

Updating the GNSS Engine in a iG3s

Date: 28 August 2017

By: Mark Silver; ms@igage.com +1-801-412-0011 x16

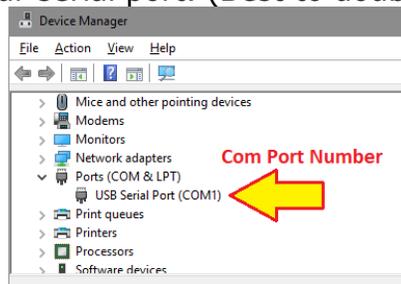
This application note describes the method for updating the **unicorcomm** GNSS firmware in the iG3s receiver.

WARNING: There will be a few screens in Chinese, please follow these instructions carefully.

1. Download the .ZIP package that contains the updated GNSS firmware. Typically it will be located in a subfolder of this web location:
<https://ig3s.com/out/firmware/GNSS/index.html>
The folder with the highest firmware revision is probably the best option.

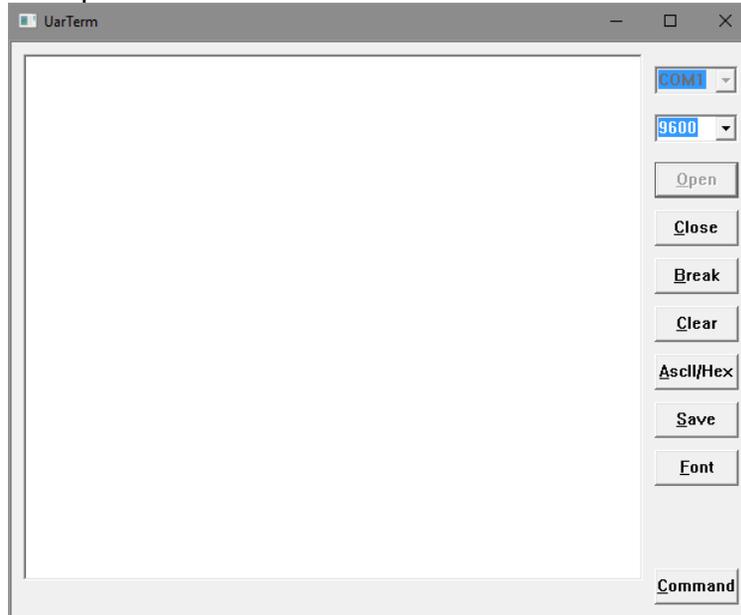
Contact iGage if you have questions.

2. Decompress the ZIP file into a 'clean empty folder.'
3. Connect your PC to the iG3s receiver with the supplied serial cable. Use the 9-pin serial connector to a serial port on your PC. If you don't have a serial port, you will need a USB-to-Serial adapter. We recommend this one:
https://www.amazon.com/Tera-Grand-Premium-Serial-Adapter/dp/B00QG83YVC/ref=sr_1_1?ie=UTF8&qid=1503944828&sr=8-1-spons&keywords=usb+to+serial+adapter+windows+10&psc=1 from Amazon.
4. Use the Windows **Device Manager** to determine the COM Port number of your serial port. (Best to double-check and make sure.)



