

7.7.2026

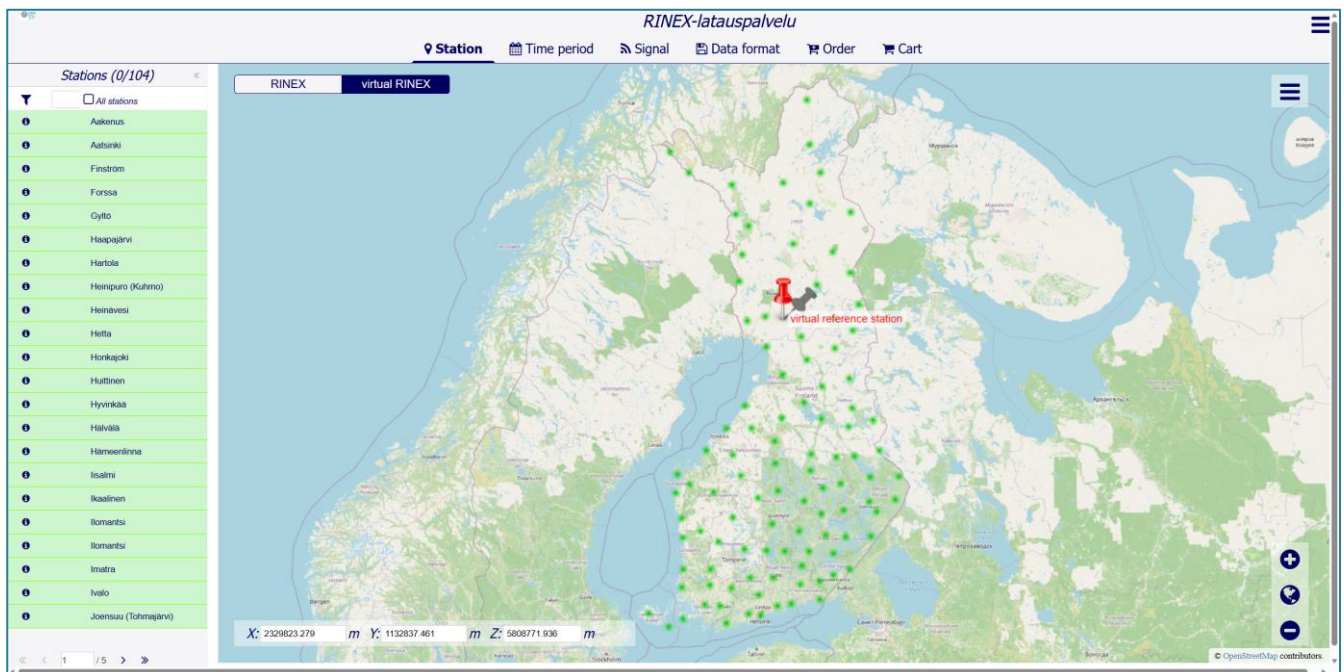
Guide to Using the RINEX Download Service

1. Accessing the RINEX Download Service

To use the public RINEX download service, you must have valid user credentials. You can obtain credentials by registering at finpos.nls.fi. Additional instructions are available at www.maanmittauslaitos.fi/en/finpos.

You can access the RINEX download service from the [finpos.nls.fi website](https://finpos.nls.fi) by logging in with your credentials and selecting the To service button under the RINEX download section.

Once logged in, the service opens in the initial view.



2. Downloading GNSS Station Data or Virtual Data

2.1. Initial View

In the initial view, begin by selecting whether you want to download RINEX data or virtual RINEX data. The selection is made using the buttons in the upper-left corner of the map.

- RINEX: Select the stations from which you want data either from the station list on the left or by clicking the station directly on the map. Selected stations are highlighted in blue.
- Virtual RINEX: Choose the desired location by clicking on the map or by entering coordinates in the fields at the bottom of the map. The virtual data will be generated for these coordinates.

You can change the coordinate format (XYZ or L/L/H) using the (unlabelled) menu button  at the top right of the map, at option Coordinate panel.

2.2. Selecting the Time period

Next, select the Time period tab at the top of the page.

Specify the time period for which you want data by entering the start and end times. The selected time range is displayed at the bottom of the page under Selected time period from and Selected time period to.

You can also define the observation interval by selecting the desired value under Observation interval [sec].



