

## Working with KML (Google Earth) files in TELE System navigation software

### 1. Introduction to KML files

KML is abbreviation for *Keyhole Markup Language*, which is an XML format for managing the display of geospatial data. The format is created by Google and used by Google Earth and Google Maps and by many other geographical consumer applications, such as Flickr, Live Search Maps, Microsoft Virtual Earth and NASA World Wind. For purpose of simplicity, this document will only discuss the use with Google Earth.

Google Earth users are able to create geographical information, such as marking and describing their favourite places in Google Earth with just couple of mouse clicks. This information can be organised in folders and subfolders, which can be saved as KML file.

The KML files contain the information, such as placemarks, which are always bound to a specific location with latitude and longitude. The files can be shared via email or via any other means with other users. There is also a Google Earth Gallery for publishing them.

KML files are often saved as KMZ files, which are simple zipped files with .kmz extension. These archives contain a single doc.kml file, which contains the actual information, with possibly images or such data that may have been used in the KML file itself.

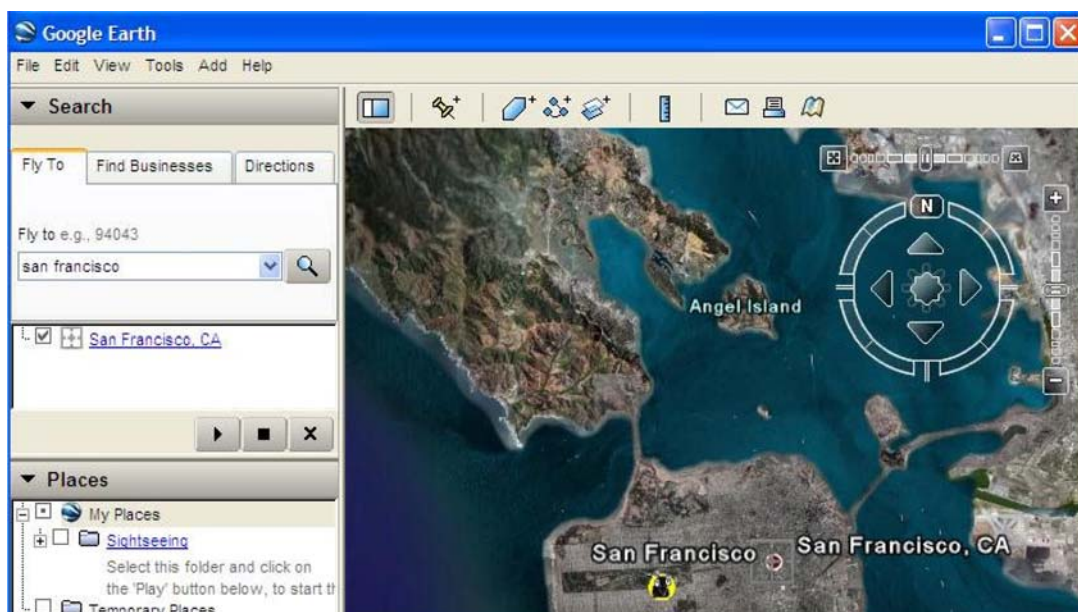
For a comprehensive overview, see [http://en.wikipedia.org/wiki/Keyhole\\_Markup\\_Language](http://en.wikipedia.org/wiki/Keyhole_Markup_Language).

### 2. Creating and sharing the files using Google Earth

First, download and install Google Earth from <http://earth.google.com/>.

#### 1. Find the place you would like to write about

You can either use search with the “Fly To” function or just search by zooming around.



