

RITI-SICOM3.2 -TECH-005

# SDM PROFILER (SP) USER'S MANUAL



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274 Main Street, Suite 302  
Reading, MA 01867

Tel./ 781.942.1655  
Fax/ 781.942.2161  
Website/ [www.riti.com](http://www.riti.com)  
E-mail/ [riti@riti.com](mailto:riti@riti.com)

READING INFORMATION TECHNOLOGY INC.

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## I. Who is Profiler for?

Profiler is a tool for the SICOM application developer. It is not for the SICOM end-user. Systems are delivered to the end-user with a *Profile* file generated by the Profiler, but without the Profiler application itself. SICOM Display Module reads and interprets the *Profile* file.

## II. What does Profiler do?

The SICOM Profiler controls the look and feel of the SICOM Display Module. It provides access to the configurable attributes of the Display Module, allows capture of the developer's choices and produces a configuration file to be read and interpreted by the SICOM Display Module. The configuration file may be read into the SICOM Profiler for any required updating of settings.

## III. PROFILER ENVIRONMENT REQUIREMENTS<sup>1</sup>

The SICOM Profiler makes use of an environment variable named `SICOM_FEATURE_LIST`. The file associated with this variable is read to retrieve a list of all the feature codes in the map that will be used with the end users system. This file may have been created by the Feature Lister application and is a text file (*.txt*) that consists of the feature codes, one per line, for the map being used. If there is no `SICOM_FEATURE_LIST` environment variable then the default is a file named *allFeatureCodes.txt* in the current directory. The map features visible with the SICOM Display Module must first be selected to be visible by the Profiler. Map feature codes must be provided to the Profiler in an appropriately formatted file and associated with this environment variable.

The `SICOM_PROFILE` environment variable is used to retrieve a default *Profile* filename. If this variable is absent then the filename *Profile* will be used in the current directory.

To set the Profiler environment variables in a Windows NT environment, follow these steps:

1. Go to the **Start** menu, and select **Settings > Control Panel**.
2. Double-click the **System** icon. The System Properties dialog box is displayed (Fig.III.1)
3. Click on the **Environment** tab.
4. Type in the path and file name in the **Value** text field and the variable name in the **Variable** text field.
5. When you are finished, click on **Set**.
6. When you have entered all needed environment variables click on **Accept**.

In a Windows 95 or Windows 98 environment, variables may be set in the *Autoexec.bat* file, by adding **SET** lines for the environment variables, saving the file and restarting the system.

SICOM Profiler is currently supported by Windows NT and 2000, Windows 95 and Windows 98 operating systems only.

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<sup>1</sup> The installation script should take care of this. On the safe side, please verify it.

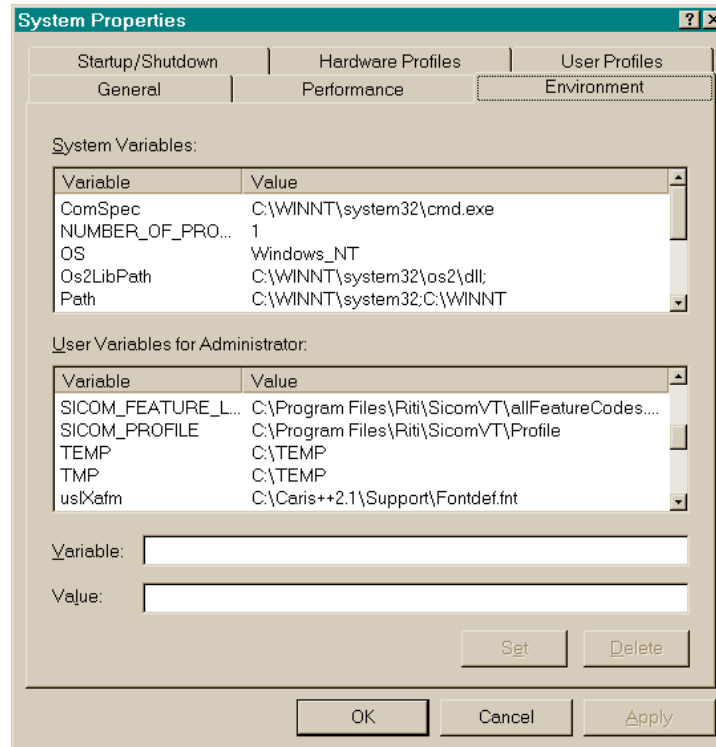


Fig. III.1 System Dialog Box

#### IV. Using SICOM Profiler

This section explains how to use SICOM Profiler.

