

MAPublisher® 8.6 for Adobe Illustrator®

When Map Quality Matters®

**Avenza**®
SYSTEMS INC.



MAPublisher™ Tutorial
for MAPublisher 8.6

Avenza® MAPublisher® 8.6 MAP LabelPro™ Tutorial

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MAPublisher 8.6 for Adobe® Illustrator® MAP LabelPro™ Tutorial for Windows® and Macintosh®.

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Avenza Systems Inc.

124 Merton Street, Suite 400

Toronto, Ontario M4S 2Z2

Canada

Tel: (+1) 416 487 5116

Fax: (+1) 416 487 7213

Email: info@avenza.com

Web: <http://www.avenza.com>

Support Tel: (+1) 416 487 6442

Support email: support@avenza.com

Welcome

Avenza welcomes you to mapmaking in the 21st century!

Combined with Adobe Illustrator, MAPublisher has revolutionized the art of mapmaking by allowing spatial data files to be used to create maps inside a vector graphics program. MAPublisher allows all your cartographic tasks to be performed where they should be done; in a powerful graphics environment.

MAPublisher LabelPro™ revolutionizes the way users can label map data, including using symbols as labels, conflict resolution, and highly configurable rule-based labeling options. The MAP LabelPro engine uses map data attributes for labeling with styles, rules and controls configured through an intuitive, easy-to-use Graphical User Interface.

This tutorial assumes that the user is familiar with Adobe Illustrator CS3/CS4/CS5, and has at least a basic understanding of MAPublisher functions. Not all MAPublisher tools are explained in this document. This tutorial should be used in conjunction with the MAPublisher 8.6 User Guide, MAPublisher 8.6 Tutorial Guide and Quick Start Guide for an understanding of all the other MAPublisher tools.

By following this tutorial, you will learn how to setup and use the MAP LabelPro labeling engine to label your map created in MAPublisher. Working on a provided map, users learn to create rules and styles for labeling in an automated and efficient way.

MAP LabelPro Tutorial Data

This tutorial will use Adobe Illustrator files and MAP LabelPro rules installed with MAPublisher 8.6. You can find the MAP LabelPro Tutorial data in the following location on your hard drive:

Windows XP

C:\Documents and Settings\All Users\Shared Documents\Avenza\MAPublisher 8\MAP LabelPro Tutorial & Data\Data

Windows Vista and Windows 7

C:\Users\Public\Public Documents\Avenza\MAPublisher 8\MAP LabelPro Tutorial & Data\Data

Note: This data may be accessed through shortcuts available in the Windows start menu

Mac OS X

/Applications/Avenza/MAPublisher 8/MAPublisher Tutorials/MAP LabelPro Tutorial & Data/Data

You are encouraged to experiment with your own data to gain additional experience with MAPublisher tools.

Tutorial data courtesy of City and County of San Francisco (San Francisco Enterprise GIS program SFGIS).

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1 Preliminaries

1.1 Purpose

The purpose of this exercise is to use MAP LabelPro to create labels for a simple map of downtown San Francisco, California, USA. For this exercise, Avenza has prepared the necessary map file created with MAPublisher 8.6 and Adobe Illustrator, based on City and County of San Francisco GIS data (San Francisco Enterprise GIS program SFGIS). The map contains all the different type of features (point, line and area) for labeling and/or obstacle purpose.

In this exercise, you will start by preparing the file and examining the data to familiarize yourself with the prerequisites to using MAP LabelPro. Then, the labeling will be done in two steps: a main labeling session (labeling public schools, streets, interstates, highways and land areas in one run) and a secondary session (labeling parks only, using the other labels as obstacles). Although the presented settings are valid only for the map data they are based on, the principles are applicable for your own designs.

1.2 Know your data

The MAP LabelPro Tutorial data folder contains a ready-to-use Adobe Illustrator template file containing a map of downtown San Francisco (*MAPLabelPro_Tutorial.ait*). Here is a description of the layers present in the file and how they will be used during the labeling process.

1.2.1 San Francisco map description

Layer name	Type	Description	Labeling Attribute (label source layers)	Obstacle? Session #1 Session #2	
Text layers					
LAND_labels	Text	Land labels	-	-	No
SCHOOL_labels	Text	School labels	-	-	Yes
STREET_labels	Text	Street labels	-	-	Yes
PARK_labels	Text	Park labels	-	-	-
HIGHWAY_INTERSTATE_labels	Text	Labels for highways and interstates	-	-	Yes
SUPPRESSED_labels	Text	Labels that couldn't be placed based on the specified rules.	-	-	No
MAP_TITLE	Text	Map title (San Francisco)	-	Yes	No
MAP Layers					
Public_Schools_point	Point	Public school locations	SCHOOL_NAME	Yes	Yes
Post_Offices_point	Point	Post office locations	-	Yes	Yes
Highways_line	Line	Highway roads	HIGHWAY_NUMBER	Yes	Yes
Interstates_line	Line	Interstate roads	INTERSTATE_NUMBER	Yes	Yes
Ramp_line	Line	Ramps to highways	-	No	No
Streets_line	Line	San Francisco street network	STREETNAME	No	No
Land_area	Area	Land areas	AREA_NAME	No	No
Parks_area	Area	Park areas	PARK_NAME	Yes	No

Layer name	Type	Description	Labeling Attribute (label source layers)	Obstacle? Session #1 Session #2
<i>Other Layers</i>				
Scale_Bar	Legend	Scale bar	-	-
background	Area	Blue background to represent the sea	-	-

All map layers were imported from City and County of San Francisco GIS data (San Francisco Enterprise GIS program SFGIS) in ESRI shapefile format and cropped to the area of interest. The map design (symbols and line styles) was created by Avenza Systems.

1.2.2 Styles and rules

MAPublisher is installed with predefined styles and rules to use for the MAP LabelPro settings in this tutorial. These configuration files are saved to one of three folders depending on the data type layer, **A** Area, **L** Line or **P** Point, they are associated with.

Layer Name	Type	Style <i>\LabelPro\Styles</i>	Rule <i>\LabelPro\Rules</i>
Public_Schools_point	Point	School_Label_Style	School_Label_Rule
Interstates_line	Line	Interstate_Label_Style	Interstate_Label_Rule
Highways_line	Line	Highway_Label_Style	Highway_Label_Rule
Streets_line	Line	Street_Label Style	Street_Label Rule
Parks_area	Area	-	-
Land_area	Area	Land_Label_Style	Land_Label_Rule

The style and rules for the *Parks_area* layer will be created during the second labeling session of this exercise.

