

# Leapfrog Geothermal File Types

*For Leapfrog Geothermal Version 5.0*

## Inputs

- Wells
- Meshes/Surfaces
- Points
- Polylines
- GIS Data
- 2D Grids
- Structural Data
- Geophysical Data
- Maps
- Image
- Historical Sections
- MODFLOW, FEFLOW and TOUGH2 Flow Models

## File Types (Imports)

### Elevation Grids

- Arc/Info ASCII Grid Files (\*.asc, \*.txt)
- Arc/Info Binary Grid Files (\*.adf)
- Digital Elevation Model Files (\*.dem)
- Surfer ASCII or Binary Grid Files (\*.grd)
- SRTM Files (\*.hgt)
- ESRI.hdr Labelled Image Files (\*.img, \*.bil)
- GeoTIFF Image Files (\*.tiff, \*.tif)

### GIS Vector Data

- Shape Files (\*.shp)
- MapInfo Files (\*.tab, \*.mif)
- ESRI Personal GeoDatabase Files (\*.mdb, \*.accdb)
- MapInfo Batch File (\*.xml)
- ESRI Geodatabase (\*.gdb)

## 2D Grids

- Arc/Info ASCII Grid (\*.asc, \*.txt)
- Arco/Info Binary Grid (\*.adf)
- Digital Elevation Model (\*.dem)
- Intergraph ERDAS ER Mapper 2D Grid (\*.ers)
- ESRI .hdr Labelled Image (\*.img, \*.bil)
- SRTM .hgt (\*.hgt)
- Surfer ASCII or Binary Grid (\*.grd)
- Grid eXchange File (\*.gxf)
- Geosoft Grid (\*.grd)

## Well Data

- CSV Text File (\*.csv)
- ASCII Text File (\*.asc)
- Plain Text Files (\*.txt)
- Data Files (\*.dat)
- TSV Text Files (\*.tsv)

Files can be imported:

- From files stored locally
- Via ODBC (\*.mdb, \*.accdb)
- Via acquire (\*.sel)

## Points

- CSV Files (\*.csv)
- ASCII Text Files (\*.asc)
- DXF Files (\*.dxf)
- Leapfrog Geothermal 3D Point Data files (\*.pl3, \*.ara)
- Via ODBC (\*.mdb, \*.accdb)

## Structural Data/Lineations

- CSV Text Files (\*.csv)
- ASCII Text Files (\*.asc)
- Plain Text Files (\*.txt)
- Data Files (\*.dat)
- Via ODBC (\*.mdb, \*.accdb)

## Maps/Photos/Cross Sections

- PNG Files (\*.png)
- JPEG Files (\*.jpg, \*.jpeg)
- TIFF and GeoTIFF Files (\*.tiff, \*.tif)
- Windows Bitmap Files (\*.bmp)
- Graphics Interchange Format Files (\*.gif)

## Meshes

- Leapfrog Geothermal Attribute Binary Mesh Formats (\*.msh, \*.ara)
- Datamine Files (\*.asc, \*.dm)
- DXF Polyface Files (11/12 [AC1009]) (\*.dxf)
- Gemcom Files (\*.tri)
- Alias Wavefront Object Files (\*.obj)
- Surpac DTM Files (\*.dtm)
- GOCAD Files (\*.ts)
- Leapfrog Model Files (\*.lfm)
- Micromine Files (\*.dat)
- Bentley Drawing Files (v8) (\*.dgn)
- AutoCAD Drawing Files (2013/LT2013) (\*.dwg)

## Polylines

- Datamine Polylines (\*.asc)
- Surpac String Polylines (\*.str)
- Gemcom Polylines (\*.asc)
- Micromine Polylines (\*.str, \*.asc)
- MineSight Polylines (\*.srg)
- Gocad Polylines (\*.pl, \*.ts)
- Drawing Interchange Polylines (\*.dxf)
- Old Leapfrog Polylines (\*.lfpl)
- Leapfrog Polylines (\*.csv, \*.txt)
- AutoCAD Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)

