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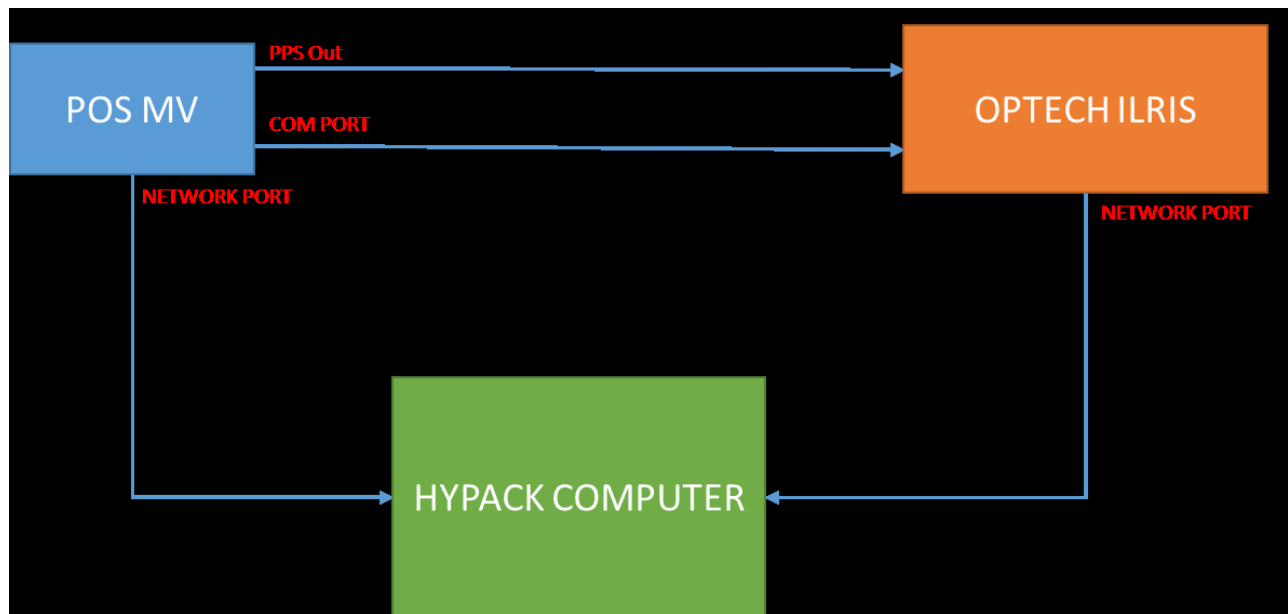
Sounding Better!

Optech ILRIS with Hypack

By Cristhian Bemudez

I am going to explain what you have to configure in the Optech ILRIS Laser to collect data with HYPACK®. The following figure shows the basic elements and the information needed.

