Appendix 2

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Key words: Global warming

QGIS Short Tutorial - Windows 10 / 11 systems

Topic: Global warming

Students' age: 15-19

Time: 2 lessons

Subjects: geography

Appendix 2

QGIS Short Tutorial - Windows 10 / 11 systems

- *Download*

QGIS is a free and open source geographic information system. The latest version can be found on https://www.qgis.org/en/site

The lessons manual refers to QGIS 3.22.1. If this version is not available on the portal, you can find it on the FUTURE SPACE webpage together with the lessons scenarios / ideas.

- *Installation*

The installation process was described in the QGIS documentation and user's manual, see: https://www.qgis.org/en/docs/index.html or https://docs.qgis.org/3.22/en/docs/user_manual/

The user is guided through the installation process by the installer, no changes or modifications are needed. The installation ends with creation of the QGIS 3.22.1 folder on a desktop.

- *First start of the application and change of the language (if needed)*

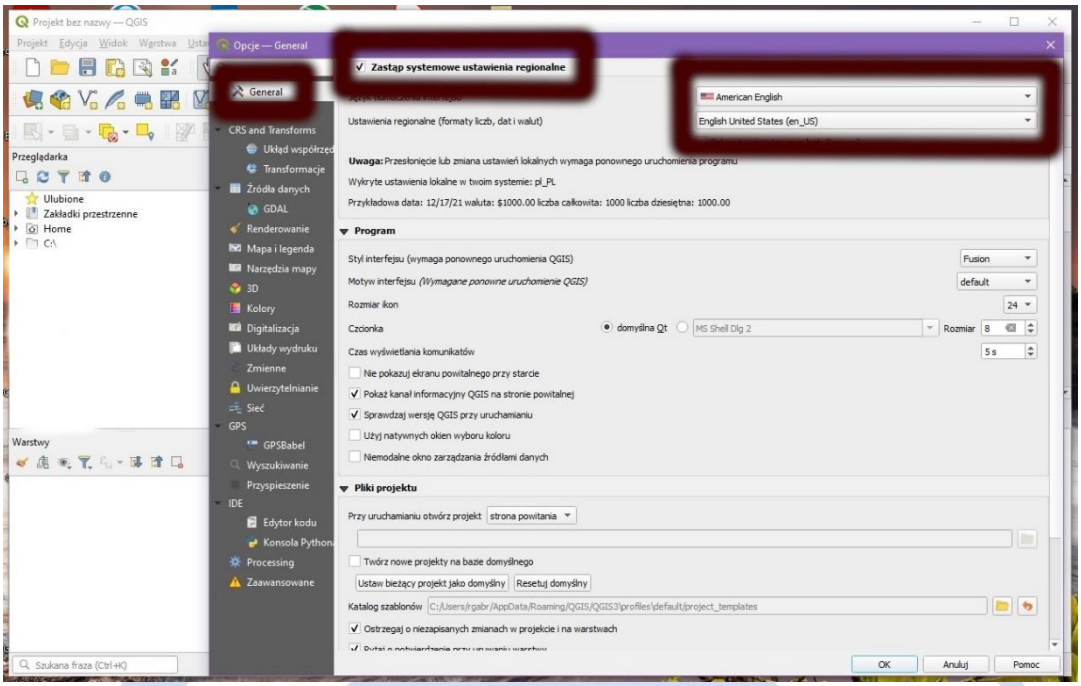
Go to the QGIS 3.22.1 folder on your desktop and double-click QGIS DESKTOP 3.22.1 icon. The application will use the same locale settings as your Windows. The lesson tutorial uses English language QGIS commands so it is highly recommended to change QGIS locale settings to English.

- To change the settings go to the tabs (in your language):

SETTINGS -> OPTIONS -> GENERAL

and tick OVERRIDE SYSTEM LOCALE.

Then set USER INTERFACE to AMERICAN ENGLISH and LOCALE to ENGLISH UNITED STATES (en_US), see the graph below.


Projekt bez nazwy — QGIS
Opcje — General
Zastąp systemowe ustawienia regionalne
General
American English
English United States (en_US)
Ustawienia regionalne (formaty liczb, dat i walut)
Uwaga: Przesłonięcie lub zmiana ustawień lokalnych wymaga ponownego uruchomienia programu
Wykryte ustawienia lokalne w twoim systemie: pl_PL
Przykładowa data: 12/17/21 waluta: $1000.00 liczba całkowita: 1000 liczba dziesiętna: 1000.00
Program
Styl interfejsu (wymaga ponownego uruchomienia QGIS)
Fusion
Motyw interfejsu (Wymagane ponowne uruchomienie QGIS)
default
Rozmiar ikon
Czcionka
domyślna Qt
MS Shell Dlg 2
Rozmiar
Czas wyświetlania komunikatów
5 s
Nie pokazuj ekranu powitalnego przy starcie
Pokaż kanał informacyjny QGIS na stronie powitalnej
Sprawdzaj wersję QGIS przy uruchamianiu
Użyj natywnych okien wyboru koloru
Niemodalne okno zarządzania źródłami danych
Pliki projektu
Przy uruchamianiu otwórz projekt
strona powitania
Twórz nowe projekty na bazie domyślnego
Ustaw bieżący projekt jako domyślny
Resetuj domyślny
Katalog szablonów
C:/Users/rgabr/AppData/Roaming/QGIS/QGIS3/profiles/default/project_templates
Ostrzegaj o niezapisanych zmianach w projekcie i na warstwach
OK
Anuluj
Pomoc
CRS and Transforms
Układ współrzęd
Transformacje
Źródła danych
GDAL
Renderowanie
Mapa i legenda
Narzędzia mapy
3D
Kolory
Digitalizacja
Układy wydruku
Zmienne
Uwierzytelnianie
Sieć
GPS
GPSBabel
Wyszukiwanie
Przyspieszenie
IDE
Edytor kodu
Konsola Python
Processing
Zaawansowane
Przeglądarka
Ulubione
Zakładki przestrzenne
Home
C:\
Warstwy
Szukana fraza (Ctrl+K)