The default location of the Rules and Styles folders is:

Windows XP: C:\Documents and Settings\All Users\Application Data\Avenza\MAPublisher 8\LabelPro\Rules

Windows Vista: C:\ProgramData\Avenza\MAPublisher 8\LabelPro\Rules

Mac OS X: Applications/Avenza/MAPublisher 8/MAPublisher Plug-In/LabelPro/Rules

Note: The MAP LabelPro tutorial data folder also contains a backup for these rules and styles

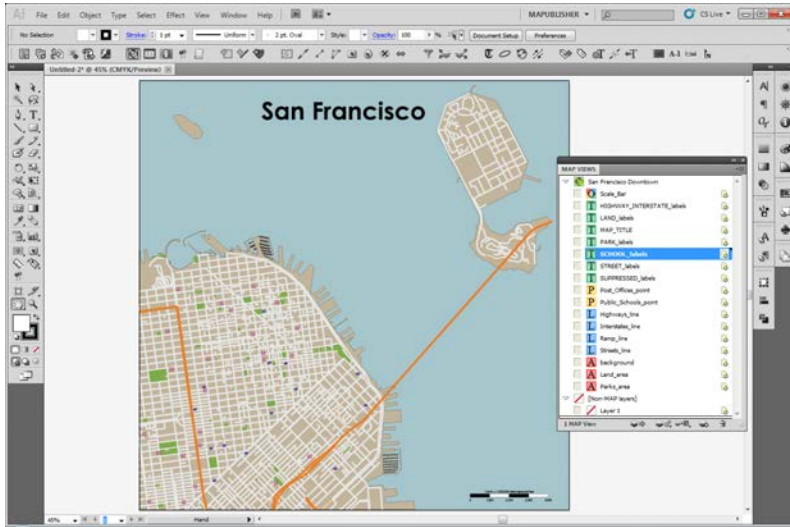
1.2.3 Important note for MAPublisher LabelPro evaluation users

The **evaluation version** of MAPublisher LabelPro scrambles the text of placed labels but preserves the case, spacing and punctuation, so that the results give a sense of how actual labels would be placed. Therefore, evaluation users will experience a different result with the MAP LabelPro settings of this tutorial than the licensed users. Throughout this document, both results will be shown and differences explained. In evaluation mode, the scrambling process noticeably slows the speed of labeling.

2 Getting Started

2.1 Open tutorial document

1. In the Adobe Illustrator main menu, choose *File > Open* and open the template file **MAPLabelPro_Tutorial.ait** located in **MAPublisher 8\MAP LabelPro Tutorial Guide & Data\Data**.



An artboard containing a map of San Francisco opens. All the data information to be used for labeling is present, except for the text labels. Please see the table in the Preliminaries chapter for the description of the layers.

2. Because the file was opened from a template, a new untitled document was created. Choose from the Adobe Illustrator main menu *File > Save As* to save the file as **San Francisco.ai**.



Note: Customize the Adobe Illustrator workspace to make it easier to access panels. It may look different than the image above. Read *Customizing the workspace* in the Adobe Illustrator help guide for more information. Review also MAPublisher Preferences in the MAPublisher 8.6 User Guide.

2.2 Examine MAP Attributes available for labeling

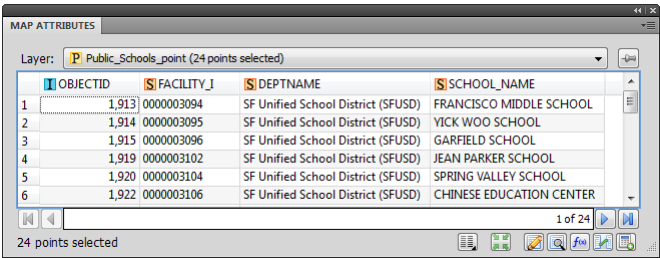
MAP LabelPro extracts label data from the attribute table for each MAP Layer to be labeled. Therefore, it is good practice and often required to examine or edit attribute information using the MAP Attributes panel. Edits can include: creating a new column to enter attribute values, joining tables to import additional attribute information from an external file, correcting spelling, changing the case of text and more.

For this exercise, all attributes are ready to use for labeling. Follow the steps here to examine them and familiarize yourself with the data.

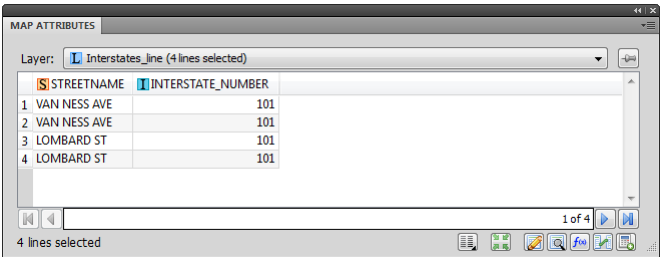
Note: For more information on the MAP Attributes panel, please refer to the MAPublisher 8.6 User Guide, chapter 5. For more exercises, please see the MAPublisher Quick Start Guide and MAPublisher Tutorial Guide.

1. In the Adobe Illustrator Layers panel, click the target button  next to the *Public_Schools_point* layer to select all artwork on the layer.
2. Open the MAP Attributes panel (from the Adobe Illustrator main menu, choose *Window > MAPublisher > MAP Attributes* or click the MAP Attributes button on the MAPublisher toolbar ).


The *Public_Schools_point* layer contains four visible attribute columns: OBJECTID, FACILITY_I, DEPTNAME and SCHOOL_NAME. The SCHOOL_NAME attribute column will be used for labeling the school points.



3. Select all artwork on the *Interstates_Line* layer and view the attributes in the MAP Attributes panel.



The INTERSTATE_NUMBER attribute column will be used for labeling these roads.

Note: Notice that the INTERSTATE_NUMBER attribute is of type integer . All types of attributes may be used for labeling with MAP LabelPro.

4. Select all on the *Highways_line* layer and view the attributes in the MAP Attributes panel. HIGHWAY_NUMBER will be used for labeling. View the attributes of the remaining layers: *Streets_line*, *Parks_area*, and *Land_area*.

Refer to the San Francisco description table in section 1.2.1 to see the attributes that will be used for labeling.

5. Close the MAP Attributes panel after reviewing it.

Knowing this information, we are ready to use the MAP LabelPro function to generate map labels for the San Francisco downtown map.

