Manually Convert HCN file and Submit to NGS
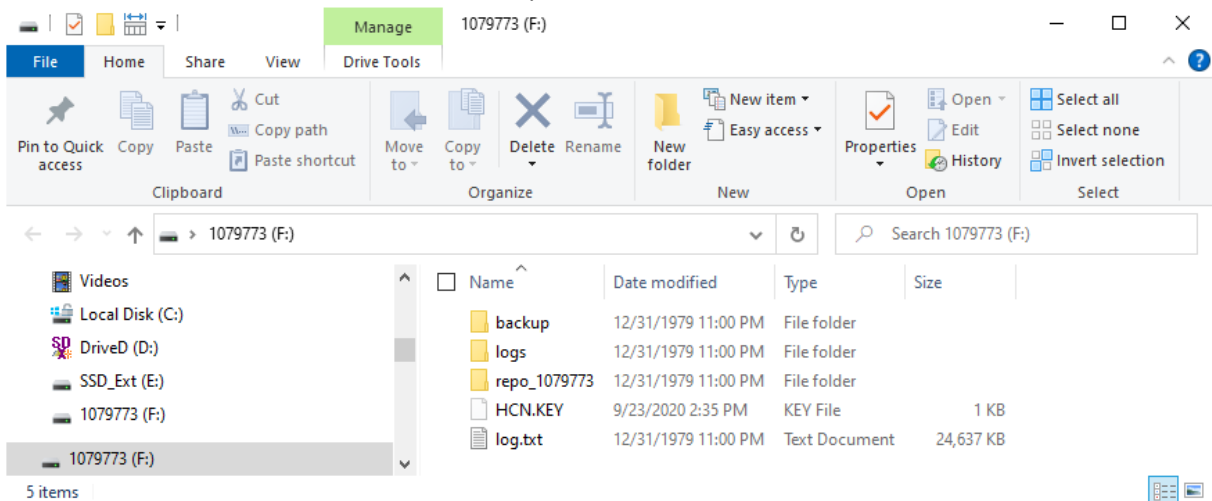
26 May 2021

Thesis

It is possible to manually download files from an iG or CHC receiver, manually convert to RINEX and manually submit to OPUS.
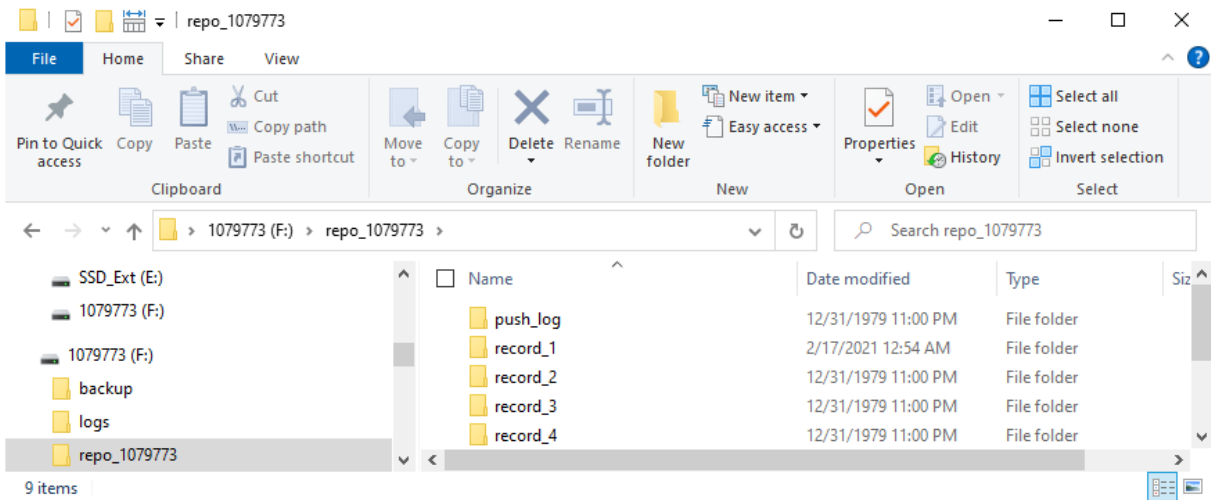
The process is simple.

