



C-NavX1 Firmware Update Installation Procedure

Revision 1

Revision Date: 28th July 2022

C-Nav[®] Positioning Solutions
oceanering.com/positioning-solutions



Release Notice

This is the July 2022 release of the **Oceaneering® C-NavX1** GNSS receiver firmware update installation procedure.

Revision History

| | | |
|-----------------|-------------|---------------------------|
| 1 | 07/28/2022 | Release |
| 0 | 07/14/2022 | Initial document creation |
| Revision | Date | Description |

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Manual Organization

This is a short tutorial explaining the steps necessary to update the firmware in a C-NavX1 GNSS receiver using the Windows updater application software. Sections are organized in a manner that facilitates quick operator orientation.

[Section 1 - Overview](#) (Page 7) gives a brief overview of the purpose of this document.

[Section 2 – Obtaining the C-NavX1 IP Address](#) (Page 8) outlines the procedure for obtaining a working IP address. If the receivers IP is known it can be skipped, as the IP address is a requirement for updating confirming the IP address is good practice.

[Section 3 – The C-NavX1 Firmware Updater](#) (Page 10) lists the procedure to obtain, install and run the C-NavX1 firmware updater.

Related Documents

[CNAV-MAN-061.01 \(C-NavX1 GNSS Receiver User Guide\)](#)

Provides specifications and information about the C-NavX1 GNSS receiver.

[CNAV-PRI-014.X \(C-NavX1 Firmware Release Notice\)](#)

Provides details of the latest C-NavX1 GNSS receiver firmware release.

Manual Conventions

Arial font is used for plain text in this document.

Arial italic font is used for settings names.

'Arial quoted' font is used for settings values.

Arial Bold font is used for button names.

Arial Bold Italic font is used for menu items.

Arial Blue font is used for cross-references.

Arial Blue Underline font is used for hyperlinks.

Arial red italic is used for typed commands.

Arial Bold font size 10 is used for captions.

ARIAL BLACK ALL-CAPS font is used for port connection names.



This symbol means Reader Be Careful. It indicates a caution, care, and/or safety situation. The user might do something that could result in equipment damage or loss of data.



This symbol means Danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical and RF circuitry and be familiar with standard practices for preventing accidents.

Important notes are displayed in shaded text boxes.

Please note:

Such note boxes display important information that should not be ignored.

Simple file content is displayed in Courier New Black font in a text box.

```
#Sample File  
Version 0.1
```

Section 1 - Overview

Introduction

This C-NavX1 GNSS receivers firmware update is performed over the receivers LAN connection. The update is sent to the receivers IP address before a restart is performed to finalize the update.

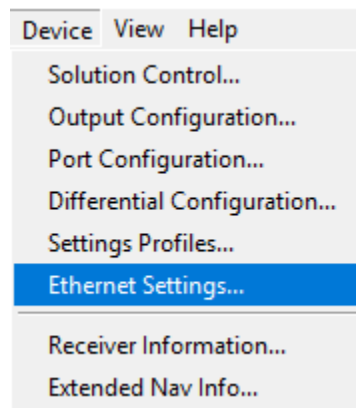
Warning:

Use only the latest version of software to perform the outlined procedure(s). The latest software and the firmware are available for download from the C-Nav [Customer Support](#) Webpage.

