

# STATPLANET CLOUD



## QUICK START GUIDE

v.1.02, July 2016  
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## Step 1. Download and extract the software

1. If you have not already done so, [download StatPlanet Cloud](#).
2. StatPlanet Cloud does not require installation. The files are contained in a ZIP folder which just need to be copied to a location of your choosing, and then extracted. The recommended location for Windows is the **Documents** folder (or alternatively, the **Desktop**). Once the downloaded file is copied to the desired location, right-click the file and select “Extract All”. If you are using a Mac, the procedure is right-click -> Open With -> Archive Utility.

**Important:** Do not copy the software into the Program Files folder, because the software can be prevented from writing files in this folder.

3. Once extracted, the main folder contains two versions of StatPlanet Cloud:
  - **US\_State\_Example:** An example which has been set up with a US State Map.
  - **World\_Example:** An example which has been set up with a World Map.

Each of these folders contains the following files:

- **StatPlanet\_Data\_Manager.xlsm:** For setting up your map and importing data.
- **StatPlanet\_Cloud.html:** The web application. Please note that offline viewing requires the [Firefox browser](#). If it does not run, you may need to update Firefox to the latest version. Once online, it will run in any browser.

There are also several sub-folders:

- **data:** Contains the data and settings files, which are saved through the StatPlanet Data Manager.
- **map:** Contains the map file in geoJSON format (map.js).
- **misc:** Contains various application and css files.

## Step 2. Set up a map

This step sets up your map and enables automated data importing. If you wish to use the pre-configured World or US state maps, you can skip ahead to Step 3 (Import data).

1. **Obtain a GeoJSON map file.** StatPlanet Cloud requires the map to be in GeoJSON format. Many maps are freely available in [shapefile format](#), which you can easily [convert into GeoJSON format](#). If you cannot find the map you need, please [contact us](#).
2. **Choose any example folder** (*US\_State\_Example* or *World\_Example*) to setup your own map through the steps below. Alternatively, create a copy of one of these folders to use as your ‘working folder’ to set up StatPlanet Cloud.
3. **Add map header.** Copy the geoJSON map file to the sub-folder ‘map’ (if you have not already done so). Then run the file **prepare\_map.bat** (it will create a duplicate of the map file named ‘map.js’, and adds the header from the file ‘mapheader.txt’).
4. Open the **StatPlanet\_Data\_Manager** file, and click on the button 'Setup map' (in the top-left corner). For this, macros need to be enabled:

### Enable macros in Excel

After opening *StatPlanet\_Data\_Manager.xlsm* you may get a message asking whether you wish to enable macros. Select 'Enable macros' or 'Enable this content' (depending on your version of Excel).

If you do not receive this message, macros may be disabled. To enable them, click on “File” in the top-left corner (or the Microsoft Office Button, depending on your version of Excel). Select *Options*, and then *Trust Center*. Click the button *Trust Center Settings*, and select *Macro Settings*. Then select *Disable all macros with notification* (or one of the less secure options listed below if you wish to prevent the “enable macros” dialogue from appearing in the future).

5. Find the sub-folder ‘map’, and select the map file (map.js). On-screen instructions are then provided to complete the process.

*Prior to importing data (Step 3), you may first wish to view the map with the included test data. To do so, please see Step 4.*

## Step 3. Import data

Data can be imported automatically using the Excel-based **StatPlanet Data Manager**. This file consists of several sheets, the most important one being the sheet 'Import' which will contain all your data.

To import data, please follow the following steps:

1. Open the Excel-based **StatPlanet Data Manager** in the StatPlanet folder.
2. Click the button 'Import data' and select a data file to import the data.
3. Click on 'Save data' once you are done.

### Structuring the data file for import

The Data Manager 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 (this example uses country-level data, but the same structure applies for other kinds of data, for example district or regional data).

A criterion for the import to be successful is that any map area name *only appears once* within a data file or Excel sheet 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.

### Importing multiple categories of data

By default, data is imported from all Excel sheets which exist in the selected data file. Each sheet is imported as a separate category, and the sheet name becomes the category name in StatPlanet Cloud. This enables you to automatically group indicators, defining the structure in StatPlanet Cloud's indicator selection menu. You may therefore wish to reorganize your indicators in different Excel sheets prior to importing a data file. Each sheet can contain 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).

