

Waypoint insertion via URL documentation

In order to help our customer improve their workflow, we added the ability to quickly insert waypoints in the application by clicking on a specially formatted URL. The URL can be sent by email, sms or browsed on a website.

This document describes the functionality and how to format the URLs to properly load waypoints in Air Navigation.

Supported actions

Currently waypoints import from URL supports 3 actions :

- Direct to
- Waypoints to custom database import
- Route creation

General description of the URL

A specially formatted URL looks like this :

Clean URL

```
airnavpro://direct-to?coordinates=wgs84-decimal&location=46.875_7.234,0.0,WP1,Grass field
```

Encoded query URL

```
airnavpro://direct-to?coordinates%3Dwgs84-decimal%26location%3D46.875_7.234%2C0.0%2CWP1%2CGrass%20field
```

It consists of :

- URL scheme airnavpro://
- An action (direct-to)
- A query including coordinates format and waypoint(s) list

IMPORTANT : The query part of the URL has to be URL encoded in order to support special characters.

Coordinate format selection

The coordinate format is specified in the query section of the URL with the coordinates=format key pair where format is a value of the following list :

- wgs84-ddmmss
- wgs84-decimal
- wgs84-ddmmdecimal
- utm-std
- utm-band
- ups
- mgrs100
- mgrs10
- mgrs1
- irish
- ir+zone
- nzgd1949
- nzgd2000
- swiss
- uk
- uk+zone
- rt90
- sweref99tm

waypoints description

For any supported action the waypoint can be described as a list of value separated by the , character (comma). When more than one waypoint is specified, it has to be separated by the ; character (semi-column).

Values in the waypoint description must contain at least coordinate information. Coordinate information may be composed of multiple values and in this case the components of the coordinates must be linked by a _ character (underscore). This is because some coordinate formats include white space and therefore a space was not an option to split coordinate components for parsing.

For example, here is a waypoint description for a wgs84 decimal format :

```
46.875_7.234
```

The order of waypoint values is important. Here is a list of values by position in the description and an example of a full waypoint description :

1. Coordinates
2. Elevation (in meters)
3. Waypoint identifiers
4. Waypoint name

```
46.875_7.234,0.0,WP1,Grass field
```

Direct to URL format

Direct to can be achieved by formatting an URL with the "direct-to" command and valid parameters in the query section. Only one waypoint can be specified and it has to be in the form like :

```
location=waypoint
```

Here are some examples of direct-to URLs :

WGS84 decimal

```
airnavpro://direct-to?coordinates=wgs84-decimal&location=46.875_7.234,0.0,WP1,Grass field
```

WGS84 degrees minutes seconds

```
airnavpro://direct-to?coordinates=wgs84-ddmmss&location=N 12°34'56" _W 78°12'34",0.0,WP1,Grass field
```

Swissgrid CH1903

```
airnavpro://direct-to?coordinates=swiss&location=602030.68_191775.03,0.0,WP1,Zimmerwald
```

Waypoints import in database URL format

A list of waypoints can be imported directly in the user database with a specially formatted URL with the "add-waypoints" command and valid parameters in the query section. A list of waypoints can be specified in the query and it has to have a form like :

```
waypoints=point1;point2;point3
```

Here is an example of add-waypoints URLs :

```
airnavpro://add-waypoints?coordinates=wgs84-decimal&waypoints=46.123_6.543,125.0,WP1,Grass field;47.113_7.143,225.1,WP2,Forrest;45.153_6.643,1225.0,WP3,Antenna
```

Create route URL format

A new route with a list of waypoints can be created and loaded directly with a specially formatted URL with the "new-route" command and valid parameters in the query section. A route name and list of waypoints can be specified in the query and it has to have a form like :

route-name=myRoute&waypoints=point1;point2;point3

Here is an example of add-waypoints URLs :

airnavpro://new-route?coordinates=wgs84-decimal&route-name=myRoute&waypoints=46.123_6.543,125.0,WP1,Grass field;47.113_7.143,225.1,WP2,Forrest;45.153_6.643,1225.0,WP3,Antenna