



WhereGroup

# **Wie kommt der Schwimmbagger ins WebGIS?**



WhereGroup





WhereGroup





Where





WhereGroup

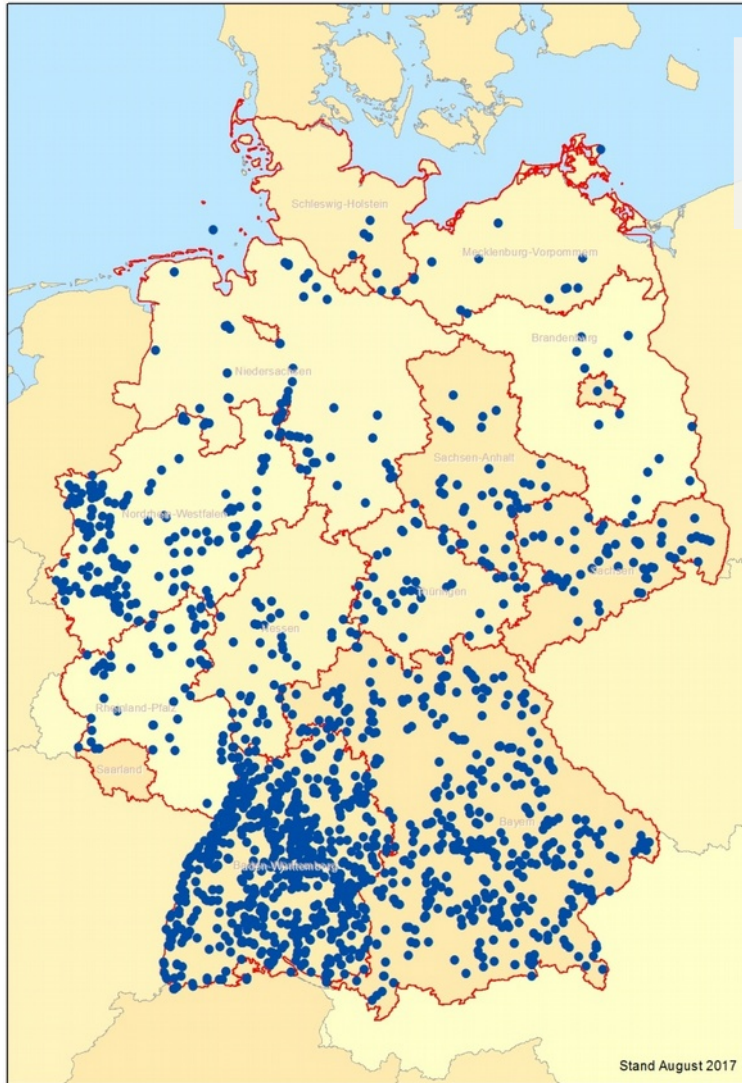
## **GisInfoService**

- Online-Geoinformationssystem der Landesrohstoffverbände für die Mitgliedsunternehmen
- Von überall per Internet Browser nutzbar
- Geodaten der Behörden per Webdienst
- Eigene Geodaten können ergänzt werden (z.B. Risswerke, Abbauplanung, Rekultivierungspläne)
- Grundstücksverwaltung ist möglich (Eigentümer, Pächter, Verträge, Fristen etc.)

