

Standard Operating Procedure (SOP) 5: Field Laptop Setup, Version 2.0

Weather and Climate Monitoring Protocol

Arctic (ARCN), Central Alaska (CAKN), and Southeast Alaska (SEAN) Inventory and Monitoring Networks

Change History

Prev. Version #	Revision Date	Revised By	Changes	Justification	New Version #
1.00	12/19/06	P. Sousanes	Minor word changes for clarification	Incorporated peer reviewed comments	1.01
1.01	March 2017	P. Sousanes, K. Hill, B. Johnson, M. Bower	Instruction for setting up field laptop	Technology changed – software and datalogger updated.	2.0

Please cite this Standard Operating Procedure as:

Sousanes, P., K. Hill, M. Bower, W. Johnson, and S. Miller. 2017. Standard Operating Procedure (SOP) 5: Field Laptop Setup, Version 2.0. Weather and Climate Monitoring Protocol, Arctic (ARCN), Central Alaska (CAKN), and Southeast Alaska (SEAN) Inventory and Monitoring Networks. National Park Service, Fairbanks, Alaska. Available online at <https://irma.nps.gov/DataStore/Reference/Profile/2243691>.

Overview

This SOP explains the procedures for preparing a field laptop to directly communicate with the weather station data loggers. It describes how to set-up the Campbell Scientific, Inc. (CSI) LoggerNet software on your field laptop so that it is ready when you need it once you get to the field. A current list of all stations should be maintained on the field laptop within the LoggerNet software. Stations will need to be re-added after purchase of a new laptop and major software changes.

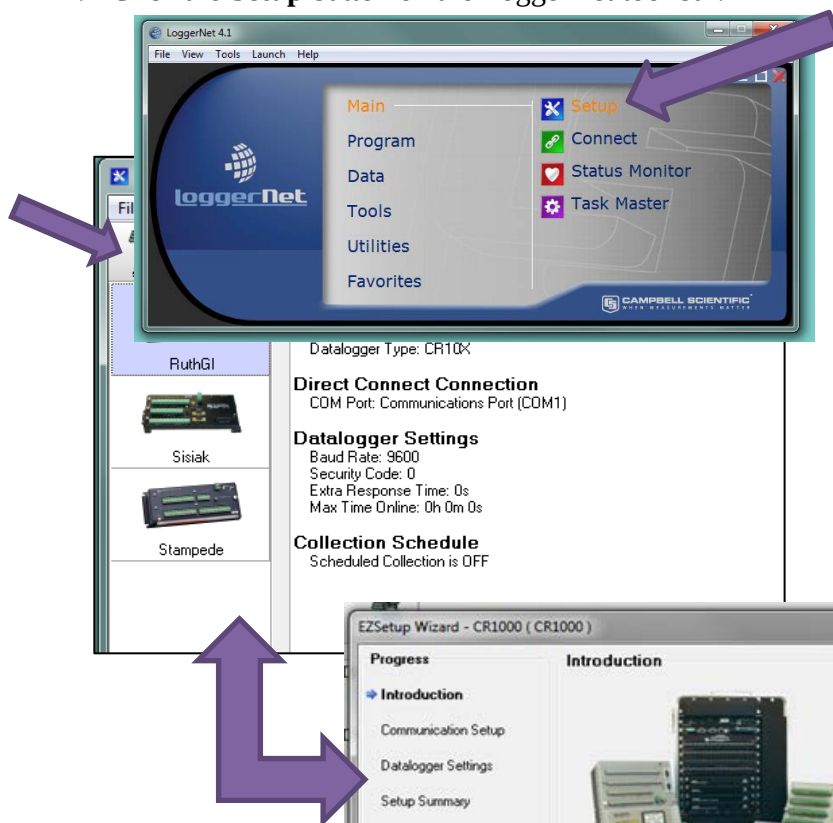
Additional information that can be handy in the field should also be loaded on to the laptop prior to the field season.

