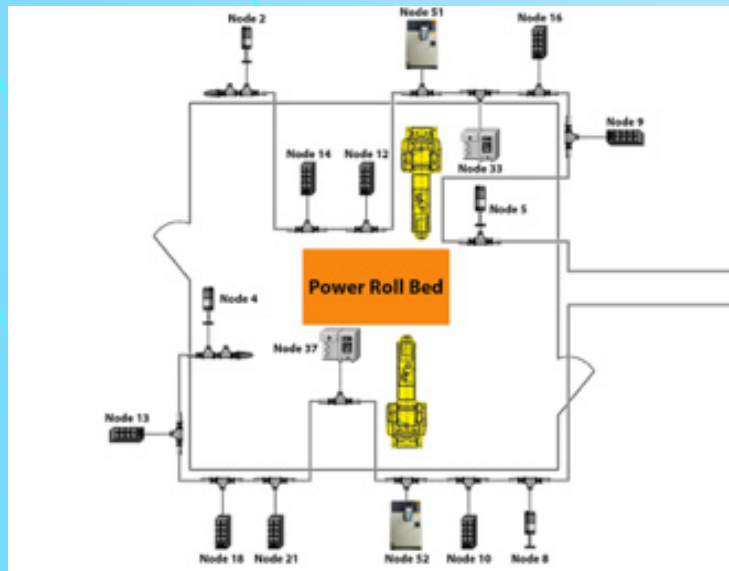# DeviceNet

200 Series

DNET201 - DNET212

Lesson Description

The eNetMeter and its associated NetAlytix software provide an excellent way to monitor the health of a DeviceNet network. This lesson shows how to enable a computer running the NetAlytix software to communicate with the eNetMeter and monitor DeviceNet.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Establish communication with a DeviceNet network and a computer running NetAlytix software.
2. Interpret the meaning of the eNetMeter indicator lights.
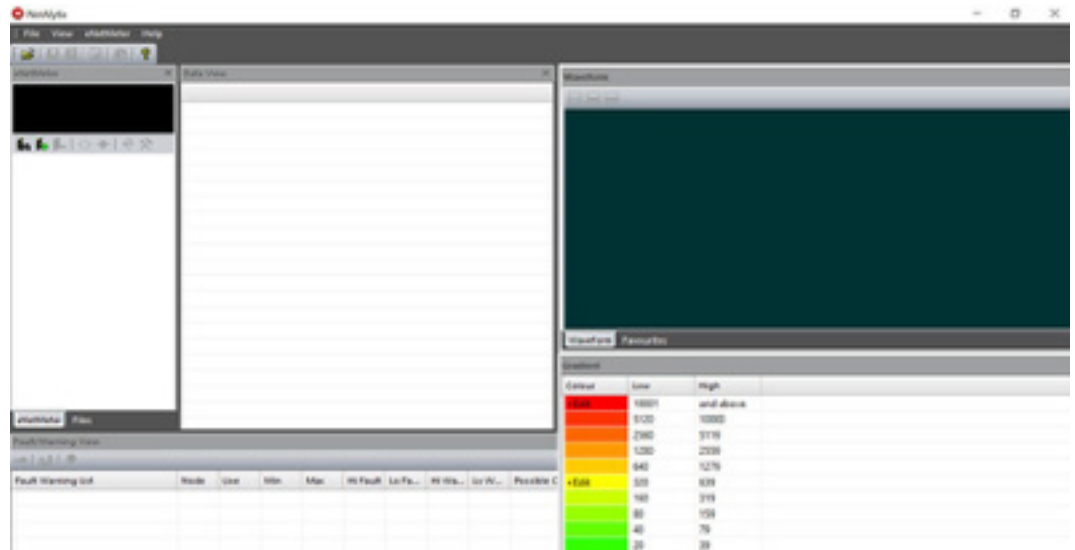3. Configure the power supply for the eNetMeter to operate correctly on a DeviceNet Network.

