



EDG Software



H-4114C—EDG Software

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EDG Software

EDG Software will allow you to communicate effortlessly with your EDG gauges and only requires minimal setup by the user. EDG Software provides a complete solution for the acquisition, storing, and presentation of Job and Soil Model data. EDG Software works in conjunction with Microsoft Excel to present test data in easy-to-read Excel workbook format files, which can be evaluated directly or sent to any computer using Microsoft Excel. Jobs can be grouped together within projects for organization and reporting.

EDG Software Features

- Communicate with all your EDG gauges.
- Download Job Data.
- Create reports from downloaded job data.
- Download Soil Model Data.
- Create reports from downloaded soil model data.
- Upload soil models to any EDG.
- Input proctor data for use in job data or soil model data.
- View maps of test locations.
- Customize Report.

Requirements

Operating System Requirements

Windows 2000 (with at least Service Pack 4), Windows XP Professional, Windows XP Home, and Windows Vista. Other versions, such as Windows 3.1, Windows 95, 98, and NT are not supported.

Note: If using Windows Vista you may need to run the application with administrative privileges to be able to export. In Vista, your locations to export and create reports will be limited to your My Documents folder if not running using administrative mode.

Software Requirements

Microsoft Excel is required for creating reports.

Hardware Requirements

- Pentium 4 (32-bit) equivalent or faster.
- Minimum 512 MB RAM
- 300 MB swap space (or more)
- CD-ROM or DVD Drive if installing using installation disc.
- 1024 x 768 display resolution.

Internet Connection

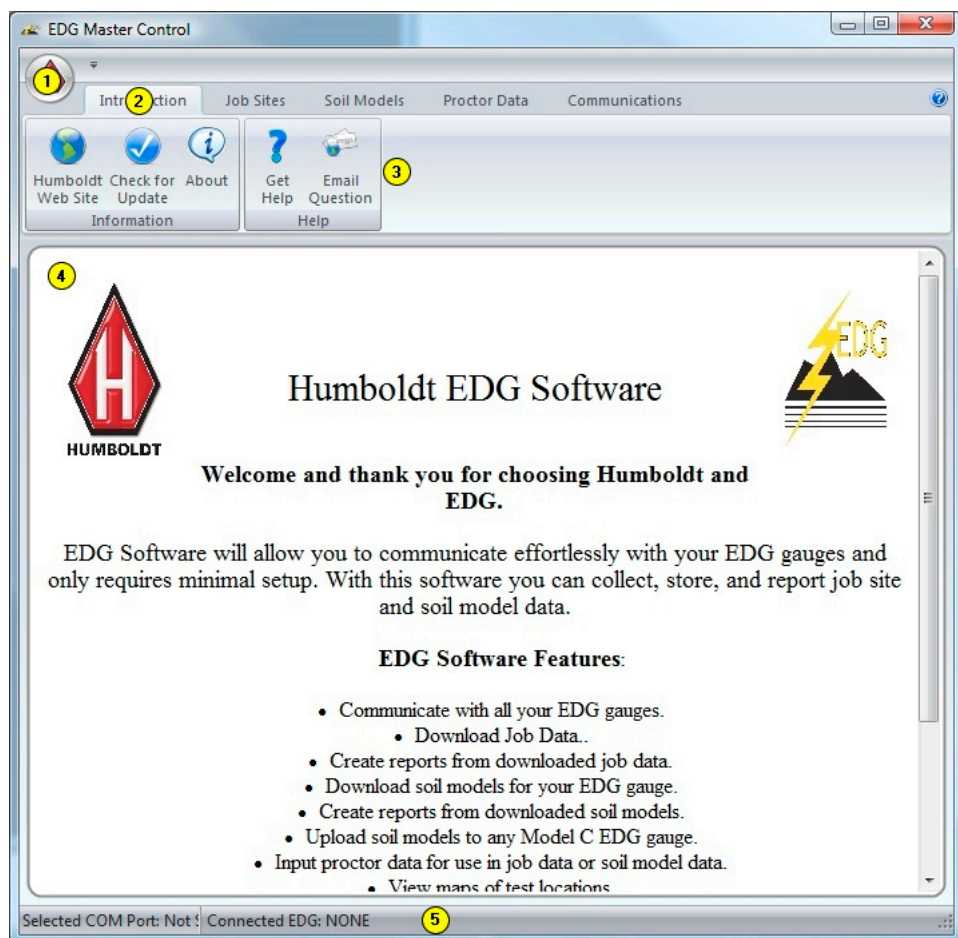
It is recommended that you have an internet connection. With an internet connection you can:

- Check for software updates.
- Soil Models can be exported and sent to anyone.
- Comments and questions can be sent to Humboldt.
- In the event of issues with the software we can connect to your computer remotely.

Navigation

Navigation within the EDG Software is very simple and most navigation can be done with very few mouse clicks.

1. Clicking here will bring up the file menu. From here you can exit the program or change program options.
2. These are the section tabs. The picture below shows that we are currently viewing the Introduction page, clicking on another tab will display a different application page.
3. Each tab page will contain its own set of icons, which are actions for that page.
4. This is where each tab section will be displayed.
5. This will show you status of the application. Generally it will display if you are connected, and the serial number of the currently connected EDG.

