

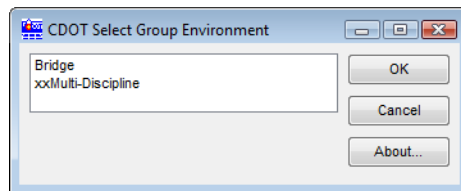
# LAB 1 - Getting Started in InRoads Survey

## Lab 1.1 - Set CDOT V8i Environment and Verify Resources

### **Section Objectives:**


After completing this exercise you will know how to:

- ◆ Create a new design file for use with Topo collection.
  - ◆ Verify the correct MicroStation resources are in place for topo data reduction and exporting.
1. From the Windows Start menu **Start > All Programs > \_CDOT\_CADD\_Information > V08.11.XX-V8i > Select Group Environment**. The CDOT Select Group Environment dialog will appear.
  2. From the **CDOT Select Group Environment** dialog select *xxMulti-Discipline*

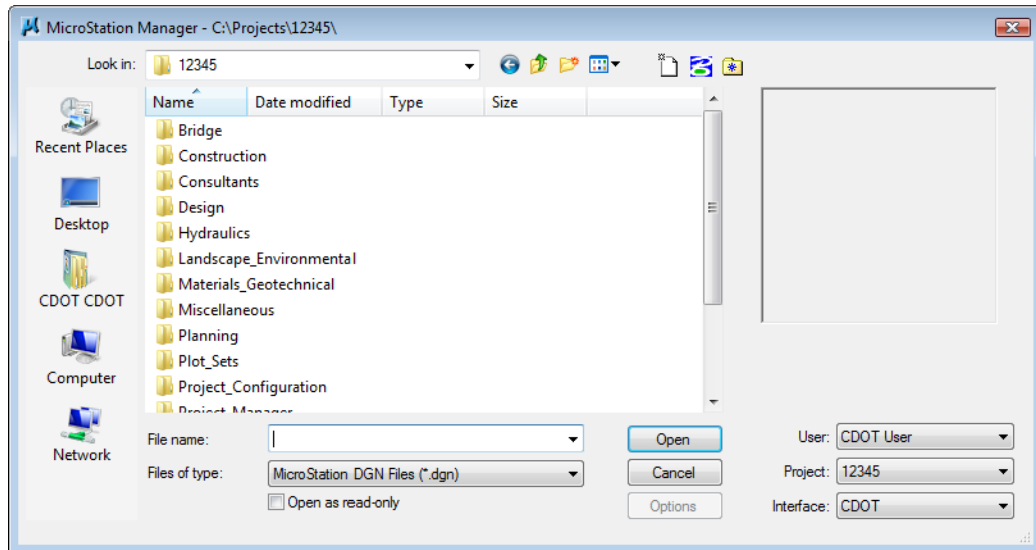


3. **<D>** the **OK** button. The dialog will close and the Workspace will be set.

**Note:** By following these steps the correct MicroStation resources, such as the level and cell definitions have been defined.

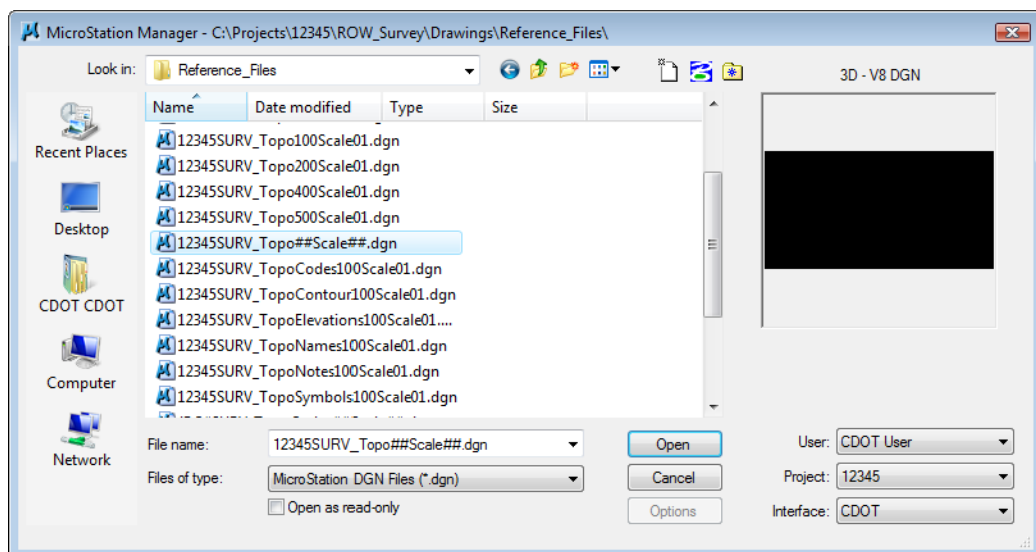
4. Double-click on the InRoads Survey desktop button  or select **Start > All Programs > Bentley > InRoads Group V8i > InRoads Survey**.

