

BB4-8422 Network Gateway



Important Safety Notice

Proper system design is required for reliable and safe operation of distributed control systems incorporating any Control Solutions product. It is extremely important for the user and system designer to consider the effects of loss of power, loss of communications, and failure of components in the design of any monitoring or control application. This is especially important where the potential for property damage, personal injury, or loss of life may exist. By using ANY Control Solutions, Inc., product, the user has agreed to assume all risk and responsibility for proper system design as well as any consequence for improper system design.

Getting Started

Topics you will want to visit to get started include the following:

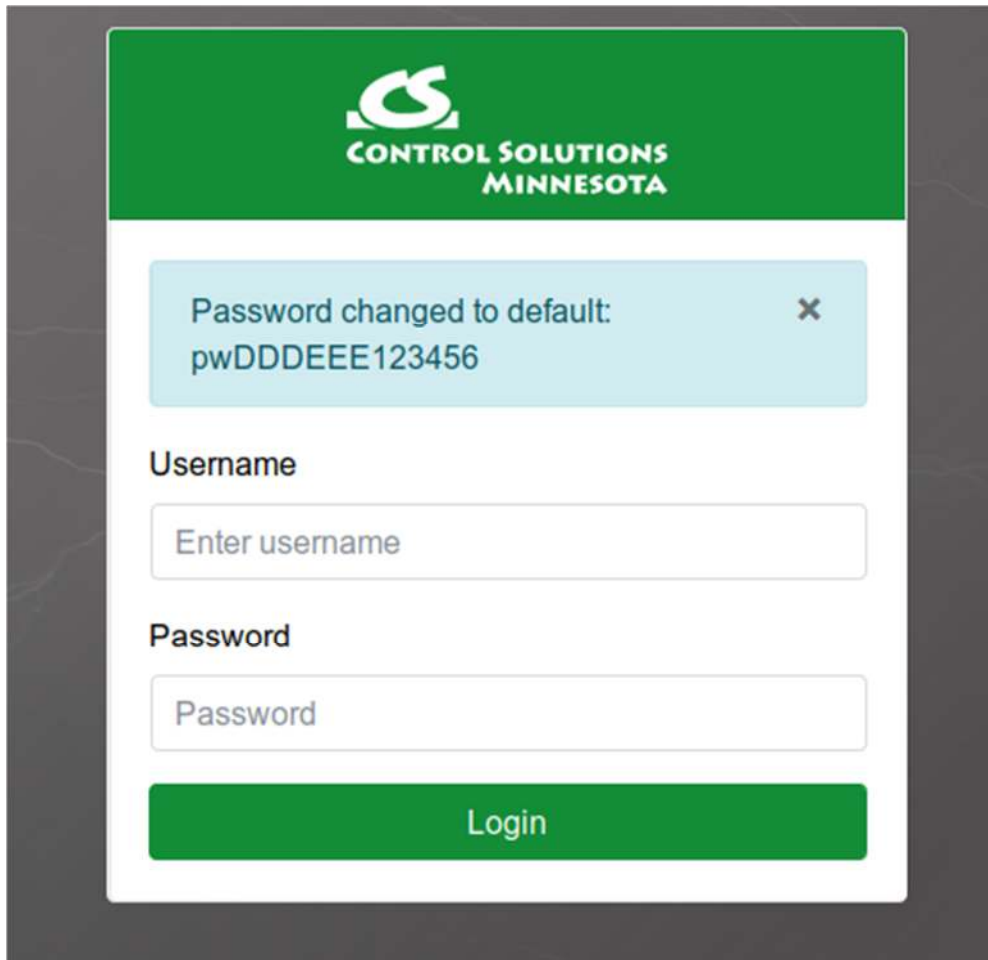
- Making network and power connections is covered in the “System-Hardware” document.

- The default IPv4 address on eth0 is 10.0.0.101 (subnet mask 255.255.255.0) and eth1 defaults to using DHCP for its IPv4 address. Changing the device's IP address is covered in the “System-Settings” document.
- Logging in for the first time is covered below. Be sure to make a note of the initial default password and/or change your password (and optionally other *User Settings*) the first time you log in as "admin". You may also want to create additional users. Refer to *User List* to add users.
- You will want to begin configuring the IoTServer by creating some data objects. Without data objects, there are no internal resources for sharing data between other devices connected by the various supported protocols. Review the “Data Objects” document to get started on creating data objects.
- You will select which protocols you want to enable on the *Task Configuration* pages. Review *Initial Task Startup* for a step by step example of enabling a protocol. Refer to the “System-Task Manager” document.
- You will configure whatever protocols you have selected by visiting their various respective pages.