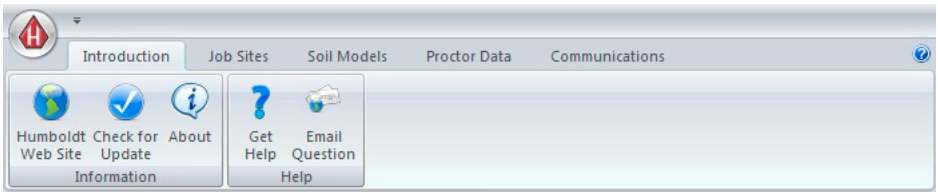


Introduction

Overview

The Introduction tab shows you a brief summary of the capabilities of the software. If the software is not being blocked by your firewall this page will be updated with any new information about the product.

Introduction Tab Button Bar



- *Humboldt Web Site*— Click this item to view Humboldt's Web Site using your internet browser.
- *Check for Update*— this will check to see if there are any updates available for the software. You may be required to allow the EDG Software through your firewall.
- *About*— this will tell you what version of the software you are running. If technical support is required you will be asked what version of software you are running, click here to find out.
- *Get Help*— this will open up the EDG software help manual.
- *Email Question*— see Email Question for more information on this tool.


Email Question

With the Email Question tool you can email Humboldt with Comments or Questions. All you need to do is insert your email address, provide some information about yourself if we need to contact you, and type your comment or question.

Instructions

1. Enter an email address where Humboldt may contact you.
2. Type your comment or question.
3. Select the send diagnostic information if you are have technical issues and the email is a request for technical support.
4. Click to send the email, you may be required to allow the EDG software through your firewall software

Mail



Email Comment or Question

Email a comment, question, or whatever you want to Humboldt. You will not be put on a mailing list, but your question will be answered.

Your Email Address: * Required

☐ Send diagnostic information with this message.

Note: Please include name, company information, and a telephone number in case we need to call you.

Send Email

Cancel

Microsoft Excel Setup

This help can be found in the EDG Software by clicking on any icon that has a question mark and contains the caption "Export Setup"

Microsoft Excel Export Setup (Version 2003 and earlier)

Problem:

If Microsoft Excel macro security is not set at the proper level, the reports generated from the EDG Software will not be generated properly. You will notice your excel sheets do not contain your exported data and the a majority of the fields will contain a field value of #NAME?.

Solution (Microsoft Office 2003 and earlier)

1. Open Excel, if Excel is not installed on your computer, it will need to be installed.
2. In the Excel menu click on Tools à Macro and select Security.
3. A window labeled Security will be displayed. The first tab labeled Security Level will be selected. Make sure that the security level is set at Medium. This setting will not leave you vulnerable to security issues that occur with lower settings, but you will be prompted by other macros if you want to open them or not. Humboldt Scientific does not recommend going below a security level of medium.
4. Next, select the Trusted Publishers tab. At the bottom of the tab you will notice up to two check boxes depending on what version of Excel you are using. Excel version 2000 and lower only have one check box. Whatever version of Excel you have, make sure all available check boxes have check marks next to them.
5. Click the Ok button at the bottom of the security window.
6. Close ALL opened Excel sheets.
7. Try exporting the data from the EDG software. All data should export properly at this point.

Microsoft Excel Export Setup (Version 2007)

Problem:

If Microsoft Excel macro security is not set at the proper level, the reports generated from the EDG Software will not be generated properly. You will notice your excel sheets do not contain your exported data and the a majority of the fields will contain a field value of #NAME?.

OR Excel will hang and no exported data will be shown.

Solution 1 (More Secure)

1. Open Excel, if Excel is not installed on your computer, it will need to be installed.
2. Click on the Office button in the top left-hand corner.
3. Click on the Excel Options button.

4. The Excel Options window will display. In the list on the left, select Trust Center, and then click the Trust Center Settings... button.
5. The Trust Center window will display. In the list on the left, select Macro Settings.
6. Place a check mark in the Trust access to the VBA project object model in the Developer Macro Settings section.
7. Click Trusted Locations in left pane of the Trust Center.
8. Click Add new location button.
9. A location window will display, click the browse button and navigate to where your software is installed. Usually located under C:\Program Files\.
10. Once the location is selected, check the Sub folders of this location are also trusted box.
11. Click the Ok button in the trust location window.
12. Click the Ok button in the trust center window.
13. Click the Ok button in the Excel Options window.
14. Close ALL opened Excel sheets.
15. Try exporting the data from the HMTS software. All data should export properly at this point.

