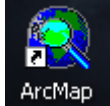
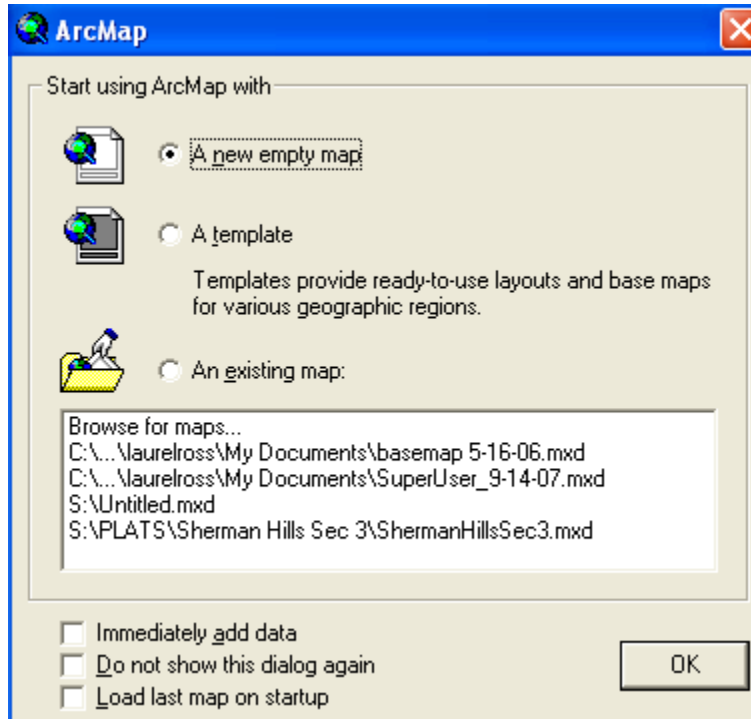



# Layers: Creating and Using in ArcMap & ArcCatalog

**Layer:** The visual representation of a geographic dataset in any digital map environment. A layer references the data stored in geodatabases, coverages, shapefiles, rasters, and so on, rather than actually storing the geographic data. Thus, a layer always reflects the most up-to-date information in your database. A layer won't draw on your map unless you also have access to the data source on which the layer is based.



**Step 1:** Open ArcMap a window appears asking if you wish to open a new map click **OK**.




**Step 2:** When the new map opens it will be completely blank. You now have many choices. You can either add layer from ArcCatalog, by using the  button or you can add layer from another map.

## Step 3: Adding a layer from ArcCatalog

1. Start ArcCatalog and ArcMap.
2. In ArcCatalog, navigate to the layer you want to add to the map.
3. Click and drag the layer from ArcCatalog.
4. Drop the layer over the map display in ArcMap.

## Step 4: Adding a layer from the Add Data button

1. Click the Add Data button .
2. Click the Look in drop-down arrow and navigate to the folder that contains the layer.

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3. Click the layer and click Add.

## Step 5: Adding a layer from another map

1. Open the map that contains the layer you want to copy.
2. Right-click the layer in the table of contents and click Save As Layer File.
3. Click the Look in drop-down arrow and navigate to the folder where you want to save the layer.
4. Type a name for the layer and click Save.
5. Click the Open button to open the map to which you want to add the layer.
6. Click the Add Data button.
7. Click the Look in drop-down arrow and navigate to the folder that contains the layer.
8. Click the layer and click Add.

## Step 6: Creating a layer from existing data in ArcCatalog

1. Right-click the data source from which you want to create a layer.
2. Click Create Layer.
3. Navigate to the folder in which you want to save the layer.
4. Type a name for the layer file.
5. Click Save.

## Step 7: Creating a new, empty layer in ArcCatalog

1. In the Catalog tree, select the folder in which you want to store the new layer.
2. Click the File menu, point to New, then click Layer.
3. Type a name for the new layer.
4. Click the Browse button.
5. Navigate to and click the geographic data source for which you want to create the layer.
6. Click Add.
7. If you don't want ArcCatalog to create a thumbnail representing the entire layer, uncheck Create thumbnail.
8. If you don't want the layer to store the full path identifying the location of the data, check Store relative path name.
9. Click OK.

## Step 8: Copying a layer between data frames

1. Right-click the layer you want to copy to another data frame and click Copy.
2. Right-click the data frame you want to copy the layer into and click Paste.

## Step 9: Copying a layer to another map

1. Right-click the layer you want to copy to another map and click Copy.
2. Click the Open button and open the map you want to copy the layer into.

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# Layers: Creating and Using in ArcMap & ArcCatalog

3. Right-click the data frame you want to copy the layer into and click Paste.

## Step 10: How to display a subset of features in a layer

1. Right-click the layer in the table of contents and click Properties.
2. Click the Definition Query tab.
3. Type an expression or click Query Builder.
4. Click OK.

## Step 11: Removing layers from a map

1. Select the layer or layers you want to remove in the [table of contents](#). To remove more than one layer, hold down the Shift or Ctrl keys and click to select additional layers.
2. Right-click the selection and click Remove.

## Step 12: How to move a layer to change its drawing order

1. On the Display tab, click and drag the layer up or down in the [table of contents](#). A black line indicates where the layer will be placed.
2. Release the mouse pointer to drop the layer in its new position.

## Step 13: Changing the name of a layer

1. Click the layer to select it in the [table of contents](#).
2. Click again over the name.
3. Type the new name and press Enter.

## Step 14: Saving a layer to disk in ArcMap

1. Right-click the layer in the table of contents and click Save As Layer File.
2. Click the Look in drop-down arrow and navigate to the location where you want to save the layer.
3. Type a file name.
4. Optionally, click the Save as type drop-down arrow and click 8.3 Layer files or 9.0/9.1 Layer files to save a layer to a previous version of ArcGIS.
5. Click Save.

**This completes this process.**

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