Section 2 – Obtaining the C-NavX1 IP Address

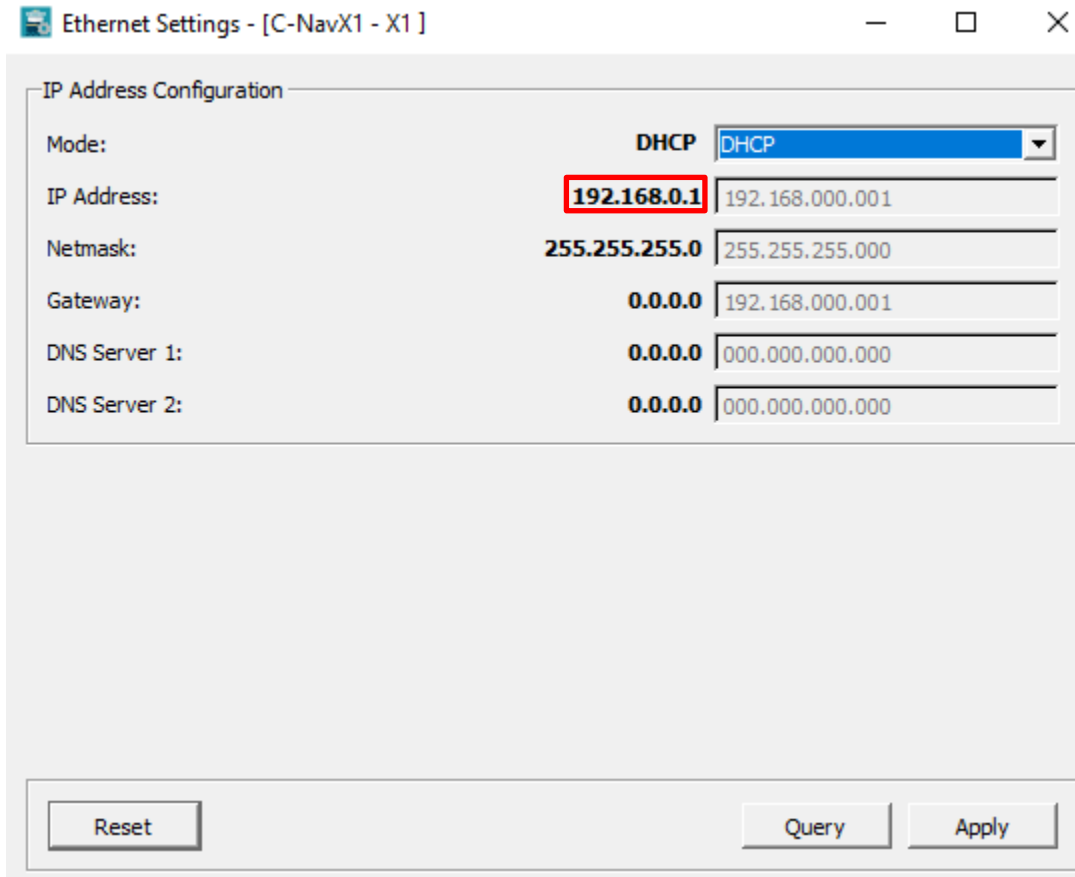
The C-NavX1 IP Address

1. Connect the receiver and the PC or laptop being used for the update to the same network switch with DHCP capabilities.
2. Using C-Setup / C-Monitor[®] QA/QC software / C-Scape connect to the C-NavX1 using one of the receiver's Serial ports or alternatively USB port.
3. Once the C-Nav[®] control software establishes communication with the receiver, access the **Ethernet Settings** page from the **Device** menu.



4. If there is no IP address, set the **mode** to 'DHCP', if it was 'Manual' before after changing to 'DHCP' make sure to press **Apply**.
5. Use the **Query** button to update the items on the menu window, if an IP address isn't shown, give it some time and press **Query** again, else check the network hardware and cabling.

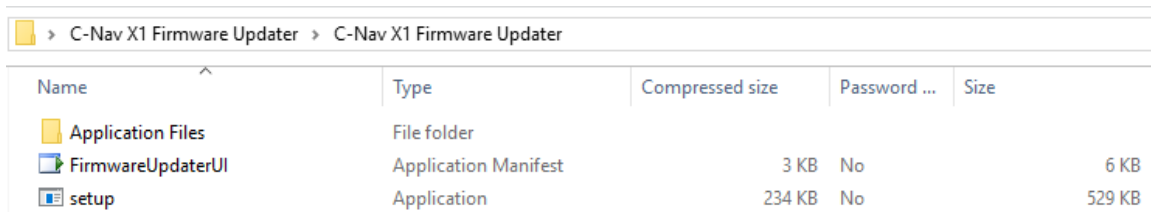
6. Take note of the *IP address* shown for the receiver, this will be the IP address entered on the C-NavX1 Firmware Updater application.



