

# **Paradox Security**

### **EVO, DigiPlex Security Driver**

#### **Compatible Control4 Systems:**

Designed to work with OS 2.10.6, 3.0+

### **Compatible Hardware:**

EVOHD, DigiPlex, PRT3, BUS2SER

Paradox Security

### Driver Download & Change Log:

Please visit https://www.drivercentral.io

#### **Documentation:**

https://drivercentral.io/platforms/control4-drivers/securitysystems/paradox-evo-and-digiplex-driver-v2/

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### Overview

Powerful integration between Paradox Security systems and Control4

### Features

- Reliable RS232 communication with Paradox (Does not use Cloud for communication)
- Arm, Disarm security system from any Control4 UI
- 4 and 6 digit codes supported

- Arm States: Stay, Away, Instant, Force
- Emergency Alarms: Police, Medical, Fire
- Arm or Disarm all partitions at the same time
- Zone, User and Partition labels are automatically downloaded into Control4
- Zone connections for each zone (192 zones total using the EVOHD panel)
- Driver Add Driver support for fast zone installation
- Integrate up to 8 partitions with a single integration
- Smart Notifications. Sends custom emails, text or push notifications for the following events
  - Armed (Customer)
  - Disarm (Customer)
  - Alarm (Service + Customer)
  - Trouble (Service + Customer)
  - Trouble Restore (Service)
- Utility key support (trigger events in Paradox from Control4)
- Virtual Input. Trigger virtual **zones** on the Paradox from Control4
- Alarm Lights Flash. Flash lights in the home when there is an alarm
- Designed for Dealers (Lots of extra events and actions for Control4 programming)

## License Purchase & Assignment

A single license will unlock as many instances of the driver as needed in your project. One instance of the Cloud Driver is required to activate all drivercentral licenses and trials. Here is a quick video that demonstrates the licensing process: <u>https://www.youtube.com/watch?v=xXiXleuk9bUl</u>

- 1. Create your project on the drivercentral.io website (this will generate a unique token used in the next step).
- 2. To download the driver, locate the downloads tab on the driver page on drivercentral.io. Once downloaded, unzip the file and add the driver to your drivers folder.
- 3. Install and activate the drivercentral's Cloud Driver in your project by pasting the previously generated token in your project. If there is no license

- associated with the project a trial will automatically activate so long as the driver has not been installed in the past on the controller.
- 4. To purchase a license, locate the driver on drivercentral.io website and add to the cart. Once checked out the purchased license will be found under available licenses in the projects portal.
- 5. Using the available licenses tool, add a license to activate the driver in that project.
- 6. Once the Cloud Driver checks in to the project (it does so once every hour) the driver will activate.
- 7. If needed, use the Cloud Driver's action "Check Drivers" to force the check in and activate the driver right away.

Your driver activation is now complete! You may now continue to Driver Setup. Further clarification with visual representation can be found in the articles on https://help.drivercentral.io/

https://www.drivercentral.io

# **Driver Setup**

- Setup PRT3/BUS2SER module in Paradox
- Change RS232 Baud Rate to 19200 (default is 9600)
- Connect a Straight-Thru Male -> Female cable to Control4 processor
  - **RS232 Settings** 19200, 8, none, 1, none

### Setup Paradox Via Keypad Programming

- Press and hold O
- Enter your installer code
- Enter 953 for DGP-848 or 4003 for EVO(96,192)
- Enter the required information
- Once in section programming
  - Enter 016
  - In this section only these numbers should be on: 1, 3 and 4
  - Press enter
  - Press Clear until out of paradox programming

#### Setup Paradox via Babyware Programming:

- Right-click on the PRT3 module and choose Properties
  - Select the Options Tab
  - Enable [016] 1 (Serial Port on/off)
  - Enable [016] 4 (Turn on Home Automation Protocol)
  - Set [016] 2/3 to 19200
  - Set [016] 5/6 to Ascii Protocol
  - Save Settings

### Setup Control4

- 1. Add driver to project
- 2. Set the following Properties
  - 1. Number of Zones in the project
  - 2. Number of Partitions in the project
  - 3. Number of Users in the project
  - 4. Set Quick Arm Enabled (if the panel has Quick Arm feature. default is No)
- 3. Make RS232 connection to panel
- 4. Driver will now download information from Paradox and configure system accordingly
- 5. Refresh Navigators
- 6. Test

# **Proxy Settings**

## **Security Partition Settings**

The Control4 system supports all 8 partitions. Each partition is a single Security keypad icon that can be shown/hidden per room.



