AVI Attribute Testing Tools

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In order to simplify the testing of AVI attribute rules, a set of tools have been developed to allow you to generate test records and run them against the AVI attribute quality control software. The tools use MS Excel to enable you to compile the AVI attribute records you wish to test. Excel makes it easier to view and enter field information.

When the tools are initially installed a new folder named ATT_TEST_DATA is created in the same folder where you have installed the tools. This folder will contain the XLSX files and FGDBs that are used for testing. When the folder is initially created an FGDB named TEST_TEMPLATE.gdb will be created as well as the file AVI_ATTRIBUTE_TEST.xlsx. These provide a starting point for creating your test datasets.
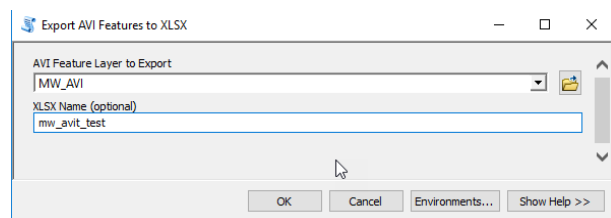
Quick Start

1. When the test tools are installed you will find a folder named ATT_TEST_DATA located in the same folder with the toolbox. With **Windows File Explorer** navigate to this folder.
2. In the ATT_TEST_DATA folder you will find an XLSX named AVI_ATTRIBUTE_TEST.xlsx. Open the Excel file.
3. The XLSX contains several worksheets. Open the **Blank Record** worksheet and copy row 2.
4. Open the TEST_REC worksheet and paste the row you just copied into a blank row.
5. Using the row you just pasted, generate an AVI record by filling in the appropriate columns and saving the workbook.
6. Perform a test using the **Run AVI QC Test** tool to run the record(s) through the AVI QC validation process. Just accept the default parameters for this tool. You do not need to enter anything.
7. When completed a popup window will display the results.

Export AVI Features to XLSX Tool

This tool allows you to export a selected set of AVI features to an XLSX. Each feature will be exported as a row in the XLS. You can then modify the XLS records to test rules enforced by the AVI QC tools. To run tool:

1. Open ArcMap and add an AVI feature class to the map.
2. Select the features you wish to export.
3. Open the **Export AVI Features to XLSX** tool and select the AVI layer in the drop down provided.

4. Optionally you can enter a name for the XLSX to create. If you leave it empty it will create an XLSX with the same name as the feature layer.

Then the tool is complete a pop-up window will be displayed indicating the path to the XLSX that was completed. If you are going to run the testing tool next, select this path and copy it to the clipboard. You can then paste it into the **XLSX Workbook Path** parameter in this tool when you run it.

Run AVI QC Test Tool

There are two ways that you can run this tool:

You can create your own XLSX by extracting a set of AVI attributes using the **Export AVI Features to XLSX Tool** documented in the previous section. Modify the contents of the XLSX to generate the AVI records you wish to test. Enter the path into the tool's **XLSX Test Workbook** parameter and run the tool (Note: leave the **Worksheet** parameter to TEST_REC). Once the QC is complete a text file will pop-up with the results. The text file is located in the ATT_TEST_DATA folder and is named the same as your XLSX.

The second method involves editing the TEST_REC worksheet found in AVI_ATTRIBUTE_TEST.xlsx that is located in ATT_TEST_DATA folder. Using this method you do not need to enter any tool parameters, just run with defaults.

Run FGDB Cleanup Tool

Each time the attribute QC testing tools is created a new FGDB is created using the template FGDB. The base name of the FGDB is ATT_TEST and a number is added to the end of the FGDB to make it unique. Eventually you may generate a substantial number of FGDBs. Run this tool to remove them. If there is no existing schema lock on the FGDB it will be deleted.

AVI Attribute XLSX Contents

This Excel workbook contains three worksheets that allow you to compile AVI attribute records for testing.

TEST_REC
This worksheet is meant to be used to test a single AVI attribute record. In this way you can isolate the record so you can focus on the specific attribute rules you wish to test.

ALL_RECS
This worksheet allows you to build up a series of attribute tests using multiple AVI records. Each row of the worksheet represents a single AVI record. This worksheet allows you to build up a series of tests that then can be used to retest the AVI QC software if changes are made.

Blank Record
This is simply a blank AVI record that has default values set for each AVI field. You can use this record as a template by copying it to the TEST_REC worksheet and editing it to compile the AVI record you wish to test.

NOTE: that each time you install a new version to the AVI audit tools the ATT_TEST_DATA folder and the AVI_ATTRIBUTE_TEST.xlsx will be overwritten. This means that if you have compiled your own version of AVI_ATTRIBUTE_TEST.xlsx you will lose your data. If you wish to keep your data copy the XLSX to some other location on your PC. You can run the tools using this version, or you can replace the install version after you have installed the new version of the audit tools.