USER MANUAL

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Welcome to Data Link Pro2

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Data Link Pro2 is M. C. MILLER CO., INC. (MCM) desktop application software for accessing the new Sin2 handheld meter. From Data Link Pro 2 you may access and configure all the features and options available on the Sin2, download and retrieve survey readings, modify surveys, and export readings to other software applications.

User's of MCM's Data Link Pro for the SinCorder will find many of the same features available in Data Link Pro2. Many of the features of Data Link Pro2 will be new, such as the ability to configure the meter settings for individual prompts from the desktop and Data Link Pro 2's ability to store surveys so that creating a given route survey need only be performed once.

When you start up Data Link Pro2 you are viewing the Site Survey page of the Main Window. From here, you may either work with Site Surveys or go to the Close Interval Surveys page to download a Close Interval Survey from the Sin2 meter.

When working with Site Surveys, apart from the usual menu and toolbar methods, almost all of the options available may be accessed by right clicking with the mouse to bring up the options menu. Many of these options may be accessed directly from the keyboard using their respective shortcut keys as well.

To start setting up Data Link Pro2 for site surveys you should fist set up templates for the most common devices and readings. For more information on these topics, see About Templates.

Should you have additional questions or need assistance, please contact M. C. Miller Co., Inc. at:

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Quick Start

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To get a feel for Data Link Pro2's features follow these steps:

First, select **File/Save** to name the current file. Data LinkPro2 will auto save the file every five minutes, but only if it is named;

Create Reading Templates:

1. From the main menu select **File/New**;
2. Select **Template/Edit Reading Templates**;
3. Enter the parameters for the reading template. The default parameters are already set and you may elect to keep them by only entering a name for the template. When you are finished, either press **<Ctrl-Ins>** or select **Template/New** to create another template. When you are finished creating templates, press **Close** or select **Template/Exit** to return to the Main Window.

Create Site Templates:

1. Select **Template/Edit Site Templates**;
2. Type a name for the site template;
3. Select reading templates to include in this site template;
4. When you are done, press **<Shift-Ins>** to create another template. When you are finished creating site templates, press **Close** or select **Template/Exit** to return to the Main Window.

Create a Survey by selecting **Survey/Create** and giving the survey a name.
Create Sites for the current Survey:

1. Select **Site/Add** from the menu;
2. Enter a name for the site;
3. Select a site template from the drop down list;
4. Enter particulars for this site such as description and directions etc.;
5. Press **OK** to return to the Main Window.

To add another site repeat the previous steps.

To edit a site's prompts:

1. Select **Site/View Prompts**;
2. Click on the prompt you wish to edit and select **Prompt/Edit**;
3. Here you may change to **Prompt Text**, change the **Reading Template** used for the prompt, and add **Hookup Help** for the technician who will be taking the readings;

4. When you have finished making changes, click **OK** to return to the **View Prompts** window.

You are now ready to download the Survey to a Sin2 meter.

Shortcut Keys

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The following is a listing of the shortcut keys available to you in Data Link Pro2:
From the **Main** window:

Shortcut Keys	Action Performed
Ctrl-V	View Prompts for the selected site
Shift-Ins	Create New Survey
Alt-Backspace	Select a survey from the current data file
Shift-Del	Delete the current survey
Ctrl Ins	Add a site to the currently loaded survey
Ctrl-E	Edit the selected site
Ctrl-Del	Delete the currently selected site from the survey
Ctrl-S	Edit Site Templates
Ctrl-R	Edit Reading Templates
Ctrl-N	New Data file
Ctrl-O	Open Data file
Ctrl-F	Save Data file
Ctrl-X	Exit Data Link Pro2

From the **View Prompts** window:

Shortcut Keys	Action performed
Ctrl-Ins	Add Prompt to Site
Ctrl-E	Edit Prompt
Ctrl-Del	Delete Prompt

From the **Edit Site Templates** window:

Shortcut Keys	Action performed
Ctrl-Ins	Add Prompt
Ctrl-Del	Delete Prompt
Shift-Ins	New Site Template
Alt-Backspace	Look up Site Template
Shift-Del	Delete Site Template
F11, F12	Scroll to previous/next Template

From the **Edit Reading Templates** window:

Shortcut Keys	Action performed
Ctrl-Ins	New Reading Template
Alt-Backspace	Lookup Reading Template
Ctrl-Del	Delete Reading Template
F11, F12	Scroll to previous/next Template

Data Link Pro2 – Main Window

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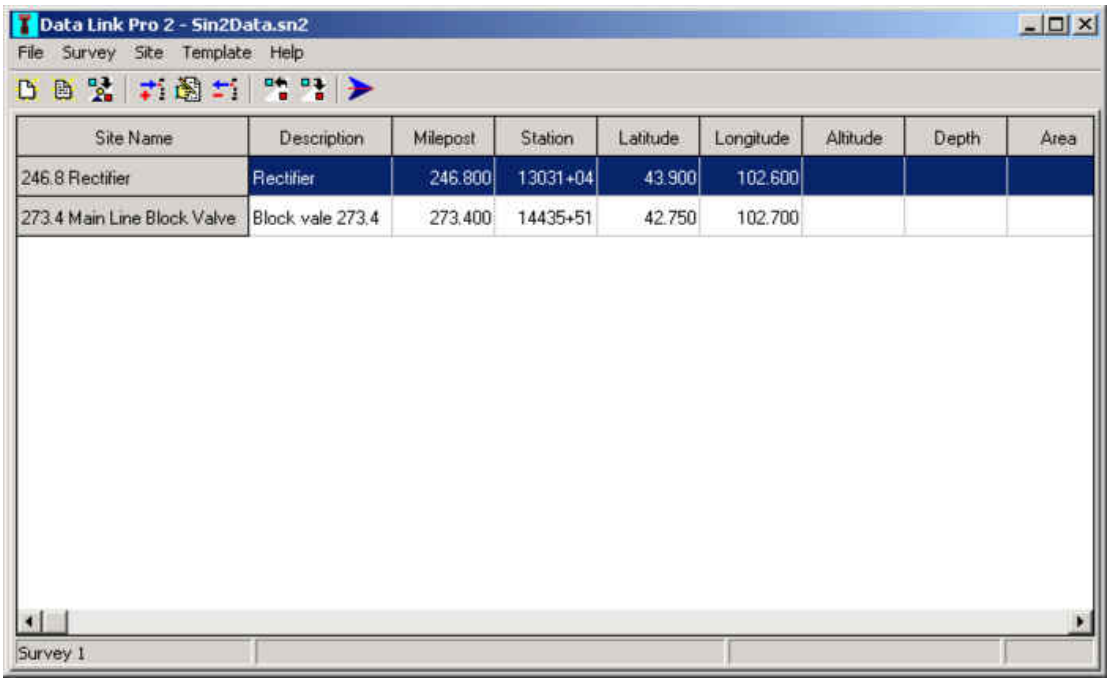
The main window in Data Link Pro2 lists the sites of the current Survey and offers several options for working with Data Link Pro2 as well as the current survey loaded in memory.



From the Main window you can:

- Create a new survey;
- Select a survey from the current data file;
- View the prompts for the selected site;
- Add a new site to the current survey;
- Edit the selected site;
- Delete the selected site;
- Upload a Survey from a connected Sin2 meter;
- Download a Survey to a connected Sin2 meter;
- Delete the currently loaded survey;
- View/Print a legacy style Site Survey report
- The GoTo button will take you to the CIS page to work with Close Interval Surveys. This button appears on all pages in Data Link Pro2 (except the Download page) and will take you "back" to the previous page.

If you are a first time user, you have two options to get started:

- Select Edit Reading Templates from the Templates menu to begin creating templates for your prompts;
- Choose **Create** from the **Survey** menu to begin creating a new site survey;
- Select **Close Interval Surveys** from the **File** menu to download a Close Interval Survey from a Sin2 meter.

