ICON Configuration and Programming Introduction

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Introduction

This document is the first in a series of documents that describe how you configure and program your ICON controller. The other documents in this series describe:

1. How to configure the ICON system parameters.
2. How to create historical data files for saving periodic data. This is data that is saved at a specific interval such as once per minute or once per hour.
3. How to create historical data files to save event data such as alarms. This data is saved when a particular event occurs.
4. How to create selection sets which are used to display status values as text strings. Status values may be used in the ICON program where they are displayed on HMI screens as selection sets and also as status values recorded in the historical periodic and event files where again they are displayed as selection sets rather than numbers.
5. How to write an ICON program.
6. A list and description of each ICON program instruction.
7. How to debug an ICON program.
8. How to create your Human Machine Interface (HMI) user interface screens.
9. A list and description of all the HMI objects.
10. How a user operates the HMI screens created in step 5. above.
11. How to view and graph historical periodic and event data from the reporting object on an HMI screen.
12. How to transfer ICON programs and files between your PC for backup and restore operations.
13. A tutorial that walks you through the basic programming and HMI screen configuration steps.
14. An example program that demonstrates most of the features of a typical program with HMI screens. You can use this as a starting point for your own program.

How to connect to your ICON

You can use a Windows, Mac or Linux computer as your interface to the ICON. Your system must have Java installed and you execute the program iconhmi.jar to access the ICON. This program provides the operator interface between you and the ICON. You may download this program from http://www.i-netcontrol.com/download.htm.

On a Windows machine it is best to save this program to your desktop. To execute, simply double click the iconhmi program icon.

Initially there will be no ICON (servers) to connect to. Therefore, create your first entry by entering a name (for instance ICON), the ICON host IP address and its port number. Generally as shipped the IP address is 192.168.1.98 (or 192.168.1.100) and the port is 80. Later you will be told how you can change this address. Then click the “Update” button to save your new entry.

If you have a system with more than one ICON you will create an entry for each separate ICON controller. For a multiple ICON system, each separate ICON will have a different IP address.

Now click to highlight the ICON of choice under “Choose server to connect to:” and click the connect button. If all is configured and connected properly a new window will pop up with fields that are used to enter password and encryption key. For now simply click the “Login” button. Later you will be told how to change your passwords and encryption keys.

Notice that the window says “No users connected” It is possible for multiple users to be connected at the same time. This window could say “HMI users connected” if other users are connected to this ICON.

It also informs you that if you login as a programmer you will disconnect all other users. This is an advanced topic that will be described in more detail latter, but a user may log in as an HMI user or a programmer. In normal operation all users log in as HMI operators. In this case the ICON has already been programmed and the users are interacting with the ICON to view and make parameter changes on Human Machine Interface (HMI) screens.

If the system needs to be programmed then the programmer logs in with the programming password. If other users are on they are disconnected. This is because the programmer may be making changes to the ICON program or HMI screen configurations that would invalidate the displays of the other users. So, for this special case only, only one user can be connected to the ICON.

The remaining documents in this series describe the programming operations and hence allow only one programmer to be connected to the ICON at a time.