

Creating ArcReader Map and Data Packages

Last Modified: 9/5/2014

This procedure provides ArcGIS users who have the Publisher Extension with instructions for creating ArcReader Map and Data Packages for sharing SAM Address Point data with those who do not have GIS desktop software. ArcReader Map and Data Package recipients will only need to download Esri's free ArcReader software.

1. Download the *CreatingArcReaderPackages* zip file from the /_AllCounties folder on ITS' FTP site (<https://ftp.dhSES.ny.gov/thinclient/Login.aspx>).
2. Unzip the file to C:\SAM (create this folder if necessary). The **SAM_Arcreader_Template.mxd** contains all of the symbology, labeling, and most of the layers needed to create an ArcReader Map and Data Package of the SAM Address Point data and other source data sets.
3. Other recommended ITS data sets are the *NYS Civil Boundaries* and *NYS Streets*. If you do not already have copies of these data sets, they can be downloaded from the NYS GIS Clearinghouse (<http://gis.ny.gov/gisdata/inventories/member.cfm?OrganizationID=522>). These data sets can be placed in C:\SAM for building the packages.
4. Open **SAM_Arcreader_Template.mxd**
5. Set the source data for the *NYS Streets* and *NYS Civil Boundaries* layers:
 - a. Double click on the *StreetSegment* layer name. On the **Source** tab in the Layer Properties window, click the **Set Data Source** button. Navigate C:\SAM.
 - b. Open *StreetSegment.gdb* and double click on the *StreetSegment* feature class. Click the **OK** button to accept the change.
 - c. Repeat these steps for the *NYS Civil Boundaries* (*County*, *CityTown*, *IndianReservation*, *Village*) layers.
6. Set the source data for the *AddressPoints* and *Spatially_Invalid* layers:
 - a. Double click on the *AddressPoints* layer name. On the **Source** tab in the Layer Properties window, click the **Set Data Source** button. Navigate to the folder where you have stored the final SAM deliverable (*CountyName_County_Final.gdb*).
 - b. Open *CountyName_County_Final.gdb* and double click on the *AddressPoints* feature class. Click the **OK** button to accept the change.
 - c. Repeat these steps for the *Spatially_Invalid* layer.
7. Zoom to your County extent by right clicking on *AddressPoints* and select **Zoom to Layer**.
8. Remove unnecessary symbolization in the *Spatially_Invalid* layer:
 - a. Double click on the *Spatially_Invalid* layer and go to the **Symbology** tab in the Layer Properties window.
 - b. Click on the **Count** box below the Color Ramp. Remove any values that have a count of 0 by clicking on the **Value** name next to the symbol and then clicking the **Remove** button at the bottom. (Note: Only do this step on the *Spatially_Invalid* layer).
 - c. Click the **OK** button to save the symbology.
9. Add in County Source Data:

There are three County source data layers in the map template: *County Address Points*, *County Street Centerlines*, and *County Parcels*.

- a. If your County does not have County Address Points or County Street Centerlines, remove the data layer(s) from the map:
 - i. Right click on the data layer name and select **Remove**.
- b. Set the correct data source for each County source data file:
 - i. Double click on *County Parcels*. Go to the **Source** tab in the Layer Properties window and click the **Set Data Source** button. Navigate to the folder where you have stored your county parcels data.
 - ii. Open your county parcels file and double click on the parcels feature class. Click the **OK** button to accept the change.
 - iii. Repeat these steps for *County Address Points* and *County Street Centerlines* layers if you have these county data files.
- c. For each County source data file, set the address labeling based on the address-related fields in each file:
 - i. Double click on *County Parcels*. Go to the **Labels** tab in the Layer Properties window.
 - ii. Click the **Expression** button and replace the expression with the proper address-related fields (e.g. [LocNumber] & " " & [Streetnam]).
 - iii. Click the **Verify** button to confirm the complete address will label. Add/Modify the expression as necessary.
 - iv. Click the **OK** button in the Label Expression window, then the **OK** button in the Layer Properties window.
 - v. Repeat these steps for the *County Address Points* and *County Street Centerlines* layers if you have these county data files.
 - vi. Verify all labeling by zooming in to less than 1:24,000. County source data layers and labels are scale triggered to display text at an appropriate zoom level.
- d. Add another copy of the *County Parcels* layer for parcel boundary display without labels (ArcReader does not allow turning labels on or off):
 - i. Right click on *County Parcels-Labels*, select **Copy**, and then select the **Paste** tool to create another copy of the *County Parcels*.
 - ii. Double click on *County Parcels-Labels* and in the **General** tab on the Layer Properties window rename the new parcel layer to *County Parcels - No Labels*.
 - iii. Go to the **Labels** tab and uncheck the **Label features in this layer** box at the top.
 - iv. Click the **OK** button to accept the changes.
- e. Add other County source data (e.g. *Building Footprints*):
 - i. Add other County data layer(s) to the map and set your preferred symbology. [For *Building Footprints* we recommend symbology=hollow, outline width=0.4, and RGB colors = 168, 0, 32]
 - ii. Set the layer display scale trigger to 1:100,000 by going to the **General** tab on the Layer Properties window and click the **Don't show layer when zoomed out beyond 1:100,000** radio button. Click the **Apply** button to accept the changes.

