How to link to the Temperature and Humidity module, DL-100T485, with the ISaGRAF PACs?

The following ICP DAS ISaGRAF PACs support DL-100T485 for DCON protocol.

- µPAC-7186EG/EGD (ISaGRAF driver **1.19** or late)
- iPAC-8447/8847 (ISaGRAF driver **1.16** or late)
- WinPAC-8147/8447/8847, WinPAC-8146/8446/8846 (ISaGRAF driver **1.52** or late)
- XP-8xx7-CE6/8xx6-CE6 (ISaGRAF driver **1.32** or late)
- VP-25W7/23W7, VP-25W6/23W6 (ISaGRAF driver **1.44** or late)

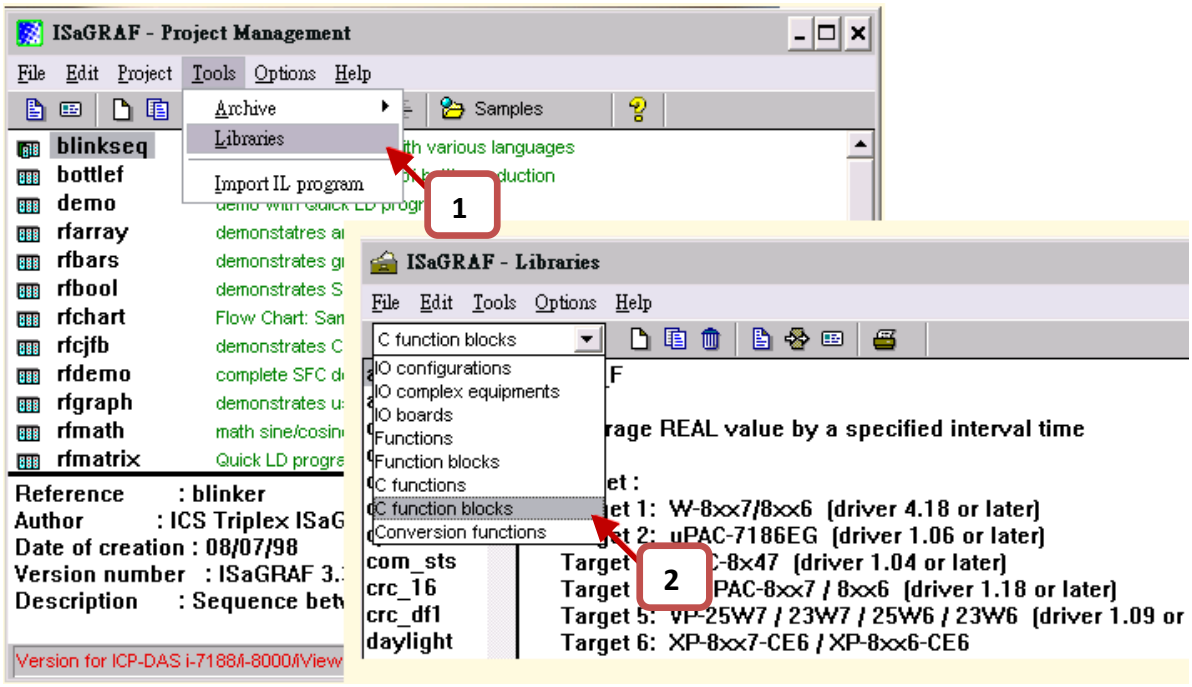
DL-100T485 Detail Information:

http://www.icpdas.com/en/product/DL-100T485 or
http://www.icpdas.com/en/product/guide+IIoT+IO_Sensor+Industrial__Sensor#996 DL Series > DL-100T485/DL-100TM485/DL-100T485-W/DL-100TM485-W