Each partition keypad had the ability to arm, disarm, execute emergency actions and trigger specific functions. Click on the center circle to choose different arm settings or disarm the alarm. If Arming and *Quick Arm Enabled* is activated, the driver will imeditatebly try to arm the system when asked to arm. If not, the user will need to enter their 4 or 6 digit access code.



#### **General Partition Settings**

• **PartitionName** This is the name of the partition. By default the driver will use the name from Paradox. Dealers can change this by right clicking on the partition and choosing rename

#### **Options under Partition (System Design)**

• Allow remote Disarming If this box is not checked, remote devices such as phones or tablets will not be allowed to issue a 'disarm' command if they are

not on the same local network as the Control4 controller.

- **Default User Code** (optional) Code used in Control4 programming. Codes cannot be sent in Control4 programming.
  - We recommend creating a specific user *Control4 Programming* in the security system for this purpose.
- Fire Emergency Enabled Allows Emergency function to be triggered from Control4 UI.
  - Paradox: Sends Police (Sirens On) panic
- **Medical Emergency Enabled** Allows Emergency function to be triggered from Control4 UI.
  - Paradox: Sends Medical (Sirens On) panic
- **Police Emergency Enabled** Allows Emergency function to be triggered from Control4 UI.
  - Paradox: Sends Police (Sirens On) panic
- Panic Emergency Enabled Not enabled.

### Options under Driver Properties Partition Settings

- **Partition Zones** The zones that are part of this partition. List can be any combination of single zones or a group of zones
  - 1,2,3,4 valid single zones
  - 1-3,4,5-9,10 valid grouped zones
- Partition Exit Delay exit delay amount (default is 60 seconds)
- Partition Entry Delay entry delay amount (default is 30 seconds)
- **Partition Notify** List of possible notifications the driver can automatically send to customers and/or dealers *service*

Each Alert can have a message sent to the customer or service (or both) automatically. Dealers can default or turn off driver notifications via *Driver Actions: Turn Off all notifications and Default notifications* 

- ALARM When the partition goes into ALARM
  - default message: {{PartitionName}} is in {{PartitionState}} {{LastZoneName}}
    - Mi Casa is in Alarm Front Door

- Sent to Customer (push or email)
- Sent to Service (email)
- **ARMED** When the partition goes to an armed state (after any exit delay)
  - default message: {{PartitionName}} has been {{PartitionState}} by {{LastUserName}}
    - Mi Casa has been armed to instant by Contractor
  - Sent to Customer (push or email)
- **DISARMED** When the partition goes to a disarmed state
  - default message: {{PartitionName}} has been {{PartitionState}} by {{LastUserName}}
    - Mi Casa has been disarmed by Contractor
  - Sent to Customer (push or email)
- **TROUBLE\_START** When a trouble condition occurs
  - o default message: Security System Trouble: {{TroubleMessage}}
    - Security System Trouble: RS232 communication failed
  - Sent to Customer (push or email)
  - Sent to Service (email)
- **TROUBLE\_CLEAR** When a trouble condition clears
  - default message: Security System Trouble Clear: {{TroubleMessage}}
    - Security System Trouble Clear: RS232 communication restored
  - Sent to Service (email)

# **Security Zone Settings**

The driver supports all 192 zones from Paradox. Zones are pulled into paradox and the driver attempts to match *Zone Types* with zones names. Dealers will need to review the imported zones and verify naming and types **BEFORE** driver add driver.

The picture below shows a properly set up UI.

*Note*: The Room names match the **room name** the sensor driver is installed in.

*Note*: The sensor icon on the right matches the Zone Type setup under the Zones Properties section.

		Mi Casa		$\bigcirc$	
	Status	Zones	Settings		
EQUIPMENT ROOM					
Smoke Normal					$\langle \mathbf{P} \rangle$
KITCHEN					
Motion Normal					ŗ
LIVING					
Front Door Closed					ŀ
Back Door Closed					·

Below is the zones layout from the above picture.

System Design	Properties								
lystem	Properties								
~ ^ <b>v</b> Ø <b>?</b>	Partitions Zones								
⊟-🥝 New Project	# Name	Туре	State	Can Control					
🖻 😽 Home	1 Front Door	Exterior Door							
E Mouse	2 Back Door	Exterior Door	8						
🖨 🔁 First	3 Motion	Motion Sensor	•						
🖶 🐨 Equipment Room	4 Windows	Exterior Window		Ē					
Paradox Security	5 Zone 5	Unknown	ā						
- G Mi Casa	6 Zone 6	Unknown	ā	ā					
Area 2	7 Zone 007	Unknown		ň					
Area 3	8 Smoke	Smoke		ñ					
Area 4	o shoke	Smore	-						
Area 5									
Ama 6									
Ama 7									
	Advanced Properties								
Smoke	Properties Document	ation Lua							
Kitchen	G		<b>a</b>						
Motion	Cloud Status		Showroom Licen	se Activated					
Island Lights	Driver Chatve								
-Red TP	Univer status								
Intercom									
E-Villiving	Driver Version		20220416						
Back Door									
Windows	Driver Actions		(Select)						
- Erent Door									
Fover Light	Automatic Updates		Off						
🗄 🖶 Main									
	Debug Mode		On						

