Applications Note

Sharing D25LT Data with Other Computers

Though it may not be immediately apparent by looking at it, your D25LT system contains a computer, and that computer may be used to provide data to other computer systems in several different ways using the CAT-5 Ethernet and USB communication ports available on the D25LT. This *Applications Note* describes how to copy data files to a flash drive, and how to connect the D25LT to a network of computers, which then enables you to directly copy files, as well as "send" data to another computer.
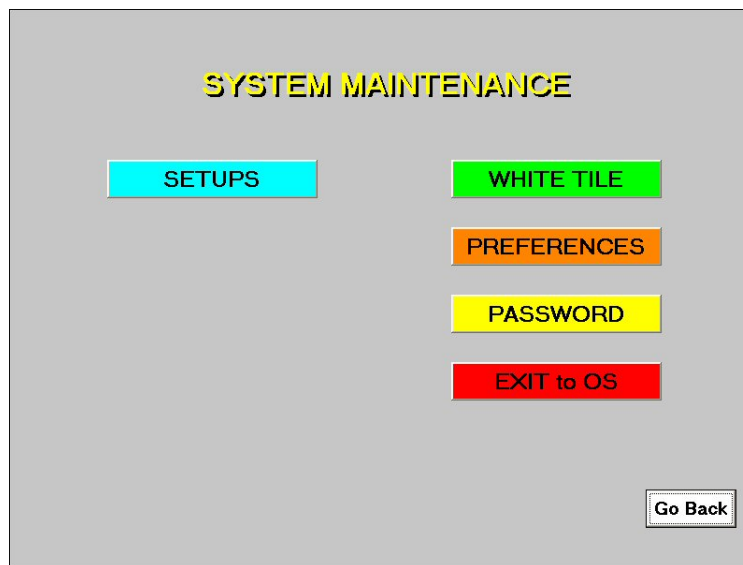
Copying D25LT Files to a USB Flash Drive

Plugging a flash drive into the USB port of the D25LT computer is the easiest way to get information into and out of your D25LT. If D25LT measurement data is copied to a flash drive, the drive can then be taken to any other computer, connected, and the data transferred to that computer.
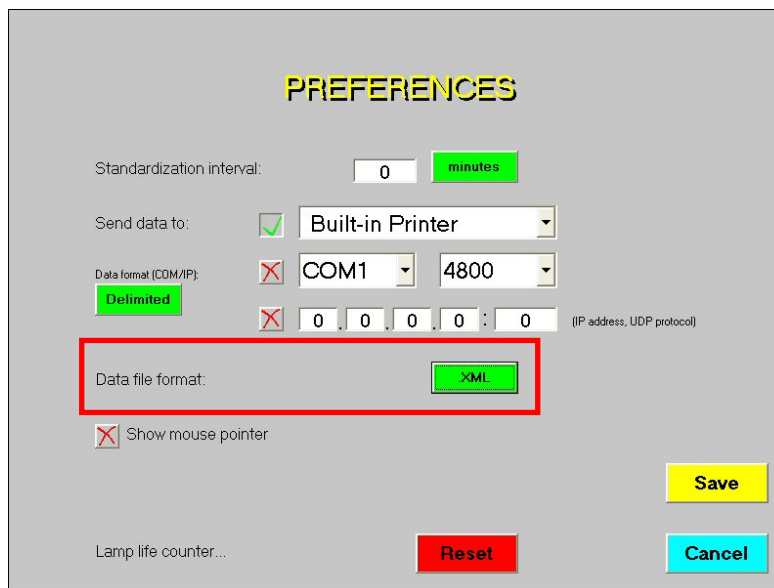
To copy D25LT data to a flash drive, first exit the D25LT software to the operating system (from the System Maintenance menu). Then plug the flash drive into the D25LT's USB port, shown below. Use Windows Explorer on the D25LT computer to verify that the computer has located the drive and assigned it a drive letter.

Enter the D25LT software. From the main D25LT menu, touch **Maintenance**. Enter the system password on the pop-up keyboard and touch **Enter**. The System Maintenance menu is obtained.

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Touch **Preferences** to obtain the Preferences screen.

Use the Data file format toggle button to choose whether data is saved in XML format or CSV (comma-separated values). From this point forward, that will be the format used, and the type of file you should look for when you wish to copy your D25LT files.

Save your Preferences and return to the main menu. Open the product setup desired and make your measurements. When you are finished measuring, exit the product setup, choosing to save the measurements. Then exit the D25LT software to the operating system again.

Open Windows Explorer and navigate to the C:\Program Files\HunterLab\D25LT folder. Measurement data is saved in the Data subfolder and product setup jobs in the Jobs subfolder. Copy the file(s) desired to the flash drive, then remove the flash drive. Attach the flash drive to any other computer(s) desired and copy the XML or CSV files wherever you wish.

