

GeoWAX.Net (Geographic Weather and Avalanche eXplorer), an Extension to ArcGIS 9.2

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GeoWAX (Geographic Weather and Avalanche eXplorer), which was presented at ISSW 2002, was developed as stand alone software written in Visual Basic 6.0. With the rapid growth in software development, this program is no longer compatible with current Geographic Information System (GIS) software. A new version has been developed using Visual Basic.Net to create an extension to ESRI's ArcGIS 9.2. Extensions provide additional functionality to ArcGIS and can be either commercially developed, such as Spatial Analyst, or privately developed. GeoWAX.Net is such an example. This program will allow GIS users to integrate historic weather and avalanche data into a GIS representation of avalanche paths. Functionality includes: 1) Automatic mapping of avalanche events on a given day or set of days. 2) Nearest neighbor search of weather data and mapping of resulting avalanche events or probabilities. 3) Summary of spatial attributes of avalanches, such as elevation, slope, aspect, etc. This software will be freely available to ArcGIS users. Users need three sets of data: a table of historic weather data, a table of historic avalanche activity, and a set of GIS shape files representing the slide paths where the avalanches occurred.