Section 3 – The C-NavX1 Firmware Updater

The C-NavX1 Firmware updater

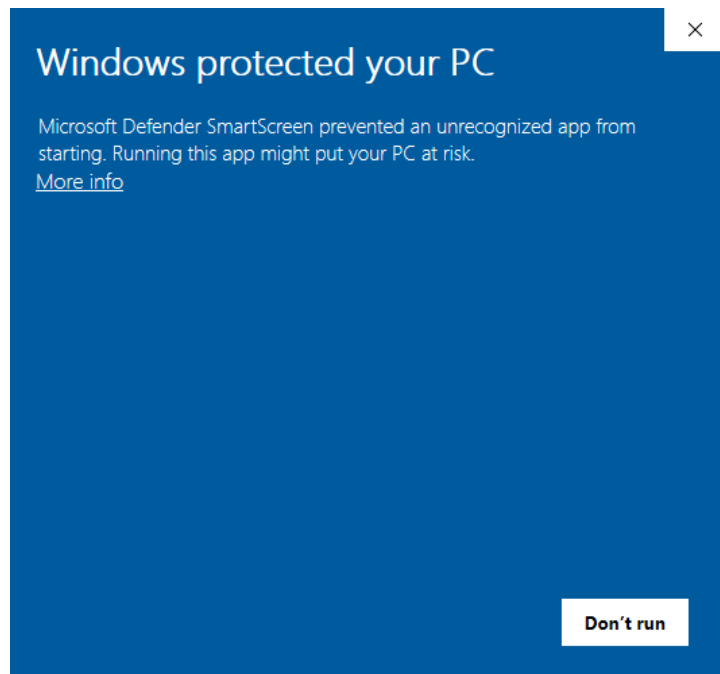
1. Navigate to the C-Nav [Customer Support](#) webpage to download the latest version of C-NavX1 firmware & Firmware Updater Application.
2. Unzip the contents of the file to find firmware, release notes and updater application.
3. Unzip the contents of 'C-Nav X1 Firmware Updater.zip' to reveal 3 files.



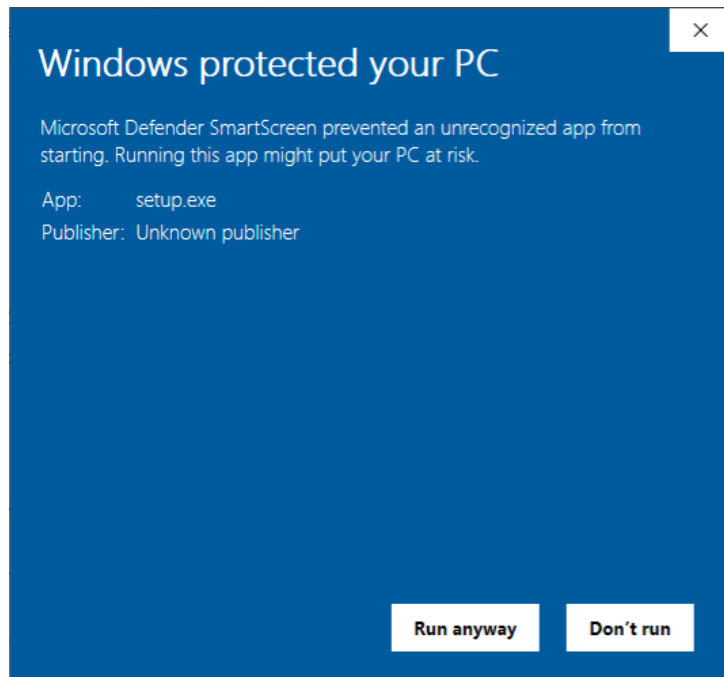
The screenshot shows a Windows File Explorer window with the address bar displaying 'C-Nav X1 Firmware Updater > C-Nav X1 Firmware Updater'. The main area contains a table of files and folders:

| Name | Type | Compressed size | Password ... | Size |
|-------------------|----------------------|-----------------|--------------|--------|
| Application Files | File folder | | | |
| FirmwareUpdaterUI | Application Manifest | 3 KB | No | 6 KB |
| setup | Application | 234 KB | No | 529 KB |