XML files (data files if XML was chosen for the data file format, plus all product setup jobs) may be opened and used in an XML editor and appear in a fashion similar to that shown below.

```
E:\data\TEST 1.xml - Windows Internet Explorer
E:\data\TEST 1.xml
File  Edit  View  Favorites  Tools  Help
E:\data\TEST 1.xml                                    Page   Tools

  <?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
- <job class="Chip Color" name="TEST 1" date="December 12, 2007 11:41:44">
  - <samples>
    - <sample index="1" id="1" date="December 12, 2007 11:41:03" status="0">
      - <measured>
          <scale id="1">XYZ</scale>
          <data metric="X">76.77309</data>
          <data metric="Y">78.76553</data>
          <data metric="Z">92.15784</data>
        </measured>
      - <viewed>
          <scale id="5">CIE L*a*b*</scale>
          <data metric="L*">91.1281</data>
          <data metric="a*">-0.897553</data>
          <data metric="b*">0.5753579</data>
        </viewed>
      </sample>
    - <sample index="2" id="2" date="December 12, 2007 11:41:30" status="0">
      - <measured>
          <scale id="1">XYZ</scale>
          <data metric="X">76.76196</data>
          <data metric="Y">78.75251</data>
          <data metric="Z">92.12486</data>
        </measured>
      - <viewed>
          <scale id="5">CIE L*a*b*</scale>
          <data metric="L*">91.12219</data>
          <data metric="a*">-0.8943898</data>
Done                                    My Computer        100%
```
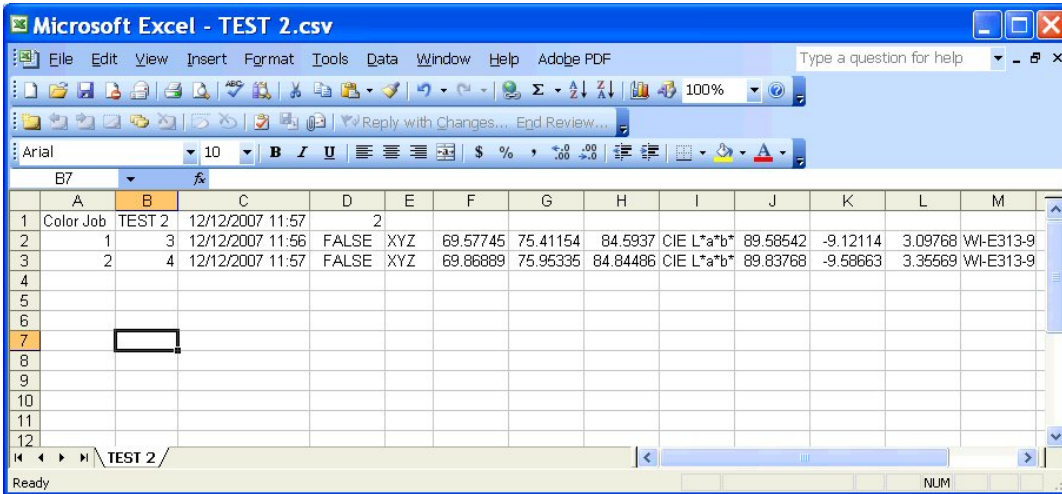
Data file

```
E:\jobs\TEST 1.xml - Windows Internet Explorer
E:\jobs\TEST 1.xml
File  Edit  View  Favorites  Tools  Help
E:\jobs\TEST 1.xml                                    Page   Tools

  <?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
- <job class="Chip Color" name="TEST 1" date="December 12, 2007 11:40:46">
    <scale id="5">CIE L*a*b*</scale>
    <measurements value="1" />
    <interval units="seconds" value="0" />
    <id enabled="-1" />
    <prompts enabled="0" />
    <tolerances metric="L*" min="0" max="0" />
    <tolerances metric="a*" min="0" max="0" />
    <tolerances metric="b*" min="0" max="0" />
  - <standard id="" date="December 12, 2007 11:40:35" hitched="0">
    - <target>
        <scale id="5">CIE L*a*b*</scale>
        <data metric="L*">91.12556</data>
        <data metric="a*">-0.9264688</data>
        <data metric="b*">0.5870978</data>
      </target>
    - <measured>
        <scale id="1">XYZ</scale>
        <data metric="X">76.75317</data>
        <data metric="Y">78.75995</data>
        <data metric="Z">92.13365</data>
      </measured>
    - <viewed>
        <scale id="5">CIE L*a*b*</scale>
        <data metric="L*">91.12556</data>
        <data metric="a*">-0.9264688</data>
        <data metric="b*">0.5870978</data>
Done                                    My Computer        100%
```

Product setup job file

CSV data files may be opened directly into spreadsheet programs, such as Microsoft Excel.

