STATPLANET

&

STATTrends

User Guide

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1. ABOUT

StatPlanet and StatTrends are powerful interactive data visualization tools, used by many different kinds of organizations including schools, universities, government agencies such as NASA, UN organizations such as UNESCO and UNDP, and Global 500 companies such as Samsung and Siemens. StatPlanet can also be used as education software for children (ages 9 and up) to learn about the world through interactive maps.

StatPlanet and StatTrends enable also non-technical users to explore statistics through its user-friendly interface. Moreover, the software automates the normally complex processes of converting raw data into interactive maps and visualizations. It requires only a basic familiarity with spreadsheet software to create interactive maps and visualizations with relative ease. You can import your own data and through StatPlanet can import maps or use the embedded USA or world maps.

StatPlanet comes in different versions to cater to different needs. All versions of StatPlanet are free except for StatPlanet Plus, which has more advanced features such as support for large datasets. All versions of StatPlanet can be used both as a stand-alone application for offline use, and as a web-based application which can be published online. The desktop version of StatPlanet Plus is free for non-commercial purposes. Similarly, StatTrends Plus is a non-free advanced version of StatTrends, and the desktop version is free for non-commercial purposes.

The aim of the software is to promote evidence-based decision making by improving and facilitating the communication and interpretation of information, by providing: (i) attractive interactive visualizations which facilitate the interpretation of information, (ii) a user friendly interface that is accessible also to non-technical users, (iii) automated data visualization (including the processes of merging and synchronizing data from different sources), and (iv) an easy to disseminate software system which can enable anyone to explore and create data visualizations - regardless of technical skills, availability of Internet connectivity, and computer hardware or software.

StatPlanet and StatTrends are produced by StatSilk, an Australian company founded by Frank van Cappelle. From 2008 to 2010, the development of a tailored version of StatPlanet was undertaken as part of the SACMEQ research programme at the UNESCO International Institute for Educational Planning (IIEP), Paris, France.

For more information, please see www.statsilk.com

2. SYSTEM REQUIREMENTS

StatPlanet and StatTrends are designed to be usable in as many places as possible regardless of the available computers and infrastructure. It can be used online, through an intranet as well as offline – making it usable in places where there is no Internet connectivity. It is easy to disseminate due to its very small size – small enough to fit on any USB flash drive (USB stick) or to be sent as an e-mail attachment. The software does not require installation, so even those without administrator rights on their PC can run both the offline and online versions, and it runs directly off a CD or USB flash drive.

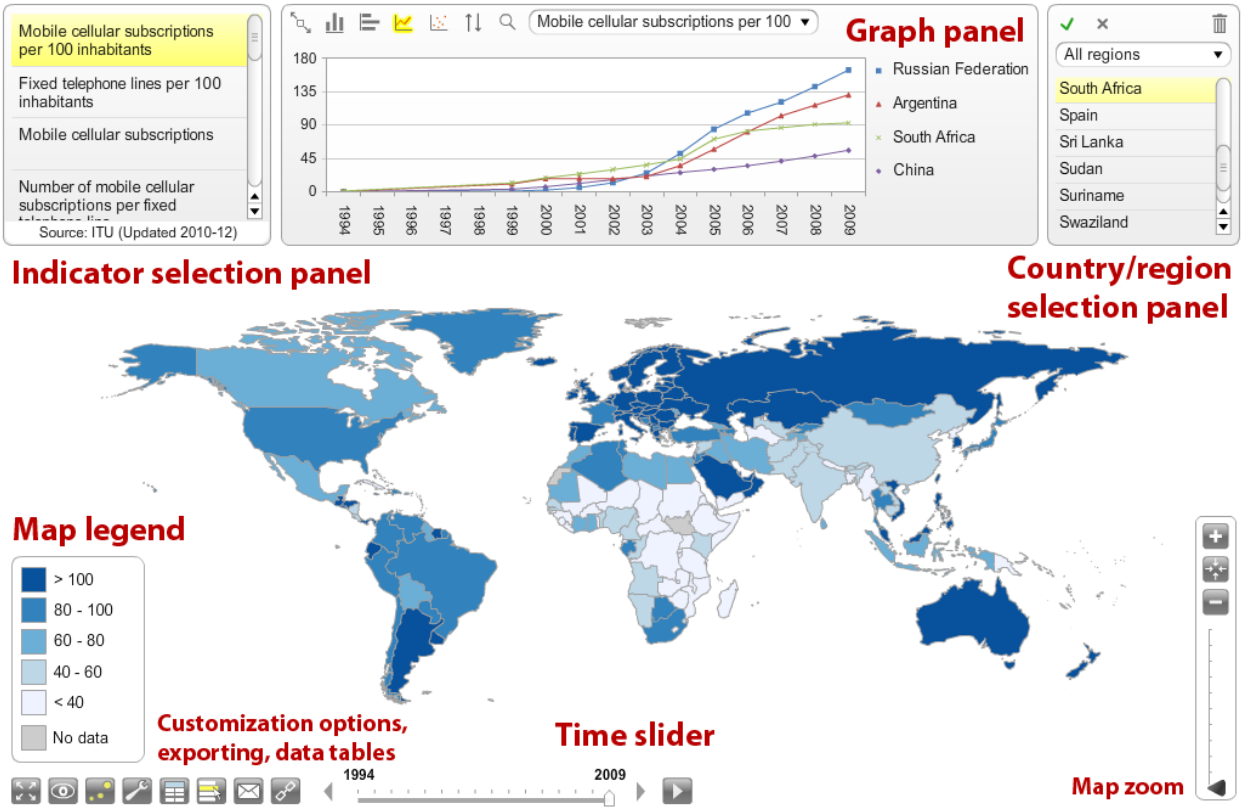
The software runs in the Adobe Flash Player, which has the following minimum system requirements[1]. The system requirements are low, and any computer purchased within the past 8 years should be able to run the software.

Windows®	Macintosh	Linux®
Intel® Pentium® II 450MHz, AMD Athlon™ 600MHz or faster processor (or equivalent)	PowerPC® G3 500MHz or faster processor Intel Core™ Duo 1.33GHz or faster processor	Modern processor (800MHz or faster)
128MB of RAM	128MB of RAM	512MB of RAM, 128MB of graphics memory
128MB of VRAM*		

*Recommended for GPU hardware acceleration–dependent features. Flash Player will use software mode for systems that do not meet the system requirements.

[1] http://www.adobe.com/products/flashplayer/systemreqs/

3. FEATURES AND OPTIONS



3.1. Thematic map

Choropleth map

This is the main thematic map type in StatPlanet. The map legend shows which map colors are associated with each data range (for example, higher values may be shaded in increasingly darker colors). The map and map legend colors, ranges and values can be customized. Besides quantitative maps, qualitative or descriptive maps can also be displayed which convey non-numerical information. See also the example: map of language distribution.

Proportional symbol map

A proportional symbol map scales symbols (usually circles) according to the indicator being mapped. Each symbol can represent a country or other map area. Proportional symbol maps are most suitable when there is a large range of values and measurements are continuous (rather than at interval level), for example population numbers.

In StatPlanet the symbol map is overlaid on top of the choropleth map (see above). This means that two data sets can be shown on the same map – one for the choropleth map and one for the symbol map.

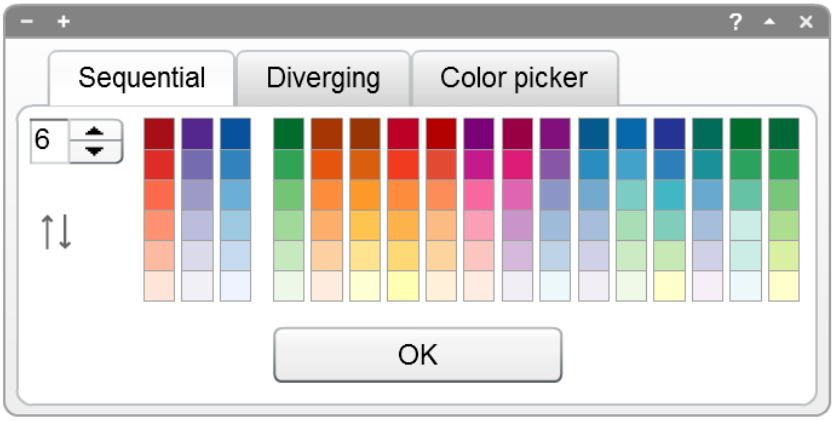
To show the symbol map, click the symbol icon in the bottom-left corner of the screen. If you have bookmarked an indicator, the symbol map represents the data for the bookmarked indicator, whereas the choropleth map represents the data for the selected indicator. (If the bookmarked indicator is currently selected, both the symbol map and the choropleth map represent the bookmarked indicator).

Select country or other map area using the map

- **Mouse over a country or map area**: Moving the mouse over a country or other map area brings up a popup containing information about that particular country or map area for the selected indicator (as well as the bookmarked indicator, if there is one).
- **Click on a country or map area**: You can select a country or other map area by clicking on it in the map. See also the **Selection panel** for additional selection options.

Map legend

Map colors: Clicking on any of the colors in the legend will bring up a color selection panel. In this panel you can change both the colors (either Sequential or Diverging color schemes), as well as the number of color classes (between 3 and 9). The color schemes are from the Color Brewer website (http://colorbrewer2.org/), which is an excellent resource for more information on selecting map colors.



Data range: To adjust the data range of the map legend, click on the top or bottom value. Use the popup to increment or decrement the value, or enter a whole new value. The

intermediate values will be adjusted automatically.

Creating or importing maps

You can use StatPlanet to create your own maps, using the included map template (map.fla). This requires the Adobe Flash software. For importing shapefile maps, please see the section "Importing ESRI Shapefile maps".

Save/export (StatPlanet Plus / StatTrends Plus only)

You can find the save/export button in the bottom-left corner of the screen. This button enables you to save the current map or graph as an image, or download the data as a CSV file.

To change the image type, size or quality, use the Options panel. This feature is only available in the web version of StatPlanet Plus.

Map zoom

The map zoom controls are normally hidden from view. Move the mouse towards the bottom-right of the screen to make them appear.

- **Zoom**: You can zoom in and out of the map using the 'zoom in' and 'zoom out' buttons, or by dragging the zoom slider up or down. If your mouse has a scroll wheel, you can also use this to zoom in and out.
- **Moving the map**: click and drag the map with the mouse to move it to a new position.
- **Restore map position**: the button shown on the left restores the map to the original coordinates for the selected region.

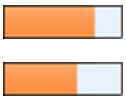
3.2. Indicators panel

Select category (optional)

The category selection drop-down is hidden by default[2]. Use the drop-down menu in the top of the Indicators panel to select a new category. When switching categories, StatPlanet / StatTrends will remember which year was selected and check if data exists for this year in the new category. If there is no data for this year, it will select the year closest to the previously selected year for which data is available in the new category.

[2] The category dropdown can be added through the StatPlanet Data Editor sheet 'settings', variable 'V-IND-O'.

Indicator bars (optional)



Indicator bars are hidden by default[3]. The bars are scaled in proportion to the maximum value of that particular indicator for all countries in the selected region. For example, if the value for country X is 20 and the maximum value for all countries is 100, the bar will be scaled at 20%.

Bookmark indicator (optional)

The bookmark indicator option is hidden by default[4]. Click the 'star' button in the Indicators panel to bookmark the selected indicator. The bookmarked indicator will stay even when you switch to another category. This allows you to (i) create scatter plot graphs, (ii) compare the bookmarked indicator with indicators from other categories, and (iii) compare two indicators through the choropleth map (representing the selected indicator) and the proportional symbol map (representing the bookmarked indicator).

Indicator definitions

If a definition exists for an indicator, the definition will appear in a popup when moving the mouse over the indicator. The definition only shows for the indicator which is selected or bookmarked.

3.3. Graph panel

In StatPlanet, click the 'graph' button in the bottom-left corner of the screen to open or close the Graph panel.

Bar chart / Column chart

The bar chart and column chart buttons are located in the top left corner of the Graph panel.

Use the "sort" button to sort the graph from lowest to highest, highest to lowest, highest to lowest starting in the middle, or alphabetically.

Time series

The time series button is located in the top left corner of the Graph panel. Use the Selection panel to add countries, map areas or other variables (depending on your data set) to the time series graph. Click on it again if you wish to to remove it. Countries or other map areas can also

[3]The indicator bars can be added through the StatPlanet Data Editor sheet 'settings', variable 'V-IND-B'.

[4] The bookmark indicator icon can be added through the StatPlanet Data Editor sheet 'settings', variable 'V-IND-O'.

be selected directly from the map (See also: **Selection panel**).

Use the "sort" button to sort the time series labels.

Vertical bubble chart

This button enables the display of country data as with the column chart, but with the values on the y-axis marked as bubbles rather than the top of a column. This display type has the advantage that it allows a second indicator to be visualized in the form of the bubble size. The bubble size follows the formula: value / maximum value.

Scatter plot (bubble chart)

The scatter plot button is located in the top left corner of the Graph panel. Clicking on the button will automatically use the selected indicator as the x-axis variable. You need to select a second indicator as the y-axis variable.

The x-axis and y-axis variables can be selected in the Graph panel (see below), or in the Indicators panel (see **Bookmark indicator** above).

Press the ‘play’ button to see an animation of changes over time, with each bubble (point) moving to the corresponding x and y positions (depending on whether data is available for each time interval). If ‘Show trails’ is selected (next to the play button), each bubble will leave a trail to mark previous positions over time.

Clicking on a scatter plot bubble will display the associated label. They can also be repositioned through ‘drag and drop’, by right-clicking and selecting 'move text labels or map points'.

A third indicator can be visualized through the bubble size parameter. This indicator can be selected through the drop-down above the scatter plot. The bubble size follows the formula: value / maximum value.

The scatter plot has an 'options' icon  which can be used to show or hide the trendline. Move the mouse over the trendline to see the slope and trendline equation.