If you will be configuring a rather long list of data points to be accessed via a certain protocol, we suggest you start by getting acquainted with just a few points. Then build your long list using a standard spread sheet program and save that as a CSV file which you may then import. There is a CSV file reference section for each supported protocol. Using a CSV file will be a time saver.

And if you get stuck, you can always open a support ticket at <https://ticketcsimn.com>. Control Solutions support normally responds within a couple of hours during business hours, and sometimes even on weekends.

Logging In



**CONTROL SOLUTIONS
MINNESOTA**

Password changed to default: ✕
pwDDDEEE123456

Username

Enter username

Password

Password

Login

First login

The initial default IPv4 address is 10.0.0.101. On initial bootup, each device will have a unique password. The default unique password will be given on the login screen until a successful login has been made. It is recommended that this password should be changed to your own password after initial login.

IMPORTANT: Make a note of the default password for "admin" - it will only be shown once. After initial login, the password dialog box will look similar, but without the password listed at the top.

Login with RADIUS

After the initial login, you will have the option to set up web users through RADIUS. RADIUS users are managed on your own RADIUS server. Adding a RADIUS server can be accomplished in the System->Users section of the device.

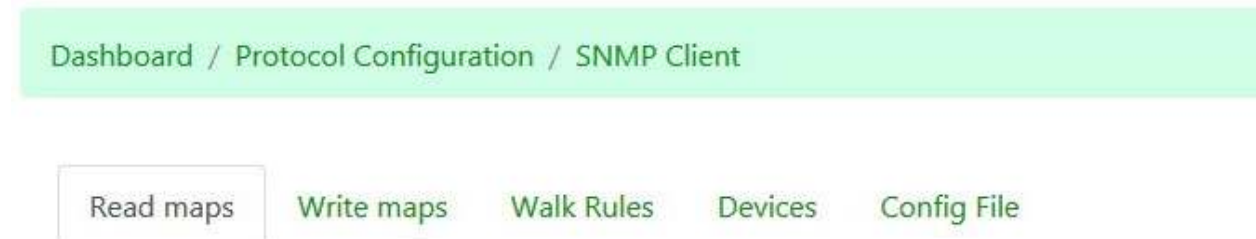
Once a RADIUS server is fully configured, users will see a checkbox below the password field, giving them the option to use "RADIUS Authentication". Checking this box will force the login process to use the configured RADIUS server instead of the local users. It is important to note that there will always be at least one local user on the system. This is a failsafe in case the device is no longer in communication with the configured RADIUS server.

Users who are logged in via RADIUS will not be able to configure their profile locally on the device (i.e. passwords and user settings). Instead, the device will rely on the RADIUS server for this purpose.

Web UI Common Elements

There are certain aspects of the Web UI that are common to many different pages. Rather than repeat that discussion many times, those common elements will be covered here.

Page Tabs



Many pages have tabs. In the example above, Read Maps is the active tab. Additional available tabs here are Write Maps, Walk Rules, Devices, and Config File. Click on any tab name to navigate to that tab.



The "Show" number sets the number of items that will be displayed on the current page. If you are looking at Read Maps and this number is set to 10, you will see 10 maps listed per "page" (see below).

The Search box allows you to search for content on the current page. For example, if you are displaying a list of objects and you want to find an object by a certain name, simply start typing that name in the search box. The content of the page will be dynamically updated to show only matching content.

Note that this is not a global search of the entire system, nor of the Internet. This search applies only to content of the current page.

Pagination

Showing 1 to 10 of 23 entries



Very often, there will be more items to display than will fit on a single page. When this happens, the list is automatically split into pages of N items each where N is the number set in the "Show" window above. To navigate to the various pages, click on the page number, or click Prev or Next.