- iii. Set the label display scale to 1:24,000 by going to the **Labels** tab on the Layer Properties window, click the **Scale Range** button, and click the **Don't show layer when zoomed out beyond 1:24,000** radio button. Click the **OK** button.
 - iv. Set the address labeling based on the address-related fields in each file. Click the **Expression** button and replace the expression with the proper address-related fields.
 - v. Click the **OK** button in the Label Expression window, then the **OK** button in the Layer Properties window to accept all changes.
- 10. Create a selection of the NYS Streets (*StreetSegment*) for the extent of your county so the data package does not contain the entire street segment file (to minimize package size).
 - a. Right click on *County*, open the attribute table, highlight your County, and close the attribute table.
 - b. From the **Selection** drop down menu, click on **Select by Location**, choose *StreetSegment* as the Target layer, choose *County* as the Source Layer, and check the **Use Selected Features** box.
 - c. Choose **Intersect the source layer feature** from the **Spatial selection method for target layer feature(s)** drop down box.
 - d. Check the **Apply a search distance** box. Use **5,000** for the value and **Feet** for units (this includes streets 5,000 feet outside your county boundary).
 - e. Click the **OK** button.
 - f. Export the selected features:
 - i. Right click the *StreetSegment* layer
 - ii. Select **Data -> Export Data**
 - iii. For Output Feature class, save as *C:\SAM\NYS_Streets.shp*
 - iv. Click the **OK** button to export the data.
 - g. Select the **No** button when asked if you want to add the exported data to the map as a layer.
 - h. From the **Selection** drop down menu, select **Clear Selected Features**.
 - i. Set the data source for the *StreetSegment* layer to the newly clipped file (to apply the same symbology and labeling that is already set up for the *NYS Streets* file):
 - i. Double click on *StreetSegment*. Go to the **Source** tab in the Layer Properties window and click the **Set Data Source** button. Navigate to *C:\SAM* .
 - ii. Double click on *NYS_Streets*. Click the **OK** button to accept the change.
- 11. To minimize map clutter when it is first opened, turn OFF all County Source data layers except *County Parcels – No Labels* and **Zoom** to the extent of your county boundary.
- 12. Save the **SAM_Arcreader_Template.mxd** to keep all of the changes.
- 13. Confirm that you have enabled the Publisher extension:
 - a. From the **Customize** drop down menu, select **Extensions**
 - b. Check the **Publisher** box
 - c. Click the **Close** button to accept the change.
- 14. Turn on the **Publisher** toolbar:
 - a. From the **Customize** drop down menu, select **Toolbars**.
 - b. Scroll down and click on **Publisher** to enable it.

15. To create the ArcReader map document and data package:
 - a. Click on the **Publisher** drop down menu and click on **Publish Map**.
 - b. In the **File Name** box enter **C:\SAM\SAM_Review_<CountyName>.pmf**
 - c. Click the **Save** button to create the map document.
 - d. Click on the **Publisher** drop down menu and click on **Create Data Package**.
 - e. In the **Select Published Maps to Package** window, navigate to C:\SAM and double click on the published map file that was just created (**SAM_Review_<CountyName>.pmf**).
 - f. On the **General** tab in the **Data Packaging** window, navigate to C:\SAM and click on the **Make New Folder** button. Enter **<CountyName>_ArcReader_DataPackage** for the folder name and click the **OK** button to create the new folder.
 - g. Keep the **Data Format** as **File Geodatabase**.
 - h. Under Options, leave the **Only include map layers with features present in the data frame extent** box unchecked.
 - i. On the **Extent** tab in the **Data Packaging** window:
 - i. For **Vector** select the **Include all features in the data set** radio button
 - ii. For **Raster** select the **Include the whole raster** radio button.
 - j. Click the **OK** button to create the data package.
16. Navigate to **C:\SAM\<County_Name>_ArcReader_DataPackage**. There is now a **\pmf** and a **\data** folder. Verify contents:
 - a. Inside the **\pmf** folder, there is a new ArcReader map document. This map references the new data package created in the C:\SAM folder instead of the data on your network drives.
 - b. Double click on the **.pmf** file and make sure everything opens correctly. Zoom in and pan around to see if labels are working correctly. Turn layers on and off and make sure everything looks the same as it did in the template **mxd**.
17. Now that the map and data package are complete, zip up the files for distribution:
 - a. Close the ArcReader map document.
 - b. Navigate to **C:\SAM\<County_Name>_ArcReader_DataPackage**, select the **\data** and **\pmf** folders, right click, and then **Send To -> Compressed (zipped) Folder**.
 - c. Name the new zip file **<CountyName>_ArcReader_DataPackage** so that when the recipient unzips the file, it will create a new folder and the path to the data the map is referencing will be correct.