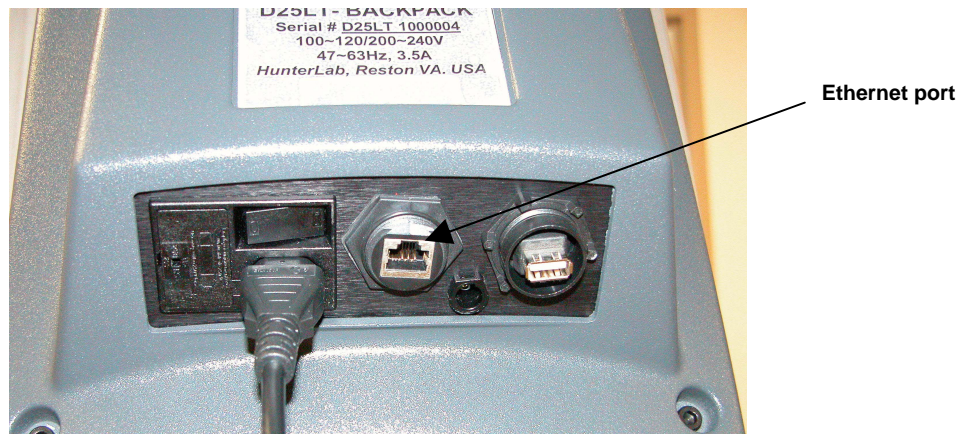The world's true measure of color
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Connecting the D25LT to a Network

The D25LT may be connected to a network via its CAT-5 Ethernet port in the same way as any other independent computer. It appears as another network node whose friendly name is the same as the instrument's serial number. The CompactFlash card holding the D25LT's setups and measurements then appears as shared drive "C" on this node.

To connect the D25LT to a network, first turn off the D25LT. Then plug the Ethernet cable into the D25LT's ethernet port, shown below, and turn the D25LT back on. Often the D25LT will be detected and installed automatically, since its network configuration includes Client for Microsoft Networks and TCP/IP and NetBEUI protocols with file sharing enabled. If additional network components are required, they will need to be installed onto the D25LT computer using a USB flash drive. The default configuration required is suitable for most networks, however. Use Windows Explorer on another network computer to verify that the network has located the D25LT's computer and it has been assigned a node name.
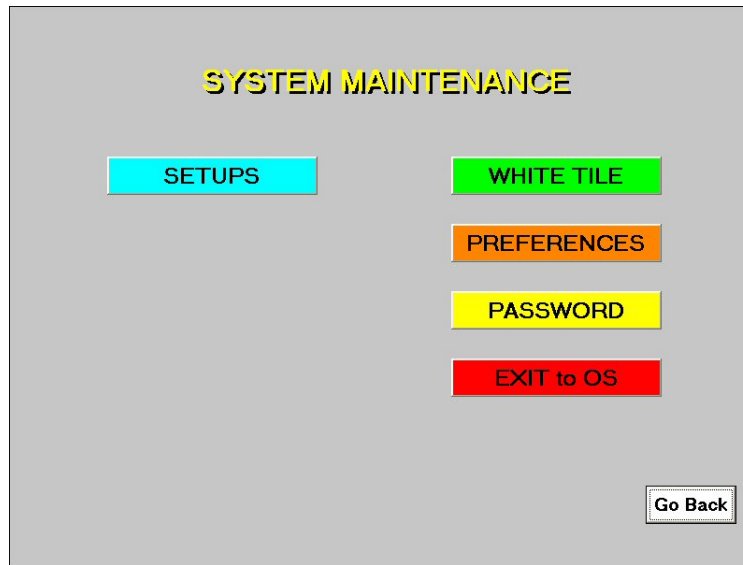

