# Commonly Used Spatial File Formats

*The top four formats are the most widely used and easiest to bring into web mapping applications.*

<table>
<tr><td>Shapefile</td><td colspan="2">The shapefile format is a format for storing geographic and associated attribute information. A 'shapefile' consists of a collection of files with a common filename prefix, stored in the same directory. There are three mandatory files and up to 13 other files. All of these files need to be included when sending a shapefile.<br>Mandatory files<br>• .shp — shape format; the feature geometry itself<br>• .shx — shape index format; a positional index to allow seeking forwards and backwards<br>• .dbf — attribute format; columnar attributes for each shape, in dBase IV format<br>Other common files<br>• .prj — projection description; text representation of coordinate reference systems<br>• .sbn and .sbx — a spatial index of the features<br>• .shp.xml — geospatial metadata in XML format, such as ISO 19115 or other XML schema<br>• .cpg — used to specify the code page (only for .dbf) for identifying the character encoding<br><br>A Sample Shapefile looks like this:<br>ApplicationArea.shp, ApplicationArea.dbf, ApplicationArea.shx</td></tr>
<tr><td>Geomark</td><td colspan="2">A Geomark is a URL that contains spatial information. It needs to be converted into one of the commonly used spatial file formats before you can visually look at it. The benefit of using a Geomark is that it is easily convertible into various other spatial formats. See the geomark web service for more information and tutorials. The Geomark expires after 90 days unless uploaded into a natural resource online application.<br><br>A Sample geomark looks like this:<br>http://apps.gov.bc.ca/pub/geomark/geomarks/gm-abcdefghijklmnopqrstuvwxyz0000bc</td></tr>
<tr><td>KML</td><td>Keyhole Markup Language (KML) allows for geographic annotation and visualization. You can create a KML in a number of different web mapping applications, including Google Earth. If you have Google Earth on your computer, you can open a KML file just by clicking on the file – if you want to view it in another mapping application, you will need to import it.</td><td>A Sample looks like this:<br>  <br>ApplicationArea.kml</td></tr>
<tr><td>KMZ</td><td>A compressed or zipped version of the KML file. A KMZ does not need to be unzipped in order to view it – you can click on the KMZ file and it will open automatically in Google Earth.</td><td>A Sample looks like this:<br>  <br>ApplicationArea.kmz</td></tr>
<tr><td>GeoJSON</td><td>GeoJSON is an open standard format for representing simple geographical features, along with their attributes.</td><td>A Sample looks like this:<br>  <br>ApplicationArea.geojson</td></tr>
<tr><td>WKT</td><td colspan="2">Well-known text (WKT) is a text markup language for representing spatial geometry. This needs to be imported into a mapping application in order to view it spatially.</td></tr>
<tr><td>XML/GML</td><td colspan="2">Geography Markup Language (GML) is used to show geographical features in Extensible Markup Language (XML) grammar. This also needs to be imported into a mapping application to view it spatially.</td></tr>
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