FIGURE 1. Optech ILRIS Basic Setup



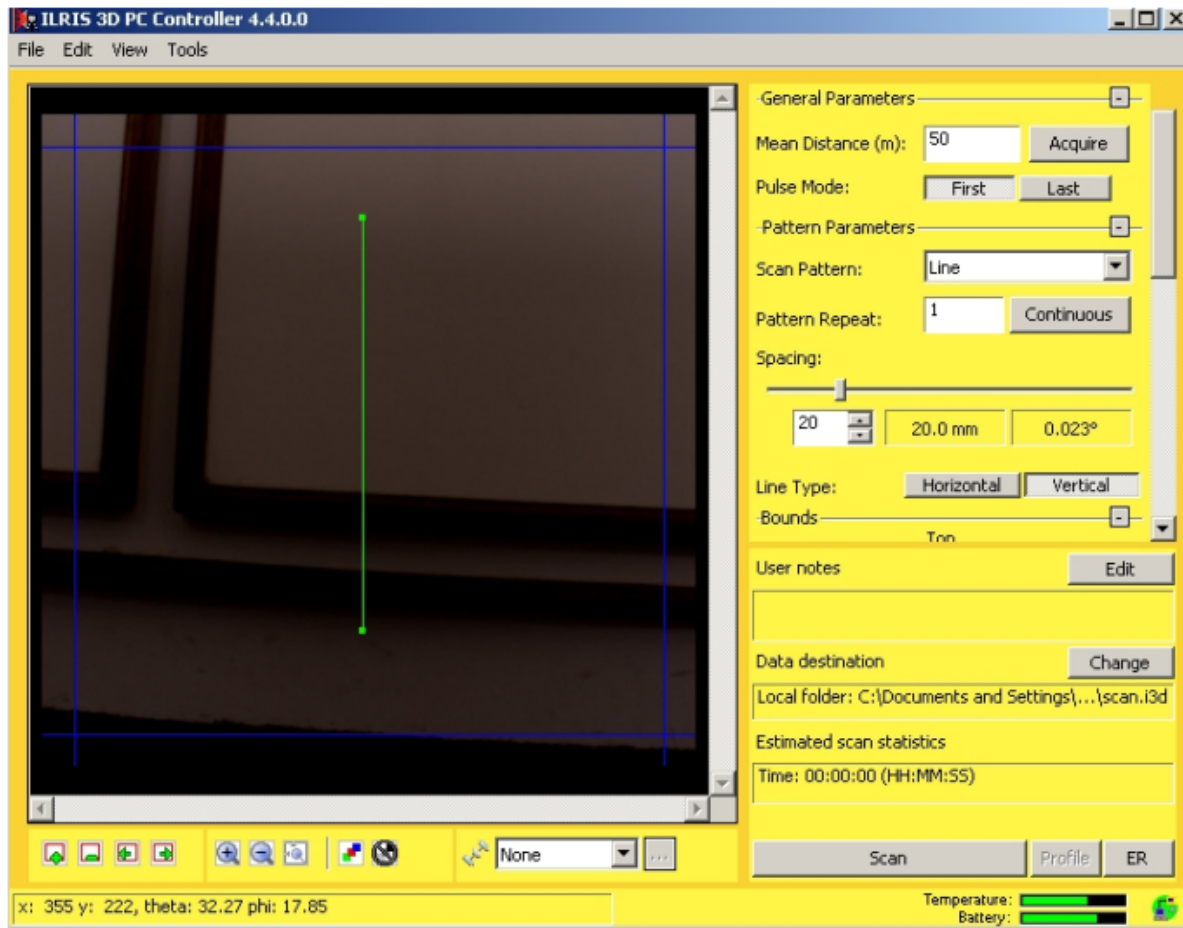
The laser needs both the 1PPS signal and GPPPS message that will tag all the data with the UTC time. Because the POS MV also sends the information with the UTC time, all the data is synchronized.

1. **Using PosView, enter the offsets from the reference point to the position antenna, and the distance from the reference point to the IMU.**
(If you want to know more information about it, read this article: [Offsets with Inertial and Multibeam Systems.](#))

HOW DO THEY KNOW THEY'RE CONNECTED TO THE LASER?

2. **once you are connected to the laser you have to set,**
3. **Open the ILRIS 3D PC Controller and set the parameters as follows:**
 - **ROI (Region Of Interest)**, which is the swath of the laser. This region should be a vertical line.

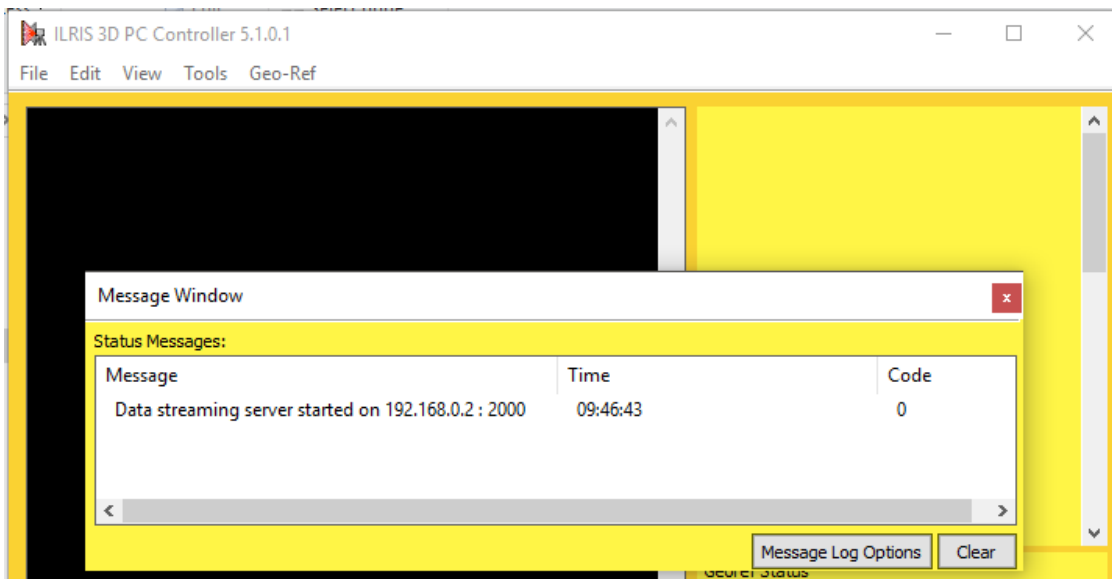
FIGURE 2. Selecting ROI and parameters in ILRIS 3D PC.



