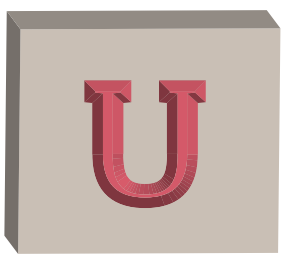
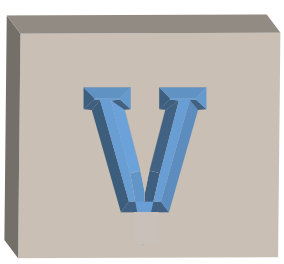
The ABCs of GISc: From U to Z



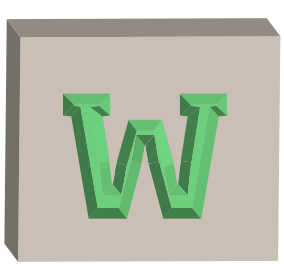
URBAN VECTOR MAP (UVMAP)

GISc is useful in nearly all settings. In rural areas, farmers can utilize the technologies to plan their crops and allocate supplies. In urban areas, professionals can apply an urban vector map (UVMap), which is a map used to layer data in cities with large populations. This can help industries of all sorts better understand human behavior and usage patterns, which can then be applied to improve living standards.[1]



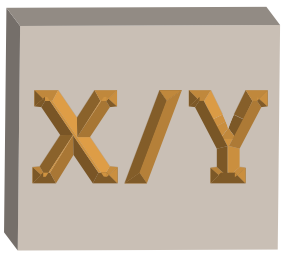
VECTOR

Unlike a raster system which utilizes a grid to hold information, vectors use precise points that are connected by vector lines to store and represent features as unique shapes (rather than aligned to a grid) on a map.[2]



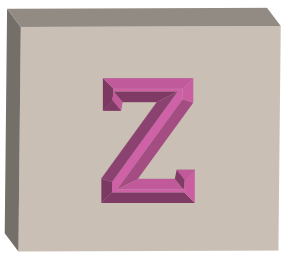
WIDE AREA AUGMENTATION SYSTEM (WAAS)

Commonly used to aid the aviation industry, this is a system of satellites set in place to improve the ability of GPS, as well as calculate and correct any errors. The result is safer and more accurate air travel.[3]



X,Y COORDINATES

To read a map, you first must know its basic rules and functions. X coordinates run horizontally from zero on a grid, and y coordinates run vertically. Combining these distances allows you to accurately place features and points on a map.[4]



ZONING

Understanding the specific rules surrounding land use is important in geographic information science. Zoning defines how a given piece of land can be used—by what types of industries and for what purpose. GISc professionals are at the center of this conversation, as the data they collect and tools they create can help determine how an area is zoned.[5]

1. Retrieved on September 28, 2017, from support.esri.com/en/other-resources/gis-dictionary/term/uvmap
2. Retrieved on September 28, 2017, from gisgeography.com/spatial-data-types-vector-raster/
3. Retrieved on September 28, 2017, from www.faa.gov/about/office_org/headquarters_offices/ato/service_units/echops/navservices/gnss/waas/
4. Retrieved on September 28, 2017, from support.esri.com/en/other-resources/gis-dictionary/term/x,y%20coordinates
5. Retrieved on September 28, 2017, from support.esri.com/en/other-resources/gis-dictionary/term/zoning