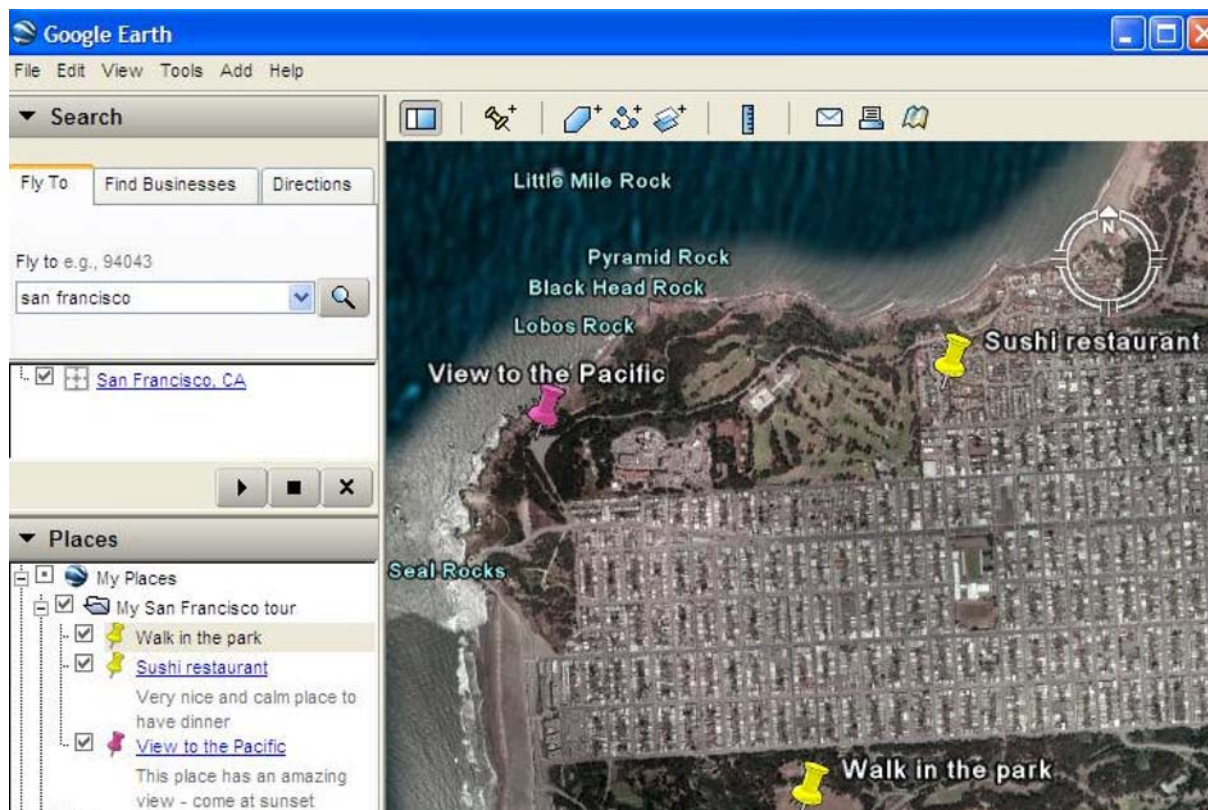
## 2. Click on the “Add placemark” button and give the details

Click on the button that looks like a pin, move the pin to the proper position and write all the details you want to share about it. Then press ok.



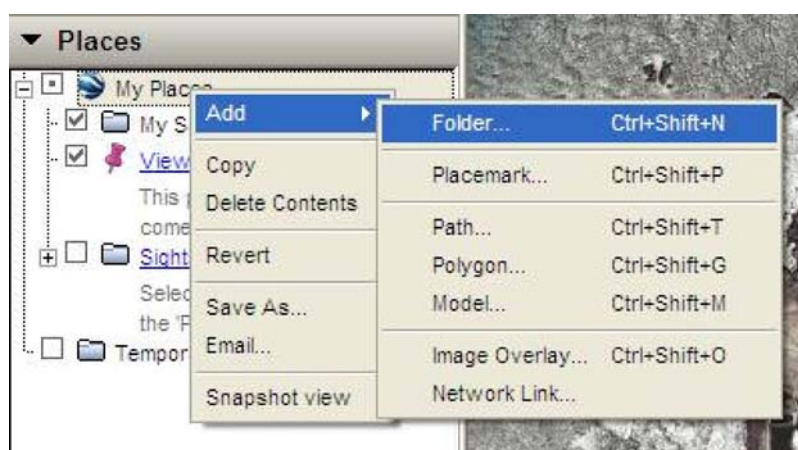
## 3. Create all the placemarks you want to share

Keep on creating placemarks until you have noted everything you wish to share.



