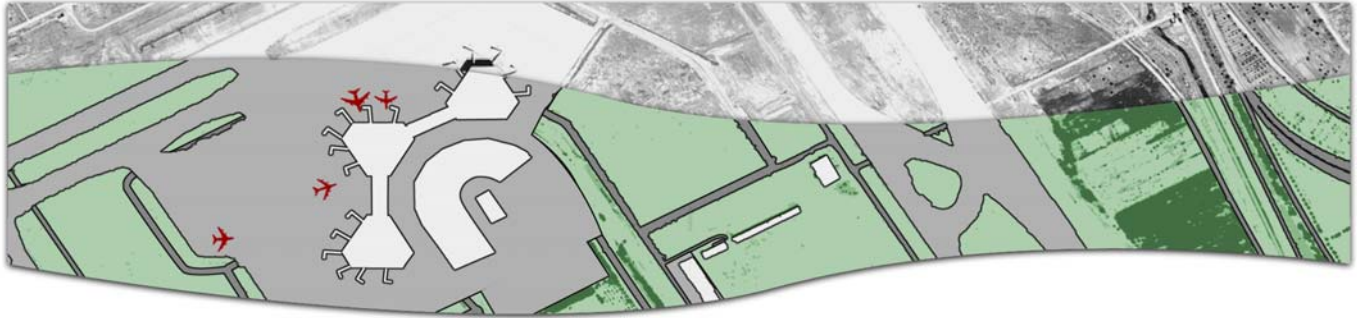


# Feature Analyst® QuickStart GUIDE



## 4.2 for ArcGIS

### ADD MISSED FEATURES

If your initial results or cleanup results are good, with very little clutter, but some of the target features are missing, you can provide the Feature Analyst Learner with a sampling of those missed features to further improve the results. The Add-Missed Hierarchical Learning pass is used to refine results that are already good. It will not correct poor results with a large amount of clutter caused by a poor training set or incorrect learning parameters. When you run an add-missed learning pass, Feature Analyst runs a new single class extraction on the image while excluding the earlier results layer. This allows you to preserve earlier results while extracting missed features. Review the following advantages and disadvantages of running an add missed features learning pass:

ADVANTAGES	DISADVANTAGES
Avoids having to repeatedly modify the original training set	Repeated Add-Missed or clutter removal passes produce a complicated AFE model.
Allows you to focus on the portion of the image where the missed features are located	Complicated AFE models (comprising more than 5 clutter-removal passes) produce less consistent results when using batching or Feature Modeler.
Quicker processing times since you are excluding a portion of the image	
Allows Feature Analyst to be more accurate in picking the background class, since the target features are a lower percentage of the masked image	

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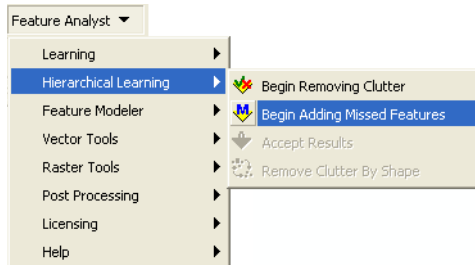
*We put the Information in GIS*



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## Begin the Add-Missed Process

- 1 Highlight the **result feature class** in the table of contents.
- 2 Choose **Feature Analyst** on the toolbar, choose **Hierarchical Learning** on the drop-down menu, and then choose **Begin Adding Missed Features**.



*The Save Feature As dialog box opens.*

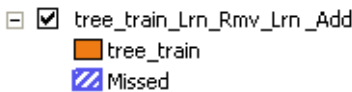
*By default, Feature Analyst names the file in the Name field using the last file name, the process (in this case Add, for Add Missed Features), and incremental numbering.*

- 3 Accept the **default file name** and **file location**.


**-or-**

Provide a **new name** and **location** for the file and choose **Save**.

*The add missed features layer appears in the table of contents and displays in the workspace.*



*The new layer is split into two classes, Accepted (in this case tree\_train) and Missed.*

*The Digitize Missed Features  tool on the Feature Analyst toolbar becomes available.*

## Digitize Missed Features


- 1 Start ArcMap editing and verify that the correct layer displays in the Target field.

