

Getting Started with
SmartLabelTM **1.0**
For **MapInfo Professional**



Edition 1.0.0



The Company for Automated Cartographic Text Placement

MapText, Inc.
www.maptext.com

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1. The *SmartLabel*[™] System

SmartLabel[™] is a software system designed to accomplish *dynamic* or *static* high-quality automatic text placement for a map in MapInfo Professional. *SmartLabel* will place text in accordance with specified rules, avoid text-to-text or text-to-feature overlap (unless expressly allowed) and strive for unambiguous text-to-feature association. Most important, it aims to achieve high-quality, aesthetic placement so as to enhance rapid visual comprehension.

SmartLabel is a plug-in for MapInfo Professional. It extracts the map data from the current Map Window in the workspace and performs fast, high-quality cartographic text placement. The features to be labeled are extracted from the layers specified in the MapInfo Layer Control. The label properties, i.e., attributes to be used for labeling, font, font color and font size for the label, are also extracted from the Label properties in the Layer Control for each layer.

You may have different requirements for placing the text for the different layers of the map. Placement requirements will vary depending on the type of map, its intended purpose, its scale, and your organization's own standards and conventions. *SmartLabel* allows you to specify the rules and preferences for text placement through a user-friendly GUI. The placement properties, once set, can be saved to a file and imported into other Workspaces. *SmartLabel* can be used to generate high-quality text placement in a *dynamic* mode, i.e., relabeling on every user pan/zoom event, or in a *static* mode for a fixed map extent and scale.

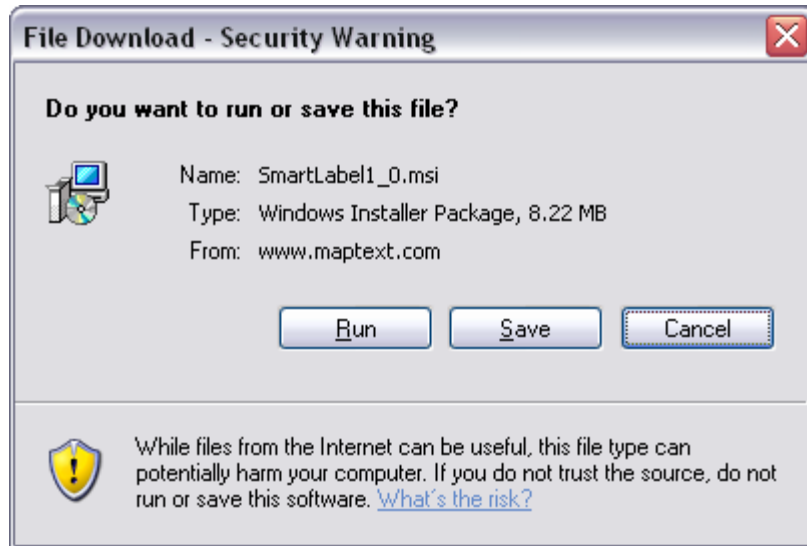
This document will help get you started with using *SmartLabel*. Use the Help within *SmartLabel* to guide you further.

System Requirements

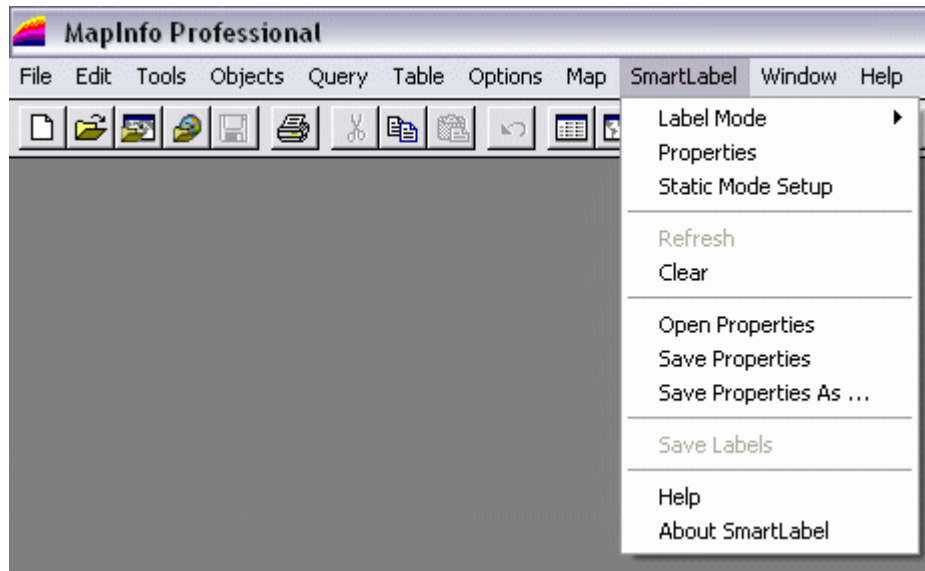
- 1.4 GHz Pentium 4 processor or higher
- 512 MB of RAM minimum
- Free disk space: 20 MB minimum
- Display resolution: 1024 x 768 or higher
- Windows 2000 or XP
- MapInfo Professional 7.0 or above