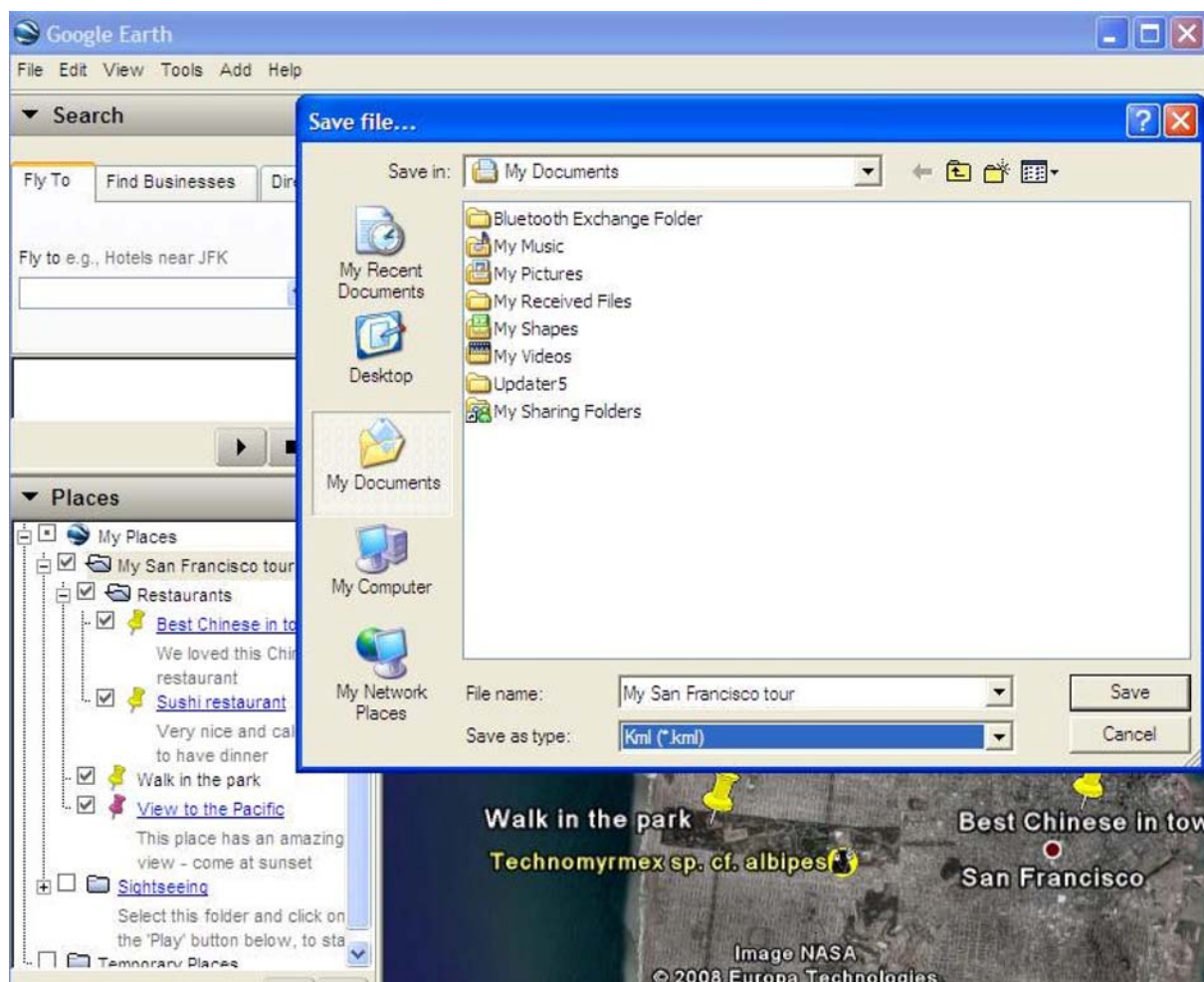
#### 4. Organise them in subfolders

You can organise your placemarks in subfolders as you wish. Just create the folders and drag and drop placemarks into the appropriate subfolders.



## 5. Save the placemark or folder as KML file – and you're done!

Choose any of the placemarks, folders or the subfolders and choose Save As. Save the file somewhere on your computer as KML (not KMZ) and give it a name. You're ready!



### 3. Using KML files in navigation

#### 1. General information

Several KML files can be used simultaneously. The same file can be used as either POI or as route point collection without modifications. This depends on where the file is placed:

- if placed in `\addons\content\userdata\poi\`, the file adds new POI and POI categories
- if placed in `\addons\content\userdata\route\`, the file is a saved routes with waypoints

The actual directory may vary depending on the device used. In case of problems you should contact the device manufacturer. The POI volume can be quite substantial. The exact volume will depend on the actual device.