3 Labeling Session #1

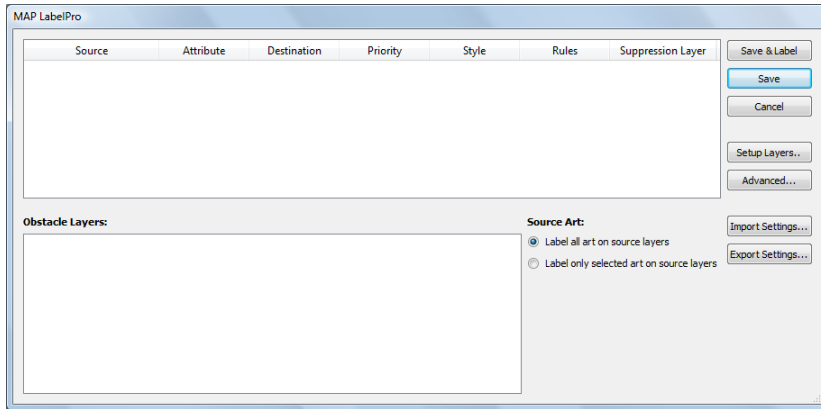
In this first labeling session, multiple layers will be labeled in a single run of the MAP LabelPro function. The objectives for this session are to:

- Add labels for school as a first priority (source layer *Public_Schools_point*).
- Label the interstate roads with interstate shield symbols containing the interstate number (source layer *Interstates_line*).
- Label the highway roads with highway shield symbols containing the highway number (source layer *Highways_line*).
- Add street names (source layer *Streets_line*).
- Add names for land areas, written in the sea to make the map more readable (source layer *Land_area*).
- Make sure that the school and road names do not overlap with the post office and school symbols and park area, and do not cross highways and interstates line (obstacle layers: *Post_Offices_point*, *Public_Schools_point*, *Parks_area*, *Interstates_line* and *Highways_line*).

To start the MAP LabelPro Editor, click the MAP LabelPro button  on the MAPublisher Toolbar.



The MAP LabelPro dialog box opens.

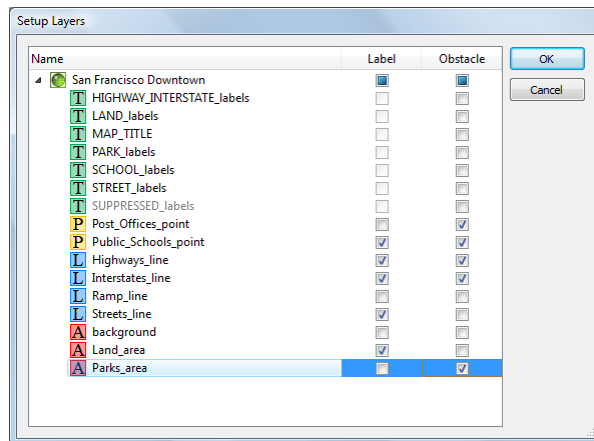


All layers have to be configured before labeling with MAP LabelPro. The general MAP LabelPro workflow: setup source layers, specify attribute to be labeled, set label destination or suppression layers, set label priority and define layer styles and rules.

If the dialog box needs to be closed before all configurations are done, make sure to click the *Save* button. If labeling has been executed and an *Undo* action is used afterwards, the configurations in MAP LabelPro will revert to the configuration before the labeling was executed. To ensure that your configuration is saved, click the *Save* button before labeling.

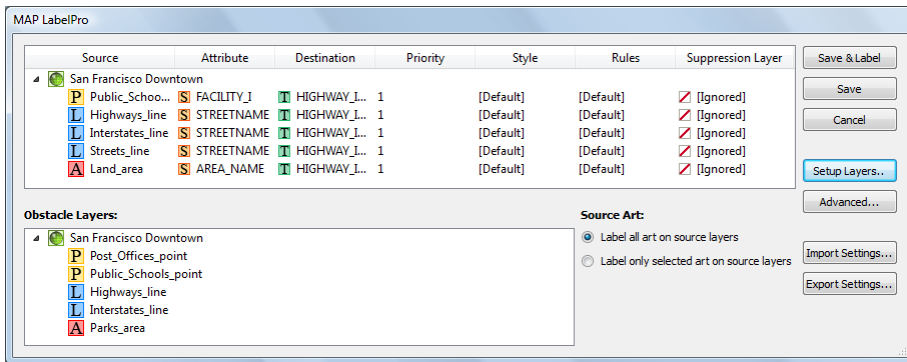
3.1 Layers and obstacles setup

1. In the MAP LabelPro editor dialog box, click the Setup Layers button.
2. In the Setup Layers dialog box, click the Label check box for each of the following layers to enable them as source layers:
 - *Public_Schools_point*
 - *Highways_line*
 - *Interstates_line*
 - *Streets_line*
 - *Land_area*
3. Click the Obstacle check box for each of the following layers to enable them as obstacle layers:
 - *MAP_TITLE*
 - *Post_Offices_point*
 - *Public_Schools_point*
 - *Highways_line*
 - *Interstates_line*
 - *Parks_area*



4. Make sure that the settings match the image above and click OK.

The MAP LabelPro dialog box gets updated according to the layers settings. Selected layers for labeling are added to the Source list and selected layers for obstacles are added in the Obstacle layers list.

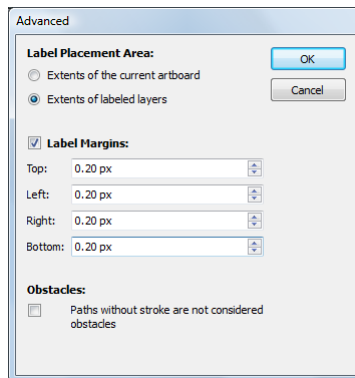


3.2 Labeling extents setup

The configuration described in this exercise will limit the creation of labels to the extent of the selected source layers for labeling, with a margin of 0.2 inches on each side.

1. Click the Advanced button in the MAP LabelPro dialog box.
2. Under Label Placement Area, choose the option Extents of labeled source layers.
3. Click the Label Margins check box. Set the Top, Left, Right and Bottom drop-down lists to **0.20 in**.

Note: If the option *Paths without stroke are not considered obstacles* is checked, areas that have no stroke will not be used as an obstacle in the labeling process, allowing generated labels to overlap with them.



4. Make sure that the settings match the image above and click OK.

The label styles and rules of each source layer are now ready to be set.

3.3 Point layer label settings

1. In the MAP LabelPro editor dialog box, click *Public_Schools_point* in the Source column to highlight the row.


By default, the attribute to use as a label is set to FACILITY_I, the first string attribute column of the *Public_Schools_point* layer. It needs to be changed to SCHOOL_NAME.

2. Click FACILITY_I in the Attribute column. This enables a drop-down list with all the attributes of the *Public_Schools_point* layer. Choose **SCHOOL_NAME** from the drop-down list.
3. In the Destination column, choose **SCHOOL_labels** from the drop-down list.