Lesson Description

> The eNetMeter and its associated NetAlytix software provide an excellent way to monitor the health of a DeviceNet network. This lesson takes you through the steps to monitor the DeviceNet network on a computer running NetAlytix software.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Connect the eNetMeter to a DeviceNet network.
2. Select and install the eNetMeter in order to monitor DeviceNet in WWWreal time with NetAlytix software.
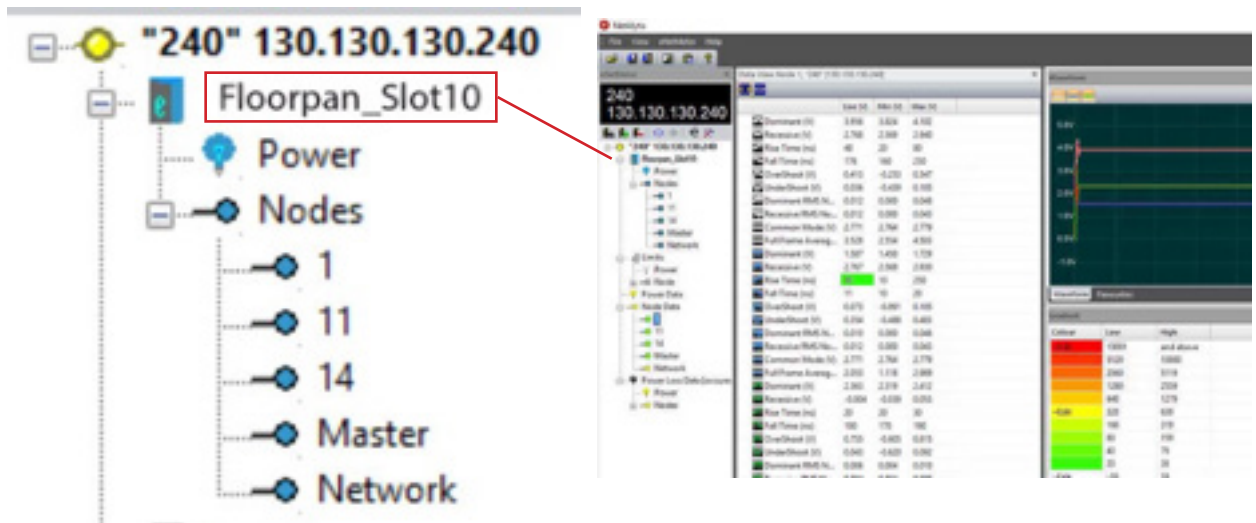
Lesson Description

The eNetMeter and its associated NetAlytix software provide an excellent way to monitor the health of a DeviceNet network. This lesson describes the various windows which make up the NetAlytix software and explains the basics of how to interpret the data contained within them as the eNetMeter monitors DeviceNet in real time.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Identify the various information windows contained within the NetAlytix software.
2. Describe what type of data is displayed in each window.
3. Perform basic troubleshooting of a DeviceNet network using an eNetMeter and its associated NetAlytix software.

Lesson Description

One of the most useful features of the NetAlytix software is the ability to export a baseline report of current DeviceNet conditions and compare that report to future conditions over time. This lesson will show the learner how to export a report, then import it later and compare future readings to the saved data.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Describe a baseline report and its purpose.
2. Demonstrate how to import and export baseline reports.
3. Use Compare and Difference modes in NetAlytix to identify any changes over time to the health of a DeviceNet network.

Lesson Description

Network reports are one of the simplest and most effective ways to have a last resort backup file documented. When you generate a network report, it collects all the data from your entire network, with every piece of information that you will need. This is usually only pulled out as a last resort for reference when mapping data, or when rebuilding a destroyed network.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Describe a network report and what it is for.
2. Identify the necessary steps to generate a network report from RSNetWorx.
3. Print the network report.
4. Save the network report.

Lesson Description

Electronic Data Sheets are simple text files used by network configuration
tools to help you identify products and easily commission them on a network.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Define what and how Electronic Data Sheets are used on a
DeviceNet network.
2. Discuss how to locate EDS files on the Rockwell Automation
website.
3. Identify the catalog number for hardware that is needed to
download EDS files.
4. Execute the download of EDS files for use on the DeviceNet
network.