2. Installation

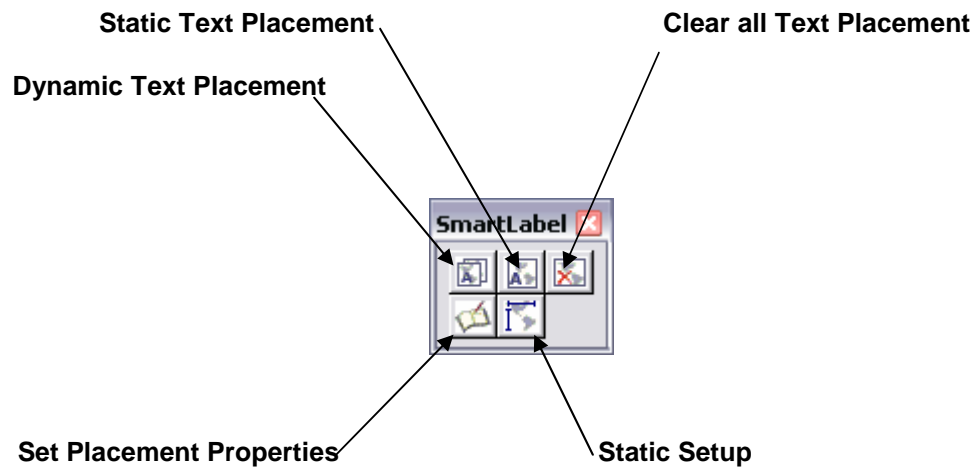
To install *SmartLabel*, you must have administrative privileges on your local machine and must have MapInfo Professional v7.0 or above installed on the machine. Go to www.maptext.com/smartlabel and click on the link **Download**. There you will be able to download a fully functional trial version of *SmartLabel*. After clicking on *Download*, you will see the following screen:



- To start the installation immediately, click **Run** and follow the prompts on the subsequent screens.
- To download to your computer for installation at a later time, click **Save**. The installation file, *SmartLabel1_0.msi*, will be stored in the folder that you specify and may be executed at a later time.
- Upon completion of the installation, *SmartLabel* will appear on the menu bar in MapInfo Professional the next time you start MapInfo Professional.

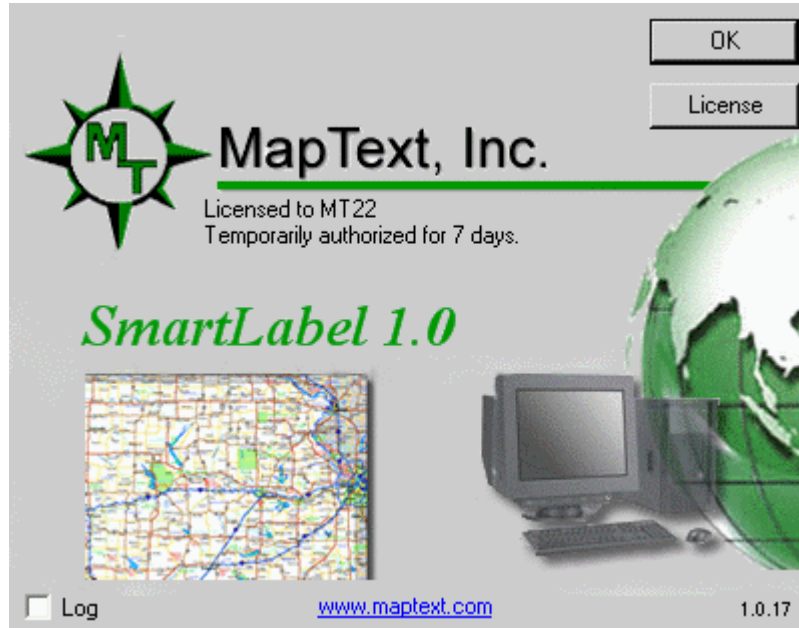


You will also see a *SmartLabel* button pad on your screen, as shown below:



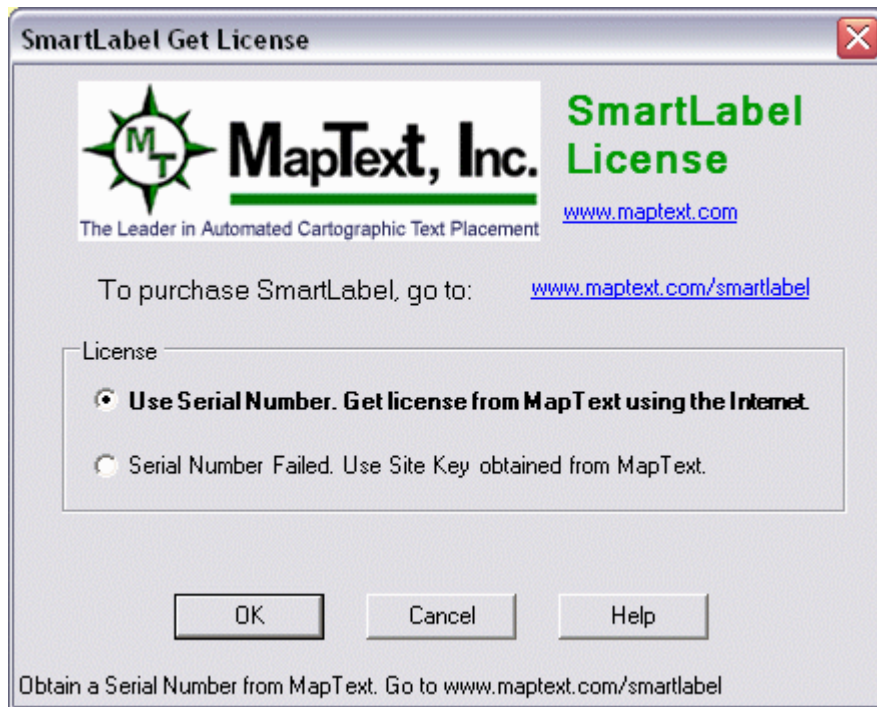
3. Licensing *SmartLabel*

Upon starting up *SmartLabel* for the first time, you will receive a 7-day, no-cost trial license as shown below:



You can manage your license through the About screen by clicking on the License button.

- To obtain a full license, you must first obtain a product serial number from MapText by going to www.maptext.com/smartlabel. Follow the instructions on the web page to purchase a copy of *SmartLabel* and receive your unique serial number.
- After obtaining a serial number from MapText, click on the License button to bring up the *SmartLabel* Get License dialog, as shown below:



- Click OK and step through the MapText License Wizard to obtain a license.

For more details on licensing see the Help documentation within *SmartLabel*.

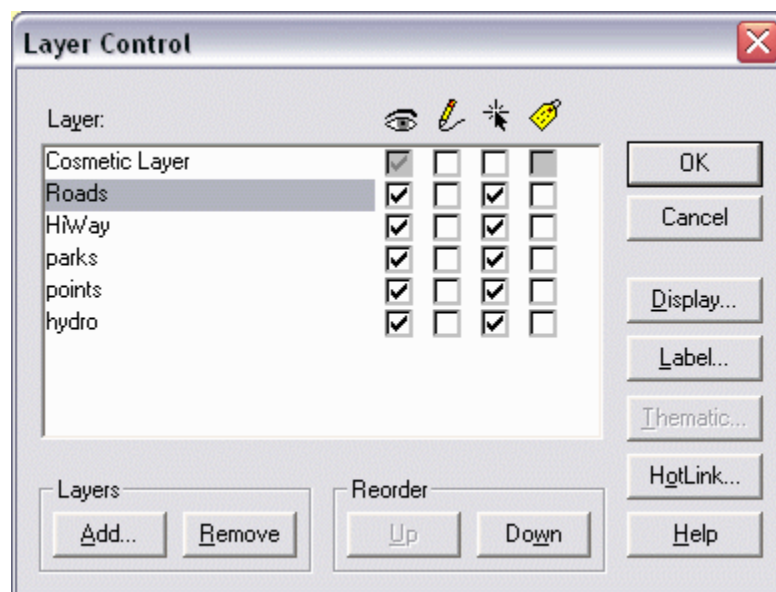
4. Steps in Using *SmartLabel*

SmartLabel performs label placement based on the rules set using the *SmartLabel* Placement Properties Dialog. There are two distinct modes for labeling a map: *Dynamic* and *Static*. In the *Dynamic* text placement mode, the current view of the map window is labeled and the labels are re-generated each time the map view changes, i.e., pan or zoom. In the *Static* text placement mode, you specify the map extent and scale for labeling using the **Static Mode Setup** Dialog. In Static Mode, the labels are generated once and remain placed on the map unless you explicitly clear or re-label the map using *SmartLabel*.