Graph Multiple Indicators (available as an add-on module)

Display and analyze multiple indicators over time for a particular map area or variable (the indicators would need to be within the same category). To activate this graph type, click on the icon shown on the left, and then select a map area. To remove an indicator, click on the indicator name displayed in the graph. To add it back again, select the indicator from the indicator panel, or click twice on the icon shown on the left (to reset the graph).
View the demo (in StatWorld)

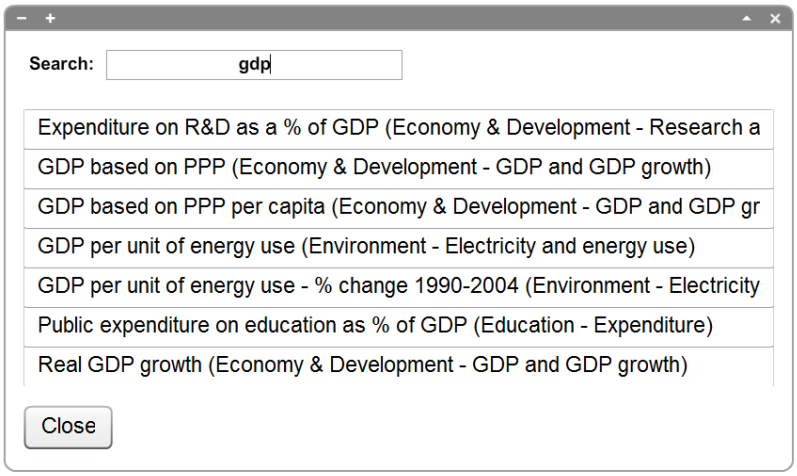
Select x-axis / y-axis indicator

Click on the x-axis or y-axis label, then select an indicator from the drop-down menu.

Use the drop-down menu in the top of the Graph panel to change the scale of the 'bubbles' according to a selected indicator.

Search (StatPlanet Plus / StatTrends Plus only)

The search function brings up a popup which enables you to filter the list of indicators to find the one you need. The example below shows the filter “gdp” applied to find all indicators related to GDP.



Adjust graph size

To change the graph size, move the mouse to the sides or corners of the Graph panel until you see the cursor change to look like the one shown on the left. Click and hold down the left mouse button, then drag the panel to the size you want. Release the mouse button once you have the right size.

Adjust graph scale

The graph scale can be adjusted by clicking on the top or bottom graph values. The value can then be edited in the popup window.

3.4. Options panel

Click the 'options' button in the bottom-left corner of the screen to open the options panel.

Map:

- Map colors: map background, map borders, map text color, map text outline color, etc.;
- Map text size;
- Map symbol size (proportional symbol map symbols);
- Map legend - estimate best value distribution: adjust the values so that there is a more equal distribution of countries for each color class. This will usually result in a map with a better distribution of colors. If this is switched off, the value range for each color class will be set at equal intervals based on the highest and lowest value in the data range.
- Map legend - show maximum & minimum values
- Map legend colors.

See also the section “Map options” below for customizing the map legend within StatPlanet.

Graph/Chart:

- Graph colors: background, bar & scatter points, scatter point borders;
- Graph text size;
- Transparency level of graph area (bars / bubbles);
- Size of bubbles (scatter plot graph);
- Bullet graph.

General options:

- Animation duration;
- Decimal places shown;
- **Adjust the map/graph scale**: StatPlanet automatically adjusts the map and graph scale to suit the data set. However, in some cases you may wish to keep it fixed, for example if you made some changes to it yourself. You can set (or prevent) the automatic updating of the map/graph scale on (i) changing indicator, (ii) changing region, (iii) changing year. The default setting is for StatPlanet to adjust the scale when changing indicator or region, but not year.

Save/export map or graph: (web version only)

- Set the **image type**: PNG or JPEG
- Change the **image size** as % of original
- Change the **image quality** (for JPEG images only)

3.5. Data-table panel

Click the 'table' button in the bottom-left corner of the screen to get a data table of the selected indicator. If an indicator has been bookmarked, the data for both the bookmarked and selected indicator will be displayed.

Save / Export table (StatPlanet Plus / StatTrends Plus only)
Save the table as a .CSV file, which can be opened by most spreadsheets (such as Excel). You can find the save table button in the top-right corner of the table panel.

Copy table

The desktop version of StatPlanet does not allow you to save the data as a file. Instead, you can copy the entire table into Excel using the 'copy' button, and then 'paste' it in Excel. If you do not have Excel, you can also do the following: (i) paste the data into a basic text editor such as Notepad, (ii) save the document as 'data.html', (iii) open the file using your Web Browser.

3.6. Selection panel

Countries, map areas (or in StatTrends – any other defined variables) can be selected in various ways. An efficient way of finding and selecting a country or map area is through the selection panel, as explained below. However, a country or map area can also be selected by clicking on it in the map, in the data table panel, or in the graph panel. In each case it will be highlighted in all of these StatPlanet components.

Click on a country/map area/variable in the list to select it. Clicking on a selected item will deselect it. You can press the first one or two letter of an item in the list to quickly jump to that item. For example, if it contains a list of countries, press 'b' to quickly jump to countries starting with the letter 'b'.

If the Selection panel is hidden, click the 'select' button in the bottom-left corner of the screen to make it appear.

Select regions

Use the drop-down menu in the top of the indicators panel to select and zoom into a different region, such as 'Africa' or 'Europe'. It is also possible to select countries to define a custom region (see Selection panel).

Select button

Press the Select button to reduce the list to your selection. Any items which are not selected will be removed from view.

Deselect All button

Press the Deselect All button to clear your selection.

Refresh button

The Refresh button appears once you have created a custom region or group of items. It can be used to return to the original list.

Remove button

To remove items from the list, select those you wish to remove and press the Remove button.

3.7. Story panel

The Story Panel (StatPlanet Plus only) can optionally be used to display ‘stories’ or descriptive text for each indicator. The text can be formatted using HTML, with support for image embedding and links to web-pages or documents. For more details, please see the section “Indicator/category descriptions and story panel”.

3.8. Time slider

Use the slider or click on the arrow buttons to change the year. Click on the play button to show changes over time as an animation, starting from the beginning. The animation speed can be set in the Options panel.

3.9. Interface options

View panel

Move the mouse over the 'View' button in the bottom-left of the screen to see various options for showing or hiding map & graph elements, and other StatPlanet components.

- Show or hide country or map area names on the map or graph (country names can be shown in full, in abbreviated form or as ISO3 codes);
- Show or hide country or map area statistics on the map;
- Show or hide the map popup and its components - bar chart, indicator and statistic;
- Show or hide various panels.

Shrink / enlarge

The buttons in the top-left corner of the panel can be used to shrink or enlarge them. This may be useful for space management when you have several panels open at the same time, or to focus in on certain areas.

Help / minimize / close

The buttons in the top-right corner of the screen are the help, minimize and close buttons.

Adjust graph panel size

Drag and drop the graph panel borders to adjust the size.

Full screen

Click on this button in the bottom-left of the screen to either switch to fullscreen mode, or go back to normal panel mode.

Changing category

When switching to another category, StatPlanet/StatTrends will remember which year was selected and check if data exists for this year in the new category. If there is no data for this year, it will select the year closest to the previously selected year for which data is available in the new category.

4. IMPORTING OR CREATING MAPS

4.1. Importing ESRI Shapefile maps

- Please see http://www.statsilk.com/maps/download-free-shapefile-maps to obtain free shapefile maps. Importing shapefile maps requires either StatPlanet Plus or StatPlanet Lite.

1. In the folder “Shapefile_map_(ESRI)” open the sub-folder 'map'. Copy your map files here.

2. Run the file “update_map.bat”. This automates the following procedure which can also be done manually: (i) remove the included example shapefiles (map of Indonesia), and (ii) rename your map files (e.g. “mycountry.shp” and “mycountry.dbf”) to “map.shp” and “map.dbf”

   Please note that there are two map folders in “Shapefile_map_(ESRI)” to which you need to copy your map files:

   - \map *(for the offline version)*
   - \web\map *(for the web version)*

3. Open the StatPlanet_data_editor file. Click on the button 'Setup shapefile' (in the top-left, macros need to be enabled).

4. Select your “map.dbf” file in the map folder, and follow the instructions. Make sure that the ‘ID’ column is alphabetical (a-z), numerical (0-9), or alpha-numeric (a combination of alphabetical and numeric characters such as “reg21”). Special characters such as ē ạ & / - may cause problems in loading the map. If you do not have a suitable ID column, you could use software such as Open Office Calc to edit the “map.dbf” file and create/edit an ID column. Open Office Calc is free software (http://www.openoffice.org/).

5. Run StatPlanet to see the results with the included sample data.

You can now start importing or inserting data for your map, but first you may wish to modify the map position and add text labels.

Map positioning:

To change the position and size of the map, move the mouse to the bottom-right of the screen to see the map zoom controls:

- **Zoom**: You can zoom in and out of the map using the 'zoom in' and 'zoom out' buttons, or by dragging the zoom slider up or down. If your mouse has a scroll wheel, you can also use this to zoom in and out.
- **Moving the map**: click and drag the map with the mouse to move it to a new position.

Once the map is in the right position, right-click and select 'Copy map coordinates'. In the StatPlanet Data Editor, go to the sheet 'Map regions', select the cell below 'X'. Then paste the coordinates here.

Text labels:

1. To show the text labels for the map, click on ‘Show text labels’ in the StatPlanet Data Editor (sheet Import, below the Save button).
2. Click on “Save data” and open StatPlanet to see the results. It is likely that the position of some or all of the text labels will need some adjusting.
3. To adjust the position of the text labels, right click anywhere in StatPlanet and select ‘Move text labels or map points’ in the menu. Click on any of the text labels to drag them to a new position.
4. Once you have finished moving the text labels, right click and select ‘Copy map text label coordinates’ in the menu.
5. In the StatPlanet Data Editor, go to the sheet ‘Settings’. Select the cell next to ‘Text label coordinates’ (variable ‘TXT-COORD’), and paste the coordinates here. (You may also wish to modify other settings in this sheet, such as the text font size.)
6. Click on ‘Save settings’ (or alternatively, ‘Save data’ in the Import data screen). The coordinates have now been saved for when you next open StatPlanet.
7. In the sheet ‘Settings’, you can also change additional settings such as the font size of the text labels.

Finding a map:

The StatSilk website maintains an up-to-date list of websites for finding free maps in the shapefile format. Many country-level shapefile maps can also be downloaded directly from this web-page.

Shapefile maps are often very large in size and therefore not ideally suited for the web. To simplify these maps and significantly reduce the file size, please see the StatSilk GIS shapefile map tools web-page.

4.2. Instructions for manually setting up shapefiles

The following steps can be conducted using any spreadsheet software, so Excel is not required:

1. Copy your map shapefiles as explained above. (Copy and replace the existing map shapefiles in the folder 'map', i.e. the files 'map.dbf' and 'map.shp' - so you would need to rename your shapefiles 'map.dbf' and 'map.shp' - any other files such as 'map.shx' are not required by StatPlanet).

2. Open the 'map.dbf' file in the map folder. On Windows PCs, the 'map.dbf' file can be opened using Excel. On a Mac, if the 'map.dbf' does not open in Excel, you could use the free NeoOffice (www.neooffice.org).

Note:

- If you are editing the data.csv and settings.csv directly, please follow steps **3a to 5a** below.
- If you are using the StatPlanet Data Editor, please follow steps **3b to 5b** further below.

3a. In the 'map.dbf' file, find the column which uniquely identifies each map area (usually a code, e.g. AFG for Afghanistan). Copy the header name for this column (from the first row). Then paste it into the 'settings.csv' file in the cell next to the variable name 'DBF-ID'. Please note: This ID column should contain unique values only, and characters need to be alphanumeric (i.e. cannot contain spaces or special characters/symbols).

4a. Open the 'data.csv' file and remove the existing map area IDs found in row 1, from column 'L' onward (so after the column header 'TYPE'). From the 'map.dbf' file, copy the entire list of map area IDs from this column (excluding the column header). Then paste them into the 'data.csv' file, in the same place (i.e. row 1, from column 'L' onward). You would need to 'transpose' the data to change it from vertical to horizontal alignment. In Excel the step would be 'Paste' -> 'Transpose' (or 'Paste Special' -> 'Transpose').

5a. Copy and paste the map area ‘names’ from the map.dbf file to replace the existing ones in the bottom of the file settings.csv. This time the data does not need to be transposed, so it is a simple copy and paste. These are the names which are actually displayed in the map in StatPlanet (in contrast to the map ‘IDs’ in the previous step which are used to identify each map area). The order of ‘names’ in the sheet ‘settings.csv’ should match the order of the ‘IDs’ in the sheet ‘data.csv’. (They should be automatically aligned if you copied and pasted them from the data.dbf, as long as you did not re-order them prior to copying).

Using the StatPlanet Data Editor:

3b. Open the StatPlanet Data Editor, and then open the sheet ‘Settings’. In the ‘map.dbf’ file, find the column which uniquely identifies each map area (usually a code, e.g. AFG for Afghanistan). Copy the header name for this column (from the first row). Then paste it into the StatPlanet Data Editor sheet ‘Settings’ in the cell next to the variable name 'DBF-ID' (row 6, column C). Please note: This ID column should contain unique values only, and characters need to be alphanumeric (i.e. cannot contain spaces or special characters/symbols).

4b. In the StatPlanet Data Editor, open the sheet ‘Data’ and remove the existing map area IDs found in row 1, from column ‘L’ onward (so after the column header ‘TYPE’). From the ‘map.dbf’ file, copy the entire list of map area IDs from this column (excluding the column header). Then paste them into the sheet ‘Data’, in the same place (i.e. row 1, from column ‘L’ onward). You would need to ‘transpose’ the data to change it from vertical to horizontal alignment. In Excel the step would be ‘Paste’ -> ‘Transpose’ (or ‘Paste Special’ -> ‘Transpose’).

