

# Leapfrog Works File Types

For Leapfrog Works Version 2023.1

## Inputs

- Boreholes
- Meshes/Surfaces
- Points
- Polylines
- GIS Data
- 2D Grids
- Design Models
- Structural Data
- Geophysical Data
- Maps
- Images
- Historical Sections
- Flow Models (with Hydrogeology Extension)

## File Types (Imports)

### Drilling Data

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

Files can be imported:

- From files stored locally
- From the Files tab in Seequent Central projects
- Via ODBC (\*.mdb, \*.accdb)
- From OpenGround

### Elevation Grids

- Arc/Info ASCII Grid Files (\*.asc, \*.txt)
- Arc/Info Binary Grid Files (\*.adf)
- Digital Elevation Model Files (\*.dem)
- ESRI.hdr Labelled Image Files (\*.img, \*.bil)

- GeoTIFF Files (\*.tiff, \*.tif)
- Geosoft Grid Files (\*.grd)
- Grid eXchange Files (\*.gxf)
- SRTM Files (\*.hgt)
- Surfer ASCII or Binary Grid Files (\*.grd)

## GIS Vector Data

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

## Maps/Photos/Cross Sections

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

## Alignments

- LandXML (\*.xml)

## Designs

- DGN (\*.dgn)
- DWG (\*.dwg)
- DXF (\*.dxf)

## Meshes

- Alias Wavefront Object Files (\*.obj)
- AutoCAD Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)
- DXF Polyface Files (11/12 [AC1009]) (\*.dxf)
- Leapfrog Works Attribute Binary Mesh Formats (\*.msh, \*.ara)
- Leapfrog Model Files (\*.lfm)
- Surpac DTM Files (\*.dtm)

## Points

- CSV Text Files (\*.csv)
- ASCII Text Files (\*.asc)
- DXF Files (11/12 [AC1009]) (\*.dxf)
- Leapfrog Works 3D Point Data files (\*.pl3, \*.ara)
- Via ODBC (\*.mdb, \*.accdb)

## Polylines

- AutoCAD Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)
- Drawing Interchange Polyline Files (\*.dxf)
- Leapfrog Polyline Files (\*.lfp)
- Old Leapfrog Polyline Files (\*.csv, \*.txt)

## Structural Data/Lineations

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

## 2D Geophysical Points

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

## 2D Geophysical Grids

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

## 3D Geophysical Grids

- GOCAD Voxet Files (\*.vo)
- Geosoft Voxels (\*.geosoft\_voxel)
- Magnetotelluric Resistivity (OUT) Files (\*.out, \*.out.gz, \*.mod) (with the Geophysics extension)
- UBC Mesh Files (\*.msh)

## Flow Models

(with Hydrogeology Extension)

- MODFLOW Grid Specification Files (\*.gsf)
- MODFLOW Name Files (\*.nam, \*.mfi, \*.mfn, \*modflow.ini)
- FEFLOW Problem Files (\*.fem)
- FEFLOW Results Files (\*.dac)

## Geophysical Data

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

## SEG-Y Data

(with Geophysics Extension)

- 2D and 2D crooked SEG-Y (\*.seggy, \*.sgy) (external navigation files are not supported)
- 3D SEG-Y (\*.seggy, \*.sgy)

## Colour Gradients

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

## Outputs

- 3D Surfaces and Volumes
- Planned Boreholes
- Borehole Tables
- Building Information Models (BIM)
- Cross Sections
- Images
- Movies
- 3D Scene Files

- Stereonets
- GIS Lines
- Points
- Polylines
- Flow Models (with Hydrogeology Extension)
- 3D Printed Models
- Publish Project to Central

## File Types (Exports)

### Drilling Data

- CSV Files (\*.csv)
- IFC 2x3 (\*.ifc)
- IFC 4.0 (\*.ifc)
- IFC 4.3 RC3 (\*.ifc)

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

- Leapfrog Attribute Binary Mesh Format (\*.msh)
- GOCAD Files (\*.ts)
- DXF Files (11/12 [AC1009]) (\*.dxf)
- Gemcom Files (\*.tri)
- Datamine Files (\*.pt.asc, \*\_tr.asc)
- Micromine Files (\*.MMpt.dat, \*\_MMtr.dat)
- Surpac Files (\*.dtm, \*.str)
- DXF Polyface Files (11/12 [AC1009]) (\*.dxf)
- Alias Wavefront Object Files (\*.obj)
- AutoCAD Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)
- Industry Foundation Classes 2x3 (\*.ifc)
- Industry Foundation Classes 4.0 (\*.ifc)
- Industry Foundation Classes 4.3 RC3 (\*.ifc)

### Batch Exporting Meshes, Model Surfaces, Model Volumes

- Leapfrog Model Files (\*.lfm)
- Leapfrog Attribute Binary Mesh Format (\*.msh)
- GOCAD Files (\*.ts)
- DXF Files (11/12 [AC1009]) (\*.dxf)
- Surpac Files (\*.dtm, \*.str)
- Gemcom Files (\*.tri)
- Datamine Files (\*.pt.asc, \*\_tr.asc)

- Micromine Files (\*\_MMpt.dat, \*\_MMtr.dat)
- DXF Polyface Files (11/12 [AC1009]) (\*.dxf)
- Alias Wavefront Object Files (\*.obj)
- AutoCAD Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)
- Industry Foundation Classes 2x3 (\*.ifc)
- Industry Foundation Classes 4.0 (\*.ifc)
- Industry Foundation Classes 4.3 RC3 (\*.ifc)

## 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)
- IFC 4.3 RC3 (\*.ifc)

## Design Models

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

## 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 Mining Polylines (\*.csv)
- Drawing Interchange Polyline Files (\*.dxf)
- AutoCAD Drawing Files (2013/LT2013) (\*.dwg)
- Bentley Drawing Files (v8) (\*.dgn)

## Geophysical Data/UBC Grids

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

## Flow Models

(with Hydrogeology Extension)

- MODFLOW Models (\*.nam)
- FEFLOW Models (\*.fem)

## Stereonets

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

## Structural Data

- CSV Files (\*.csv)

## 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)

## **Saved Scenes (Viewer)**

- Leapfrog Scene (\*.lfview)

## **Movies**

- Movie Files (\*.wmv)

## **Rendered Images**

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