Software and Driver Installation

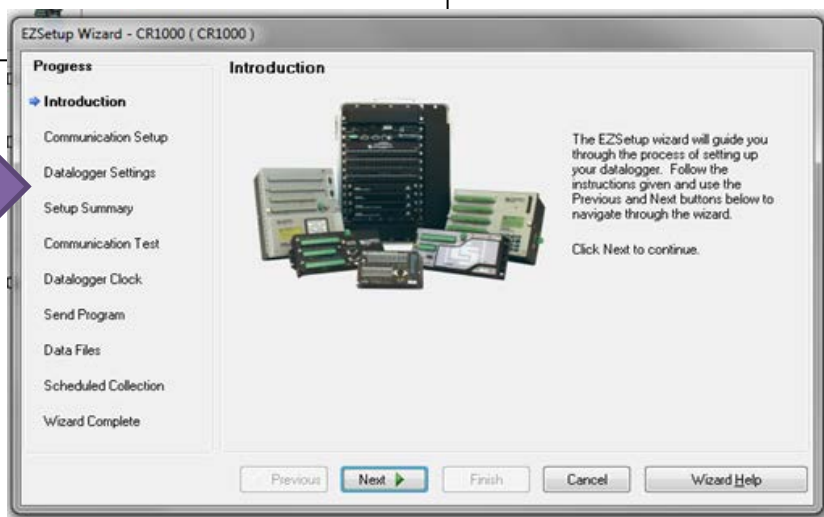
Install the LoggerNet software package onto all laptops that will be used in the field. Campbell's licensing terms require paying for every laptop that has LoggerNet installed on it. The network climate programs will have at least one copy of the software that was purchased through CSI. Check for software updates on an annual basis at the [CSI](https://www.campbellsci.com/loggernet-u) website (<https://www.campbellsci.com/loggernet-u>). The website has more documentation and video tutorials if needed. The SC-USB cable is the most common method used to communicate between a laptop and datalogger. Install the drivers and utility software from the CD.

Configuring LoggerNet and adding stations

1. Click the **Setup** button on the LoggerNet tool bar.

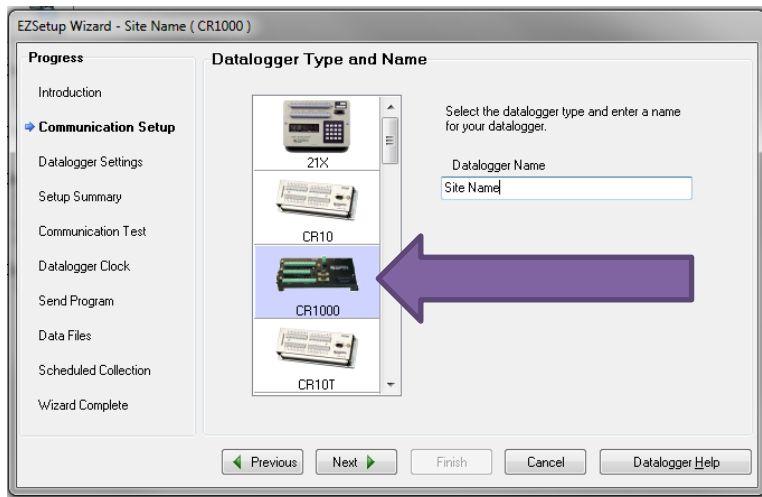


2. Click the **Add** button to add button on the Setup

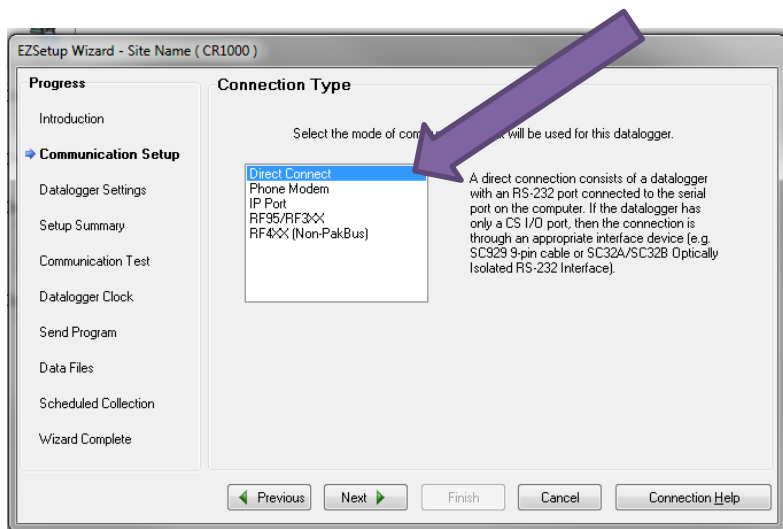


Screen. The EZSetup Wizard will pop up and guide you through the process.

