

**Partner: Crestron Electronics, Inc**  
**Model: C2N-IADS**  
**Device Type: Intercom**



## GENERAL INFORMATION

<b>SIMPLWINDOWS NAME:</b>	C2N-IADS Room Control v5.1
<b>CATEGORY:</b>	Intercom
<b>VERSION:</b>	5.1
<b>SUMMARY:</b>	Control routing for touch panel to touch panel communication. <i>Must be used with C2N-IADS_C2N-IIF Interconnect Module v5.1.</i> Can also be used with the C2N-IIF Door Station v5.1, C2N-IADS_C2N-IVDS Interface v5.1, C2N-IADS Group Setup v5.1 and C2N-IADS Phone Interface v5.1 for a complete audio video intercom system.
<b>GENERAL NOTES:</b>	<p>This macro will work with the Crestron C2N-IADS. It will allow for intercom communications between touch panels, C2N-IIF Door Station interfaces, up to 8 audio sources and 2 "talk Only" outputs. The individual rooms can be locally set for "hands free" (Default), Privacy (allows audio in but must press the "push to talk" button to respond) and Do Not Disturb (No sound will be heard at the panel but a signal is available for pop up notification).</p> <p>This module interacts with the following modules for a complete system:</p> <p><i>Must be used with C2N-IADS_C2N-IIF Interconnect Module v5.</i></p> <p>Additional C2N-IADS Room Control v5.1 modules</p> <p>C2N-IIF Door Station v5.1</p> <p>C2N-IADS_C2N-IVDS Interface v5.1</p> <p>C2N-IADS Group Setup v5.1</p> <p>C2N-IADS Phone Interface v5.1</p>
<b>CRESTRON HARDWARE REQUIRED:</b>	C2N-IADS, 2-Series Processor

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**CONTROL:**

[PRIV]	D	<p>Toggle Privacy mode on and off.</p> <p>With 'Privacy' off, this room will be "Hands Free" when called. This means that as soon as the room is called the audio from the calling room will be heard in this room and the calling room will be able to hear the audio in this room. This would be useful in a kitchen but maybe not desirable for a bedroom.</p> <p>With 'Privacy' on, the room will be "Push To Talk" (PTT) when called. This means that when the room is called, the calling rooms audio will be heard but the calling room will not be able to hear the audio in this room until the PTT button is pressed. The audio will only be heard while the PTT button is held. If 'Privacy' is on and the room is called, the output [RING_PRIV_CALL] will pulse high for .5s. This can be used to play a wave file or display a subpage notifying the user that a call has been received.</p>
[DND]	D	<p>Toggle Do-Not-Disturb mode on and off.</p> <p>With "Do-Not-Disturb" off, this room will be "Hands Free" when called. This means that as soon as the room is called the audio from the calling room will be heard in this room and the calling room will be able to hear the audio in this room. This would be useful in a kitchen but maybe not desirable for a bedroom.</p> <p>With "Do-Not-Disturb" on, the room will be PTT when called. In this mode when the room is called, the calling rooms audio will <i>not</i> be heard until this room answers the call. After answering the call, the calling room will not be able to hear the audio in this room until the PTT button is pressed. The audio will only be heard while the PTT button is held. If "Do-Not-Disturb" is on and the room is called, the output [RING_DND_CALL] will pulse high for .5s. This can be used to play a wave file or display a subpage notifying the user that a call has been received.</p>
[MONITOR]	D	<p>Toggles monitor mode on and off. Monitor mode allows listening to any room not in privacy or DND. If a call is received while in monitor mode, monitor mode will turn off and the call will proceed as normal. Monitor mode can be used in 'Privacy' or 'Do-Not-Disturb' modes. 'Privacy' and 'Do-Not-Disturb' modes will not be reset is a call is received.</p>
Push_To_Talk (PTT)	D	<p>Allow the connected room(s) to hear the audio from this room.</p>
End_Call	D	<p>Ends the call and return the system to the "pre call" mode(s).</p>
[IC_ROOM_X] (1 – 22)	D	<p>Selects the room(s) to be called. Multiple rooms can be added to a call as long as the PTT button has not been touched. Once in a call, these buttons are disabled.</p>
[TT_OUTPUT_X] (23 – 24)	D	<p>Selects the output(s) to be called. Multiple outputs can be added to a call as long as the PTT button has not been touched. Once in a call, these buttons are disabled.</p>
[LISTEN_INPUT_X] (23 – 30)	D	<p>These inputs allow the touch panel to listen to one of the audio inputs on the C2N-IADS.</p>
[CALL_GROUP_X] (1 – 5)	D	<p>Selects the group to be called. Use the "C2N-IADS Group Setup v4" module to set up groups of rooms.</p>

