Introduction

Demonstrates how to generate Dynamic Labels by using the properties and rules with the Label Manager.

Software

- GeoMedia

Data

- Downtown Huntsville, AL

Transcript

0:09

Hello and thank you for watching this Hexagon Geospatial eTraining module: Creating Dynamic Labels with GeoMedia.

Dynamic Labels allow you to automatically generate labels using defined rules, attributes, and expression statements. These parameters are set by using the Label Manager. As you zoom and pan around your data, the dynamic labels are automatically redrawn to fit your data based on the properties defined.

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There are cases where dynamic labels can slow the display of your data. You can either modify the placement, number of rules, or turn off the dynamic labels to speed up the display.

Our focus today will be understating how to generate Dynamic Labels by using the Properties and Rules within the Label Manager.

1. Begin by selecting the **Labeling** tab from the GeoMedia Ribbon.This displays the tools used when working with and creating labels.

2. On the far left of the **Placement** group, open the **Label Manager**.

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The **Label Manager** allows me to select the feature classes to label and define their rules and properties.

3. In the **Label Manager**, click on **Parcels** to select this feature class.

4. Then, select **Properties** to open the **Properties** dialog.

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First, you will need to define the text used to create the label.

5. You can either use the Expression Builder OR select an attribute to use as the text.

6. In this case, select and attribute, **parcel_num**, to use as the label. This tells GeoMedia to use the parcel number as defined in the attribute table as the label for each parcel.

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In the **Style** section, you have the option to change the font.

7. Here, you will leave the default option. You can also change the size.

8. Make it a little larger so it's easier to see. You can see the preview generated on the right.

9. Once finished, click **OK**.

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Each feature class in the label manager has two columns with checkmarks available, **Label** and **Obstacle**. Obstacle contains acheckmark by default and tells the software to consider obstacles –such as other feature boundaries, other features, or text, when placing the labels.

10. By clicking the **Rule** button, you can define how labels are placed, including what happens when a label encounters and obstacle.

You'll see more about the Rules a bit later; in this case, leave the defaults.

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There is also a **Label** column. Checkmarks are added in the **Label** column to indicate which features will have labels.

11. In this first example, put the checkmark only in the **Parcel** column.

12. When everything is defined, click **OK** in the **Label Manager**.

13. To generate the labels, click on the **Toggle Dynamic** button in the **Placement** group on the **Label** tab. The labels are added to the viewer.

This first example has created only some of the labels you need, leaving many parcels without a label. Within the **Label Manager**, we defined the label attribute, the font size, and told the software to consider obstacles. By leaving the default rules, we have also defined horizontal placement. With these parameters, most of our labels do not meet the requirements to be placed in the map view and are therefore not drawn in the map window.

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Let's go back into the label manager and modify the Rules.

14. First, make sure **Parcels** is selected in the list.

15. Clicking on the **Rules** button opens the **Rules Properties**.

This dialog will look different when working with point, line, or polygon features. Here we see the rules that can be defined for polygon features.

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The section on the left defines where the label is placed.

16. Turn off the **Place Horizontal** option and select **Place at Dominant Angle**.

This tells the software to find the widest point on the feature and place the label along that line. There are other options in this section with examples to the right. You can make a selection based on your map criteria.

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On the lower left, you have the option to allow stacking of the label text. You can also define how many lines of stacking are allowed.

17. On the upper right, you can **Allow Font Reduction** and define how many steps of reduction are ok. This allows the text to become smaller when it does not fit based on the other defined rules.

18. Turn this option on and set the number of steps to **3**.

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Below this, you can allow labels to cross lines, or apply Leader Lines and choose the leader line style. This is useful in cases where a feature is very small and a label would not otherwise be placed for that feature.

19. Add a checkmark to this option. Finally, you have the option to **Allow Overlapping Labels**.

20. When you have defined all the rules that you need, you can click **Create** and **OK** to the Label Manager.

Because the **Toggle Dynamic** button is already active, the labels are added to the map window. This time, we see most parcels have labels and if you look closely, leader lines have been added when needed.

21. Open the **Label manager** again, remove the checkmark from obstacles and click **OK**.

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Now, all parcels in the map window are given a label.

22. Reset your map view and remove the parcel feature class to get a better look at placing line labels.

23. From the label manager, select **street_centers** and open the **Properties**.

24. Select **sfeanme** as the text attribute – this will apply the street name as the label.

25. Set the font size and then can click **OK**.

26. Apply the checkmark in the **street_centers** label column and click **OK** to the Label Manager.

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Again, you have used the default line rules to place the labels. Now you will go in and modify them.

27. With **street_centers** highlighted in the list, select **Rules**.

The **Rule Properties** now contain line label rules. Many are similar to the polygon rules, but more specific to a linear feature. On the left you can specify where along the line the label will be applied and if it will be above, below, or split above and below the line feature. You can also decide how the label is applied when a feature is joined with another.

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In the middle column we have rules to allow stacking and to define the spacing of words and repeat labels.

28. Turn on the **Font Reduction** and set it to **3** steps as we did before.

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On the right, we have the ability to allow labels to cross lines, use leader lines, and allow for overlapping labels.

29. When you are done setting your preferences, click **Create** in the **Rule Properties** and **OK** in the **Label Manager**.

The labels are added and we now see the street name applied to each street. Now you will use the Label Manager Properties to build an expression to add the street type to the street name.

30. Next to text, click **Expression**.

In the **Expression Builder** you can see that the street name attribute is already being used.

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You can now use this tool to add to this expression and include the street type attribute.

31. If the expression is correct, the red exclamation point will not be seen and you can click **OK**.

32. Click **OK** to each dialog box to load the new labels.

33. Finally, add a new point feature class and see how to add point labels.

34. Using the legend tool on the **Home** tab, add **Restaurants** to the map window.

35. Return to the **Label Manager** and highlight **Restaurants**. The label will come from the Address attribute and you'll increase the font size.

36. Place a checkmark in the **Restaurant** label column and open the Rules.

Again stacking, font reduction, crossing lines, leader lines, and overlapping labels are preferences for point labels.

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On the left, we have the ability to define a placement order preference around the point feature.

37. A default pattern has been defined, but you can clear the default by clicking **Clear All**. Clicking on the predefined positions allows you to define the preferred placement order.

38. When you are happy with the settings, again click **Create** and **OK** to the **Label Manager** and the labels are updated.

When needed, you have the option remove all labels by turning off the **Toggle Dynamic** button on the **Labeling** tab. This clears all labels from the map window.

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Thank you for watching this Hexagon Geospatial eTraining module on Dynamic Labels. For more eTraining visit our customer support site, login and follow the link on the right to eTraining.