

Geo-Coding: The World (as viewed through Google Earth™) as Your Primary Document

ATLAS.ti now embeds Google Earth[™] (GE) and makes its functionality available from inside the program. This has immense benefits and opens up fantastic new possibilities for your work.

Picture, if you will, the world as your ultimate primary document. Freely move around in it and mark any section that interests you. Then, treat that segment exactly the way you are used to in ATLAS.ti. Code it, comment it, and link it to other objects. Use direct hyperlinks from other primary documents for supporting your arguments and for purposes of evidence or illustration.

It is also possible to create screenshots from any Google Earth™ view and assigns them as graphical primary documents. This "snapshot" helps you save system resources and makes sure that your reference is secured against changes.

All features of Google Earth[™] are available (including camera angle and height over ground). The interaction between the two programs is bidirectional, meaning that work done in ATLAS.ti can be directly introduced into Google Earth[™]. Comment on a marked location in ATLAS.ti, and your comment will be displayed in Google Earth[™].

And that's still not all: Leverage the immense power of community as embodied by Google Earth[™] layers, and by the possibility to exchange and directly import Google Earth[™]'s KMZ files (complex community-created "overlays"). If it weren't so tacky, we'd call it "QDA 2.0."

If your work is in or touches on fields such as tourism, geography, urban planning, ethnology, cultural studies, sociology, health, action research, advertising and marketing - or even if you simply like to take virtual trips: you are bound to profit from ATLAS.ti's geo-coding feature.

The World as Primary Document

Even with a non-standard data source as the "World" as seen through Google Earth we still stay within the Primary Document metaphor. Thus, there is only ONE data source worldwide, and all Google Earth PDs created in any HU all refer to the same data source located at the Google servers. However, you can also use more than one Google Earth PD (even if there is only world...) in order to create distinct sets of locations, to simulate tours, to simply tell different stories.

Note: The prerequisite for use of the features described in this section is that Google Earth is installed on your computer. See <u>http://earth.google.com/</u> (or your respective language website) for more detail.

Create a Google Earth (GE) PD

To create a new GE PD, click the drop down arrow beside the Load Document button in the main toolbar and select New GoogleEarth PD:



PD from a KMZ document

You may also create a PD from an existing document of type KML or KMZ (Keyhole Markup Language). Simply use the Assign function and select a file of an appropriate type.

What are KMZ documents?

KMZ files are zipped KML (Keyhole Markup Language) files, which will start Google Earth and fly you to a specified location.

KML, or *Keyhole Markup Language*, is an XML grammar and file format for modeling and storing geographic features such as points, lines, images, polygons, and models for display in Google Earth and Google Maps.

KML is used to share places and information with other users of Google Earth and Google Maps (and now ATLAS.ti). You can find many KML files that describe interesting features and places On the <u>Google Earth</u> <u>Community</u> site.

Open Google Earth from ATLAS.ti

Up to now, you can do all this lightly without starting GE, which--with all due respect--is quite a "memory hog" :-)

ATLAS.ti - Launching Google Earth	
Initializing Google Earth Interface	
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By double-clicking the new Google Earth PD in the Primary Document Manager you start the machinery. It takes a while to start, initialize and position the camera in GE. It goes much faster if Google Earth is already running.

The GE window is embedded in the HU Editor (see image below), unless the ATLAS.ti preferences for Google Earth documents are set otherwise (see Preference Settings for Google Earth PDs). This saves space as you do not need to display and manage two large windows.

Note: When closing a GE document (by switching to another PD or closing the HU) the original GE window is restored and you can work with Google Earth independently of ATLAS.ti



Create Quotations

When working with Goggle Earth PDs, it is a good idea to open the Quotation Manager along-side the HU editor.

To create a new quotation,

- Point Google Earth to whatever location you want.
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- Double-click to select the place to which the quotation is to be attached.
- Use the usual methods to create a quotation: Click the FREE QUOTATION button in the vertical toolbar (to the left of the PD area) or choose CREATE FREE QUOTATION from the QUOTATIONS menu.

The default name of the quotation is either extracted from the selected feature, or the name of the PD is used. If you did not change the name of the PD, the default is 'Google Earth'. In addition, the geographical reference is provided. Whether the PD name or the feature's name ist used, can be set via Preference Settings for Google Earth PDs. Depending on your project needs, you may choose to rename the quotations. In the figure below, quotations 1:1 to 1:7 have been renamed.



Display Quotations in GE

In the first instance, you only see the quotations within the Quotation Manager or in the drop-down list. In order to see the information in Google Earth as well, the information needs to be transferred. Thus, ATLAS.ti GE PD needs to be "injected" into Google Earth. This is easily done by reloading the PD.

The name of the quotation is used as name for the ATLAS.ti placemark in the GE document. In addition, you see the quotations in the Places Panel under Temporary Places on the left side.

To reload a PD,

- select it from the drop down list and left click it again
- OR **SHIFT**-click on the button for P-Docs
- OR select the menu option DOCUMENTS / MISCELLANEOUS / EXPORT SPECIAL.

The hierarchy of features in GE resembles the structure of the HU. At the top, you see an ATLAS.ti root folder for each HU in the session. Below this folder, the name of the HU is repeated and all its PDs and quotations are created as GE features. If you write a comment for a PD or quotation, it will be shown as well.



