



## HTTPS Client V2.0


### SIMPL Windows Application Guide

#### Description

This SIMPL Windows module sends HTTPS requests to a specified IP address or host name using a dynamically constructed URL path. The module first attempts authentication using Basic Authorization. If the server rejects the request, it automatically retries using Digest Authorization. The response body returned by the server is output on the response\$ serial signal.

#### Supported Processors

Any 3 or 4 series appliance, or VC-4 instance, with Ethernet. Internet access is not required. This module is not supported on 2-series or earlier processors.

| Compatibility   |   |   | Processor Requirements   |   |
|---|---|---|--|---|
|  |  |  |  Ethernet<br>REQUIRED |  REMOVABLE<br>MEDIA<br>NOT<br>REQUIRED |

**Contents**

Description ..... 1

Supported Processors ..... 1

Contents ..... 2

Module Application ..... 3

Module License ..... 4

Signal and Parameter Descriptions ..... 5

    DIGITAL INPUTS ..... 5

    ANALOG INPUTS ..... 5

    SERIAL INPUTS ..... 5

    DIGITAL OUTPUTS..... 5

    ANALOG OUTPUTS..... 5

    SERIAL OUTPUTS ..... 5

    PARAMETERS ..... 5

Support ..... 6

Updates ..... 6

Distribution Package Contents ..... 7

Revision History ..... 8

Development Environment ..... 8

ControlWorks Consulting, LLC Type 1 Module/Module License Agreement..... 9

## Module Application

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This module uses SIMPL# to handle HTTPS communication with the specified endpoint.

Whenever the url\_path\$ input changes, the module constructs the full request URL and attempts to send the request using Basic Authorization via the Authorization: Basic header.

For Digest protected endpoints, the module follows the standard RFC-compliant Digest workflow. It first sends the request using Basic Authorization. If the server responds indicating that Digest Authentication is required, the module automatically retries the request using the Digest parameters provided in the server's challenge.

In both authentication scenarios, if the request succeeds, the response body returned by the server is sent out the [response\$] serial output.

If the request fails for any reason, the module records an error entry in the processor's error log.

This module does not validate HTTPS certificates.

Enabling [enable\_debug] (latching high) outputs diagnostic information to the console. Latching this signal low disables debug output. It is recommended to keep debug mode disabled during normal operation.

## Module License

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This Module is covered under our One-Time Purchase/Download Product (Type 1) terms. The full terms are available in the [final section of this help file](#).

Here are some common questions we receive for this license type:

**Q. Do I have to pay a license each time I use the module?**

**A.** No. Your company pays a single license fee and may use the module as many times as needed in systems programmed by your company.

**Q. Does the module need a license key or contact an activation server to be licensed.**

**A.** No. No keys or activation servers. Just the honor system. Please follow the rules and use it respectfully. (We reserve the right to change this in the future.)

**Q. I received this module as part of a project archive or take-over project. Do I need to pay a license fee?**

**A.** Yes. Receiving the module in a project archive or take-over does not grant a license. The module is licensed only to the company that purchased it. The license is non-transferable, and redistribution is not permitted. Your company must purchase its own license before using the module in any systems it programs or maintains; including systems acquired through a take-over.

**Q. Can I provide my CSP, subcontractor, or third-party programmer the module under my company's license?**

**A.** No. Redistribution is not permitted. Only the company that purchased the license is authorized to use the module. Third-party programmers, including CSPs, must obtain their own license. If you later take over programming from a CSP, your company will also need to purchase a license.

**Q. I have multiple programmers within my company. Can they all use the module?**

**A.** Yes, all programmers working for the licensed company may use the module without additional fees, as long as the module is only used in systems programmed by that same company.

**Q. Do I need to purchase updates?**

**A.** No. Updates are distributed through the web store and anyone who has a valid license can download the updates at no charge.

**Q. Are there limits on how long the module can be used in a system?**

**A.** No. Once purchased, the license is perpetual and may be used indefinitely in systems programmed by your company.

# Signal and Parameter Descriptions

Bracketed signals such as "[signal\_name]" are optional signals

## DIGITAL INPUTS

[enable\_debug] .....Latch high to print debug messages to the console.  
Latch low to disable debug messages.

## ANALOG INPUTS

This module does not use any analog inputs.

## SERIAL INPUTS

url\_path\$ .....Input used to define the path of the request. On any change Whenever the url\_path\$ input changes, the module constructs the full request URL and attempts to send the request using Basic Authorization. If the server responds indicating that Digest Authentication is required, the module automatically retries the request using the Digest parameters provided in the server's challenge.

## DIGITAL OUTPUTS

This module does not use any analog outputs.

## ANALOG OUTPUTS

This module does not use any analog outputs.