5. In the **MicroStation Manager** dialog go to the Workspace group section and change
  - ◆ **User: CDOT User**
  - ◆ **Project: 12345**
  - ◆ **Interface: CDOT**



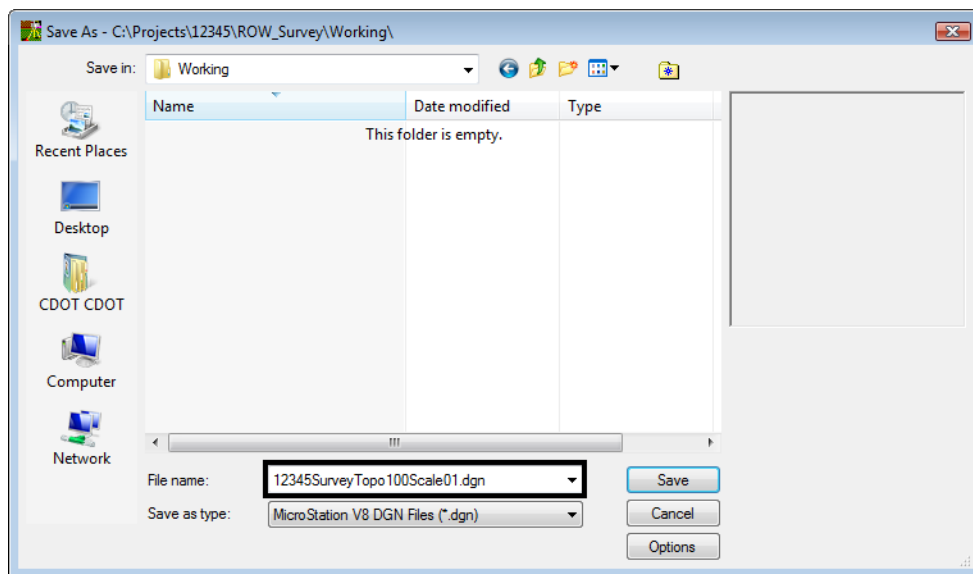
**Note:** In this class, the project name 12345 will be used as the 5 digit project code. This workspace setup will load the most current CDOT MicroStation environment.

6. In the **MicroStation Manager** dialog path to the directory:  
*C:\Projects\12345\ROW\_Survey\Drawings\Reference\_Files\*
7. Select the file **12345SurveyTopo##Scale##.dgn** from the **MicroStation Manager** dialog.



**Note:** The purpose of the files with “##” symbols are for creating new files with the correct naming convention.

8. <D> Open the **MicroStation Manager** dialog will close and open the file.  
**Note:** Be patient, MicroStation will first load the DGN file and will work as the CAD engine. InRoads Survey will then load and will run on top of MicroStation.
9. Once both programs are loaded the **Tip of the Day** dialog may open containing a different tip each time the program is started. To suppress this dialog in the future uncheck **Show Tips on Startup**. To access the **Tip of the Day** dialog in the future, select **Help > Tip of the Day**.
10. <D> the **Close** button on the **Tip of the Day** dialog.
11. From the MicroStation pull-down menu **File > Save As** the **Save As** dialog will appear.
12. Path to the folder **C:\Projects\12345\ROW\_Survey\Working**
13. Replace the ## symbols with **100** scale and **01** model. Type in Files:  
**12345SurveyTopo100Scale01.dgn**