Solution 2

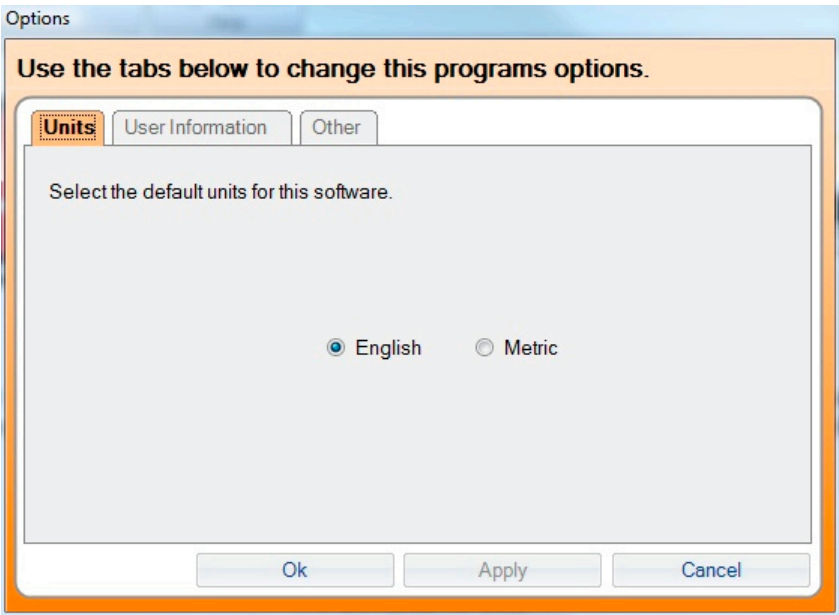
1. Open Excel, if Excel is not installed on your computer, it will need to be installed.
2. Click on the Office button in the top left-hand corner.
3. Click on the Excel Options button.
4. Click on the Excel Options button.
5. The Excel Options window will display. In the list on the left, select Trust Center, and then click the Trust Center Settings... button.
6. The Trust Center window will display. In the list on the left, select Macro Settings.
7. In the Macro Settings section select Enable all macros and also place a check mark in the Trust access to the VBA project object model in the Developer Macro Settings section.
8. Click the Ok button in the trust center window.
9. Click the Ok button in the Excel Options window.
10. Close ALL opened Excel sheets.
11. Try exporting the data from the HMTS software. All data should export properly at this point.

Program Options

Program options can be found by clicking the Humboldt logov at the top left of the EDG Software and select Options. Use the program options to change units of the software, user information, and other program specifics.

- *Units*— change units the software will use for displaying data and reporting.
- *User Information*— create/modify user information. This is the information that will be displayed in a report about you and/or your company.
- *Other*— This contains other program options, specifically an item for providing debug parameters.

Technical support will provide any parameters to help you trouble shoot the application here. Please do not change/modify this entry unless asked to do so by technical support.



Job Sites

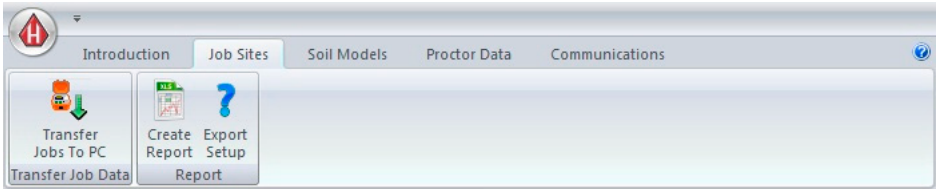
Overview

In the Job sites tab you can download Jobs, modify downloaded jobs, and export jobs to Microsoft Excel.

Note: To export to Microsoft Excel, you must have Microsoft Excel installed on your PC.

Tool Bar Items

- *Transfer Jobs to PC*— this will download any jobs from the EDG to the PC
- *Create Report*— click here to create a report using Microsoft Excel.
- *Export Setup*— click here for instructions on Microsoft Excel Setup to work properly with the EDG software.



For more information see Job Sites Detailed.

For more information on reporting see Reports.

Project Name— name of the project this job belongs to.

Project Location— location of the project.

Client Name— name of the client this job has been done for.

Material Source— source of the material.

Material Description— description of the material that was tested at this job site.

Engineer/Soil Technician Name— technician or engineer that performed the test.

Classification— classification of the soil. Click the button to the right of the classification box to display a list of possible soil classifications. Up to two soil classifications can be selected.

Test Data Tab

This is data that was obtained from the EDG. This data can not be changed.

Associated Soil Model— soil model that this job used for testing. The soil model associated with the test can be changed if desired. Soil models can only be changed to soil models that have been retrieved from connected EDG's or soil models imported into the software. See Soil Models Detailed for more information on soil models.

EDG Test Date— date the field test was created.

EDG Test Time— time the field test was created. Dry Density, Wet Density, Moisture, and Compaction are all entered or calculated on the EDG box.

Location— this is the GPS tag provided when the field test was completed. The GPS option must be installed on the EDG box and a GPS fix must be available at time of the field test.

Click the Enable or Disable Field Test button to enable or disable a field test. If a field test is disabled, it will not show up in the Plot or its GPS position will not show up in the GPS map.

Electrical Data Tab

The electrical data for the field test is shown here.

Proctor Tab

Select a proctor model to be used with this test. See Proctor Data for more information on creating proctor data.

Plot Tab

Graph of field tests for this job site. It will contain all field tests that are enabled, with a number next to each point that indicates what field test it is in the job site. The selected proctor model if any will also be displayed.

GPS Tab

The GPS tags will be displayed on a map. Click each tag to see what field test it belongs to. If a GPS tag was not available during creation of the field test or

you do not have the GPS option installed, no GPS tag will appear. To use this function you must have an active internet connection and you must allow the EDG Software through your PC's firewall.

Left Double-Click click to zoom in

Right Double-Click click to zoom out

Left-click hold and drag to move around in the map, or single click on an area in the mini map to move to that area on the map.

The blue box in the mini map shows the area of view for the larger map.

Delete Field Test

Clicking on this button will delete the currently selected field test. If only one field test remains and this button is clicked the Job Site will be completely removed from the EDG Software. The delete is permanent and can not be undone.

Soil Models

Overview

In the Soil Models tab you can download soil models, upload a soil model, modify downloaded soil models, import soil models, export soil models, and export reports to Microsoft Excel. Soil models can be uploaded to any Model C EDG even if the soil model did not come from that EDG.

