Tree Data Collection App
Muncie Urban Forestry

Garrett Fuelling, Clara Neurauter, Lucas Spurgeon

Statement of Purpose

The purpose of the Muncie Urban Forestry project is to improve the current method of inventorying the city's trees by creating a more user-friendly and editable map in Collector that includes all desired data. The current map used makes it difficult to select a specific tree point due to sizing issues, the ash tree layer is not separate from the rest of the trees, streets and addresses are not labelled, and there is no way to add photos that correspond with the data.

Data

The Muncie Tree Inventory data was received from Dr. Berland. All other data, i.e streets, parcels, public right of way, etc. were obtained from the university's GIS library server.

Goals

- The interface should show these features: tree points, parcels, PROW, & streets.
- Separate the ash trees from the rest of the trees.
- Make the tree points bigger when the user zooms in for enhanced user ease of use.
- Label the addresses and the streets, but only have the labels show when the view is zoomed in a sufficient amount
- Add photo attachments to the point data
- The date should automatically update when an edit is made. Sometimes she forgets to update it, and it's a hassle that an automatic timestamp could eliminate.
- Collect diameter at breast height (DBH) to the nearest inch. It was stored as a range of inches.
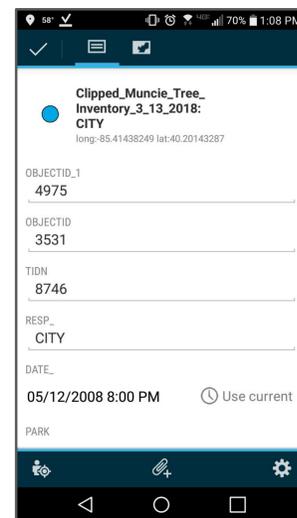
ArcGIS Online

Legend
Muncie_Tree_Inventory

Muncie_Ash_Tree_Inventory

White_Labels
Clipped_AddressPointsMaster

Clipped_StreetsMaster

Clipped_RightOfWay

Clipped_parcel_poly

Collector

Methodology

1. Set up an Arc Online group
2. Data Preprocessing
   a. Clipped data to the extent of Muncie bounds to reduce file size and processing time.
   b. Publish features to ArcGis Online
3. Create a tile package in order to preserve labelling and scale reference created on ArcGIS Desktop
4. Make Symbology Edits in ArcGis Online
5. I-Tree Analysis

Obstacles

- Importing ArcGis Desktop settings into ArcGIS Online
- Realizing that ArcGIS Online has much of the functionality that we were looking for.
- Preserving symbology and scale references
- i-Tree Format

I-Tree

- Trees that are in urban areas are important because they absorb the pollution and help with cooling.
- The i-tree streets generated reports that showed the benefits of the trees that are in Muncie
- The reports showed benefits of CO_2, water, and energy

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