Lesson Description

Electronic Data Sheets are simple text files that can be installed using Rockwell Automation's EDS Wizard and viewed with Notepad.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Locate the RSLinx EDS Hardware Installation Tool.
2. Describe the steps for installing EDS files using the WRSLinx EDS Hardware Installation Tool.
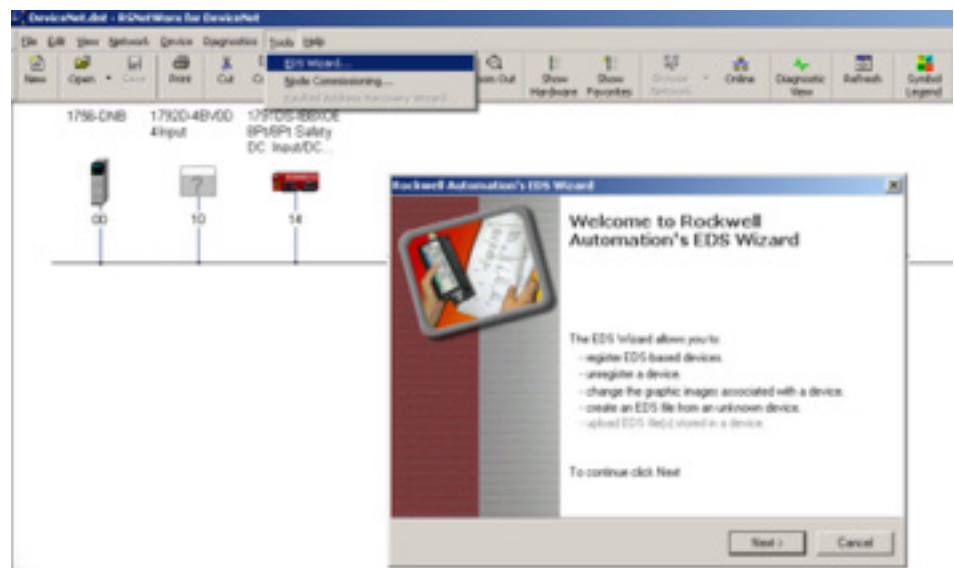
Lesson Description

RSNetWorx EDS Wizard is software that is used to download and install EDS files, much like installing a print driver for your home computer.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Explain the purpose of the RSNetWorx EDS Wizard.
2. Describe the process for downloading and installing EDS files.

Lesson Description

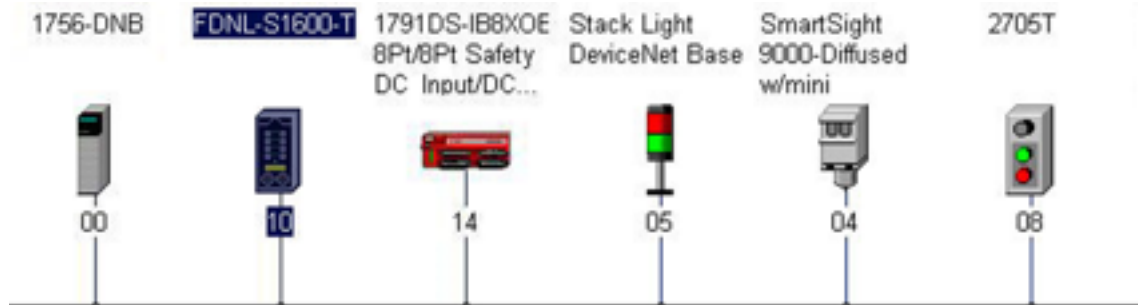.ico files, or icon files are graphic representations of a device. Icons are created using special graphics software which creates .ico files that are 48 pixels wide by 48 pixels tall. Icons help you quickly identify devices with RSNetWorx for DeviceNet. While you could use one of the default icons, or a completely unrelated icon, icons that relate well to their respective devices are always best.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Explain why icon files are used on RSNetWorx for DeviceNet
2. Describe how icons can show up correctly when installing an EDS file
3. Demonstrate how icons can be selected or changed using the EDS Wizard

Lesson Description

Control Flash is a software program provided by Rockwell Automation for the purpose of maintaining the firmware revisions of many different types of controllers and communication modules. Control Flash software uses RSLinx software also from Rockwell Automation to communicate on a network such as DeviceNet. This lesson describes the process of "Flashing" a device like the 1756-DNB, and details the caution that must be taken when performing this action.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1.   Explain how to launch ControlFLASH.
2.   Navigate through ControlFLASH.
3.   Flash modules.

Lesson Description

RSNetWorx software allows you to configure and view the communications between the 1756 DNB and the DeviceNet network via an ethernet network or in some cases USB. A scan list is created in RSNetWorx for the purpose of communicating between the controller and the nodes on the network. The scan list and the parameters of each node are saved in a .dnt file. When any node is replaced, the saved parameters are available to download to the new device.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Create a scan list utilizing RSNetWorx.
2. Discuss how to upload the configuration of a DeviceNet network and save it to a .dnt file.
3. Describe how to download the parameters saved in the .dnt file to a device that has been replaced.

Mapping

Lesson Description

Mapping involves assigning a unique address to each node on the network so they can communicate with the PLC, or Programmable Logic Controller. This lesson takes the learner step by step through process of mapping nodes using RSNetworx for DeviceNet.

Lesson Scope

Learners who successfully complete this lesson should be able to:

1. Explain what node commissioning is.
2. Describe the process in RSNetWorx for assigning a unique input and output address to each node.