

# CCI Configuration Suite Overview

Control Concepts, Inc.

*Date: 5/10/2024*

*Revision: 1*

# Control Concepts Configuration Suite Overview

## Description

Control Concepts (CCI) has created a plugin that hosts an http server and will automatically generate configuration webpage(s) on the host device and use the created webpage(s) to transfer data to the controller and running programs. This document describes how the CCI solution operates.

## CCI Configuration Plugin Details

The CCI Configuration Plugin uses properties to define webpages and the widgets that live within each page.

When a webpage is defined, the plugin will create a new tab for that page in the plugin window and then define and link a URL route to a configuration webpage. It then listens for changes on that webpage, passing the updated webpage data down to the individual widget configuration values on the corresponding page.

When Widgets are defined within each page, the plugin, will take the information from all the widgets and use that to generate and dynamically build the webpage.

The root path that has been set on the host device will determine the URL you will need to use to access the webpage. If, for example, you are using emulation mode and set the port 9090, you will use your PC's localhost route, commonly 127.0.0.1. The URL would be:

<http://127.0.0.1:9090/cws/cci/webconfig>

If the same information was used with the design loaded to a core with an IP address of 192.168.1.1 and a port of 9090, the URL would be:

<http://192.168.1.1:9090/cws/cci/webconfig>

## Plugin Setup Page



### Options

**Auto Start** – Set to have plugin auto start the HTTP web server when the design is run.

**Enable Authentication** – Set to use authentication for the Web interface portion of WebConfig.

**Enable Submit** – Set to use a Submit button in the Web interface to submit all changes made to a page at the same time.

### Licensing

**Hardware Token** – Indicated the Unique Hardware token of the device the design is running on. Will display “EMULATING” if the design is being run in emulation mode.

**Order Token** – Set the order token for the licensed plugin. This order token is generated and sent when a Plugin license is purchased.

**Authorization Token** – Set the authorization token generated with the control Concepts License Manager. You will need the Order Token that was generated upon purchase and the Hardware Token found in the plugin when the design is run on the target Core.

<https://www.ccidev.net/licensing/>

## Example Webpage

Below is an example of the webpage that will be created upon program start. Note that the categories and options shown are examples only and what you actually see in your browser will depend entirely on which categories and component modules you have added to your program. The example below is a slightly modified version of the page that will be generated by the included demo program.

The screenshot shows a web browser window titled 'WebConfig' with the address bar displaying '192.168.193.102/cws/cc/webconfig'. The page has a dark blue sidebar on the left with the 'CONTROL CONCEPTS' logo and two category buttons: 'Category 1' (with a red error indicator) and 'Category 2'. The main content area displays several configuration items:

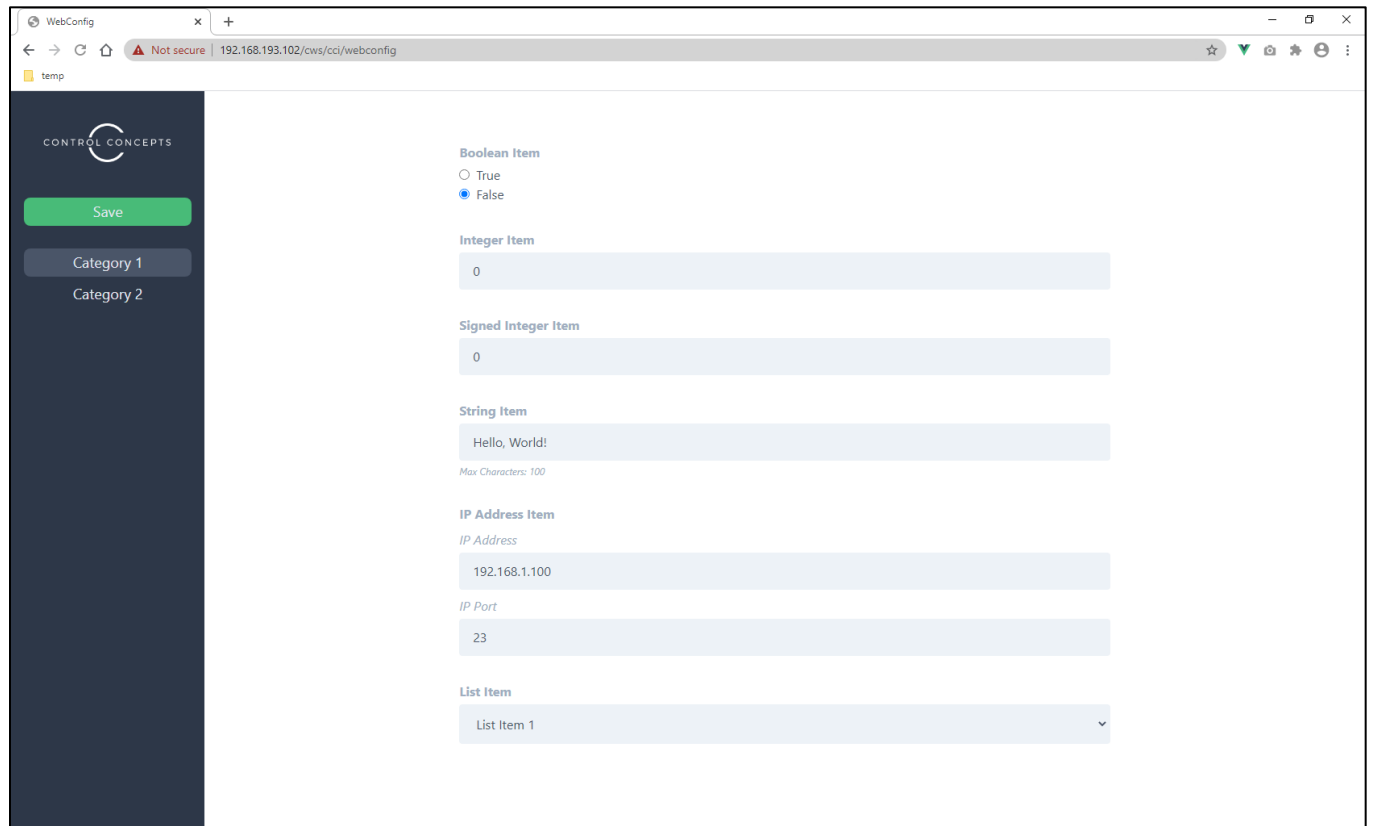
- Boolean Item:** Radio buttons for 'True' and 'False', with 'False' selected.
- Integer Item:** A text input field containing the value '0'.
- Signed Integer Item:** A text input field containing the value '0'.
- String Item:** A text input field with the placeholder 'Enter text'. Below the field, it says 'Max Characters: 100' and 'This field cannot be blank'. The field is highlighted with a red border.
- IP Address Item:** A text input field with the placeholder 'IP Address' containing '0.0.0.0'. Below the field, it says 'This field cannot be blank or 0.0.0.0'. The field is highlighted with a red border.
- IP Port:** A text input field containing the value '23'.
- List Item:** A dropdown menu showing 'List Item 1'.

A few things of note from the screenshot.

- Notice there is an error indicator next to Category 1. This is because there are items in that category that have errors. Once the errors for all items in a category have been cleared, the error indicator will disappear and a Save button will appear, allowing you to send the updated data back to the controller.
- The String item is highlighted because we have set the `IsOptional` property on the corresponding component module to `False`, meaning this field is not allowed to be empty. Once we fill in some data in this field, the error will disappear.
- The IP address item is highlighted because the IP address entered is not valid. Once a valid IP address is entered, the error will disappear.

Below is an example showing the same page with all errors cleared.

**NOTE: The Green Save button will not function with this plugin iteration. Values will auto save upon editing a field. When submit is enabled in the plugin setup, a green Submit button will appear at the bottom of pages to be used to group submit data.**



WebConfig

temp

CONTROL CONCEPTS

Save

Category 1

Category 2

Boolean Item

☐ True

☒ False

Integer Item

0

Signed Integer Item

0

String Item

Hello, World!

Max Characters: 100

IP Address Item

IP Address

192.168.1.100

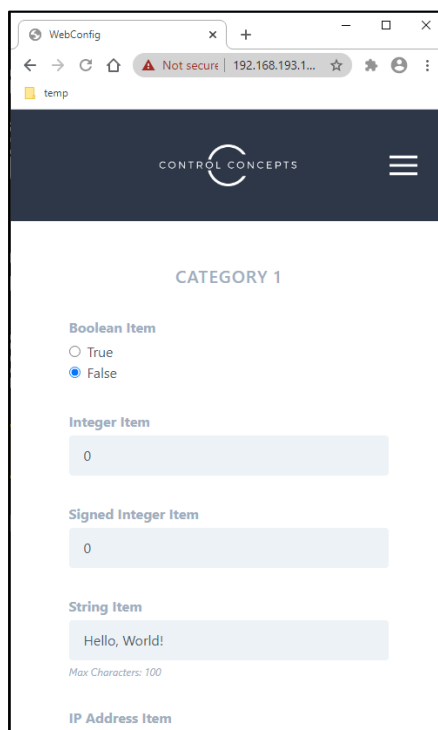
IP Port

23

List Item

List Item 1

One last thing to note is that the webpage is fully responsive, meaning you will be able to use it from smaller devices such as tablets or phones.



WebConfig

temp

CONTROL CONCEPTS

CATEGORY 1

Boolean Item

☐ True

☒ False

Integer Item

0

Signed Integer Item

0

String Item

Hello, World!

Max Characters: 100

IP Address Item