



DICENTIS by Bosch v1.4 SIMPL Window Module Application Guide

Description

This SIMPL Windows Module allows control and real time feedback of a DICENTIS Conference System from Bosch server including vote state feedback, vote tallies, discussion list management, speaking list management, and agenda feedback. Seat modules include adding to active speakers, removing from the discussion list, seat feedback for names, voting feedback, discussion feedback, and mic feedback. See [DICENTIS Licensing](#) for more information about required licenses.

This module is not compatible with the DICENTIS Wireless Conference System.

This Module uses a Module Instance License that can be obtained by using the activation key([described below](#)) at store.controlworks.com. Each DICENTIS Server requires a separate engine module, and each Engine module requires a separate license in order to function. Licenses are tied to the processor and program slot(or Room ID for VC-4). See below for [detailed instructions](#) on ordering and activation.

The module license includes a complimentary, automatic trial period of 7 days if no license has been purchased.

Supported Processors

Any 3-series or 4-series processor and 4 series servers running SIMPL Windows.

Compatibility				Processor Requirements	
				 Ethernet REQUIRED	 REMOVABLE MEDIA NOT REQUIRED

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Module Instance License

Overview

This Module requires a Module Instance License that can be purchased by entering the activation key from the module here: <https://store.controlworks.com/products/Bosch-DICENTIS-License>. Each DICENTIS Engine Module in a program slot requires a separate license in order to function. Licenses are tied to the Crestron processor **and** the program slot(or Room ID for VC-4).

License Changes

If a Crestron processor fails and is replaced the license will need to be updated. If the module moves program slots on a Crestron processor, or on a VC-4 server changes room ID's, the license will need updated. We offer one complimentary update of the license. Subsequent changes will be assessed a fee to change the license. We encourage the use of our [trial period](#) to allow for development and testing without purchasing licenses.

To change a license, please email us at support@controlworks.com and include the Activation Key, and your License Unique Identifier that can be located at <https://store.controlworks.com/account/>.

Steps for Purchasing a License

Licenses are tied to the Crestron Processor and program slot(appliance)/Room ID(VC-4). The steps below outline how to purchase a license and activate your module.

1. Ensure the Module has been added to your program.
2. Ensure the reboot_finished signal is being latched high after the program is started, not with a 1. Ensure the remaining signals under the System group are defined. You may comment them out if desired.
3. Ensure the processor or VC-4 instance can reach the internet.

a. For an appliance processor

- i. Open Text Console in toolbox, connect to the processor.
- ii. Ensure the processor has DNS servers by using the command [LISTDNS].

```
AV3>listdns
TableStart: [DNS Servers]
Device ID | IP | Issued By |
-----+-----+-----+
Device 0 | 10.2.0.5 | DHCP |
Device 1 | 10.255.1.2 | DHCP |
```

- iii. If no DNS servers are present, add them by using [ADDDNS <DNS server>] or using the Ethernet Addressing dialog box.

```
AV3>adddns 8.8.8.8
Success:New DNS value set.
AV3>
```

- iv. You can also test your DNS server by using the command [TESTDNS www.controlworks.com].

```
AV3>testdns www.controlworks.com
IPAddress = 173.236.4.201
AV3>
```

4. Load your program to the processor.

5. After the program is running, and the `reboot_finished` signal has been latched high, open Crestron Debugger and locate the licensing signals on the module defined earlier in this process.
6. Locate the `[activation_url_fb$]`. This signal will contain a URL that will automatically enter the activation key into the website.
 - a. Alternatively, you may also copy the activation key signal `[activation_key_fb$]` and enter it in at <https://store.controlworks.com/products/Bosch-DICENTIS-License>.
7. Enter the Activation Key and Quantity, and then proceed through the checkout process.
8. After the checkout process is completed, in Crestron Debugger, pulse the `[reload_server_license-ucmd_retryauthserver]` signal for the module to check the activation server for the updated license information.
 - a. Alternatively, you may use the command `UCMD:[program_slot] "RETRYAUTHSERVER"` i.e. `UCMD:1 "RETRYAUTHSERVER"`

Once the module has been activated, its activation information is stored on the processor and will not need to reach the ControlWorks activation server to remain activated. Certain Crestron recovery procedures may clear the activation information and the module may need to reach out to check for activation. Should the Module require to reach out to the ControlWorks server, this process should occur automatically and be transparent as long as the processor has Internet access.