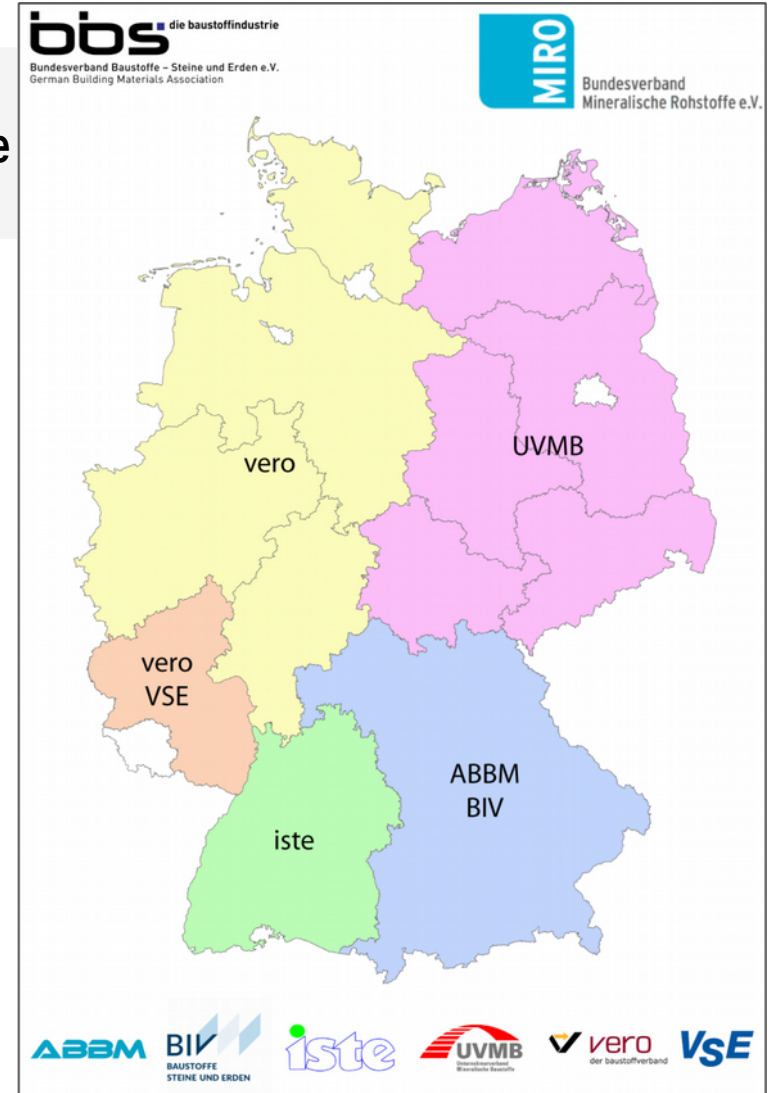




# WhereGroup

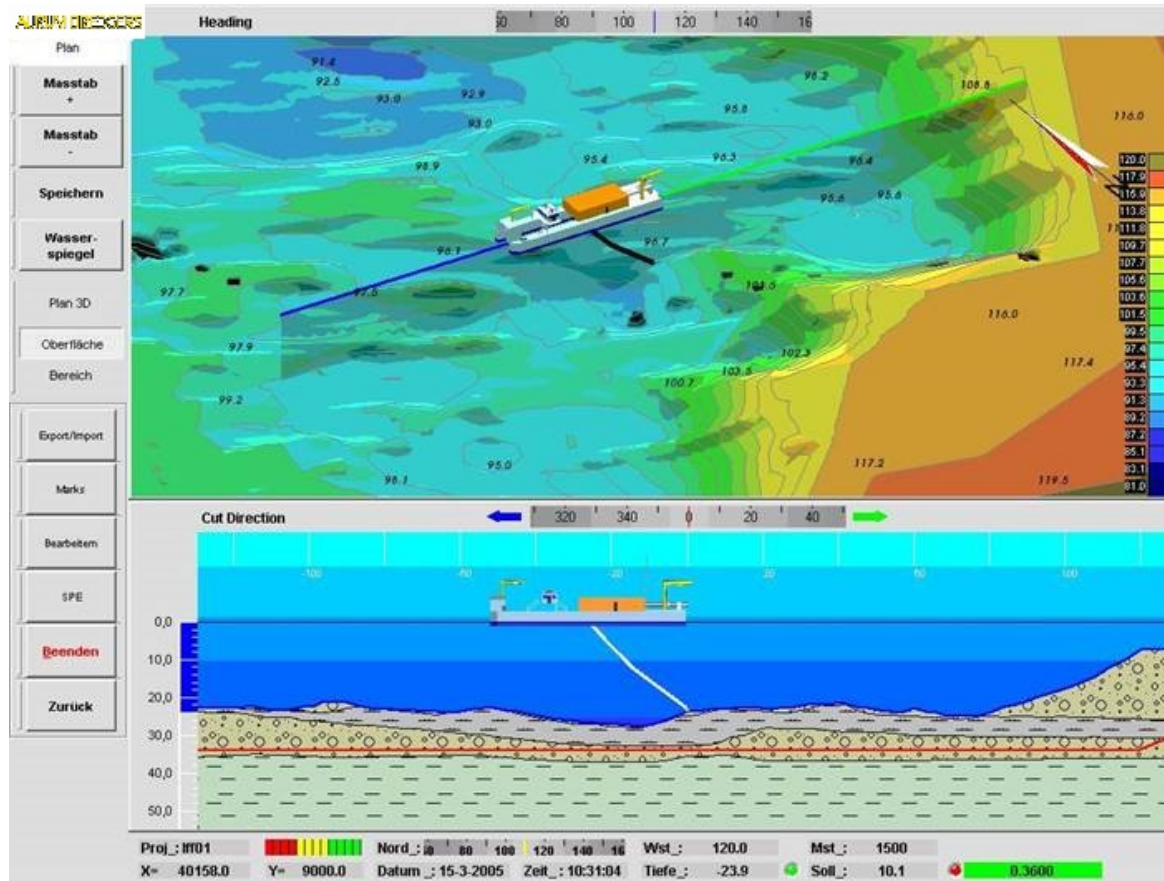


Entwicklungsstand  
und registrierte Werke  
~1750