Note: To export to Microsoft Excel, you must have Microsoft Excel installed on your PC.

Tool Bar Items

Transfer Soil Models To PC— click here to retrieve any soil models stored on an EDG. This will overwrite existing soil models already stored on the PC.

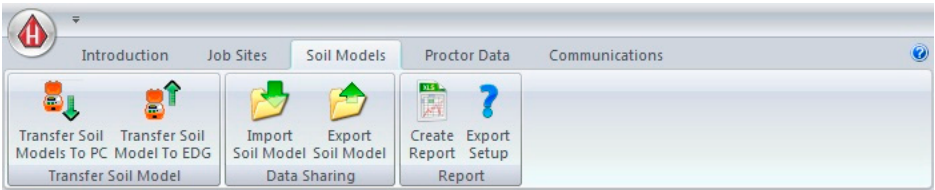
Transfer Soil Model To EDG— this will transfer the selected soil model to a connected EDG.

Import Soil Model— will import a soil model into the EDG Software from a file.

Export Soil Model— will export the currently selected soil model to a file.

Create Report— create a report of a soil model or soil models

Export Setup— click here for instructions on Microsoft Excel Setup to work properly with the EDG software.



For more information see Soil Models Detailed.

For more information with Import and Export see Import/Export.

For more information on reporting see Reports.

Soil Models Detailed

Click on any soil model and the specifics of that soil model will be displayed in the Soil tests table and the tabs to the right of the soil tests table.

Available Soil Models

This will contain a list of all the soil models you have downloaded from your EDG(s).

Generating EDG— EDG box serial number that generated soil model.

Soil Number— unique identifier of the soil model.

Soil Name— name given to the soil model. This name is provided on the EDG.

Soil Test Count— number of tests performed for this soil model.

Soil Tests

Soil Test— Index of the tests that were done for this soil model.

State— Is the test active or disabled.

Project Tab

Use this to provide specifics of what project the job site belongs. Use the same project name as another job site and the data can be grouped together when creating reports.

Available Soil Models:

Generating EDG	Soil Number	Soil Name	Soil Test Count
00303	1	3PCT	9
00303	2	5PCT	9
00303	3	7PCT	9

Soil Tests:

Soil Tests	State
1	Active
2	Active
3	Active
4	Active
5	Active
6	Active
7	Active
8	Disabled
9	Disabled

Delete Soil Test

Project

Test Data

Electrical

Proctor

Plot

GPS

Project Name:Project

Copy Data

Project Location:

Client Name:

Material Source:

Classification:GM

Material Description:gravel and sand

Engineer/Soil Technician Name:

Project Name— name of the project this soil model belongs to.

Project Location— location of the project.

Client Name— name of the client this soil model has been done for.

Material Source— source of the material.

Material Description— description of the material that was tested for this soil model.

Engineer/Soil Technician Name— technician or engineer that performed the test.

Classification— classification of the soil. Click the button to the right of the classification box to display a list of possible soil classifications. Up to two soil classifications can be selected.

Test Data Tab

This is data that was obtained from the EDG. This data can not be changed.

EDG Test Date— date the test was created.

EDG Test Time— time the test was created.

Maximum Dry Density - Maximum dry density of the soil model.

Dry Density, Wet Density, Moisture, and Fit are all entered or calculated on the EDG box and can't be changed in the software.

Location— this is the GPS tag provided when the test was completed. The GPS option must be installed on the EDG box and a GPS fix must be available at time of the soil test.

Click the Enable or Disable Soil Test button to enable or disable a soil test. If a soil test is disabled, it will not show up in the Plot or its GPS position will not show up in the GPS map.

Electrical Data Tab

The electrical data for the soil test is shown here.

Proctor Tab

Select a proctor model to be used with this test. See Proctor Data for more information on creating proctor data.

Plot Tab

Graph of soil tests for this soil model. It will contain all soil tests that are enabled, with a number next to each point that indicates what soil test it is in the soil model. The selected proctor model if any will also be displayed.

GPS Tab

The GPS tags will displayed on a map. Click each tag to see what field test it belongs to. If a GPS tag was not available during creation of the soil test or you do not have the GPS option installed, no GPS tag will appear. To use this function you must have an active internet connection and you must allow the EDG Software through you PC's firewall.

Left Double-Click click to zoom in

Right Double-Click click to zoom out

Left-click hold and drag to move around in the map, or single click on an area in the mini map to move to that area on the map.

The blue box in the mini map show the area of view for the larger map.

Delete Soil Test

Clicking on this button will delete the currently selected soil test. If only one soil test remains and this button is clicked the soil model will be completely removed from the EDG Software. The delete is permanent and can not be undone.

Import/Export

Import Soil Model

This will allow you to import and export soil models. This can help you share soil models between different locations. If soil model already exists you will be prompted before overwrite. A soil model that already exists will be completely overwritten by the imported soil model.

Importing a Soil Model:

1. Click the Import Soil Model button located in the Soil Models tab.
2. Locate the file you want to import. Click the open button.
3. If the soil model already exists you will be prompted to overwrite.
4. The soil model will be imported and you will be prompted with a success or failure to import notification.

Export Soil Model

This will allow you to export a soil model to a file. Only one soil model at a time can be exported.

Exporting a Soil Model:

1. Click the Export Soil Model button located in the Soil Models tab.
2. Select the desired location to save the soil model and provide a save name for the file.
3. The soil model will be exported and you will be prompted with a success or failure to export notification.