### Troubleshooting if data import fails

The most common problem is that map areas in your data file are not recognized. The sheet 'Import names' contains the map area names taken from the map file. They may not match exactly with

the map area names in the data file you wish to import. Any map areas in your data file which are not in the sheet 'Import names' will not be recognized. Therefore, they need to be added here, below the corresponding map area names or codes. For example, your data file may have USA data under the header 'US'. But the sheet 'import names' may only recognize 'USA'. To resolve the problem, find the correct map area column in the sheet 'Import names' (in this example, with the name 'USA'). Then add 'US' in the same column, in any empty cell in that column (typically row 3, or a subsequent row if row 3 is already being used).

Changes in the sheet 'Import names' are only recognized after closing and re-opening the StatPlanet Data Manager. Once this is done, you can try to import your data again.

For other types of import problems, please see: [troubleshooting data import problems](#).

## Step 4. Save and view the results

Once data has been imported using the 'StatPlanet Data Manager, press the button 'Save data' (in the top of the screen, sheet 'Import data'). The data and settings files will be saved in the sub-folder 'data'.

To launch the application, select 'StatPlanet\_Cloud.html'. Please note that offline viewing of the web version is currently only supported using the [Firefox browser](#). If it does not run, you may need to update Firefox to the latest version. For other browsers, it needs to be published online prior to viewing (see [Step 6 – Online publishing](#)).

## Step 5. Customizing StatPlanet Cloud

The procedures for customizing the map are described below. Additional customization options can be found in the StatPlanet Data Manager, sheet ‘settings’.

**Note: To save any settings changes, you would need to click on the ‘Save data’ button (sheet ‘Import’)**

### Customize the panel layout

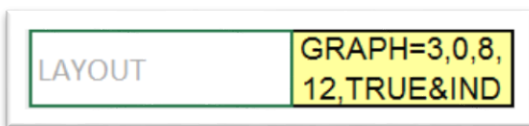
To customize the layout, click on any panel to drag and drop it into a new position. To resize a panel, click and hold the bottom-right corner of the panel.

Please note: When the width of a panel is increased, the panel next to it (which no longer fits) will automatically drop down. To place that panel back in position, its width needs to be reduced so it fits again.

To show/hide any of the panels, click on the corresponding panel icon in the bottom of the interface (*Indicators panel, Graph panel, Map area selection panel, Map panel*).



To save the current layout, click on the ‘Settings’ icon in the bottom of the interface. Click on the ‘Copy’ button to copy the selected settings. Open the StatPlanet Data Manager, and in the sheet ‘settings’, paste it in the yellow-shaded cell next to the variable ‘LAYOUT’.



To save this new setting, click on the ‘Save data’ button in the sheet ‘Import’.

### Add map text labels

Map text labels can be displayed through the StatPlanet Data Manager, sheet ‘settings’, variable ‘MAP-TXT’ (under ‘Map options’). Select the dropdown to choose to either never display labels, always display labels, or only display labels when a map region is selected (see *Define map regions* below).



The variable below, 'MAP-TXT-L', can be used to change the label display. The map can either display the map area names, or the map area codes. The map area codes are taken from row 1 in the sheet 'Import'.

The map area names are taken from the 'map.js' file, variable 'name' if such a variable exists. In the map file, each map area has various properties associated with it. One of these is typically called 'name', which indicates the name of the map area. Below is an example of what this might look like for the first map area, if you open 'map.js' in a text editor such as Notepad:

```
"properties":{"name":"FirstMapAreaName","code":"FirstMapAreaCode"}
```

If another variable is used for the map area names in map.js, for example 'e-name', you would need to do a replace all and replace 'e-name' with 'name'.<sup>1</sup> The actual names can be modified in 'map.js'. For consistency, they would then also need to be modified in the StatPlanet Data Manager, sheet 'Import', row 2.