# WhereGroup





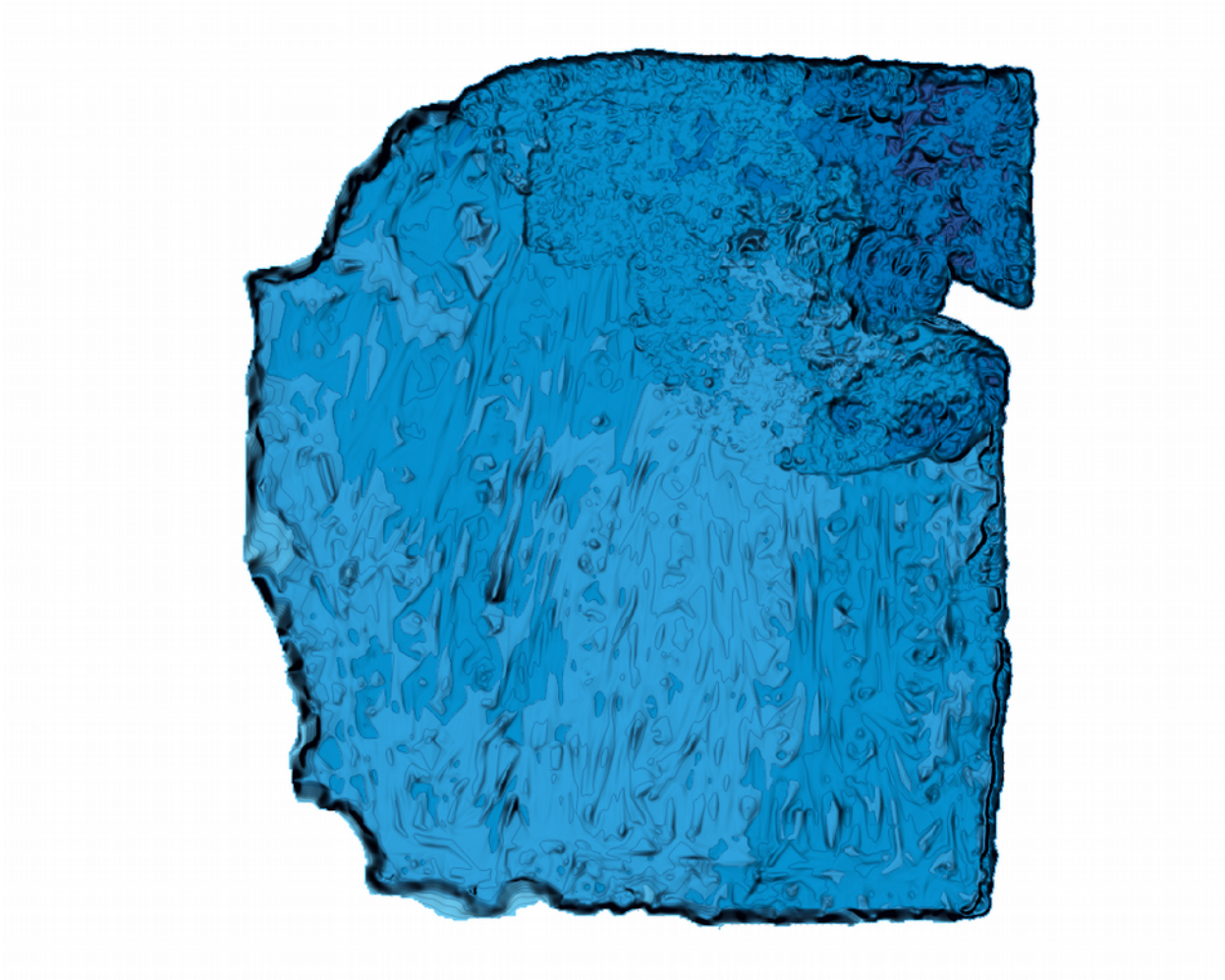
WhereGroup

- **regelmäßig / wöchentlich neue Daten**
- **automatischer Workflow zur Verarbeitung**
- **bishin zur Integration in GisInfoService**