Source	Attribute	Destination	Priority	Style	Rules	Suppression Layer
San Francisco Downtown						
Public_Schools_point	SCHOOL_NAME	SCHOOL_labels	1	[Default]	[Default]	<input checked="" type="checkbox"/> [Ignored]
Highways_line	STREETNAME	HIGHWAY_INTERST...	1	[Default]	[Default]	<input checked="" type="checkbox"/> [Ignored]
Interstates_line	STREETNAME	HIGHWAY_INTERST...	1	[Default]	[Default]	<input checked="" type="checkbox"/> [Ignored]
Streets_line	STREETNAME	HIGHWAY_INTERST...	1	[Default]	[Default]	<input checked="" type="checkbox"/> [Ignored]
Land_area	AREA_NAME	HIGHWAY_INTERST...	1	[Default]	[Default]	<input checked="" type="checkbox"/> [Ignored]

Note: Increase the width of an attribute column to see its full name.

Leave the Priority column set to 1. The *Public_Schools_point* layer will be labeled as a first priority while the others will be set to a secondary priority.

4. In the Style column, click *[Default]* and choose **School_Label_Style** from the drop-down list. Click the Edit button  to open the Style dialog box and examine its settings. This style was predefined.


Source	Attribute	Destination	Priority	Style	Rules
San Francisco Downtown					
Public_Schools...	SCHOOL_NAME	SCHOOL_labels	1	School_Label_Style	[Default]
Highways_line	STREETNAME	HIGHWAY_INTERST...	1	[Default]	[Default]
Interstates_line	STREETNAME	HIGHWAY_INTERST...	1	[Default]	[Default]
Streets_line	STREETNAME	HIGHWAY_INTERST...	1	[Default]	[Default]
Land_area	AREA_NAME	HIGHWAY_INTERST...	1	[Default]	[Default]

Style

Family: Verdana

Style: Bold

Size: 6.00 pt


Colour: 

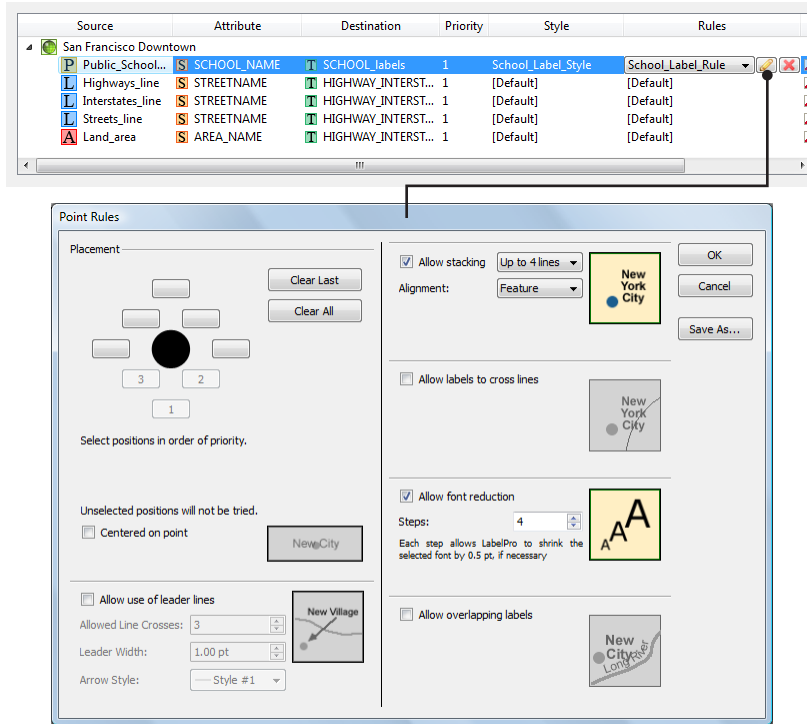
Label case: Leave as is

Opacity: 100%

OK Cancel Save As..

Note: The second labeling session will show how to create a new style from scratch.

5. After reviewing the Style settings, click OK to close it.
6. In the MAP LabelPro dialog box, under the Rules column, click *[Default]* and choose **School_Label_Rule** from the drop-down list. Click the Edit button  to open the Point Rules dialog box and examine its settings. This style was predefined.



These point settings will force the labels to be placed below the symbols:

- When possible, the text will be placed lower-middle to the symbol.
- If this is not possible due to space constrictions, text will be placed to the lower-right, and then to the lower-left.
- If none of the options can be applied, the text will be placed on the suppression layer (or ignored if no suppression layer was specified).
- Text stacking and font reduction have also been enabled to add flexibility to the placement rules.

Note: More information on the available labeling options can be found in the MAPublisher User Guide, chapter 17.

7. After reviewing the Point Rules dialog box, click OK to close it.
8. In the Suppression Layer column, click the text *[Ignored]* and choose **SUPPRESSED_labels** from the drop-down list.

Labels that can not be placed will be copied to the *SUPPRESSED_labels* layer.


Note: Scroll to the right of the MAP LabelPro dialog box or expand it to see the *Suppression Layer* column.

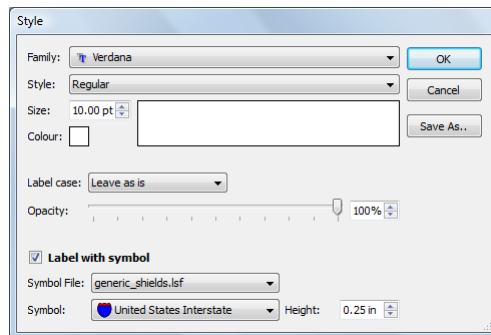
This finalizes the configuration for the labeling of the *Public_Schools_point* layer. **Do not close** the MAP LabelPro dialog box as the configuration of the roads and land layers still have to be set. If you want to save the current configurations, click the *Save* button. You will have to reopen the MAP LabelPro dialog box to continue.

3.4 Line layers label settings


This section covers the labeling configuration for the source layers *Highways_line*, *Interstates_line* and *Streets_line*. Highways and interstates will be labeled using highway and interstate symbol shields—notice that these layers contain double-lines for each road (divided highways).