- **Pattern Repeat:** Enter a value of '0' to make the laser run the swath using the ROI continuously until you press "STOP".
4. **Send the laser data to HYPACK®.** You need to enable "data streaming" in the Tools menu. A window will appear with the IP address and the port where the data has been sent.

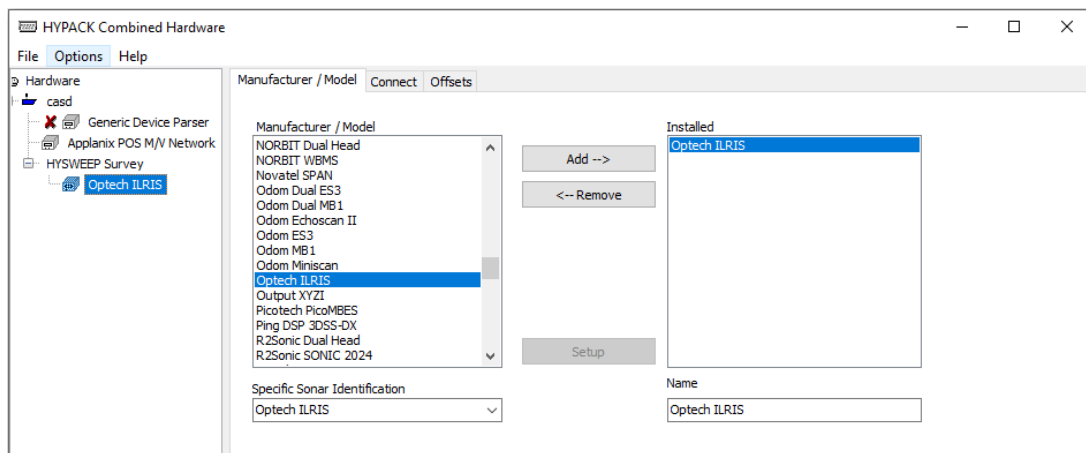
NOTE:The IP address is different in each case; it depends on the interfaces you have in your computer. Remember to enter this IP address in HYPACK® when you are configuring the Optech ILRIS driver.

FIGURE 3. Streaming Laser Data from ILRIS 3D PC.



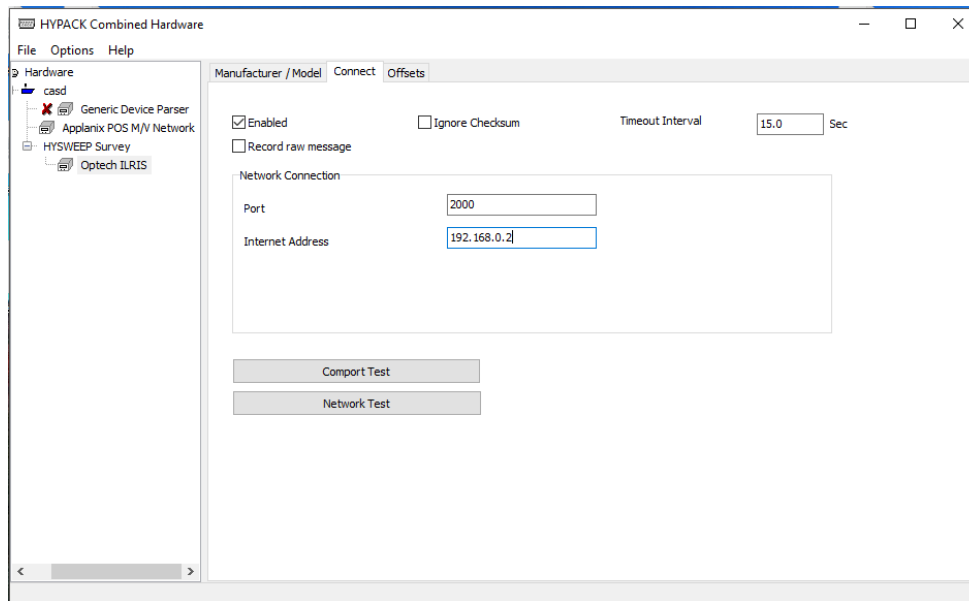
5. Once you have ILRIS 3D PC streaming data, go to **HYPACK®** and configure the **OPTECH ILRIS** driver.

FIGURE 4. Optech ILRIS Driver.



- **Connect Tab:** For this driver you do not need to configure anything but the same IP address and port that appears in the window of ILRIS 3D PC software. If you are running ILRIS 3D PC in the same computer as HYPACK®, you also can enter 127.0.0.1 in the IP address field.

FIGURE 5. *Optech Ilris Connect options.*



- **Offsets:** Remember you measured the POS MV offsets from the reference point. For the laser you have to measure the offsets using the same reference.