#### 2. Aggiungere extra POI

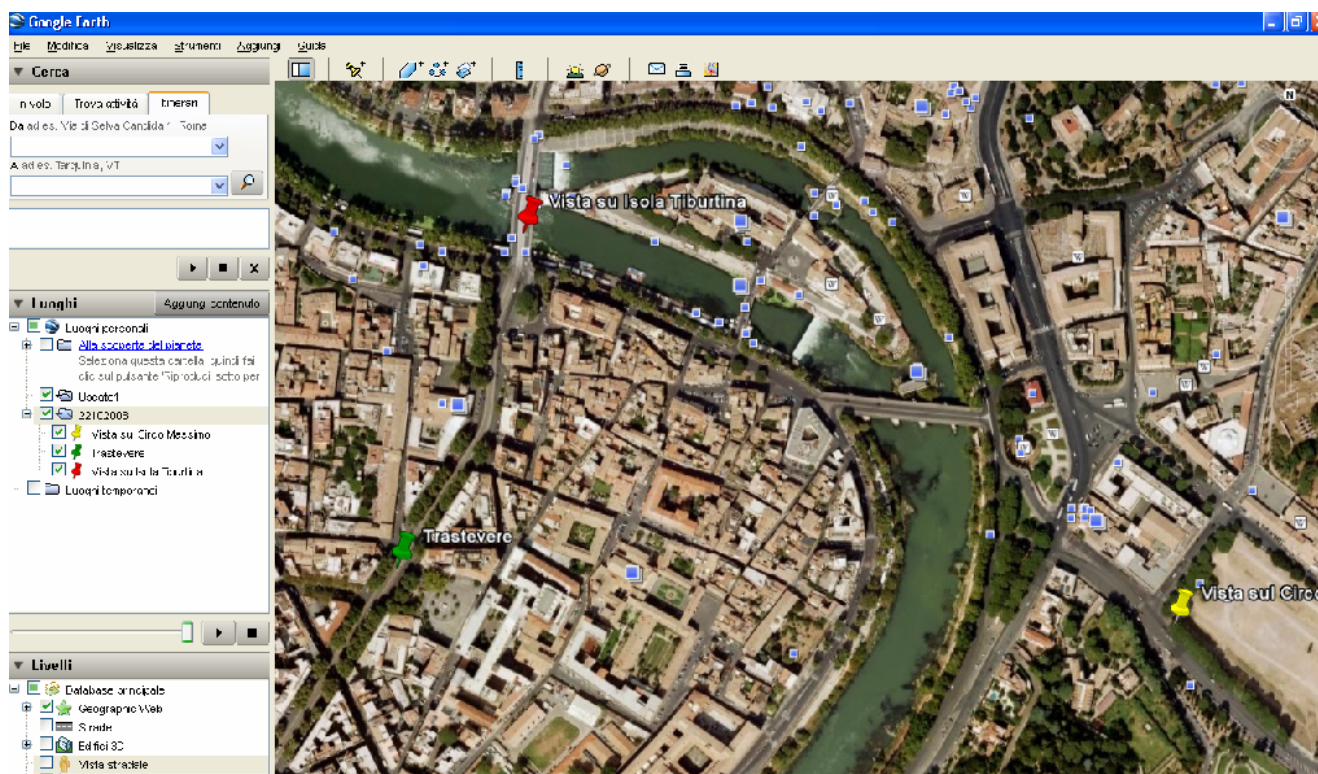
Place the file(s) in `\iGO\content\userdata\poi\`, and perform a POI search in an area nearby to the location of the KML POI. You will see the name of the KML file appear amongst the other POI categories.



The KML POI work as normal POI.

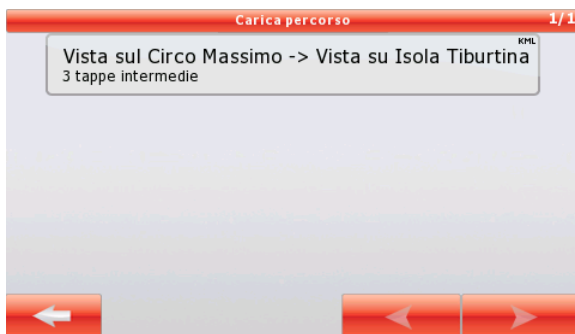
### 3. Importing KML files as routes

Create and order your waypoints in Google Earth (see example below). Organise the waypoints in a folder, putting the starting point as first and last delivery as last. Save the folder as KML file. Place the file in \iGO\content\userdata\route\. Several KML files can be placed under the directory simultaneously. The file names are not shown in the route loading, but instead the name of starting and endpoint placemarks.



Start NavNGo iGO8 in the Advanced Mode and access Route, Load Route function.





#### 4. Some professional use cases

##### Keeping company customer addresses up to date on devices

A company can export their customer addresses into automatically generated KML files which can be distributed and synchronized on devices automatically or manually.

These delivery points can be organised in several ways, for example by customer (if a single customer has several delivery or maintenance locations) and can use several levels of subcategories etc. The exact customer address can also be searched with name search.