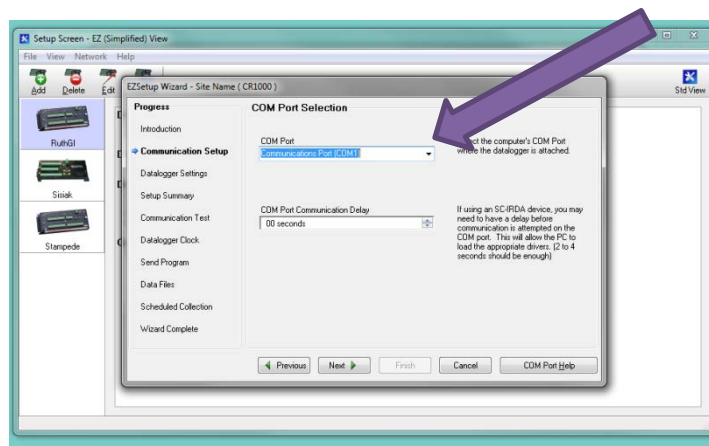
3. Select **CR1000** under Datalogger Type and use the name of the site as the Datalogger Name (e.g., Asik). Hit Next.



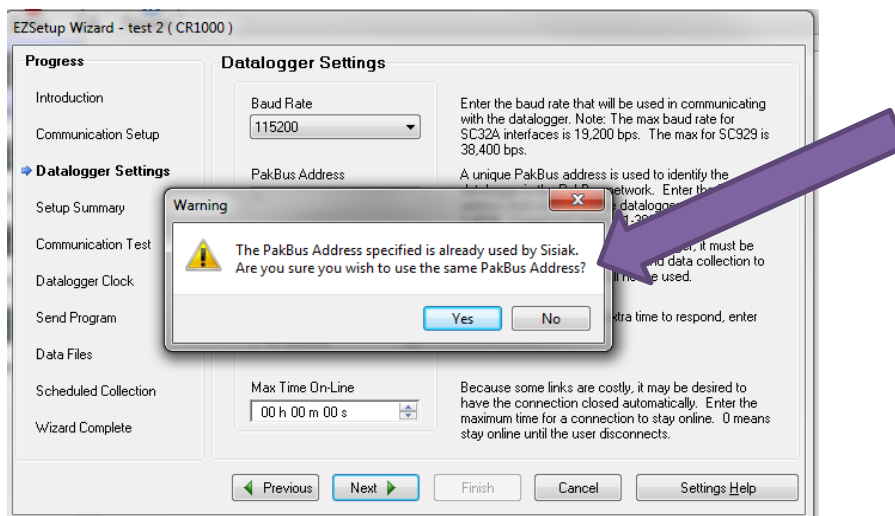
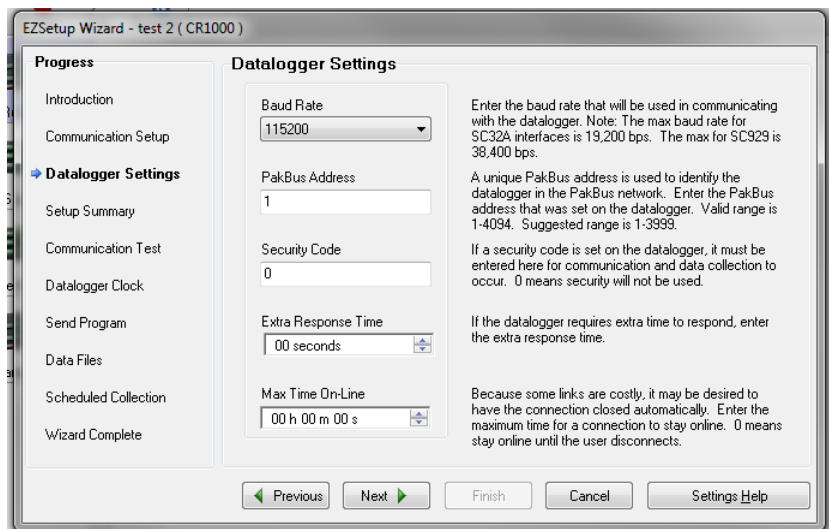
4. Select **Direct Connect** under Communication Setup. Hit Next



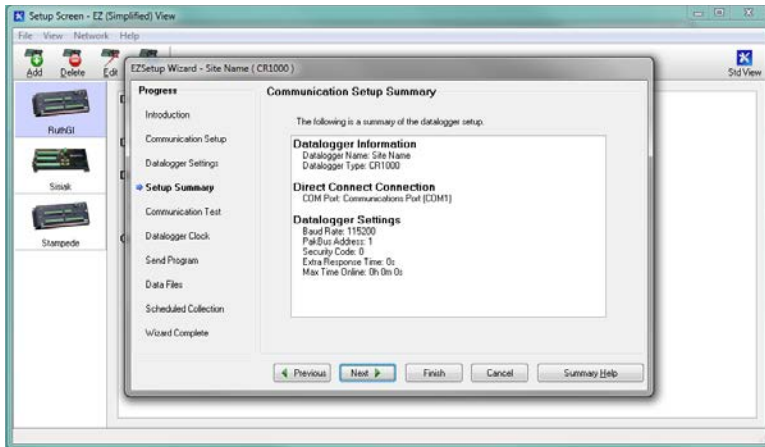
5. Under COM Port Selection, use the default Communication Port (COM1). In the field the SC-USB cable will populate that dropdown menu.