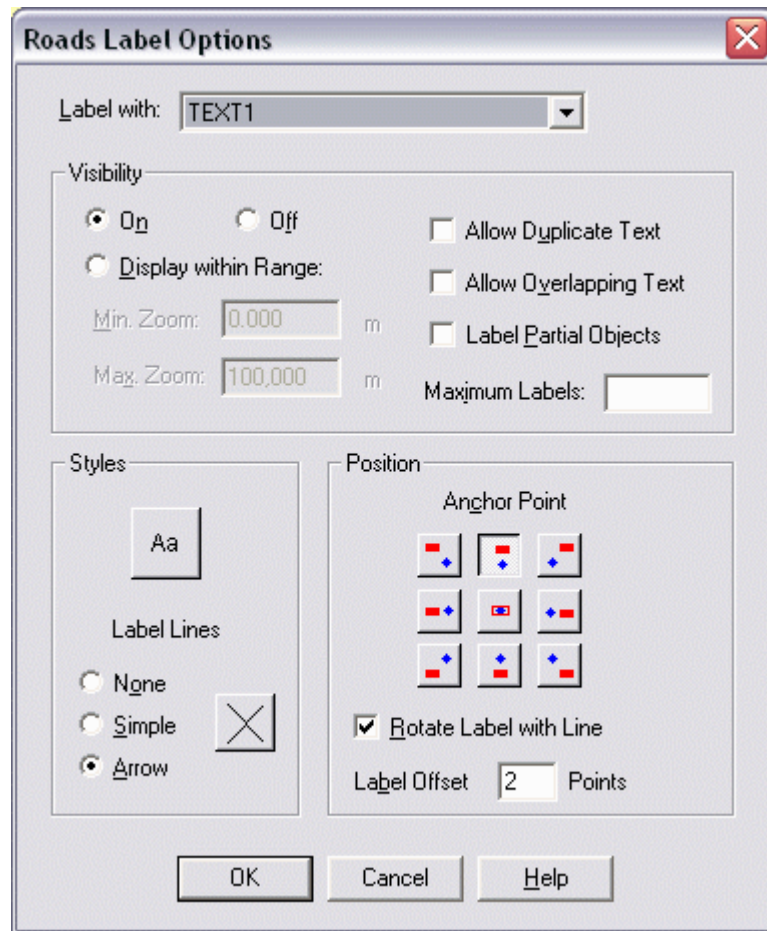
4.1. Setting up your Data for Labeling

Before using *SmartLabel* to label the features in your map, you need to set up the label properties for each layer in your Map Window.

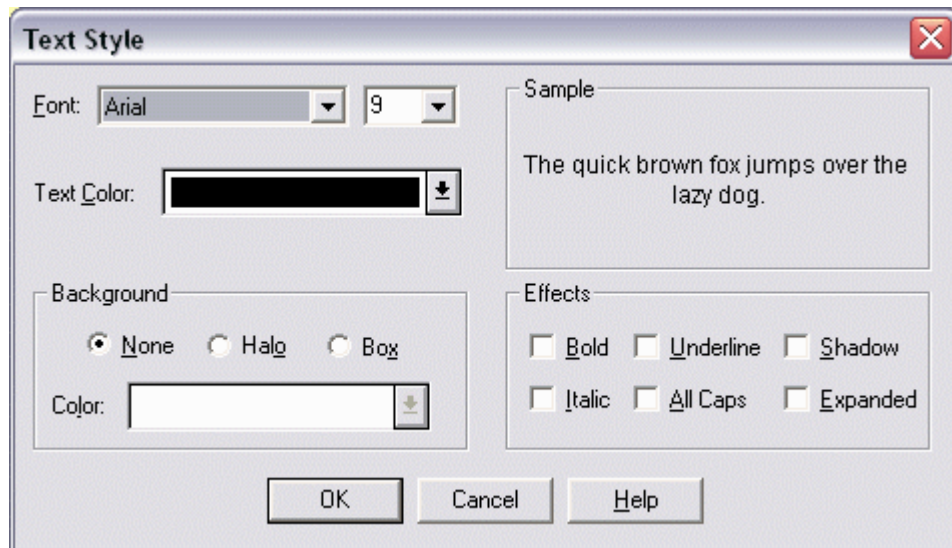
1. Bring up the MapInfo Layer Control dialog by clicking on **Map->Layer Control** in the current Map Window or by clicking on the **Layer Control** tool button in the main Tool bar. You should see a dialog showing a list of layers currently open, similar to the one shown below.



