

Web-based Planning and Location Decision Support Tool

DecisionTree® is a set of innovative web-based geographic decision-making tools that enable business owners, citizen or government agencies to weigh multiple geographic factors and generate a map that highlights optimal locations for their activities.

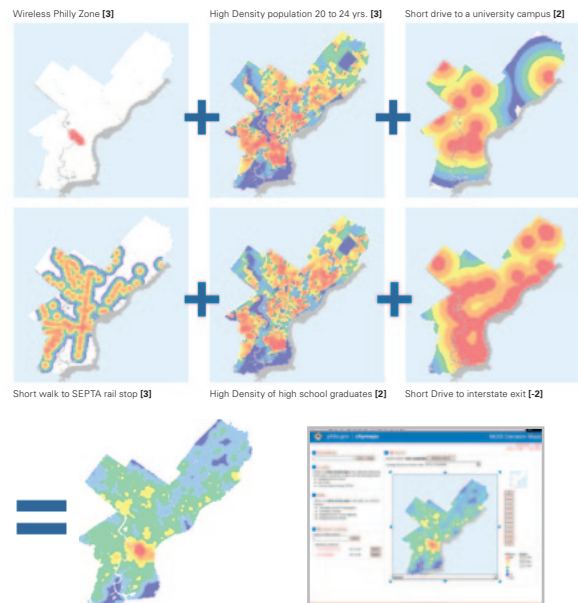
DecisionTree enables a user to define a set of criteria (such as proximity to public transit stops, demographics or proximity to interstate exits), prioritize each criterion and then generate a map of locations that best satisfy the selected criteria. Organizations can visually assess the impact of geographic factors on the 'siting' of a business, geographic prioritization of resources or risk assessment.

DecisionTree is ideal for:

- Organizations, of all sizes that have extensive repositories that need to be accessed by the public and/or staff members located anywhere in the world.
- Decisions that are geographic in nature and require the combination of multiple criteria of differing levels of importance.
- Organizations include: economic development organizations, municipalities, public health agencies, political campaigns, real estate companies, and environmental agencies.

Enable interactive, data-driven analysis for location prioritization:

- **Interactive Criteria Weighting:** Prioritize locations by assigning weights to the criteria of significance to them. Weights can be set manually by moving a slider bar or by typing a number between -5 and 5.
- **View individual or aggregated search results:** Users can view not only the map of hotspots based on the combined criteria but also the results for each individual criterion included in the search.
- **Save analysis scenarios to your account:** Determine criteria weights, then save them to users' accounts for future retrieval.



- **Find and display specific location on the map:** Specific addresses can be input for display alongside the calculation results.
- **Bookmark map views:** Save map views to facilitate easy viewing of areas of particular interest.
- **Link to additional resources:** Supports 'smartlinks' which connect to additional resources based on a selected map location.

- **Customize map display:** Users have considerable control over the final map display including several choices for color ramps, adjustable transparency of the prioritization layer, and the ability to turn off or on additional resource map layers.
- **Calculation Masks:** Limits calculations to specific areas such as tax incentive areas, a particular municipality or other zones.

DecisionTree is fully customizable to meet your needs. Manage, analyze, and publish your data the way you want:

- **Flexible Administrator interface:** Accessible by authorized users only, the administrative tools enable easy loading, editing, and categorization of decision factors and cartographic layers, creation of analysis scenarios, and user account management.
- **DecisionTree toolbox:** Leverage the ArcGIS Geoprocessing Toolbox to enable easy generation of raster layers for inclusion in DecisionTree. These tools support several types of calculation (see right).
- **Administrative reports to serve your marketing needs:** Authorized users can generate reports on site and search activity, user accounts, and user behavior/search patterns.
- **Your data, your brand, your goals:** DecisionTree can be adapted to any site prioritization needs. Its graphical interface can also be tailored to suit an organization's unique branding.

DecisionTree toolbox:

Feature Density—calculates the density of features per square mile. Example: calculate the density of roads or crime incidents.

Feature In-Out—assigns values to features whether they are inside a defined polygon or outside of that polygon. Example: create a business promotion area or special services district.

Feature Value—reclassifies values in a range of 1 to 100 based upon the source features values. Example: look at per capita income or population distribution.

Proximity Tools—calculates the degree of proximity to a set of features. There are three different tools that will generate decision factors for Short Drive to features, Walking Distance to features and being next to them.

Reclassification—groups or reclassifies an existing data set into a data range that can be used in DecisionTree. Four tools are available including: Equal Interval, Quantile, Defined Interval and Geometrical Interval.

Case Study: Priority Places

<http://gis.ashevilenc.gov/mapAsheville/priorityplaces>

- Used to support economic development within the city
- Decision factors include zoning, transportation access, amenities, and tax incentive zones
- 'Smartlinks' connect to other city mapping and development resources
- Leverages ESRI's Business Analyst Online to generate demographic and economic reports for any selected location

System Requirements

- Uses ESRI ArcGIS Server, ArcIMS, and other WMS-compliant mapping engines
- Uses address geocoding services made available by ArcGIS Server, ArcIMS, ArcGIS.com, and other geocoding API's
- Supports geographic data stored as either shapefiles or ESRI ArcSDE
- Supports connection to ESRI's Business Analyst Online API