This document shows the process.

Downloading from the Receiver

When you plug a receiver into your computer with the USB cable, it should mount as a Flash Drive with the contents shown in the Windows Explorer:
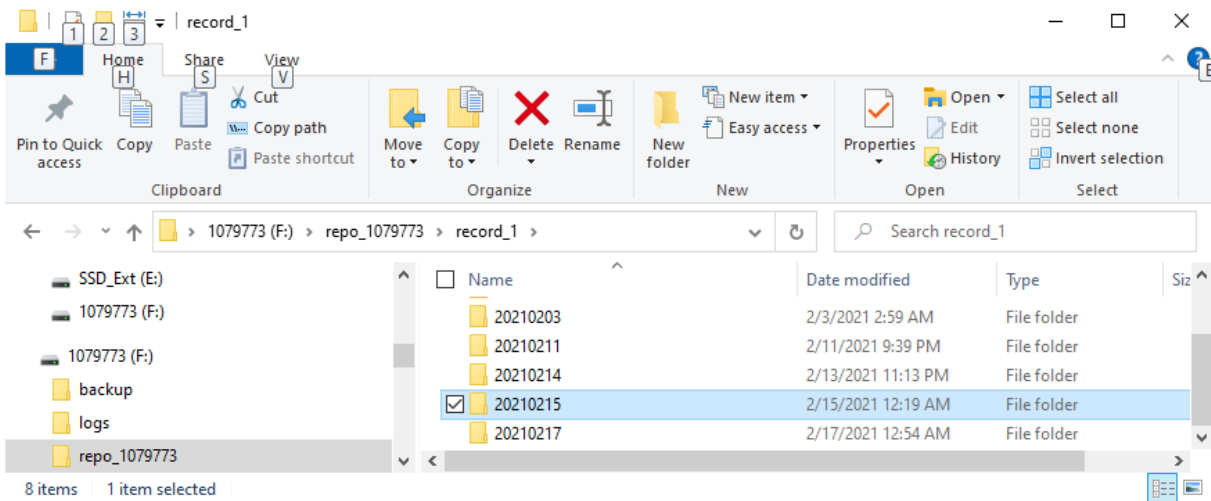
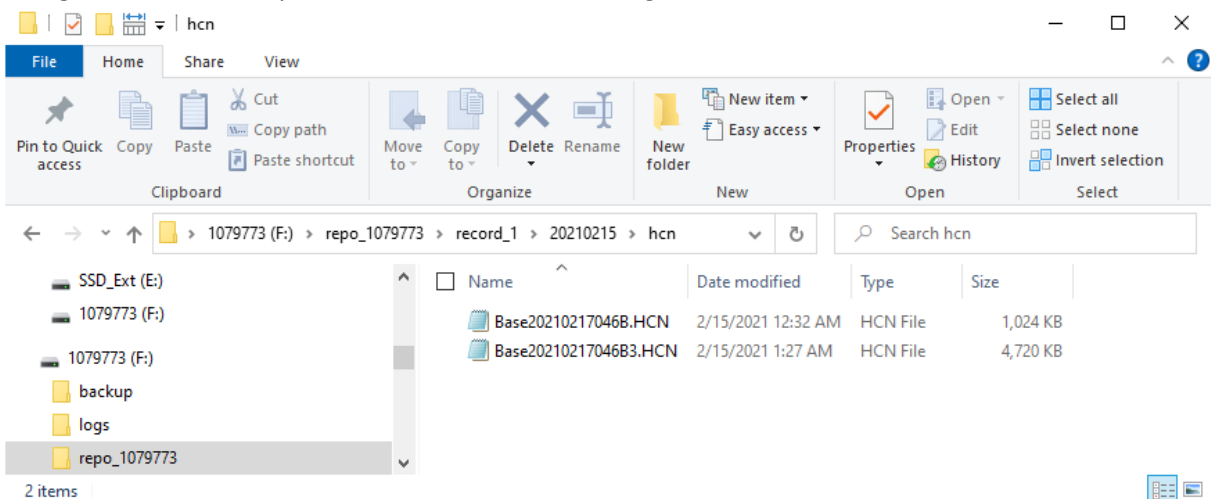Navigate to the repro_xxxx folder (where xxxx is the serial number of the device):