2. Highlight a layer and click on the **Label** button on the right to bring up the **Label Options** dialog window for that layer.



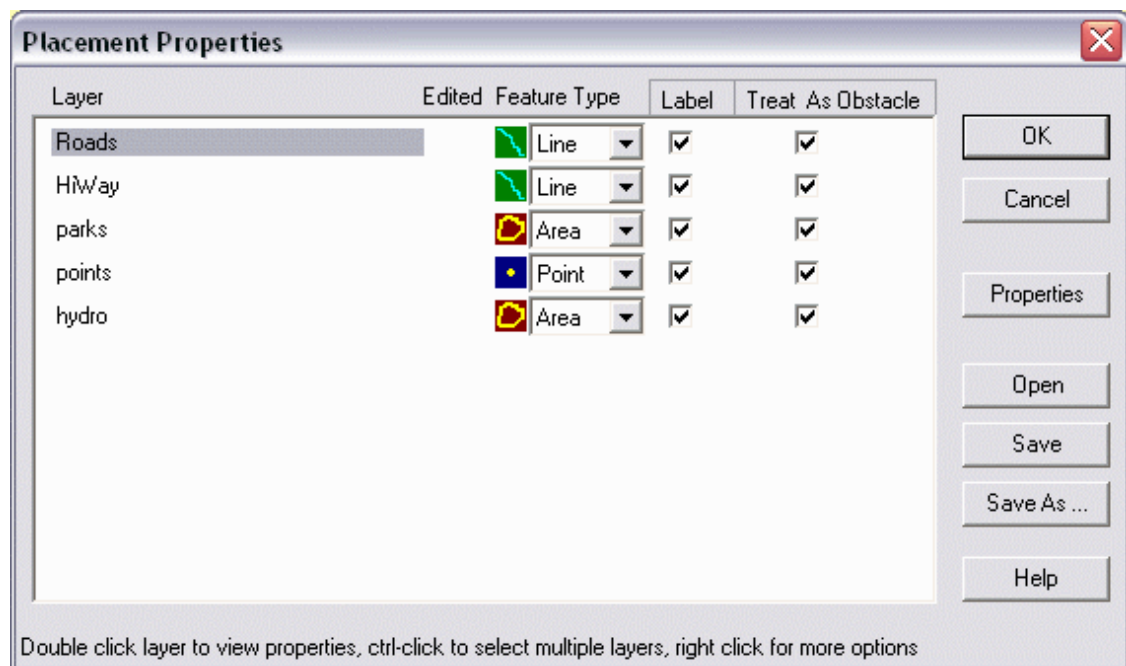
3. Set the “**Label with**” property at the top of the dialog to reflect the attribute that stores the text for the features in the layer. The current release of *SmartLabel* does not support expressions.
4. Bring up the **Text Style** dialog, by clicking on the button with caption “**Aa**” in the Styles frame. Use this dialog to set the **Font** properties for the label. The current release of *SmartLabel* only supports TrueType fonts.



5. If you provide a **display range**, then *SmartLabel* will label the features in this layer only if the map zoom level is within the range set for the label.
6. Click on **OK** to return to the **Layer Control**.
7. Repeat steps 2 - 4 for all layers that are to be labeled and then click on **OK** to close the Layer Control dialog.

4.2 Setting Label Properties

You set up the placement properties associated with each layer using the **Placement Properties** dialog. You access the **Placement Properties** dialog by selecting the menu item, **SmartLabel->Properties**. This will bring up the following dialog screen:



This dialog screen displays the layer names taken from the MapInfo Layer control. To display the layer's placement properties, select the layer and click on the **Properties** button at the right. A dialog appears based on the feature type (line, area, or point) associated with the layer.

