



NavView User Guide – Playback Module

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1 OVERVIEW

The NavView playback feature enables users to playback data from the NavView data archive databases for selected vehicles and timeframes to review these vehicles' movements during these periods.

While playing back data, NavView settings such as vehicle offsets, waypoints, guidance calculations can be edited, added and removed, but the application of the data sources used to position the vehicles, e.g. Geographic2D observation sensor offsets, cannot be changed.

Note: Data logging is not available during playback.

2 LAUNCHING NAVVIEW IN PLAYBACK MODE

The playback feature is not available during normal operation. The real time NavView must be exited before launching NavView for Playback.

Playback requires NavView to be launched from the command line or using a batch (*.bat) file. This command line must include the project and station along with the flag indicating NavView is to launch in Playback mode.

```
C:\Program Files (x86)\4D Nav\NavView navview.exe "project" /s:"station" /r:+
```

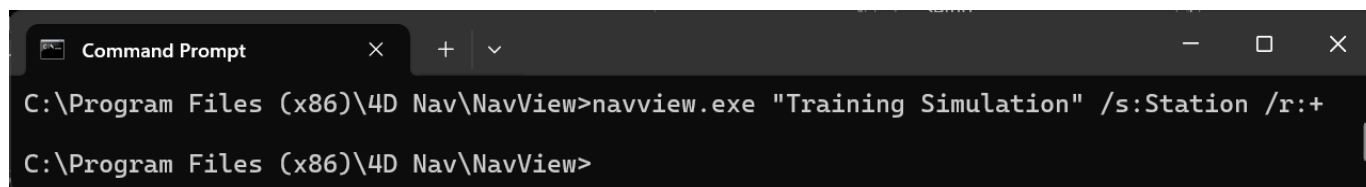


FIGURE 1 COMMAND LINE EXAMPLE

where:

- *project* Is the project that NavView is to launch
- *station* Is the station NavView is to launch
- + Is the flag instructing NavView to launch in Playback mode

Note: Quotations are only required if the respective project and/or station names have spaces.

Once NavView is launched, the project and station can be changed, but only existing projects with data logged to that project's databases can take advantage of the Playback.

3 RUNNING PLAYBACK

3.1 REAL TIME DATA SOURCES

NavView launches into the same configuration that the loaded project was in when last run. This includes all real time inputs and Calculations.

Therefore the first step is to disable the Calculation data sources that are present and providing data to the calculations that are used by all Real Time vehicles.

In this example, if the *Devices/GPS 1/GGA/Geo2D(WGS 84-4326)* data source is active and providing data, its Use box must be unchecked, see Figure 2. If it is not present, e.g. the playback is being run on an offline NavView system, it can remain checked.

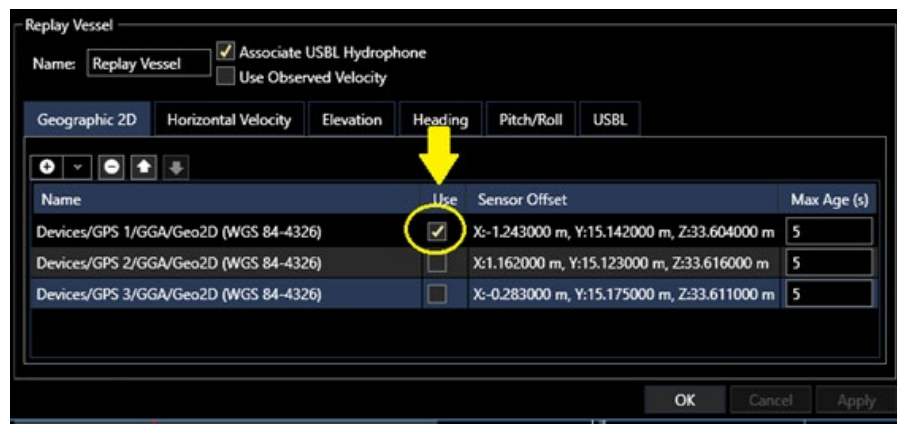


FIGURE 2 CALCULATION CONFIGURATION

3.2 DATABASE SERVICES

The Playback feature is part of the database services. When an existing project is loaded for playback, the database services are loaded as configured for the real time operation of this project except that the Playback service is loaded but the Data Archive and Quick Fix services are not.