Trial Period

To aid testing your programming before deployment, we are offering a complimentary automatic trial period of 7 days; during this time the module is fully functional. This functionality only works for systems that have an active Internet connection and are able to reach ControlWorks' activation servers.

When the `[reboot_finished]` signal is held high, the module will attempt to retrieve a license from the activation server. If the processor has not been previously activated and a trial license will be automatically provided to the processor and the trial period will start. Once the trial period expires, you must contact us to extend the trial period. The total number of trial activations for any processor may be limited in ControlWorks sole discretion.

DICENTIS Licensing

This module requires the DICENTIS Server is licensed with the “Ultimate feature package”. “Premium” and “Base” licenses are not supported. For more information about licensing, please visit: <https://www.keenfinity-group.com/us/en/solutions/conference-solutions/ip-based-conferencing/dicentis-software-licensing/#license>

User Accounts

An account for Crestron must be created in the DICENTIS system. The Crestron user must be assigned to the Admin User Group. The Username, and Password for this account must be entered into the Engine Module for the module to communicate to the DICENTIS Server.

Seat ID's

Each Seat Module requires an ID to connect it to a physical seat in the DICENTIS system. To get the seat ID's, ensure the module is loaded and connected to the DICENTIS system. Open Crestron toolbox, and connect to the processor with a console. Pulse the [\[print_seat_ids\]](#) digital input on the engine module. The module will print each Seat ID found on the DICENTIS Server. From there, you can add and connect seat modules to physical seats, by copying the Seat ID into the Seat ID parameter on the Seat Module.

Connection Settings and TLS Compatibility with DICENTIS Servers

Crestron firmware version 2.8006.00110 and newer supports encryptions TLS 1.2 and TLS 1.3. New Crestron systems (and restored systems with this firmware or greater) ship with **TLSVERSION BOTH** enabled by default. While you can configure a Crestron processor to support TLS 1.2 or 1.3 specifically, the **TLSVERSION BOTH** setting typically ensures compatibility.

However, there are some important caveats to consider:

- New DICENTIS servers running Windows Server 2022 ship with TLS 1.3 enabled. If you're using a Crestron processor with prior versions of Crestron firmware that only support TLS 1.2, you will need to adjust TLS settings in the DICENTIS Server (contact Bosch support for this process) to disable TLS 1.3 or update the firmware in the Crestron processor and set the TLS version accordingly.
- Older DICENTIS servers may not support TLS 1.3. New Crestron processors should have firmware 8006 or newer running and should accommodate this encryption with the **TLSVERSION BOTH** setting. However, if the processor is set to **TLSVERSION TLS1.3**, this will prevent a connection to the older DICENTIS server.
- A common indicator of a TLS mismatch is the Crestron processors log error will indicate a connection failed by logging **WEBSOCKET_CLIENT_SSL_CONNECTION_FAILED**. If this appears, adjust the TLS settings on either the processor or the DICENTIS server.
- In some cases, a DICENTIS server may support TLS 1.3 but lack a compatible cipher suite with the Crestron processor. If this occurs, forcing the processor to **TLSVERSION TLS1.2** may restore connectivity.