Create a New Sin2 Survey

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To create a new survey for the Sin2 meter:

1. From the **Surveys** menu select **Create**;
2. Enter a name for the new survey in the **Survey Name Dialog**.

After the new survey has been created, sites may be added by choosing Add Site from the options menu, provided that you have created at least one site template.

Load Survey

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To work with a survey you must first load it into memory. Follow these steps to load an existing Data Link Pro2 survey:

1. Select **Load** from the **Survey** menu or right-click with the mouse and select Load **Survey**;
2. The **Select Survey Dialog** box presents the list of surveys stored in the Data Link Pro2 data file;
3. Choose the survey you wish to load by double-clicking its name or select it with the mouse and click **OK**.

The previous survey will be saved and the sites for the selected survey will be displayed.

Adding a Site to an Existing Survey

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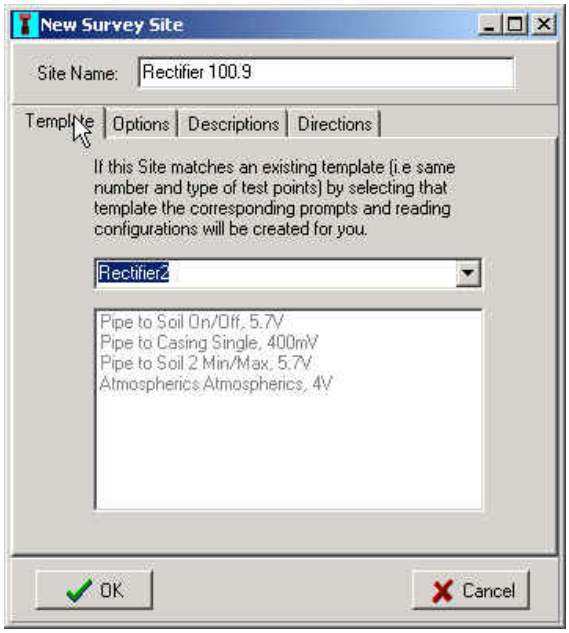
New sites may be added to the current survey at any time.
Follow these steps to add a new site to the current survey:

1. From the **Site** menu, select **Add Site.**
2. In the **Add Survey Site Dialog**, enter the appropriate information:

    - Enter a name for the new Site. The name entered will appear on the Sin2 meter screen in the list of sites for the current survey
    - Select the appropriate Site Template from the drop down selection. Data Link Pro2 will add the prompts to this site according the template chosen. If you're unsure of which configuration the new site matches, select a template and you will be shown the set of prompts and their key settings. You may browse any number of templates in this manner. You may wish to select the template, which most closely resembles the site you are adding and then make the changes that are particular to this site later. To learn more see About Templates.
    - On the other pages of this dialog, you can enter descriptions for the site, directions to the site and other useful information for this site. All of this information will appear on the Sin2 meter in some fashion as an aid to the Technician performing the survey.

Note: This option will not be available until at least one site template has been created.



View Prompts

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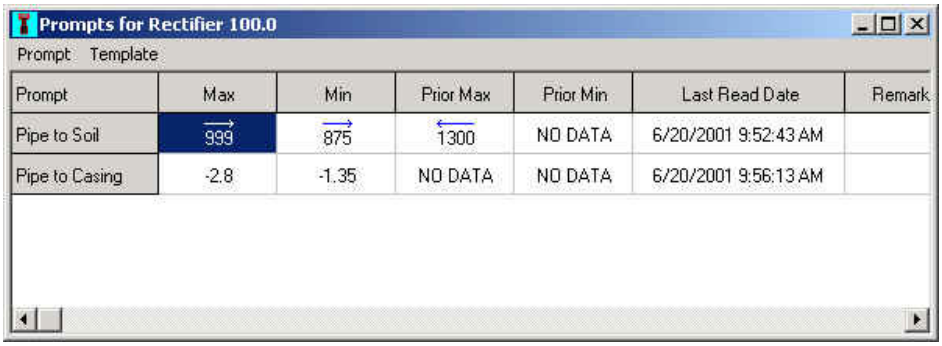
To view and edit the prompts for a Site, select the site in the main Data Link Pro2 window and do one of the following:

- Select **View Prompts** from the Site menu;
- Double click on the Site you wish to edit;
- Right click and choose **View Prompts** from the options menu or
- Use the keyboard shortcut **<Ctrl-V>.**

This will bring up the **Prompts Window** for the selected site. In this window you may browse all the information available about the Prompts including:



- Current and prior readings and date the last readings were taken;
- Reading configuration parameters;
- Hookup Help for technicians, which is also viewable on the Sin2 meter.

From this window you have the following options:

- Add Prompts to the selected site;
- Edit Prompts to the selected site;
- Edit the Reading Template for a given prompt;
- Delete Prompts from the selected site.

Editing Sites

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Data Link Pro2 and the Sin2 meter have many conveniences not available on other devices. Providing directions to sites, details about a site such as altitude, latitude and longitude, pipe depth etc. Of course, these details vary from site to site and so are not included as part of the site template and thus, are only editable on a site-by-site basis.

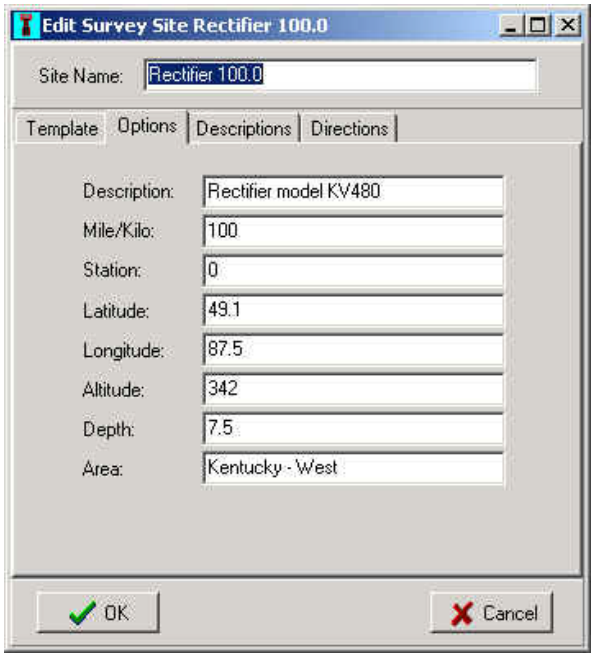
To edit the particulars of a site:

1. From the main window, click on the site you wish to edit and select **Edit** from the **Site** menu;
2. The S**ite Editing** window appears;
3. Make the appropriate changes;
4. Click **OK**.

Note: Site order may be changed by simply dragging the site to the desired location in the list of sites in the Main Window.

Note: On the Descriptions tab you may select a description from one of the drop down lists or enter a new description, which will be available in the drop down list for any new sites you might create or edit.

Note: When editing an existing site, you may change the site template but should be aware that any existing prior or current readings for that site's prompts will be lost.



Adding a Prompt to a Site

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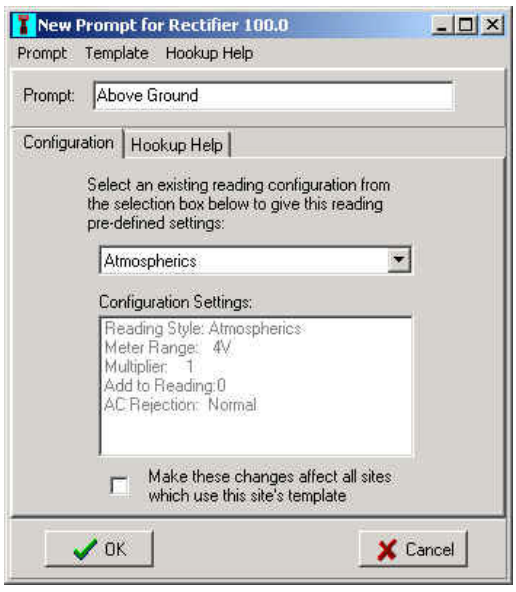
You may add a new prompt to an existing site from the View Prompts window. This allows you to create a site with an existing template and then add a reading to one particular site without affecting all other sites, which use that template.

