SIMPLWINDOWS NAME:	Clipsal Single Dimming Zone Control
CATEGORY:	Lighting
VERSION:	1.0
SUMMARY:	Controls a single dimming zone of Clipsal lighting.
GENERAL NOTES:	A Clipsal lighting system is divided into applications. You must define which application is being controlled using the APPLICATION parameter on the module. This parameter is a 2 digit hex number with no suffix. For example, for application 56 (decimal), use 38. For application 2, use 02.

In a Clipsal lighting system, multiple channels on multiple modules can be set to have a common "group" number. All channels with the same group number will behave as if they are the same zone. This module allows a single group number to be ramped up or down, or turned on or off. It also provides an analog output which can be routed to a bargraph display, to show the relative intensity of the light level. The group number must be entered as a parameter in the module, (GROUP). It is entered as a 2 digit hex number with no suffix. For example, for group 1, enter 01. For group 12, enter 0B. For group 20, enter 14.

Different fade times can be used. This module supports fade times of 0, 4, 8, 12, 20, and 30 seconds only. No other fade times will work properly. You must define as a parameter on the module, (RAMP-TIME), the fade time that you want to use for this zone. For 0 seconds, enter 0s. For 4 seconds, enter 4s, and so on.

This module will also track any activity that occurs on the defined group. So if the group level is changed from a Clipsal keypad, (instead of a Crestron panel), the Crestron system will track that activity, and update its bargraph as appropriate. Correct tracking should occur provided that the fade time for the group being adjusted is no greater than 30 seconds. Fade times greater than 30 seconds are not supported.

Although this module will track any activity on the Clipsal system, once the Crestron system is running, it cannot poll the Clipsal system for the current status. Typically this would only need to be done on startup of the Crestron system. The module CLIPSTA can be used for this purpose.

Commands cannot be sent from this module directly to the Clipsal system. They must first pass through the module CLIPPRO. This module will format time the commands to be sent, as per the requirements of the Clipsal system. In addition, commands cannot be routed directly from the Clipsal system to this module. They must first pass through the CLIPPRO module also.

Note that these modules require the use of Simpl+ modules (which are embedded inside of the modules). Therefore these modules can only be used with generation CNX systems.

CRESTRON HARDWARE REQUIRED:	CNXCOM, ST-COM
SETUP OF CRESTRON HARDWARE:	The port should be set as follows:

Baud Rate - 9600
Parity - None

Data Bits - 8
Stop Bits - 1

VENDOR FIRMWARE: 3.x3

VENDOR SETUP: A Clipsal PC Interface module must be used with firmware version 3.x3 or later installed. Also, the SETUP-CLIPSAL input on the CLIPPRO module must be pulsed before feedback will be processed correctly.

CABLE DIAGRAM: CNSP-121

CONTROL:

RAMP-UP	D	Press and hold to ramp the level up
RAMP-DOWN	D	Press and hold to ramp the level down
ON	D	Pulse to set the level to full on
OFF	D	Pulse to set the level to full off
FROM-CLIPSAL-PROC	S	Serial signal to be routed from the CLIPPRO module
APPLICATION	P	Specifies which application the selected group is on. Should be a 2 digit hex number with no suffix
GROUP	P	Specifies which application the selected group is on. Should be a 2 digit hex number with no suffix
RAMP-TIME	P	Specifies how many seconds will be spent when ramping from 0% to 100%. Valid values are 0s, 4s, 8s, 12s, 20s, 30s

FEEDBACK:

LEVEL	A	Analog signal representing the current level of the zone. Can be routed to a bargraph on a touchpanel
TO-CLIPSAL-PROC	S	Serial signal to be routed to the CLIPPRO module

OPS USED FOR TESTING:	5.09.07x
COMPILER USED FOR TESTING:	SimplWindows Version 1.30.01
SAMPLE PROGRAM:	CLIPTSTE
REVISION HISTORY:	None