Signal and Parameter Descriptions (Bosch_DICENTIS_Engine_V1.4_(ControlWorks))

Bracketed signals such as "[signal_name]" are optional signals

DIGITAL INPUTS

reboot_finished	Latch this signal high after reboot is complete. The drivers will attempt to activate their licenses when this signal goes high. Do not use a 1.
[reload_cache_license-ucmd_retruauth]	If instructed by ControlWorks, pulse to refresh the cached license file after a file has been installed. This signal should not be used during normal operation and should be commented out.
[reload_server_license-ucmd_retryauthserver]	Pulse after a license has been purchased. Pulsing this will instruct the module to check for an updated license. This signal should not be used during normal operation and should be commented out.
[print_seat_ids]	After successful connection to the DICENTIS Server, pulse this input to print all known seats to the Crestron processor console.
[connect]	Pulse to connect to the DICENTIS Server.
[disconnect]	Pulse to disconnect from the DICENTIS Server.
[activate_voting_list_item_for_voting]	Used to activate voting for the selected voting item as indicated by [voing_list_selected_item_xxx_fb\$].
[activate_ad_hoc_voting]	Used on conjunction with [ad_hoc_voting_number], [ad_hoc_voting_subject\$], and [ad_hoc_voting_description\$]. Initialize the number, subject and description before pulsing this input.
[select_voting_list_item1]- [100]	Select an item in the list to populate the [voing_list_selected_item_refrence_number_fb\$], [voing_list_selected_item_subject_fb\$], [voing_list_selected_item_description_fb\$], [voing_list_selected_item_state_fb\$].
[open/close/hold/resume/abort/reject/accept_voting] ...	Pulse the desired digital. These correspond to the DICENTIS voting controls when in a vote.
[advance_list]	Pulse to advance the discussion list by one user in the list.
[add_discussion_list_member_x_to_speakers]	Pulse to add the member in the corresponding slot, to the speaking list.
[clear_discussion_list]	Pulse to clear the discussion list. Because there is no method to clear the list, the driver automatically puts each member in the speaking list, and then removes them from the speaking list.
[clear_speaking_list]	Pulse to clear the speaking list.

ANALOG INPUTS

[voting_list_item_to_activate]	Analog input that corresponds to [select_voting_list_item1] - [select_voting_list_item100]. Pulsing [activate_voting_list_item_for_voting], if a list item exists at that location, selects that item and sends to voting.
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SERIAL INPUTS

[ad_hoc_voting_number\$]	Initialize with the desired voting number for an ad-hoc vote.
[ad_hoc_voting_subject\$]	Initialize with the desired voting subject for an ad-hoc vote.
[ad_hoc_voting_description\$]	Initialize with the desired voting description for an ad-hoc vote.

DIGITAL OUTPUTS

[licensed_fb]	High when the module has found a valid license from the activation server or cache file.
[trial_license_valid_fb]	High when the module is authorized in trail mode.
[perpetual_license_valid_fb]	High when the module is authorized in perpetual mode.
[connected_fb]	High when the module is connected to the Bosch DICENTIS server.
[disconnected_fb]	High when the module is disconnected to the Bosh DICENTIS server.
[vote_state_closed/ready/opened/onHold/done/canceled/accepted/rejected_fb]	High when the DICENTIS server indicates the vote state.

ANALOG OUTPUTS

[voting_list_size_fb]	Indicates the voting list size.
[not_voted/yes/no/abstain/dnpv/for/against/present_fb]	Indicates the total number of users that voted for each type.
[total_members_in_discussion_list_fb]	Indicates the total number of users in the discussion list.
[total_members_in_speaking_list_fb]	Indicates the total umber of users in the speaking list.

SERIAL OUTPUTS

[license_status_fb\$]	Indicates the modules license status.
[activation_key_fb\$]	Indicates the modules license key. This should be used for purchasing licenses.
[activation_url]	Indicates the URL for store.controlworks.com to purchase the license. The URL will contain the key, and when the url is used, will automatically enter the key into the website.
[current_vote_info_refrence_number_fb\$]	The current vote reference number.
[current_vote_info_subject_fb\$]	The current vote subject.
[current_vote_info_description_fb\$]	The current vote description.
[current_vote_info_state_fb\$]	The current vote state.
[voing_list_selected_item_refrence_number_fb\$]	The selected voting item list reference number.
[voing_list_selected_item_subject_fb\$]	The selected voting item list subject.
[voing_list_selected_item_description_fb\$]	The selected voting item description.
[voing_list_selected_item_state_fb\$]	The selected voting item state.
[voting_list_subject\$[1]]-[100]	Serial output indicating each voting list items subject.
[discussion_list_member_x_fb\$]	Indicates the name of the member in the discussion list position.
[speaking_list_member_1_fb\$]	Indicates the name of the member in the speaking list position.
[current_subject_fb\$]	Indicates the current agenda item subject.
[current_description_fb\$]	Indicates the current agenda item description.