Navigate to record_1, a list of all dates that the receiver has operated will be shown:
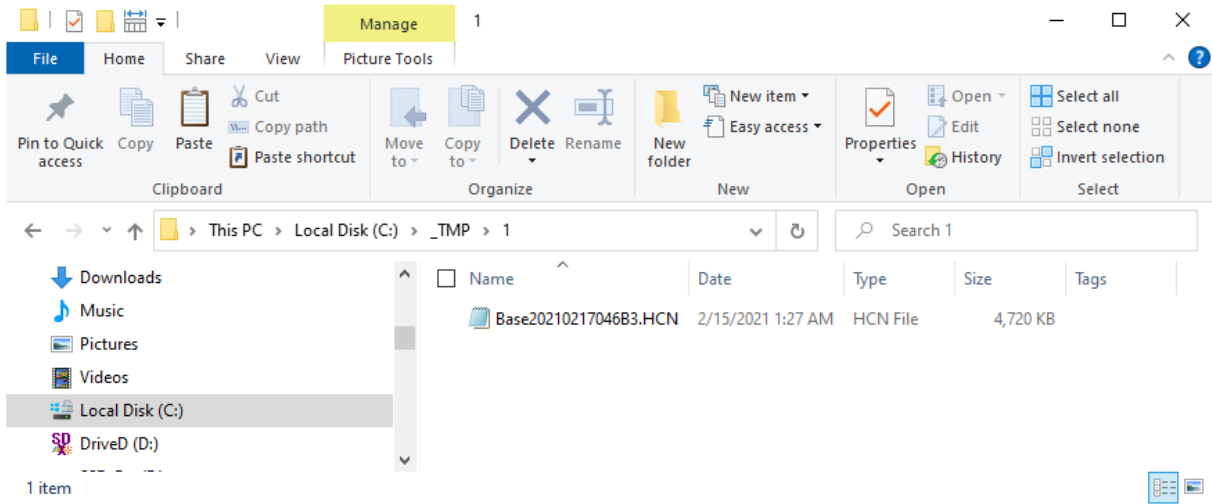

Note that the dates are UTC time in year-month-day format.

Navigate into the date you want to convert, then navigate into the HCN folder:

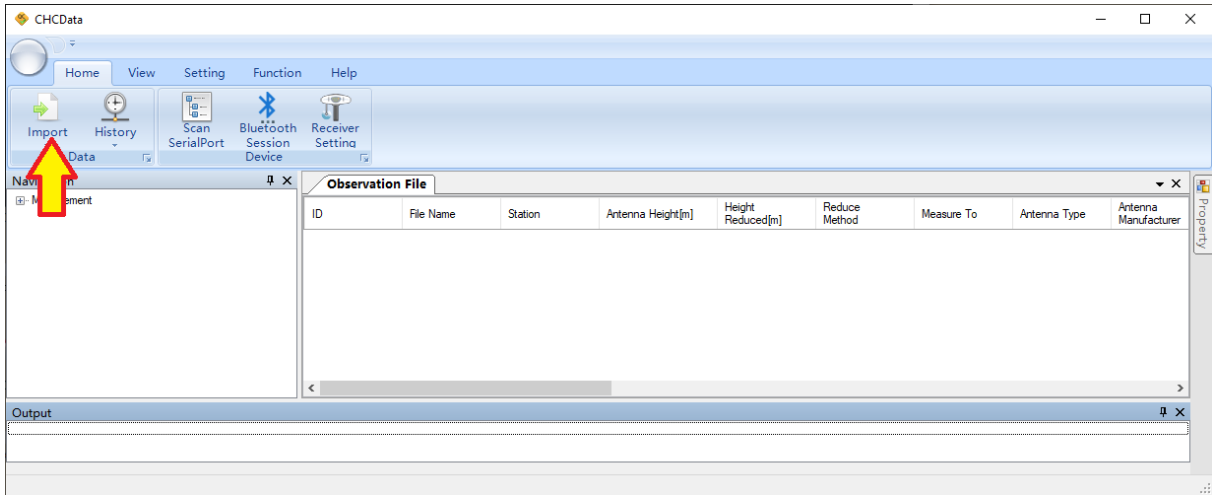Copy the desired file into a working folder on your computer:

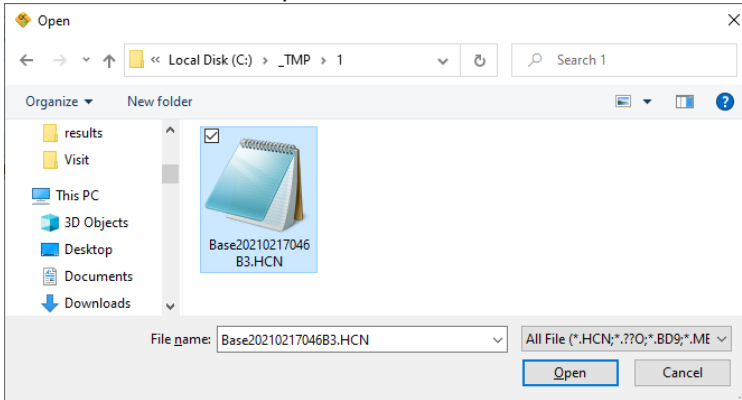In this example the file is copied to the C:_TMP\1 folder.

Converting to RINEX

Start the CHCData RINEX conversion tool:
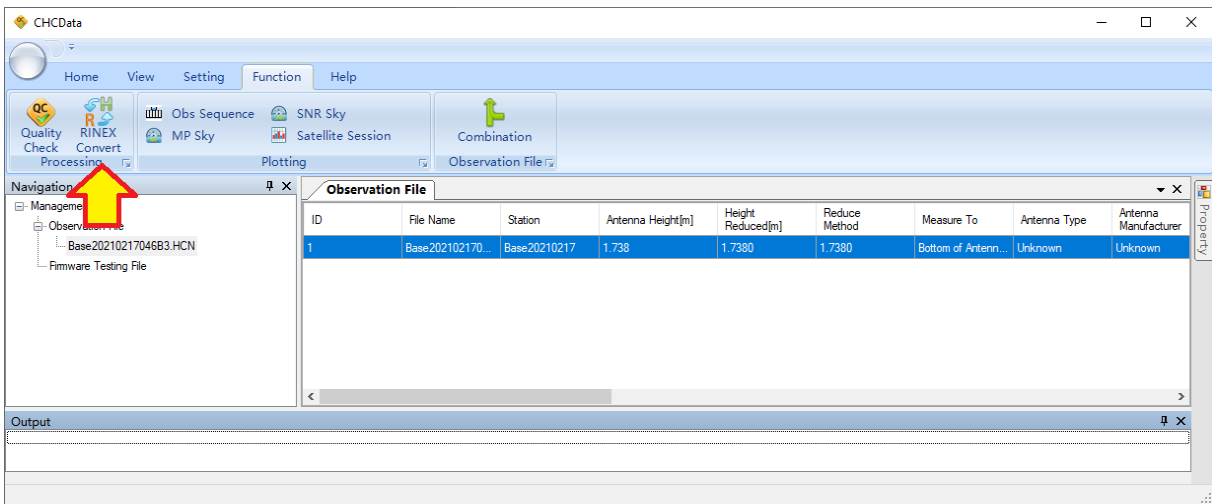

Click on the Import button.