To add a test point to an existing site:

1. From the **View Prompts** window, select **New** from the **Prompts** menu.
2. The **New Prompt** editor window appears
3. Select a reading template from the drop down list.
4. Optionally, edit the prompt text, which will be shown on the meter screen for this reading. The prompt text will default to the name of the reading template chosen but it can be any text you like.
5. Optionally, select a **Hookup Help** to be displayed on the Sin2 meter as an aid to the technician. If none of the existing **Hookup Helps** pertain to this prompt you may add a new **Hookup Help** by selecting **New** from the **Hookup Help** menu.
6. Click **OK** to add the test point to the list in the **View Prompts** window. If the site template for this site is in use by other sites you will be asked if you wish to create a template unique to this site or if you would like to make the changes (add the new prompt) to all sites, which use this template.

Note: *When adding\editing prompts the available reading templates in the drop down list include only those templates, which are not in use by the current site. Data Link Pro2 does not allow duplicate readings for a given site.*



Editing a Prompt

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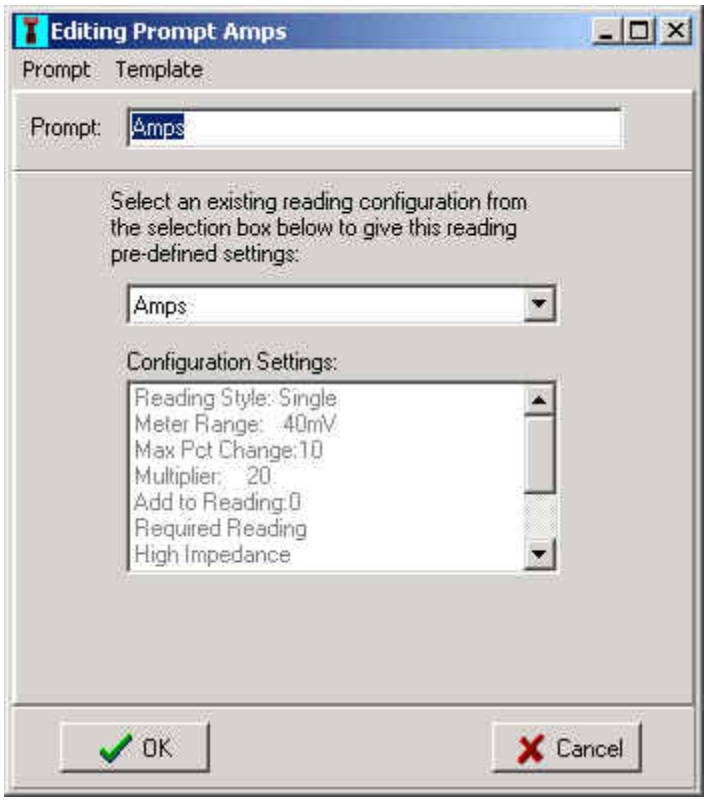
From the **View Prompts** window, select **Edit** from the **Prompts** menu to:

- Change the prompt text which will be displayed to the technician;
- Add or change a **Hookup Help** that will be displayed on the Sin2 meter screen as an aid to the technician;
- Change the **Reading Template** used by the prompt.



Editing a Prompt's Configuration

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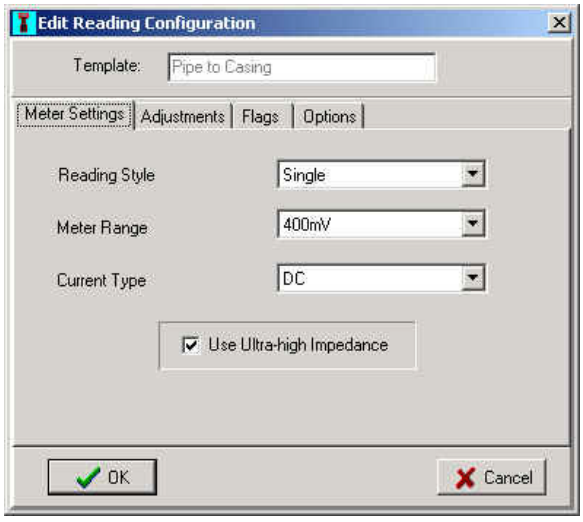
From the **View Prompts** window, you may edit the reading template of a particular Prompt. Data Link Pro2 gives you the option to have the changes affect only the current Prompt or all Prompts using the template. When you choose to have the changes affect only the one Prompt, the template will not be available to use on any other Prompt. If you have several Prompts that will require the same configuration, it is advisable to create a new reading template first.

To edit the reading configuration of an existing Prompt:

1. From the **View Prompts** window, select the **Prompt** you wish to edit
2. Select **Edit Reading Template** from the **Template** menu
3. Make the appropriate changes to the template
4. Choose **OK** when you are finished

If the template you have edited is in use by other sites, Data Link Pro2 gives you the option to make a template, which is unique to this reading, or have the changes affect all readings, which use this same template.



Deleting a Prompt

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To delete a Prompt:

1. From the **View Prompts** window, select the test point you would like to delete;
2. Select **Delete** from the **Prompt** menu;
3. You will be prompted to confirm your choice. Choose **Yes** to delete the test point from the current site, choose **No** to abort the procedure and discard the changes.

Note: *Deleting a prompt from a site requires a change to the sites template. If the site template for this site is in use by other sites you will be asked if you wish to create a template unique to this site or if you would like to make the changes affect all sites, which use this template.*

If you choose to have Data Link Pro2 create a site template that is unique to this site, the new template will not be available for use with other sites. If the change you are making will affect some of the other sites using this template, you should consider making the appropriate site template first and then changing the site templates for those sites, which require the change.

About Templates

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Data Link Pro2 and the Sin2 meter make extensive use of templates to save space on the meter and to make it easier and more efficient to create and edit Site Surveys, devices and readings. Individual reading configurations are stored in templates so that a given prompt need only refer to the proper template to get its setting information such as preset meter range, whether or not to set a flag for readings that are out of a certain range, etc. If there are many readings in a survey with the exact same configuration, they would all use the one template avoiding the duplication of data and saving large amounts of memory on the meter.

Test sites also use templates, which determine the number of prompts and the reading configuration of each. Sites with the same number and configuration of prompts may use the same template avoiding the duplication of data on the meter.

When adding sites to surveys and prompts to sites you may gain extra convenience from Data Link Pro2 by using existing templates to create the

sites/prompts for you. You may then edit the site/prompts to change those parameters, which do not match the template. Data Link Pro2 will then create a template specifically for that site.

Note: It is necessary to create at least one reading template before any site templates can be created. In addition, it is necessary to create at least one site template before a Site can be created. Therefore, the first steps to be taken when you first start Data Link Pro2 is to create your Reading Templates and Site Templates.

For more information about templates, see Site Templates or Reading Templates.

Site Templates

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A Site Template consists of a name and a list of Reading Templates. For each reading template in the list the Sin2 meter will present the technician with a prompt for which to take a reading when surveying a site, which uses that site template. Only those aspects of a survey of the device, the required readings, are added to the site template.

A Site Template is meant to correspond to a particular type of device, so that whenever that type of device is to be surveyed it is identified by that device's site template and all the required readings for that type of device will be included in the survey. Thus, adding a Site to a survey with a given Site template automatically adds the readings required by that template. Particulars for a specific device such as directions, milepost and such are not part of the template and may be edited separate from the template.

For help on creating Site Templates see Creating Site and Editing Site Templates.