## Define map regions

Map regions or groups can be added or modified by going to the StatPlanet Data Manager sheet 'Map regions'. In the demo version of StatPlanet Cloud, several example regions have been defined:

- **Map region names** can be inserted in Column A, from row 6 onward.
- **Zoom coordinates** for the map region go in columns B to E.
- **Map areas** to be included in the map region need to be added from row G onward. The map area codes from the sheet 'Import', row 1, need to be used to add map areas. These are the same codes as used in the map file ('map.js').

For a long list of regions, you may wish to group them. To group regions, add the symbol '>' before the region names. Then insert a region group name in the row above these regions. In the example below, "Region group" will group *Region 3* and *Region 4*, but not *Region 5* (as *Region 5* is not preceded by the '>' symbol).

```
Region 1  
Region 2  
Region group  
> Region 3 (inside group sub-menu)
```

---

<sup>1</sup> In Notepad, from the menu select 'Edit' -> 'Replace'. Insert the text to be replaced, and the replacement text 'name'. Then click on 'Replace All'.

- > Region 4 (inside group sub-menu)
- Region 5 (not inside group sub-menu)

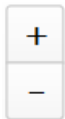
### Adding zoom coordinates

Zoom coordinates can be set for each region as follows (it will zoom to these coordinates when selecting the region from the dropdown menu in StatPlanet Cloud):

- After positioning the map as desired (see **Map positioning** below), right-click on any of the colored map areas and select 'Copy map coordinates'.
- Copy the highlighted text in the textbox, e.g. by using CTRL+C (Windows keyboard shortcut).
- In the StatPlanet Data Manager, go to the sheet 'Map regions'. Select the cell below 'X min' (column B) in the row for the map region to which you wish to add zoom coordinates. Then paste the coordinates here, e.g. by using CTRL+V (Windows keyboard shortcut).

### Map positioning

To move the map, you first need to switch off debug mode (otherwise, instead of moving the map, you move the panel itself). To do so, go to the StatPlanet Data Manager sheet 'Settings', and set the variable 'DEVMODE' to FALSE.



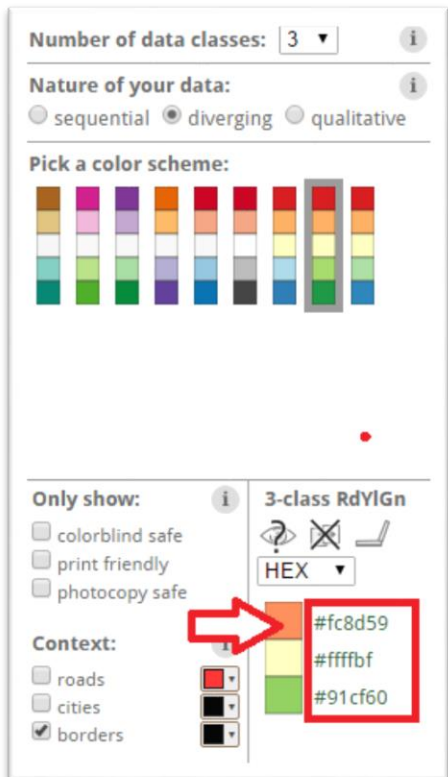
**Zoom:** You can zoom in and out of the map using the 'zoom in' and 'zoom out' buttons, or by using your mouse scroll wheel.

**Moving the map:** click and drag the map with the mouse to move it to a new position.

## Define custom map legend colors and values

In the StatPlanet Data Manager, sheet 'Import', the MAP column can be used to customize the map legend for each indicator.

Note: If you only wish to modify the map color scheme across *all* indicators, this can be done through the sheet 'Settings'. The variables MAP-CLR0 to MAP-CLR8 can be used to automatically generate map legends with between 2 and 9 colors.



Colors are defined through 'hex codes'. The recommended website for finding map colors is [Color Brewer](#). The screen capture on the left shows where to find the hex codes for the selected color scheme (see the red arrow).

Please note that in the hex color code, the symbol # needs to be replaced with 0x, so #ffffbf for example would need to be changed to 0xffffbf.

Another useful website for creating color schemes is [Hex Color Tool](#), although these are not optimized for mapping.