5b. In the StatPlanet Data Editor, open the sheet ‘Import’ and remove the existing map area names found in row 1, from column ‘L’ onward (so after the column header ‘TYPE’, as in the previous step). Copy and paste the map area ‘names’ from the map.dbf file to replace the existing ones in row 1, from column ‘L’ onward. You would need to ‘transpose’ the data to change it from vertical to horizontal alignment. In Excel the step would be ‘Paste’ -> ‘Transpose’ (or ‘Paste Special’ -> ‘Transpose’). These are the names which are actually displayed in the map in StatPlanet (in contrast to the map ‘IDs’ in the previous step which are used to identify each map area).

GIS Shapefile Reader - Source Code

The source code for reading the shapefiles is included in the directory SHPreader. It can be compiled to the file SHPreader.swf, which is read by StatPlanet.

The code was written by Edwin van Rijkom under the LGPL license, with some additions by Andy Woodruff, and some slight modifications for use in StatPlanet.

If you wish to change the names of the map files being read, you can change this in SHPreader.as, and publish it as SHPreader.swf through the file SHPreader.fla.

For more information, see: http://shp.riaforge.org/

4.3. Create a map using Adobe Flash

To create custom interactive maps for use in StatPlanet, you need the following:

- StatPlanet Plus
- Adobe Flash CS3 or higher
- A map file in “vector” format, such as Adobe Illustrator (.ai), FreeHand (.fh*, .ft*), or Adobe Flash (.swf).
  (See also: Converting bitmap images to vector)

For creating Flash maps, please see the online tutorial.

5. IMPORTING OR ADDING DATA

5.1. Basic steps for adding data

The following is an example for importing country level data into the “World Map” version of StatPlanet. However, the process is the same for other versions of StatPlanet and StatTrends.

1.	**Download**	Download StatPlanet or StatPlanet Plus and extract the files to your computer.[5]
2.	**Open**	In the folder 'World_map', open the file ‘StatPlanet_data_editor’. Make sure macros are enabled. Press the 'Clear data' button to remove the example data.
3.	**Import**	Press the import data button and select a file containing data you wish to import. You can also add data manually using any spreadsheet software (see ‘Data file structure’ below).
4.	**Save**	Press the 'Save data' button. This saves the data to the file ‘data.csv’, and the settings to the file ‘settings.csv’.
5.	**View**	Click on **StatPlanet.exe** or **StatPlanet.html** (in the ‘web’ directory) to view the results.
6.	**Publish**	Copy the contents of the folder ‘Web’ to your website to publish it online.

To publish StatPlanet **online**, all you need to do is to upload the contents of the folder **Web** to the website (web-server). For publishing it within a CMS (Content Management System), please see the website FAQ: http://www.statsilk.com/support/faq#CMS

The web folder contains the following files:

- StatPlanet.html (the webpage which displays your interactive map)
- StatPlanet_small.html (alternative with smaller map embedded inside a webpage)
- StatPlanet.swf (file which shows loading progress)

[5] The files need to be extracted to a location where you have permission to save data, for example, your “Documents” folder or the desktop. Extracting it to the “Program Files” directory (on Windows-based computers) may cause problems when trying to save the data.

- content.swf (the actual software)
- settings.csv (settings in comma-separated values format)
- data.csv (data in comma-separated values format)
- swfobject.js (required to run 'Flash' content)
- Sub-folders 'export' and 'map' (StatPlanet Plus and StatTrends Plus only): For StatPlanet Plus and StatTrends Plus, the 'web' folder also contains the sub-folder 'export' for exporting the maps and graphs. In the Shapefile map version of StatPlanet, there is also an additional sub-folder 'map' (containing the shapefile map files). These sub-folders would also need to be uploaded.

Enabling macros in Excel

When you open StatPlanet_Data_Editor.xls you will normally get a message asking you whether you wish to enable macros. The message depends on the version of Excel.

- **Excel 2007 or newer:** In the top of the screen, next to 'Security Warning', click the button 'Options'. Select 'Enable this content' and click on 'OK'.
- **Older versions of Excel:** Select 'Enable macros' in the popup window.

If you do not receive this message, the macro security level in Excel is set to high. Follow the instructions below to change the security level to a lower setting.

- **Excel 2007 or newer:** Click the Microsoft Office Button (top-left) and click Excel Options. In the Popular category, check 'Show Developer tab in the Ribbon' (if it is not already checked). Click on 'OK', then select the Developer tab. Click on 'Macro security' (on the left). Select 'Disable all macros with notification'.
- **Older versions of Excel:** In the Tools menu, go to -> Macro -> Security. Change the security level to Medium.

5.2. The StatPlanet Data Editor

The Excel-based StatPlanet Data Editor comes included with each version of StatPlanet and StatTrends. To edit the data files directly (bypassing the StatPlanet Data Editor) please see the section 'Data editing without Excel'.

The StatPlanet Data Editor consists of the following sheets:

Sheet "Import": This is the main Excel sheet where you import your data. In the 'shapefile' version of StatPlanet, this sheet also includes a 'Setup Shapefile Map' button (for setting up shapefiles, please see Chapter 4). Row 2 lists the map area or variable names as they are displayed in StatPlanet / StatTrends.

Sheet "Import names": This sheet can be used to 'teach' the StatPlanet Data Editor different spelling variations of the map areas or variables you wish to import. For an example, please see the 'World Map' version of StatPlanet, where this sheet contains many variations of the spelling of country names. For more details please see also the section on importing data below.

Sheet "Data": In most cases this sheet does not need to be modified. The 'Data' sheet is identical to the sheet 'Import', but row 1 contains the map area or variable IDs. These are used to identify each of these in StatPlanet, as well as link them to their text label coordinates in the sheet 'settings'. Unlike the names in the sheet "Import', the IDs cannot contain commas or symbols and should be alphanumeric only. It may sometimes be necessary to modify this sheet when adding 'map points'. For more details please see the section 'Add map points or additional map areas'.

Sheet "Map regions" (StatPlanet) or 'Groups' (StatTrends): This sheet can be used to optionally define specific map regions within StatPlanet, or variable groups within StatTrends. For more details please see the section "Custom 'zoom-to' map regions or groups".

Sheet "Settings": This sheet lists over 200 customization options to fully customize the user interface and functionality.

Sheet "Text-Translations": This sheet contains a number of interface translations, and can also be used to add new translations.

Sheet "Tools": This sheet lists a number of tools, such as for upgrading to a new version of StatPlanet – automating the process of transferring your old data to the new StatPlanet Data Editor.

5.3. Defining variables (StatTrends only)

Prior to importing data in StatTrends, you first need to define your variables. They are defined in the sheet ‘Import’, as follows:

- Replace the example variables from column L onwards (row 2) with your own.
- Click on button '3. Save data' to save your variables.
- Click on button '2. Import data' to import your data. (If your variables did not import, try closing and re-opening the StatPlanet Data Editor. The variables in the document you are importing need to be equivalent to the variables in the sheets ‘Import’.).
- Click on button '3. Save data' again to save, and then the results can be viewed in StatTrends.

5.4. Importing data automatically

Using the included StatPlanet Data Editor, data can be automatically imported through the button ‘Import data’ (found in the top-left corner of the sheet ‘Import’). Data can be imported from any file format recognized by Excel, including CSV, TXT, XLS, XLSX, DBF and HTML.

Importing one or multiple categories of data

As of StatPlanet Plus v 3.21, data is imported from all Excel sheets in the selected file. Each sheet is imported as a separate category, and the sheet name becomes the category name (if there is more than one sheet of data). For multiple categories of data, the best way to organize your data file would be to organize the sheets according to the categories you would like to create within StatPlanet/StatTrends. Each sheet – which becomes a category – can have multiple indicators and time periods.

In order to disable importing all sheets, go to the sheet 'Import names' and set 'Import all sheets' to FALSE. When set to FALSE, it only imports the currently selected sheet when the file is opened. In the sheet 'Import names', it is also possible to insert any sheet names to exclude from import, in cell H12 (for multiple sheets, separate them by commas, e.g. sheet1, sheet2, sheet3).

Structuring the data file for import

The Data Editor automatically recognizes the structure of the data in the file being imported. It will then automatically restructure the data in the format that is accepted by StatPlanet.

- Please download the example spreadsheet for an example of how to structure the data if the import fails (with country-level data).

A criterion for the import to be successful is that any map area name (e.g. country name) *only appears once* in the data file being imported. For example, if there are several rows of data for a map area, these rows would need to be combined into a single row. See also the section "Troubleshooting" below.

The Data Editor can also recognize multiple spelling variations of map area (e.g. country) or variable names. The World Map version of StatPlanet recognizes the vast majority of the many possible variations of country names. The import should therefore succeed in most cases without having to make any changes to the data file. The spelling variations are listed in the sheet 'Import names'. For more information, and for troubleshooting issues where map area or variable names are not recognized in the file you are importing, please see "Names not recognized" below.

Also note that StatPlanet sees a "dot" as the decimal separator.

Importing HTML or PDF files

- HTML: To import data from a web-page, simply save the web-page and import it like any other file. If the import fails, it could be that the import/map/country names and statistics are too far down the page. In this case, open the file in Excel, and remove the rows up to the point that the data starts. Then import the file again. Alternatively, copy and paste the tables in the web-page into a new Excel document.

- PDF: Tables in PDF files can usually be copied and pasted into an Excel file. Select (highlight) the table with the mouse, right-click and select "Copy as Table" or "Save as Table" from the menu. See also this helpful guide from McGill University, as well as this free tool to convert a PDF to an Excel file: http://www.pdftoexcelonline.com

Names not recognized

Names of map regions in the data file which are not recognized are displayed once the import is complete. For example, if in your data file the country 'Afghanistan' is indicated with the abbreviation 'Afg', this abbreviation will not be recognized by the data editor. To fix the problem, go to the Excel sheet 'Import names' and add 'Afg' in an empty cell below the corresponding country - 'Afghanistan'. You can use the same approach for other headers in your data set so that the import macro can correctly identify them. Once this has been completed, you need to close and re-open the StatPlanet Data Editor. Then, run the import macro again to import the data correctly.

Note that the import macro removes spaces in the sheet “Import names” and converts special characters (e.g. "é") into regular characters (e.g. "e") during the import. This allows for a wider range of country name spellings to be detected. Whether the names in your file use upper or lowercase does not matter. The world map version recognizes English and French country name spellings and a number of variations of these spellings. Automatic data importing has been successfully tested with many different sources of data with different data structures and country name variations, including the CIA Factbook, Ethnologue, IMF, ITU, Nation Master, OECD, UBS, UIS, UNAIDS, UNDP, UNESCO, UNICEF, UNSTATS, WHO and the World Bank.

The Data Editor is registered as an open source project on SourceForge and any contributions or improvements you make to the software are very welcome. (https://sourceforge.net/projects/statplaneteditr/).

5.5. Importing data manually

This section describes how to import your data manually, without using the StatPlanet Data Editor macro for importing data. If you go for this approach, you can bypass the StatPlanet Data Editor altogether, and directly edit the ‘data.csv’ and ‘settings.csv’ files. To understand how to structure the data in these two files, please see the following two sections.

The following instructions are relevant for the ‘World’ and ‘USA’ map editions. For the ‘Shapefile map’ edition, please see the section ‘Instructions for manually setting up shapefiles’ instead.

Importing data for StatPlanet: To facilitate importing your data into StatPlanet, it can be useful to arrange the map area names/codes in the StatPlanet data files so that they are in the exact same order as in your own data files. This particularly saves time if you have *multiple* data files with the map area names/codes in the same order. The following is a step-by-step approach for rearranging the map area names:

1. Open the ‘data.csv’ file. Select and copy the entire list of map area codes in row 1, from column L onwards.

2. Open the ‘settings.csv’ file. Scroll down to the list of map area names at the bottom (below the header ‘NAMES’). Select the cell next to the first map area code in column B. For example, if the first map area name is in cell A466, then select the adjacent cell B466. Paste the map area codes here, so that they will be next to the map area names, through: ‘paste’ -> ‘paste special’ -> ‘transpose’ (to change the orientation to vertical). You should now have two vertical lists – first the map area names and next to it the corresponding map area codes.

3. Just below the header 'NAMES', insert new rows for each of the map area names in your data file. For example, if you are importing data for 20 map areas, insert 20 rows. Then copy and paste the map area names from your own data file in the empty space created, in column A.

4. Scroll down to find the map area code corresponding to each of the names just added, and copy/paste this code next to the name in column B. Then delete the entire row with the code you just copied/pasted. (This is to ensure you are only removing rows corresponding to your map areas, and none of the other map area codes/names).

5. You should now have a new arrangement with the map areas which are in your data file at the top of the list. Cut the entire list of map area codes from column B, and paste them back in to the 'data.csv' file (starting in column L, using 'paste special' – 'transpose').

You should now be able to copy and paste data directly into the data file without having to rearrange it. It then needs to be structured as described in the next section.

Importing data for StatTrends: Importing data for StatTrends is the same as with StatPlanet, but more straightforward. There is no need to change the order of variables in the data.csv file. Just copy and paste them in the same order as in the data file you wish to import (from column L onwards, with the variable headers in row 1). It then needs to be structured as described in the next section.

Note for Mac users: *when saving the settings.csv or data.csv files, they need to be saved in the 'Windows Comma Separated Values' format (selectable from the drop-down in the 'Save As' dialogue window).*

5.6. Data file structure

Data in the StatPlanet Data Editor consists of 11 columns containing category names, indicator names and meta-information. This is followed by x number of columns for the map areas (StatPlanet) or variables (StatTrends), where x corresponds to the number of map areas or variables. Data is edited in the sheet "Import". When clicking on "Save data", a copy is saved to the sheet "Data" prior to saving the file as 'data.csv' (removing duplicate indicator names to reduce file size). The 'data.csv' file is the actual data file read by StatPlanet.