Creating and Editing Site Templates

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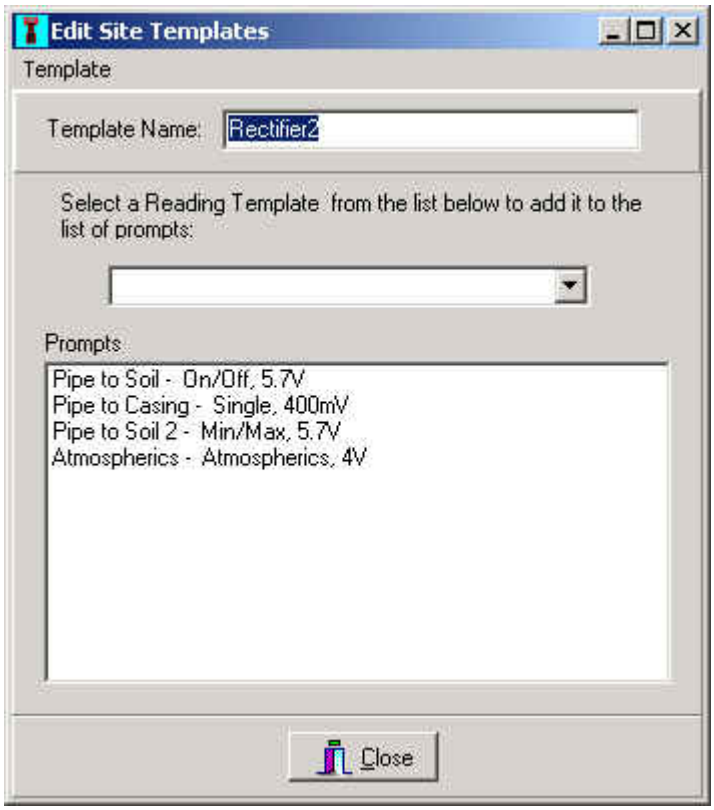
When you create a new site template, several things should be kept in mind:

- The template is meant to be used wherever a particular type of device must be surveyed. Therefore, you should make the template as general as possible. For instance: if all the rectifiers in your inventory require two readings then you would make a Rectifier template, which includes only those two readings. After you set up a survey, which includes some of these rectifiers, but one of them requires an additional reading, Data Link Pro2 allows you to edit the prompts for that site to add a reading for that site only. All the other rectifiers using the Rectifier template will not be affected by this change (unless you tell Data Link Pro2 to make the change to all devices using that template).
- There is no limit on the number of templates you can create in Data Link Pro2. If your surveys require more than one type of a certain reading (Pipe to Soil, for instance), you can make templates for each with their respective settings and call them Pipe to Soil 1 and Pipe to Soil 2.
- While Data Link Pro2 does not restrict the number of templates you can create, keep in mind that they must all be stored on the Sin2 meter where there are memory constraints to consider. By using the two pointers above judiciously, you will be able to make maximum use of Data Link Pro2's flexibility and the Sin2's efficiency.

To create a new Site Template or edit an existing one, follow these steps:

1. Choose **Edit Site Templates** from the **Site** menu
2. To create a new template, select **New** from the **Template** menu. To edit an existing template, select **Open** from the **Template** menu and choose the template you wish to edit from the selection window
3. Type a meaningful name for the template. Data Link Pro2 provides a default name for you, but it is best that you give a name that you will recognize later when you are creating new sites.
4. From the drop down selection, add reading templates to the list of readings for this Site Template. As you reading templates, Data Link Pro2 displays the key settings for the reading so that you can be sure it is the reading you wish to add. Keep in mind that the order in which you select reading templates is the order in which the Prompts will be presented to the technician who performs the survey.
5. If you make a mistake and wish to delete a reading template from the list select it from the list, right-click the mouse, and choose **Delete Test Point** from the options menu.
6. When you have finished, either click **Close** to return to the Main Window, or select **New** from the **Template** menu to create another template.

Once you have created at least one site template, you are ready to create sites for your surveys.



Reading Templates

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A Reading Template consists of a list of parameters, which will be applied to the meter for a given type of reading or prompt at a site. Generally speaking, most test points of a given nature (such as a Pipe-to-Soil reading) will require the same meter settings so it is natural to use a template, which may be specified whenever that type of reading is encountered in a survey. Then, when creating a site for a survey, you specify the readings to be taken by the Reading Templates. The prompt for the reading defaults to the name of the template.

Consider now, that you have many sites in many surveys that use the same Pipe to Soil reading template. Let's say you wish to change the minimum acceptable reading for all those Pipe to Soil readings. To do so, you need only edit the one reading template to change the parameter in question. Then all readings, which use that template, will reflect that change. This is just one of the many conveniences afforded you by the use of templates.

For help on creating a new reading template or editing an existing one see Creating & Editing Reading Templates.

Creating and Editing Reading Templates

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To create or edit a Reading Template:

1. From the main Data Link Pro2 window select **Edit Reading Templates** from the **Template** menu;
2. To create a new template, select **New** from the **Template** menu. To edit an existing template select **Open** from the **Template** and choose the template you wish to edit from the selection window;
3. Give the Reading Template an appropriate name. The name you give the template will be the default prompt text for any readings, which use this template;
4. Set the options for this reading template. For help on the various options see Sin2 Reading Options;
5. Click the Close button to exit or repeat Step 2 to create a new template.

When making changes to an existing template Data Link Pro2 checks to see if the template is in use by any Site Templates. Should this be the case DataLink Pro2 will ask you if you wish to make a new unique reading template or to have the changes affect those site templates which are using this reading template (and subsequently any sites using those site templates).

Reading Options

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Follow these guidelines when setting up readings for the Sin2 meter:

Reading Style: The Sin2 offers five reading styles:

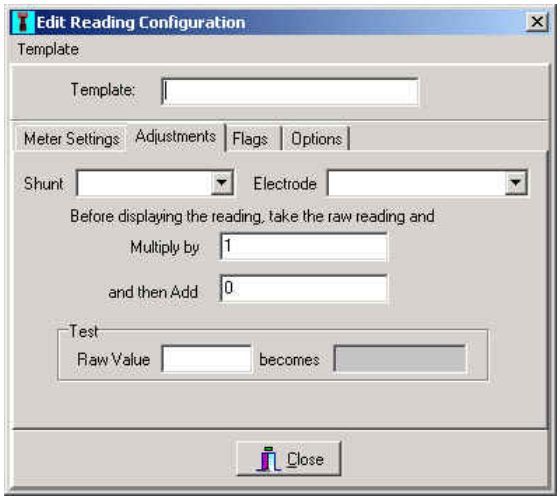
- **Single:** Only one voltage/amperage reading will be taken
- **On/Off:** The meter takes two voltage/amperage readings corresponding to when the charge is applied (On) and unapplied (Off)
- **Min/Max:** The meter will record the minimum and maximum voltages/amperages encountered
- **Coupon:** The same as On/Off but readings are manually triggered and used in conjunction with an external "coupon" device
- **Atmospherics:** No reading will be taken but the technician will be prompted to select from a menu the general condition of the device. The menu presented will consist of the values entered into the Reading Values tab. If no values are entered, a default list of values will be used.

Meter Range: The Sin2 will "preset" itself to the range below which the voltage/amperage is anticipated to be. Should the actual reading exceed the specified range the technician is free the change the meter range at the site.

Current Type: The type of current applied to the device for which the reading is to be taken.

Ultra-High Impedance: Uses a 400 Megaohm impedance for serious AC rejection

Adjustments:
The Sin2 will automatically apply these values to the given reading.



Shunt: Identifies the shunt used in a current reading

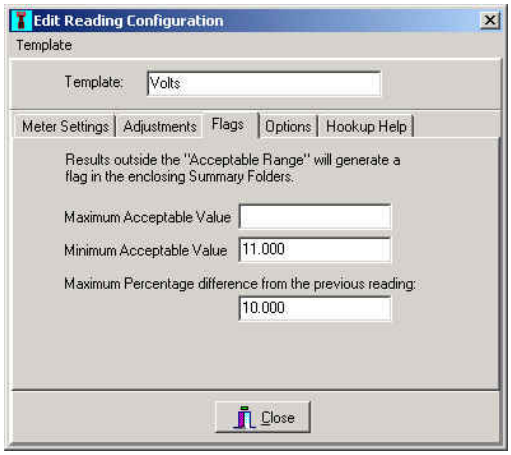
Electrode: Identifies the electrode used in a current reading

Multiplier: Value by which the raw reading is to be multiplied to obtain the calculated value

Addend: Value to add to the raw reading to obtain the calculated value

Raw Value: Used for verification purposes only. Enter a value to see the calculated result based on the multiplier and addend entered

Flags: The reading will be checked for flagging against these values.