Once the D25LT is connected to the network, its computer may be accessed for sharing files, and data may be sent from the D25LT to other computers on the network. More details on these functions are given below.
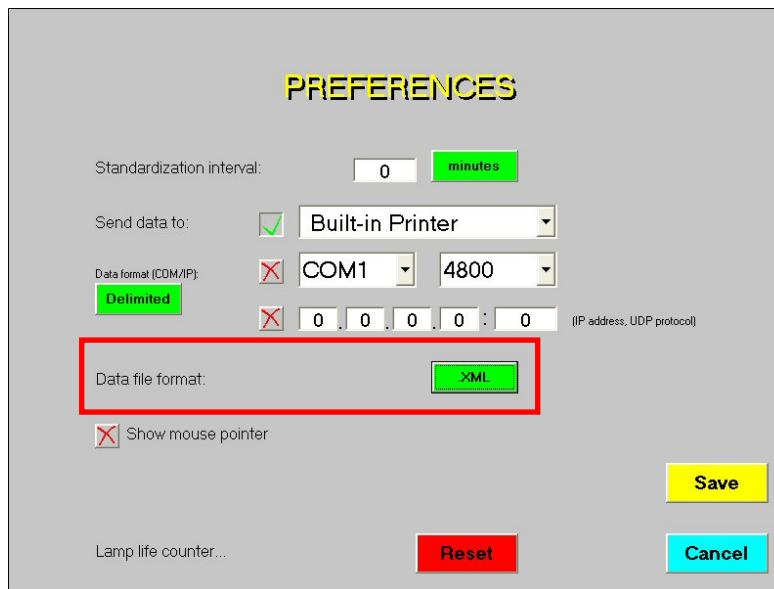
Sharing Files

In a similar fashion to that used when D25LT files are copied to a flash drive, the files may also be shared across a network once the D25LT is installed onto that network.

Enter the D25LT software. From the main D25LT menu, touch **Maintenance**. Enter the system password on the pop-up keyboard and touch **Enter**. The System Maintenance menu is obtained.

Touch **Preferences** to obtain the Preferences screen.

Use the Data file format toggle button to choose whether data is saved in XML format or CSV (comma-separated values). From this point forward, that will be the format used, and the type of file you should look for when you wish to copy your D25LT files.
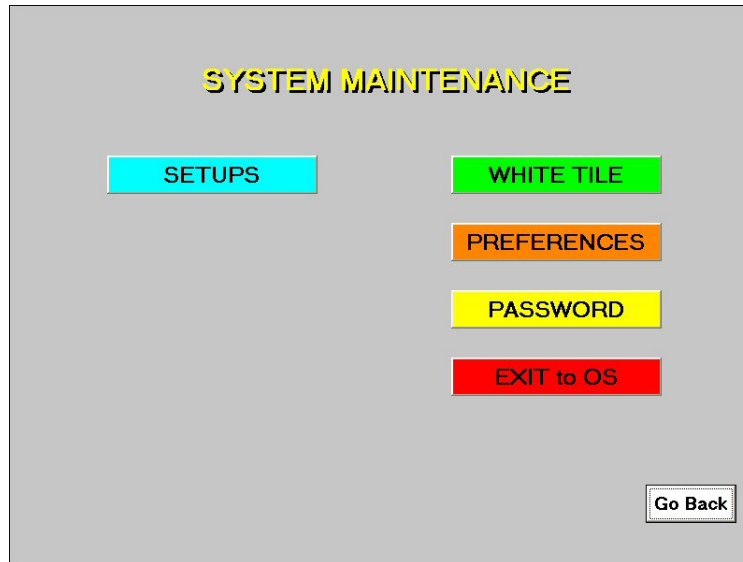
Save your Preferences and return to the main menu. Open the product setup desired and make your measurements. When you are finished measuring, exit the product setup, choosing to save the measurements.

On another network computer, open Windows Explorer and navigate to the D25LT's network location, then the C:\Program Files\HunterLab\D25LT folder. Measurement data is saved in the Data subfolder and product setup jobs in the Jobs subfolder. Copy or open the file(s) desired. Refer to the "Copying D25LT Files to a USB Flash Drive" section for instructions on opening these XML and CSV files.

Sending Data

The D25LT software allows you to automatically send measurement data to a communications port (such as a serial port created by connecting a USB-to-serial adapter to the D25LT's USB port) or to a network IP address, whenever the **Print** button is touched.

Enter the D25LT software. From the main D25LT menu, touch **Maintenance**. Enter the system password on the pop-up keyboard and touch **Enter**. The System Maintenance menu is obtained.

Touch **Preferences** to obtain the Preferences screen.

The Send data to area allows you to choose what will happen to your current reading when the **Print** button on the touch screen is touched. Place a check mark in front of the COM port area to send it out a communications port and enter the COM port parameters. Place a check mark in front of the network/IP address area and enter an IP address to send it to this address. You may do both at the same time if you wish. Also touch the button labeled either **Delimited** or **Fixed Col** to toggle between the two choices. Delimited is the format normally transferred to spreadsheet programs, and Fixed Col is formatted to mimic the output of the old HunterLab DP-9000 processor.

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Save the Preferences, exit the Maintenance menu, and enter a product setup. Make a measurement. Press the **Print** key. The data for the measurement is sent to the selected device as ASCII data for the color scale selected in the Product Setup.

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