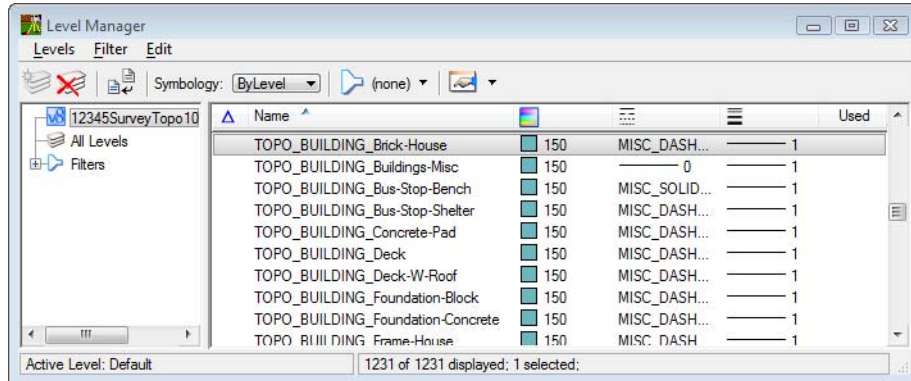


14. <D> the **Save** button the **Save As** dialog will close and MicroStation will open the file **12345SurveyTopo100Scale01.dgn**

**Note:** As shown at the beginning of this lab the steps for selecting the appropriate Group defined what MicroStation resources will be loaded. Before proceeding in InRoads, the level definition files **Topo.dgnlib** and **ROW.dgnlib** need to be attached.

15. From the MicroStation pull-down menu, select: **Settings > Level > Manager**. The **Level Manager** dialog will appear. Look for **[Topo]** and **[ROW]** in the Level Name.

- ◆ You can also use the **Level Manager** button from the **Primary Toolbar** to open the **Level Manager** dialog.

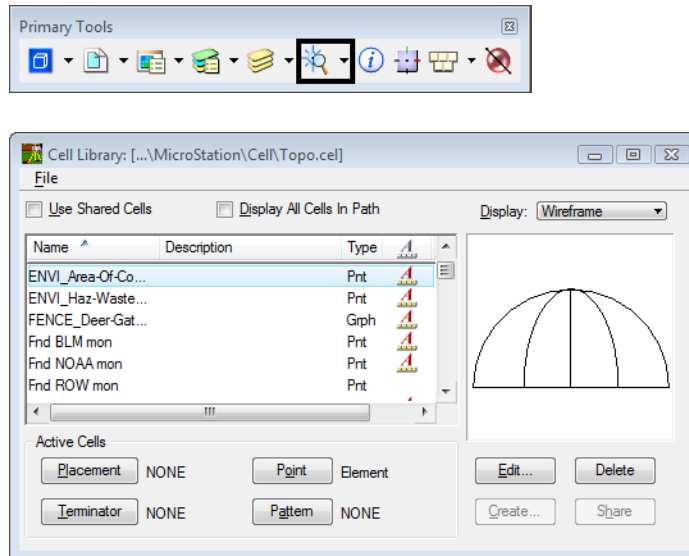


- ◆ If one of the DGN libraries is not loaded close MicroStation and use the Select Group Environment utility to select the xxxMulti-Discipline environment.

16. Close the **Level Manager** dialog.

17. Verify that the cell library **CDOT-Topo cells.cel** is attached. From the MicroStation pull-down menu, select **Element > Cells** the *Cell Library* dialog box will appear.

- ◆ You can also use the *Cell Library* button from the *Primary Toolbar* to open the *Cell Library* dialog.



18. From the *Cell Library* dialog select the **File** pull down menu and pick **Topo.cel** from the list of cell libraries.

- ◆ If the Topo cell library is not loaded close MicroStation and use the Select Group Environment utility to select the xxxMulti-Discipline environment.

19. **Close** the *Cell Library* dialog.

20. From the Main MicroStation pull-down menu, select **File > Save Settings**

- Note:** From this point forward, unless specifically instructed to use MicroStation commands, all references to the selection of buttons, tools, or menu pull-downs refer to the InRoads interface.

### Section Summary:

- ◆ A new design file was created in MicroStation and InRoads Survey was started.
- ◆ MicroStation resources were verified prior to importing any survey data.