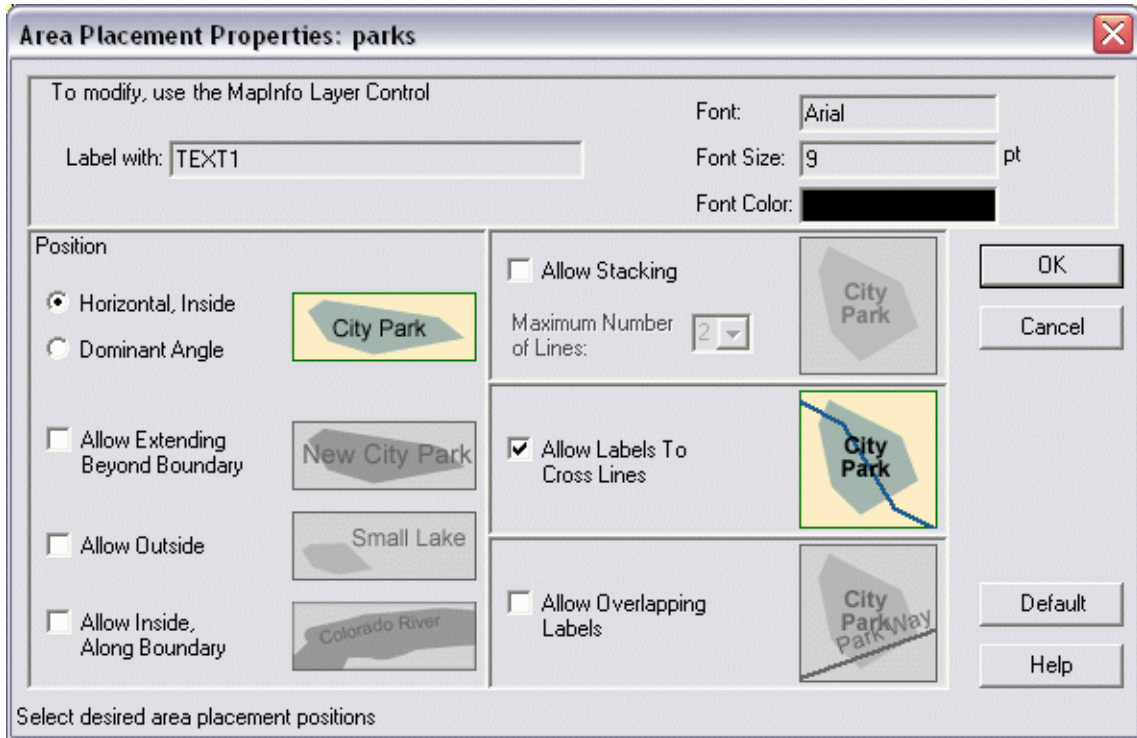
By default, the feature type for each layer is set to the type of the first element in the layer. Only one type of feature, i.e., line, point or area, can be labeled per layer. You may change the feature type of a layer by selecting a new feature type from the associated **Feature Type** drop down list.

For each layer, you can specify whether or not the features in the layer are to be labeled, by checking or un-checking the associated Label check box.

For each layer, you can specify whether or not the features in the layer are taken into account as an *obstacle* when performing label placement. You can set this by checking or un-checking the associated **Treat As Obstacle** check box.

Area Placement Properties Dialog

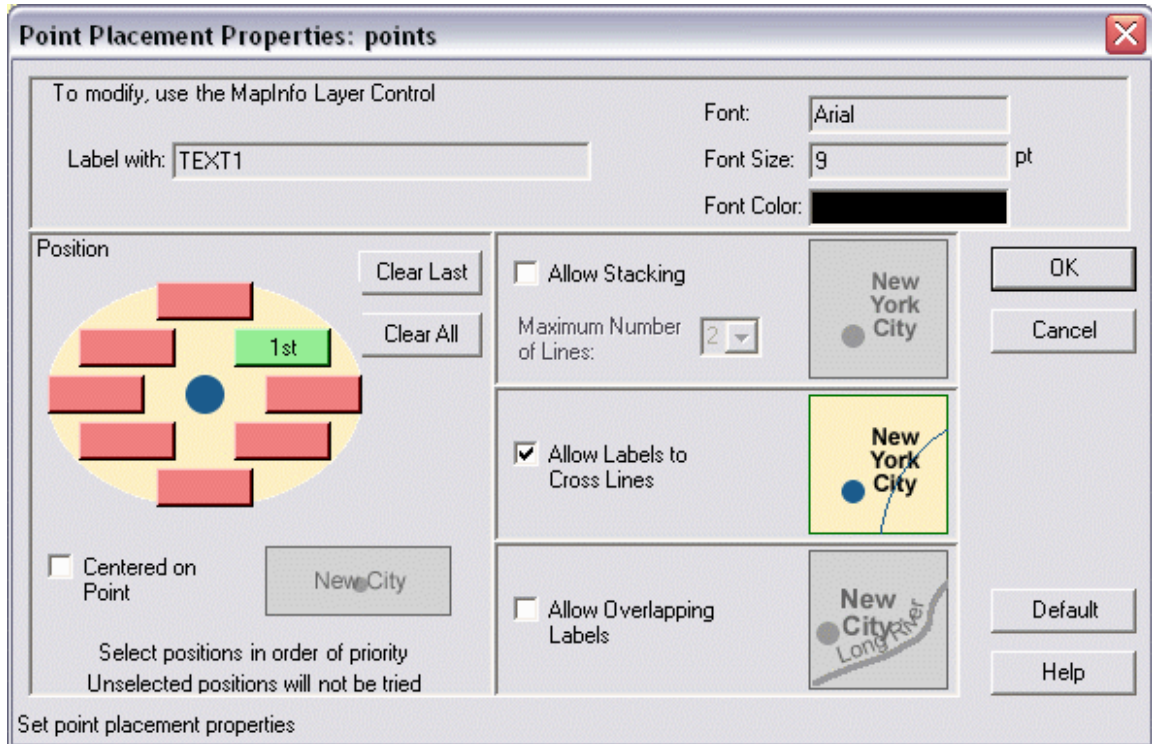
The area-feature placement rules can be set by selecting area-feature type layer(s) and clicking on the **Properties** button in the **Placement Properties** dialog. This will bring up the dialog shown below:



The placement settings shown in the above dialog are the *default* settings for Area-Feature label placement. You may change the default placement settings using this dialog. After modifying the placement settings, click **OK** to apply these new settings to your label placement.

Point Placement Properties Dialog

The point-feature placement rules can be set by selecting point-feature type layer(s) and clicking on the **Properties** button in the Placement Properties Dialog. This will bring up the dialog shown below.



The placement settings shown in the above dialog are the default settings for Point-Feature label placement. You may change the default placement settings using this dialog. After modifying the placement settings, click **OK** to apply these new settings to your label placement.

Line Placement Properties Dialog

The line feature placement rules can be set by selecting line feature type layer(s) and clicking on the **Properties** button in the Placement Properties Dialog. This will bring up the dialog shown below:

Line Placement Properties: Roads

To modify, use the MapInfo Layer Control

Label with:

Font:

Font Size: pt

Font Color:

Position

Offset

- Above
- Below
- Vertical Split

Centerline

Label with Shields

Size: pt

Allow Stacking

Label Joined Features

Label Each Feature

Spread Words cm

Allow Overhang %

Repeat Labels cm

Allow Overlapping Labels

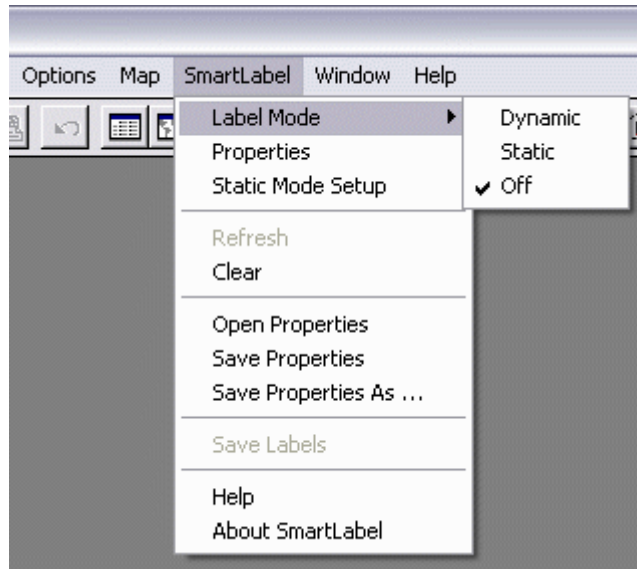
Select to allow stacking of text above or below the line depending on the position options selected.

The placement settings shown in the above dialog are the default settings for Line Feature label placement. You may change the default placement settings using this dialog. After modifying the placement settings, click **OK** to apply these new settings to your label placement.

4.3 Setting Label Mode

The label mode is a selectable state that controls how the map is labeled. There are three states, **Dynamic**, **Static**, and **Off**.

You change the label mode by clicking on **SmartLabel->Label Mode** in the menu bar as shown below.



Off Mode

The Label Mode is initially set to OFF. To select labeling **off**, select **SmartLabel->Label Mode->Off**.

In this mode, label placement is turned off. If there are placed labels, these labels will remain placed.