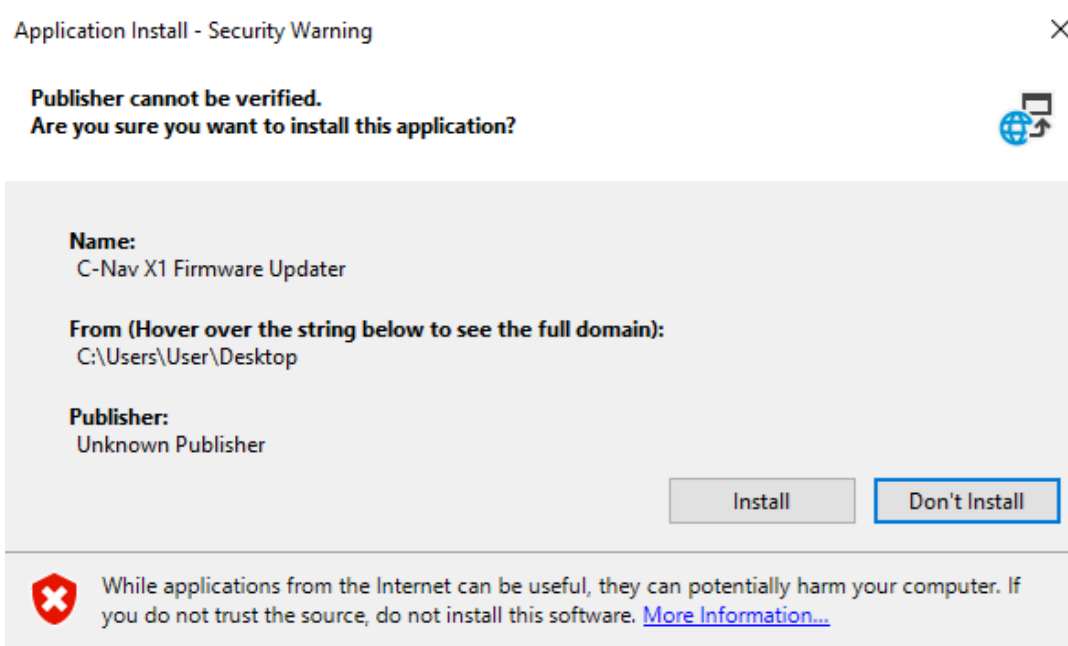
4. Run setup.exe, if you prompted with a security window select **More info**.



Followed by **Run anyway**.