The data file structure for the first three columns is shown below. Columns 1, 2 and 3 contain the Category names, Time units (e.g. years) and Indicator names respectively. Columns 4 to 11 are for optional customizations and can be left blank (for more details on how to use these columns, please see the User Guide). In contrast to StatPlanet Plus, StatPlanet only uses columns 2 (Time) and 3 (Indicator). The Time column can also be used for organizing other variables, such as different age-groups (or age-ranges) in population data.

CATEGORY	**TIME**[6]	**INDICATOR**
Category 1	2010	
		Indicator 1a
		Indicator 1b
	2009	
		Indicator 1a
		Indicator 1b
Category 2	2010	
		Indicator 2a
		Indicator 2b
		Indicator 2c
	2009	
		Indicator 2a
		Indicator 2b
		Indicator 2c

[6] This column is called 'YEAR' in older versions of StatPlanet and StatTrends.

The most important columns are therefore columns 1 to 3, which need to be structured according to the following rules:

- Data is structured first by category, then by date, and then by indicator.
- Dates must be in order from *highest* to *lowest*.
- Within one category, the list of indicators must be exactly the same for each date / year.
- Spacing (empty cells in white) between the different categories, dates and indicators need to be maintained as shown in the example below. See also the included example data which comes with StatPlanet for a more elaborate data structure. Please note that there are empty spaces between each category and between each year, and a single empty space (cell) between each list of indicators.

An example of the simplest possible data file is given below, which consists of just 3 rows. The first row contains the headers. The second row contains the category name (column 1, row 2) and the time value (column 2, row 2). The third row contains the indicator name (column 3, row 3), and in the same row, contains the data for each map area or variable (columns 12 onwards, row 3). For Shapefile Maps, the headers for column 12 onwards need to correspond to the unique map area codes in the DBF file. The column header for these unique map area codes then needs to be specified in the 'settings.csv' file, which is explained in more detail below.

CATEGORY	**TIME**[7]	**INDICATOR**	**<headers for columns 4 to 11>**	**AREA1**	**AREA2**	**Etc…**
Category 1	2010		<can be left blank>			
		Indicator		42.2	34.8	21.9

For sub-categories and sub-sub-categories the structure is identical. Please note though that the name of a category containing sub-categories needs to be in the row directly above the first sub-category. Aside from the first cell containing the category name, all other cells in this row should be empty. The same is the case for sub-categories which contain sub-sub-categories. An example of a category with two sub-categories is shown below:

[7] This column is called 'YEAR' in older versions of StatPlanet and StatTrends.

CATEGORY	TIME	INDICATOR
Category		
Sub-Category 1	2010	
		Indicator 1a
		Indicator 1b
	2009	
		Indicator 1a
		Indicator 1b
Sub-Category 2	2010	
		Indicator 2a
		Indicator 2b
		Indicator 2c
	2009	
		Indicator 2a
		Indicator 2b
		Indicator 2c

5.7. Settings file structure

This section describes the structure of the settings file (settings.csv or settings.txt), in case it needs to be edited manually, or if it is generated not through the StatPlanet Data Editor but via other means.

The setting file consists of three parts, which are extracted from different sheets in the StatPlanet Data Editor:

1. **Map coordinates**

    - Found in sheet “Map regions”

    The structure of the “map coordinates” consists of the heading “MAP”, followed by at least one line providing the startup coordinates of the map (in the order - X coordinate, Y coordinate, zoom level), e.g.:

All regions	0	0	100

2. **Settings**

    - Found in the sheets “Settings” and “Text-Translations”

    The structure of the “settings” consists of the heading “SETTINGS”, followed by a vertical list of settings. The first column contains the variable name and the second column the corresponding value. The order of the variables does not matter. This section also includes the interface and help text.

    For Shapefile maps, the key variable to be set is the variable ‘DBF-ID’. The value of this variable would need to be the name of the column header from the shapefile DBF file which contains the unique codes for each map area.

3. **Names** (optional)

    - Found in the sheet “Text-Translations”, a copy of which is found in the sheet “Import”

    The map area names (or variable names if using StatTrends) are optional. If left out the names used will be equivalent to the names/codes in the sheet “Data”. The structure of the “names” section consists of the heading “NAMES”, followed by a list of country / map area / variable names. The order of the names should be the same as the order of the corresponding country / map area / variable codes in the sheet “Data”, but transposed vertically rather than horizontally.

5.8. Loading data from a database

In StatPlanet v 3.1 the option of passing data to StatPlanet as a ‘parameter’ in the web-page was introduced (StatPlanet Plus only). The data is therefore embedded within the web-page, in contrast to reading data from an external data file. Because web-pages can be generated dynamically (e.g. through PHP), this also enables the data passed on to StatPlanet to be generated dynamically.

A static example of this is included in the “World map” version of StatPlanet Plus, in the directory ‘web’, file StatPlanet_database.html. This web-page passes on an array of data to StatPlanet using ‘FlashVars’, containing three indicators and values for several years.

Data is passed on to StatPlanet in the form:

flashvars.data = "insert data array"

The first three characters need to consist of (i) the hash (#) symbol which tells StatPlanet to expect an array of values rather than the name of an external data file; (ii) the separator for the values; and (iii) the separator between each 'row' of data. In the following example, the 'comma' (,) is indicated as the value separator and the 'semicolon' (;) is indicated as the row separator:

flashvars.data = "#,;"

This needs to be followed by the headers – that is, the same headers which are found in the first row of the external data file and includes the map area codes. For example:

flashvars.data = "#,;CATEGORY,YEAR,INDICATOR,SOURCE,DESCRIPTION,UNIT, MAP,GRAPH,FILE,OPTIONS,TYPE,AFG,ALB,DZA,AND,AGO,AIA,ATG,ARG" etc.

It is not necessary to indicate the names for the first few columns, so the following shorter format can also be used (the three characters "#,;" followed by 11 commas, followed by the map area codes):

flashvars.data = "#,;,,,,,,,,,,AFG,ALB,DZA,AND,AGO,AIA,ATG,ARG" etc.

The array of data needs to follow the exact same structure as the external data file, as described in the 'Quick_Start.pdf' documentation included with StatPlanet[8]. For example, as described in this document, the indicator name needs to be in the third column, and the preceding two cells need to be blank. If values are separated by commas, then the indicator name should therefore be preceded by two commas (where each comma represents a 'cell' in a traditional spreadsheet). The first map area column is 9 columns after the indicator column (these 9 columns contain optional parameters). A row of data for an indicator therefore consists of two commas, followed by the indicator name, followed by 9 more commas, and then the value for the very first map area. Each row is separated using the 'semicolon' (;). Following this structure, the following is a simple example which loads a single indicator, for a single year, and with data values for just two map areas – Afghanistan (AFG) and Albania (ALB):

paramObj["data"] = "#,;,,,,,,,,,,AFG,ALB;My category,My time;,,My indicator,,,,,,,,2,3;";

[8] See also: http://www.statsilk.com/support/resources

If this array were to be represented as a table, it would look like this:

											AFG	ALB
My category	My time											
		My indicator									2	3

With the optional header names included, the array would be as follows:

paramObj["data"] = "#,;CATEGORY,TIME,INDICATOR,SOURCE,DESCRIPTION,UNIT,MAP,GRAPH,FILE,OPTIONS,TYPE,AFG,ALB;My category,My time;,,My indicator,,,,,,,,2,3;";

And the corresponding table would be:

CATEGORY	TIME	INDICATOR	SOURCE	DESCRIPTION	UNIT	MAP	GRAPH	FILE	OPTIONS	TYPE	AFG	ALB
My category	My time											
		My indicator									2	3

For a more complete and more complicated example, see the file StatPlanet_database.html.

5.9. Troubleshooting

If you have saved your data but it cannot be read by StatPlanet, most likely there is a problem with the data structure. The import macro automatically structures the data correctly. If you imported data manually, please see the section 'Importing data manually' above. If StatPlanet failed to start after manually re-arranging your data, please see also the section 'Data file structure' above.

If the automatic import fails, please consult the list of potential causes and solutions below.

For general troubleshooting issues, see also the FAQ on the StatSilk website:

- http://www.statsilk.com/support/faq#troubleshooting

Potential causes of data import problems

1. Spelling of names: If the spelling of a map area (or variable name) in the file you are importing is not recognized, the corresponding data will not be imported. The names in the data file need to match those in the StatPlanet Data Editor sheet "Import names". See “Names not recognized” above for more information on how to resolve this problem.

2. Numbers in names: If the names in your data file contain numbers in the same cell (e.g. "1 Alabama", "2 Alaska", "3 Arizona"), they need to be automatically removed as follows: (i) In the StatPlanet Data Editor, go to the sheet 'Import names', (ii) Select the checkbox 'Remove numbers / footnotes from names', and then retry the import.

3. Names appear more than once: If the same country/map/region names appear more than once in your data file, the import macro will only import the data associated with the first one.

This structure will not be imported correctly:

Country	Dimension	High	Medium	Low
Afghanistan	A	6	3	2
	B	7	5	2
Albania	A	9	6	3
	B	12	5	2
Algeria	A	11	5	1
	B	21	11	9
Andorra	A	15	14	12
	B	14	11	10

The above data structure would need to be re-arranged with one country/map/region name per row, as shown below (alternatively, it may be easier in some cases to split the data into several files and import them separately). The Excel-based data restructuring tool may help you automatically structure the data for import, if you can organize the data as in the example set.

This structure will import correctly:

Country	A - High	A - Medium	A - Low	B - High	B - Medium	B - Low
Afghanistan	6	3	2	7	5	2
Albania	9	6	3	12	5	2
Algeria	11	5	1	21	11	9
Andorra	15	14	12	14	11	10

4. No year found in the data file / importing other kinds of date/time-based formats

All indicators are arranged according to year or other time unit (e.g. months). See the example file included with StatPlanet "data_example_for_import_worldmap" to see how to structure data with multiple years and/or indicators, so that it can be imported successfully[9]. For importing data with another kind of date/time-based format, please see this FAQ item.

You can also import the data and add the year or time unit afterwards. The data needs to be structured as follows (see for example the structure of the sample data in StatPlanet_data_editor.xls):

- Group (sort) your indicators according to year. Insert a new row above each group of indicators. In this new row add the year in the TIME column. Leave the neighboring cell in the INDICATOR column blank;
- Note that the TIME column should be blank in the cells next to the indicators:

TIME	INDICATOR
2001	
	indicator1
	indicator2
2000	
	indicator1
	indicator2

See also the section "Data file structure" for more details.

5. Decimal point: StatPlanet reads a "dot" as decimal separator (for example 0.75). Avoid using commas, spaces or other symbols in numbers to ensure that they are read properly by StatPlanet.

6. Errors related to the shapefile map

- Map ID error: The DBF file (map.dbf) uses an ID containing special characters which are not supported. It needs to have an ID which is alphabetical (a-z or A-Z), numerical or alphanumeric. The solution is to create one yourself by editing the DBF file. As of Excel 2007, DBF support is no longer included, but Open Office Calc can be used as a free DBF file editor.

[9] http://www.statsilk.com/support/resources

- Time-out error: The shapefile is too large leading to a time-out error. This might be an issue if your shapefile is over 10 mb and/or contains a large number of regions. See how to reduce the size of a map for significantly reducing the map size. As of StatPlanet Plus v 3.0, larger shapefile maps are supported.

- Unknown shapetype error: Use the free Quantum GIS software to open the shapefile (Layer -> Add Vector Layer -> Browse). Simplify the map if required (to reduce the file size). Then save the shapefile through (Layer -> Save As). If it still does not work, you may need to save it as WGS 84 (Coordinate reference system).

- The shapefile map appears blocky (the borders are not smooth): This issue can be resolved by replacing the file 'SHPreader.swf' with 'SHPreader2.swf' included with the shapefile version of StatPlanet. You may first wish to make a copy of the file 'SHPreader.swf', then remove the original 'SHPreader.swf' and rename the file 'SHPreader2.swf' to 'SHPreader.swf'. For the web-version, you would need to copy the 'SHPreader.swf' file also into the 'web' directory.

- Other: If none of the above apply, there may be a problem with the shapefile itself. Most commonly, the number of map areas in the DBF file do not match the map areas in the shapefile (SHP) itself. StatPlanet is sensitive to such issues, so even though it may open successfully in a GIS application, it cannot be read by StatPlanet. Specialized GIS software may be needed to resolve such errors.

6. CUSTOMIZATION

For help in customizing and improving your interactive maps, see also the StatSilk website section - general tips for creating interactive maps

6.1. General and startup settings

General settings for customizing StatPlanet can be found in the Excel sheet **Settings**. After making any changes to the settings, press the button **Save Settings**. You can try out many of the settings 'live' in StatPlanet through the general options panel and the map legend options panel.

In the Excel sheet **Settings**, the various settings to be edited are the yellow highlighted cells in column C. In some cases, the checkboxes and dropdown menus in column D can be used to more easily change the setting in the corresponding cell in column C (for example, click on a checkbox to change a setting from 'TRUE' to 'FALSE').

See also the next section for customizing StatPlanet at an indicator or category level (for example, specify different map colors for different indicators).

Each option in the sheet 'Settings' has a short explanation in column D. A few of these options are described in more detail below:

- **Startup options**
  The first rows in the sheet 'Settings' are startup options:
  - REGION: Change the default region: through the region drop-down menu in row 5, which will select and zoom into this region on startup (e.g. "South Asia").
  - GRAPH: Change the default graph type.
  - HELP: Show a help screen on startup. The help text can be modified in the sheet 'Text-Translations'. To prevent any of the default help "text balloons" from appearing, replace the text with a dash symbol (-).
  - SEL-IND: Change the default startup indicator to something other than the very first indicator in the data file, either by inserting the indicator row number or the indicator name (assuming it is a unique indicator name in the data file). If you do not want any indicator to be selected on startup, insert the text: none
    Optional startup text or instructions can be provided inside the Graph panel,

through the StatPlanet Data Editor, sheet 'Text-Translations', variable 'T_GR-START'.