Dynamic Mode

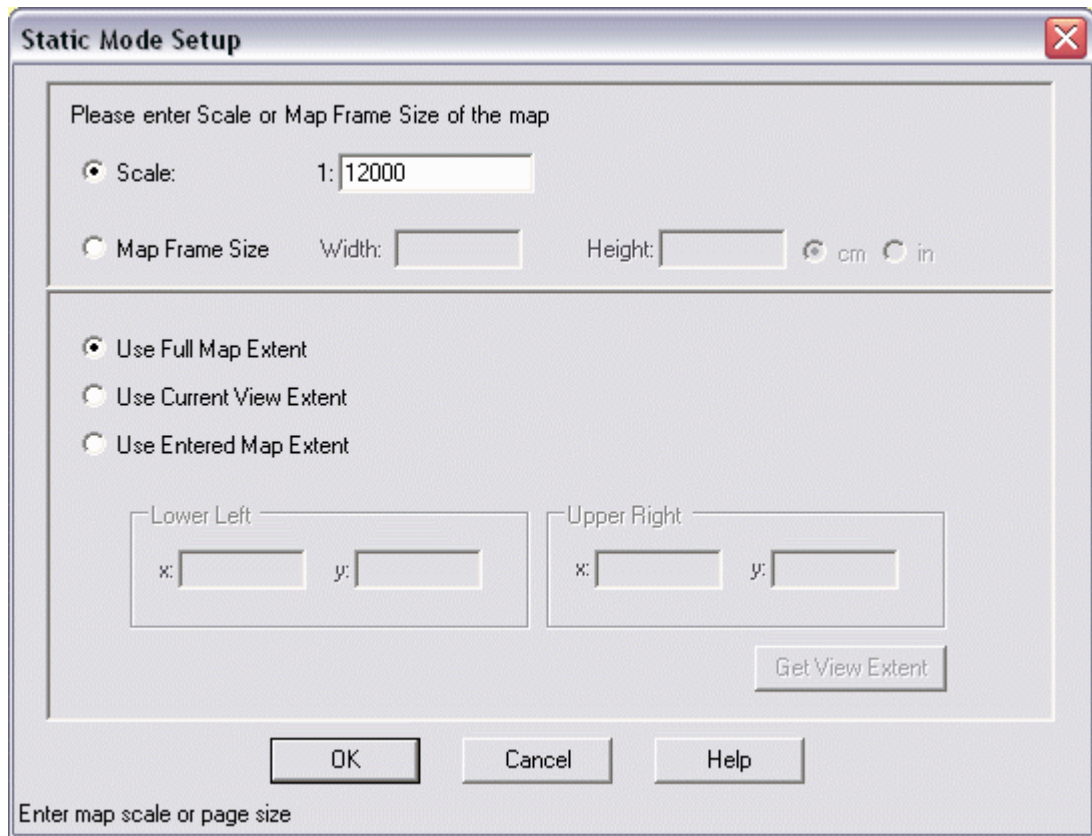
To turn Dynamic mode on, select **SmartLabel->Label Mode->Dynamic**.

In Dynamic mode, the map will be re-labeled each time a change is made to the Map Window such as a pan, zoom, window resize, or feature edit. It is recommended that you zoom in to select an initial map area of a size appropriate for on-screen labeling. If you label a dense map and it is taking a significant amount of time, you may cancel the labeling by clicking on the **Cancel** Button in *SmartLabel* progress screen.

Static Mode

To turn Static mode on, select **SmartLabel->Label Mode->Static**.

In Static mode, the map will be labeled once, given a fixed map extent and scale. Prior to labeling in Static mode, you need to provide an *extent* and *scale* through the **Static Mode Setup** dialog, as shown below:



Setting Placement Scale

You can specify the scale at which the map is to be labeled. The scale to be provided is an absolute (non-dimensional) scale.

Setting Map Size

If you do not know the scale of the map, but instead know the paper size on which the map is to be printed, you can set the *Map Frame Size*. The scale will be automatically computed using the Frame size and the map extents.

Setting Map Extent

You can set the extent of the map to be labeled by one of the following methods:

- a. **Full Map Extent** – in this mode the maximum extent of all layers in the Layer Control is used for labeling.
- b. **Current View Extent** – in this mode the current extents of the Map Window are used as the map extent for labeling.
- c. **Entered Map Extent** – in this mode you can specify a rectangular region for labeling by specifying its lower left and upper right coordinates.

5. Getting Help and Support

Click on **SmartLabel->Help** from within MapInfo Professional to get detailed help as shown below:



You may also access context sensitive help from any of the *SmartLabel* Dialogs.

If you need additional help or support, go to <http://www.maptext.com/smartlabel>

Notes