To create a map legend with custom colors and values for a specific indicator, the following format is required.

0=[color0][value0] 1=[color1][value1] 2=[color2][value2] 3=[color3][value3] 4=[color4] etc.

The following is an example of a map legend with 4 color classes and custom values:

0=[0x2171B5][70] 1=[0x6BAED6][60] 2=[0xBDD7E7][50] 3=[0xEFF3FF]

This would create the following map legend:

No	Value range	Hex color
<b>0</b>	<b>&gt; 70</b>	0x2171B5
<b>1</b>	<b>60-70</b>	0x6BAED6
<b>2</b>	<b>50-60</b>	0xBDD7E7
<b>3</b>	<b>&lt; 50</b>	0xEFF3FF

In this example **3** values were defined, creating **4** value ranges with **4** corresponding colors.

Map legend code needs to be inserted in the column with header 'MAP' (sheet 'Import'), in the corresponding indicator row to which you wish to assign this map legend. An indicator name may be repeated multiple times in the sheet 'Import' if there is data for multiple time units. In this case, the map legend code only needs to be pasted in the row where the indicator first occurs (so for the first time unit in the time series).

Click on 'Save data' to save the results for viewing in StatPlanet Cloud.

## Step 6. Online publishing

For online publishing you can choose self-hosting or cloud-hosting (in which the application is hosted entirely on StatSilk cloud servers). Regardless of which option you choose, there is no transfer of maps, data or other information to the cloud. Files and information are transferred one-way only: from the cloud to the user's computer or mobile device.

### Self-hosting

For self-hosting, all the files in the 'StatPlanet\_Cloud' folder need to be uploaded to the web-server. The relative location of the files can be edited if needed, through the file *StatPlanet\_Cloud.html* (see below for details). With this option, most application files are self-hosted, although some application files will still need to be hosted on StatSilk cloud servers.

If you have a software license, the file *StatPlanet\_Cloud\_licensed\_web\_only.html* would also need to be uploaded. It will load StatPlanet Cloud in regular mode, rather than debug mode, once the files are on the licensed web domain. This file can be renamed according to preference (or the HTML content can be copied/pasted into an existing web-page).

### Cloud-hosting

Please [contact us](#) if you wish to host all files in the cloud. Only the data and map files need to be self-hosted.

### Editing the location of the map and data files

The location and names of the map and data files can be modified in *StatPlanet\_Cloud.html* or *StatPlanet\_Cloud\_licensed\_web\_only.html*. The variables can be found under "CONFIGURATION". The default filenames and locations are:

```
var data_file = "data/data.txt"

var settings_file = "data/settings.txt"

var map_file = "map/map.js"
```

Please note that these paths are relative to the location of the *.html* file. They can either be located in the same folder as the *.html* file, or in a sub-folder within this folder. If they are in the same folder, the configuration would be:

```
var data_file = "data.txt"

var settings_file = " settings.txt"

var map_file = " map.js"
```

## Data file structure

This section describes how data is structured, which is useful in the following cases:

- You wish to bypass automated importing (described above) and copy your data manually.
- You wish to re-organize your data after import.

The data can be copied and pasted manually into the Excel sheet 'Import' following the data structure described below.

Data in the StatPlanet Data Manager 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. The Time column can also be used for organizing other variables, such as different age-groups (or age-ranges) in population data.

Columns 1 to 3 are therefore the most important ones. They need to be structured according to the following rules:

- Data is structured first by category, then by time/date, and then by indicator.
- The times/dates (e.g. years) must be in order from *highest* to *lowest*.
- Within one category, the list of indicators must be exactly the same for each time/date.
- 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.

CATEGORY	TIME	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

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	INDICATOR	<headers for columns 4 to 11>	AREA1	AREA2	Etc...
Category 1	2010					
		Indicator name	<can be left blank>	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:

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

Note that if a category is divided into sub-categories, it cannot have any indicators in it. Likewise, if a sub-category has any sub-sub-categories in it, it cannot have any indicators in it. And so on. To use the metaphor of a tree: any category or sub-category (or sub-sub category...etc.) with indicators in it means that it is the end of the branch.