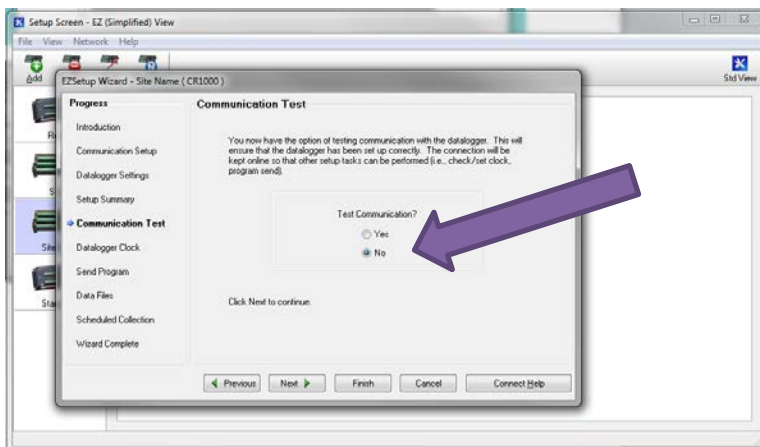
- Under Datalogger Settings, select **115200** for Baud Rate, **1** for PakBus Address, **0** for security code, **00** seconds for extra response time, and **00h 00 m 00s** under Max Time on-Line. These should be the default settings. Click Next. A Warning dialogue box will pop up, click Yes (these sites are not part of a network that needs to identify individual PakBus Addresses).



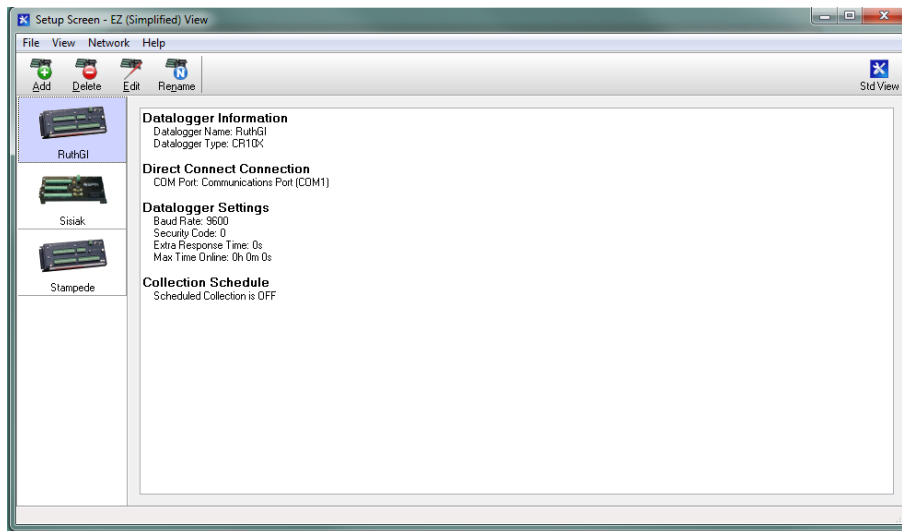
- Review the Setup Summary and click Next.



8. The next screen is the communication test. You can only test the communications if LoggerNet is connected to a datalogger and powered. For set-up purposes it is not necessary to test the communication. This can be done in the field or at a test station if there is one available. Click **No** and then click **Finish** at the bottom. The rest of the wizard can be used in the field when connected to a station and can be useful for troubleshooting.



9. The site should now be listed on the left side. Repeat steps 1-9 for all of the stations in the network. If you need to delete, edit, or rename a site you can use the menu options across the top. You are now ready to connect to that station in the field (SOP 9).



Retrieved Program Files

During an annual site visit it is important to keep the current datalogger program with the current year data files. To do this you will retrieve the program from the datalogger during the annual data download. Prior to the field season, set-up a folder in the Campbell Scientific directory on the laptop with the following naming convention: yyyy_retrieved_programs, where yyyy is the current year (C:\Campbellsci\LoggerNet2016_retrieved_programs). During the site visit you will save the file in the same folder as the station's data that was downloaded. It is important to keep these files together as the program is required to fully interpret the data file.

Laptop Files

Additional files that should be kept on the laptop for quick reference in the field include:

- datalogger programs
- wiring diagrams
- firmware updates
- operating system updates
- sensor manuals,
- protocols and SOPs