1.1. Restore the ISaGRAF Demo Program

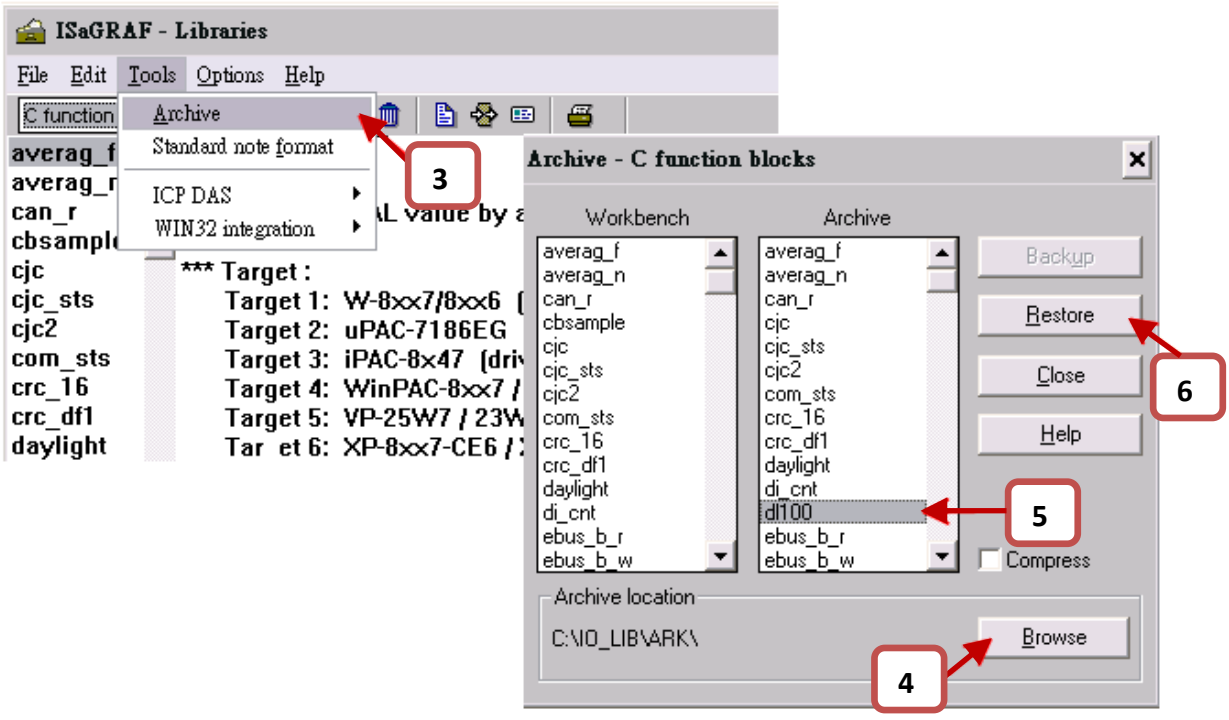
1. If you cannot find “DL100” in the window “C function blocks” of your PC/ISaGRAF, please get the “DL100.fia” file from the following direction:

   https://www.icpdas.com/en/download/file.php?num=962 or
   https://www.icpdas.com/en/faq/index.php?kind=280#751 > English > FAQ 157 or
   Please visit the webpage to download " io_lib.zip " and install I/O libraries by clicking "setup.exe" after unzip the file.
   http://www.icpdas.com/en/download/show.php?num=368&nation=US&kind1=&model=&kw=isagraf



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2. Restore “DL100.fia” into the PC / ISaGRAF – C function blocks as the steps shown in the next page.



1.2. Installing and Setting the DL-100T485 Module

Please establish the serial communication between DL-100T485 and PC as the following steps.

Step 1: Install DL series Utility Software

Please get the installation file of DL series Utility (DLUtility.exe) from the accompanied CD or Web:

CD : \ Napdos\Data_Logger\DL100T485\Utility

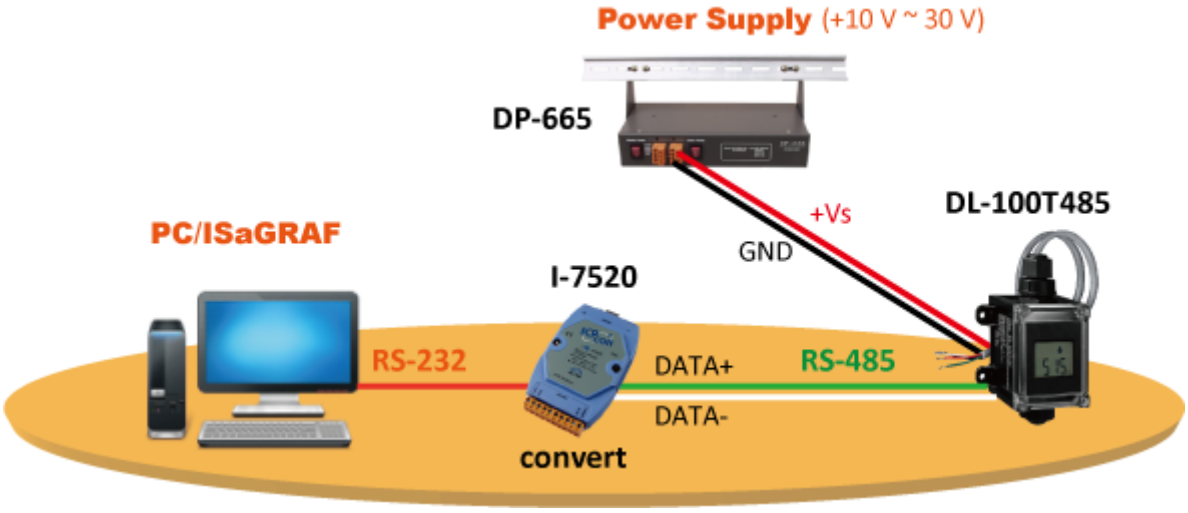
Web :

http://www.icpdas.com/en/download/show.php?num=2221&nation=US&kind1=6&kind2=17&model=&kw=DL-100T485

Step 2: Wire the Serial connection between DL-100T485 and PC

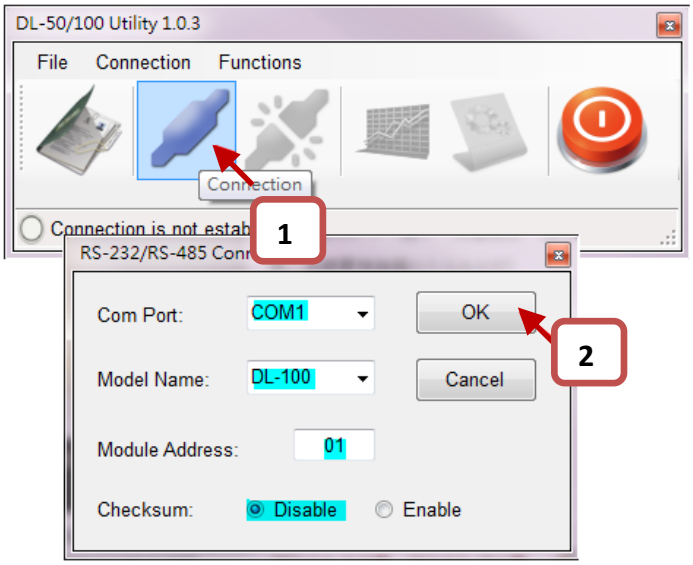
User can use the RS-232 to RS-485 converter (I-7520) to establish the wire connection between the DL-100T485 and PC as following picture, then connect the power supply (+10 ~ +30 V_{DC}) to the power connector of DL-100T485, as following picture.

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Step 3 : Set the Serial Communication

Launch the DL Utility. The default serial interface of DL-100T485：
Baud rate = 9600 bps、Module Address = 1 and Checksum = Disable.
Then click “OK” button to connect to DL-100T485 (as following picture).