- B-IND: Select a bookmarked indicator on startup.
- THEME: Choose the regular or dark theme (colors / skinning).
- REGION-L: Please see below ("Add text labels").
- TXT-COORD: Please see below ("Add text labels").
- GRAPH-M: Startup with the graph panel maximized.
- TOPMENU: Display the main (level 1) categories in the top of the screen through a horizontal menu.
- PLAY: Play the time animation on startup.
- FORMAT: Change the format of the data and settings file to CSV or TXT. After changing the format, make sure to remove the existing data/settings files for the other format (e.g. if changing to the TXT format, remove the data.csv and settings.csv files or StatPlanet will continue to read them). The TXT format is needed to display fonts using non-Latin characters.

- **Modify map, graph or interface colors**

  Most of the colors used in StatPlanet can be customized and there are over 40 color settings. Additional color settings can be specified at the indicator level (see the next section for more details). Colors are specified using hex (hexadecimal) color code, consisting of the characters '0x' followed by six digits or characters (e.g. 0xFFFFF for white). Hex codes can be found in commonly used design software such as Adobe Dreamweaver, or online, e.g. http://html-color-codes.info/.

- **Show / hide interface components**

  Use the options in this section to show or hide the various panels, icons and other components in order to customize the StatPlanet interface. One of the options is to enable the share link feature via a link icon in the bottom-left corner of the application, variable 'V-I-LINK'. This requires that variable 'SITE-L' indicates the web-link where the application is located e.g. www.mysite.com/statplanet, or www.mysite.com/statplanet.html.

- **View menu options**

  The view options in this section are identical to those in the 'view menu' inside

StatPlanet, which appears when selecting the 'view' icon in the bottom-left of the interface.

6.2. Map settings

General map settings and options

- **Add text labels and position the text labels on the map**
    - TXT-COORD: To adjust the coordinates or position of the text labels, right click anywhere in StatPlanet and select 'Move text labels or map points' in the menu. Click on any of the text labels to drag them to a new position. Once you have finished moving the text labels, right click and select 'Copy map text label coordinates' in the menu. In the StatPlanet Data Editor, go to the sheet 'Settings'. Select the cell next to 'Text label coordinates' (variable 'TXT-COORD'), and paste the coordinates here. (You may also wish to modify other settings in this sheet, such as the text font size.).
    - REGION-L: In addition to positioning the text labels, it is also possible to include map lines (lead lines) linking the text label to a map region (mainly used when the map area is too small to fit the label, such as islands). Map areas for which you wish to have map lines can be set in the sheet 'Settings', variable 'REGION-L'. You would need to insert the country/region codes (the codes used in the sheet 'Data') separated by a space.
- **Add a map title**
  Under 'Map options', 'MAP-TITLE', insert the text for the map title. The procedure for relocating the map title is the same as for relocating any other text labels on the map: (i) right click anywhere in StatPlanet and select 'Move text labels or map points' in the menu; (ii) drag the map title to a new position; (iii) right click and select 'Copy map text label coordinates' in the menu; (iv) in the StatPlanet Data Editor, go to the sheet 'Settings'. Select the cell next to 'Text label coordinates', and paste the coordinates here.
- **Change the default position of the proportional symbol map icons**
  The proportional symbol map icons can be re-positioned within StatPlanet by holding down the SHIFT key while pressing the arrow (movement) key UP, DOWN, LEFT or RIGHT. To change direction, release and press the SHIFT key again, when press the corresponding arrow key. This will move all the proportional symbols in the

corresponding direction. The current position will be automatically copied to the clipboard. To get the new coordinates, open Excel and in a new spreadsheet, click on 'Paste'. The new X and Y coordinates should be pasted into the spreadsheet. To permanently set these new coordinates, go to the StatPlanet Data Editor, sheet 'settings', and insert the X and Y coordinates for the variables 'MAP-SYMBX' and 'MAP-SYMBY'.

- **Multiple map layers**

  Multiple map layers are supported in the Flash map and Shapefile map versions of StatPlanet Plus. This enables you to switch from one map to another within StatPlanet. For example, switching from a map at the regional level to a map at the district level, or to show changes in map boundaries over time. Please see the online tutorial for creating multiple shapefile map layers for details. For an example of a Flash map implementation with multiple layers, please see: http://www.statsilk.com/maps/create-flash-maps#multiple-map-layers.

  There is also an add-on module for displaying up to three map layers at the same time (one overlaying the other). This is currently only available in the shapefile map version of StatPlanet Plus. For more details, please see the 'Multiple Map Layers' add-on module.

Map area popup text and links

Information specific to a particular map area can be shown in a popup when the mouse moves over this map area in the map. This information needs to be added in the sheet 'Import' in the very first row in the empty cell below the corresponding country / region name[10]. (These cells are empty, because data starts in the next row). Different popup text can also be displayed for each indicator – for indicator-level popup text, please see the options section above.

Popup text can be inserted either as plain text, or HTML text with formatting, for example:

My text

Links to documents or web-pages can also be specified in the row below the corresponding country name. The document or web-page will open when the user clicks on a country for

[10] Note: it should be below the country / region name in the sheet 'Import' of the StatPlanet Data Editor. Alternatively if you are not using the StatPlanet Data Editor, they can also be inserted directly in the file settings.csv in the column next to the country / region name.

which a link has been specified. Please note: in the latest version of StatPlanet, this requires a ‘double click’ rather than a single click. As of version StatPlanet v 3.3 this can be changed to a single click through the variable 'DBL-CL' in the StatPlanet Data Editor, sheet 'settings', which needs to be set to FALSE.

An example of a link would be:

http://www.mywebsite.com/document.pdf

It is also possible to have both text and a download link, by inserting the link as HTML code. For example:

**Please double click to open the document **

Please note that the links cannot be tested in the web browser offline due to a Flash Player security restriction. To test the links, you would need to use the desktop version (StatPlanet.exe), or publish the files online.

To link to a local file, please use HTML code for including a link and use the format ‘file:///C:/mydirectory/myfile’ to refer to a file in the location “c:\mydirectory”. For example, **Please double click to open the document **

For supported HTML tags, please see: list of supported tags.

Display RSS Feeds

With the StatPlanet Plus RSS Feed module installed, it is possible to display RSS feeds in a popup window when clicking on a country or map area. Each country or map area can have a different RSS feed. The first part of the RSS feed link or URL needs to be specified in the StatPlanet Data Editor, sheet “settings”, variable “FEED-URL” (in the Special Options section). This is the part of the RSS feed link which is same for each feed, for example:

http://feeds.feedburner.com/myfeeds-

The second part of the FEED-URL can be different for each country or map area, and is inserted in the StatPlanet Data Editor, sheet “Import”, in the row directly below the country or map area name. It needs to be inserted in the format “f=[RSS-link]”, for example:

f=[east-asia]

If for example you wish to display the feed http://feeds.feedburner.com/myfeeds-east-asia for Japan, and the feed http://feeds.feedburner.com/myfeeds-central-asia for Uzbekistan, you

would insert the base (first part of the URL) in the sheet “settings” as described above. In the sheet “Import” you would need to add the extension “f=[east-asia]” in the row below Japan, and the extension “f=[central-asia]” in the row below Uzbekistan.

Please note that the feeds cannot be tested in the web browser offline due to a Flash Player security restriction. To test the feeds, you would need to publish it online.

Custom ‘zoom-to’ map regions or groups

Map regions or groups can be added or modified in the worksheet ‘Map regions’ (if using StatPlanet) or ‘Groups’ (if using StatTrends). For example, the World Map version of StatPlanet has several regions defined, one of which is Sub-Saharan Africa. When clicking on ‘Sub-Saharan Africa’ from the selection panel in the top-right corner, StatPlanet will zoom into the African continent and display map and graph data only for countries in Sub-Saharan Africa. In StatTrends, the principle is the same, but instead of map areas, you can organize any of your variables into groups.

Defining custom regions or groups

Custom regions or groups can be defined from row 3 onwards (please see below for making changes to row 2 – the ‘All regions’ option).

Map regions or groups have the following elements:

- **Name** (col. 1)**:** The names of the map regions or groups you wish to define.
  It is possible to categorize your regions or groups if you wish to organize them into sub-menus. This is done by inserting the name of your category (just like inserting any region or group name). Then for subsequent region or group names below, add ‘>’ if you wish to include them under this category (the principle is the same as with the categorization of indicators). In the example below, “My sub-menu” is the name of your sub-menu, and the symbol “>” is used to define the two regions to be included in this sub-menu:

  Region 1
  Region 2
  My sub-menu
  > Region 3 (inside sub-menu)
  > Region 4 (inside sub-menu)
  Region 5 (not inside sub-menu)
  etc.

The symbol “#” can be used prior to the region name to hide it from the map region drop-down menu (e.g. #My hidden region). This may be useful if you wish to select and go to a map region on selecting a particular category, but without making this particular map region selectable through the drop-down menu. For example, it you have defined two maps next to each other, you can move from map 1 to map 2 by selecting a category related to map 2, but have the option to go to map 2 hidden from the dropdown menu. To change the region when selecting a particular category, please see the section “Change map region or group” under “General options and mouse-over popup text/links”.

The two symbols “#*” can be used prior to the region name to both hide it from the map region drop-down menu, and to use it only for setting the map zoom and position (as specified for this region). The original region selection (in terms of the map areas in this region) is thereby maintained.

- **Map coordinates** (col. 2-4) (StatPlanet only)**:** The X and Y coordinates and ZOOM level for the defined regions. To get these coordinates, open your map in StatPlanet and zoom into the map area you wish to add (e.g. zoom into Africa and click and drag the map so Africa fills the screen). Once you are satisfied with the map position, right-click anywhere in StatPlanet and select 'copy map coordinates'. Go back to the Excel sheet ‘Map regions’, and ‘paste’ the coordinates in the corresponding row for the region.

- **Color** (col. 5 - optional)**:** The color for each region which will be used to color the bubbles in the scatter plot graph. It is also possible to color the bar chart using the region colors. A region colors needs to be specified as a “hex color”, for example “0x0000FF” for blue.

- **Link** (col. 6 – optional, StatPlanet Plus / StatTrends Plus only)**:** Insert a link or URL, for example to link a map name with another copy of StatPlanet with this map embedded (e.g. http://www.mywebsite.com/anothermap). It is also possible to use this feature to link to documents for download. If using this feature offline and linking to other offline files, the specified path needs to be either relative to the current StatPlanet location (e.g. mydirectory/StatPlanet.html), or specified in the following format:
  file:///C:/mydirectory/myfile
  Please note that this feature only works online or in the desktop version; it does not work in the offline web version due to a Flash security restriction.

- **Codes** (col. 7 onwards)**:** Columns 7 onwards contain the codes for the countries or map areas in each region (these are ISO3 country codes for the world map version of StatPlanet). In both StatPlanet and StatTrends, these codes need to correspond to the

codes or variable names you are using in the top row of the sheet 'Data'. When adding these codes, it is important that they are added from column 7 onwards without leaving any empty cells between them.

Modifying the 'All regions' option

Row 2 always defines the map coordinates when all map regions are shown. The default name is 'All regions', but the name can be changed by going to the sheet 'Text-Translations', finding 'All regions' (in the 'English' language column if you are using the English version), and changing the name here. After changing the name, go to the sheet 'Settings' and click on 'Save settings' for the change to register. As of StatPlanet Plus v 3.3 it is possible to hide the 'All regions' option by going to the sheet 'Settings' and changing the variable 'MAP-ALLR' to FALSE (under 'Map options').

Grouping map areas

Map areas with the same name in the StatPlanet Data Editor sheet 'Import' will be automatically grouped together when moving the mouse over any of the map areas, so it will appear as if it is one map area. However, they can still be selected as well as colored separately. To group map areas in this way, they should therefore be given the same name in the StatPlanet Data Editor sheet 'Import' (but keeping their unique IDs in the sheet 'Data').

Add map points (such as cities, sites, places)

(StatPlanet Plus only feature). Cities, sites and other map areas can be defined separately from the map itself through the 'map points' feature. These map points are displayed in the graphs and selection panel just like other map areas. They also appear in the map itself, and can be positioned into place via drag and drop. If you do not wish to display the map points in the map, the setting 'M-DOT' in the StatPlanet Data Editor, sheet 'settings', needs to be set to 'FALSE'.

Map points can be added as follows:

1. Open the StatPlanet Data Editor and in the worksheet "Import" go all the way to the last country or map region at the end of row 2.

2. Insert the name(s) of your map point(s) in this row and press the button **Save data**. Data can be added in this column in the same way as with any other map area. You will need to add some data for this map point in order for it to appear in the map. (Note: once you have pressed **Save data**, the map point name should also have been added in the worksheet "Data". If you cannot see the map point in StatPlanet, please check the worksheet "Data" to confirm it has also been added here).

StatPlanet Plus only:

3. When you next open StatPlanet, one or more map points (in the form of a circle) will appear in the top left corner of the map, representing each of the new map areas added. Right click anywhere inside StatPlanet and in the popup select 'Move text labels or map points'. Click on the map point and then click anywhere on the screen to move it to this new location. Similarly, the text label for a map point can be dragged and dropped to a new location. (For map points, please note that the mouse button should not be held down while moving, just click once to start moving the map point, move the mouse cursor to the desired position, and click once again to drop the map point).

4. To copy the map point coordinates, right click again and select 'copy map point coordinates'.

5. Open the StatPlanet Data Editor and go the sheet 'Settings'. Scroll down to 'Special options' and next to M-DOT-COORD paste the coordinates you just copied. In this section you can also set the size of the circle representing the map point. Click on **Save Settings** to save.