SICOM Profiler v.1.0 consists of six property sheet style pages. Each page may be used to define a different category of the SICOM Display Module control settings. The page categories are: **Program Control**, **Main Window Control**, **Map View Control**, **Zoom/Pan Control**, **Feature Control** and **Data Readout Control**.

On starting the SICOM Profiler an **Open** file window is displayed to provide the option to open up and work with an existing profile configuration file. The file name and directory may be entered to enable this option. The file name defaults to the file pointed to in the SICOM\_PROFILE environment variable. Input Profile files do not have to be named *Profile*; another file of Profile format may be selected. Selecting **Cancel** from the **Open** file window means that you will be starting from default values instead of from a previously created file.

Once the file or default values are loaded you may view and change the settings on any or all of the pages. You may move to any page and change any value as often as you like. Page setting descriptions are provided in the following sections.

If you do not want to keep any of the changes, click **Cancel** and your input file, if any exists, will not have been altered.

When you wish to save your selections click **Exit**. A **Save As** file window will appear. Enter the file name and directory where you wish to save the configuration file. You now have a configuration file for the SICOM Display Module. You may save to a different Profile file than the one that was being read. The file you save to does not have to be named *Profile* but it must be renamed *Profile* and placed in the correct directory before the SICOM Display Module will interpret it.

When SICOM Profiler is used to create multiple configuration files, a naming/storage strategy is recommended. A suggested way to work with a number of different configurations is to save each by a new name — Profile1, Profile2 etc. or by a project name. Be sure to save the *allFeatureCodes.txt* file or the associated feature list with the project as well. To use the file with the SICOM Display Module, copy the file to the directory named in the SICOM\_PROFILE environment variable and rename it *Profile* before starting the Display Module.

Keeping files of each different Profile configuration implemented allows for replication of an end user's SICOM Display Module environment for testing and assistance. It will also be easier to issue an updated version of SICOM Display Module to an end-user without introducing the possibility of a changed interface. When creating updated versions be sure that you are working with the appropriate version of *allFeatureCodes.txt* (or the feature list associated).

#### **IV-1. Program Control Page (NOT USED IN SICOM3.2)**

The **Program Control** page (Fig. IV-1) allows for plug-ins to be enabled on the SICOM Display Module. The only plug-in currently defined is the **Composition Module**. To enable a version of the SICOM Display Module to work with the plug-in, select the plug-in on this page when defining the profile. A selected option will have a check mark in the box to the left of the plug-in title.

#### **IV-2. Main Window Control Page**

The **Main Window Control** page (Fig. IV-2) may be used to define the window dimensions and the look of the SICOM Display Module. The **Initial Size** can be set to **Half Screen**, **Full Screen** or **Custom** — in which case you must enter the width and height of the screen in pixels. The **Initial Position** can be defined as either **Centered** or a **Custom** x, y starting position. If you select **Custom** size or position you must enter values for them and you must move out of the entry boxes for their values before moving to another page.

A **Title Bar** can be set for the SICOM Display Module window; if the **Title Bar** option is selected the string in the entry box to the right of the **Title Bar** option will be displayed at the top of the window.

The SICOM Display Module window may be set to be **Resizable**, **Maximizable** or **Minimizable** by selecting the options on this page.

