

EAI SmartFootprint for ArcGIS: Routing, Site Selection, Cost Estimation & Risk Management Tools for Energy



EAI SmartFootprint™ for ArcGIS Server and ArcGIS Desktop (“SmartFootprint”) is an integrated suite of hierarchical geoprocessing services developed to maximize efficiency minimize costs, limit scheduling conflicts, and reduce ecological impacts associated with planning, permitting, and constructing energy infrastructure.

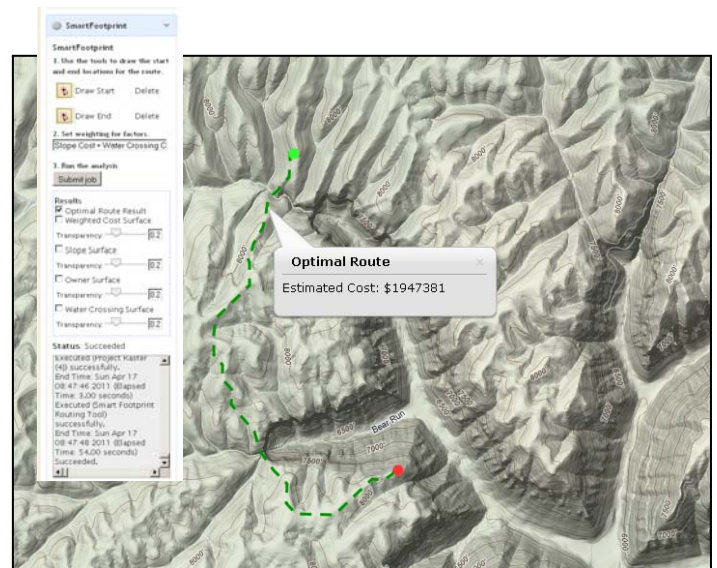
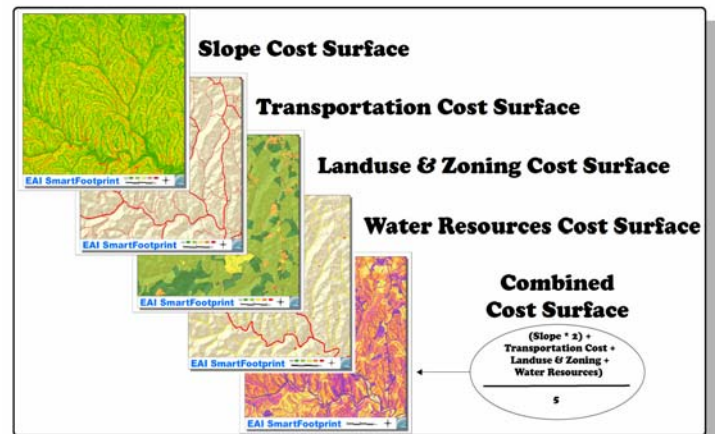
Transforming Data into a Problem-Solving Tool:

SmartFootprint begins with the generation of raster cost surfaces (heat maps) for a host of geographic variables including slope, stream crossings, and lease/parcel cost. These cost surface rasters are comprised of cells assigned ordinal values of relative permitting, compliance and construction costs or constraints.

Cell values—representing proxies of “cost”—range from 0 to 5, where 0 is indicative of relatively low construction costs and 5 indicates relatively high construction costs.

The second stage of SmartFootprint entails the weighted overlay of the cost surfaces for all the variables under consideration with an exposed parameter allowing for adjustment of the relative importance (weight; percentage) of each cost surface (e.g. slope twice as important as stream crossings). As a result SmartFootprint allows the user to:

- Translate disparate input data values into a uniform ranking system, facilitating comparisons of analysis or prioritization criteria across all variables.
- Generate a least-cost path between a selected pipeline start and pipeline end point.
- Obtain an estimate of the actual cost in dollars of the proposed pipeline route using a pipeline cost estimation algorithm based on user defined input parameters.



Check out the web demo at www.earthanalytic.com/smartfootprint

Earth Analytic, Inc. Santa Fe, New Mexico 505-349-0407

Earth Analytic, Inc. (EAI) has over 20 years of experience in the design, implementation, use and management of geographic information systems for natural and cultural resource projects. We provide a broad spectrum of mapping, geospatial analysis, archaeological consulting, and environmental services for Energy companies, scientists, planners, land managers, conservation groups, utility companies, governmental agencies, and many others.