WhereGroup



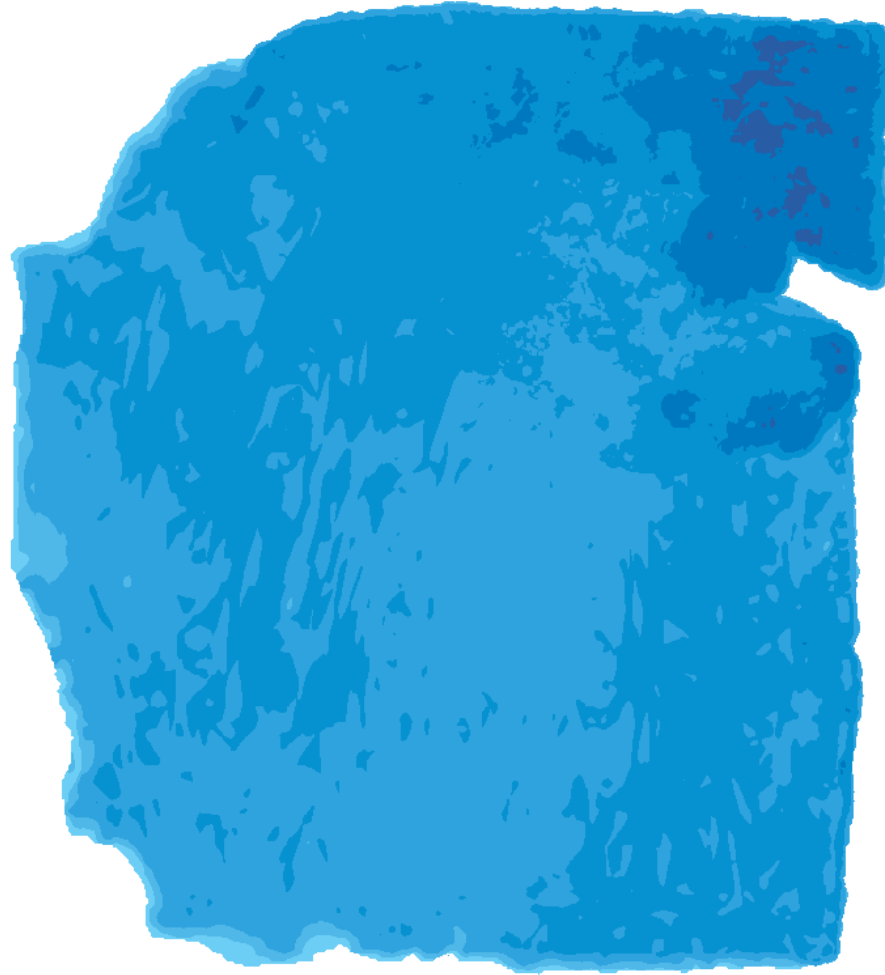


WhereGroup



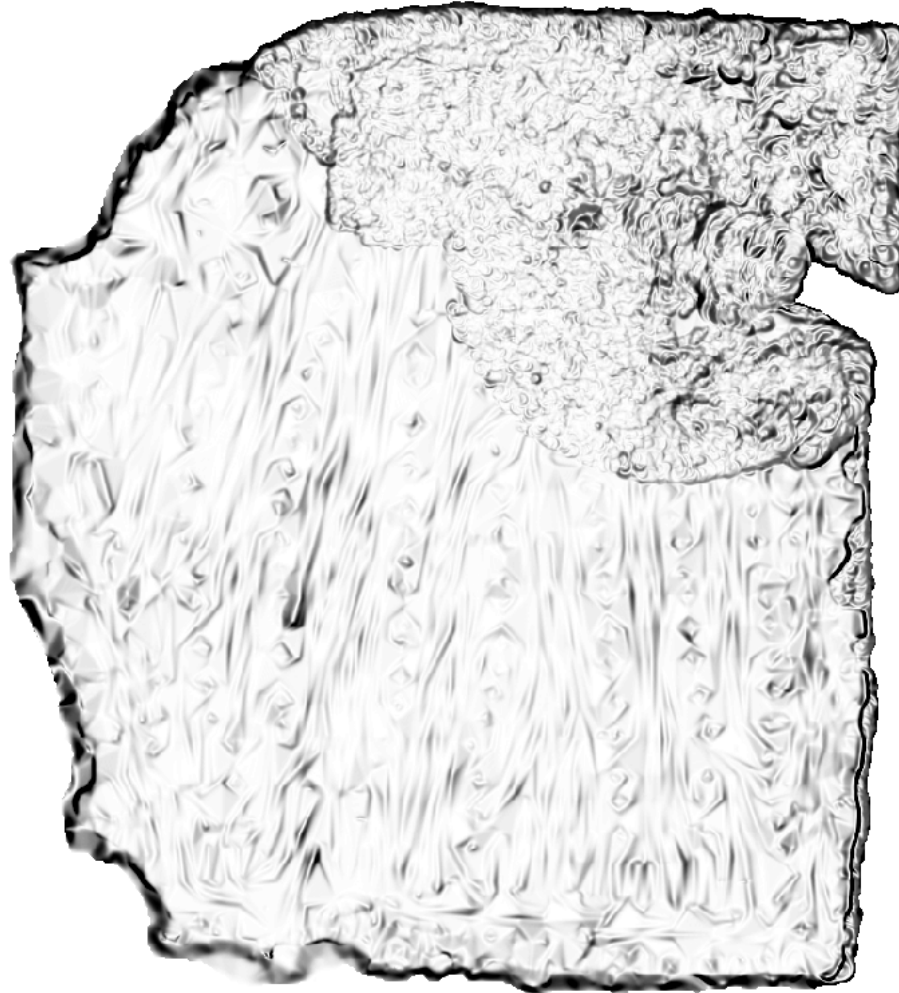


WhereGroup





WhereGroup





# WhereGroup

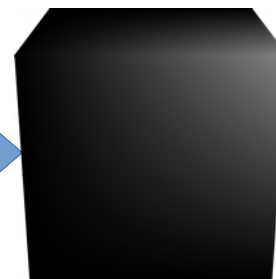
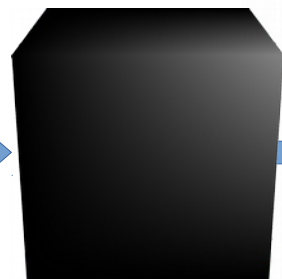
|            |            |       |
|------------|------------|-------|
| 4489708.65 | 5752716.37 | 50.40 |
| 4489709.65 | 5752716.37 | 50.34 |
| 4489710.65 | 5752716.37 | 50.32 |
| 4489711.65 | 5752716.37 | 50.33 |
| 4489712.65 | 5752716.37 | 50.34 |
| 4489713.65 | 5752716.37 | 50.33 |
| 4489714.65 | 5752716.37 | 50.37 |
| 4489716.65 | 5752716.37 | 50.47 |
| 4489717.65 | 5752716.37 | 50.47 |
| 4489718.65 | 5752716.37 | 50.49 |
| 4489719.65 | 5752716.37 | 50.53 |
| 4489720.65 | 5752716.37 | 50.57 |
| 4489721.65 | 5752716.37 | 50.57 |
| 4489722.65 | 5752716.37 | 50.56 |
| 4489723.65 | 5752716.37 | 50.59 |





# WhereGroup

|            |            |       |
|------------|------------|-------|
| 4489708.65 | 5752716.37 | 50.40 |
| 4489709.65 | 5752716.37 | 50.34 |
| 4489710.65 | 5752716.37 | 50.32 |
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| 4489713.65 | 5752716.37 | 50.33 |
| 4489714.65 | 5752716.37 | 50.37 |
| 4489716.65 | 5752716.37 | 50.47 |
| 4489717.65 | 5752716.37 | 50.47 |
| 4489718.65 | 5752716.37 | 50.49 |
| 4489719.65 | 5752716.37 | 50.53 |
| 4489720.65 | 5752716.37 | 50.57 |
| 4489721.65 | 5752716.37 | 50.57 |
| 4489722.65 | 5752716.37 | 50.56 |
| 4489723.65 | 5752716.37 | 50.59 |