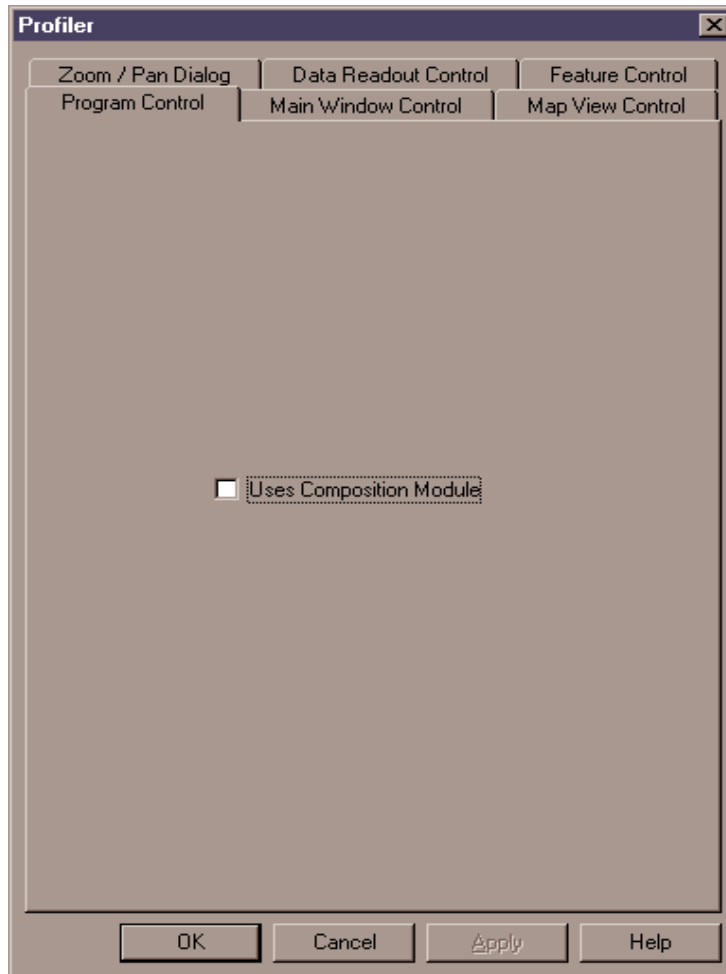


Fig. IV-1 Program Control Page

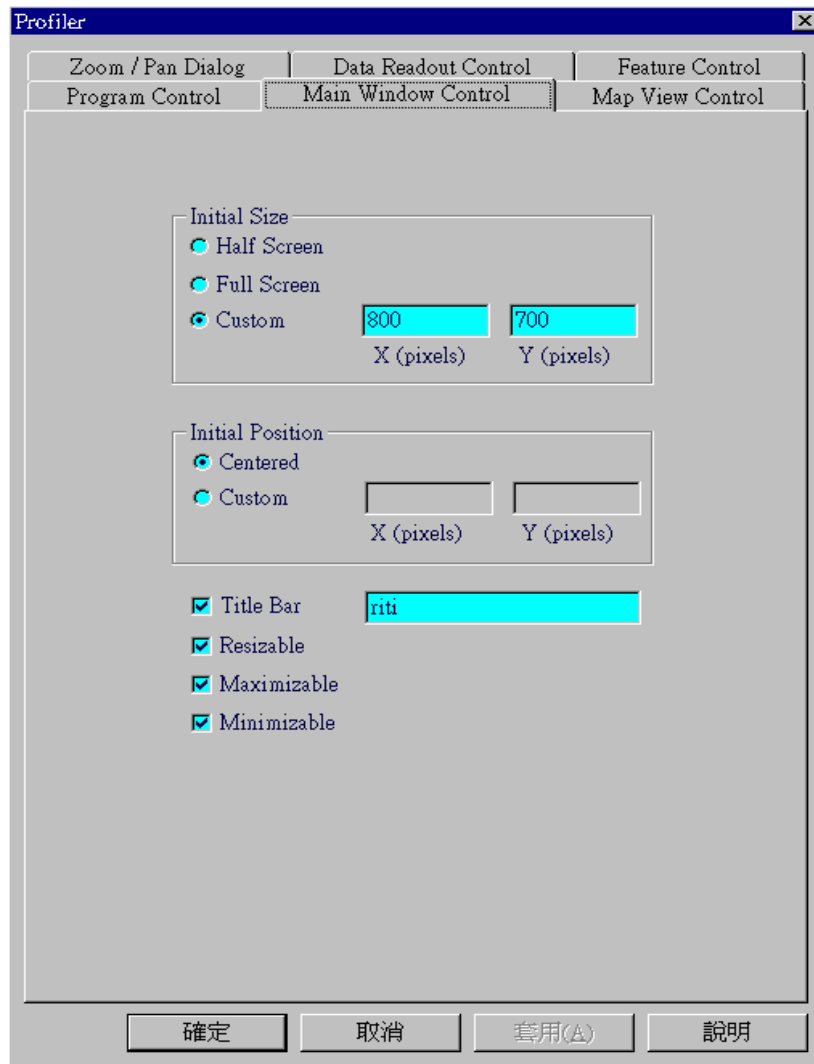


Fig. IV-2 Main Window Control Page

### IV-3. Map View Control Page

The **Map View Control** page is used to define the settings of the windows that display maps within SICOM Display Module.

Map views can be set to allow **Multiple Views** or **Single Views**. **Multiple Views** allow the user to open a map, keep that view open and then open another view of that or another map.

The map that is opened, or its directory, may be predefined here by selecting **Preload File**. Click the **Browse for Preload File** button to reach the name and directory to be found on the computer. The file or directory name may also be directly entered in the box above the