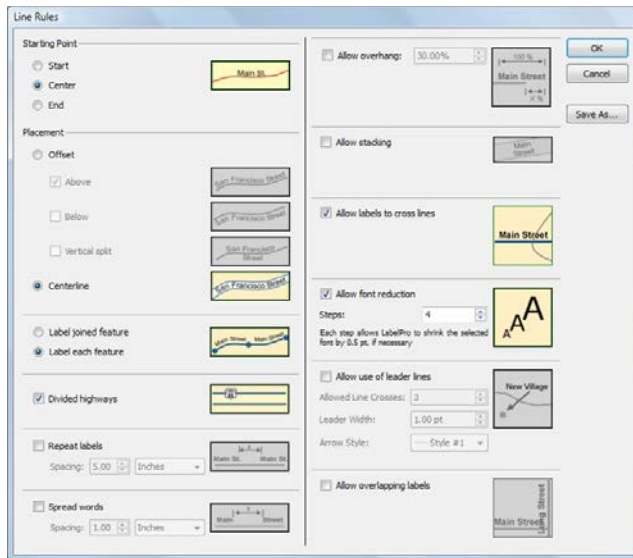
3.4.1 Label lines with symbols

1. In the MAP LabelPro dialog box, click the *Highways_line* layer name in the Source column to highlight the row.
2. In the Attribute column, choose **HIGHWAY_NUMBER** from the drop-down list.
3. In the Destination column, keep the destination text layer selected by default (*HIGHWAY_INTERSTATE_labels*).
4. Set the Priority column to 2.
5. In the Style column, choose **Highway_Label_Style** from the drop-down list. Click the Edit button  to open the Style dialog box and examine its settings. This style was predefined.



In addition to the regular font settings, line labels can also be labeled with symbols. In this case, the Label with symbol option is enabled. Symbol files (*.lsf) contain a series of symbols. In the example above, the *United States Interstate* symbol is selected from the *generic_shields.lsf* symbol file. The symbol size is set to a height of 0.25 inches. The symbol font color is set to white so it can be legible against the blue symbol.

6. After reviewing the Style settings, click OK to close it.
7. In the MAP LabelPro dialog box, in the Rules column, choose **Highway_Label_Rule** from the drop-down list. Click the Edit button  to open the Line Rules dialog box and examine its settings. These rules were predefined.



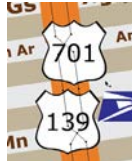
With these settings, the highway labels (and shields) will be placed in the middle of each line length and on the centerline, with a font reduction (if necessary). The Divided Highways setting recognizes lines that are parallel and share the same name (as specified by the selected attribute). In such cases, it places only one symbol instead of two or more. The Allow labels to cross lines option needs to be enabled because double highway lines are very close in proximity and the labels need to cross the lines. More information on line labeling rules can be found in the MAPublisher 8.6 User Guide, chapter 17.

Note: Evaluation users will see a different result than a licensed user. Because of the text scrambling, the divided highways cannot be recognized. Here is an example with the interstates:

Result with license:




Result with evaluation:

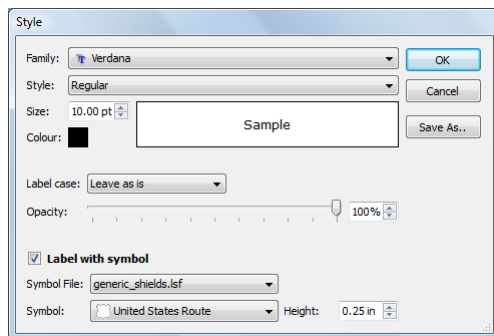


8. After reviewing the Line Rules settings, click OK to close it.
9. In the MAP LabelPro dialog box, in the Suppression Layer column for *Highways_line*, choose **SUPPRESSED_labels** from the drop-down list.


The settings for the *Highways_line* layer are completed. Continue with the settings for the *Interstates_line* layer.

10. Click the *Interstates_line* layer name in the Source column to highlight the row.
11. In the Attribute column, choose **INTERSTATE_NUMBER** from the drop-down list.
12. In the Destination column, keep the destination text layer selected by default (*HIGHWAY_INTERSTATE_labels*).

13. Set the Priority column to 2.
14. In the Style column, choose **Interstate_Label_Style** from the drop-down list. Click the Edit button  to open the Style dialog box and examine its settings. This style was predefined.



The *United States Route* symbol is selected from the *generic_shields.lsf* symbol file. The symbol size is set to a height of 0.25 inches.


15. After reviewing the Style settings, click OK to close it.
16. In the MAP LabelPro dialog box, in the Rules column, choose **Interstate_Label_Rule** from the drop-down list. Click the Edit button  to open the Line Rules dialog box and examine its settings. These styles were predefined.

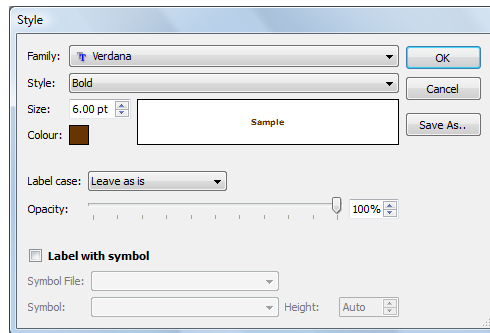
The labeling rules for the interstates are the same as for the highways. The previous note applies for evaluation users.

17. After reviewing the Line Rules settings, click OK to close it.
18. In the Suppression Layer column, choose **SUPPRESSED_labels** from the drop-down list.


The label settings for the interstate roads are now complete. Continue with the street labels.

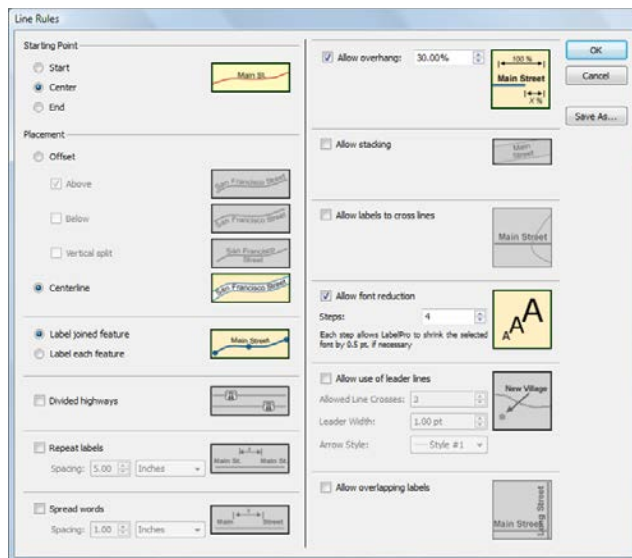
3.4.2 Label lines with text only

1. In the MAP LabelPro dialog box, click the *Streets_line* layer name in the Source column to highlight the row. Keep STREETNAME as the selected attribute for labeling.
2. In the Destination column, choose **STREET_labels** from the drop-down list.
3. Set the Priority column to 2.
4. In the Style column, choose **Street_Label_Style** from the drop-down list. Click the Edit button  to open the Style dialog box and examine its settings. This style was predefined.



Notice that this time Label with symbol is not checked.