WebMapService

Mapbender



# WhereGroup

```
#eine jeweils in den zu bearbeitenden Ordner
for i in ${FIND_DIRECTORIES}
do
  cd $i
  echo "*****Bearbeite Verzeichnis: '$i'*****"
  echo "*****Bearbeite Verzeichnis: '$i'*****" >> /home/hoehendaten/GIS_data/DEM/error.txt

  #Erzeuge für jede .txt-Datei in dem Ordner Schummerung, Hoehenschichten und Hoehenlinien
  for f in *.txt;
  do
    echo "*****Bearbeite Datei: '$f'*****"
    echo "*****Bearbeite Datei: '$f'*****" >> /home/hoehendaten/GIS_data/DEM/error.txt
    #Erzeugung der Schummerung
    echo "-----Erzeuge Schummerung-----" >> /home/hoehendaten/GIS_data/DEM/error.txt
    gdaldem hillshade "$f" "${OUTPUT_PATH}${i##*/}/${f##*/}_schummerung.tif" -b 1 -z 3 -s 1 -az 315 -alt 85 \
    >/dev/null 2>> /home/hoehendaten/GIS_data/DEM/error.txt

    #Erzeugung der Hoehenschichten
    echo "-----Erzeuge Hoehenschichten-----" >> /home/hoehendaten/GIS_data/DEM/error.txt
    gdaldem color-relief "$f" "${FARBRELIEF_DEFINITION}" "${OUTPUT_PATH}${i##*/}/${f##*/}_farbrelief.tif" -b 1 -nearest_color_entry \
    >/dev/null 2>> /home/fabian/hoehendaten_schwenk/GIS_data/DEM/error.txt

    #Erzeugung der Hoehenlinien
    echo "-----Erzeuge Hoehenlinien-----" >> /home/hoehendaten/GIS_data/DEM/error.txt
    gdal_contour -a HOEHE -i 0.5 "$f" "${OUTPUT_PATH}${i##*/}/${f##*/}.shp" \
    >/dev/null 2>> /home/hoehendaten/GIS_data/DEM/error.txt

  done
done
```



# WhereGroup

```
#eine jeweils in den zu bearbeitenden Ordner
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    #Erzeugung der Schummerung
    echo "----Erzeuge Schummerung----" >> /home/hoehendaten/GIS_data/DEM/error.txt
    gdalDEM hillshade "$f" "${OUTPUT_PATH}${i##*/}/${f##*/}_schummerung.tif" -b 1 -z 3 -s 1 -az 315 -alt 85 \
    >/dev/null 2>> /home/hoehendaten/GIS_data/DEM/error.txt

    #Erzeugung der Hoehenschichten
    echo "----Erzeuge Hoehenschichten----" >> /home/hoehendaten/GIS_data/DEM/error.txt
    gdalDEM color-relief "$f" "${FARBRELIEF_DEFINITION}" "${OUTPUT_PATH}${i##*/}/${f##*/}_farbrelief.tif" -b 1 -nearest_color_entry \
    >/dev/null 2>> /home/fabian/hoehendaten_schwenk/GIS_data/DEM/error.txt

    #Erzeugung der Hoehenlinien
    echo "----Erzeuge Hoehenlinien----" >> /home/hoehendaten/GIS_data/DEM/error.txt
    gdal contour a HOEHE -i 0.5 "$f" "${OUTPUT_PATH}${i##*/}/${f##*/}.shp" \
    >/dev/null 2>> /home/hoehendaten/GIS_data/DEM/error.txt

  done
done
```

# gdal



WhereGroup

<http://gdal.org/>

# GDAL

|                           |                               |                         |                       |                          |                               |
|---------------------------|-------------------------------|-------------------------|-----------------------|--------------------------|-------------------------------|
| <a href="#">Main Page</a> | <a href="#">Related Pages</a> | <a href="#">Classes</a> | <a href="#">Files</a> | <a href="#">Download</a> | <a href="#">Issue Tracker</a> |
|---------------------------|-------------------------------|-------------------------|-----------------------|--------------------------|-------------------------------|

## GDAL - Geospatial Data Abstraction Library

Select language: [\[English\]](#)[\[Russian\]](#)[\[Portuguese\]](#)[\[French/Francais\]](#)



GDAL is a translator library for raster and vector geospatial data formats that is released under an X/MIT style Open Source license by the Open Source Geospatial Foundation. As a library, it presents a **single raster abstract data model** and **single vector abstract data model** to the calling application for all supported formats. It also comes with a variety of useful command line utilities for data translation and processing. The [NEWS](#) page describes the November 2017 GDAL/OGR 2.2.3 release.