The screenshot shows the 'RINEX-latauspalvelu' web application interface. The 'Time period' tab is selected in the top navigation bar. The interface includes several input fields and buttons for configuring the data download parameters:

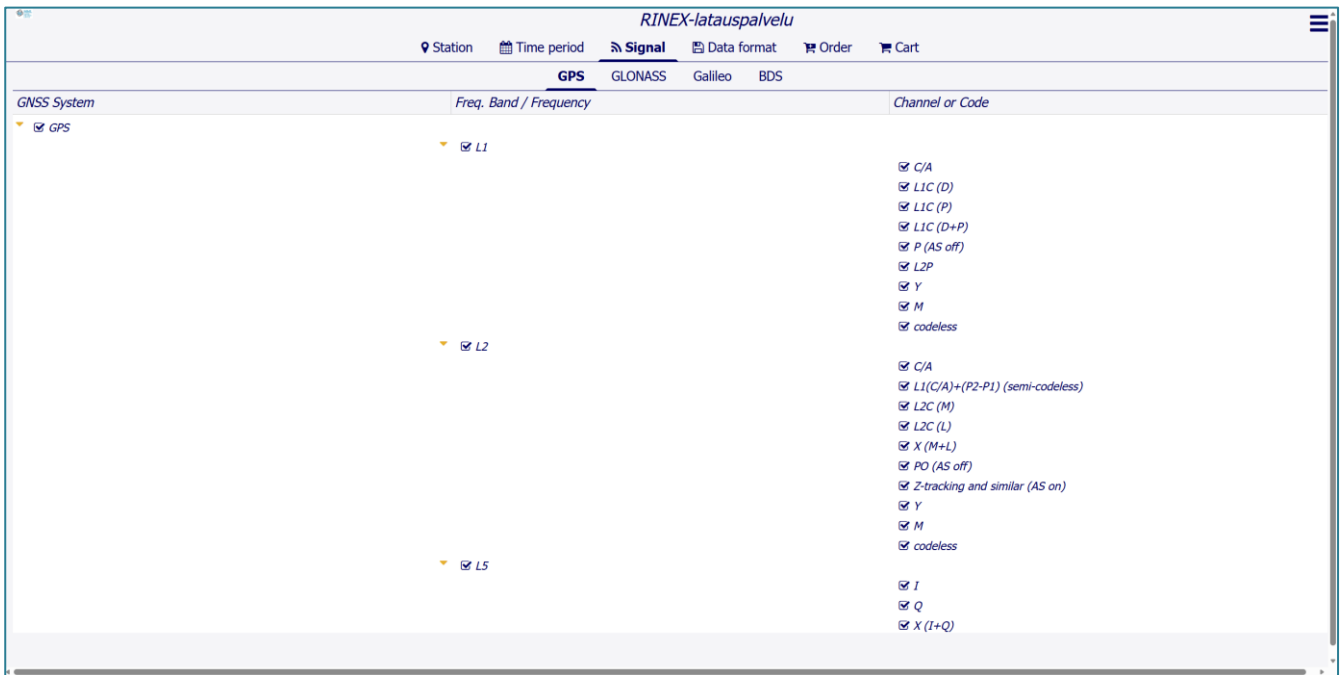
- Timevalue:** Buttons for 'Timezone' (selected) and 'GPS-time'.
- Timezone:** A dropdown menu showing 'UTC+02:00'.
- Timeformat:** Buttons for '12 hours' and '24 hours' (selected).
- Observation chooser:** Buttons for 'End' and 'Duration' (selected).
- Start of observation time:** A time input field showing '08:24'.
- Start of observation date:** A date input field showing '15-Apr-2026'.
- Duration of observation:** A dropdown menu showing '0 hours'.
- Observation interval [sec]:** A dropdown menu showing '1 minute'.
- Observation interval [sec]:** A text input field showing '10.0'.
- Selected time period from:** A text field showing '2026-04-15-08:24 UTC+02:00'.
- Selected time period to:** A text field showing '2026-04-15-08:25 UTC+02:00'.
- leap seconds:** A text field showing '18 seconds will not be used for calculation from/to UTC'.

At the bottom right, there is additional information: (GPS-week: 2414, GPS-day: 105, GPS-hour: g, GPS-second: 282240.329) and (GPS-week: 2414, GPS-day: 105, GPS-hour: g, GPS-second: 282300.329).

2.3. Selecting Signals

Select the Signal tab at the top of the page.

By default, all GNSS systems, frequencies, and signals are included in the generated files. If needed, you can deselect specific systems, frequencies, or signals in this view.