6. Map point text labels are only shown once you have moved the map point to a new location. Once StatPlanet has registered that a map point location has been set, the map point text labels are shown as well (if you have chosen to view map text labels). Map point text labels can be moved around just like any other text labels on the map. For more details, please see the section "Add text labels and position the text labels on the map".

For adding map points, please note that information for each map point is stored in several sheets. The sheet 'Import' contains the 'map point names' as displayed in StatPlanet. The sheet 'Data' contains the 'map point ID', which may be the same as the 'map point name' but cannot contain symbols or commas – only alphanumeric characters. These IDs are used to link the map points to their respective coordinates in the map, as well as the map point text label coordinates. As indicated above, the coordinates are saved in the sheet 'settings'.

The table below highlights the differences between the sheet 'Import' and the sheet 'Data' in storing information about map points or variables:

		Sheet 'Import'	Sheet 'Data'
1	Contains map point labels as displayed in StatPlanet.	√	
2	Map point labels can be changed at any time.	√	
3	Column position of map points is fixed (used to link map point names in the sheet 'Import' with map point IDs in the sheet 'Data').	√	√
4	Map point IDs are linked to map point coordinates and text label		√

	coordinates.		
5	Map point names can contain commas and symbols.	√	
6	Map point ID need to be alphanumeric.		√

6.3. Customizations at category & indicator level

In StatPlanet_Data_Editor.xls, there are several columns which can be used to define optional parameters. The different columns and their usage is explained below.

> ***Important:*** *for multiple time period data, you generally only need to add the unit, description or other option for the most recent period. (There is no need to add the option for every single time period). However, described below are also a few options which can be specified seperately for each time period.*

Data source

The source of your data can be specified for each indicator, or for all indicators in a category (in StatPlanet Plus, you can have multiple categories and sub-categories of data). The source is indicated in the "SOURCE" column. To specify the source for the entire category, insert the source in the first row of the category (the same row as the first year or time unit in the series). To specify the source for an indicator, insert the source in the same row as that indicator.

You can choose to use HTML code if you want to add a link to the source website, in the following format:

My Source.

***Important – please note**:

- In the HTML code above, you need to use single quotes (' ') rather than double quotes (" ").
- The links do not work if you run the web version offline (the Flash platform does not allow this for security reasons). The links will work only once the files are online. If you wish to use or test the links offline, please use the desktop version.

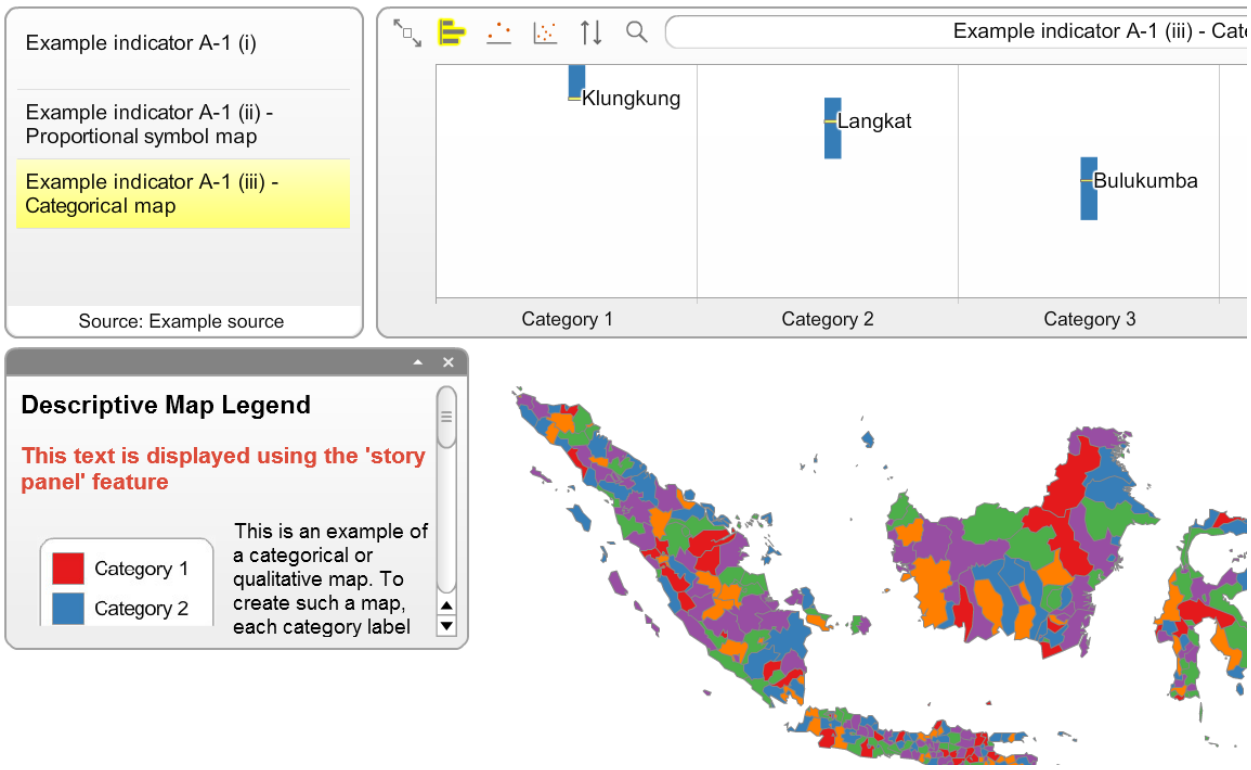
Indicator/category descriptions and story panel

The DESCRIPTION column can be used to provide either popup descriptions or more lengthy 'stories' which are displayed in a separate panel.

Popup descriptions

Popup descriptions can be set both for categories and for indicators and appear when moving the mouse over the category or indicator name. Indicator descriptions only need to be added once for each indicator – for the first year or time unit in the series. Descriptions can be either plain text or HTML formatted text.

Story panel *(As of StatPlanet Plus v 3.2)*



For descriptions or stories to be displayed in a separate panel, they need to be inserted in the following format in the DESCRIPTION column for the respective indicator:

s=[insert plain text or HTML text here]

The text can be formatted using HTML, with support for image embedding and links to web-pages or documents.

Alternatively, to load the (html) text from a file, the following format is required:

sf=[myfile.html]

Or relative to a directory:

sf=[mydirectory/myfile.html]

Optionally, the height and/or width of the panel (in pixels) can be specified. The following example specifies a panel with a width of 300, height of 200, and an embedded image:

pw=[300] ph=[200] s=[Image description <img src='image.jpg' width='280' height='150'>]

Please note that for images to be displayed correctly, both the width and height need to be specified. It is recommended that images are displayed at half the size of the original image, to allow for stretching without significant loss of image quality.

Stories by time unit:

To set the same 'story' for ALL time units / years, you need to insert them only for the first time unit in the series. Otherwise, different stories can be set for different time units, by inserting them in the corresponding rows. If no story is found for a particular time unit, it will automatically display the story from the first time unit in the series if available. To avoid this, and display no story for a particular time unit, insert a blank story as follows:

s=[]

HTML Formatting:

For supported HTML tags, please see: list of supported tags.

Obedit is a useful free HTML editor which includes most supported HTML tags: http://www.oblius.com/projects/obedit/preview/obedit3/ - To access the HTML code, you would need to click on 'Edit HTML' from the toolbar above. This can be copied into the StatPlanet Data Editor, but please note that double quotes would first need to be replaced with single quotes – see below for details.

Important - please note:

- The following three symbols are not supported: **' " '** and would need to be replaced with the following symbol: **'**
- The bracket symbols are also not supported within the HTML text: [ ]

Indicator popup text on rollover:

To include popup rollover text in addition to the story panel text (i.e. when moving the mouse over the indicator name), please use the following format:

pt=[insert popup rollover text]

Indicator unit

Add the unit for the indicator, for example '%'. Indicator units only need to be added for the list of indicators below the first year or time unit in the series.

Map options (legend, labels, colors, overlays)

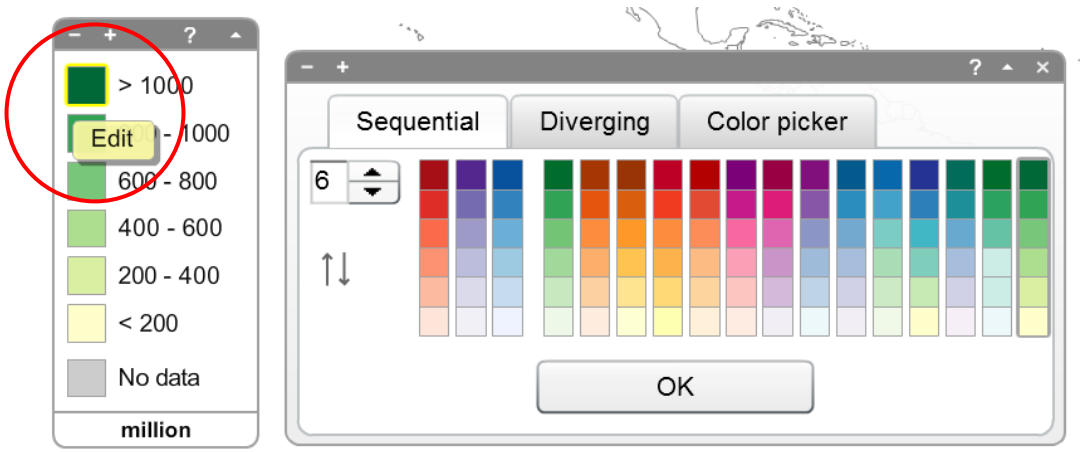
The MAP column can be used to customize the map legend for each indicator. It is possible to customize the map legend values, labels, colors, as well as the number of color categories.

See also 'Map overlays' below for displaying external images, for example raster maps, which can also be set through the MAP Column.

Map legend customizations

Most map legends can be customized in StatPlanet itself (i.e. via StatPlanet.exe or StatPlanet.html), and then copied and pasted into the StatPlanet Data Editor, through the following steps:

1. In StatPlanet, select the indicator for which you wish to customize the map legend.
2. Click on any of the colors and/or values inside the map legend panel in the bottom-left corner to customize the corresponding map colors / values, as shown below.



3. Once you are satisfied with the map legend you have just customized, right-click anywhere inside StatPlanet and select 'Copy map legend' from the menu.

4. Open the StatPlanet_Data_Editor file. Select the cell below the column header 'MAP', in the corresponding indicator row (for which you customized the map legend). Select 'paste' to insert the custom map legend. If there is data for multiple time units or years, it only needs to be pasted once - in the row for the first time unit or year in the series.

5. Click on 'Save data' to see the results the next time you open StatPlanet.

More details on customizing the map legend are provided below. If you wish to create a map legends with custom labels (e.g. 'high', 'medium', 'low'), please see the options described in (iv) or (v) below.

(i) Map legend with custom values

- Use the following format to specify the values for the map legend, as well as the number of color classes:
  0=[value0] 1=[value1] 2=[value2] 3=[value3] 4=[value4]
  etc.

- Example 1a: A legend with 4 color classes:
  0=[55] 1=[40] 2=[20]

- Example 1b: A legend with 5 color classes:
  0=[70] 1=[65] 2=[60] 3=[55]

Map legend for Example 1b:

With max / min values hidden	With max / min values shown
> 70	70 - max value
65-70	65-70
60-65	60-65
55-60	55-60
< 55	min value – 55

(ii) Map legend with custom colors

- Use the following format to specify the colors for the map legend, as well as the number of color classes:
  0=[color0] 1=[color1] 2=[color2] 3=[color3] 4=[color4]
  etc.

- Example 2: A legend with 4 color classes:
  0=[0x238B45] 1=[0x66C2A4] 2=[0xB2E2E2] 3=[0xEDF8FB]

(iii) Map legend with custom colors and values

- Use the following format to specify the colors for the map legend, as well as the number of color classes:
  0=[color0][value0] 1=[color1][value1] 2=[color2][value2]
  3=[color3][value3] 4=[color4]

  Note that this format is slightly different from the previous ones, because 5 colors are specified (colors 0 to 4) but only 4 values (values 0 to 3). As illustrated in example 1b above, a legend with 5 color classes requires only 4 values to be specified (a legend with 4 color class requires only 3 values, and so on).

- Example 3: A legend with 4 color classes and custom values:
  0=[0x2171B5][70] 1=[0x6BAED6][60] 2=[0xBDD7E7][50] 3=[0xEFF3FF]

(iv) Map legend with custom colors and labels

- To specify text labels (instead of number values) in the map legends, use the same approach as described in (iii) above, but add a third parameter containing the text. For example:

- Example 4: A legend with 4 color classes, custom values and custom labels:
  0=[0x2171B5][70][Very high] 1=[0x6BAED6][60][High]
  2=[0xBDD7E7][50][Medium] 3=[0xEFF3FF][Low]

(v) Qualitative (descriptive) map legend

- If you data set is categorical, e.g. languages spoken around the world (English, Spanish, etc.), you need to insert a categorical or 'qualitative' map legend. This map type cannot be produced within StatPlanet and therefore needs to be coded manually in the StatPlanet Data Editor, as explained below.

- To create such a map, each category label needs to be given a category number starting from 0. Then each map area or country is assigned a category number corresponding to the category label. In the example below, 5 categories are defined (0,1,2,3,4) – first the category number, then in brackets the corresponding color and category label:

  0=[color0][label0] 1=[color1][label1] 2=[color2][label2] 3=[color3][label3] 4=[color4][label4]
  etc.

  Countries then need to be assigned their corresponding category number. For example, if 'Afghanistan' belongs to category 0 (label 0 and color 0), it should be given the value '0'.

