

# DbMAP 3D Flyer Configuration Manual

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**Version 1.0**

## Overview

The *DbMAP 3D Flyer* is the on-line client program which can be used to navigate three dimensional geographic contents produced by the *DbMAP 3D Builder* program, with raster images and information layers provided by the *DbMAP 3D Server*.

For instructions on how to use the Flyer program, please see the “DbMAP 3D Flyer User Guide” (html version).

This manual illustrates how make the Flyer work, and how to customize it: setting general preferences, selecting a language, managing datasets, etc..

## Introduction to the Flyer

The Flyer is a client program in Macromedia Shockwave format, programmed in Lingo. For 3D visualization, it uses Shockwave 3D features, based on Microsoft DirectX or OpenGL rendering engines. This approach allows the Flyer to work inside most common Web browsers (Internet Explorer, Netscape Navigator, Firefox) by means of the Shockwave support, without the need of installing other custom plug-ins; furthermore, Flyer data files can be distributed through a normal Web server.

The Flyer installation is also rather simple, requiring only to copy its files in a Web directory.

## Configuring the Flyer

### Files

Inside the Flyer directory, the Flyer package is composed by the following files:

- Program files: geoflyer.dcr and other “.dcr” and “.cct” files;
- A set of “dummy” files (JPG and PNG in the web directory) needed by the program to load texture and mesh data by changing their URL location;
- Configuration files: config.txt, language.idx, dset.idx;
- Html files: start.html, dbmap3d.html, hosting the Flyer Shockwave applet, and containing the Javascript code to make it interact with the browser.

A detailed list of these files is shown in Table 1.

Program files	geoflyer.dcr startweb.dcr a3d_bmp.cct appscripts.cct comscripts.cct empty.cct preloader.cct toposscript.cct travel.cct tree.cct web/ prj.cct
Interface configurable files	logo.png
Dummy files (in the web directory)	web/ dummy_navmap.jpg empty.jpg empty1024.jpg empty128.jpg empty256.jpg empty512.jpg msh_loader.png
Configuration and index files	config.txt language.idx dset.idx
Html files	start.html dbmap3d.html

**Table 1.** List of the files needed by the Flyer

### Flyer configuration

General Flyer program configuration can be set through the text file “config.txt”. It allows to set parameters such as selected language, background color, coordinate display format, ecc.

The format of the configuration text file is a list of properties having the form

#<propertyName>: <value>

and separated by commas; all properties are enclosed between starting and ending square braces, “[” and “]”.

For an example, see the “config.txt” file enclosed with the Flyer distribution package. The configuration text can be subdivided in more lines, provided that each line included between the two braces ends with a “\”.

## Properties

Property name:	<b>#displayCoords</b>	Set the format of the coordinates shown in the Flyer Indicator Panel
Possible values:	"xy" (default) "deg_sex" "deg_dec"	Using projected coordinate system (e.g. UTM) Using geographical coordinate system, with latitude and longitude in degrees and minutes Using geographical coordinate system, with latitude and longitude in decimal degrees

Property name:	<b>#language</b>	Set the language among the ones available in the language configuration file ("language.idx", see 0)
Possible values:	<language id>	Language identification string; commonly used id strings are: #eng (English) #ita (Italian) #fra (Français)

Property name:	<b>#bkgColor</b>	Set the background color in 3D view below terrain, mainly visible when terrain data are not loaded.
Possible values:	rgb(<R>,<G>,<B>)	RGB color, with values in the range [0,255]
Default	rgb(0,52,0)	

Property name:	<b>#disableHPerVel</b>	Set the behavior of left-right horizontal movement in the permanent velocity regime
Possible values:	0, 1	Set to 1 if permanent velocity must be disabled in left-right horizontal movement
Default	0	

## Multi-language support

The Flyer allows a flexible multi-language support through a language configuration file named "language.idx".

This file allows to:

- customize labels and messages in the existing languages;
- define completely new languages.

**File format.** The "language.idx" is a database text file where each entry (corresponding to a label or to a message) is on a separate line.

Each entry has the following format:

[#id: "<entry id>", #text: [#<language\_1>: "<label 1>", #<language\_2>: "<label 2>"]]

The #id parameter (string) is a unique identifier for the label or the message. It must not be modified.

The #text parameter contains one or more text definitions (one for each language); a text definition is composed by a language identifier and by the label text in that language; all text definitions are separated by commas, and enclosed in square braces.

See the following example:

```
[#id: "dir_txt", #text: [ #ita: "DIREZ.", #eng: "HEADING"]]
```

└──────────────────┘  
Text definition

### How to modify existing labels

1. Make a backup copy of the original “language.idx” file.
2. Open the file with a text editor
3. Seek the entry of the label of interest, and locate the text definition to modify.
4. Modify the text.
5. Save and close the file.
6. Verify that the file “config.txt” has the language parameter properly set.
7. Launch the Flyer, and check if the modified label is displayed correctly.