Next / Save / Prev Buttons

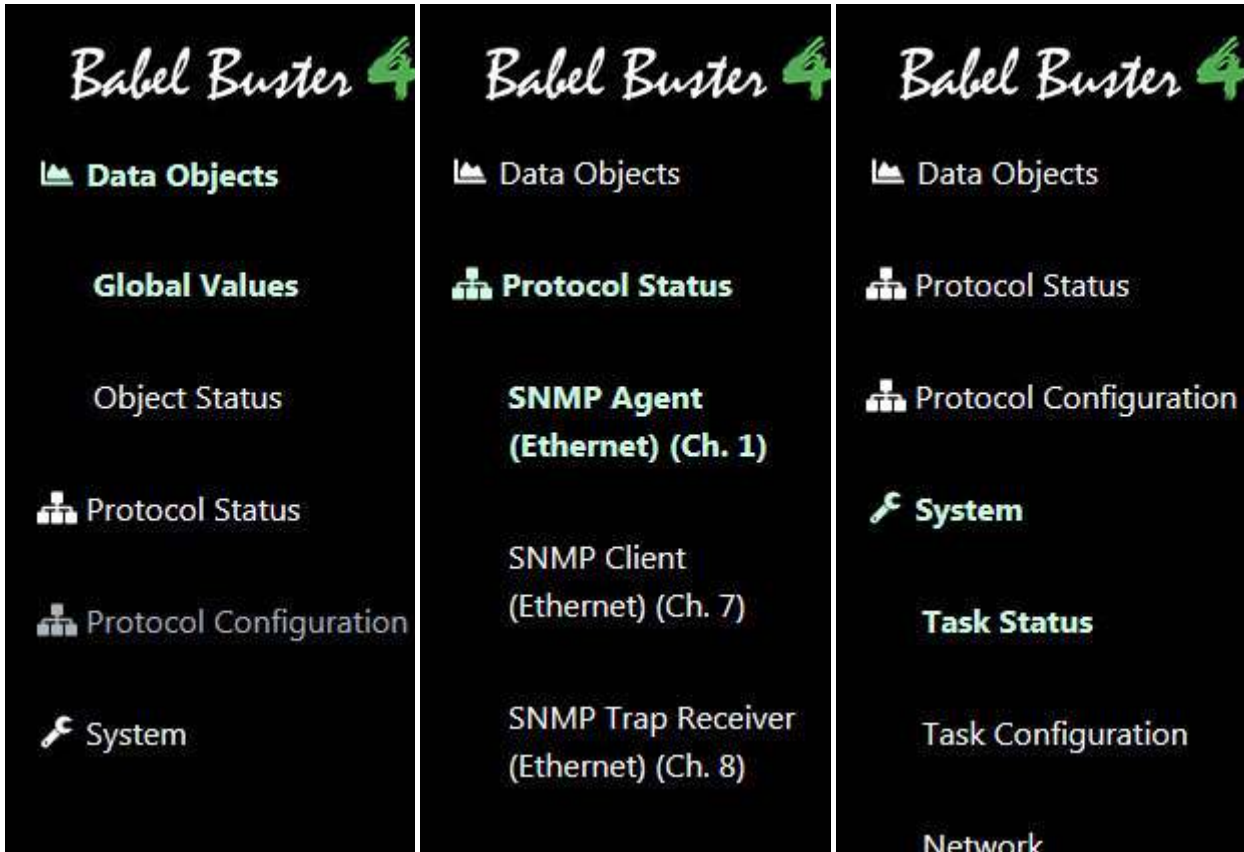


Numerous map or rule editing pages will have these buttons. Click any of the Save buttons to save the entries you have made to the configuration database. Click Prev to move to the next lower numbered map or rule number if not already at #1. Click Next to advance to the next higher numbered map or rule. The "Save/Prev" and "Save/Next" buttons do both actions with one click. Click Exit to return to the main map or rule list page. Note that if you make changes but leave the page without clicking Save, your changes will be discarded.

Navigating the Sidebar Menu

A sidebar menu will appear on the left-hand side of every page. The sidebar menu is how you navigate among the various pages available in the web UI. Major menu items will expand to a

list of sub-menus when clicked. Clicking sub-menu items will take you to that page. The page you are currently on will be highlighted in the sidebar menu.



Data Engine

The IoTServer is, at its core, protocol agnostic. Its internal data objects are generic in nature. These local objects may be represented in various ways that are specific to various protocols. But the content is universal and can be shared across all protocols supported by the IoTServer device. The "Data Engine" pages are where you view the present values of the objects, and specify the internal format for each object. Data objects may be natively integer, floating point, or character string. When accessed by various protocols, data type conversions are made automatically.

Protocol Status & Configuration

Protocol Status and Configuration pages are where you configure and diagnose the sharing of data between different devices having different network protocols. You may select which protocols are included in your application via the Task Manager configuration.

System

The System pages are where you configure and diagnose system level configuration. This is where you configure which protocols are going to be included in your application. This is where you select other optional applications if available. This is where you configure the network connection(s) and where you create user accounts.