Hello-

The NG911 tools were written to help counties and their selected vendors to build good data. The tools included can either act as a simple general check of the “biggies” for the data, or users can utilize additional enhancement tools to try to put together the neatest, cleanest data they possibly can. Additional documentation for each toolset can be found in the “Docs” folder.

**What to Do With the Folders/Documents/Scripts/Tools**

Please leave everything together in the folder as it was when you unzipped it. If you get a tool update, just replace everything. That is the cleanest approach.

**Basic Use of the Validation Tools**

The tools in the Validation toolset were written to review the NG911 geodatabase data as a baseline for submission to the NG911 project.

To run these tools, open the toolbox and toolset in ArcCatalog, and run the tools numbered 1 through 5.

* 1 Check Template
* 2 Check Address Points
* 3 Check Roads
* 4 Check Emergency Services Boundaries
* 5 Check Administrative Boundaries

These basic tools make sure the data meets the baseline standard set in the NG911 template. Each tool has a list of data checks to run, and all of the checks should be run. If you are using the NG911 Template 1.0, be sure to check the appropriate box on all the tools.

**Looking at the Results**

The interactive window gives a few details about data feedback. All results will be displayed in one of two tables added to the NG911 geodatabase: TemplateCheckResults & FieldValuesCheckResults. Several other tables and feature classes may get added to the geodatabase as well including GeocodeTable (addresses to be geocoded) and gc\_test (results of the geocoding test). All these additional tables are not required for submission and can be deleted.

All data in FieldValuesCheckResults will have a FeatureID recorded. This ID number corresponds to the unique ID field (like SegID for roads) of a particular layer. Users can look up errors in multiple ways. One way is to bring the feature class and the FieldValuesCheckResults table into ArcMap and to do a join between the feature class unique ID field and the FeatureID field in FieldValuesCheckResults.

**Checking Data After Edits**

After editing any data, users can run whichever checks are needed to validate the data again. To clear out any extra/old data in the Results table, use tool “6 Optional Clear Results Table”. The checks skip data marked as exceptions or that shouldn’t be submitted, so please be sure to keep those attributes up to date.

**Tools to Make Life Easier**

Some tools are for making life easier and automating certain data creation tasks.

* Conversion Tools:
  + GDB to Shapefiles: Exports your entire NG911 data into shapefiles & DBFs
  + Upgrade to GDB 1.1 Template: Upgrades your entire NG911 1.0 geodatabase into a 1.1 geodatabase
  + Zip NG911 Geodatabase: Creates a zip file of your NG911 geodatabase to prepare it for submission to DASC
* Enhancement Tools:
  + Assign Unique Identifier: Auto-generates a unique ID for your data
  + Calculate Label: Calculates the “label” field in your address point file or road centerline file. It can either recalculate the whole layer or just update records you’ve recently added that are blank.
  + US National Grid Calculator: Adds national grid coordinates to data

**The Quest for Perfect Data**

For users wanting to check some of the nitty-gritty details like topology exception validation and road elevation, we’ve got plenty of tools to assist any Type A personalities in their journey for spotless data. Results will be added to the FieldValuesCheckResults table unless otherwise noted in the interactive window. Here are the tools designed to highlight some elusive data issues:

* Enhancement Tools:
  + Check Road Elevation Direction: Makes sure the ELEV\_F and ELEV\_T attributes correctly depict the elevation rise and fall of road segments.
  + Check TN List: Geocodes a list of telephone number addresses against the MSAG information in the NG911 Address Points and Road Centerlines. This tool requires a TN (telephone number) list. Directions for obtaining the TN list are found in the Downloading\_TN\_records\_from\_911IM document.
  + Find Address Range Overlaps: Finds areas where address ranges overlaps. Overlapping address ranges can negatively affect geocoding accuracy.
* Validation Tools:
  + 8 Optional Verify Topology Exceptions: Double check that all road centerline topology errors are noted as exceptions. Note: this tool will not work on NG911 1.0 template geodatabases.
  + 9 Optional Check ESN Attribute: Makes sure the address point ESN attribute corresponds correctly to the ESN area where the address point is physically located.

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