

Boundary Mapping

Path tracking is one of the most useful functions when it comes to agriculture and natural resource management. For example, one of the primary operations when dealing with precision agriculture is to create a field boundary. In this activity boundary points of a field are collected and imported to ArcGIS software for analysis.

Helper's Guide

How to Prepare

Work your way through this activity before working with explorers. This activity uses ESRI ArcMap and ArcCatalog software. Use ArcMap to view the downloaded track and edit its attributes. Use ArcCatalog to create shapefiles (point, line, polygon) and specify the attribute fields. You're strongly advised to close ArcCatalog once the attribute fields are created.

Note: You will not be able to add fields in ArcCatalog when you're using the editing toolbar in ArcMap. It's better to use only one software application at a time.

To find the area of the footprint of your school building, path track around the school building. Download your track using DNR Garmin software and view in ArcMap. Delete any erroneous points. Create a new polygon shapefile using ArcCatalog and find its area using the Measure Tool.

Need to Emphasize

- Recorded tracks could be downloaded as points, lines or polygons from the GPS receiver.
- Polygon representation of any given area is a powerful tool in landscape management.
- GPS receivers can help define boundary of a targeted area.

Related Links

- http://soa.utexas.edu/crp/gis/arcgis_tips/new_shape_file.html

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