Proctor Data

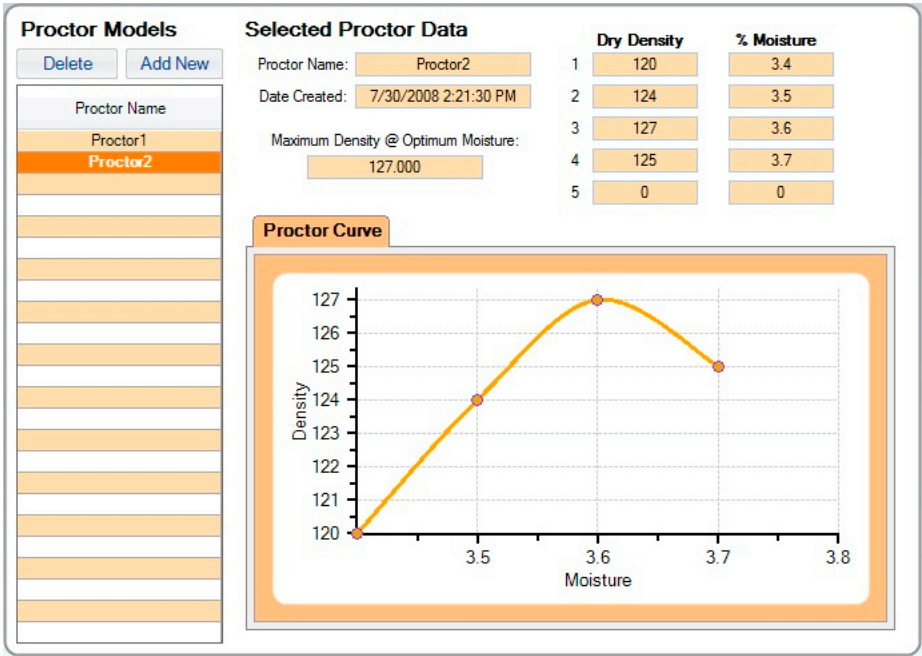
In the Proctor Data section you can create/change proctor models to be associated with your job sites or soil tests.

Proctor Models

Use the Add New or Delete buttons to add new proctors or delete existing. The Proctor Name table contains the proctors you have created. Select a proctor to view the graph of the Proctor model.

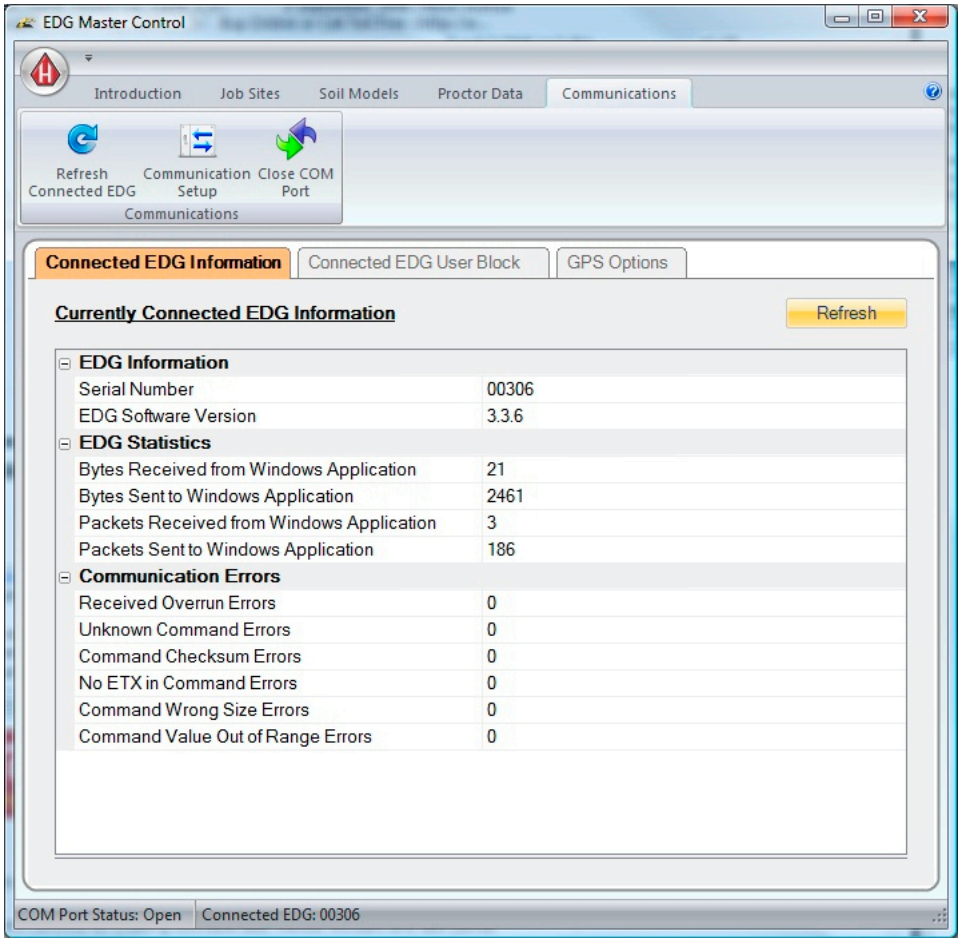
Selected Proctor Data

Proctor Name— name given by user for the proctor.
Date Created— date the proctor was created. This field can not be modified.
Maximum Density @ Optimum Moisture - this is the maximum density @ optimum moisture of the model. Dry Density and % Moisture fields are the values collected. All rows do not have to be filled in



Communications

In the Communications tab you will find information about your connected EDG, Communication Setup, and the option to open or close your communication port. The EDG uses an RS-232 port on your PC. If your PC does not have this you will need to purchase an RS-232 to USB adapter from Humboldt.