## Geophysical Data

- DFN Files (\*.dfn)
- UBC Grids (\*.msh, \*.nev)

## Block Models

- CSV + Text Header (\*.csv, \*.csv.txt)
- CSV with Embedded Header (\*.csv)
- Isatis Block Model Files (\*.asc)

## Flow Models

- MODFLOW Models (\*.nam, \*.mf, \*.mfn)
- FEFLOW Models (\*.fem, \*.dac)
- TOUGH2 Models (\*.dat)

## Colour Gradients

- Geosoft Colour Files (\*.tbl)
- ERMapper Lookup Tables (\*.lut)
- MapInfo Colour Files (\*.clr)
- Leapfrog Colour Files (\*.lfc)

## Outputs

- 3D Surfaces and Volumes
- Planned Wells
- Well Tables
- Cross Sections
- Images
- Movies
- 3D Scene Files
- Block Models
- Stereonets
- GIS Lines
- Points
- Structural Data
- Polylines
- MODFLOW, FEFLOW and TOUGH2 Flow Models
- 3D Printed Models
- Publish Project to Central

## File Types (Exports)

### Elevation/Thickness Grids

- Arc/Info ASCII Grid Files (\*.asc)
- ESRI .hdr Labelled Files (\*.bil)
- ENVI Raster Image Files (\*.img)
- Surfer ASCII Grid Files (\*.grd)

### GIS Vector Data

- Shape Files (\*.shp)

### Maps and Photos

- Geo Tiff Files (\*.tif, \*.tiff)

### Well Data

- CSV Files (\*.csv)

### Points

- CSV Files (\*.csv)
- DXF Files (11/12 [AC1009]) (\*.dxf)
- Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)

### Polylines

- Leapfrog Polylines (\*.lfpl)
- Leapfrog Polylines (\*.csv)
- Drawing Interchange Polylines (\*.dxf)
- Surpac String Polylines (\*.str)
- Gocad Polylines (\*.pl, \*.ts)
- MineSight Polylines (\*.srg)
- Datamine Polylines (\*.asc)
- Micromine Polylines (\*.str, \*.asc)
- Drawing File (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)

## Structural Data

- CSV Files (\*.csv)

## Saved Scenes (Viewer)

- Leapfrog Scene (\*.lfview)

## Movies

- Movie Files (\*.wmv)

## Rendered Images

- Image Files (\*.png, \*.jpg, \*.jpeg)

## Meshes (Model Surfaces/Output Volumes/Form Interpolant Surfaces)

- Leapfrog Files (\*.msh)
- Gocad Files (\*.ts)
- DXF Files (\*.dxf)
- Surpac Files (\*.dtm, \*.str)
- Gemcom Files (\*.tri)
- Datamine Files (\*.pt.asc, \*.tr.asc)
- Micromine Files (\*.MMpt.dat, \*.MMtr.dat)
- DXF Polyface Files (MineCAD) (\*.dxf)
- Alias Wavefront Object Files (\*.obj)
- Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)

## Stereonets

- PDF Files (\*.pdf)
- Scalable Vector Graphics Files (\*.svg)
- PNG Image Files (\*.png)

## Cross Section Layouts

- PDF Files (\*.pdf)
- Scalable Vector Graphics Files (\*.svg)
- PNG Image Files (\*.png)
- GeoTIFF Files (\*.tiff, \*.tif)

## **Cross Section Evaluations**

- DXF Files (\*.dxf)
- DWG Files (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)

## **Geophysical Data/UBC Grids**

- Grid (\*.msh)
- Properties (\*.nev)

## **Block Models**

- CSV + Text Header (\*.csv, \*.csv.txt)
- CSV with Embedded Header (\*.csv)
- CSV as points (\*.csv)
- Isatis Block Model Files (\*.asc)
- Surpac Block Model Files (\*.mdl)
- Datamine Block Model Files (\*.dm)

## **Flow Models**

- MODFLOW Models (\*.nam)
- FEFLOW Models (\*.fem)
- TOUGH2 Models (\*.dat, \*.csv)