

QuickSearch module documentation

Summary

Air Navigation Pro 5.7 will feature a new quick search module. This is presented in the form of a search text field reachable from the "WP" icon in the toolbar. The quick search will provide the following functionalities :

- Search from a partial (min 3 characters) or complete identifier
- Parse coordinate string (from any supported format/grid/datum)
- Parse relative waypoint creation commands

Found results are sorted by groups in displayed in distinct sections in the search results list below the search field.

By pressing on a particle result a list of **possible actions** are displayed to the enduser.

The search results are persistent and will stay in the list until a new search is performed or the application is closed.

Search from identifier

Typing in a partial identifier will start searching for corresponding items as soon as at least 3 characters are in the search field. The underlying search engine will look for data in the following locations :

- Waypoints database (application and user database)
- Toponyms database
- Documents

Parse coordinates string

Air Navigation has now the ability to parse coordinates string in the form of a list of coordinates components. It supports coordinates in the following formats/grids/datums:

- WGS84 in DD:MM:SS
- WGS84 in DD:MM.decimal
- WGS84 in DD.decimal
- Standard UTM
- UTM with bands
- UPS
- MGRS 100m
- MGRS 10m
- MGRS 1m
- Irish grid without zone
- Irish grid with zone
- NZ Grid 1949
- NZ Grid 2000
- Swissgrid (CH1903)
- UK Grid without zone
- UK Grid with zone
- Swedish grid RT90
- Swedish grid SWERED99TM

The parser will try to interpret the string to match the correct datum.

In order to avoid ambiguity that exists between local grids it is necessary to prefix coordinate pairs with the ISO 2 code of the target country:

Irish grids : IE
New Zealand grids : NZ
Swiss grid : CH
UK grids : UK
Swedish grids : SE

Note : it is not necessary to prefix the coordinates when the grid selected in the application settings is the same as the coordinates.

some coordinates examples :

```
/* WGS84 in DD.decimal */  
46.8943 5.4535
```

```
/* WGS84 in DD:MM:SS */  
23:34:56 145:12:01
```

```
/* Swissgrid */  
CH 553986 200005
```

```
/* Swedish grid */  
SE 6669189 486557
```

```
/* MGRS */  
32TKR6770698424
```

If a valid coordinate has been obtained from the input string the result will appear as the first line of the search result as a location displayed in the coordinate format of the current selected application setting. A true bearing and distance from the current GPS location will be displayed as well.

The found location can be - for example - selected as direct to destination, added to the current route or user database as a new waypoint.

Parse relative waypoint creation commands

By using similar syntax as coordinate parsing and adding additional commands, it is possible to create waypoints relative to a known location.

3 modes are available :

- Location, Direction, Distance
- Location, Direction, Speed, Time
- Location, Direction, Location, Direction

Location parameter can be either a valid coordinate string as described in the "Parse coordinates string" section above or a waypoint identifier (ICAO code, Beacon identifier, etc)

Direction can be a true bearing or a radial:

- A true bearing will be an angle from 0 to 360 and prefixed with a B. Example B055
- A radial will be treated as a magnetic bearing and will be an angle from 0 to 360 and prefixed with a R. Example R220. It will be converted to true by using the magnetic variation model valid at the time of the parsing.

Distance parameter is a value in nautical miles and must be prefixed by D. An optional suffix will allow input of other units. Example : D120KM

Supported optional units are :

- SM (Statute miles)
- KM (Kilometers)
- M (meters)

Speed parameter is a value in knots. An optional suffix will allow input of other units. It must be prefixed by a S or GS. Example S100KMH

Supported optional units are :

- MPH (statute miles per hour)
- KMH (kilometer per hour)
- MPS (meters per second)

Time value can be a relative time in minutes or an absolute time in HH:MM UTC. It must be prefixed with T or AT for absolute. Example AT08:21

Examples of relative waypoint creation string :

```
/* Location, Bearing, Distance */
```

```
46.23 6.21,R051,D112
```

```
46.5 5.4,B221,D112
```

```
/* Location, Bearing, Speed, Time */
```

```
S22:54:35 W43:10:35,B095,S120,T12
```

```
46:54:35 6:10:35,B095,S120,AT05:00
```

```
/* Location, Bearing, Location, Bearing */
```

```
FRI,R268,SPR,R021
```