Traditionally GDAL used to design the raster part of the library, and OGR the vector part for Simple Features. Starting with GDAL 2.0, both sides have been more tightly integrated. You can still refer to the [documentation of GDAL 1.X](#) if needed.

Master: <http://www.gdal.org>

Download: <http://download.osgeo.org>



The following utility programs are distributed with GDAL.

- `gdalinfo` - Report information about a file.
- `gdal_translate` - Copy a raster file, with control of output format.
- `gdaladdo` - Add overviews to a file.
- `gdalwarp` - Warp an image into a new coordinate system.
- `gdaltindex` - Build a MapServer raster tileindex.
- `gdalbuildvrt` - Build a VRT from a list of datasets.
- `gdal_contour` - Contours from DEM.
- `gdaldem` - Tools to analyze and visualize DEMs.
- `rgb2pct.py` - Convert a 24bit RGB image to 8bit paletted.
- `pct2rgb.py` - Convert an 8bit paletted image to 24bit RGB.
- `gdal_merge.py` - Build a quick mosaic from a set of images.
- `gdal2tiles.py` - Create a TMS tile structure, KML and simple web viewer.
- `gdal_rasterize` - Rasterize vectors into raster file.
- `gdaltransform` - Transform coordinates.
- `nearblack` - Convert nearly black/white borders to exact value.
- `gdal_retile.py` - Retiles a set of tiles and/or build tiled pyramid levels.
- `gdal_grid` - Create raster from the scattered data.
- .....





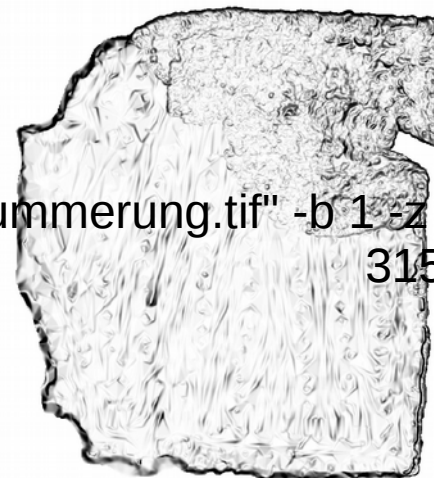
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To generate a shaded relief map from any GDAL-supported elevation raster :

```
gdaldem hillshade input_dem output_hillshade  
  [-z ZFactor (default=1)] [-s scale* (default=1)]"  
  [-az Azimuth (default=315)] [-alt Altitude (default=45)]  
  [-alg ZevenbergenThorne] [-combined | -multidirectional]  
  [-compute_edges] [-b Band (default=1)] [-of format] [-co "NAME=VALUE"]* [-q]
```

```
gdaldem hillshade see1.txt see1_schummerung.tif" -b 1 -z 3 -s 1 -az 315 -alt 85
```

```
gdaldem hillshade "$f" "${OUTPUT_PATH}${i##*/}/${f##*/}_schummerung.tif" -b 1 -z 3 -s 1 -az  
315 -alt 85
```