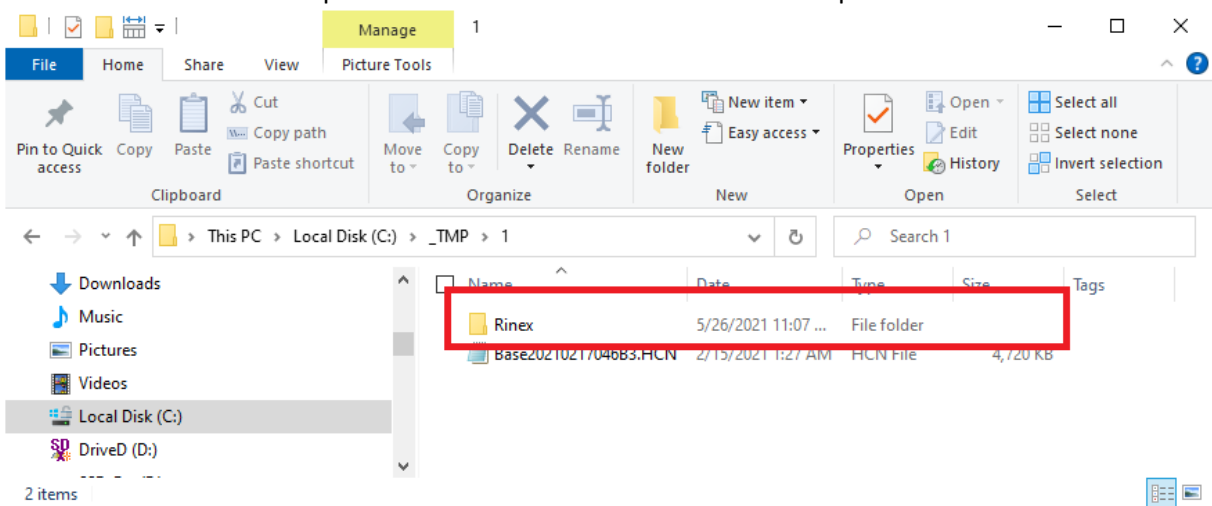Then browse for the copied file in the folder:

Click 'Open'.

The file will be opened and inspected, ready for conversion.

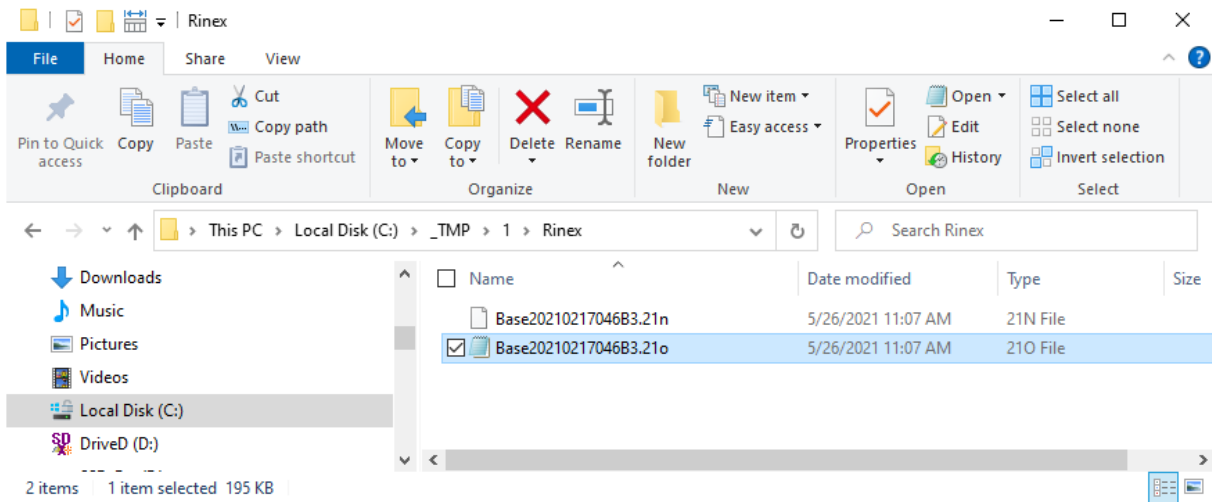Click on 'Function' then 'RINEX Convert':

