





















Digital Line Graphs (DLG)

Point and line locations from 1:24,000 and 1:100,000 maps, e.g., county and state boundaries, road locations, structure locations, etc.

Digitized by USGS using standard methods, little accuracy lost in conversion, available at well below their production cost

Available by map series, ie. 1:24,000, 1:100,000, 1:2 million









Digital Line Graphs (DLG)

Data is often edge matched along map seams (though sometimes one map series has been updated and not the adjoining maps so manual edge matching is required)

Delivered as text or binary files (use conversion utilities to convert to vendor-specific data files)

Most often in UTM coordinate system

Several formats are provide such as DLG-3 or SDTS (Spatial Data Transfer Standard)

DLG's provide limited attribute data but conveys important topological and categorical relationships (road type; major/minor road, unpaved)



USGS Digital Orthophoto Quadrangles (DOQ)

Orthophotos - corrected for distortions due to camera tilt, terrain displacement, and other factors.
Nationwide availability (nearly)



USGS Digital Orthophoto Quadrangles (DOQ)

As most features larger than 1 meter are visible these images are the basis of many types of analysis and other data layers, for example:

> Establishing ground control points. Creating or updating roads data layers Vegetation data layers Time series analysis (temporal changes such as urban expansion)





National Wetlands Inventory (NWI)Maps depict wetlands as interpreted from photos
taken on a single (usually Spring or Summer) date.Photo-interpreted, surface water and wetland
vegetation are keys to identification.Ephemeral wetlands (e.g., floodplain forests, vernal
pools) and those with sub-surface water tables
often missed, particularly if vegetation structure
similar (e.g., "fresh" meadows).

National Wetlands Inventory (NWI)

Typical minimum mapping unit (MMU) are between .5 and 2 hectares (vary by vegetation, source, region, etc.)

NWI depict wetland by type with a hierarchical classification scheme with modifiers

























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	1	MUSYN	MUID	MUNAME	MUA						
	2	TeE	693TeE	TALLAC VERY STONY COARSE SANDY LOAM, 15 TO 30 PERCENT SLOPES							
	3	Rx	693Rx	ROCK OUTCROP AND RUBBLE LAND							
	4	Rx	693Rx	ROCK OUTCROP AND RUBBLE LAND							
	5	Mh	693Mh	MARSH							
	6	UmF	693UmF	JMPA VERY STONY SANDY LOAM, 30 TO 50 PERCENT SLOPES							
	7	Ev	693Ev	ELMIRA LOAMY COARSE SAND, WET VARIANT							
	8	Ra	693Ra	ROCK LAND							
	9	TeG	693TeG	TALLAC VERY STONY COARSE SANDY LOAM, 30 TO 60 PERCENT SLOPES							
	10	Rx	693Rx	ROCK OUTCROP AND RUBBLE LAND							
	11	Mh	693Mh	MARSH							
	12	MsE	693MsE	MEEKS VERY STONY LOAMY COARSE SAND, 15 TO 30 PERCENT SLOPES							
	13	TmE	693TmE	TALLAC GRAVELLY COARSE SANDY LOAM, SHALLOW VARIANT, 9 TO 30 PE							
	14	TmF	693TmF	TALLAC GRAVELLY COARSE SANDY LOAM, SHALLOW VARIANT, 30 TO 50 P	8						
	15	Rx	693Rx	ROCK OUTCROP AND RUBBLE LAND							
	16	MsG	693MsG	MEEKS VERY STONY LOAMY COARSE SAND, 30 TO 60 PERCENT SLOPES							
	17	Ev	693Ev	ELMIRA LOAMY COARSE SAND, WET VARIANT							
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	1038	963	947	950	999	1021	1011	1015	995	1044	870	773	734	703	676	684	
Raster	1142	1005	1151	1044	1117	1056	1007	1002	902	954	935	913	789	756	724	700	
Grid	1116	1114	1270	1165	1097	1025	922	917	821	829	860	838	807	810	758	760	
	1275	1170	1295	1114	1009	942	953	847	835	729	738	797	723	718	694	670	
Cells	1441	1263	1196	1055	913	869	829	771	736	765	766	688	694	676	684	698	
contain	1348	1200	1056	969	948	951	940	867	818	863	784	732	704	733	776	804	
elevation	1377	1238	1122	1019	1089	950	956	896	950	800	760	698	779	867	896	744	
values	1489	1320	1188	1152	1050	942	822	952	815	841	721	780	852	928	845	738	
	1432	1415	1196	1100	1001	974	924	911	914	756	809	861	898	830	746	710	
Streams	1412	1474	1240	1100	1001	982	873	835	829	853	931	937	845	706	685	680	
show	1493	1368	1201	1090	1064	970	902	902	958	952	1015	841	782	803	786	711	
vallev	1437	1407	1188	1145	1070	1107	982	1047	1077	1052	954	884	944	940	828	771	
locations	1349	1369	1267	1247	1194	1196	1077	1214	1145	999	906	894	1024	1046	923	862	







TIGER/Census data come in two parts:

•Line files, depicting county, state, census tract, or other areas or boundaries

•Data files, containing attributes on population, age, income, race, housing, or other important variables for the areas

TIGER Line files contain data on:

Line features, e.g., roads, railroads, hydrography

Landmark features, e.g., schools (point), churches (point), parks (Polygon)

Polygon features, e.g., counties, census tracts Points, lines, and polygons in TIGER/line files are identified and indexed via a complex but well-defined set of codes.

Records contain information about features, plus <u>indices</u> to other records

Various <u>types of records</u> are used to specify feature properties

TIGER/Census data are used to define polygons, and summary attributes for those polygons. Census data may be summarized at several nested levels:

•State

- Counties
- Tracts
- Block groups

•Or, Census data may also be summarized by Congressional districts

•FIPS zones (Federal Information Processing Standard zones)

Only a partial list today. There are also: Floodplain data (FEMA) Federal managed lands (e.g., USFS, BLM) State road networks through DOT EPA watershed boundary and river reach data National Aerial Imagery Program (NAIP) Data sources for Mississippi: MARIS, NOAA CSC Marine GIS https://library.stanford.edu/hopkins/research-help/gis-resources-marine-sciences