browse button. If the **User Opens file** option is selected then the SICOM Display Module user has the flexibility to open a map of their choice.

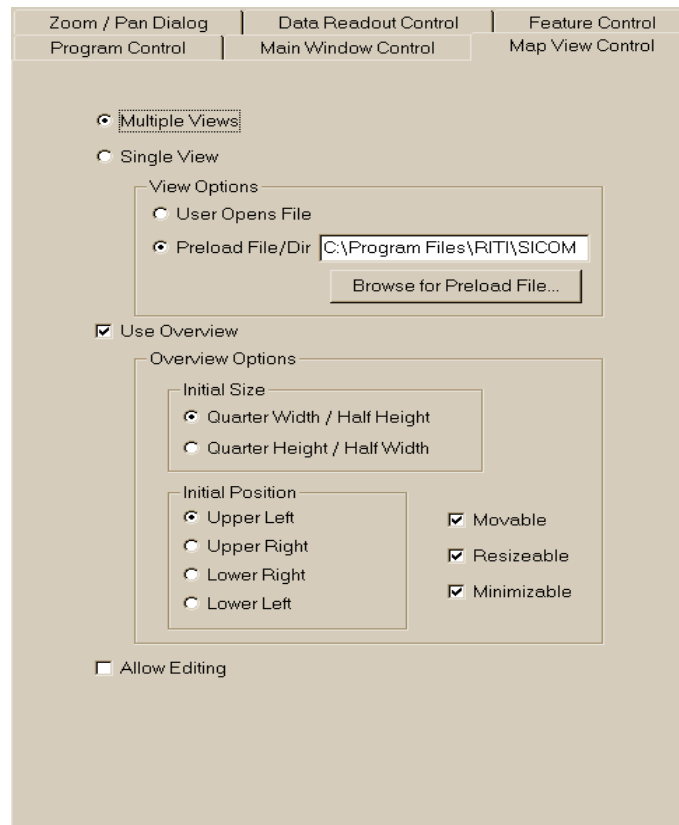


Fig. IV-3 Map View Control Page

An overview window can be placed within the map view if the **Use Overview** option is selected. With the **Overview** option selected, the **Initial Size** and **Position** of the overview window can be defined as well as whether or not the overview window is **Movable**, **Resizable** and **Minimizable**.

Setting the **Allow Editing** option permits the SICOM Display Module user to edit a map that is not read-only.