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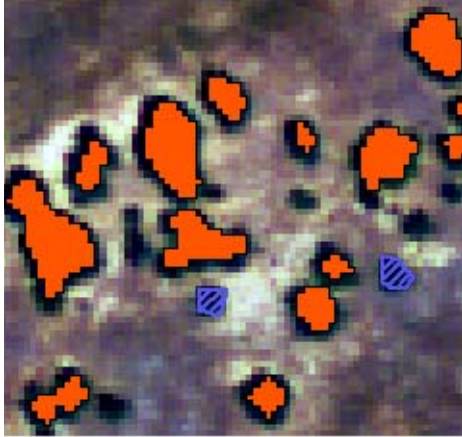
**Note:** The ArcMap sketch tool cannot be used to digitize missed features.

---

- 2 Select the **Digitize Missed Features**  tool.

*The pointer changes to a crosshair  when you move over the image in the workspaceView.*

- 3 Identify and then digitize a sampling of the features missed in the previous extraction passes.



- 4 Save your edits and then stop the editing session.

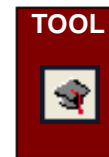
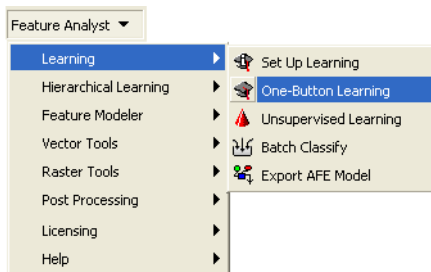
## Run the Add-Missed Learning Pass

- 1 Set new learning parameters, as necessary, on the Set Up Learning dialog box.

**-or-**

Use the learning settings from the previous extraction pass.

- 2 Choose **Feature Analyst** on the toolbar, choose **Learning** on the drop-down menu, and then choose **One-Button Learning**.



*The Save Feature As dialog box opens.*

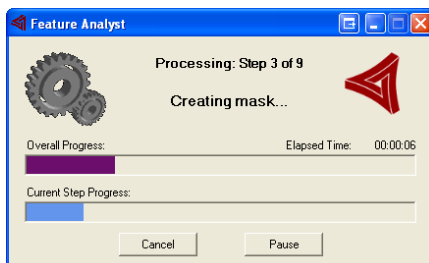
*By default, Feature Analyst names the file in the Name field using the last file name, the process (in this case Lrn, for Learning), and incremental numbering.*

- 3 Accept the **default file name** and **file location**.

**-or-**

Provide a **new name** and **location** for the file and choose **Save**.

*The Feature Analyst process box opens displaying the progress of adding missed features.*



The results appear in the table of contents and display in the workspace.

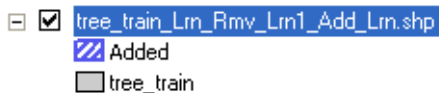
- 4 Review your results.
- 5 If the results need improvement, run a clutter-removal learning pass before accepting results.

-or-

If the results are good, continue to the next step to accept the results.

## Accept Results

- 1 Highlight the **missed features result layer** in the table of contents.



The **Accept Results**  tool on the **Feature Analyst** toolbar becomes available.

- 2 Choose **Feature Analyst** on the toolbar, choose **Hierarchical Learning** on the drop-down menu, and then choose **Accept Results**.

The **Save Feature As** dialog box opens.

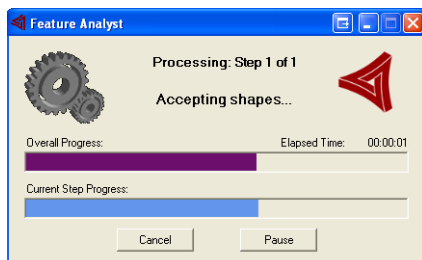
By default, **Feature Analyst** names the file in the **Name** field using the last file name, the process (in this case **Acc**, for **Accept Results**), and incremental numbering.

- 3 Accept the **default file name** and **file location**.

-or-

Provide a **new name** and **location** for the file and choose **Save**.

The **Feature Analyst Process** box opens, displaying the progress of the process.



**Feature Analyst** creates a new layer combining the accepted results from the previous feature class with the new features found during the add missed features process.