##### Exporting delivery points for the day as KML file

For a delivery company, once the work for the day is planned, the driver can receive their delivery points pre-loaded on their navigation device. After this, the driver only needs to load their route and follow the instructions until all points are delivered. It is also possible to use this in conjunction with the "Optimise route" feature.

You may want to export as the first route point always the starting point for deliveries (the warehouse). This may facilitate the follow-up steps in loading and starting the route.

##### Sharing recurrent routes with other drivers

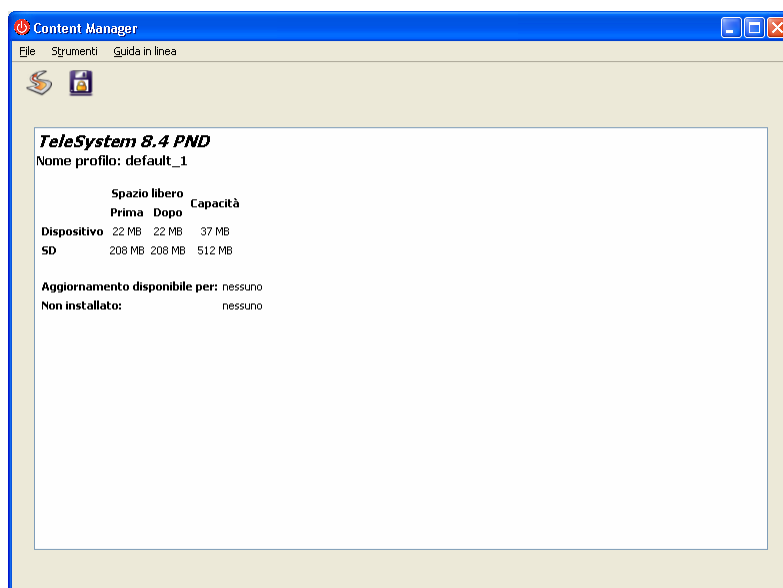
For a company making recurrent deliveries or driving recurrent routes (bus and comparable), it is possible to produce all the routes as KML files and share them between the devices of all drivers. This allows the drivers to learn faster a new route.

In this case, the bus stops could be exported as further POI database that can be made visible for the drivers.

### 5. Importing KML files by TELE System Content Manager.

To import KML files you can use the *TELE System Content Manager*.

Once built the KML files, connect the PND to the PC and start the *TELE System Content Manager*.



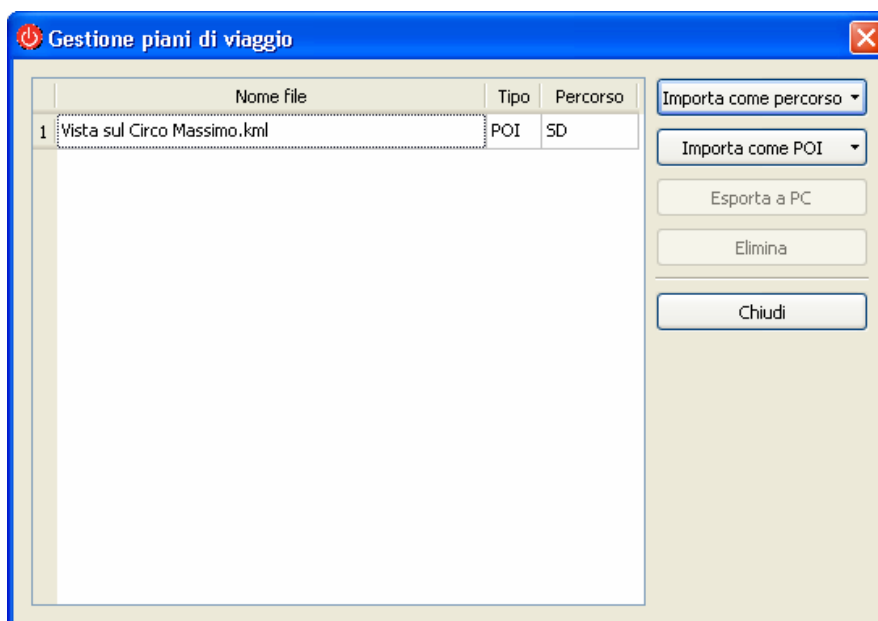
Select Tool → Transef trip plan



You can select if import the KML as POI (choose SD as destination) and select the wanted file.

Wait for the completed transfer message and then you can see the new POI on the list.

Once transferred all the files, press Close to exit from *TELE System Content Manager*.



You can use the KML files as POI or as route on your PND (refer to par 3. *Using KML files in navigation*).

For further information on *TELE System Content Manager*, please refer to the *TELE System Content Manager User Manual* stored into the CD