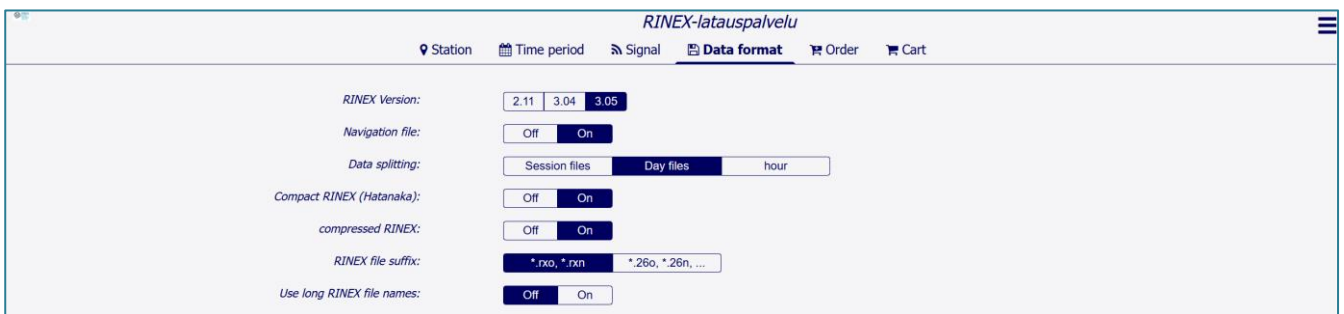


The screenshot shows the 'Signal' tab in the RINEX-latauspalvelu application. The interface is divided into three columns: 'GNSS System', 'Freq. Band / Frequency', and 'Channel or Code'. Under 'GNSS System', 'GPS' is selected. Under 'Freq. Band / Frequency', 'L1', 'L2', and 'L5' are selected. The 'Channel or Code' column lists various signal options, all of which are checked by default. The options include C/A, L1C (D), L1C (P), L1C (D+P), P (AS off), L2P, Y, M, codeless, L1(C/A)+(P2-P1) (semi-codeless), L2C (M), L2C (L), X (M+L), PO (AS off), Z-tracking and similar (AS on), I, Q, and X (I+Q).

2.4. Selecting the File Format

Select the Data format tab at the top of the page.

In this view, you can configure settings related e.g. to the RINEX version, data splitting and packaging.



The screenshot shows the 'Data format' tab in the RINEX-latauspalvelu application. The interface contains several configuration options: 'RINEX Version' with buttons for 2.11, 3.04, and 3.05; 'Navigation file' with 'Off' and 'On' buttons; 'Data splitting' with buttons for 'Session files', 'Day files', and 'hour'; 'Compact RINEX (Hatanaka)' with 'Off' and 'On' buttons; 'compressed RINEX' with 'Off' and 'On' buttons; 'RINEX file suffix' with a text input field containing '*.rxo, *.rxn' and a button for '*.26o, *.26n, ...'; and 'Use long RINEX file names' with 'Off' and 'On' buttons.

2.5. Creating the File Package

When all settings have been configured, select the Order tab to create a file package.

Proceed as follows:

- Enter a project name in the Order summary window.
- Review the settings. You can expand each section (e.g., Station) by pressing the arrow button to view detailed information.
- Confirm the order by selecting the Order button.



The screenshot shows the 'RINEX-latauspalvelu' web application interface. The 'Order' tab is selected in the top navigation bar. The 'Order summary' window is open, displaying the following details:

- projectname:** new project name
- Station** (expanded):
 - virtual RINEX LLH: N 66° 06' 23.73574", E 25° 55' 50.01610", 0.000 m
 - virtual RINEX XYZ: 2329823.279 m, 1132837.461 m, 5808771.936 m
- Time period** (expanded):
 - Selected time period from: 2026-04-15-06:24 UTC+00:00
 - Selected time period to: 2026-04-15-06:25 UTC+00:00
 - Observation interval [sec]: 10.0
- Signal** (expanded):
 - Glonass Bias Class: GPP~Geopp
 - pseudorange: ✓
 - carrier phase: ✓
 - doppler: ✓
 - signal strength: ✓

At the bottom of the window, there are 'order' and 'cancel' buttons.

