Own-Ship Position

Jeppesen FDP + Microsoft Surface + Bad Elf GPS

Bad Elf

From iPad to Surface

What is different when you move between platforms?

	Apple iPad	Microsoft Surface 2 RT, Surface 3 Pro
App Support	Jeppesen FliteDeck Pro (FDP) 8.x	Jeppesen FliteDeck Pro (FDP) 8.x
Location Services Behavior	FDP, like all other iOS apps, obtains location services from Apple's standard Core Location Services.	FDP obtains the location data directly from the Bad Elf GPS after the app is authorized to use it as a data source. The app itself manages the Bluetooth connection, opening it as needed, to access the Bad Elf GPS.
Bluetooth	Once the Bad Elf is paired to the iPad, GPS data is fed continuously over the Bluetooth connection into the Apple Core Location Services.	After the Bad Elf is paired with the Surface, the Bluetooth connection status shown in the PC Settings view can be erroneous. There are known bugs that will be fixed in Windows 10.
Recommended External GPS	Bad Elf GPS Pro (2200) Bad Elf GPS Pro+ (2300)	Bad Elf GPS Pro (2200) Bad Elf GPS Pro+ (2300)

Own Ship Checklist

What can you check to ensure that your setup is ready to go?

Jeppesen FliteDeck Pro (FDP)	Microsoft Surface	Bad Elf Pro or Pro+
✓ Version 8.1 or later	✓ Windows 8.1 or later	✓ Firmware Version ≥ 2.1.26 (Pro+)
✓ FDP is running	✓ Paired with Bad Elf GPS Pro	✓ Firmware Version ≥ 2.0.74 (Pro)
✓ Setting: Enable Moving Map = ON		✓ Bad Elf is powered ON
✓ Setting: Display Own-Ship = ON		✓ Line of sight to the sky
✓ Setting: Show Taxi Diagram = ON		✓ Bluetooth is ON
✓ Minimum GPS Accuracy Required • 200m for enroute • 17m for airport diagram		✓ Within 10m of the Microsoft Surface
✓ GPS Status button in toolbar		✓ Paired with the Microsoft Surface

Known Issues

Quick fixes to a few persistent bugs.

Bad Elf

Known Issues	Mitigation
If a Bad Elf GPS receiver is paired with the Surface and the Surface is placed in Airplane mode, then when Airplane mode is turned off, the device loses the connection with the receiver	First, turn Airplane mode off. Then restart the device and ensure that Airplane mode remains off. Then restart the App. Source: Jeppesen WINRT-3825
Own-ship does not display in the correct location while located in the Southern hemisphere.	Fixed in FliteDeck Pro 8.2. Source: Jeppesen
For Surface 2 Pro and Surface 3 Pro users, a Windows bug can prevent FDP from opening the Bluetooth connection after a successful pairing.	1. Open the Registry Editor. (Press the Win + R keys and type "regedit", or open a command prompt and type "regedit".) 2. Navigate to HKEY_LOCAL_MACHINE/SOFTWARE/Microsoft/Windows NT/CurrentVersion. 3. In the right pane of the window, double-click on CurrentVersion and change the value from 6.3 to 6.2 4. Restart your machine. The registry value will actually change itself back to 6.3 after the reboot, but the Bad Elf may now work properly.

Detailed Pairing Instructions

Everything you absolutely need to know to get things working.

The first thing to check is that you have the latest firmware installed on your GPS Pro/Pro+. You can see the firmware version on the LCD boot screen when you power the unit on. If you need to upgrade, this can be done via the Bad Elf app on the iPad or iPhone. You'll see a Firmware button on the first tab in the app. Select that and the app will download and install the latest available firmware for the GPS.

Now, to pair the GPS Pro/Pro+ with your Surface RT or Surface 3 Pro:

1. Go into the Settings/Control Panel on your Surface and find the Bluetooth section under Devices.

2. If your GPS Pro/Pro+ is turned on, you should see something like Bad Elf GPS Pro #12345 (with your unit's serial number) in the list.

3. Select your Bad Elf GPS device from the list, and tap the Pair button.

4. Within 5-10 seconds, you should see a prompt on both the Surface and the GPS Pro/Pro+ LCD screen asking you to confirm a pairing PIN, which should match. Press the bottom button on the GPS Pro/Pro+, and confirm the pairing on the Surface side as well. Pairing must be confirmed on both devices to complete the pairing process.

5. At this point you will have a successful pairing. You only need to pair devices once. You may ignore whatever the Surface shows in the Bluetooth screen in terms of connected/disconnected/ ready -- there are some known Microsoft bugs around this in the current Windows 8.x releases.

6. The connection to the GPS Pro/Pro+ is only opened when you have Jeppesen FDP running, so the next time you open FDP, you will be prompted to authorize the app to use the GPS Pro/Pro+ device that you have just paired. If not, go into the Settings view in FDP and make sure that the own-ship display setting is enabled. After doing this, you may need to exit and re-start FDP in order to get the Bluetooth prompt to appear again.

7. At this point, anytime that FDP is opened, it should automatically open the Bluetooth connection to the GPS Pro/Pro+ (assuming that it is in range and turned on). If the GPS Pro/Pro+ has a good lock, you'll see the GPS information in the app and your own ship icon in FDP.

Upgrading Your Firmware

How to Upgrade Your Bad Elf GPS Pro+ Firmware Without an iOS Device

1. Download this file from the Internet: http://epo.bad-elf.com/BEGPS-2300-v2.1.26.dfu.bin

2. Rename the BEGPS-2300-v2.1.26.dfu.bin file to to be firmware.bin

3. With the power off, connect your GPS Pro+ to your computer using the included USB cable.

4. Tap the bottom button to enter USB mode, and give it a minute to appear on the Finder or Explorer on your computer.

5. Copy the the firmware file to the root directory of the GPS Pro+.

6. Unplug the USB from the back of the GPS Pro+.

7. Re-connect the USB cable back into the GPS Pro+ and tap the bottom button.

8. An on-screen notification will appear that a firmware file has been located.

9. You will be prompted to tap the top power button to update after the firmware file has been unpacked.
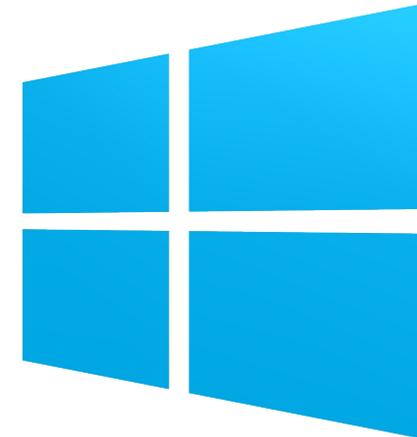
References

Please visit the following to obtain additional information, if needed.

Bad Elf GPS Pro and Pro+

FliteDeck Pro Resources

Microsoft Surface 2 RT, Surface 3 Pro

Bad Elf