Sample of EDG Communication tab.

EDG Data Sharing Mode

Whenever you want to have the EDG communicate with the PC, you must have the EDG in Data

Sharing Mode

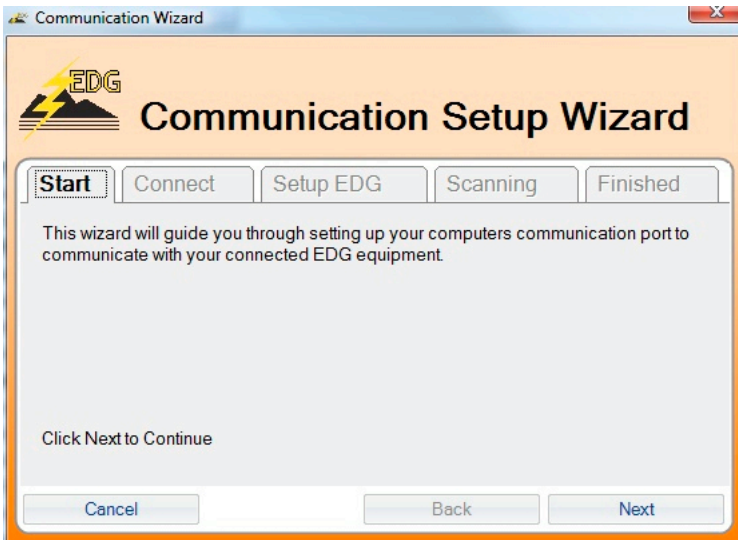
1. From the main menu of the EDG select Data Sharing
2. Follow the on-screen instructions.
3. When the EDG is in data sharing mode you will see an image of an EDG and image of a PC on the EDG screen. Arrows going between the two images indicates communications between the EDG and your PC.

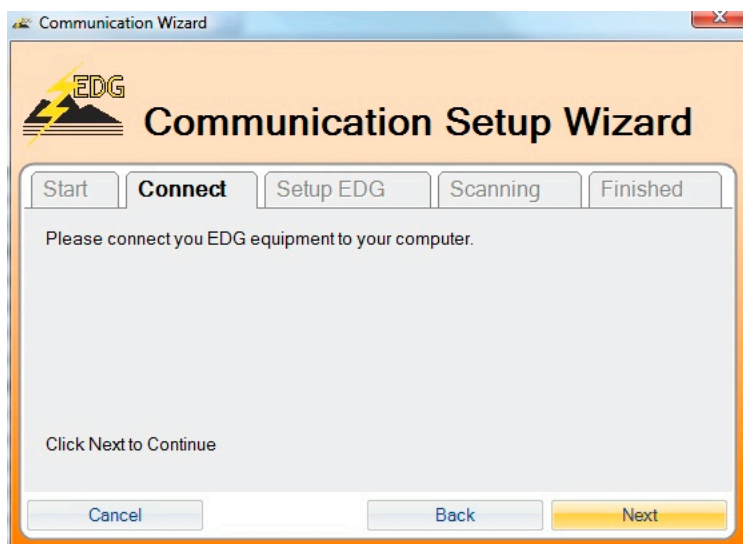
Communication Setup (Wizard)

Communication setup is easy, just follow the on screen instructions within the Communication Setup button. This wizard will guide you through the setup of communication. Please follow the instructions precisely. Once communications are setup, you will not need to run the wizard again unless you change communication ports or PC's.

