

TouchTerrain: Easily Create 3D-Printable Terrain Models

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Elevation Data source:
USGS/NED (10 m resolution, US only)

Hillshade layer:
Transparency(%): (set to 100% to hide)
Gamma:

Area Selection Box:

44.69741706 N -107.9796208 E (Top right corner)
44.50185261 N -108.2542791 E (Lower left corner)

3D Printer Options:
80 mm Tile width, 79.7 mm Tile height
0.5 mm Resolution for 3D Print (Extruder width)
1 by 1 Tiles to print (X by Y)
Re-scaling 10 m resolution to about m
2 mm Model Base thickness
x 1.0 (none) Vertical Exaggeration (Z-scale)
STL binary File format

to 3D printable files

Developed by Chris Harding and Franek Hasiuk, [GeoFabLab](#),
Dept. of Geological and Atmospheric Sciences, Iowa State University
Suggestions? Problems? [Send Email](#)
Visit our [Github repository](#)

[TouchTerrain: A simple web-tool for creating 3D-printable topographic models](#) (published in: Computers & Geosciences Volume 109, December 2017, Pages 25-31)



Os saldrá el típico icono de la mano para moveros por el mapa. Salir de la caja roja e id donde os interese...



Si estáis dentro de la caja roja, os saldrá otro icono que sólo moverá la caja....



Para ampliar/reducir utilizad la caja + - que hay en la esquina inferior izquierda

Antes de continuar tenéis que elegir la base de datos.... (*)

Elevation Data source:

- SRTM GL1 (30 m resolution, worldwide)
- USGS/NED (10 m resolution, US only)
- SRTM GL1 (30 m resolution, worldwide)
- GMTED2010 (90 m resolution, worldwider)
- ETOPO1 (1000 m resolution, worldwide, incl. bathymetry!)

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Elevation Data source:

SRTM GL1 (30 m resolution, worldwide)

Hillshade layer:

Transparency(%): 85 (set to 100% to hide)

Gamma: 1.0

Area Selection Box:

40.87868504 N -3.490263194 E (Top right corner)

40.85272144 N -3.524595470 E (Lower left corner)

3D Printer Options:

80 mm Tile width, 79.6 mm Tile height

0.5 mm Resolution for 3D Print (Extruder width)

1 by 1 Tiles to print (X by Y)

Re-scaling 30 m resolution to about 18.09 m

2 mm Model Base thickness

x 1.0 (none) Vertical Exaggeration (Z-scale)

STL binary File format

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Una vez en la zona elegida pulsad en y aparece otra vez la caja roja que define la zona que se imprimirá....

.... para ver mapa vs modelo digital jugad con la transparencia

Hillshade layer:

Transparency(%): 85 (set to 100% to hide)

Gamma: 1.0

.... podéis variar el tamaño de la caja roja tocando los nodos que la definen

(*).... la SRTM GL1 es la mejor resolución (30 m) para lo que no es EEUU



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Vamos a por las opciones de impresión.....

Tamaño: os aconsejo cuadrados de 160 mm...es lo máximo que puede la impresora.

Elevation Data source:
SRTM GL1 (30 m resolution, worldwide)

Hillshade layer:
Transparency(%): 85 (set to 100% to hide)
Gamma: 1.0

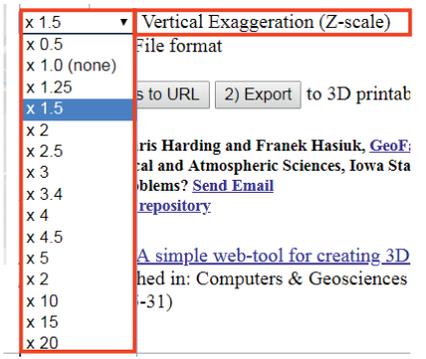
Area Selection Box: Re-center box in current map view
Set box from polygon in KML file
40.8786850 N -3.490263194 E (Top right corner)
40.8527214 N -3.52459547 E (Lower left corner)

3D Printer Options:
80 mm Tile width, 79.6 mm Tile height
Resolution for 3D Print (Extruder width)
Tiles to print (X by Y)
30 m resolution to about 18.09 m
Model Base thickness
Vertical Exaggeration (Z-scale)
File format

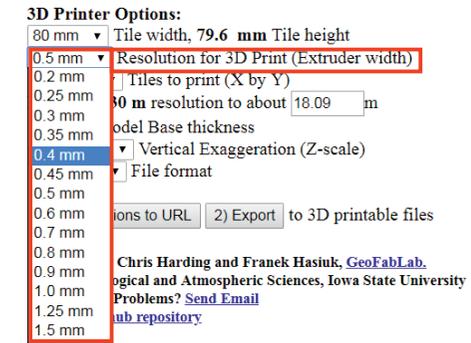
to URL **2) Export** to 3D printable files
Chris Harding and Franek Hasiuk, [GeoFabLab](#),
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Exageración vertical: os aconsejo x1,5...



Resolución 3D... 0,4 ó 0,8 que es lo que dan las boquillas de esta impresora



2) Export Cuando acabéis, exportad....



Cuando exportéis os sale esto.....

Processing started:

Press the Start button to process the DEM into 3D model files.

Note that there's NO progress indicator (yet), you will only see this page trying to connect. That's OK, just be patient!

Pressing Start again during processing has no effect.

Once your 3D model is created, you will get a new page (Processing finished) for downloading a zip file.

Start

Dadle a star...y a esperar...

...y finalmente sale esto...

Processing finished:

DEM_name = USGS/SRTMGL1_003

trlat = 40.8786850683

trlon = -3.49026319493

bllat = 40.8527214491

bllon = -3.52459547032

printres = 0.5

ntilesx = 1.0

ntilesy = 1.0

tilewidth = 80.0

basethick = 2.0

zscale = 1.5

fileformat = STLb

total zipped size: 5.07 Mb

Download zip File (will be deleted in 24 hrs)

...en el archivo ZIP está el archivo para llevar a imprimir y un pequeño fichero con los datos del modelo (que es lo que os pone cuando ha finalizado el análisis)

To return to the selection map, click the back button in your browser twice

After downloading you can preview a STL/OBJ file at www.viewstl.com (limit: 35 Mb)