This will convert the HCN file (or all of the Opened files) to RINEX file sets.
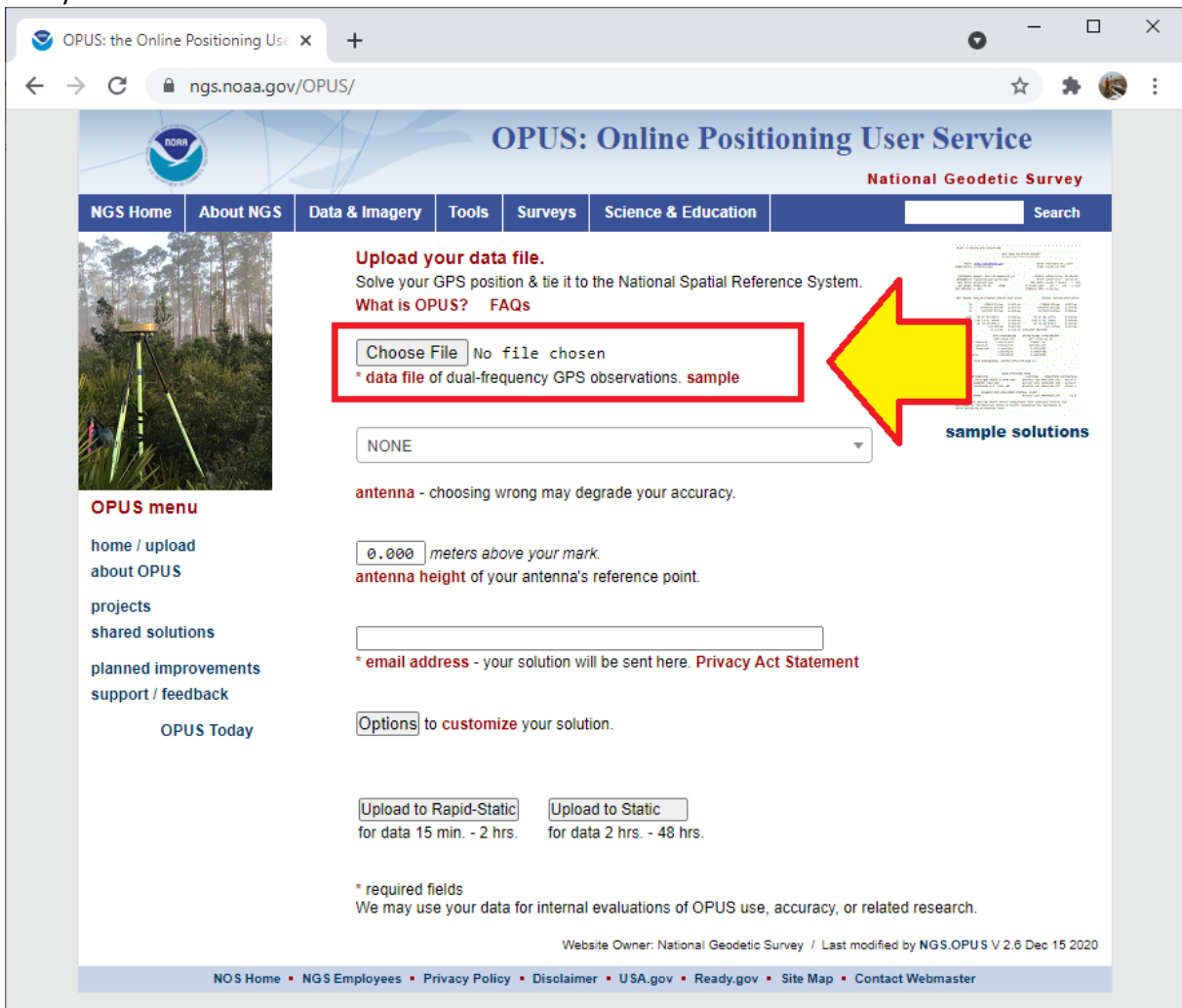
The converted files will be placed in a 'Rinex' folder underneath the input file location:

Navigate into the RINEX folder:

The file than ends in '.yyo' (2-character year followed by lower case letter 'O') is the observation file that you can submit to OPUS:

Notes:

1. You can convert multiple files at once.
2. Do not worry about the antenna name or instrument height when converting. The OPUS submission process will overwrite them.
3. It may also be possible to directly convert the file on the GNSS receiver head, writing the RINEX files to the head.