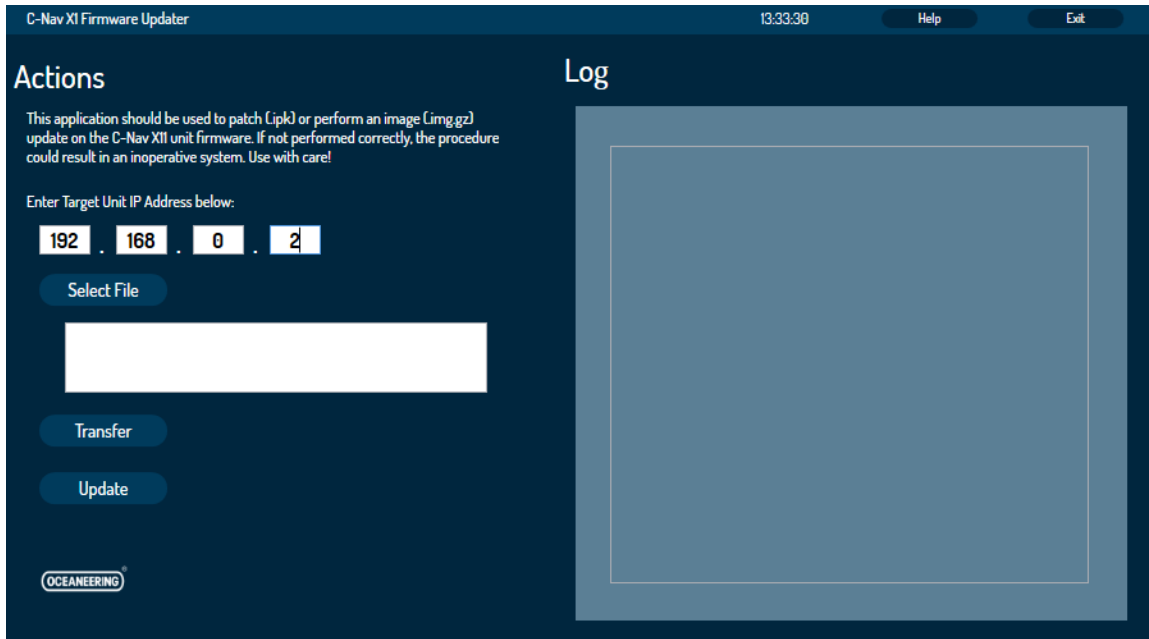


- 5. On the final prompt select **Install** .

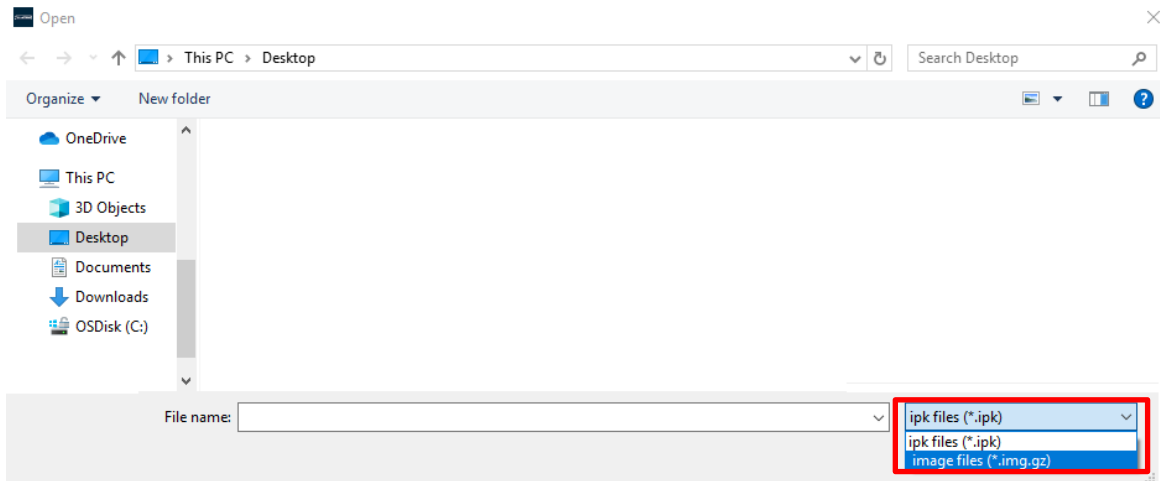


- 6. The C-Nav X1 Firmware Updater window will open, there is a **Help** button in the top right which provides an in-application option for instructions.