#### IV-4. Feature Control Page (NOT USED in SICOM3.2)

The Feature Control page defines feature display and selection for the map in use with the SICOM Display Module. Feature display may be either By Feature or By Layer. Layers are defined on this page. Feature code lists on this page are determined from the file pointed to by the SICOM environment variable - SICOM\_FEATURE\_LIST. This file may have been created by the Feature Lister application and is a text file (.txt) consisting of the feature codes, one per line, for the map being used. If there is no SICOM\_FEATURE\_LIST environment variable then the default is a file named *allFeatureCodes.txt* in the current directory.

If **By Feature** is selected then the **Working** and **Overview** list boxes will contain the list of available features. Features need to be highlighted in order to be selected for display in the working map view(s) and in the overview (if used). Simply click on a feature in the list box to toggle the feature as either selected or not. To select multiple features, hold down the control key and click on each desired feature. To select a range of features, click on the first feature in the range, press and hold the **Shift** key, then click on the final feature in the range. Only the highlighted features are selected and will be displayed in the SICOM Display Module.

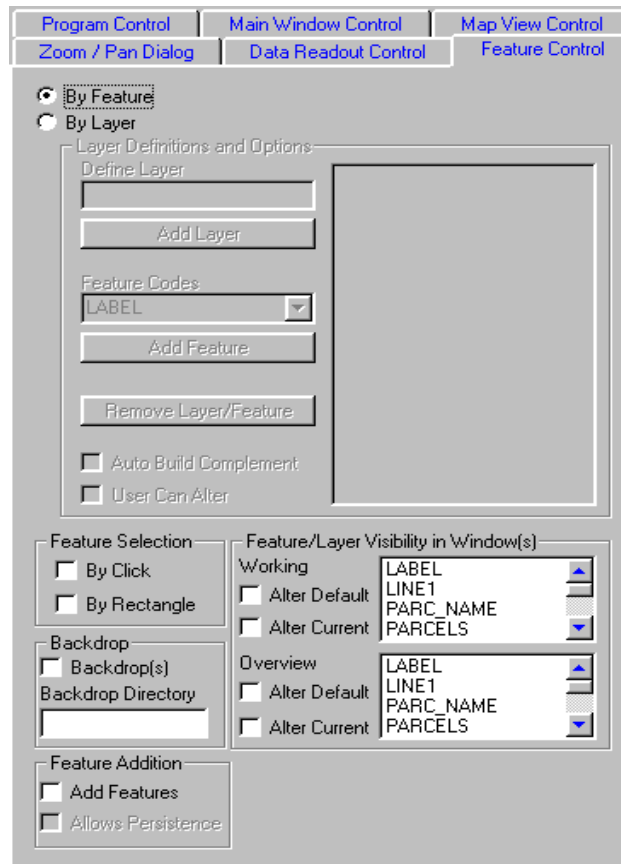


Fig. IV-4 Feature Control Page

The features displayed on this page are taken from the file to which the SICOM\_FEATURE\_LIST environment variable points. If you load an existing profile containing a different list of feature codes than the to which SICOM\_FEATURE\_LIST points, then the features will not be displayed. Any feature codes that are common to both the loaded Profile file and the set feature file list, and that were selected in the loaded Profile, will be displayed as selected. Should this situation occur and you wish to avoid over-writing previous feature selections loaded in the Profile, click **Cancel** and none of the changes made to the Profile will be saved. Alternatively, you may click **Exit** and save the Profile file under a different name/directory.

If **By Layer** is selected then layers of feature codes may be defined. To define a layer, enter the layer name in the box beneath **Define Layer** and click the **Add Layer** button. The new layer should appear in the display box to the right. To add features to a layer, select the layer in the display box so that the layer name is highlighted; then select a feature from the drop-down box below **Feature Codes** and click the **Add Feature** button. The feature should appear as a branch of the selected layer in the display box. Multiple features may be added to a layer. Multiple layers may be added. The same feature can be part of more than one layer. Using layers instead of features allows entire layers to be selected for visibility in the **Working** and **Overview** boxes.