5. After reviewing the Style settings, click OK to close it.
6. In the MAP LabelPro dialog box, in the Rules column, choose **Street Label Rule** from the drop-down list. Click the Edit button  to open the Line Rules dialog box and examine its settings. These rules were predefined.

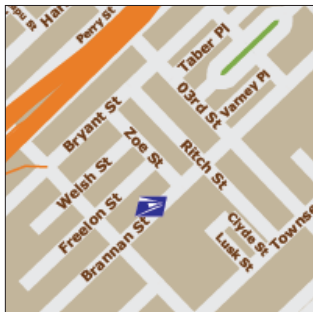


Like highway and interstate labels, street labels will be placed in the middle of each line length and on the centerline, with an eventual font reduction if necessary. The ability to overhang is enabled here.

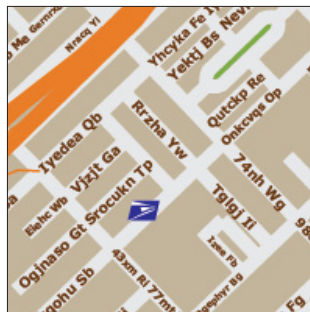
The street lines in this file are not joined. For example, each street is made of many line segments that all share the same STREETNAME attribute. To avoid repeating the name of connecting lines, the Label joined feature rule is enabled. MAP LabelPro recognizes that connecting lines sharing a same name need to be labeled only once.

Note: Evaluation users will see a different result than a licensed user due to the text scrambling. Names are not recognized as being the same and labels will be created for each line segment rather than one per street.

Result with license:



Result with evaluation:




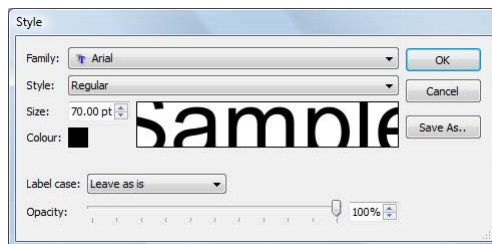
7. After reviewing the Line Rules settings, click OK to close it.
8. In the MAP LabelPro dialog box, in the Suppression Layer column, choose **SUPPRESSED_labels** from the drop-down list.

This completes the label settings for all line layers. **Do not close** the MAP LabelPro dialog box as the configuration of the *Land_area* layer still has to be done. If you want to save the current configurations, click the *Save* button. You will have to reopen the MAP LabelPro dialog box to continue.

3.5 Area layer label settings


This section covers the labeling configuration for the source layers *Land_area*. The goal is to add large labels for the land areas of the map (downtown area, Treasure and Alcatraz Islands).

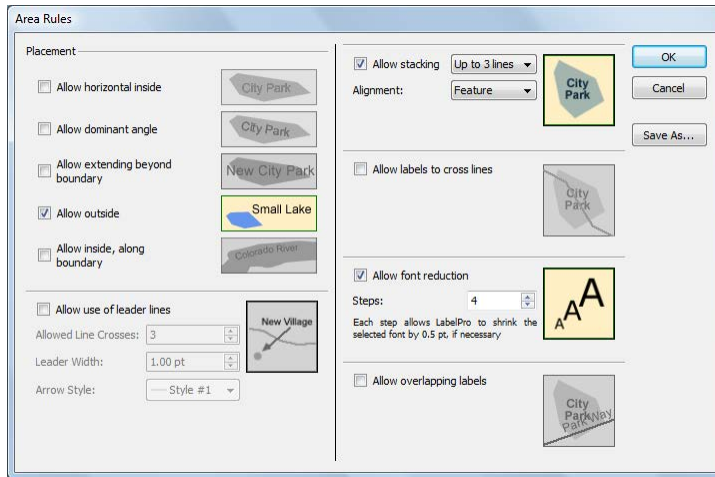
1. In the MAP LabelPro dialog box, click the *Land_area* layer name in the Source column to highlight the row. Keep AREA_NAME as the selected attribute for labeling.
2. In the Destination column, choose **LAND_labels** from the drop-down list.
3. Set the Priority column to **2**.
4. In the Style column, choose **Land_Label_Style** from the drop-down list. Click the Edit button  to open the Style dialog box and examine its settings. This style was predefined.



Note: The sample text in the preview is cut off because the font size is set to 70 pt.

5. After reviewing the Style settings, click OK to close it.

6. In the MAP LabelPro dialog box, under the Rules column, choose **Land_Label_Rule** from the drop-down list. Click the Edit button  to open the Area Rules dialog box and examine its settings. These rules were predefined.



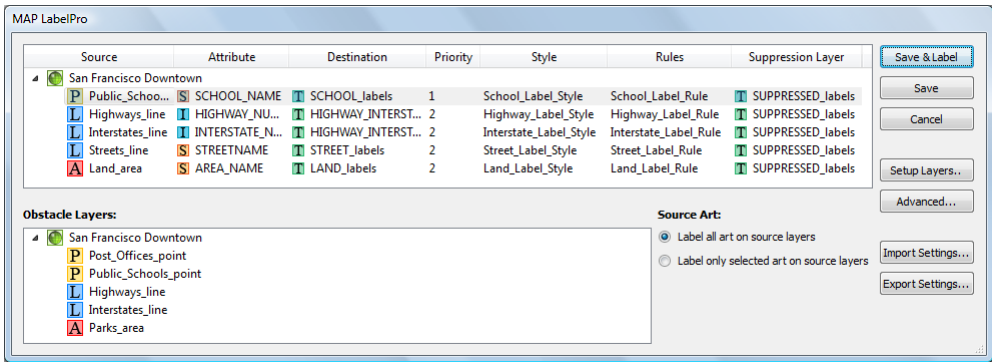
The main requirement for labels created from the *Land_area* layer is that labels are placed in the water area. Therefore, the Allow outside rule is the only placement option enabled. Stacking and font reduction option are also enabled to give more flexibility to the rule. More information on the available area labeling rules can be found in the MAPublisher 8.6 User Guide, chapter 17.

Note: Labeling Session #2 will explain the creation of area rules for the *Parks_area* layer.

7. After reviewing the Area Rules settings, click OK to close it.
8. In the MAP LabelPro dialog box, in the Suppression Layer column, choose **SUPPRESSED_labels** from the drop-down list.
- All layers have been now configured for the first labeling session.

3.6 Execute labeling with MAP LabelPro

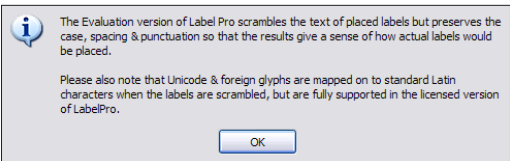
1. Make sure that all the layers have been configured to match the image below and click the Save & Label button.