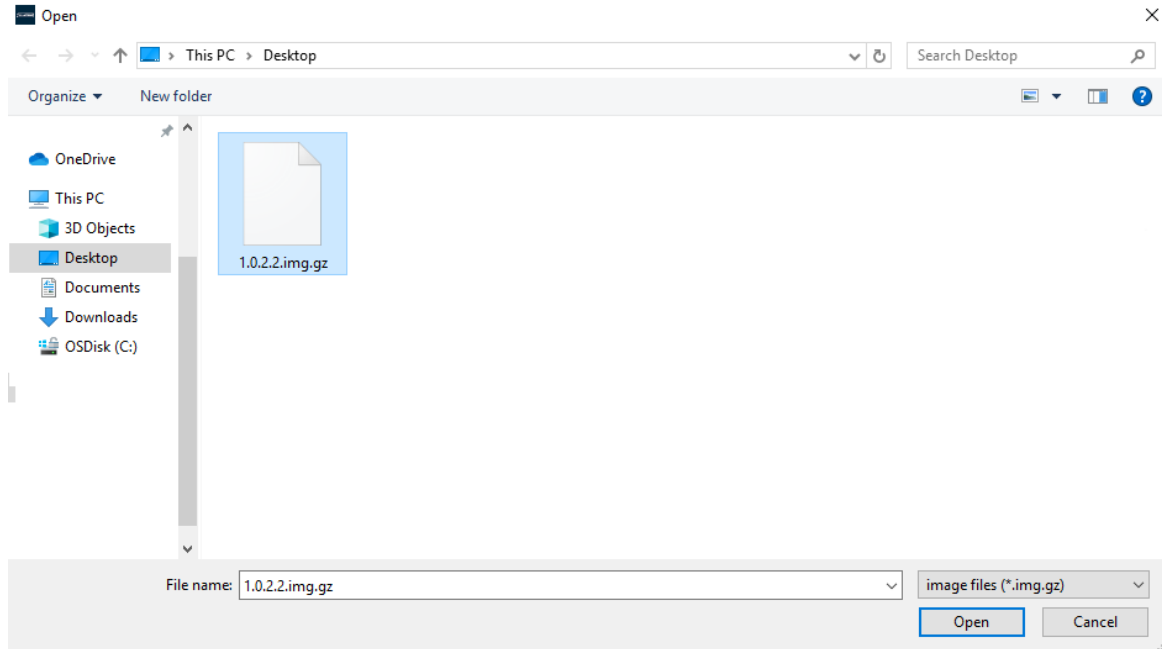
7. Populate the *Target Unit IP Address* box, with the IP address noted from Section 2 – Obtaining the C-NavX1 IP Address (Page 8).



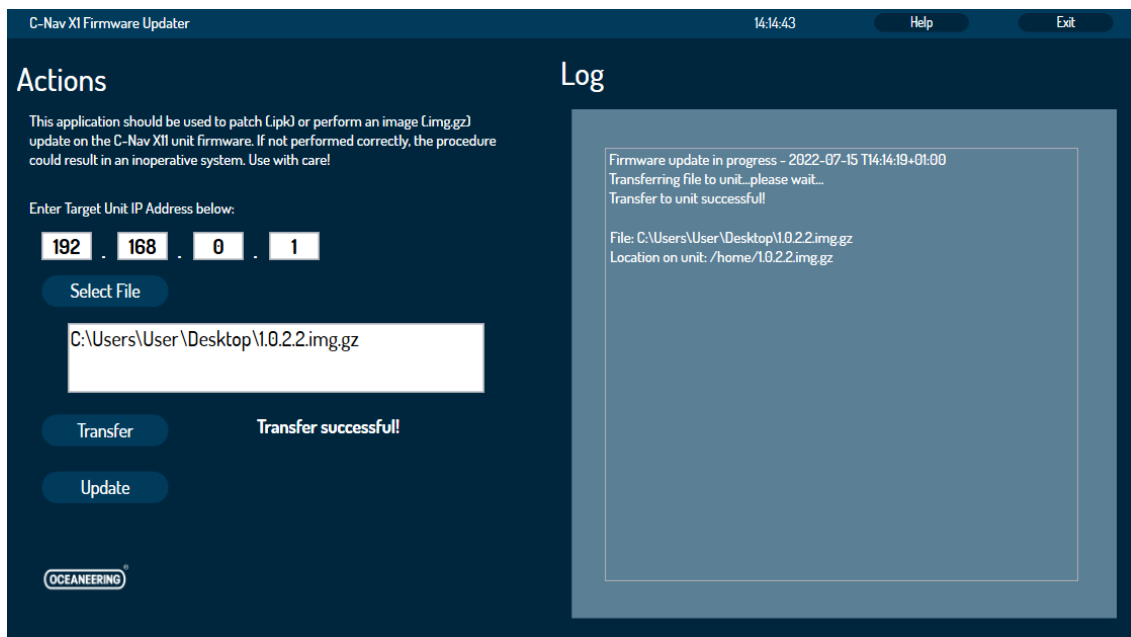
8. Press **Select File** to browse to the location of the C-NavX1 firmware. If the supplied firmware is a '.img.gz' instead of '.ipk' you'll need to use the dropdown in the bottom right corner.