- Example 5: A legend with 8 color classes:
  0=[0x377EB8][Arabic] 1=[0xE41A1C][Bengali] 2=[0x4DAF4A][English] 3=[0x984EA3][Hindi] 4=[0xFF7F00][Mandarin] 5=[0xFFFF33][Portuguese] 6=[0xA65628][Russian] 7=[0xF781BF][Spanish]

- Map legend for Example 5:

Color	Label
0x377EB8	Arabic
0xE41A1C	Bengali
0x4DAF4A	English
0x984EA3	Hindi
0xFF7F00	Mandarin
0xFFFF33	Portuguese
0xA65628	Russian
0xF781BF	Spanish

Map symbols or icons (from StatPlanet Plus v 3.2, StatPlanet Plus only)

The default StatPlanet "proportional symbol map" circles can be replaced with an external icon. It can be referenced in the 'MAP' column for the respective indicator, in the format:

i=[insert icon filename]

For example:

i=[icon_electricity.swf]

The required format is '.swf', which is a vector graphic format and thus maintains its quality and appearance when stretched. Symbols in other vector formats would need to be converted to the '.swf' format using software such as Adobe Illustrator, Adobe Flash or the free Inkscape software using the 'SWF Output' extension.

Map overlays (StatPlanet Plus only)

For each indicator an image can be displayed from an external image file, for example to display raster maps. This image then replaces the 'default' map. The map overlay feature is currently only available in the 'shapefile version' of StatPlanet Plus, but can be included in other versions of StatPlanet Plus when a licensed version is purchased.

A map can be specified separately for each indicator in the format:

f=[insert_file_name]

For example:

f=[mymaps/map01.swf]

This will tell StatPlanet to fetch the file 'map01.swf' from the folder 'mymaps' and overlay it on top of the existing map (if any). Please note that the path needs to be "relative" to the StatPlanet location - it cannot point to an absolute path such as c:/mymaps/map01.swf.

The format in the above example is ".swf", which is a vector format, enabling you to zoom into the map without loss of quality (by default the map zoom controls can be found by moving the mouse to the bottom-right corner of the interface). It is also possible to use JPG or PNG formats, but this will result in a loss of image quality when zooming in. If the image is available in vector format, software such as Adobe Illustrator can be used to convert the vector format into the '.swf' format.

Setting specific map coordinates for each map overlay, customizing the position and scale, can be done as follows:

- Move the map to the desired position (using drag-and-drop and the zoom controls in the bottom-right corner of the screen)
- Copy the map coordinates (right-click -> copy map coordinates)
- Paste the map coordinates somewhere in Excel. The first figure is the 'x position', the second figure is the 'y position' and the third figure is the 'zoom'. These need to be inserted in the 'MAP' column following format:

x=[x position] y=[y position] z=[zoom]

For example, the following sets an overlay map along with the map coordinates:

f=[mymap.jpg] x=[100] y=[100] z=[80]

Graph options

(i) Graph axis range

The maximum and minimum values for the graph can be inserted through the "GRAPH" column (in the corresponding indicator row). This will override the automatic values set by the application. The minimum / maximum values need to be specified in parentheses in the format: mn=[min-value] mx=[max-value]

For example**,** for a minimum value of 0 and a maximum value of 80, enter the following:

mn=[0] mx=[80]

(ii) Graph color

You can also specify the color of the graph in the format cg=[color-code], for example:

cg=[0x78C679]

(iii) Divisions / Gridlines (as of StatPlanet Plus v 3.2)

The number of gridlines can be set in the following format (the default is 4):

dv=[6]

The default number of gridlines (for all indicators) can be set through the variable 'GR-DV' in the StatPlanet Data Editor, sheet 'settings'.

(iv) Target lines (StatPlanet Plus / StatTrends Plus only)

One or two target lines (or benchmarks) can be specified for each indicator, which will be displayed in the bar/column charts and time series graph. This needs to be inserted in the 'GRAPH' column (in the corresponding indicator row). An example of two target lines (t and t2) with values 80 and 50 are shown below:

t=[80] t2=[50]

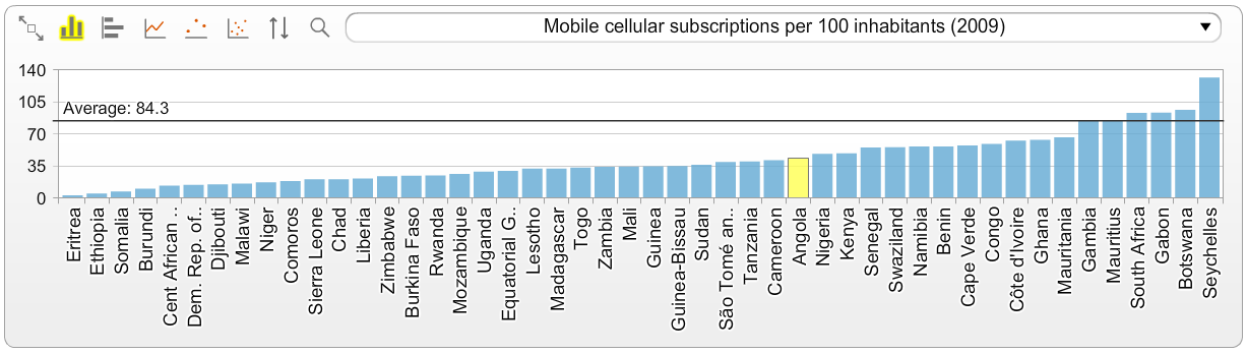
Labels (l and l2) and custom colors (c and c2) can optionally be added, for example:

t=[80] t2=[50] l=[Target 1] l2=[Target 2] c=[0x1a9850] c2=[0xd73027]

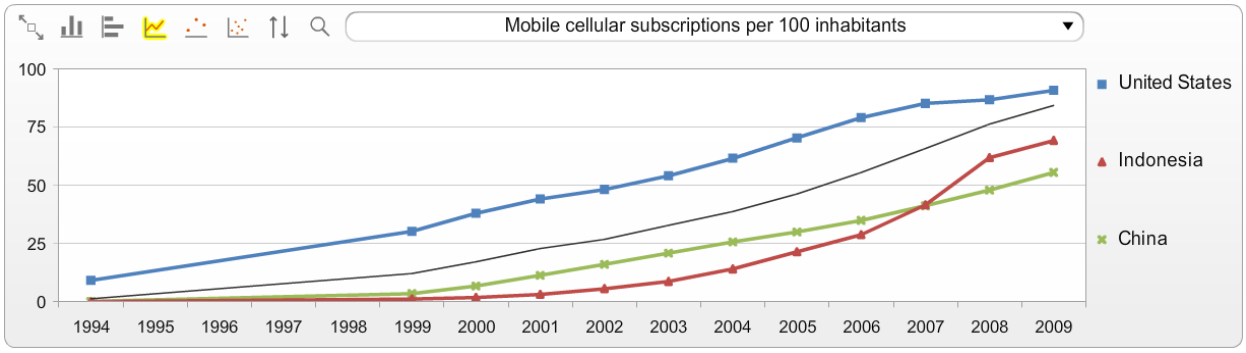
If the target values are different (variable) for each year or date, use 'tv' instead of 't', for example:

tv=[80] tv2=[50]

Below is an example of a bar chart showing mobile cellular subscriptions per 100 inhabitants in Sub-Saharan African countries, where the target line displays the world average, using the code: **tv=[84.3] l=[Average]**
through the Excel formula: ="tv=["&ROUND(AVERAGE(L5:HX5), 1)&"] l=[Average]"
(which takes the average values from L5 to HX5, and rounds it to 1 decimal place).



Below is the same example displayed using the time series graph, which shows the change in the average over time. To get this result, the Excel formula above was copied and pasted in the 'GRAPH' column in the corresponding indicator row for each year.



As of StatPlanet Plus v 3.3, labels can be shown for some indicators (e.g. l=[average]) and hidden for others by leaving the label blanks as follows: l=[]

Using multiple data files

(StatPlanet Plus / StatTrends Plus only).

Data can be divided into multiple files, which is particularly useful to reduce the initial download time and only download data for a category once the user selects it. It is also useful for very large numbers of indicators which would otherwise take long to load. The 'main' data file (data.csv or data.zip) contains these links to the other data files. This file does not need to contain any data, but it should have the structure of all the data files combined. Specifically, it should contain the entire list of categories as well as indicators as contained in all the data files combined. This is because the list of categories and indicators needs to be available on startup, without having to load any of the other data files. For each category only one year (or time unit) of the data series needs to be contained in the structure (so it is not necessary to repeat the list of indicators for each year). The structure for each of the files can be created automatically using the macro "Extract data structure" in the StatPlanet Data Editor, sheet 'Tools'.

To link to a data file containing the data for a category, it needs to be specified in the first (top) row of this category in the column "FILE". For example, it can contain the file reference "data_category2.zip". Every other row in the main data file that does not contain data (i.e. the data needs to be retrieved from another file) needs to have the # symbol inserted in the column FILE. If all the data is contained in other files, the "FILE" column would contain references to these files in the first row of each category. All the remaining rows in the "FILE" column would contain the symbol #.

The files containing the data should follow the exact same structure as the original data file, except that it would contain data for only one category.

Please note that data can be split into multiple files *only* at the category level. It is therefore not possible to put sub-categories or indicators within one category into separate files.

An example setup with multiple files can be downloaded through the following link:

http://www.statsilk.com/files/resources/multiple_data_files.zip

General options and mouse-over popup text/links

The "OPTIONS" column is used to specify general options for each indicator. Multiple options can be set for each indicator by separating the options with a space in between, e.g.

y=[2007] r=[Sub-Saharan Africa]

- **Default time unit or year by category:** The default time unit or year to be selected for a particular category can be specified in the column "OPTIONS". In StatPlanet Plus, this would need to be inserted in the same row as the category name. In other versions of StatPlanet, this would be the first row of data in the StatPlanet Data Editor. It needs to be formatted as 'y=[insert-year]', for example:

  y=[2007]

- **Map area mouse-over popup text:** (StatPlanet Plus only). Popup text, comments or notes can be added to each country or map area for each indicator. These comments need to be inserted in a separate row, below the list of indicators. The asterisk character (*) needs to be inserted in the INDICATOR column for a comment row. To link an indicator with a comment row, the comment row number needs to be specified In the OPTIONS column for the indicator. The format is:

  p=[1]

  where [1] references the first row of comment popups. An example of two indicators with corresponding comment rows is shown below:

INDICATOR	...	OPTIONS	...	Afghanistan	etc.
Indicator 1		**p=[1]**			
Indicator 2		**p=[2]**			
*				**Comment for indicator 1**	
*				**Comment for indicator 2**	

  The comments themselves are added in the rows marked by the asterisk (*) in the same way as regular data, i.e. in the map area or country columns. To set the same popup comments for ALL time units / years, you need to insert them only for the first time unit

/ year in the series. Otherwise, different popup comments can be set for different time units / years, by inserting them in the corresponding rows.

As of StatPlanet Plus v 3.3 it is also possible to insert links, either through a 'plain' link or using HTML code, as in the examples below. By default a double-click is required to open the link. To change this to a single click, the variable 'DBL-CL' in the StatPlanet Data Editor, sheet 'settings', needs to be set to FALSE.

INDICATO	..	OPTION	...	Afghanistan	etc
Indicator		**p=[1]**			
Indicator		**p=[2]**			
*				**http://www.mywebsite.com/document.pdf**	
*				**Please double click to open the document **	

To link to a local file, please use HTML code for including a link and use the format 'file:///C:/mydirectory/myfile' to refer to a file in the location "c:\mydirectory". For example, **Please double click to open the document **

Please note that this feature only works online or in the desktop version; it does not work in the offline web version due to a Flash security restriction.

For supported HTML tags, please see: list of supported tags.

- **No division:** By default, if an indicator has numbers over a million they will be divided by 1000 000, and 'million' will be added as the unit. To prevent this behavior for a particular indicator, insert the following in the column "OPTIONS" in the indicator row for the first year in the series:

  nr=[nodiv]

- **Hide "no data" category in the map legend:** To hide the "no data" category insert the following in the column "OPTIONS" in the indicator row for the first year in the series.

  nd=[h]

- **Change map region or group:** It can be useful to change the region (StatPlanet) or group (StatTrends) when selecting a particular category which only has data for that region or group. To do so, specify the region name in the column "OPTIONS", in the first row of the category. It needs to be formatted as: r=[My region]. "My region" should

correspond to one of the map regions specified in the Excel sheet “Map regions” (in the StatPlanet Data Editor). For example:

r=[Sub-Saharan Africa]

- **Custom statistics:** (StatPlanet Plus only). By default the mean, standard deviation and range statistics are displayed in a popup when moving the mouse over an indicator (if the variable ‘V-STAT’ is set to TRUE in the StatPlanet Data Editor). It is possible to customize what to show and the order in which it is to be shown for each indicator. In addition, the ‘total’ can be added, which is not shown by default as it does not make sense for all indicators (e.g. for percentages). The statistics to be displayed can be set in the OPTIONS column, for each indicator, in the format below. The letters in brackets are: [t] = total, [m] = mean, [s] = standard deviation, [r] = range and [-] = min/max values:

  st=[tmsr-]

  The following is an example with only the mean and the total, in that order:

  st=[mt]

- **Custom mean:** The default calculated mean can be replaced with a custom value (e.g. a weighted mean). This can be indicated in the OPTIONS column for the row of the corresponding indicator/year, in the format **m=[insert mean]**, for example:

  m=[100]

- **Scale for indicator panel bars:** The bars in the indicator panel are scaled according to the highest value for a country or region in that indicator. This means that each indicator bar has its own scale. However, in some cases you may wish the bars of all the indicators to be along the same scale. In this case, insert the following in the column "OPTIONS" in the indicator rows you wish to be along the same scale:

  sc=[same]

  Please note that this needs to be inserted in the rows for the first year in the series, and that the indicators need to be in the same category.

