

Here+ Usage Instruction

First-time Setup of Here+ Base and Air Module

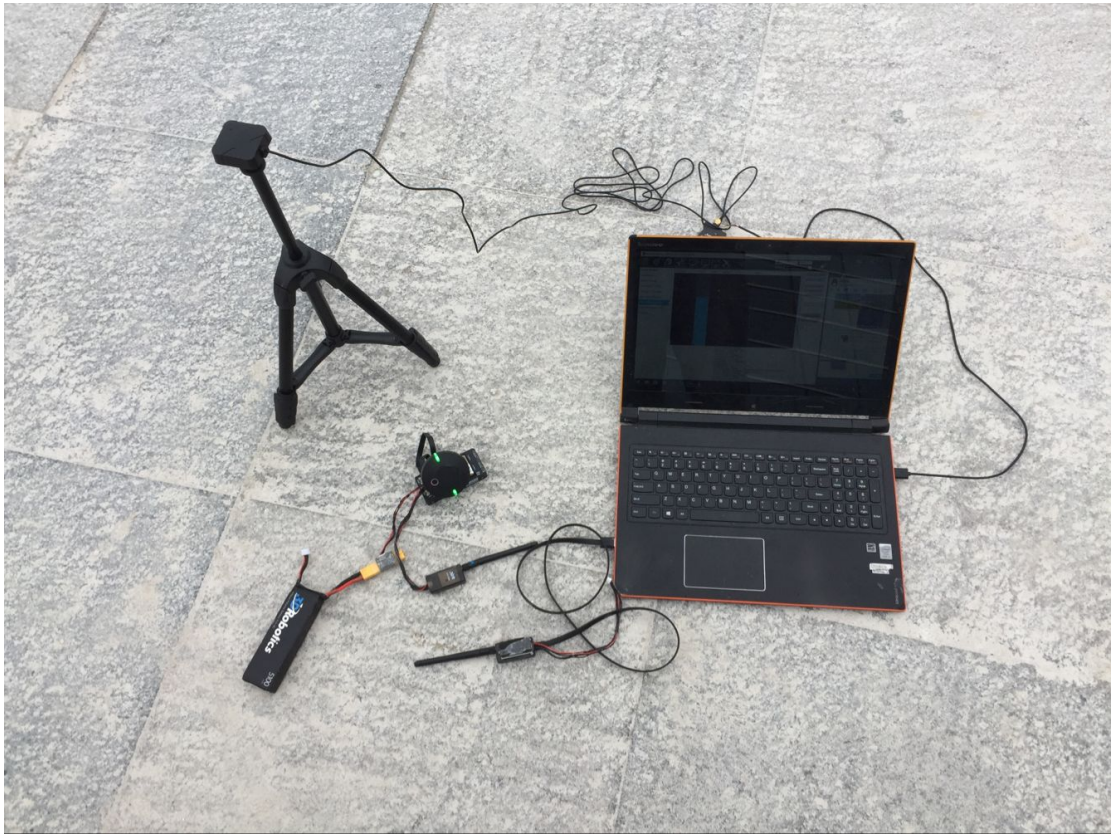
Before you connect Here+ base to mission planner, please ensure that you have the ubloxGnss_usbcdc_windows_3264_v1.2.0.8 driver installed. The driver can be downloaded when you install Ucentre (A ublox GNSS analysis GUI) on your computer. If successfully installed, Here+ base will be detected as a com port in your device manager as well as Mission Planner.



1. connect you're here+ base, Pixhawk2.1 and accessories to your laptop USB.
Antenna-> RTK Base
GPS Rover->GPS1 port
Temeletry-> Telem1 port
Power Brick Mini->Power1 port
The other Telemetry and RTK Base -> computer



