

Help Me Use Minnesota's LiDAR Data!

MN GIS/LIS Consortium Conference Handout
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Main Info Webpage

All Minnesota LiDAR data sources:
www.mngeo.state.mn.us/chouse/elevation/lidar.html

Data Download Options

MnTOPO: select area of interest; specify layers; obtain mosaicked data
<http://arcgis.dnr.state.mn.us/gis/mntopo/>

ArcGIS 10.1 Toolbox: use polygon to select area of interest; option to get mosaicked data
<ftp://ftp.lmic.state.mn.us/pub/data/elevation/lidar/tools/toolboxes/>

MnGeo FTP site: <ftp://ftp.lmic.state.mn.us/pub/data/elevation/lidar>

- Filezilla FTP download software: <https://filezilla-project.org> (free)
- 7-zip unzipping software: www.7-zip.org (free)
- County geodatabase mosaic contents and filesizes: <http://geoint.lmic.state.mn.us/lidar.php>

LAS Tools

LASTOOLS – Tools for processing LAS Data (basic tools are free)
www.cs.unc.edu/~isenburg/lastools/

LASTOOLS tips and examples
ftp://ftp.lmic.state.mn.us/pub/data/elevation/lidar/LAS_File_Processing_Using_LASTOOLS.pdf

Web Services

LiDAR ArcGIS Data Services location
<http://arcgis.dnr.state.mn.us/ArcGIS/rest/services> including folders for “elevation” and “LiDARViewer”

MnGeo Image Server, hillshade layer: www.mngeo.state.mn.us/chouse/wms/geo_image_server.html

Documentation, Flight Lines and Dates

Metadata: <ftp://ftp.lmic.state.mn.us/pub/data/elevation/lidar/documentation/>

MnTOPO: display flight lines and click to get date
<http://arcgis.dnr.state.mn.us/gis/mntopo/>

Flight lines and dates in shapefile and KMZ formats
ftp://ftp.lmic.state.mn.us/pub/data/elevation/lidar/tile_index/



Training and Educational Resources

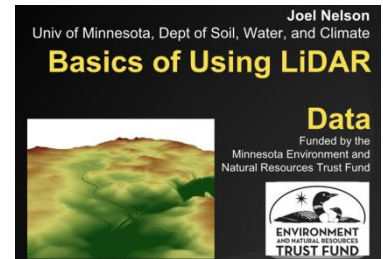
Tip sheets and readme files on MnGeo FTP site: <ftp://ftp.lmic.state.mn.us/pub/data/elevation/lidar>

Conservation Applications of LiDAR (University of Minnesota project, funded by Legislative-Citizen Commission on MN Resources (LCCMR))
<http://z.umn.edu/lidar>

- Workshops: Lecture slides and videos plus exercise data, instructions, and videos
 - Basics
 - Terrain Analysis



- Hydrologic Applications
- Engineering Applications
- Forestry Applications
- Wetland Mapping
- Webinar recordings:
 - LiDAR for Managers
 - Hydrology and Terrain Analysis Tools
 - Using LiDAR-based Terrain Analysis Products
 - LiDAR Overview for Administrators and Non-technical Staff



Future workshops: GIS/LIS Consortium fall conference and spring workshops

Esri online training:

Getting Started with LiDAR in ArcGIS:

<http://training.esri.com/gateway/index.cfm?fa=catalog.webCourseDetail&CourseID=1718>

Working with LiDAR Data in ArcGIS 10.1:

<http://training.esri.com/gateway/index.cfm?fa=catalog.webCourseDetail&courseID=2497>

Glossary of LiDAR-related Terms

www.mngeo.state.mn.us/committee/elevation/research_education/MnLiDARGlossary.pdf

Uses of LiDAR data to protect water quality

www.mngeo.state.mn.us/chouse/elevation/uses/lidar_uses_waterquality.html

Interim Guidelines on Collecting Culvert GIS Data (for use in hydro-conditioning DEMs)

www.mngeo.state.mn.us/committee/elevation/research_education/Interim_Guidance_Culvert_Data.pdf

Social Media

Facebook: Latest news on Minnesota's LiDAR data

www.facebook.com/minnesotalidar (*publicly viewable page*)

LiDAR Forum: online technical support discussion forum – post questions and share experience

www.mngeo.state.mn.us/chouse/elevation/lidar_forum.html



Committees and Programs

Minnesota Digital Elevation Committee

www.mngeo.state.mn.us/committee/elevation/index.html

LiDAR Research and Education Subcommittee

www.mngeo.state.mn.us/committee/elevation/research_education/index.html

Minnesota Elevation Mapping Project (DNR-managed LiDAR collection project)

www.mngeo.state.mn.us/committee/elevation/mn_elev_mapping.html

International Water Institute, Red River Mapping Initiative

www.iwinst.org/lidar/