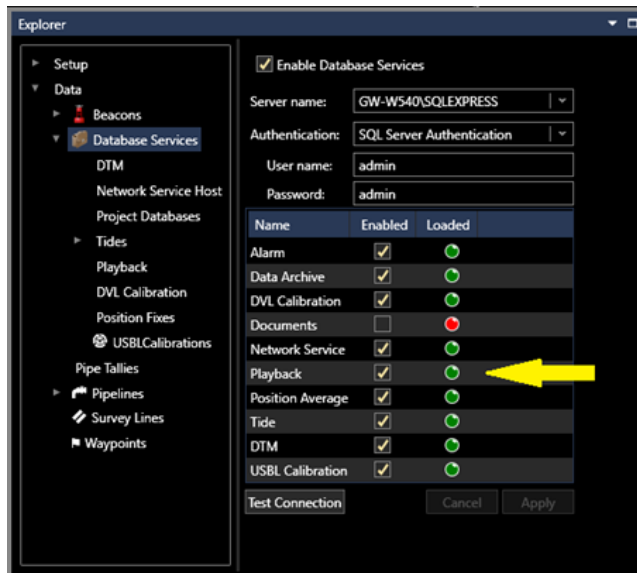


FIGURE 3 DATABASE SERVICES - MODULES LOADED

If the project was last run with Database Services disabled, it will need to be enabled with at the least the Playback service enabled, see NavView User Guide S14 – Database Services. information.

3.3 RUNNING PLAYBACK

Playback is controlled via the Database Services in the Explorer view. Expand Database Services and select Playback, see Figure 4.

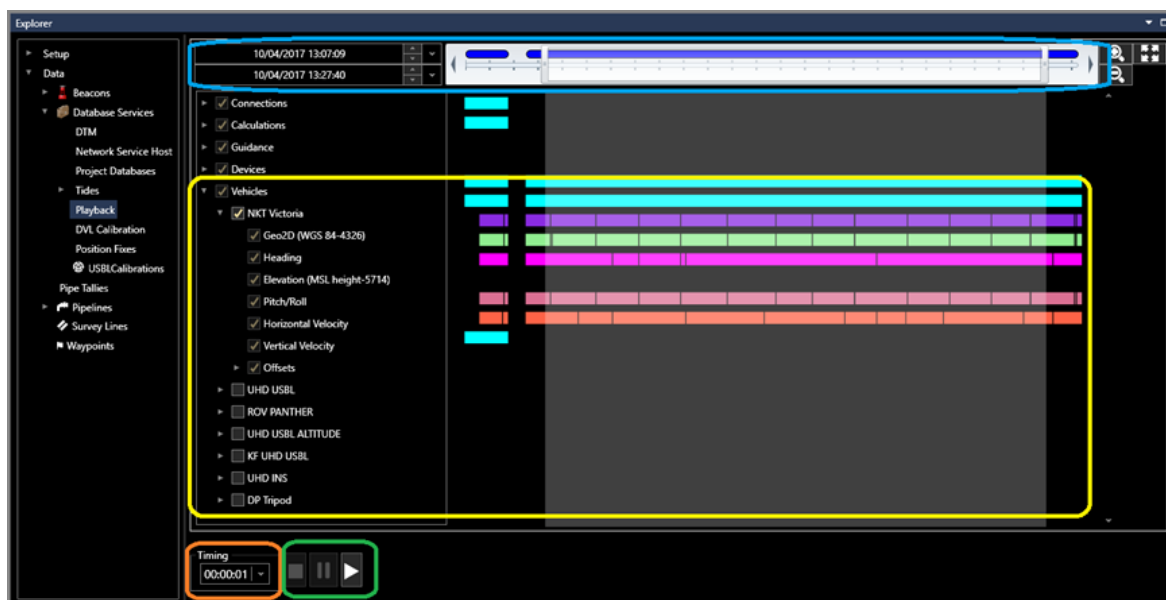


FIGURE 4 DATABASE SERVICES - PLAYBACK VIEW



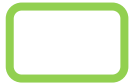
Only the Vehicles branch is used for Playback. Expand this branch and select the vehicles to be played back. The available data is displayed in the associated color bar graph.



Select the time period to play data back for. This can be done via the date/time control or via the slider.



From the Timing control, select the playback interval. A positive value plays the data forward, a negative interval plays the data backwards. During playback, the current data epoch date and time is displayed in this control.



From the playback controls, click play, pause and stop to control the playback.

4 APPLICATION

Operation of NavView in Playback mode is essentially the same as in real time although only recorded vehicle data is available.

4.1 VIEWING

During playback, NavView can be configured to display the vehicle information as it is for real time operations. This includes displaying vehicle data in Map and Text views.

4.2 VEHICLE CONFIGURATION

Vehicle configuration can be edited as required with the exception of the Calculation (see 3.1 Real Time Data Sources). This includes editing existing offset and adding new ones.

4.3 GUIDANCE CALCULATIONS

Guidance Calculations can be edited and added to enable analysis of the vehicle with respect to objects. This includes setting up new calculations with newly added waypoints, survey lines and pipelines.

4.4 TIME

The date and time displayed during playback is for the current data epoch of the replayed data.