PARAMETERS

IP Address or Hostname.....	Enter the IP address or hostname of the DICENTIS Server.
Port.....	Enter the control port number. The default port is 31416d.
Username	Enter the Username for Crestron control.
Password	Enter the Password for Crestron control.
Instance ID	Enter the instance of this DICENTIS Engine Module. Each Engine module must have a unique instance ID. This Instance ID is used for the Seats to talk to the main engine.

Signal and Parameter Descriptions (Bosch_DICENTIS_Seat_V1.4_(ControlWorks))

Bracketed signals such as "[signal_name]" are optional signals

DIGITAL INPUTS

[add_to_active_speakers]	Pulse to add this seat to the active speakers list.
[remove_from_discussion_list]	Pulse to remove this seat from the active speakers list and discussion list.

ANALOG INPUTS

This module does not utilize any analog inputs.

SERIAL INPUTS

This module does not utilize any serial inputs.

DIGITAL OUTPUTS

[not_voted/yes/no/abstain/dnpv/for/against/present_fb]	High when the seat has submitted the indicated vote.
[first_in_discussion_queue_fb]	High when the seat is first in the speaker queue.
[is_active_speaker/speaker/priority/responder/important/request/response_request_fb]	High when the seat is indicated discussion type.
[microphone_off/on/mute_fb].....	High when the microphone is off/on/or muted.

SERIAL OUTPUTS

[seat_name_fb\$]	String indicating the seat name.
[seat_screen_name\$]	String indicating the seats screen name.

PARAMETERS

Seat ID	Enter the Seat GUID as reported when pressing the [print_seat_ids] input on the engine module.
Engine Instance ID	Enter the main Engine's Instance ID.

Support

This Module is supported by ControlWorks Consulting, LLC. Should you need support for this Module you may email us at 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.

Before calling for support, please ensure that you have loaded and tested operation using the included demonstration program and touchpanel(s) to ensure that you understand the correct operation of the module. It may be difficult for ControlWorks to provide support until the demonstration program is loaded.

Updates

Updates, when available, are automatically distributed via email notification to the address entered when the module was downloaded or license purchased. In addition, updates may be obtained using your username and password at <https://store.controlworks.com/account/login.aspx>.

Distribution Package Contents

The distribution package for this module should include:

Distribution Contents	
Bosch_DICENTIS_Engine_v1.4_(ControlWorks).umc	Crestron User Module.
Bosch_DICENTIS_Seat_v1.4_(ControlWorks).umc	Crestron User Module.
Bosch_DICENTIS_Engine_v1.4_(ControlWorks).usp	SIMPL+ file used within the processor module.
Bosch_DICENTIS_Engine_v1.4_(ControlWorks).ush	SIMPL+ header file.
Bosch_DICENTIS_Seat_v1.4_(ControlWorks).usp	SIMPL+ file used within the processor module.
Bosch_DICENTIS_Seat_v1.4_(ControlWorks).ush	SIMPL+ header file.
BoschDicentis.clz	SIMPL# Library
Bosch_DICENTIS_Demo_v1.4_(ControlWorks).smw	Demo program for PRO3 processor

Revision History

V1.4 caleb@controlworks.com 2025.08.21

- A watchdog mechanism has been implemented to periodically test the connection to the DICENTIS server. If the connection is not in the desired state, the watchdog will attempt to restart it.
 - In cases where the connection is terminated externally, the Crestron processor may take a minimum of 2 minutes to recognize the disconnection.
 - Once the disconnection is recognized, the module will automatically attempt to reestablish communication if the desired state is to remain connected.
- Made adjustments to attempt to accommodate login errors even if the credentials are correct.
- Adjusted parsing of error responses to better handle some edge cases that would leave an exception in the log.
- Prevented seat names from propagating if the data is the same.
- Prevented discussion list from propagating if the data is the same.
- Added the ability to see current voting list, and select an item to vote on.
- Added vote controls to be able to open/close/accept votings. Users must vote on a DICENTIS device.
- Added the ability to start an adhoc vote.
- Adjustments to licensing engine to accommodate a timezone edge case.