2.6. Generating and Downloading the Files

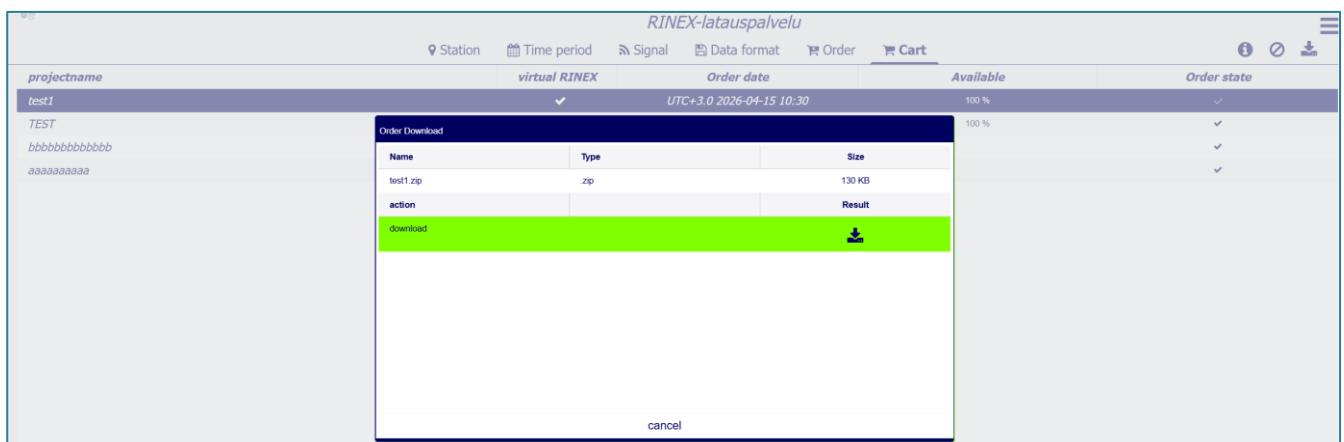
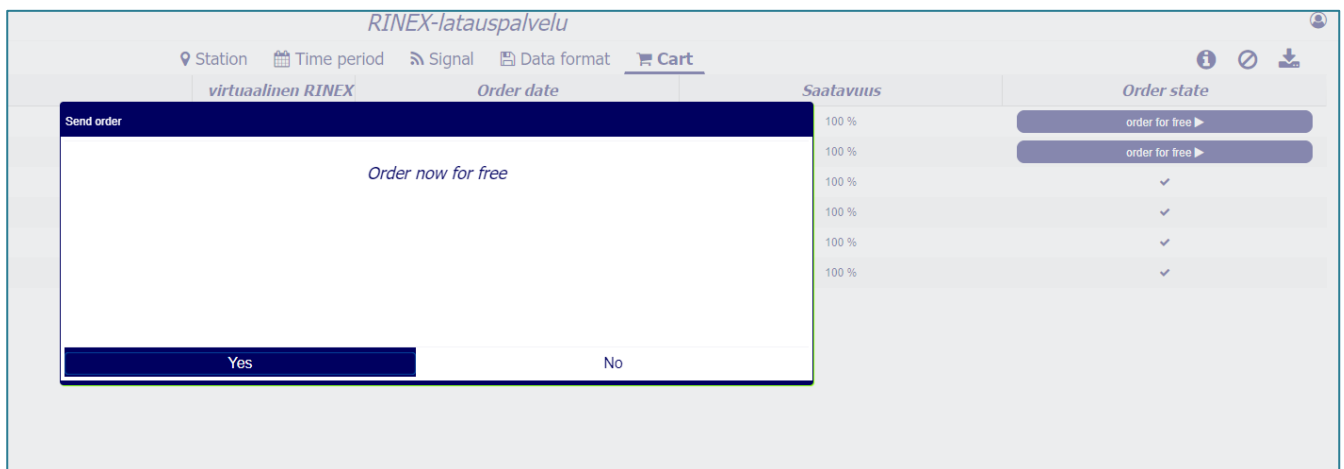
Select the Cart tab at the top of the page.

Press Order for free button and confirm by selecting Yes. The system will begin generating your file package. Once the job is complete, it will be available for download.

When the file is ready, a checkmark ✓ ("Order already done") appears in the Order state column.

To download the file, select it from the list and press the Download order results button . A window will open where you can finalize the download by pressing the Result files download button with the corresponding icon .

While the files are being generated, you may create additional jobs with different settings. You may also close the service and return later to download the completed files.



3. Resetting the Portal Settings

You can restore the portal settings to their default values from the initial view at Station tab. This is done by opening the (unlabelled) menu and selecting the Reset view option, which returns all modified selections and filters to the system's original settings.