## SERIAL OUTPUTS

[response\$] .....Optional output containing the body of the response from the server.

## PARAMETERS

IP Address.....Enter the IP Address or hostname of the server the request should be sent to.  
Port .....Enter the Port number the request should be sent on. Typically this will be 443d.  
Username .....Enter the User Name that will be sent in requests.  
Password .....Enter the Password that will be sent in requests.

## Support

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This Module is supported by ControlWorks Consulting, LLC. Should you need support for this Module you may email us at [support@controlworks.com](mailto:support@controlworks.com) or call us at:

- (+1) 440 449 1100 (Cleveland, Ohio)
- (+1) 508 695 0188 (Boston, Massachusetts)
- (+1) 202 381 9070 (Washington, DC)
- (+44) (0)20 4520 4600 (London, England)

ControlWorks normal office hours are 9 AM to 5 PM US Eastern time, Monday through Friday, excluding holidays.

## Updates

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Updates, when available, are free of charge, and are automatically distributed via our webstore. If you have purchased a license, you will receive an email notification to the address entered when the license was purchased. In addition, updates may be obtained using your username and password at <https://store.controlworks.com/account/login.aspx>.

## Distribution Package Contents

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The distribution package for this module should include:

|   |  |
|---|--|
| HTTPS Client Demo V2.0 (ControlWorks).smw | Demonstration Program                          |
| HTTPS_Client_V2.0_(ControlWorks).umc      | Main User Module                               |
| HTTPS_Client_V2.0_(ControlWorks).usp      | SIMPL+ for use inside main module              |
| HTTPS_Client_V2.0_(ControlWorks).ush      | SIMPL+ header file, for use inside main module |
| HttpClientControlWorks.clz                | SIMPL# module for use in SIMPL+ module         |
|   |  |
| HTTPS_Client_V2.0_(ControlWorks)_help.pdf | This help file.                                |
|   |  |

## Revision History

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V2.0 caleb@controlworks.com 2025.11.24

- Release Version

V1.0 caleb@controlworks.com 2020.08.18

- Internal versions.

## Development Environment

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This module version was developed on the following hardware and software. Different versions of hardware or software may or may not operate properly. If you have questions, please contact us.

| <b>Crestron Hardware</b> | <b>Firmware Version</b> |
|--------------------------|-------------------------|
| CP4                      | v2.8006.00110           |
|                          |                         |
| <b>Software</b>          | <b>Software Version</b> |
| SIMPL Windows            | 4.28                    |
| Device Database          | 200.345                 |
| Crestron Database        | 224.05                  |
|                          |                         |
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# ControlWorks Consulting, LLC Type 1 Module/Module License Agreement

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## Definitions:

*ControlWorks*, *We*, and *Us* refer to ControlWorks Consulting, LLC, with headquarters located at 701 Beta Drive, Suite 22 Mayfield Village, Ohio 44143-2330. *You* and *Dealer* refer to the entity purchasing the module. *Client* and *End User* refer to the person or entity for whom the Crestron hardware is being installed and/or will utilize the installed system. *System* refers to all components described herein as well as other components, services, or utilities required to achieve the functionality described herein. *Module* refers to files required to implement the functionality provided by the module and may include source files with extensions such as UMC, USP, USH, CLZ, SMW and VTP. *Demo Program* refers to a group of files used to demonstrate the capabilities of the Module, for example a SIMPL Windows program and VisionTools Touchpanel file(s) illustrating the use of the Module but not including the Module. *Software* refers to the Module and the Demo Program.

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## Provision of Support

We provide limited levels of technical support only for the most recent version of the Module as determined by Us. We do not provide support for previous version of the module, modifications to the module not made by Us, to persons who have not purchased the module from Us. In addition, we may decline to provide support if the Demo Program has not been utilized. We may withdraw a module from sale and discontinue providing support at any time and for any reason, including, for example, if the equipment for which the Module is written is discontinued or substantially modified. The remainder of your rights and obligations pursuant to this license will not be affected should ControlWorks discontinue support for a module.

## Modification of Software

You may not decrypt (if encrypted), reverse engineer, modify, translate, disassemble, or de-compile the Module in whole or part. You may modify the Demo Program. In no event will ControlWorks Consulting, LLC be liable for direct, indirect, incidental or consequential damages resulting from You modifying the Software in any manner.

## Indemnification/Hold Harmless

ControlWorks, in its sole and absolute discretion may refuse to provide support for the application of the Module in such a manner that We feel has the potential for property damage, or physical injury to any person. Dealer shall indemnify and hold harmless ControlWorks Consulting LLC, its employees, agents, and owners from any and all liability, including direct, indirect, and consequential damages, including but not limited to personal injury, property damage, or lost profits which may result from the operation of a program containing a ControlWorks Consulting, LLC Module or any component thereof.

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