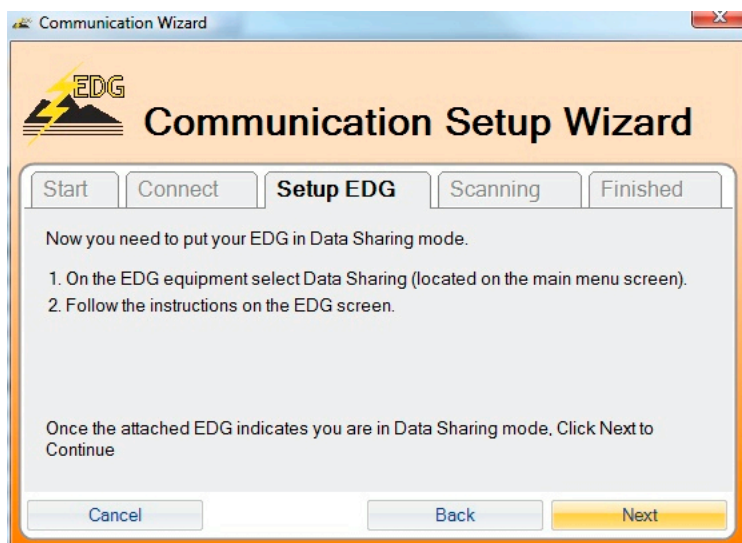
Wizard Steps

1. Start

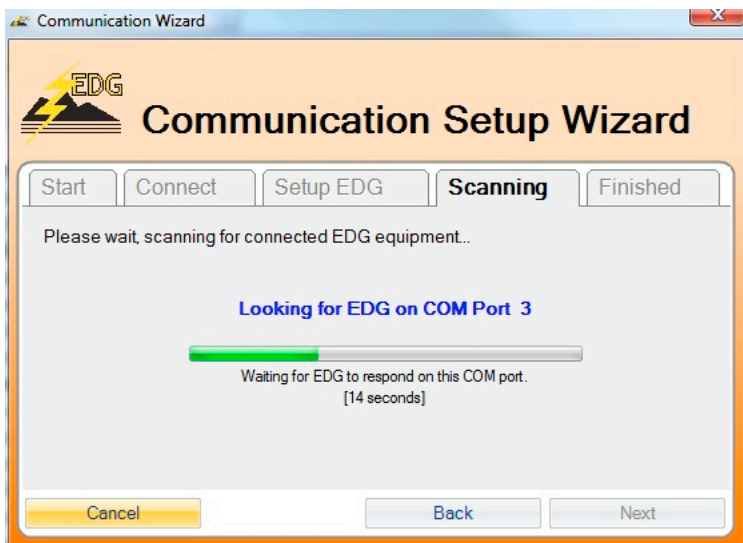




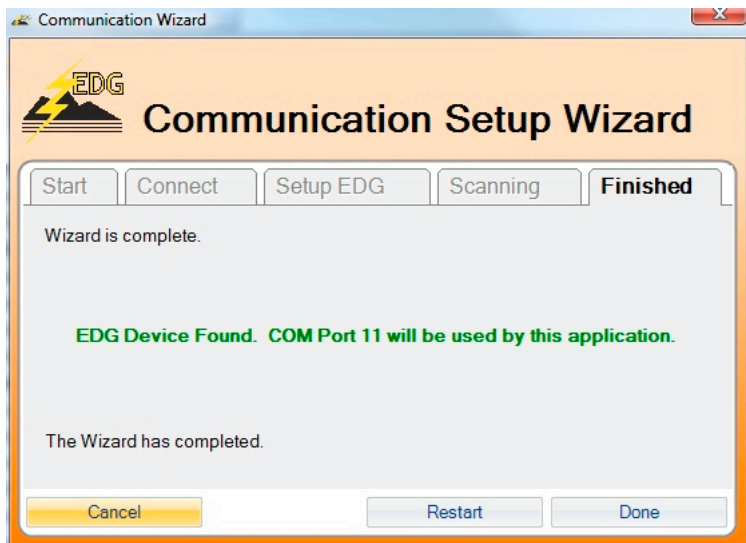
2. Connect



3. Setup



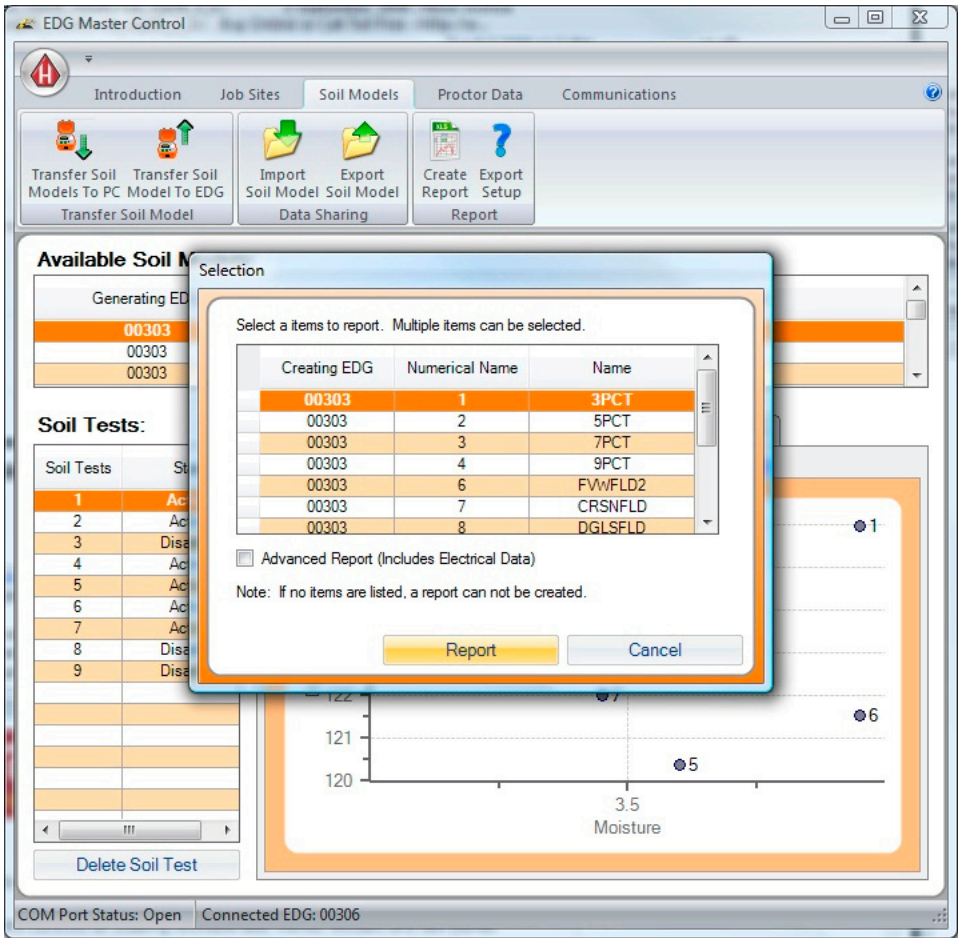
3. Scanning



4. Finished

Reports

Creating reports is easy. In the Job Sites or Soil Models tabs select Create Report. You can select single or multiple items to report. You can choose to include electrical data if you would like. Microsoft Excel must be installed on your computer. Please see Microsoft Excel Setup for more information on setting up Excel to work properly with the EDG Software.