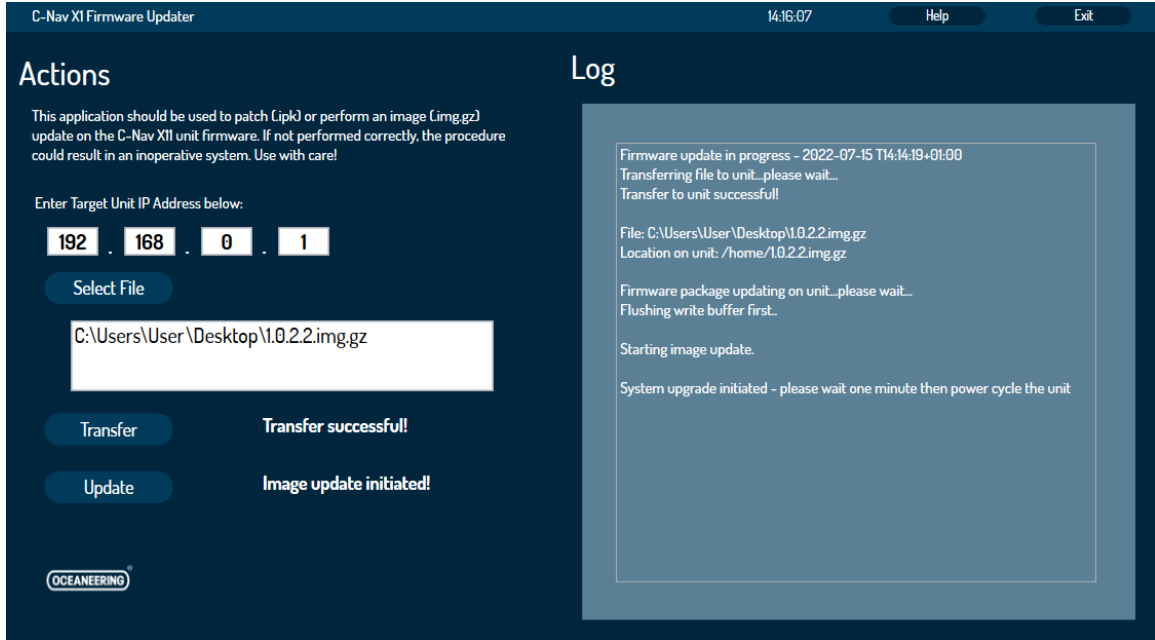
The file can either be double clicked, or selected and **Open** pressed.



9. With the *Target Unit IP address* populated and the **Select File** completed use the **Transfer** button to send the update to C-NavX1 unit. The progress will update in the Log portion of the application.



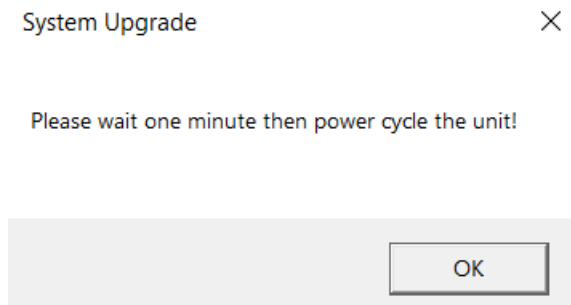
10. Following a successful transfer, press **Update**.



IMPORTANT:

Wait at least 1 minute after the firmware update completes before power cycling the unit. Do not power off or disconnect the receiver until after this time.

11. After successful update allow 1 minute before power cycling the receiver.



12. Confirm the receiver is functioning correctly via the control software, also checking any auxiliary feeds.