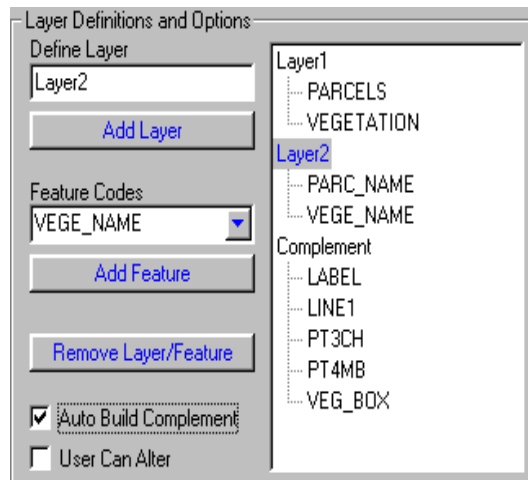


Fig. IV-4.2 Layer Definitions and Options

Layers and features may be removed from the layer selection by highlighting the layer or feature and clicking the **Remove Layer/Feature** button.

Selecting **Auto Build Complement** creates a layer named *Complement* that contains all the features that have not been selected for any defined layer.

The **User Can Alter** option permits the SICOM Display Module user to alter the layer settings when they run the Display Module.

Toggling between **By Layer** and **By Feature** will remove any of the layer and feature display settings.

The **Alter Default** option for the **Working** and **Overview** display allows the SICOM Display Module user to alter the defaults defined on this page. **Alter Current** allows the user to change the values only during the current run of the Display Module.

The **Feature Selection** control options define how features may be selected in the SICOM Display Module. **By Click** allows feature selection by pointing the mouse at the feature and clicking the mouse button. **By Rectangle** allows feature selection within a rectangle, and is executed in the SICOM Display Module by clicking the mouse at the upper left hand corner, and, with the mouse button held down, dragging until the desired rectangle is.

The **Backdrop** option is currently disabled.

The **Feature Addition** option determines if it will be possible for the user to add features in the SICOM Display Module. Selecting **Add Features** permits the user to add new transient features. Selecting the **Allows Persistence** option permits the user to add new permanent features.

#### IV-5. Zoom/Pan Control Page

The **Zoom/Pan Control** page allows the definition of how SICOM Display Module will allow zooming and panning on the map in view.