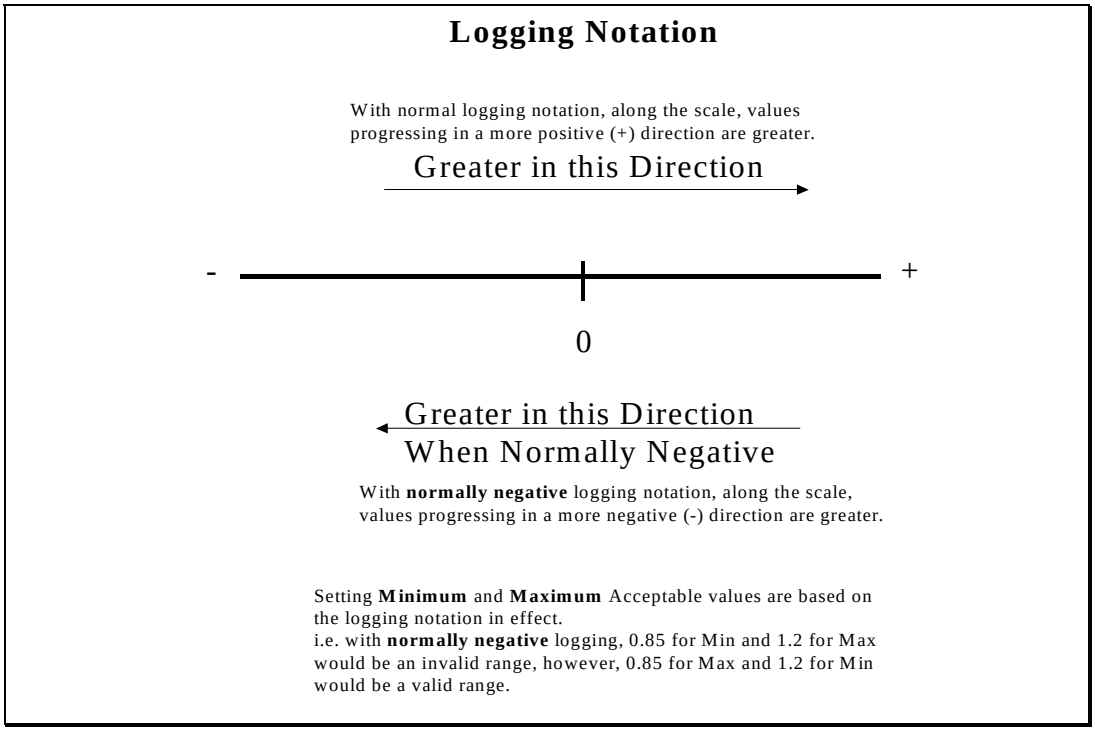


Minimum Acceptable: This is the minimum acceptable value for the reading

Maximum Acceptable: This is the maximum acceptable value for the reading

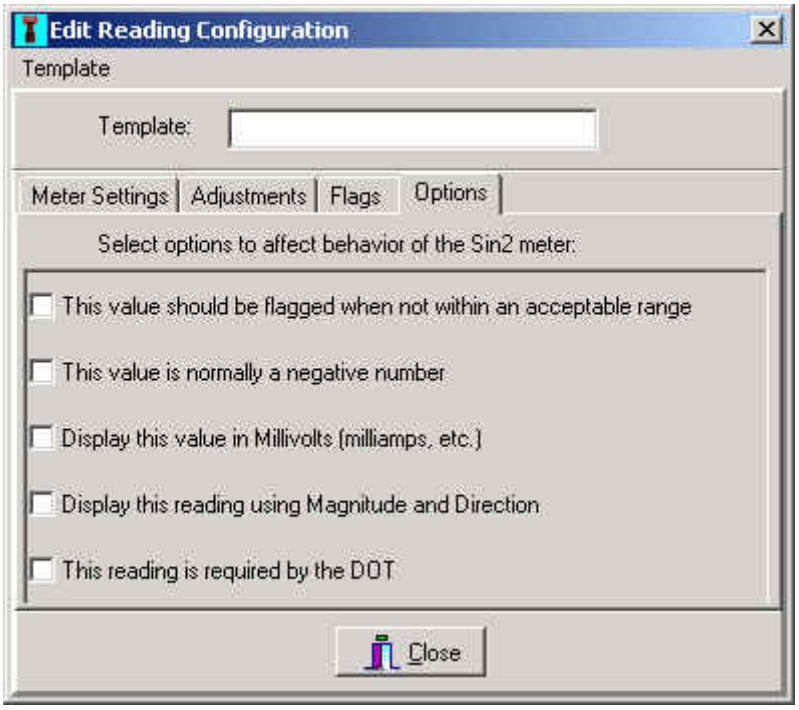
Note: *For normally negative readings, the maximum is the maximum* ***negative*** *value and the minimum is the minimum* ***negative*** *value. Data Link Pro2 will check the values entered and notify you if any ambiguity exists. As an example, for a normally negative reading +1 volt is less than -1 volt because -1 is* ***more negative*** *than +1.*

Example: See the next page.



Maximum Percent Difference: Percentage by which the present reading is allowed to differ from the prior reading

Options: Other options, which will affect the way Data Link Pro2 and the Sin2 meter, will react upon encountering this reading.



Value Should be Flagged: The values entered on the Flags page should apply to this reading. Entering a value in the flags page will automatically check this box. By unchecking this option the Sin2 will not flag out of bounds readings

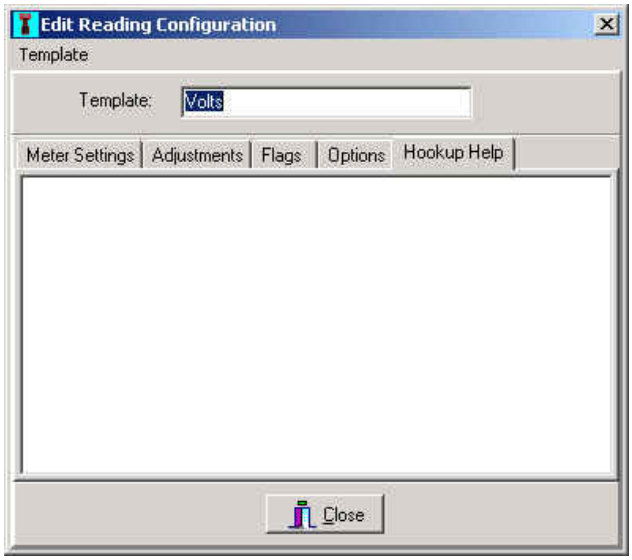
Value is Normally Negative: This affects the way the flag minimum and maximum values are interpreted and affects the way readings are displayed. Positive voltages/currents will be displayed with a negative sign negative values will display as positive

Display in Millivolts: The value displayed is mV

Display Using Magnitude and Direction: The value is displayed without sign and an arrow indicates "flow" or direction of reading. (Pointing to the right indicates normal reading)

Required by DOT: This reading is required by DOT rules. If unchecked, flags will have no affect in Data Link Pro2

Hookup Help: Enter reading specific hookup help to aid the technician in taking the reading.



Close Interval Surveys

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To work with Close Interval Surveys, select Close Interval Survey from the File menu or click the GoTo button.

Close Interval Surveys (CIS) are created in Data Link Pro 2 by either importing a previously exported CIS file or by uploading a survey created on a Sin2 meter.

To upload a CIS from a Sin2 meter:

1. From the Close Interval menu select Upload CIS from Sin2 or click on the . The communications page appears;
2. On the Sin2 meter, select Communications/Sin2 Aware Host. The message "Waiting for connection" appears;
3. In Data Link Pro2, click Go. The download starts;
4. If Data Link Pro2 detects more than one CIS on the meter, a selection box appears from which you must select the CIS to upload. If so, make your selection and click OK. When the upload is complete, you will be taken to the CIS data grid, which displays the settings and readings for the CIS.