- **Decimal places at indicator level:** The number of decimal places to be displayed is set in the sheet ‘settings’ in the StatPlanet Data Editor, but it can also be customized for each indicator. To do so, insert the following in the column "OPTIONS" in the indicator rows

where you wish to set the number of decimal places (replacing '3' with the number of decimal places required):

dc=[3]

Indicator ID (Composite Indicator module)

This column is only used when the 'composite indicator' module is installed. To enable the sharing of composite indicators via a web-link, each indicator needs to have an ID specified (which is used in the actual web-link, instead of the indicator name). Any characters or numbers can be used for the ID, as long as they are unique. IDs only need to be specified once for each indicator, i.e. for the first date/year in the series (so do not need to be repeated for subsequent dates/years).

6.4. Data editing without Excel

The data files **data.csv** and **settings.csv** can be edited directly without using the Excel-based Data Editor. These two files can be edited using any spreadsheet software.

The data needs to be saved as a CSV ('comma separated values') file. Please note that when editing the files using Excel on a Mac, it needs to be saved in the 'Windows Comma Separated Values' format (selectable from the drop-down in the 'Save As' dialogue window).

6.5. Language and translation

To change the language, see the Excel sheet 'settings' in the StatPlanet Data Editor. To modify a translation or add a new language translation, see the Excel sheet 'Text-Translations'. StatPlanet is available in the following languages. See also below on how to use international character sets such as Russian (see below).

- Bahasa Indonesia (courtesy of the Government of Indonesia)
- Danish (courtesy of Peter Erbs-Maibing, Research Centre for Prevention and Health, Denmark)
- Dutch
- English
- French

- German
- Greek
- Portuguese Brazilian (courtesy of the Instituto Centro de Vida)
- Russian (courtesy of Andrey Loschilov)
- Spanish
- Turkish (courtesy of Emre Koyuncu)

StatPlanet Plus also has support for non-Latin international character sets. Please note that right-to-left fonts such as Arabic and Hebrew are not yet supported. Some fonts are not supported by default (see also below for details) and are only available when purchasing a license for the software.

To use them, please follow these steps:

1. Remove the files "data.csv" and "settings.csv" in the main directory and also in the directory 'web'.

2. In the StatPlanet Data Editor, go to the sheet "Settings". Under Startup options - Data format, select: TXT (tab-separated values). Then click on “Save settings”.

3. For the web version, you would need to set the data and setting files to “data.txt” and “settings.txt” as explained in Chapter 7 - Web publishing options.

The international character sets can now be used in the desktop version of StatPlanet Plus. The web version does not include the international character set by default. This is only available in the purchased/licensed version on request.

The following character sets are available. Please note that not all of these are embedded in the desktop version. The Arial font Latin I character set is embedded by default in StatPlanet and StatTrends.

- **Armenian:** requires a license purchase to embed the Armenian font;
- **Chinese** (All character sets): requires a license purchase to embed the Chinese font (the desktop version only has limited support for Traditional Chinese characters);
- **Croatian**: requires a license purchase to embed the Latin Extended B characters.
- **Cyrillic**: (for Russian, Serbo-Croatian and Tajik, amongst others);
- **Czech**: requires a license purchase to embed the Latin Extended A characters.
- **Devanagari** (for Hindi, Marathi and Nepali, amongst others): support for this font is under development – please contact us for details;

- **Greek**;
- **Japanese**: requires a license purchase to embed the Japanese font (the desktop version only has limited support for Japanese characters);
- **Korean** (All character sets) - for the desktop version, Shapefile map edition, please download and use the Korean StatPlanet.exe file to display Korean characters;
- **Polish**: requires a license purchase to embed the Latin Extended A characters.
- **Romanian**: requires a license purchase to embed the Latin Extended B characters.
- **Slovenian**: requires a license purchase to embed the Latin Extended B characters.
- **Thai**: requires a license purchase to embed the Thai font.
- **Turkish**: requires a license purchase to embed the Latin Extended A characters.
- **Vietnamese**: requires a license purchase to embed the Latin Extended Additional characters.
- **Other languages:** any other language which uses one of the following character sets: Cyrillic, Latin Extended A, Latin Extended B or Latin Extended Additional.

6.6. Right-click menu options

When right-clicking anywhere within the StatPlanet interface, a popup menu appears with a number of options, as described below. The text for each of these items can be customized in the StatPlanet Data Editor, sheet “Text-Translations”. These options can be removed from the right-click menu by replacing the text with an empty space (please note the text would need to be replaced with an actual space ( ); not removed altogether).

Right-click menu options:

- **Copy data:** This copies the data for the selected indicator as an html-formatted table, which can be pasted directly into a Microsoft Excel spreadsheet. Alternatively, it can be pasted into Notepad (PC) or TextEdit (Mac) and saved as a file with the extension “.html” (for example “mydata.html”), and then opened in any web browser. The copied data is equivalent to what is displayed in the “data table” panel. If in the data table panel you have chosen to display all years (dates) and/or all indicators, then it will copy the corresponding data that is in this table (StatPlanet Plus only).

- **Copy map legend:** This copies the current map legend (for the selected indicator), and can be pasted into the StatPlanet Data Editor to permanently have this map legend for this indicator. For more details, please see the section “Map options”.

- **Copy map coordinates:** This copies the current map coordinates, and can be pasted into the StatPlanet Data Editor to permanently make this the map coordinates (map position and zoom level) - either for a custom region or as the default map view when StatPlanet

is launched. For more details, please see the section “Custom ‘zoom-to’ map regions or groups”.

- **Copy map text label coordinates:** This copies the coordinates of the text labels displayed on the map, which can be modified by dragging the text labels to new positions. For more details, please see the section “Add text labels and position the text labels on the map”.

- **Copy map point coordinates:** This copies the coordinates of the map points, if any. For more details, please see the section “Add map points”.

8. **Move text labels or map points:** This enables the text labels or map points to be moved by dragging and dropping them to a new position. Once this option is selected, you can click on any of the text labels and hold the mouse down to drag them to a new position. Not only the map text labels can be moved, but also the text labels in the scatter plot graph. However, the map text label coordinates can be saved, but the scatter plot text label coordinates cannot (so this positioning is temporary, to optimize the appearance prior to exporting the graph).

   Please note that the operation for map points is slightly different. Instead of clicking on a map point and holding down the mouse button, just click on the map point (and release the mouse button). The map point will now go along with your mouse cursor. Move the map point to the desired location, and then click once again to ‘drop’ the map point here. Please note that this option when activated disables moving the map (see also below to enable moving the map again).

- **Stop moving text labels or map points:** This option appears after you have selected “Move text labels or map points”, and can be used to disable this option. The map can then be moved again.

- **Create and copy index of links (HTML):** This option automatically generates an HTML formatted list of links to indicators in StatPlanet / StatTrends, ready to be embedded inside a web page. For more details please see the section “Creating an index of indicators in StatPlanet / StatTrends”.

7. PUBLISHING

To publish StatPlanet or StatTrends online, just copy and paste the entire contents of the 'web' directory to any location on the web server. The application can then be run through the file 'StatPlanet.html' or 'StatTrends.html, respectively, wherever this file is located on the web server.

For publishing in a Content Management System (CMS) or using DropBox, see also:

- Publishing using DropBox
- Publishing in a CMS (e.g. Drupal or WordPress)

7.1. Web publishing options

By default, StatPlanet Plus and StatTrends Plus use the files data.csv and settings.csv. However, you can change the names of the data and settings files. For an example, please see the file in the 'web' folder called 'StatPlanet_options.html' (for StatPlanet Plus) or 'StatTrends_options.html' (for StatTrends Plus). It contains the following code:

```
flashvars.data = "data.csv";

flashvars.settings = "settings.csv";
```

It can be useful or necessary to set the names of the data and settings files in the following scenarios:

- When using a non-Latin character set, which requires the TXT (tab-separated values) data and settings format. For more details, please see the section "Language and translation". In this case, the data and settings files would be indicated as follows:
    - flashvars.data = "data.txt";
    - flashvars.settings = "settings.txt";
- When you have multiple instances of the application on the website, with different data and/or settings. By specifying the data/settings files, there is no need for having multiple instances of the application itself, and visitors will also only need to download the application once (as long as it is still cached by the web-browser).

- When you have multiple language versions of the application, you can set the data and settings file according to the language selected (e.g. “data_es.csv” and “settings_es.csv” if the Spanish version is selected).
- Other custom settings for different instances of StatPlanet aside from language – for example, having StatPlanet open up in a different region (which can be defined in the settings file), or with different interface options – for advanced and novice users.
- When ZIPPING the data file to reduce the size. In this case, the data file would be indicated as follows (see also the section below – reducing the download size of the your web application):
    - flashvars.data = "data.zip";

7.2. Reducing the download size of your web application

The application is optimized to keep the file size as small as possible. The following is a list of measures which can be implemented to reduce the file size of your interactive maps even further:

1. **ZIP the data file(s):** this can reduce the file size by as much as 70 percent. If you wish to ZIP the data file, it needs to be specified in the embedding code. An example is included in the folder ‘web’, file ‘StatPlanet_options.html’. The embed code would need to indicate the following line:

   'flashvars.data = "data.zip"
   (or any other filename as long as it has the “zip” extension, e.g. “mydata.zip”).

2. **Split the data file into multiple data files:** splitting a large data file into multiple smaller files is the optimal way of reducing the download size. Only data corresponding to the user’s interest would be downloaded – on selecting an indicator. For more details, see the section “Using multiple data files”. If you use multiple data files, these can also be zipped.

2. **Decimal places:** file sizes can sometimes be reduced by 50 percent or more if you round numbers to one or two decimal places. A macro is included in the StatPlanet Data Editor for rounding all the numbers in the Excel sheet ‘Import’ to two decimal places. The macro is called “RoundToDecimalPlaces” and can be adjusted as required.

3. **CSV file format:** the CSV file format was chosen because it keeps the size of the data file to an absolute minimum, because data values are separated only by commas. In

comparison, XML files are often several times bigger when containing the equivalent amount of data.

4. **No duplication:** indicator names and descriptions do not need to be duplicated in the data file. If you are using the StatPlanet Data Editor, any duplicate indicator names will automatically be replaced with the '-' symbol. Indicator names only need to be indicated for the very first year (or time unit) of a data series. For indicator descriptions, duplication can also be avoided – see the section "Indicator Description" for more information.

5. **Reduce map size (shapefile version only):** the maps themselves are often much bigger than StatPlanet and the data files combined. GIS software can be used to reduce the level of map detail. There is also a free utility called MapShaper – www.mapshaper.org. To simplify the map, upload the shapefile (e.g. map.shp), select the percentage simplification in the bottom of the screen, and click on 'export' in the top-right corner of the screen. Select the first export format – 'Shapefile – polygons', and click on 'create. Within a few moments, the download link will appear below. After downloading the file, use it to replace the existing shapefile map (map.shp). The map.dbf file does not need to be modified.

7.3. Creating an index of indicators in StatPlanet / StatTrends

It is possible to automatically generate an HTML formatted list of links to indicators in StatPlanet / StatTrends, ready to be embedded inside a web page. For an example, see the StatWorld list of interactive maps. This can be done by following these steps:

1. In the StatPlanet Data Editor, sheet 'settings', set the variable MOD-INDEX to TRUE.

2. For the variable 'SITE-L' (just below), insert the complete URL of where StatPlanet is located in your website, e.g. http://www.mywebsite.com/statplanet/statplanet.html

3. Open StatPlanet, right-click, and in the right-click menu select 'Create and copy index of links (HTML)'. This is HTML code which can be pasted into any web-page to display the links.

4. The final step is to ensure that links in the URL (web address) can be passed on to StatPlanet/StatTrends. The file 'StatPlanet_options.html' in the folder 'web' already has the code in place to do so. The following line of code passes on the link in the URL to StatPlanet[11]: *flashvars.location = getURLParam("l");*

[11] See also the javascript function 'getURLParam(strParamName)' in the same file.

This code can be customized to suit your own purposes (see also the footnote below for a PHP example).[12]

An example link to a particular indicator in StatPlanet is as follows:

http://www.statsilk.com/maps/world-stats-open-data?l=internet%20subscribers%20per%20100%20inhabitants

which goes directly to the map for Internet subscribers.

7.4. Creating custom links to indicators

Through the following steps, you can enable users to create and share links to the currently selected indicator, graph and time period:

1. In the StatPlanet Data Editor, sheet 'settings', set the variable 'V-I-LINK' to TRUE. This will display the link icon within StatPlanet or StatTrends. Clicking the icon will generate and copy to the clipboard a link which can be shared, as described below.

2. In the same sheet, for the variable 'SITE-L', insert the complete URL of where StatPlanet or StatTrends is located in your website, e.g. http://www.mywebsite.com/statplanet/statplanet.html

3. The final step is to ensure that links in the URL (web address) can be passed on to StatPlanet/StatTrends. The file 'StatPlanet_options.html' in the folder 'web' already has the code in place to do so. The following line of code passes on the link in the URL to StatPlanet : flashvars.location = getURLParam("l");

This code can be customized to suit your own purposes (see also the footnote below for a PHP example).

To automatically generate links for all indicators, please see 7.3 above.

---

[12] A PHP example of getting the URL indicator is as follows, where the information is captured in the variable '$l ':

```
if (isset($_GET['l'])) {$l = $_GET['l'];} else {$l = "";}
```

And the information is passed on as followed, along with the other embedding parameters:

```
<?php print('start code .... <param name="flashvars" value="location=' . $l . '" />  ....end code'); ?>
```

Three options can be set as parameters: (i) the indicator name (from the 'INDICATOR' column), (ii) the graph or visualization type, and (iii) the time period (from the 'TIME' column), in the following format:

http://www.mywebsite.com/mystatplanet location?l=Insert indicator name;vInsert visualization number;tInsert time

For example:

http://www.mywebsite.com/mystatplanet location?l=myindicator;v2;t2009

The visualization types are as follows (in the same order that they appear in the graph panel):

v1=column chart; v2=bar chart; v3=line chart; 4=vertical bubble chart; 5=scatter plot