Collector for ArcGIS: Using Relationships with your Inspection Workflows

Morgan Zhang
Kevin Burke
What we will cover today

- Relationship overview
- Demo of feature to feature relationships
- Demo of feature to table relationships
- Additional tips
- Q&A

Note: using Collector (The Aurora Project)
Relationship Overview – Part 1

• Cardinality
  - 1 to 1 – ex. Parcel related to its legal description, etc.
  - 1 to m – ex. Asset inspections, single owner with many parcels, etc.
  - M to m – ex. Property has several owners, owners have several properties
  *Note – m to m is not supported in Collector

• Types
  - Simple – Parent and child records independent
  - Composite – Parent and child records feature linked
Relationship Overview – Part 2

• Setups
  - Basic – ex. Parent > Child
  - Nested tables – ex. Parent > Child > Grandchild 1 > ……
  - Multiple tables – Parent > Child 1
    > Child 2
    > ……

Pairings
  - Feature – to - Feature
  - Feature – To – Table

*Note – In Collector, the primary origin layer is always a feature, not a table
Relationship Overview – Part 3

- Setting up primary and foreign key fields
  - GlobalID (parent) -> GUID (child)
  - User defined ID (parent) -> User defined ID (child)

Note: ObjectID based isn’t supported.
Field inspections setup - How to choose? (Part 1)

• **Cardinality**
  - Will multiple inspections occur for the asset throughout its life?
  - Do I want/need to maintain an audit trail for past inspections?

• **Types**
  - Do I want to maintain past inspection records in the event the asset feature were removed/replaced?

• **Setups**
  - What type of inspection am I performing?
  - How many tables do I require to properly inspect the desired asset?
  - Is the asset itself being inspected or some other related component of it?
Field inspections setup - How to choose? (Part 2)

• Pairings
  - Can the location of the inspection record be derived from the main parent features location?

• PK/FK fields
  - Should I manage keys or system manage keys?
Demo
Railroad Inspections

Railroad (Line Feature)

1: M
GlobalID based

Railroad inspection (Point Feature)
Demo 1 Recap

• Relationship setup
  - Feature to Feature relationship
  - Composite
  - GlobalID based

• Collector Aurora
  - Editing UX improvement
  - Compass mode
Demo 2 Recap

- **Relationship**
  - Feature to table relationship
  - User defined ID based
  - Sort options

- Join view to show inspected or not (can’t taken offline)
- Refresh interval
- Feature search with barcode
- Disabled editing on parent feature
Tips:

• Make sure to include all related tables in your map document before you publish as a feature service.

• Where possible use GlobalID fields to model relationships and enforce referential integrity

• When authoring your web map, make sure to enable pop-ups on the related tables and spend the time to rename layers and configure the title, sort options and fields.
Q & A
ArcGIS in a Limited Bandwidth Environment
1:00 pm – 2:00 pm, SDCC Room 33 C

Collector for ArcGIS: Working with High Accuracy Data
4:00 pm – 5:00 pm, SDCC Ballroom 6 D

Friday July 13

ArcGIS Apps for the Field: An Introduction
9:00 am – 10:00 am, SDCC Ballroom 6 F
Download the Esri Events app and find your event.

Select the session you attended.

Scroll down to find the feedback section.

Complete answers and select “Submit.”