



# iViewer Crestron Module User Guide

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## Introduction

This document has been created for system integrators to install and setup the iViewer Crestron Module for using iViewer for iPad/iPhone/iPod Touch/Android within a Crestron system.

More information on the CommandFusion software products can be found at [www.commandfusion.com](http://www.commandfusion.com)

## What is iViewer Crestron Module?

CommandFusion iViewer Crestron Module is a software module for use within Crestron automation systems programming environment. It is used to integrate the CommandFusion iViewer application into a Crestron system, using Crestron's SIMPL Windows programming software.

## Requirements

- iPad, iPhone or iPod Touch with iViewer installed (see [iViewer User Guide](#)).
- PC (or Mac) running Windows XP.
- Crestron SIMPL Windows software.
- Crestron 2-series processor running **firmware version 4.0** or later.
- WiFi network.

## Sample Code

We have created a sample Crestron program which is available from our GitHub repository: <https://github.com/CommandFusion/CrestronModule>

The sample program includes the iViewer Crestron module, with full source code. Within the sample program there are 3 instances of the iViewer module, which allows 3 devices to connect at once, on separate ports. Each device must have its own iViewer Crestron Module instance and unique port number.

It is required Crestron programming practice that each TCP Server is started one at a time otherwise the processor may perform erratically and become unstable. To comply with this practice, the sample program uses a Stepper to enable each iViewer module instance due to the fact that each iViewer module instance contains it's own TCP Server.

## iViewer Module Symbol

The iViewer module symbol has the following properties:

Parameters:

- Password\$ - used to define a connection password that all devices must use to connect to this module instance. To allow blank passwords, enter 'na' (without quotes).
- Port - The port number to allow connections on. The GUI file loaded into the device must use this port number (and IP Address of the Crestron processor) to connect. Only one connection is allowed per module instance.
- ActivityTimeoutAmount - Number of seconds to wait before disconnecting the device after no activity (digital/analog/serial) is received. If the device is still open and running the iViewer software, it will attempt to reconnect automatically. This prevents ports being locked if for some reason a device disconnection is not noticed by the Crestron system.

### Digital Inputs:

- RequestVersion - Used to force the connected device running iViewer to report its iViewer version number.
- SystemBar Toggle / Show / Hide - Used to toggle/show/hide the top system bar of the iPhone/iPod Touch. Similar to how a TPMC-8X system bar operates. The system bar however is not customizable and will always take on the generic look.
- DebugMode - Enabled this signal will cause the module to report various debugging information to the Crestron Debugger and Text Console by way of Print() commands.

- EnableConnections – Used to allow connections to be made from devices running the iViewer software.
- fb[1 – 9999] – Used to provide digital feedback to the connected device. Expandable.

### Digital Outputs:

- PortraitMode – Held high whilst the connected device is rotated to portrait mode.
- LandscapeMode – Held high whilst the connected device is rotated to landscape mode.
- ReceivedData – Pulsed high for half a second each time data is received from the connected device (such as button press, slider drag, etc).
- ActivityTimeout – Pulsed high for half a second when the connected device has not had any activity for the '*ActivityTimeoutAmount*' period.
- EnableConnections\_fb – Held high whilst device connections are enabled.
- press[1 - 9999] – Driven high when a device action takes place, such as a button press. Expandable.

### Analog Inputs:

- an\_fb[1 – 999] – Used to provide analog feedback to the connected device. Non-expandable due to SIMPL+ limitations.

### Analog Outputs:

- CommandSocketStatus – Provides the status of the iViewer's TCP Server connection.
  - 0d = Not Connected,
  - 1d = Awaiting connection
  - 2d = Connected
  - 3d = Connection failed
  - 4d = Connection broken remotely
  - 5d = Connection broken locally
  - 6d = Performing DNS lookup
  - 7d = DNS lookup failed
  - 8d = DNS name resolved
- ac\_act[1 – 999] – Analog activity from a connected device, such as slider value changed.

### Serial Inputs:

- text\_o[1 – 999] – Used to send text feedback to the connected device. Expandable.

### Serial Outputs:

- iViewerVersion – The version number of the iViewer software running on the connected device. This is reported once upon each connection, and any time the '*RequestVersion*' input is driven high.
- text\_i[1 – 999] – Text input from the connected device – such as an input field submitted. Expandable.

## Support

For further support using CommandFusion iViewer Crestron Module, please view the support documents available on our website or contact us using one of the options on our website support page:

<http://www.commandfusion.com/support.html>

**Please note:** We do not provide general SIMPL Windows or SIMPL+ support. Please contact Crestron directly for help with their software.

## Glossary

SIMPL Windows – Crestron’s proprietary software for programming their systems.

SIMPL+ - Programming language used to create the iViewer Crestron Module.

guiDesigner – Windows software for creating custom Graphic User Interfaces.

Viewer – Software that renders the GUI generated by *guiDesigner*

iViewer – a *Viewer* for iPad, iPhone and iPod Touch

Server – Hardware or software that *Viewers* connect to and communicate with. An example of a *Server* is Crestron hardware, or the free MediaController software available from our website.

Server Module – Software that runs on the specified *Server* hardware platform allowing *Viewers* to connect and communicate with the Server. An example of a *Server Module* is a SIMPL+ module for Crestron systems.