Sample of report selection

Reporting Instructions

1. In the Job Sites or Soil Models tab select Create Report.
2. Select the items you would like to report.
3. Click the Report button. Excel will open and your report will be created.
If it is not, please check that you have setup Excel correctly (Microsoft Excel Setup).

Customizing a Report

The report can be customized to include your company information. Please see Program Options for more information on changing this information.

If you would like to further customize your report please see Customizing Reports for more information.

Customizing Reports

The EDG Software currently allows you to edit the report template to look exactly how you want it to. This is done by using Macros and Keywords in the template. Please do not modify macros or the Data spreadsheet of the report, but feel free to modify the JobTemplate, SoilTemplate, JobElectrical, and SoilElectrical Excel Sheets. Humboldt can provide limited help with understanding how template modification works, but for the most part it is up to you. Always backup the original template.

The Template can be found in the installed location of the EDG Software, typically this is:

C:\Program Files\EDG Software\Res\EDGReport.xls.

The EDGReport.xls is the file that Job Sites, Soil Models, and Electrical Data will be exported to.

Template Basics

Use the format values and values below to adjust the way your report will look. Please see the current Excel template to understand how it all works.

Note: Never under any circumstances modify the Data sheet.

FORMAT KEY WORDS— Using these keywords will instruct the Excel macro how to execute and layout the report.

cmdnHEADERSTART— this instructs the template that this is where the header for new pages will start.

cmdnHEADEREND— this instructs the template where the header for new pages will end.

cmdnTABLEBEGIN— instructs the template that we are starting the table.

cmdnTABLEEND— instructs the template when the table ends.

cmdnEND— instructs the template to position of the end of template (must be included and can't be omitted).

cmdnHEADERSTART and cmdnHEADERBEGIN must be followed by their appropriate END values.

Static Values

In any of the templates, type the following value and this will be displayed in the report. To use these,

in the Excel template type an equal sign and then one of the variables below.

Company = XLRPARAMS_Company

Company Email = XLRPARAMS_COMPANYEMAIL

Company Address 1 = XLRPARAMS_COMPANYADDRESS1

Company Address 2 = XLRPARAMS_COMPANYADDRESS2

Company State = XLRPARAMS_COMPANYSTATE

Company Country = XLRPARAMS_COMPANYCOUNTRY

Company Phone = XLRPARAMS_COMPANYPHONE

Company Fax = XLRPARAMS_COMPANYFAX

Dynamic Values

These are data values stored in the software.

Single values: In the Excel template type !D_ followed by the descriptor.

Table values: In the Excel template type !DT_ followed by the descriptor.

The T instructs the template to grab the variable and it is part of a table.

Key = time stamp of record

Rtype = type of data (0 = job 1 = soil)

Serial = serial number

Name# = number name

Name = string name

Count = number of tests

Nname = next number

AssSer = serial number of soil model

AssNum = number name of soil model

AssName = string name of soil model

ProjID = project id

TestType = test type

MDensE = max density English

MDensM = max density metric

OptMois = optimum moisture

Class = soil classification

Test# = test index
TestStr = test name string
Active = active or inactive
Volt = volt value
Curr = current value
Phase = phase value
Cap = capacitance value
Temp = temperature value
D&T = date and time of test
EDActive = active
LATDEG = degrees latitude
LATDIR = direction latitude
LATMIN = minutes latitude
LONDEG = degrees longitude
LONDIR = direction longitude
LONMIN = minutes longitude
ElecIndex = electrical index
JMTop = job or soil model top
FSTop = field of soil test top
PhyValid = physical valid
SWDensE = soil wet density English
SWDensM = soil wet density metric
SPM = soil percent moisture
Proctor = proctor index
ProjName = project name
ProjLoc = project location
Client = project client
Oper = operator
Materdes = material description
Matersrc = material source
LONGLAT = longitude and latitude value

Computed Values

Single values: In the Excel template type !C_ followed by the descriptor.

Table values: In the Excel template type !CT_ followed by the descriptor.
The T instructs the template to grab the variable and it is part of a table.

FS_EDG = EDG serial number

FT_JN = job number

FT_FT = field test

FT_WD = field test wet density

FT_DD = field test dry density

FT_PM = field test percent moisture

FT_COMP = field test percent compaction

SM_FIT = soil model fit

NOTES = notes

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Warranty

Humboldt Mfg. Co. warrants its products to be free from defects in material or workmanship. The exclusive remedy for this warranty is Humboldt Mfg. Co., factory replacement of any part or parts of such product, for the warranty of this product please refer to Humboldt Mfg. Co. catalog on Terms and Conditions of Sale. The purchaser is responsible for the transportation charges. Humboldt Mfg. Co. shall not be responsible under this warranty if the goods have been improperly maintained, installed, operated or the goods have been altered or modified so as to adversely affect the operation, use performance or durability or so as to change their intended use. The Humboldt Mfg. Co. liability under the warranty contained in this clause is limited to the repair or replacement of defective goods and making good, defective workmanship.

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