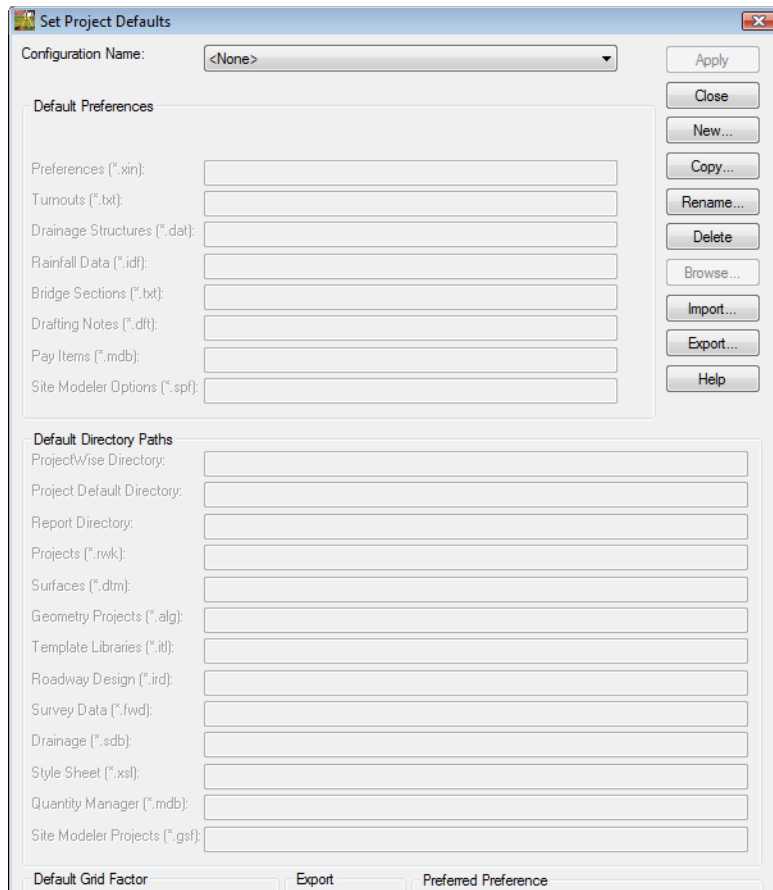
## Lab 1.2 - Setting Project Defaults

Setting default directories and resource files provides the user with quick access to project folders for opening files and then saving them to the correct location. It also ensures the correct CDOT InRoads resource files will be used.

### Section Objectives:

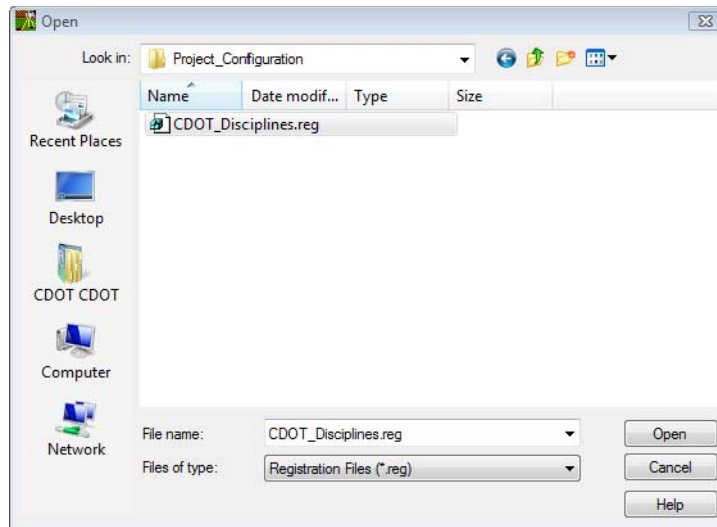
- ◆ Open and set CODT Project Defaults.
- ◆ Import and export Project Default settings.