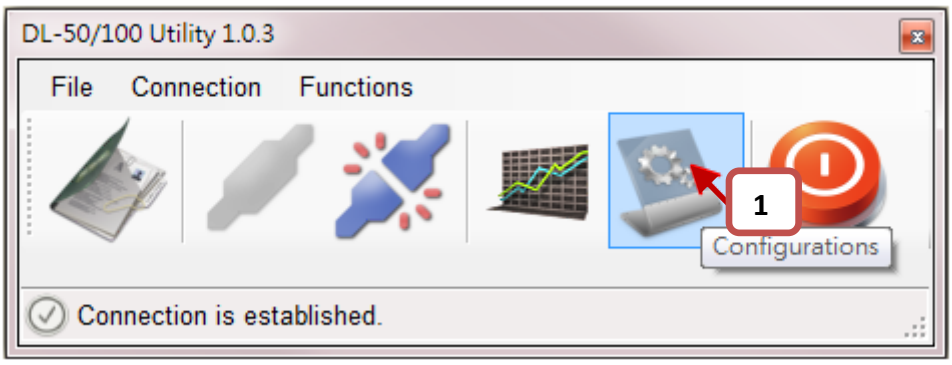


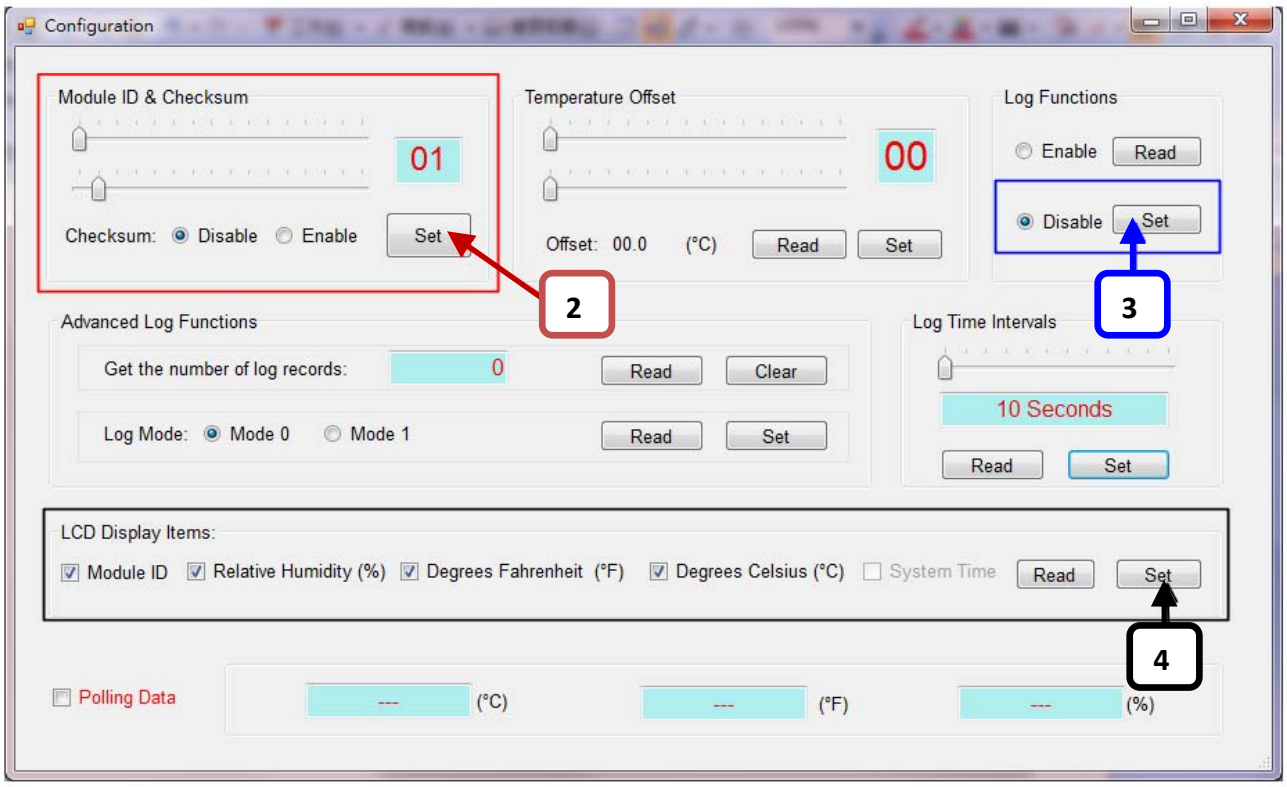
Once connected, you can set the following parameters:

a. Module address : 1 ~ 255.
b. Log functions : Disable, ISaGRAF does not support to read the log data.
c. LCD Display Items : Select the items to be displayed.