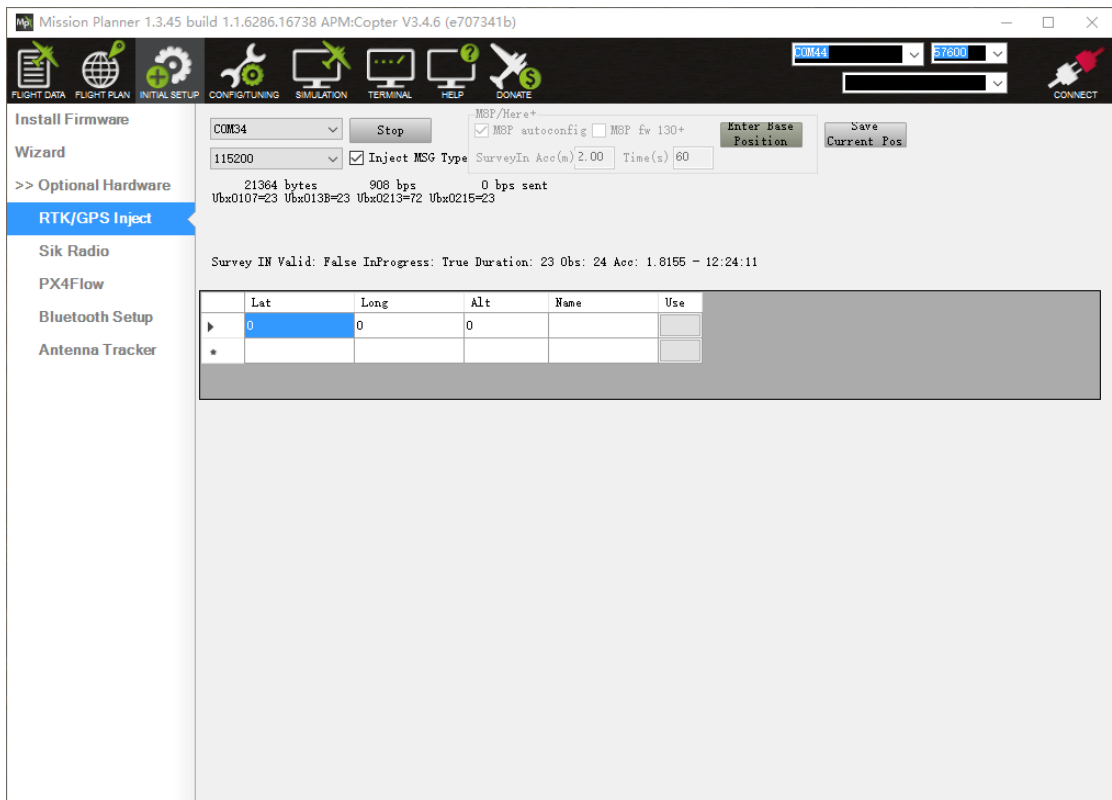
2. find an open place for placing Here+ base, make sure there is a high and wide place like Center of a roof or other open area.