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**CONTROL: (CONT)**

FROM_CONTROL_MODULE\$	S	Serial string from the required C2N-IADS_C2N-IIF Interconnect Module v4.
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**FEEDBACK:**

[PRIV_FB]	D	On if the room is in 'Privacy' mode.
[DND_FB]	D	On if the room is in 'Do-Not-Disturb' mode.
[MONITOR_FB]	D	On if the room is in 'Monitor' mode.
[IN_USE]	D	High if the room is in a call. Use to trigger subpage or page flip logic.
[RING_PRIV_CALL]	D	Pulsed for .5s if the room is called while in 'Privacy'
[RING_DND_CALL]	D	Pulsed for .5s if the room is called while in 'Do-Not-Disturb'
[SOURCE_FOR_ROOM_X] (1 – 22)	A	Analog value routed to the matching input on the C2N-IADS.
[SOURCE_FOR_OUTPUT_X] (23 – 24)	A	Analog value routed to the matching input on the C2N-IADS.
[ROOM_X_SELECT_FEEDBACK] (1 – 22)	A	Analog feedback to the room select buttons on the touch panel. The modes are: 0 – Available – This room can receive calls 1 – Privacy – This room can receive calls 2 – Do-Not-Disturb – This room can receive calls 3 – Calling – This room is making a call 4 – Hands Free – This room has received a call while available or This room is listening to an audio source while available 5 – Door Bell – This room has received a call from a door station (C2N-IIF) 6 – Busy – Room is in a call 7 – Called/Privacy – This room was called while in 'Privacy' 8 – Called/DND – This room was called while in 'Do-Not-Disturb'
[OUTPUT_X_SELECTED] (23 – 24)	D	High if the output is in use
[INPUT_X_SELECTED] (23 – 30)	D	High if this room is listening to an audio source.
[CALL_INFO]	S	Serial text to be routed to the touch panel. This text will show call status.
CALL_GROUP_X_FB] (1 – 5)	D	High if a group call is being made. This signal will go low if a group call is answered.

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TO_CONTROL_MODULE\$	S	Serial string to the required C2N-IADS_C2N-IIF Interconnect Module v4.
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**PARAMETER:**

ROOM LOCATION	Decimal	This is the input on the C2N-IADS where this touch panel is connected.
ROOM TIMEOUT	Decimal	Time in seconds between the last press of the Push-To-Talk button and the system automatically ending the call. (Default is 90s)

**TESTING:**

OPS USED FOR TESTING:	3.154_0322
SIMPL WINDOWS USED FOR TESTING:	2.07.24
CRES DB USED FOR TESTING:	18.0.8
SYMBOL LIBRARY USED FOR TESTING:	381
SAMPLE PROGRAM:	Crestron Intercom System Demo v5.1

REVISION HISTORY:	<p>V5.1 Corrected logic for switching of an audio (listen only) source.</p> <p>V5 Changed string parsing routine to improve speed and reliability. Added Timeout parameter to end call automatically if EOT is not used. Changed Door Station audio parsing. See Door Station v5.umc help file for details.</p> <p>V4 Enabled the ability to allow touch panels to make or receive calls while listening to an audio source. At the end of the call, the previous audio source will be re-routed to the touch panel. Fixed code that would cause buffer, string or array overflow errors in SIMPL+. Added modes 7 &amp; 8 to the [ROOM_X_SELECT_FEEDBACK] (1 – 22) outputs to show the difference between a room in privacy and a room called while in privacy. Changed the [INPUT_X_SELECTED] (23 – 30) feedback to display properly. Changed the ROOM LOCATION parameter to use a pull down box of acceptable values.</p>
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