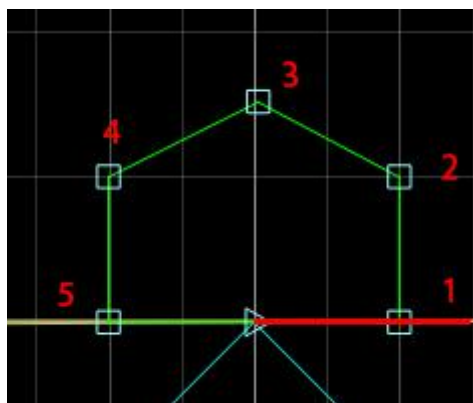


5. 绘制图形的注意点 Points to note when drawing graphics

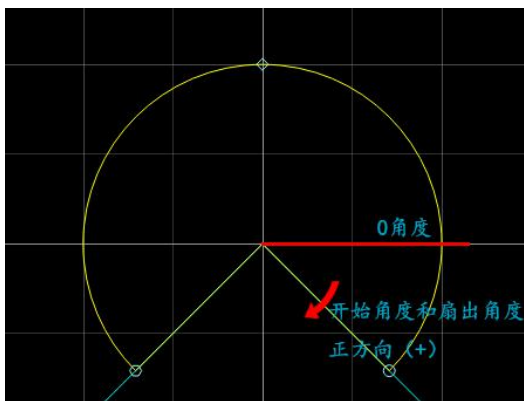
Polygonfix 绘制注意点:

界面双击线条, 会增加一个点 (handle), 界面右键 handle, remove handle--删除点, 左侧 Mask 可以精确绘制相应的坐标, 对应的 mask 序号和界面的点如下图:

Points to note when drawing Polygonfix: Double-click the line on the interface to create a point (handle), right-click the handle on the interface, remove handle--to delete the point, the mask on the left can accurately draw the corresponding coordinates, the corresponding points of mask number and interface are as follows:

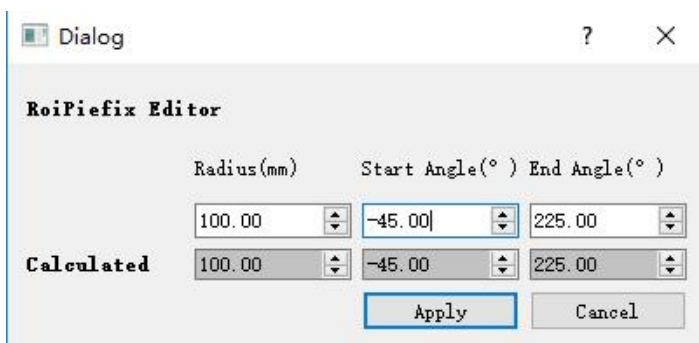


Piefix 绘制注意点: Points to note when drawing Piefix:



左键双击 mask 数字区域，修改扇形半径，初始角和结束角度，单击 apply。

Left-click the mask number area to modify the radius of circular sector, initial angle and end angle, and click apply.

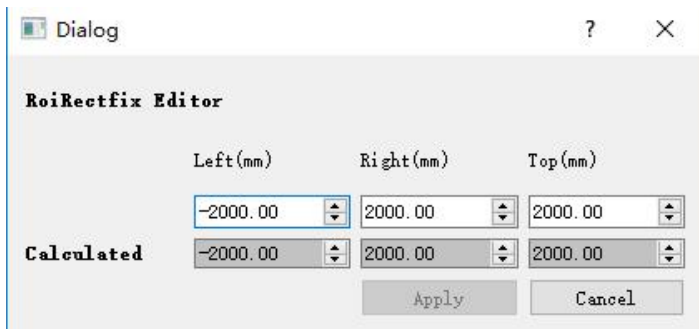


Rectfix 绘制注意点:

左键双击 mask 数字区域，修改矩形左侧距离，右侧距离和上边距离

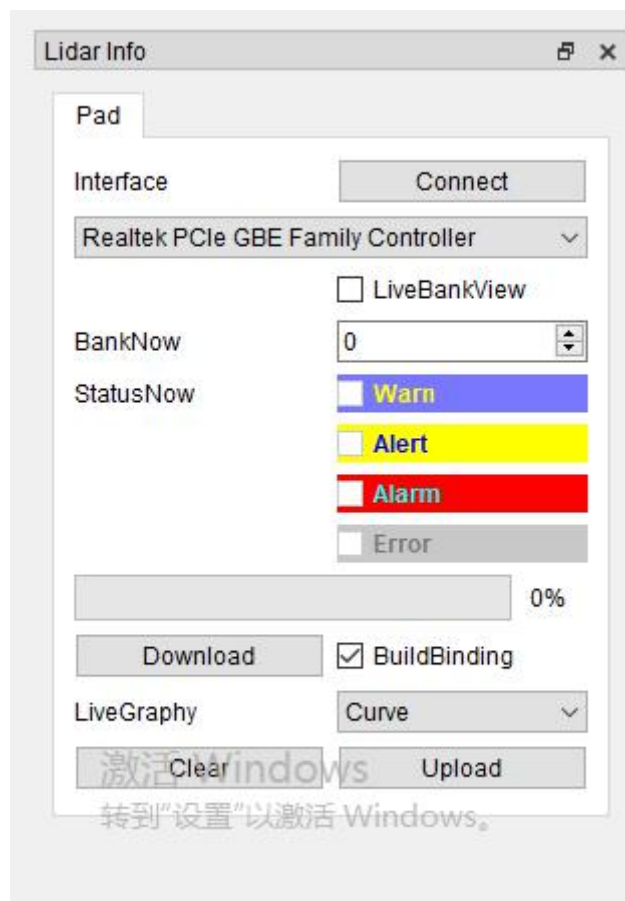
Points to note in Rectfix drawing:

Left and double click the mask number area to modify the distance on the left, right and top of the rectangle



## 4.3 Lidar Info 界面介绍

### 4.3 Introduction of Lidar Info interface



#### 3. LiveBankview

实时监控 Bank 图形开关

Real-time monitoring of bank graphics switches

#### 4. BankNow

显示当前 Bank 序号

Display the current bank serial number

#### 5. StatusNow

显示触发区域

Display trigger area

#### 6. LiveGraphy

点云形状有 curve, curve fill, curve surround 和 scatter 四种方式, 分别表示曲线, 曲线内填充, 曲线外包围和散点  
The point cloud shape has four modes: curve, curve fill, curve surround and scatter, which represent the curve, fill inside the curve, surround the curve and scattering points.

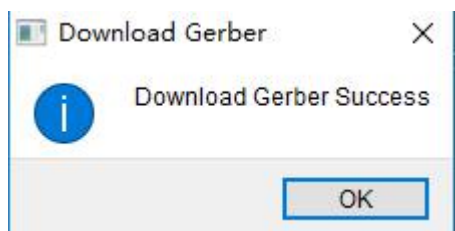
#### 7. Download 和 Upload

Download 是将画好的 Bank 图下载到雷达, 下载成功后如下图提示

Download and Upload

Download means to download the drawn bank picture to the radar, and the following picture *prompts after the*

*download is successful.*



Upload 是将雷达内部的 Bank 图上传到软件。（若进度条卡在 80%，表明 tftp 发生故障，建议重新执行上载）

Upload means to upload the bank picture inside the radar to the software. (If the progress bar is stuck at 80%, it indicates that tftp has failed, and it is recommended to re-execute the upload)

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