

User Manual

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Steps to use

1. Run driver

```
1 $ ./ans-devices
```

Startup Arguments

You can specify some arguments while run the tool

Arguments:

Name	Type	Default	Description
--cli	Boolean	False	Work as command line mode
-p, --port	Number	'8000'	Value should be an available port
--device-type	String	'auto'	Value should be one of IMU, RTK, DMU
-b, --baudrate	String	None	Value should be a valid baudrate. The valid value should be one of 38400, 57600, 115200, 230400, 460800

-c, --com-port	String	'auto'	Value should be a COM port
--console-log	Boolean	False	Output log on console
--debug	Boolean	False	Log debug information
--with-data-log	Boolean	False	Contains internal data log (OpenIMU only)
-s, --set-user-para	Boolean	False	Set user parameters (OpenRTK only)
-n, --ntrip-client	Boolean	False	Enable ntrip client (OpenRTK only)
-l, --protocol	String	'uart'	Value should be <code>uart</code> , <code>lan</code> . Depends on device type

2. Connect Device

Link device to your pc or mac. The tool will auto detect the linked device by default.

3. Data Visualization

Open the Aceina developer website, different devices correspond to different visualization pages.

- OpenIMU <https://developers.aceinna.com/devices/record-next>
- OpenRTK <https://developers.aceinna.com/devices/rtk>

Work Mode

Default Mode

Normally, python–openimu works as default mode. It will establish a websocket server, then exchange messages through the websocket protocol. And it should work with [aceinna developers site](#), it allows user to do data monitor, configuration and firmware management.

Command Line Mode

You can specify the startup argument `--cli` to switch to Command Line Mode. Command Line Mode helps you interact with device directly. And it also supply command to start a websocket server, so that you can use the full features of Default Mode.

Command Line Mode supports some commands for using, below is a list of commands description,

Help

Show help menu. It would show a list of description for all supported commands.

```
1 $ help
```

Get Device Info

Show information of connected device.

```
1 $ connect
```

Get Parameter (OpenIMU Only)

Retrieve current value of specified parameter.

```
1 $ get param_name
```

Set Parameter (OpenIMU Only)

Update the value of specified parameter. The value would be recovered after device power off.

```
1 $ set param_name param_value
```

Save Configuration

Save the configuration into EEPROM. The value would be permanently saved.

```
1 $ save
```

Record Data (OpenIMU Only)

Log the device output data in path /data. It is not supported for OpenRTK, because OpenRTK device will automatically log data when it is connected.

```
1 $ record
```

Upgrade Firmware

Upgrade firmware from a specified path. The binary file should match with the device. This is a high risk command.

```
1 $ upgrade path/to/bin
```

Start Server

Establish a websocket server.

```
1 $ server_start
```

Stop Server

Stop the websocket server. If there is websocket server running, it has to stop it when you want to use other command.

```
1 $ stop
```

Exit

Quit from Command Line Mode

```
1 $ exit
```

Protocol

Aceinna Device could be connected with your PC via UART or LAN. The supported protocol is depended on the device type.

Device Type	Supported Protocols	Description
DMU	uart	
OpenIMU	uart	
OpenRTK	uart, lan	The startup argument <code>-1</code> <code>lan</code> is supported
RTK330L	uart	