To import a CIS data file:

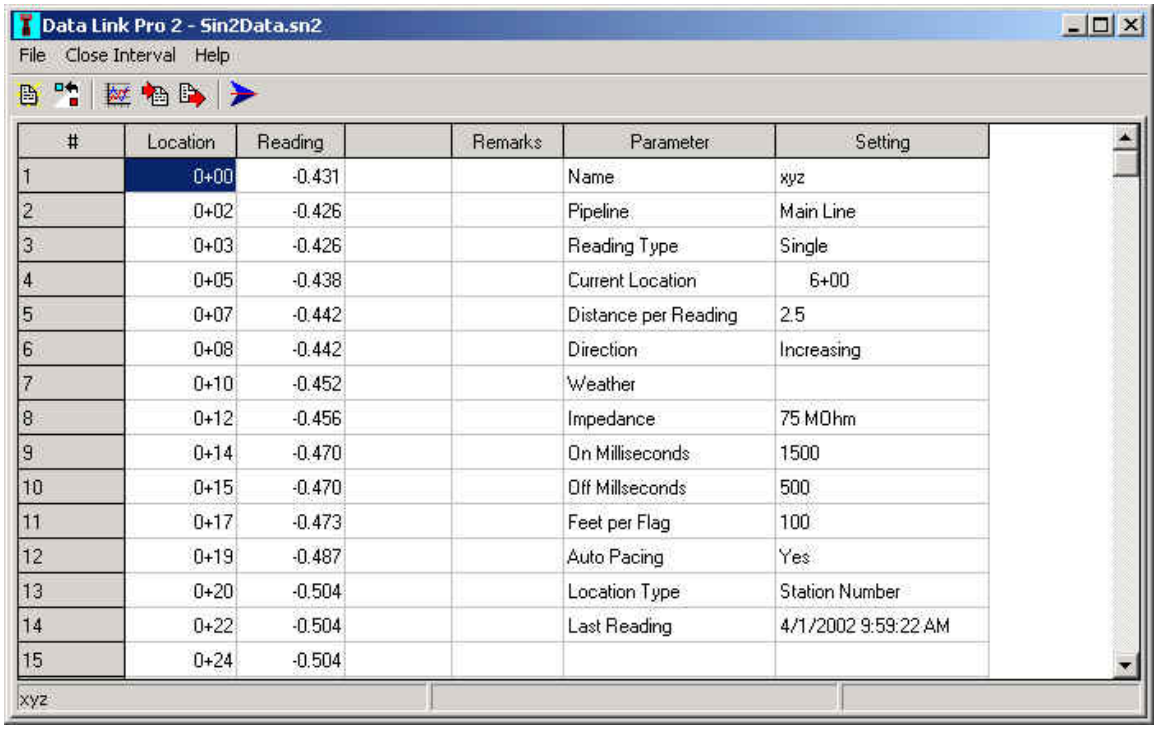
1. From the Close Interval menu select Import CIS or click on the Import button;
2. Browse for the desired file from the dialog box and click Open.

Note: Uploading a CIS from a Sin2 meter does not change any data on the meter. If you wish to remove a CIS from a Sin2 meter, you must do so on the meter.

Once you have a CIS in Data Link Pro 2 you may:

- View a graph of the readings by clicking on the Graph button;
- Edit the readings in the grid;
- Export the CIS to an Excel or Text file by clicking on the Export button.

See image on the next page.



#	Location	Reading		Remarks	Parameter	Setting
1	0+00	-0.431			Name	xyz
2	0+02	-0.426			Pipeline	Main Line
3	0+03	-0.426			Reading Type	Single
4	0+05	-0.438			Current Location	6+00
5	0+07	-0.442			Distance per Reading	2.5
6	0+08	-0.442			Direction	Increasing
7	0+10	-0.452			Weather	
8	0+12	-0.456			Impedance	75 MOhm
9	0+14	-0.470			On Milliseconds	1500
10	0+15	-0.470			Off Millseconds	500
11	0+17	-0.473			Feet per Flag	100
12	0+19	-0.487			Auto Pacing	Yes
13	0+20	-0.504			Location Type	Station Number
14	0+22	-0.504			Last Reading	4/1/2002 9:59:22 AM
15	0+24	-0.504				

xyz

CIS Graphs

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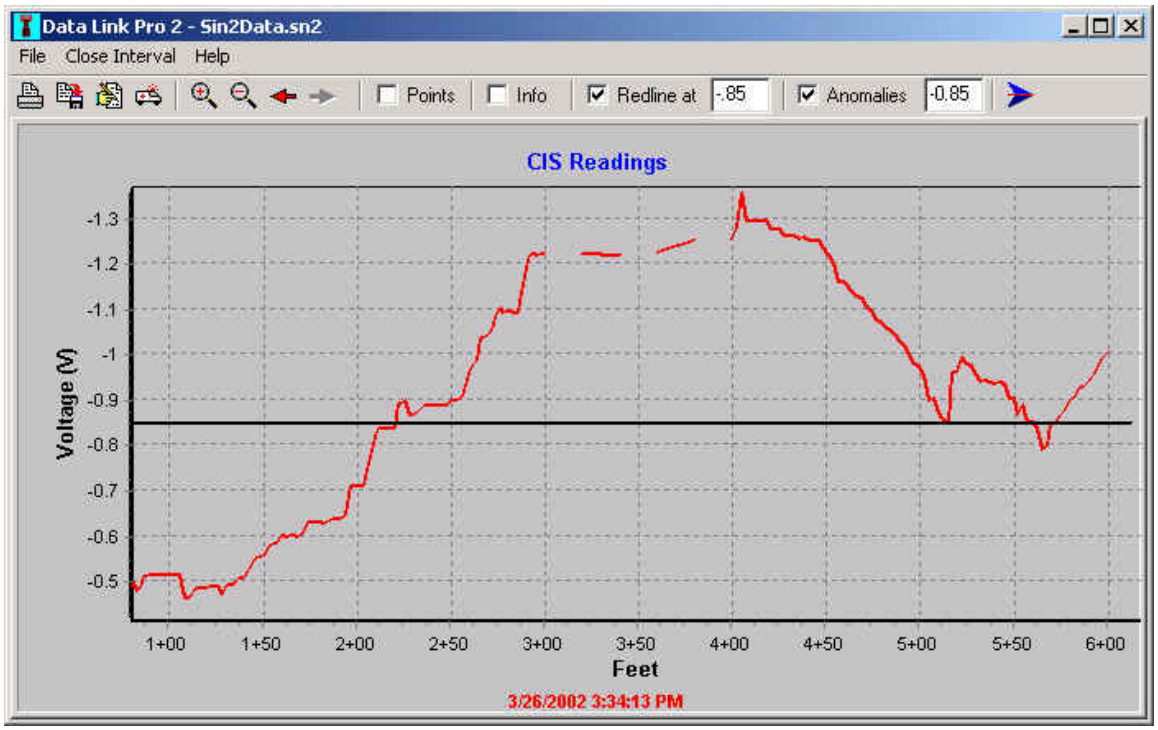
Data Link Pro2 includes state of the graphing capabilities with complete control of how you graphs look, zoom factor, redline inclusion and anomaly reporting.



CIS Graph Toolbar:

The print button will bring up the CIS print dialog. See CIS Printing for more information.

The edit button will bring up the CIS graph-editing dialog. See CIS Graph Editing for more information.

Use the save button to save the current view of the graph to a bitmap file or Windows metafile.

The rescue button will redisplay the graph using default settings. Edited settings are still saved to a file on disk. Use this button as a quick means of temporarily resetting all changes.

The zoom buttons will zoom in and out for a more detailed view of regions of the graph.

The pan buttons are enabled whenever portions of the graph are not visible due to zooming. Use these buttons to scroll left and right to view those portions of the graph, which are currently off the screen.