### How to add a new language

1. Make a backup copy of the original “language.idx” file.
2. Define a new language id (in the following: #newLangId);
3. Open the text file with a text editor
4. For each entry, in the text parameter, add a new language text definition, in the form:  
**#newLangId: “<new\_label\_text>”;**
5. Save and close the file.
6. Verify that the file “config.txt” has the language parameter set to the new language id.
7. Launch the Flyer, and check how the modified label is displayed.

In the above example, suppose one wants to add a French text definition: using the id #fra for the French language id, the entry becomes:

```
[#id: “dir_txt”, #text: [#ita: “DIREZ.”, #eng: “HEADING”, #fra: “DIRECTION”]]
```

Please remark that:

- Entries cannot be added or deleted;
- Labels and messages have a defined maximum width: too long texts can be displayed incomplete; use abbreviations if needed.
- In the text definition the only forbidden character is the “ (double quote), which is used as a string delimiter;
- Text definitions cannot contain line breaks (each entry must lie on a single line).

### Dataset selection

After launching the Flyer program, the selection of the dataset to be displayed works in the following alternative ways:

- using a dataset index, allowing a multiple choice by the user;
- among the datasets included in the dataset index, pre-selecting a dataset by passing its name as initial parameter (see also 0); in this case the user choice is skipped;
- using a default dataset (when dataset index file is not present).

When the Flyer is launched, and an initial dataset parameter is not passed, it looks for an index file named “dset.idx” in its directory: if it is found, according to its contents, the Flyer program will show a list of datasets selectable by the user. See 0 for the dataset index format.

**Default dataset.** If the file “dset.idx” is not found, the Flyer looks for a default dataset, which must be named “dset”. This is the simplest way to set up the Flyer dataset selection when only one dataset is available.

## **Dataset index**

The dataset index (“dset.idx” file) allows:

- a dataset multiple choice;
- to use datasets which are not located in the Flyer directory.

## **Dataset index format**

The dataset index file (dset.idx) is a database text file with entries corresponding to different datasets.

Each entry lies on a single text line, and has the following format:

**[#name: “<datasetName>”, #des: “<datasetDescription>”, #path: “<datasetPath>”]**

The #name attribute is the dataset name to be displayed in the list (unless it is overwritten by the dataset configuration, see below “Dataset name”).

The #des attribute is a short text description (with no line breaks) which is displayed when the user select this dataset in the list.

The #path attribute is the URL path of the dataset, relative or absolute. If this attribute starts with “http”, the path is considered as absolute, otherwise it is considered as relative to the Flyer program location.

When the Flyer reads the dset.idx file, it checks the existence of every dataset recorded in the index file; if a dataset is not found, it is ignored, and not displayed in the user list.

If the dset.idx file contains only one useful dataset, the Flyer starts directly with that dataset, without displaying the user list.

**Dataset name.** For a given dataset, the #name attribute is overwritten if the corresponding “dataset.cfg” file contains a different #name attribute.

## **Logo**

The Flyer logo, appearing in the left-top part of the program graphic interface, can be customized by substituting the image contents of the file “logo.png”. Image size (202x47 pixels) and format must not be changed.

## **The html hosting page**

The Flyer program is a Shockwave applet hosted in the page “dbmap3d.html”. This page can be customized (for instance to change the title), but the Javascript code and Shockwave object embedding sections must be left unchanged (these unchangeable parts are clearly indicated and delimited in the html code).

The Flyer applet size is 840x600 pixels; it cannot be changed.

### ***Flyer initial parameters***

The following initial parameters can be passed to the Flyer:

- dataset selection (initDataset),
- initial position (initCoordX, initCoordY)
- 

These parameters must be passed to the Flyer hosting page (dbmap3d.html), which contains the code to pass them to the Flyer program.

Example:

<http://www.abacogroup.it/flyer/dbmap3d.html?initCoordX=2595268&initCoordY=4405743&initDataset=elba>

The initial position must be expressed in the projected coordinate system and units used by the dataset.

The initial dataset parameter must correspond to a dataset name attribute contained in the dset.idx file.

### ***Communicating with Javascript***

The Flyer implements communication with the hosting page through Javascript and VB Script (Internet Explorer)<sup>1</sup>. It means that browsers must have Javascript and/or VB Script support enabled to properly work (mainly after using the Flyer tool “local info”, see the Flyer User Guide).

Customizations of communication features between the Flyer and the html page are not foreseen in this version.

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<sup>1</sup> The Shockwave support in Netscape and in Firefox allows only the communication from the Flyer to the html page, and not viceversa. In other words, from the Flyer is possible to call a Javascript function to open a web page; on the contrary, it is possible to send data from the html page to the Flyer only as applet initial parameters.