Please refer to DL-100T485 Quick Start for more detailed operation:
(http://www.icpdas.com/en/download/show.php?num=1872&nation=US&kind1=6&kind2=31&model=&kw=DL-100T485)

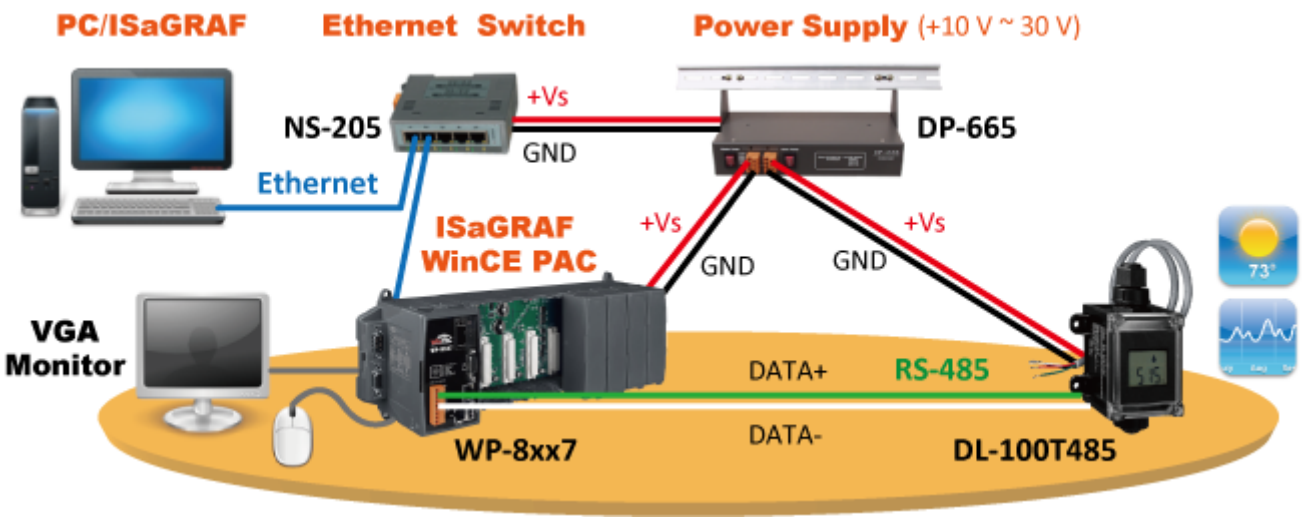
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1.3. Application Introduction



Hardware:
1. ISaGRAF PAC x 1 (Ex: WP-8447)
2. DL-100T485 module x 1

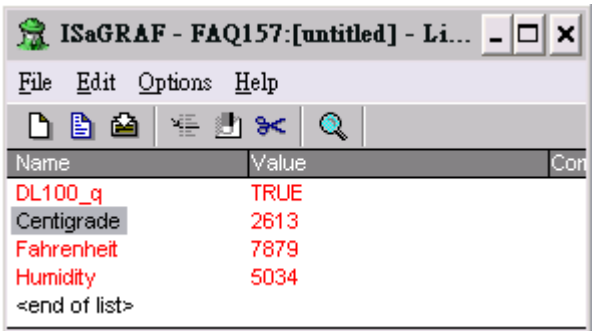
Hardware setting:
1. Set the address of DL-100T485 module as 1.
2. Establish the wire connection between DL-100T485 and COM2 of ISaGRAF PAC.

1.3.1. How to operate DL-100T485 in this demo

1. Recompile the ISaGRAF project and download it into the ISaGRAF PAC. If you are not familiar to the ISaGRAF software, please refer to "ISaGRAF User's manual" Chap.1.1 ~ 1.2 and Chap.2.
   can be got from the following website.
   http://www.icpdas.com/en/download/show.php?num=333&nation=US&kind1=&model=&kw=isagraf

2. Showing the DL-100T485 current status and data at the Spy lists.
   The degree of temperature and humidity is 0.01. Therefore, as shown correct humidity is 50.34, Celsius is 26.13 and Fahrenheit is 78.79.

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1.3.2. Description of Demo Program "FAQ157.pia"

Project Architecture:

This project contains an LD program (Main).