Checking the Points checkbox will display a marker for each point on the graph. This is useful to pinpoint actual data points on the graph. See altering graph points below.

Checking the Info checkbox will vertically display descriptions recorded for readings taken. Should descriptions "overrun" each other or be too close together in the current view of the graph they will appear lower than the description they would overwrite. Zoom in to spread these descriptions out and show them properly lined up with their respective readings.

To view a Redline (or ".85 Line") on the graph enter the value at which the line should be displayed and check the Redline checkbox. To change the value, uncheck the checkbox, enter the new value, and check the checkbox again.

The Anomalies check box enables Anomaly Report printing options in the CIS Print dialog. Enter the default anomaly level in the edit box. For more information regarding Anomaly Reports, see CIS Printing.

Use the GoTo button to return to the CIS data page.

Mouse Options:

The following are the available mouse operations for the CIS Graph:

- Left-Drag a rectangle on the graph to zoom in to that portion of the graph.
- Right-Drag to pan the Graph left, right, up or down.

With the pointer on a point on the graph you can alter the readings as follows:

- Shift-left-click to change the reading upward.
- Control-left-click to change the reading downward and Control-right-click to delete the reading.

  Important! *These operations will change the actual CIS data. Use with caution!*

Graph Editing

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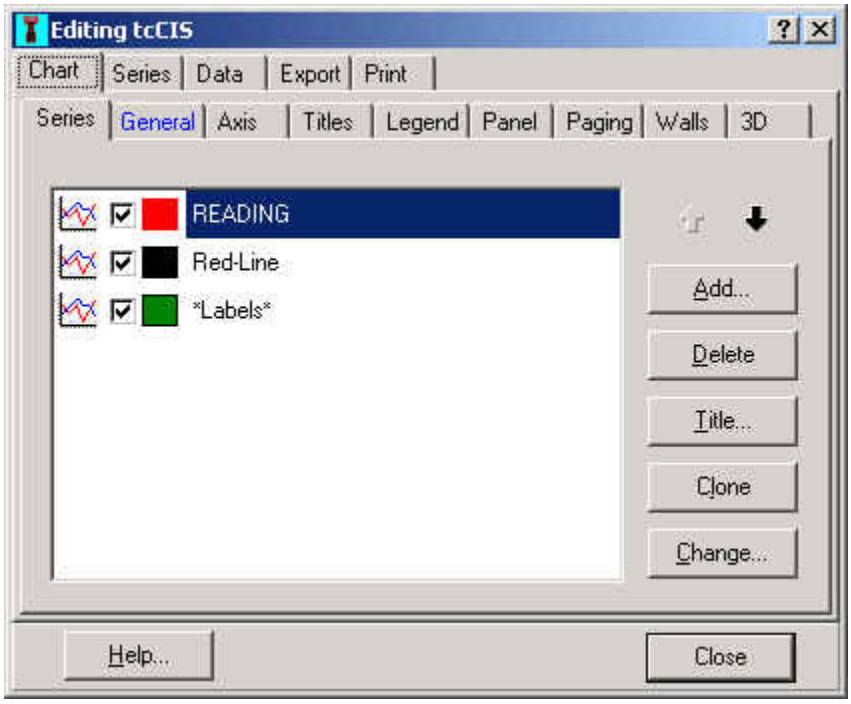
To edit graph properties click on the button to bring up the Graph Editing dialog. Virtually every aspect of the graph is customizable from this dialog. As an example, to change the name of a series, select it and click "Title..." To edit other properties for that series click on the series tab to get another tab sheet from which you can edit colors style of graph line etc. Edited settings are saved for each reading type (Single, On/Off and Min/Max) of CIS. Therefore, all Close Interval Surveys with the same reading type will have the same graph settings.

See image on the next page.



For help on any item in the graph editor click the ? icon in the upper right corner and then click on the item for which you need help.

Important Note: **Never** change the type of graph to anything other than line graph. If you do the settings file will fail to load properly. Should this occur you will have to delete the corresponding 'TEE' file and all of your edited settings will be lost.

CIS Print

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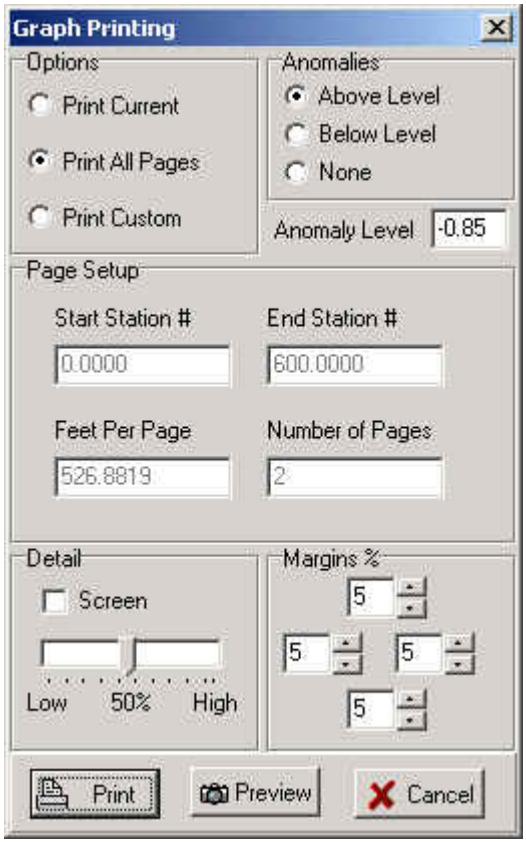
To print all or part of a graph click the print button . The CIS print dialog allows you to print the entire graph or to customize the range of graph to be printed.



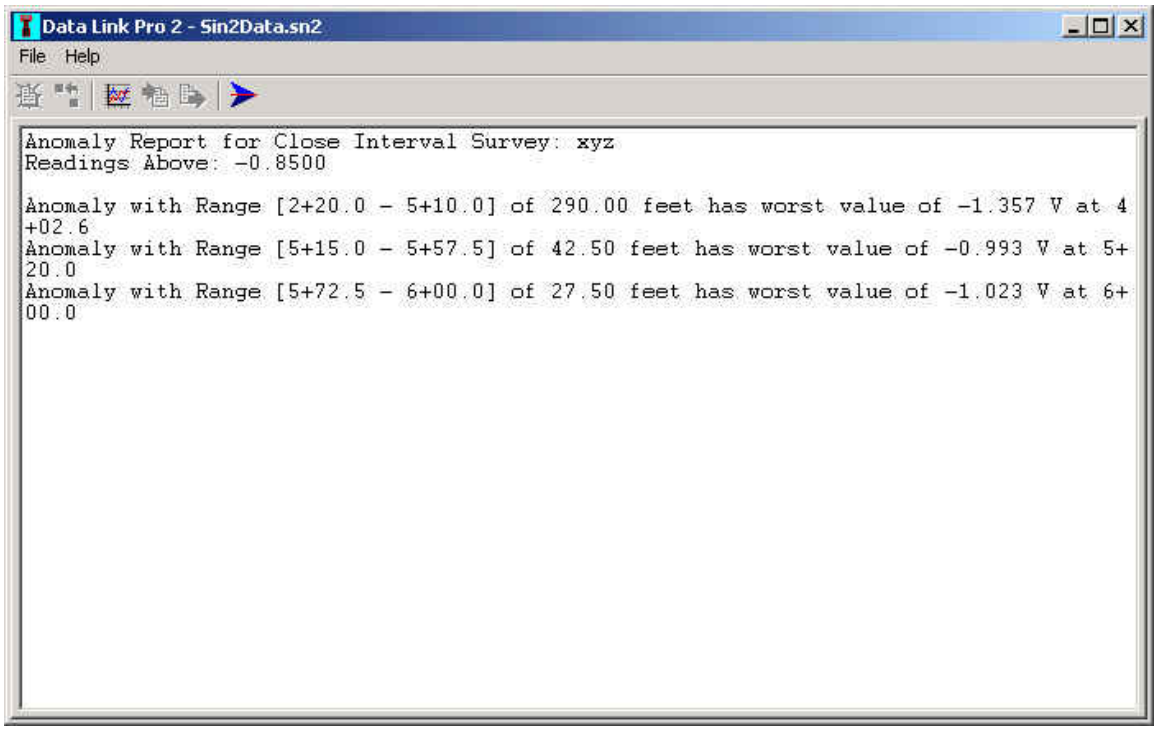
Page Setup:

To print only the currently visible portion of the graph, select Print Current from the Options radio group. To manually enter the location range to print, select Print Custom. When this option is selected, the Page Setup edit controls will be enabled so you can enter your custom settings. Should any of the settings in Page setup be invalid (such as the start or end station #) the program will not print the graph. When changing the Feet Per Page setting the Number of Pages setting will change to reflect the actual number of pages, which will be printed.