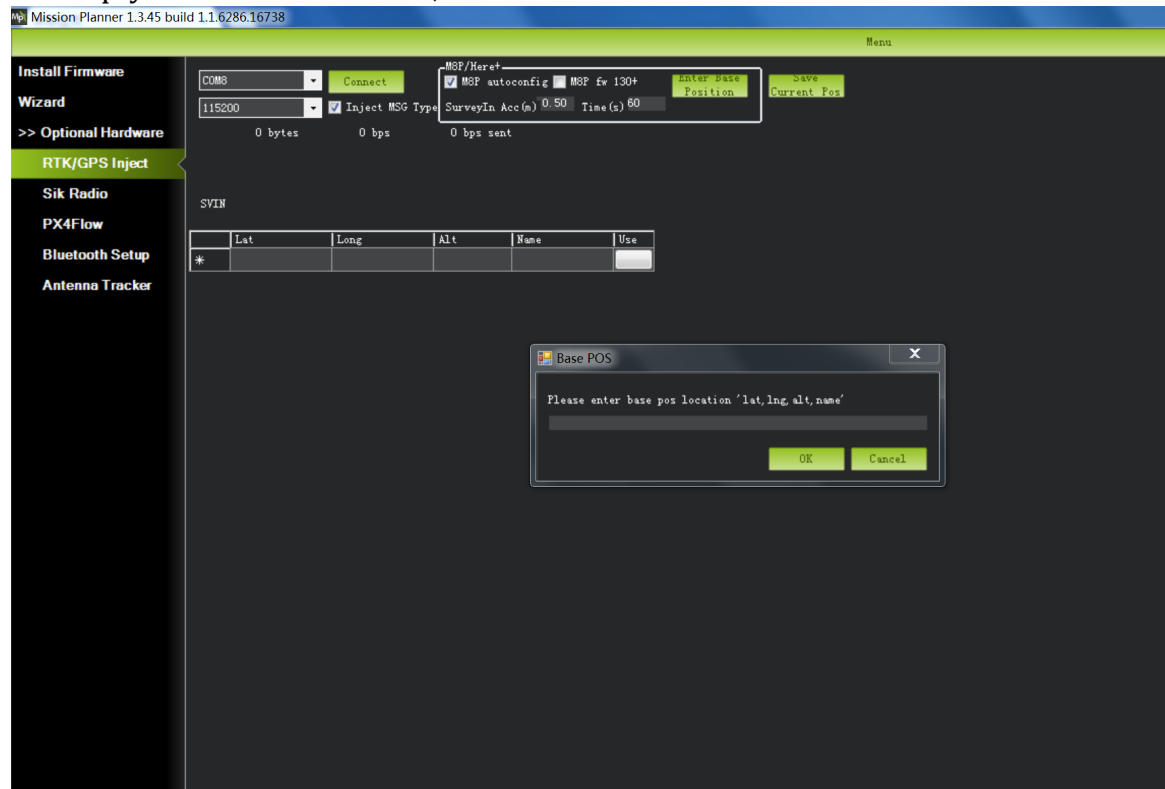
Make sure the Base
Antenna is on a high
And wide place to ensure
the quality of base signals



- start mission planner / go to initial settings / look under optional accessories, for RTK / GPS Inject



- Click the Enter Base Position button, make sure the dialogue box shows empty location information, as shown below:



- select the Auto configure, and select the port you're here+ Base is on. Then connect, In the SurveyIn Acc input box, key in the accuracy of base station you wish to achieve, in the unit of meters (for example, 0.50 means 50cm accuracy). In the Time(s) input box, key in a reference time in seconds. Depending on your desired accuracy, the base station may take more than your input time to achieve the desired accuracy.

A line of text will indicate the current status of the surveying:

'Survey In' indicates whether the survey has achieved the desired accuracy of base station, it will show 'true' when the survey has been completed.

'InProgress' shows whether the survey is still ongoing. A completed survey of the current position is indicated by the status messages SurveyIn Valid: True, and InProgress: false.

'Duration': the duration of the survey in seconds

'Obs': number of observations used for the survey,

Acc: current accuracy in meters. The time required for a completed survey depends on the signal reception of the base station and the indicated accuracy.

To achieve accuracy below 0.5m, the survey process may take hours.

When the survey is completed as indicated by the SurveyIn: True message, you may click the 'Save current pos' button and enter a name for the saved position.

Mission Planner 1.3.45 build 1.1.6286.16738 APM:Copter V3.4.6 (e707341b)

COM34 Stop MBP/Here+ MBP autoconfig MBP fw 130+ Enter Base Position Save Current Pos