Short tutorial how to present NDVI changes on a chart using Excel 2016/2021/365

QGIS application allows to create a CSV file with the information on NDVI indexes on the area of choice for last 20 years at 16-day intervals. This data should be presented in a graphic form to be analysed. Follow the instructions below.

➲ *INSERT THE CSV DATA TO EXCEL*

Open a blank spreadsheet and go to:

- FILE -> OPEN -> choose your CSV data file
- Click DATA tab
- Mark the A column
- Click TEXT TO COLUMNS option
- when a new window appear click NEXT, then choose COMMA in Delimiters, click NEXT and then FINISH.

This allows all the CSV data to be put to separate cells. Now you can save the spreadsheet in the Excel format.

➲ *DOTS TO COMMAS*

This step is important only for languages in which Excel uses a comma as a decimal delimiter, e.g. Polish language. You have to change dots to commas for all NDVI indexes so they can be treated as values not strings.

- Mark all the cells with NVDI values
- Type CTRL-F and choose REPLACE option
- In a FIND WHAT field type **.**
- IN a REPLACE WITH field type **,**
- Click REPLACE ALL button.

Done ! You can now close the window.

➲ *INSERT A NEW COLUMN*

Mark the A column, click the right button of your mouse and choose INSERT option. All the columns will be moved to right and an empty A column appear.

Fill the column with the dates (years only) starting from 2001 in a A2 cell to 2020 in a A21 cell.

➲ *ORGANIZE THE DATA*

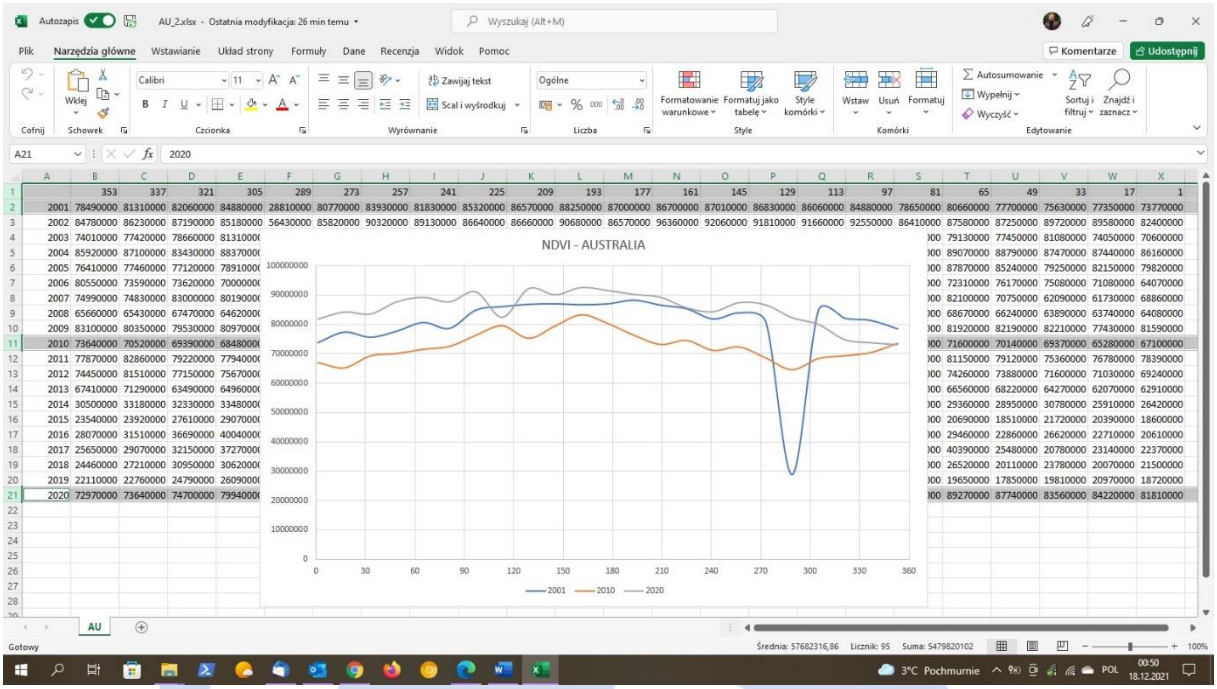
The last step before creation the chart is to organize the data. As you see the days of the year (the first row in the spreadsheet) are not arranged sequentially. You have cut a fraction of a spreadsheet and put it on the left or right side to arrange the data sequentially, from 353 to 1. This re-organisation allows you to prepare a chart easy to analyse.

➲ *CREATING THE GRAPHIC CHART*

- Mark all the cell in the spreadsheet or just choose the rows with years and the first row
- Go to INSERT tab
- In CHART section choose the SCATTER WITH SMOOTH LINES type

That's it ! You have done it.

✍ *To create a chart for only a few years, e.g.: 2001, 2010 and 2020, mark the following rows: 1, 2, 11 and 21.*



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