1. From the InRoads pull down select **File > Project Defaults** the *Set Project Defaults* dialog will appear.

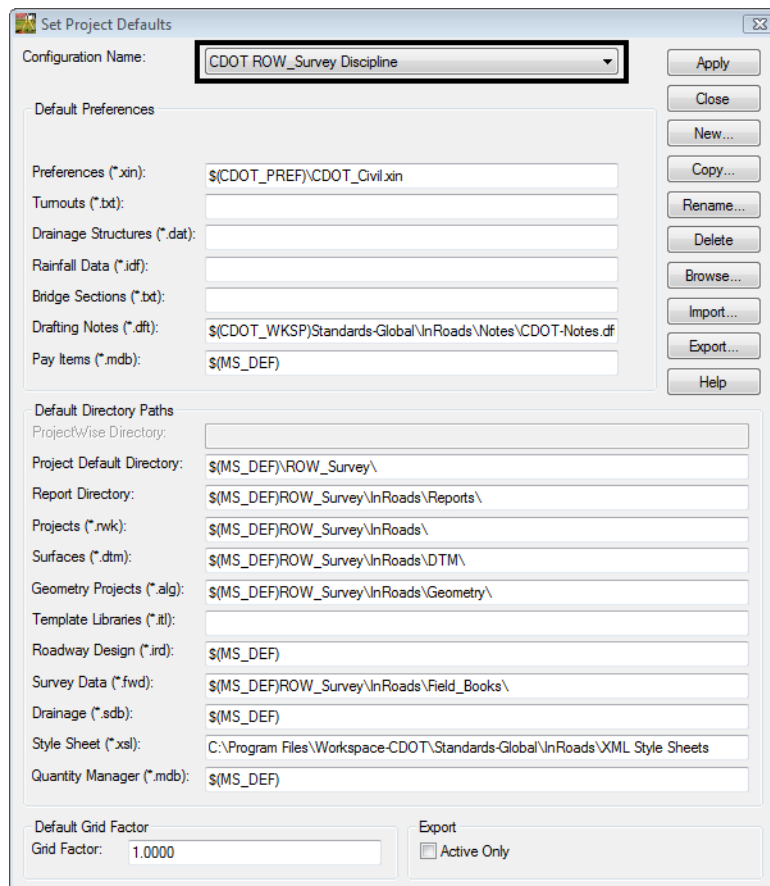


2. **<D>** the **Import** button. The *Open* dialog will appear.
3. Path to the folder *C:\Projects\12345\Project\_Configuration*
4. Select the file *CDOT\_Disciplines.reg*

5. <D> the **Open** button. The **Open** dialog will close and default project settings are imported.



6. From the drop down list Configuration Name select the discipline **CDOT ROW\_Survey Discipline**

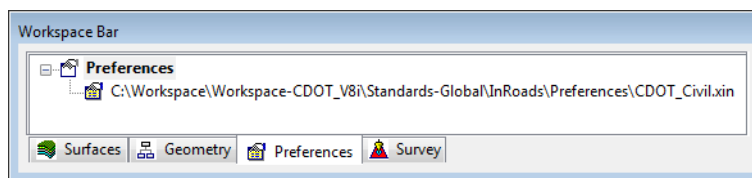


**Note:** The Default Directory Paths that are left blank are files that are not used by InRoads Survey.

7. <D> the **Apply** button.

**Note:** The settings that have been created are stored in the Windows registry on your PC. To share this Project Default setup with other project staff export to a Registry file (REG).

8. <D> the **Close** button on the *Set Project Defaults* dialog.
9. Select the **Preferences** tab on the Workspace bar and verify that the correct InRoads Project resource files are now loaded.



### Section Summary:

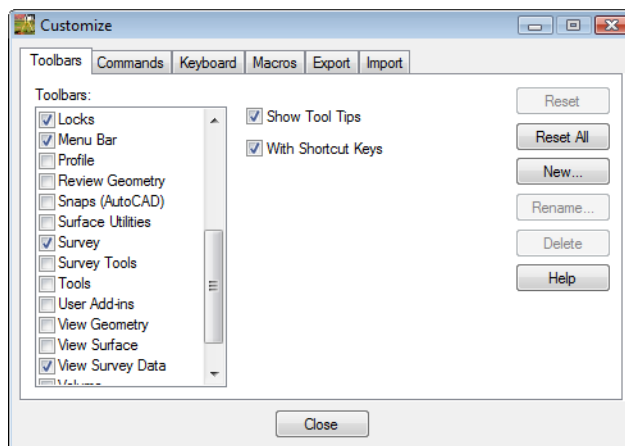
- ◆ In this lab Project Defaults were imported and set using a registry file.

## Lab 1.3 - Toolbars

Toolbars can be added from the pull-down menus. All InRoads Survey toolbars can be customized to fit your workflow or personal preferences. Start by opening Toolbars that will be used in class.