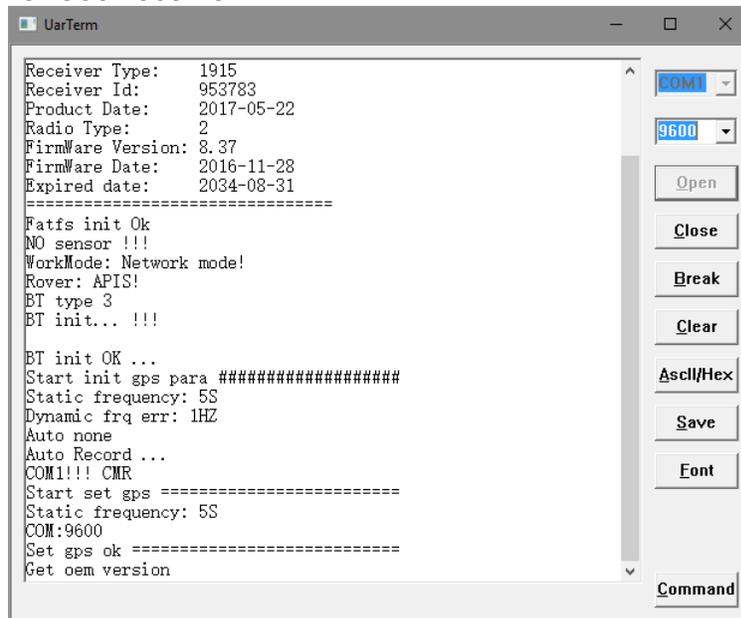
5. Load a fully charged battery. If your power supply is handy, plug external power into the cable too. Don't turn on the iG3s yet.
6. Run the UARterm2.EXE program:
 - Set the Baud Rate to 9600
 - Set the COM port to match the port you are using

Click the 'Open' button



2

7. Turn on the iG3s receiver:



Wait for the 'Get oem version' message to be displayed, about 30 seconds.

8. Click the 'Command' button

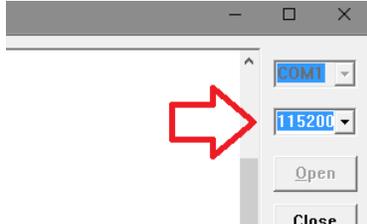


Enter 10051 in the Command box, then click 'Send'



The head will respond with 'administrator direct enable' as shown above.

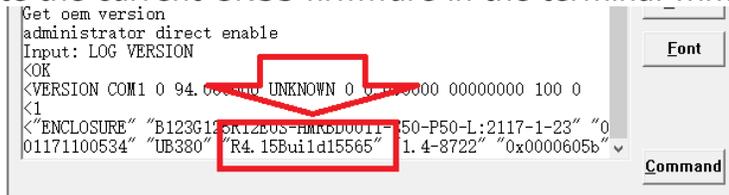
9. Change the baud rate to 115,200:



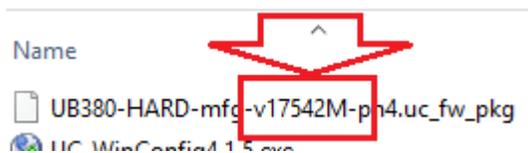
10. Enter 'log version' followed by a Enter (New Line) in the Command box, then click Send:



11. Note the current GNSS firmware in the terminal window:



The current device version should be less than the version you are going to upload:



In other words, the build number that you are loading should be higher than the build number that is currently installed.

12. Close UARTTERM.

13. Run UC_Winconfig4.1.5.exe:

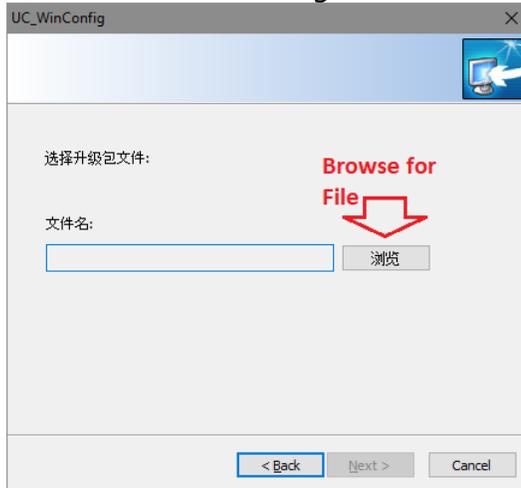


It will display a splash screen:

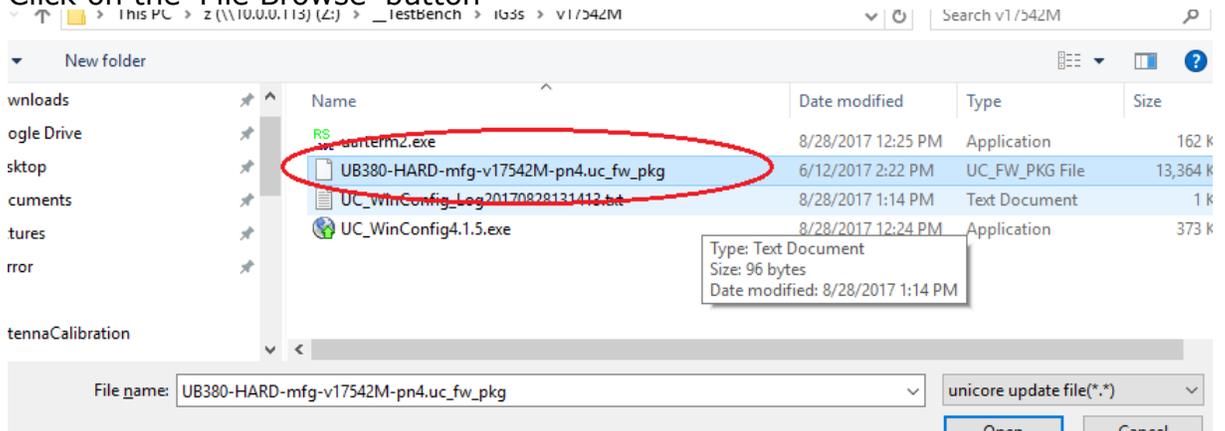


Click **Next**

14.The browse for file dialog will be shown:

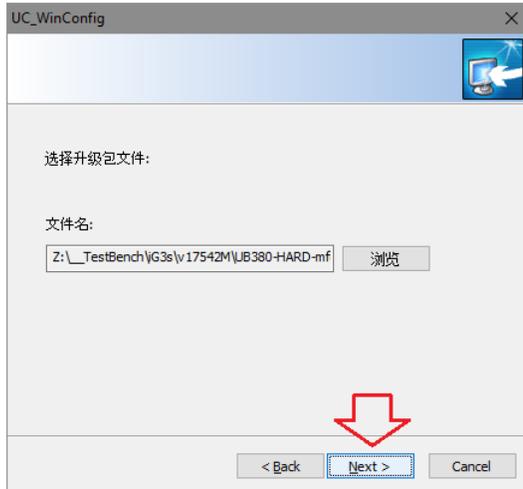


Click on the 'File Browse' button



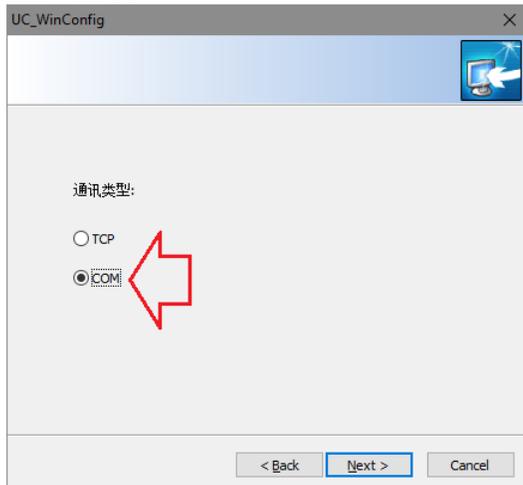
Select the .uc_fw_pkg file and click **Open**