V1.3 caleb@controlworks.com 2025.04.10

- Updated Activation Info to new format.
- Documentation Updates.
- Updating from V1.1 to any newer version requires updated licensing information.
If the processor has internet access, the module will automatically retrieve the necessary licensing data. Once retrieved, internet access is no longer required — the module will reference the cached license information going forward.

If your processor does not have internet access, please contact us to arrange offline activation.

V1.2 caleb@controlworks.com 2025.03.26

- Fixed issue where module would not properly display license information if the processor was not connected to the internet.

V1.1 caleb@controlworks.com 2024.07.26

- Fixed issue where module would not properly retrieve license from activation server.
- Small branding changes.

V1.0 caleb@controlworks.com 2022.09.22

- initial release

Development Environment

This Module and Driver 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.

Manufacturer Hardware	Software Version
DICENTIS Conference System	6.40.33
Crestron Hardware	Firmware Version
Crestron CP4 Processor	v2.8006.00110
Software	Software Version
SIMPL Windows	4.30
Vision Tools Pro-e	6.2.00
Smart Graphics Controls	2.15.04.01
Crestron Database	228.20
Device Database	200.415

ControlWorks Consulting, LLC Module Instance License Agreement

Definitions:

ControlWorks, *We*, and *Us* refer to ControlWorks Consulting, LLC, with headquarters located at 8228 Mayfield Road, Suite 6B Rear Chesterland, Ohio 44026. *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. *Instance License* refers to a module license that is granted to a specific combination of a Crestron Processor and a single Controlled Device (for example, based on the respective serial numbers or other uniquely identifying information); a separate Instance License must be purchased for each such combination. *Module* refers to files required to implement the functionality provided by the Module and may include source files with extensions such as UMC, USP, SMW and VTP. *Driver* refers to the files required to implement the functionality in the Crestron Home environment. *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.

Disclaimer of Warranties

ControlWorks Consulting, LLC software is licensed to You as is. You, the consumer, bear the entire risk relating to the quality and performance of the Software. In no event will ControlWorks Consulting, LLC be liable for direct, indirect, incidental or consequential damages resulting from any defect in the Software, even if ControlWorks Consulting, LLC had reason to know of the possibility of such damage. If the Software proves to have defects, You and not Us must assume the cost of any necessary service or repair resulting from such defects.

Provision of Support

We provide limited levels of technical support only for the most recent version of the Module and Driver as determined by Us. We do not provide support for previous version of the Module or Driver, modifications to the Module or Driver not made by Us, to persons who have not purchased the Module, Driver, or corresponding license(s) from Us. In addition, we may decline to provide support if the Demo Program has not been utilized. We may withdraw a Module, Driver, or corresponding license(s) from sale and discontinue providing support at any time and for any reason, including, for example, if the equipment for which the Module or Driver 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 or Driver.

Modification of Software

You may not decrypt (if encrypted), reverse engineer, modify, translate, disassemble, or de-compile the Module or Driver in whole or part. Any modifications to the Module or Driver shall immediately terminate any licenses purchased with respect thereto. You may, however, 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 or Driver 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.

License Grant

This Module or Driver is licensed under the Instance License system, and Licenses are valid only for the specific combination of Crestron Processor and Controlled Device identified when the License was purchased or otherwise acquired and licenses may not be transferred to other Crestron processors or controlled devices. In ControlWorks sole discretion, ControlWorks may grant a transfer of an existing license to a new Crestron Processor or Controlled Device, not both. If granted, transfer may be subject to an administrative fee as determined by ControlWorks from time to time.

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