Note: For this session, the other labeling options will be kept as default:

- **Source Art:** option to label all the source layers or label only the selected art on each source layer. In the example above, all objects will be labeled exactly as found in the source attributes.
- **Options:** statistics type option displays a report on placed and non-placed objects. It will be used in the Labeling Session #2. For this example, the option is set to *None*.

Note: For evaluation users only. Review the MAPublisher warning message and click OK to close it.



2. Wait for the process to end to visualize the results (see next page).

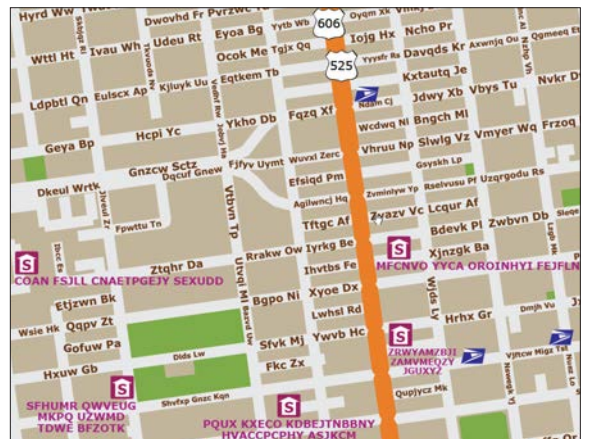
The map layers are labeled. Make the *SUPPRESSED_labels* layer visible to show labels that couldn't be placed with the specified rules.

3. Save the file and leave it open to continue on with the second labeling session.

Result with full license:



Result with evaluation license:




Note: Evaluation users will observe scrambled labels on the map. The Label joined feature rule does not recognize similar street names due to the text scrambling and places more labels than necessary. Similarly, highway and interstate roads are labeled with two shields with different numbers. Licensed versions will not see any text scrambling.

4 Labeling Session #2

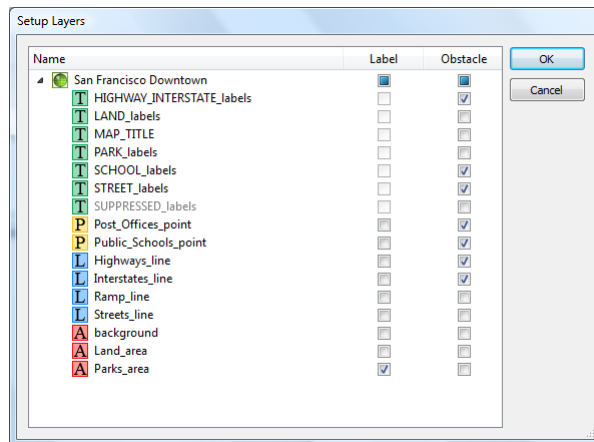
In this second labeling session, continue with the San Francisco.ai file that you saved. This time, only the parks will be labeled in a single labeling execution of MAP LabelPro. The objectives are to:

- Create a new area label style for park labels.
- Create a new area label rule for park labels.
- Make sure that the park labels do not overlap with the other labels and with the post office and school symbols, and do not cross highway and interstate lines.

To start MAP LabelPro, click the MAP LabelPro button  on the MAPublisher Toolbar. The settings from the previous labeling session are remembered. For the new session, the layer setup has to be changed to match the new objective of this exercise. However, the label extents remain the same as before.

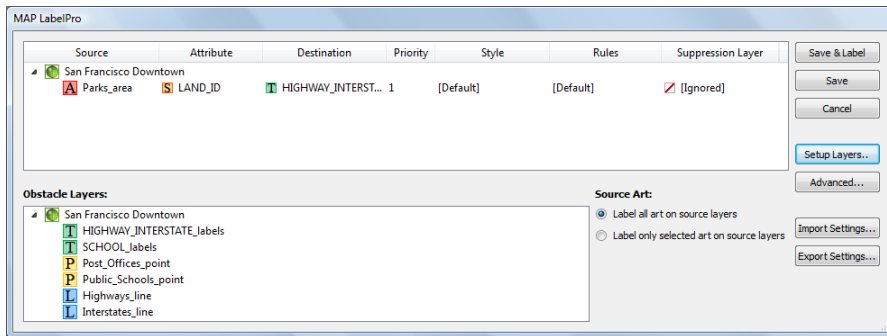
4.1 Layers and obstacles setup

1. In the MAP LabelPro Editor, click the Setup Layers button to setup the source and obstacle layers.
2. In the Setup Layers dialog box, click the very top Label check box (at the level of the *San Francisco Downtown* MAP View). Click the check box again to uncheck all of the Label check boxes.
3. Click the Label check box of the *Parks_area* layer only.
4. Make sure that only the following layers are set as obstacles:
 - *HIGHWAY_INTERSTATE_labels*
 - *SCHOOL_labels*
 - *STREET_labels*
 - *Post_Offices_point*
 - *Public_School_point*
 - *Highways_line*
 - *Interstates_line*



5. Make sure that the settings match the image above and click OK.

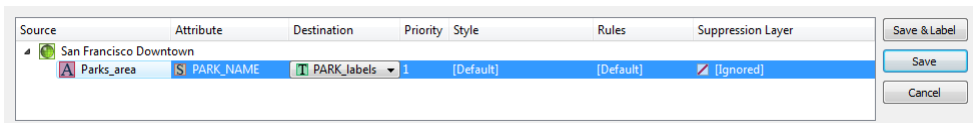
The MAP LabelPro dialog box is updated with the new selected layer setup.




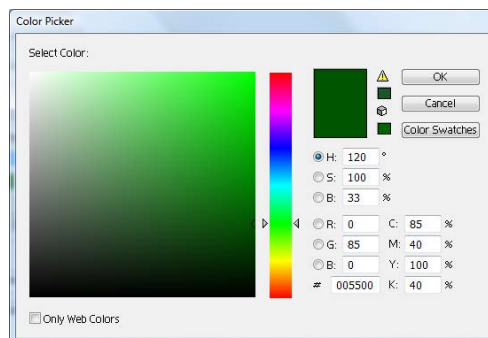
4.2 Additional area layer label settings

This section covers the labeling configuration for the source layer *Parks_area*. The goal is to add labels for the parks on the map, allowing the use of leader lines and font reduction. In this exercise, style and rules are created from scratch.