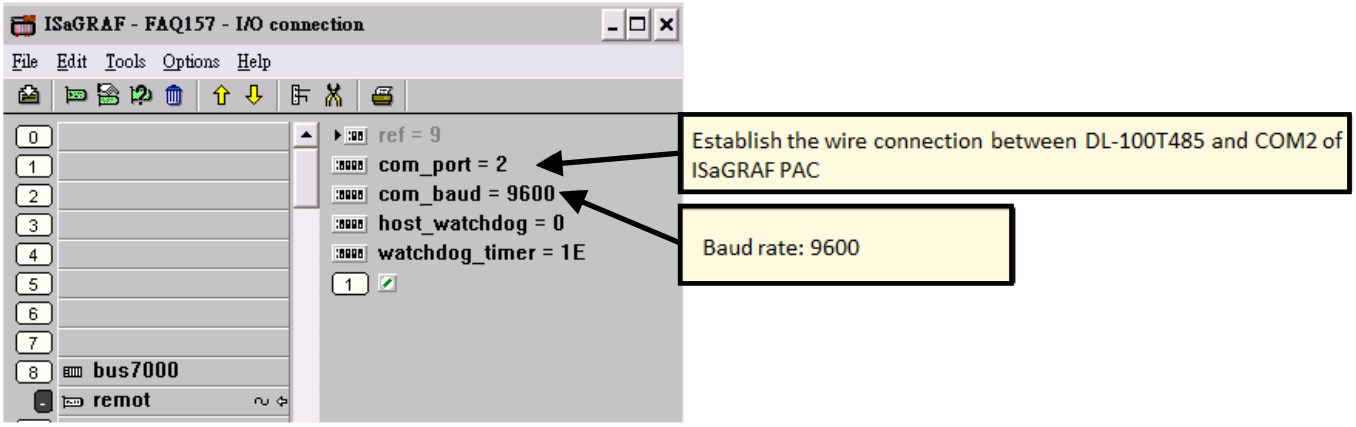
The setting of DL-100T485 in this demo:

1. Module address: 1
2. Checksum: Disable

ISaGRAF Variables:

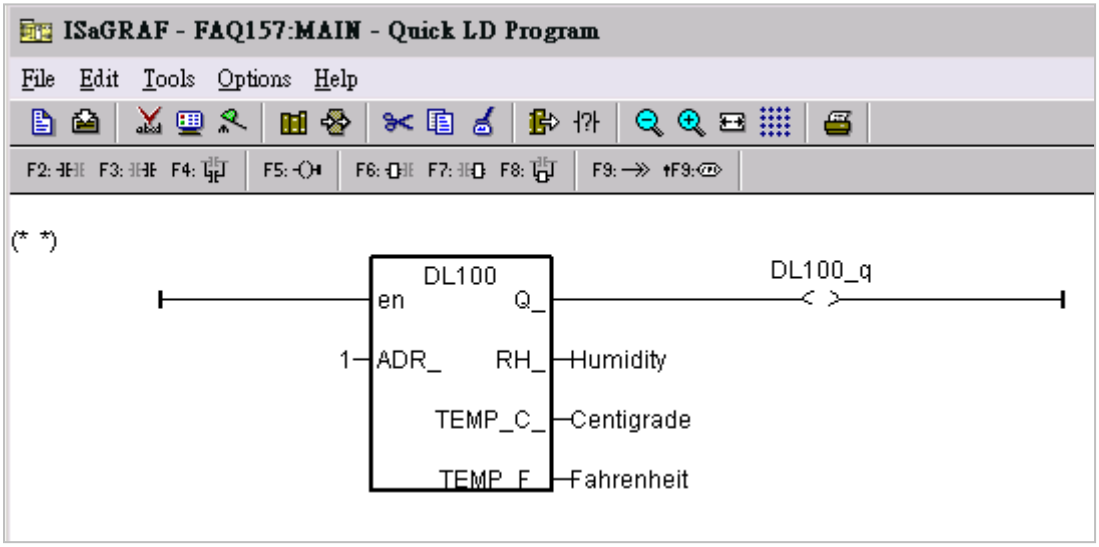
Name	Type	Attributes	Description
DL100_Q	Boolean	Internal	DL-100T485 communication status
Humidity	Integer	Internal	Relative humidity, unit is 0.01
Centigrade	Integer	Internal	Degree Celsius, unit is 0.01
Fahrenheit	Integer	Internal	Degree Fahrenheit, unit is 0.01

I/O Connection:



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Main Procedure Description:



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