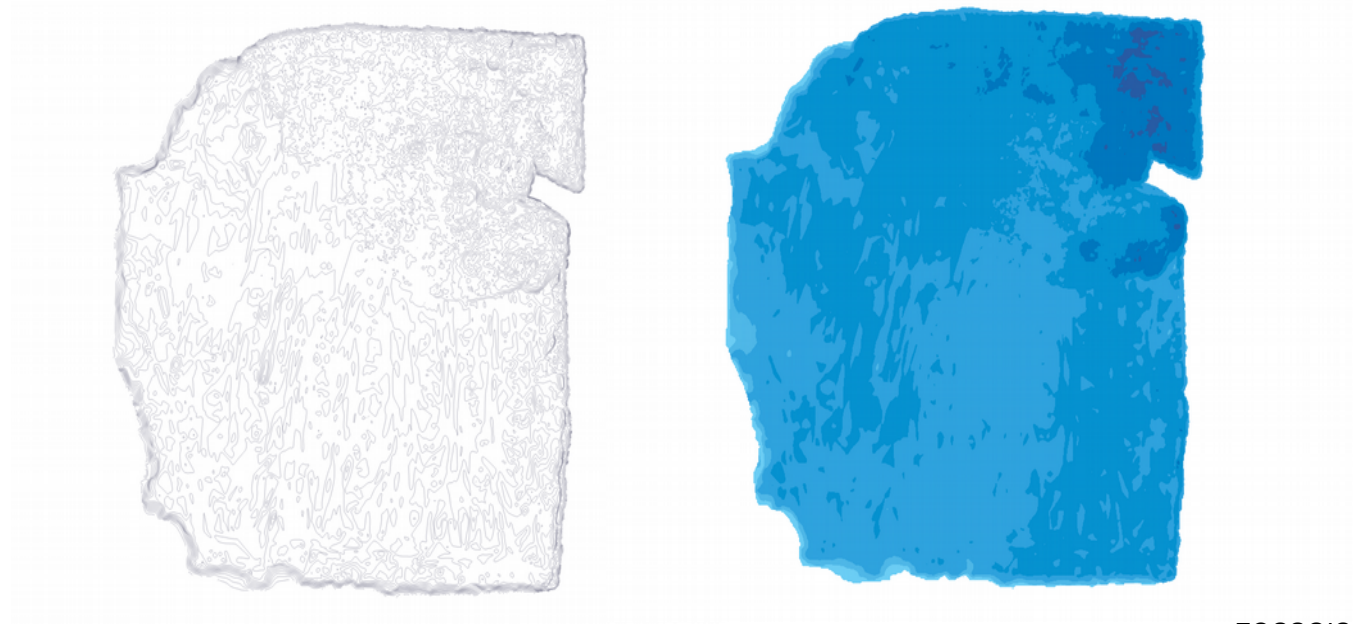


#Erzeugung der Hoehenschichten

```
gdaldem color-relief "$f" "${FARBRELIEF_DEFINITION}" "${OUTPUT_PATH}${i##*/}/${f##*/}_farbrelief.tif" -b 1 -nearest_color_entry
```

#Erzeugung der Hoehenlinien

```
gdal_contour -a HOEHE -i 0.5 "$f" "${OUTPUT_PATH}${i##*/}/${f##*/}.shp" \
```





## Erzeugung der WMS

- Auf Basis MapServer / mapfiles
- Templates (Grundgerüst) für Mapfiles erstellt
- Einfügen der neuen Geodaten in die Mapdatei über sh-Script



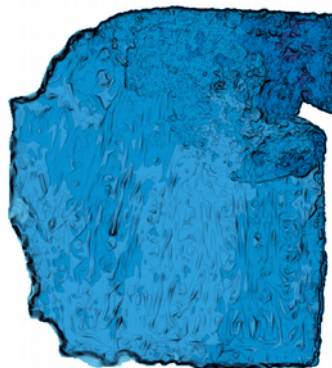
|            |            |       |
|------------|------------|-------|
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| 4489722.65 | 5752716.37 | 50.56 |
| 4489723.65 | 5752716.37 | 50.59 |

Bash-script  
mit  
gdal-  
Aufrufen

Isolinien.geo  
Höhenschichten.geo  
Schummerung.geo

Bash-script  
mit  
String-  
replace

WebMapService





# crontab

```
0 3 * * 1 /home/dredger/import_asciis.sh
```

```
4489708.65 5752716.37 50.40
4489709.65 5752716.37 50.34
4489710.65 5752716.37 50.32
4489711.65 5752716.37 50.33
4489712.65 5752716.37 50.34
4489713.65 5752716.37 50.33
4489714.65 5752716.37 50.37
4489716.65 5752716.37 50.47
4489717.65 5752716.37 50.47
4489718.65 5752716.37 50.49
4489719.65 5752716.37 50.53
4489720.65 5752716.37 50.57
4489721.65 5752716.37 50.57
4489722.65 5752716.37 50.56
4489723.65 5752716.37 50.59
```

Bash-script  
mit  
gdal-  
Aufrufen

Isolinien.geo  
Höhenschichten.geo  
Schummerung.geo

Bash-script  
mit  
String-  
replace

WebMapService





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## **Integration insWebGIS**

**ja, aber .....**



WhereGroup

**Input: ascii-daten**

**Output: wms**

**Alles nur mit ein paar Zeilen bash-script und  
der mächtigen gdal-Bibliothek**



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**Herzlichen Dank!**