Anomaly Reports:

By clicking either Above Level or Below Level in the Anomalies, radio group you can generate a CIS Anomaly report. Edit the Anomaly level to set the reading level above or below which an anomaly will be reported. Each line of the report represents a range of locations within which all readings are anomalous and gives the location within that range of the greatest anomaly.

To send the report to the printer right click and select 'Print Survey Report'.



Download Survey from Sin2

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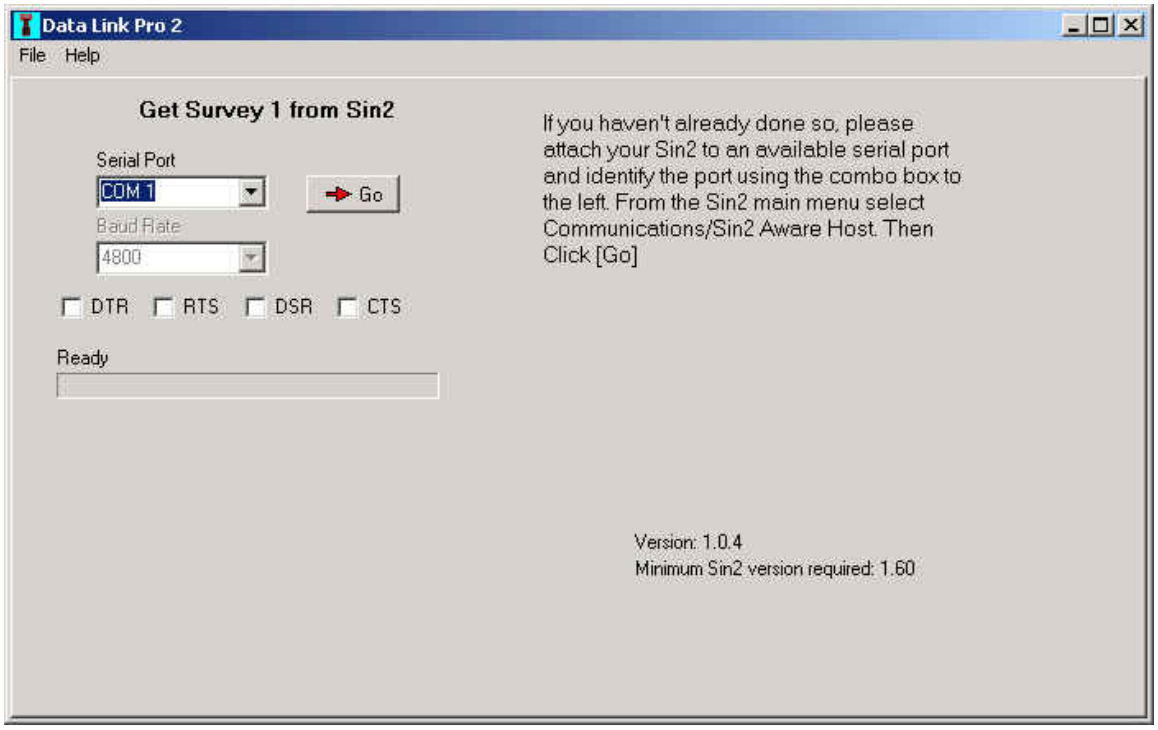
Follow these steps to download the current survey to a connected Sin2 meter:

1. Make sure the Sin2 meter is connected to the PC;
2. Select **Download Survey to Sin2** from the Survey menu or click on the **Download to Sin2** button. You will be shown Data Link Pro2's communications page

See image on the next page.



3. Select the **Com port** from drop down list. Data Link Pro2 will prompt you to save the setting from the last download, but be sure it is set to the correct port number;
4. Select the **Baud Rate** from the drop down list. This must match the baud rate selected on the Sin2 meter;
5. From the Sin2 meter's main menu select **Communications/Sin2 Aware Host**. **"Waiting for connection"** is displayed on the meter's screen;
6. From the Data Link Pro2 Communications page click Go;

Several messages and progress indicators will appear on both the Sin2 screen and Data Link Pro2's communications page. The process is complete when Data Link Pro2 displays the "Finished" message. Allow several seconds for the meter to complete its processing at which time it will display the message **"Transfer Complete."**

Uploading Surveys

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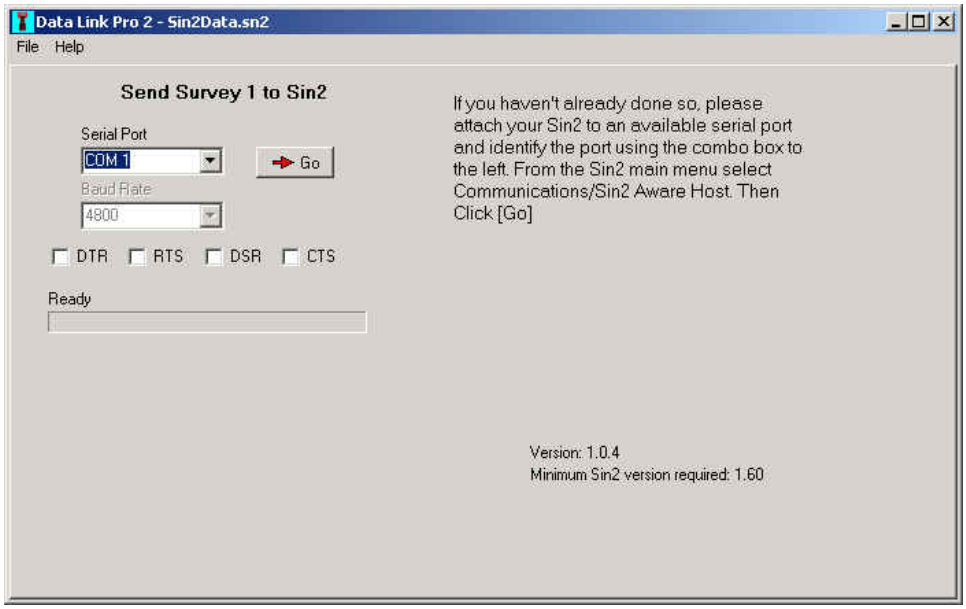
When you choose to upload the current survey from a connected Sin2 meter, Data Link Pro2 will retrieve from the meter the readings for the currently loaded survey-by-survey name. To retrieve a survey from the Sin2 meter:

1. Make sure the Sin2 meter is connected to the PC;

2. Select **Upload Survey** from Sin2 from the **Survey** menu or click on the **Upload from Sin2** button. You will be shown the Data Link Pro2 communications page;



3. Select the **Com port** from drop down list. Data Link Pro2 will prompt you to save the setting from the last download, but be sure it is set to the correct port number;
4. From the Sin2 meter's main menu select **Communications/Sin2 Aware Host**. **"Waiting for connection"** is displayed on the meter's screen;
5. From the Data Link Pro2 Communications page click **Go**;
6. Several messages and progress indicators will appear on both the Sin2 screen and Data Link Pro2's communications page. The process is complete when Data Link Pro2 displays the **"Finished"** message. Allow several seconds for the meter to complete its processing at which time it will display the message **"Transfer Complete."**

You will be returned to the Scripted Survey page of Data Link Pro2 from which you can view the survey for further processing.

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