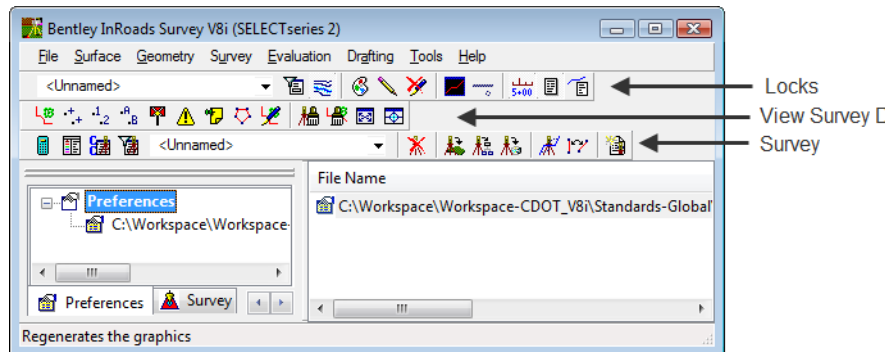
### Section Objectives:

- ◆ Open an InRoads Survey toolbar.
  - ◆ Dock, undock, and resize toolbars.
1. From the InRoads pull-down menu select **Tools > Customize**. The *Customize* dialog will appear.

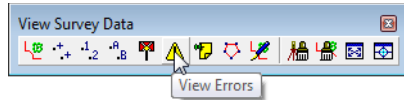




2. Under the **Toolbars** tab check that the boxes for **Locks**, **Survey**, and **View Survey Data** are selected. The toolbars will appear either docked or floating in the InRoads interface.
3. <D> the **Close** button.
4. **Dock**, **Undock**, and **Resize** the toolbars to become comfortable with the procedure. Notice how you cannot dock the toolbars into the MicroStation environment.



5. Move your cursor over a button in a docked or undocked toolbar and hover. A **Tool Tip** will appear at the lower right of your cursor.
  - ◆ This feature is controlled in the **Customize** dialog box **Show Tool Tips** check box and is turned on by default.



### Section Summary:

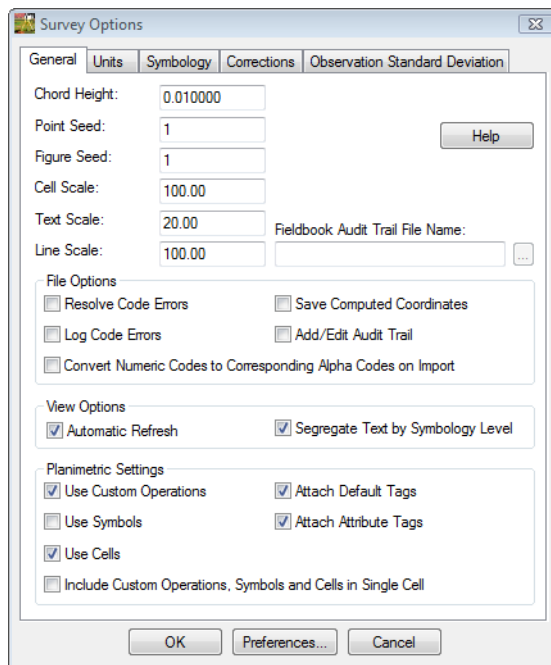
- ◆ In this lab toolbars were opened and docked into the InRoads interface.

## Lab 1.4 - InRoads Survey Options - Overview

The **Survey Options** dialog contains added preferences specific to the Survey commands. The file loaded from the **Project Defaults** dialog is *CDOT-Survey\_Preferences.fxp*

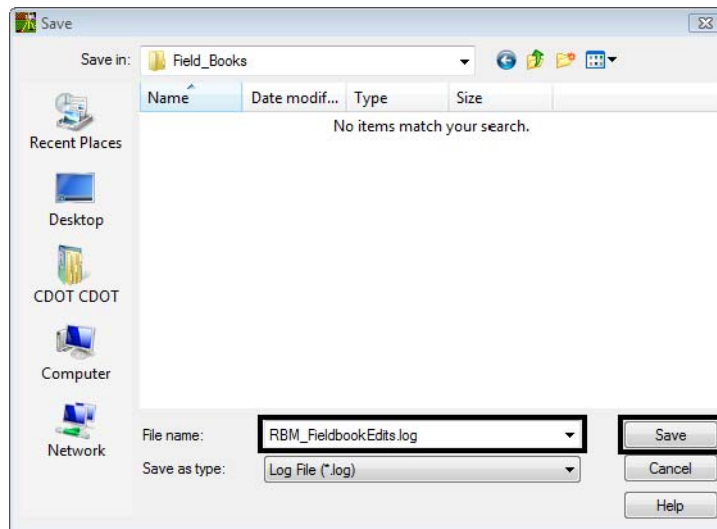
### Section Objectives:

- ◆ Create an Audit Trail file.
  - ◆ Setup up the Survey Options General tab.
1. From the InRoads pull-down menu, select **Tools > Survey Options** the **Survey Options** dialog will appear.