15. The selected file will be listed:



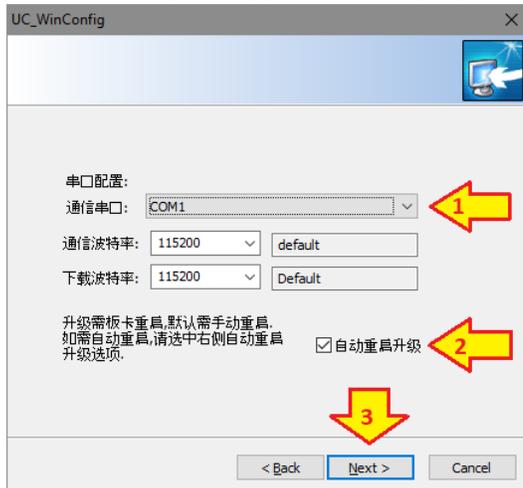
Press Next to continue

16. Select 'COM'



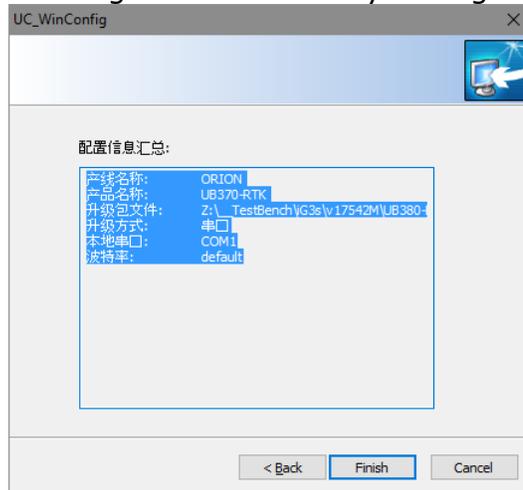
Then click **Next** to continue

17. Both baud rate boxes should be set to 115,200:



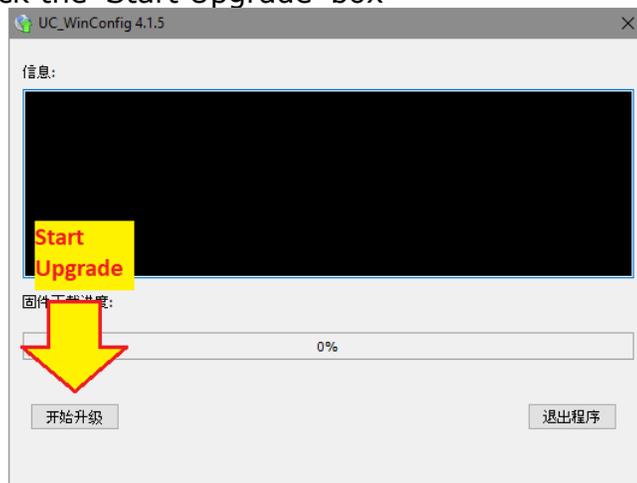
- (1) Select the correct COM port.
- (2) Check the 'Automatically Reboot after Upgrade' checkbox
- (3) then click **Next**

18. The 'Configuration Summary' dialog is shown:



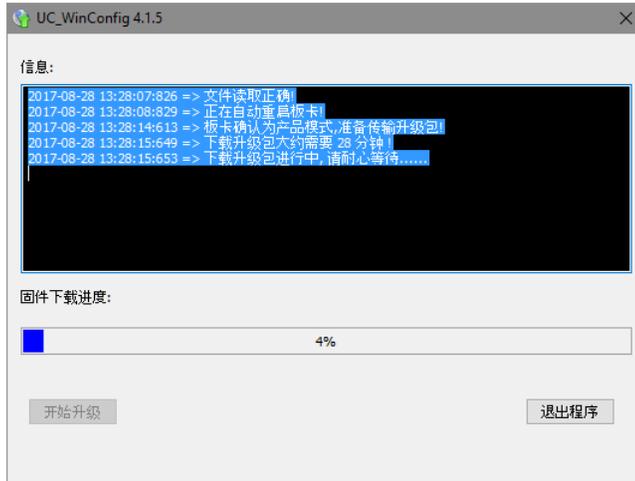
Click **Finish**

19. Click the 'Start Upgrade' box



on the left side of the dialog to begin reflashing the GNSS engine.

20.It will take about 28 minutes:



7

for the process to complete. A blue bar will move from left to right.

21.When complete:



Make sure the 'board update success' line is shown:



Then click Exit Program (on the right)

22.Turn the head off.

23.Turn the head on and use normally.