

Geospatial Vector Formats

During the [ESCO session](#) at the 2015 Summer ESIP meetings, we discussed Geospatial Vector Formats. The general feeling after the discussion was that there is no specific "best" format. We agreed to host a discussion page where people can follow up on some of the material presented.

Format	Standards body	ESO Standard	Reference link(s)	Notes
Arc-Info .E00			http://www.digitalpreservation.gov/formats/fdd/fdd000291.shtml	
DLG	SDTS		https://lta.cr.usgs.gov/Guides/usgs_dlg.html	
DWG			https://en.wikipedia.org/wiki/dwg	
DXF			http://www.autodesk.com/techpubs/autocad/acad2000/dxf/	
ESRI File Geodatabase			http://www.esri.com/apps/products/download/#File_Geodatabase_API_1.4	
GeoCSV			http://giswiki.hsr.ch/GeoCSV	Could be interesting to ESDSWG ASCII WG
GeoJSON	IETF		https://tools.ietf.org/html/rfc7946	Good transfer format, maybe not good archival format
GeoPackage	OGC 12-128r11		http://www.geopackage.org/	Archival format?
GeoRSS	OGC 06-050r3 (white paper)		http://www.georss.org/	Specialized for Atom/RSS results
GML	OGC 07-036		http://www.opengeospatial.org/standards/gml	Have to develop profile or use one that's already been developed.
HDF	yes (HDF-5, HDF EOS 5)		https://earthdata.nasa.gov/standards/hdf5	Mostly used for gridded data.
KML	OGC 07-147r2	yes	http://www.opengeospatial.org/standards/kml	OK for visualization, pretty limited set of clients
netCDF	OGC 10-090r3 / ESO	yes (classic and 4)	http://www.opengeospatial.org/standards/netcdf https://earthdata.nasa.gov/standards/netcdf-4hdf5-file-format	Mostly used for gridded data
Shapefile			https://www.esri.com/library/whitepapers/pdfs/shapefile.pdf	Originally a proprietary format, now it's published. Used in Esri software.
TopoJSON			https://github.com/mbostock/topojson	Adds topology to GeoJSON, makes smaller files for data that has large multi-point geometries
Interesting transfer format for bigger data sets	OGC 06-103r4		http://www.opengeospatial.org/standards/sfa	Useful as component of others
OSM (OpenStreetMap)			http://wiki.openstreetmap.org/wiki/OSM_file_formats	Possibly useful for certain kinds of vector data.