115200 Inject MSG Type SurveyIn Acc(m) 2.00 Time(s) 60

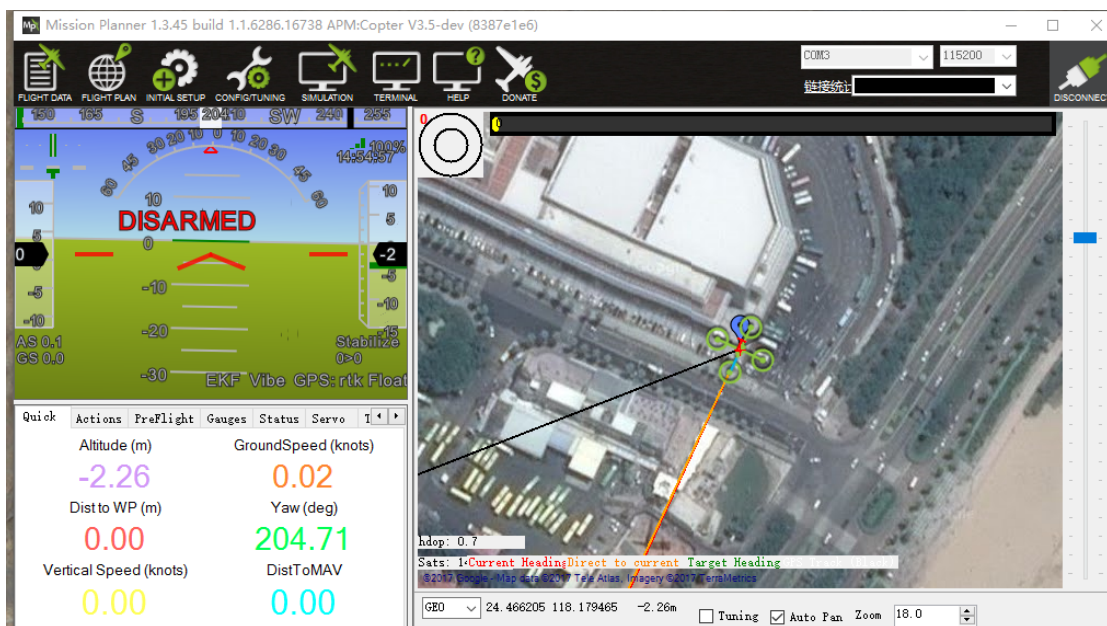
112410 bytes 1084 bps 0 bps sent
 Ubx0215=108 Ubx013B=108 Ubx0213=314 Rtcml077=17 Rtcml087=20 Rtcml005=2 Ubx0107=107
 RTCM Base 24.4662036203712 118.179443014041 23.8242836557329 - 12:25:17

Survey IN Valid: True InProgress: False Duration: 60 Obs: 61 Acc: 1.734 - 12:25:36

Lat	Long	Alt	Name	Use
0	0	0		

Bar chart showing signal strength for receivers: G3 (24), G10 (42), G14 (45), G16 (47), G22 (30), G25 (37), G26 (48), G29 (43), G31 (48), B6 (44), B6 (45), B7 (46), R10 (42), R16 (29), R18 (37), R19 (33), R20 (35).

6. The satellite information will be visualized as green bars as shown in the screen shot below. After saving the position, you should see a base position data with lat, long and alt. And in the map, you should see a blue base point. The information of the saved position will be displayed in the table as shown in the screen shot below. Now, you may power up your vehicle equipped with the Here+ air module, and connect your telemetry module to Mission Planner. Once your vehicle is connected through Mavlink, the corrections from base station will be sent to vehicle by Mavlink message.
7. at the plane or copter... connect the Here+ Rover as normal, connect the telemetry and go fly!
In English version of MP you should see RTK float/fix, in Chinese version you should see “3D RTK”. and you can see rover position on the map.
8. The saved position can be used the next time you set up the base station in the exact same location. However, if you change to another location for surveying, please ensure you clear the position information in the dialog box that pops up when you click ‘Enter Base Position’. Otherwise, the previously saved point will be taken every time you connect to the base module.



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COM3 115200

连接统计 断开连接

飞行数据 飞行计划 初始设置 配置测试 模拟 校准 帮助

150 165 S 195 20410 SW 240 255

100% 14:53:07

已锁定

空速 0.2 地速 0.0 Stabilize 0>0 EKF Vibe GPS: 3D RTK

快速	动作	起飞前检查	仪表	状态	舵机
高度 (m)	地速 (knots)				
-2.42	0.0				
航点距离 (m)	偏航 (deg)				
0.0	204.6				
升降速度 (knots)	DistToMAV				
0.04	0.0				

hdop: 0.8 Sats: 13 当前指向 首次当前航点 目标指向

GE0 24.466203 118.179473 -2.42m 调试 自动平移 缩放 18.0