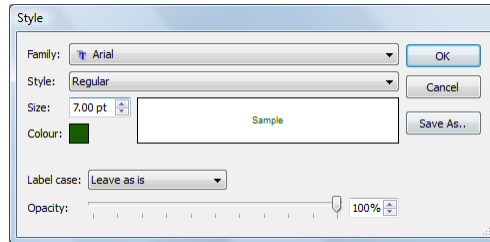
1. In the MAP LabelPro dialog box, click the *Parks_area* layer name in the Source column to highlight the row.
2. In the Attribute column and choose **PARK_NAME** from the drop-down list.
3. In the Destination column, choose **PARK_labels** from the drop-down list.



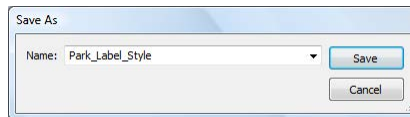
4. In the Style column, click *[Default]* and then click the Edit button  to open the Style dialog box.
5. Make sure that Arial is selected in the Family drop-down list.
6. Make sure that Regular is selected in the Style drop-down list.
7. In the Size drop-down list, set the font size to **7.00 pt**
8. Click the color chip and in the Color Picker dialog box, pick dark green color (e.g. R=0, G=85, B=0) and click OK.



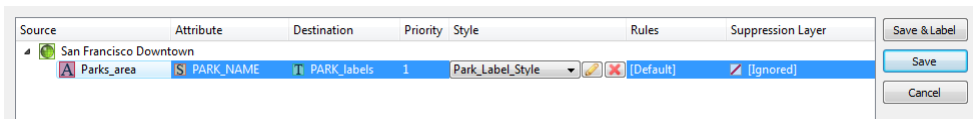
9. Make sure that the Style dialog box is setup as below and click Save As.




10. In the Save As dialog box, type **Park_Label_Style** in the Name box and click Save.



11. In the Style dialog box, click OK to close it.



In the MAP LabelPro dialog box, the Style column now displays the text *Park_Label_Style*. The style is saved in the directory specified in the MAPublisher Preferences.

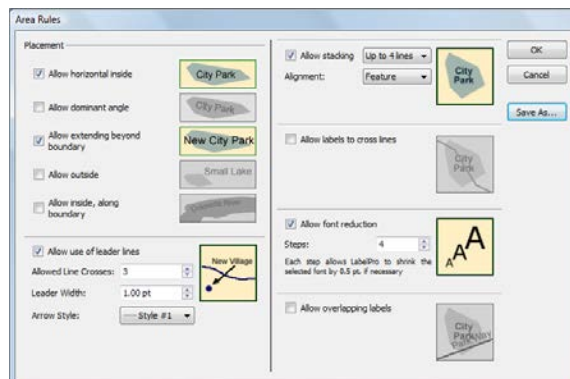
12. In the MAP LabelPro dialog box, under the Rules column, click *[Default]* and then click the Edit button  to open the Area Rules dialog box.

13. In the Area Rules dialog box, under Placement, click the check box for **Allow extending beyond boundary**.

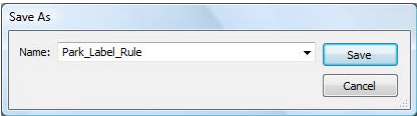
14. Click the checkbox for **Allow use of leader line**. Keep the default parameters.

15. For the Allow stacking rule, choose **Up to 4 lines** from the drop-down list. Leave the alignment as Feature.

16. Click the check box for **Allow labels to cross lines** to disable the rule.

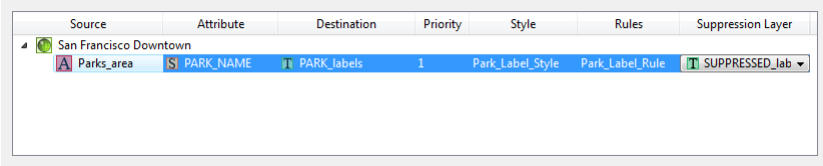


17. Click the Save As button and in the Save As dialog box, type **Park_Label_Rule** in the Name box and click Save.



18. In the Area Rules dialog box, click OK to close it.

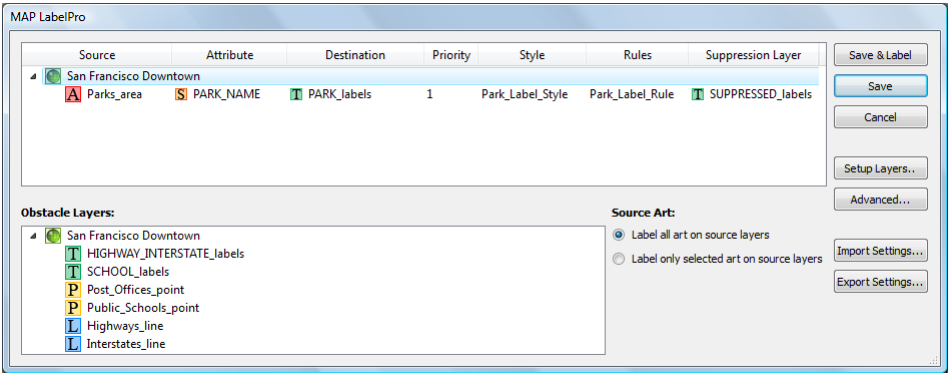
19. In the Suppression Layer column, choose **SUPPRESSED_labels** from the drop-down list.



In the MAP LabelPro dialog box, the Rules column now displays the text *Park_Label_Rule*. The rule is saved in the directory specified in the MAPublisher Preferences.

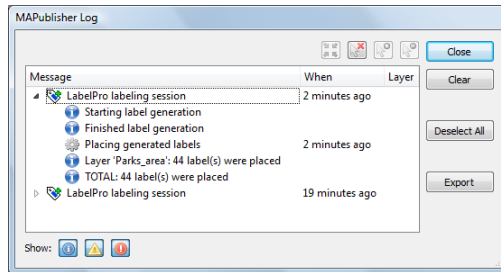
4.3 Execute labeling with MAP LabelPro

1. Make sure that all the layers have been configured as below and click the Save & Label button.



The parks are labeled appropriately according to the style and rules defined in MAP LabelPro.

2. Click the MAPublisher Log button on the MAPublisher Toolbar.



Statistics about how many labels were placed (or not placed) on each layer are displayed in the log. Notice that the first labeling session is also listed.

3. After reviewing the statistics, click Close to close the MAPublisher Log dialog box.

Result with full license:



Result with evaluation license:



Congratulations, you have completed the MAPublisher 8.6 MAP LabelPro tutorial. For more in-depth information on MAPublisher tools and features, please take a look at the MAPublisher 8.6 User Guide , MAPublisher 8.6 Tutorial Guide and Quick Start Guide. These documents are installed with MAPublisher 8.6 or can be downloaded from <http://www.avenza.com/documentation>.