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- 🗹 🍈 1:5 Santa Cruz neighbouring town
- 🗹 🍈 <u>1:6 Trail 1</u>
Recreational area, trail 1, tour of about 5 to 6 hours
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Repeated entries: If you close ATLAS.ti and restart while GE is still open, GE creates a new feature hierarchy for each HU. You can either manually remove the feature tree from the GE places panel or close it and let ATLAS.ti start it for you by loading a Google Earth PD..

You can also display the meta information of a quotation like codes and comments in the GE Window by clicking on the placemark. The type of information that is shown, can be selected via the Preference Settings for Google Earth PDs.



Moving Around

By default, travelling to another quotation is by flying. When you press the SHIFT key during a transfer, you are "teleported" to the new location (= quotation) directly. The default "travel" speed can be set via Preference Settings for Google Earth PDs.

Clicking on a quotation's placemark icon in GE will show a balloon description with meta-information and a comment.

Extrusion – Display Quotations at elevated levels

Usually the placemark icons are fixed to the ground. For hilly environments or between large buildings you can raise the icon like a balloon to a predetermined elevation (in meters) above ground. The icon is always tied to the ground with a connecting line. Set extrusion via Preference Settings for Google Earth PDs.



Display a Quotation in Google Maps

If GE is just too "heavy" for your computer, you may open a GE quotation in Google Maps instead.

- 1. Select a quotation, e.g. in the quotation manager.
- 2. From the Miscellaneous menu, select Open in Google Maps.
- 3. If you have created hyperlinks to Google Earth quotations, right click on the hyperlink and select the option **Open in Google Maps**.



This opens your Internet browser on the same location. However, you do not have tilt and heading capabilities available. Currently, there is a fixed zoom factor for the Google Map view instead of a more detailed calculation of range and other parameters.

Modify Quotations

To modify a quotation,

- 1. select it in the quotation manager.
- 2. Double click on a new location where it should be moved to.
- 3. Select the "revise quotation" button from the vertical tool bar (see below) or from the QUOTATIONS menu the option MODIFY BOUNDARIES



Import Quotations



If KM* files include placemark features, these can be imported as quotations. The meta-information that was inserted into the placemark is inserted into the quotation comment field in ATLAS.ti.

Via the GE preference settings, you can select to import placemarks during the process of assigning a KML / KMZ file as primary document. This is the default setting.

• From the main Documents menu or from the PD Manager menu, select MISCELLANEOUS / IMPORT QUOTATIONS.

Create Graphical Snapshot PDs

The images provided by Google Earth are not permanent but are replaced over time. When these images are changed is not made known to the regular user. Thus, although positions on earth are stable, the views are not.

A new set of aerial and satellite images may yield a whole different set of details. This makes taking snapshots from a current view a very practical thing. Furthermore, you can code detailed sections within a graphical PD. Such PDs do not require Google Earth to be installed.

Position Google Earth to the desired view either manually or by selecting a GE quotation.

Resize the GE window to the desired size. The content you see will be used for the PD. Only the main area is used, the side bar title etc. are ignored.

Configure all needed layers.

From the drop down Assign button, select NEW GE SNAPSHOT PD.



A new PD is created. The naming convention is as follows: When you select a quotation in the ATLAS.ti quotation manager and create a snapshot based on that view, the name for the PD will be Google Earth SN. If you select a quotation from the Google Earth subtree in the Places Panel, the name that is shown there is used with the prefix "GESN:. Thus, if you have given your quotation a unique name and want to use it as name for your PD snapshot, then it might be preferable to select the quotation from the Places Panel. If you prefer neither of the two standard options, you can always rename the PD.

The source files for the snapshot PDs are jpg; they are stored in the same folder as the HU and their name starts with GES plus a two digit letter/number combination.

NOTE: This feature is only available if GE has already started.

Code GE Quotations

As there is no margin area to code, you code GE quotations similar to audio or video quotations. You have the following options:

Coding via the menus:

• Right click on a quotation in the quotation manager and select CODING / OPEN CODING to create a new code, or CODE BY LIST to select an already existing code. Or code via QUICK CODE using the most recently used code.

Coding via the vertical toolbar:

• Select the appropriate coding buttons from the vertical toolbar.

Coding via Drag & Drop:



• You can either drag & drop a code from the Code Manager onto a quotation, or vice versa, drag & drop one or more quotation(s) from the Quotation Manager onto a code in the Code Manager.

Preference Settings for Google Earth PDs

A number of parameters can be set for Google Earth PDs.

• To open the preference window, select the Preferences button from the main tool bar **PREFERENCES / GOOGLE EARTH PREFERENCES**.



General 30 seconds	
Timeout for starting GE: 0,5 Fly-to speed: Slow	Enibed Google Earth within HU Editor
Export Open features after exporting to Google Earth 153 m Extrusion (0 = none): 2 lines	Import When assigning a PD from a KML/KMZ file use as its name: O the file name O the first folder's name Import placemarks when assigning PDs
Snepet lines:	For a new quotation create its name from:

Timeout for starting: Increase this value if it takes GE a long time to start and ATLAS.ti does not position to a camera view.

Fly-to-speed: Adjust the speed that is used to travel between two quotations.

Extrusion: Set the distance between the placemark icon and the ground (in meters).

Snippet lines: Set the number of lines that are displayed for the quotation comment in the Google Earth places panel.

Include meta data in quotation export: Decide which meta information for a quote should be transferred and displayed in Google Earth.

Import file or folder name for KML / KMZ files: Decide which default PD name should be use for your KML and KMZ files.

Default name for quotation: Decide which default name should be used for the quotations.