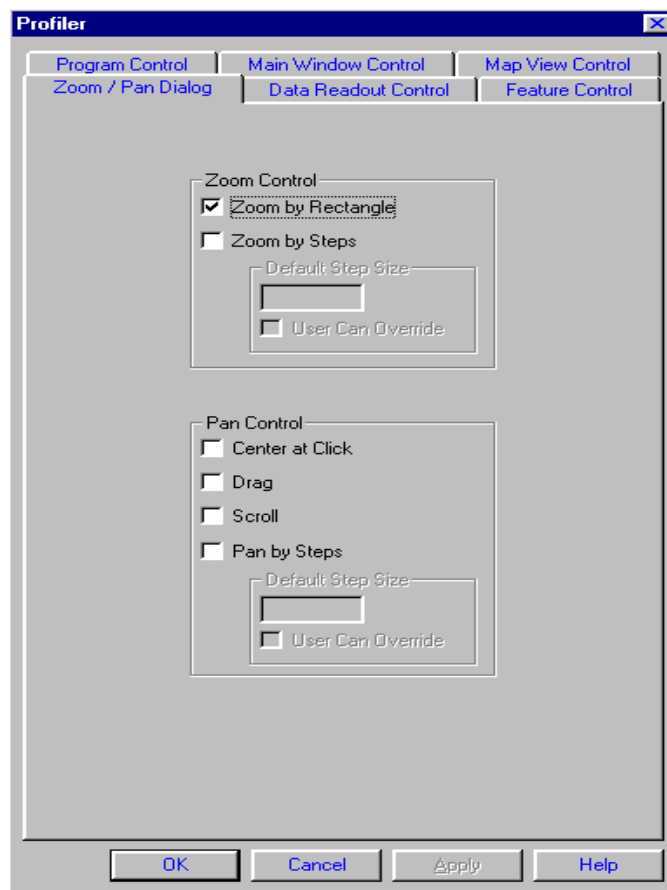


Fig. IV-5 Zoom/Pan Control Page

Options for zooming are **by Rectangle** and **by Steps**. **Zoom by Rectangle** allows the user to click and drag to define a rectangular area into which to zoom. **Zooming by Steps** allows the user to zoom by a certain percentage with each zoom. If **Zoom by Steps** is selected then a **Default Step Size** percentage must be entered. If the **User Can Override** option box is selected then the SICOM Display Module user can change the zoom step percentage at runtime.

The **Pan Control** options allow the SICOM Display Module user to pan by **Center at Click** (to center their map display at mouse click), by **Drag** with mouse drag, by **Scroll** using scrollbar, or by steps using **Pan by Steps**. If **Pan by Steps** is selected, then a **Step Size** percentage must be entered. The **User Can Override** option for **Pan by Steps** allows the Display Module user to change the step percentage at runtime.

Multiple types of zoom and pan control options may be selected.

#### IV-6. Data Readout Control Page (NOT USED IN SICOM3.2)

The **Data Readout Control** page allows definition of point and vector readout on the map displayed by the SICOM Display Module.

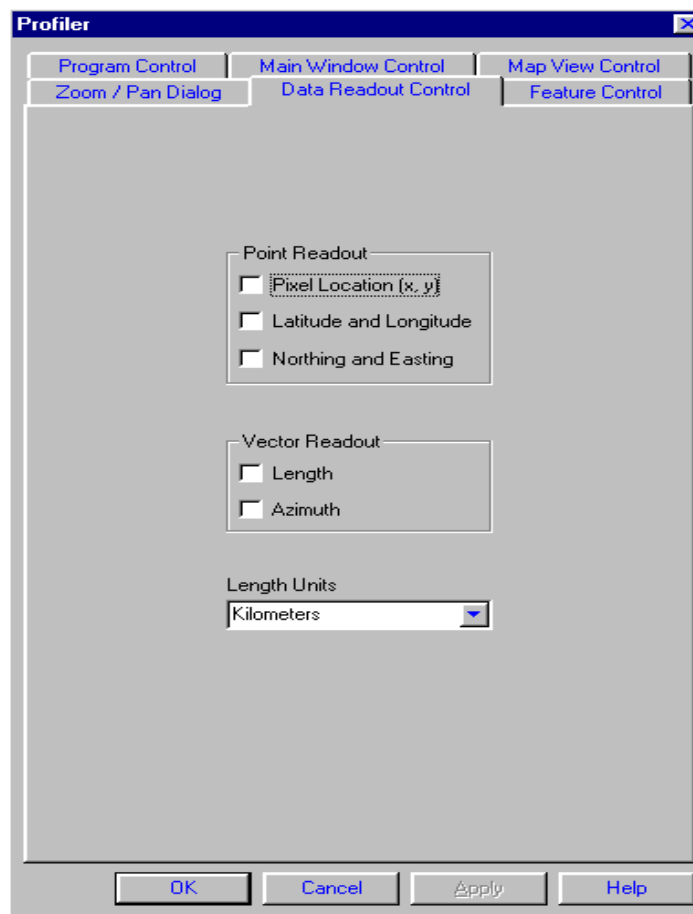


Fig. IV-6 Data Readout Control Page

The **Point Readout** section allows definition of point readout by **Pixel Location, Latitude and Longitude** and **Northing and Easting**. Any combination may be selected.

The **Vector Readout** can be set to be by **Length** or **Azimuth**, or both.

The length of units may be set as *Kilometers*, *Miles* or *Nautical Miles*. Only one unit of length may be selected.