GeoMedia

Data Integration and Validation

Attribute Validation
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Acknowledgments

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This Tutorial

Tutorial Objective
In addition to geometry and connectivity validation, incoming data can also be tested for mandatory attribution requirements. Attribute Validation enables the creation of attribute validation rules that can be executed against a warehouse connection that contains feature classes and attributes. The result is a validation queue of feature classes and attributes that failed during the validation of the rules. This tutorial serves as an introduction to the GeoMedia Attribute Validation tools.

Tutorial Data Set
The exercises outlined in this tutorial make use of vector data.

Tutorial Text Conventions
There are several conventions used throughout the tutorial:

- Ribbon bar items are shown as: On the Aaa tab, in the Bbb group, click Ccc.
- Dialog box names, field names, and button names are depicted using Bolded Text.
- Information to be entered, either by selecting from a list or by typing, is depicted using Italicized Text.

Tutorial Prerequisites
There are no prerequisites for making use of this tutorial; however, having a basic understanding of the GeoMedia Desktop will be helpful in expediting the execution of certain steps within this tutorial.
Section 1: Attribute Validation

Section Objective
This section will introduce you to GeoMedia Attribute Validation. Attribute Validation can be used for:

- Verifying mandatory attributes are present.
- Confirm attribute ranges are valid.
- Check compliance with governing specifications.

Tools Used
GeoMedia Professional Attribute Validation Tools.
Exercise 1: Attribute Validation

Objective:
Validate attribution to ensure data quality.

Task 1: Creating Attribute Validation Rules

Create attribute validation rules that can be executed against a warehouse connection that contains feature classes and attributes. The result is a validation queue of feature classes and attributes that failed during the validation of the rules, and/or a validation log file.

1. Open GeoWorkspace:
   C:\Fusion\Lessons\Lesson 3 Attribute Validation\Attribute Validation.gws

2. Select Toolbox > Attribute Validation > Attribute Rules.

3. The Manage Attribute Validation Rules dialog is displayed.

4. The following message will appear. Click Yes to create the Attribute Validation rules tables.

6. Select the **Add Rule Set**… button.

7. The **Add Rule Set** dialog will appear.

8. Type *CountyName* in the **Rule set name** field.

9. Click **OK** on the **Add Rule Set** dialog.

9. Select *BuncombeCounty* in the **Feature class connection** field.

10. Type *County* in the **Rules** frame **Rule Name** field.

11. Click the **Rules** frame **Feature Class Name** field and select *PoliticalBoundary*.

12. Click on the row 1 in the **Rules** frame.

13. The buttons on the bottom of the **Manage Attribute Validation Rules** dialog will activate.

14. Select the **Attribute Filter** button.
15. Construct the following SQL statement in the PoliticalBoundary-AttributeFilter dialog:

![PoliticalBoundary - Attribute Filter dialog](image)

16. Click Okay.
17. Click the Save button on the bottom of the Manage Attribute Validation Rules dialog.

18. The following message will be displayed:

![Message box](image)

Task 2: Attribute Validation

1. Select Toolbox > Attribute Validation > Validate Attributes.

2. The Validate Attributes dialog will appear.

3. Click the County entry in the Rules to apply: frame.

4. Select the Feature Selection tab.

5. Click the Connection: radio button.

6. Scroll through the Feature classes: field and check the Political Boundary entry.
7. Select the **Output** tab.

8. Leave the following settings as set by default.

9. Click the OK button on the **Validate Attributes** dialog.

10. The *AttributeValidation.log* file is generated and the processing results are displayed.

    
    **Rule Names:** County  
    **Feature Selection:** Using connection: BuncombeCounty  
    **Feature classes selected:** PoliticalBoundary  
    **Spatial Filter Used:** No  
    **Output:**  
    Queue connection: rules_edgematch  
    Queue name: AttributeQueue  
    Log file: c:\warehouses\AttributeValidation.log  

    ************************************************************************
    **VALIDATION ERRORS:**
    Rule Name: County
Attribute Filter: COUNTY = ‘Buncombe’
Feature Class: PoliticalBoundary
Feature ID: 4
Queue Description:
Geometry MBR:
  Minimum X: 373224.070000017
  Minimum Y: 3950989.84
  Maximum X: 379290.890000016
  Maximum Y: 3956876.43259284
Attribute Values:

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>COUNTY</td>
<td>Madison</td>
</tr>
<tr>
<td>FEDERALLY_ADMIN</td>
<td></td>
</tr>
<tr>
<td>NATIONAL_FOREST</td>
<td></td>
</tr>
<tr>
<td>PHOTOREVISED</td>
<td></td>
</tr>
<tr>
<td>STATE</td>
<td>North Carolina</td>
</tr>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>DLGCode</td>
<td>ID1</td>
</tr>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>DLGCode</td>
<td>ID1</td>
</tr>
</tbody>
</table>

29. Close the AttributeValidation.log file and review the entries in the Queued Edit Map Window.

30. These entries are PoliticalBoundary features that failed the Validation check of County = Buncombe.
31. Edit the anomalies found.

```
  The values can be edited with Geomedia Professional Properties or by editing the value in the Data Window.
```

```
NOTE: Use the Queued Edit toolbar and Queued Edit Map Window to help identify the features to be edited.
```

32. Close the GeoWorkspace when done.