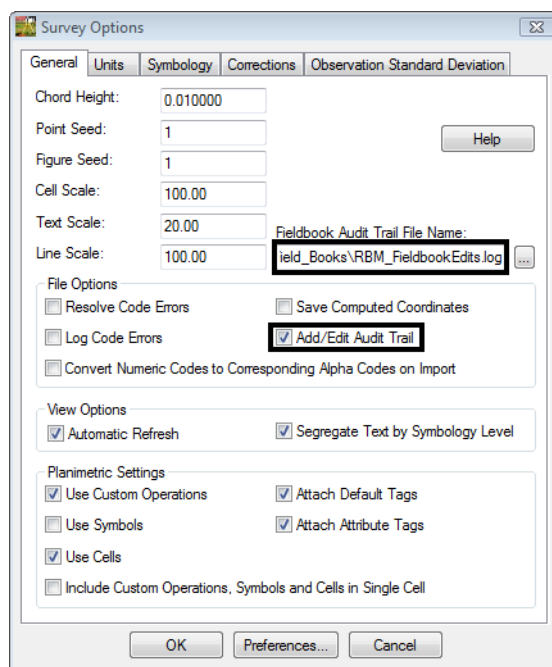


**Note:** The first setting to look at will be the **Audit Trail**. The Audit Trail is useful for keeping track of any changes made to the Survey Fieldbook or Survey Feature Table.

2. Under the General tab move your cursor to the **Fieldbook Audit Trail File Name**: field and <D>. The Browse button will become active.
3. <D> the **Browse** button. The **Save** dialog will appear. Verify the correct directory, **C:\Projects\12345\ROW\_Survey\InRoads \Field\_Books**

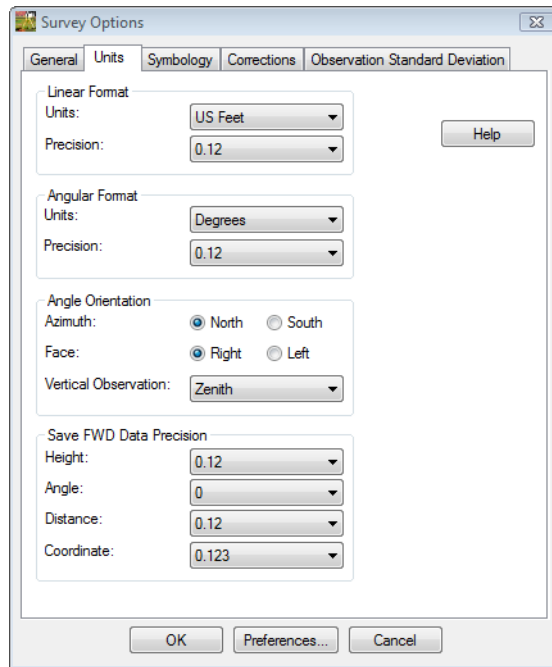


4. Key-in **“UserInitials”\_FieldBookEdits**
5. <D> the **Save** button. The Save dialog will close.
6. Check the box **Add/Edit Audit Trail** in the **File Options** section. All edits made will now be saved to the **RBM\_FieldBookEdits.log** file.



**Note:** The Log file is a text file that can be opened and printed from Notepad.

7. <D> on the **Units** tab. Take a minute to review the settings and verify they are the same as the dialog below.



8. <D> on and review the tabs **Symbology**, **Corrections**, and **Observation Standard Deviation**.
9. From the **Survey Options** dialog <D> the **Save** then **OK** button.

**Note:** The setup will not need to be done each time InRoads Survey is started. To demonstrate that, Exit out of the program.

10. From the **InRoads Survey** pull-down menu, select **File > Exit**. Nothing should need to be saved. If InRoads asks to save a file choose No.
11. From the **MicroStation** pull-down menu, select **File > Save Settings**. This will ensure when the file is opened in the next lab the cell library will be attached and view settings saved.
12. From the **MicroStation** pull-down menu, select **File > Exit**. By default MicroStation is always saving the design file so there is no reason to save the file. This will exit completely out of MicroStation.

### **Section Summary:**

- ◆ In this lab an Audit Trail file was created to keep track of future edits to the fieldbook file.
- ◆ In this lab Survey Options were verified prior to importing any raw survey data.