### Options for Zones on Panel Zones Section (Zone Properties)

Pro	ope	erties					Properties	Summary	List	View
Pr	oper	ties								
Pa	rtitior	ns Zones						C		0
	#	Name	Туре	State	Can Control	(D. 17				
	1	Front Door	Exterior Door			Panel Zol	ne into			
	2	Back Door	Exterior Door							
	3	Motion	Motion Sensor						L	
	4	Windows	Exterior Window			7.1				
	5	Zone 5	Unknown			Zoner	vame			
	6	Zone 6	Unknown			Front	Joor			
	7	Zone 007	Unknown			Zone 1	Гуре			
	8	Smoke	Smoke		U	Exterio	ar Door			
	-					Extend				
						Ca	n Control	Pulse Contro	d	
						- Hic	de From UI Screens	Chimes		
Lb.					-	Ca	ancel	Save	٦ C	
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- *Note* Reading from Panel (Download icon top right) will overwrite all previously modified settings...
- Zone Name The name of the zone. Pulled from Paradox on initial setup
- **Zone Type** The kind of zone. Driver attempts to pre-load this based on name of zone. Dealers may need to adjust this manually for complete installation.
- Can Control Creates a virtual relay binding for Control4 relay integration.
  Does not control relays on Paradox systems
- **Hide From UI Screens** Zone will not be displayed on Zones page of partition if checked
- Chimes Touchscreen will beep (chime) when this zone is opened

#### **Security Sensors**

Control4 dealers should add security sensor drivers for each zone on the security system. This allows for program actions off zone activation.

To have the driver try to add security sensors for you automatically

• Click on Driver Actions: Add Sensor Drivers

Manually Add a security driver

- Search for the security sensor in Composer
- Add to composer
- Bind to the proper zone connection
- Change name of sensor to the proper name

	Costalized					
10 (5 Hew Project	Concrete Papers				E	
🛍 🚭 Hone	Sets PO-222	Control	PS_232	POLE	EA-1+SEPIAL 1	
🛈 🍄 House	Control Outputs					
🔿 🐃 Main	Front Door Sensor	Control	CONTACT_SENSOR	Output	Front Door +Contact Sensor	
🗇 👿 Room	Back Door Sensor	Control	CONTACT SENSOR	Output	Back Doer : Contact Sensor	
0100 EA1	Durgeon Server	Control	CONTACT SENSOR	Cuput	Durgeon (Contact Sensor	
UCevice	Main Motion Sensor	Control	CONTACT SENSOR	Output	Main Motion (Contact Sensor	
L. Digital Media	Spare Zone Seneor	Control	CONTACT SENSOR	Output		
- Turein	El Mater Server Server	Control	CONTACT SENSOR	Connel	Weber Servers (Context Server)	
- 🛞 My Music	El Cas Cassos Cassos	Control	CONTACT SENSOR	Composi	Case of Castland Case of	
- My Movies	Casha Data ta Casar	Control	CONTACT CENCOR	Comput	Service of Contract Connect	
- III Stations	andra Calebo Serao	Contra	CONTRACT_SERVICE	Coupor	anana ruanaa saraa	
- Si Channels	30 Character Date	Control	CINEDRATION_UNIX	Corpor		
Paradox Security	Barras.					
- Content Door	CONTACT_SENSOR Hp.4 D	evices				
-La Back Door	Denice		Name		Location	Convectione
Dungeun	Ford Dear		Contact Server		Room	Paradox Security (Front Door Sensor
La Mari Mutan	Rack Deer		Contact Sensor		Raem	Paradox Seoutly Hack Door Sensor
trans person	Durgeon		Contact Sensor		Room	Paradox Security (Durgeon Sensor
	Man Maton		Contact Sensor		Room	Paradox Security-: Man Motion Senaor
Show	Water Serace		Contact Server		Room	Paradas Security (Water Senate Security
	Gas		Contact Sensor		Room	Paradox Security (Gas Server Server
	Stoke		Contact Sensor		Room	Paradox Security : Smake Detector Server

## **Security User Settings**

Users in System	8
Keyswitches in System	2
User Settings	(Select) ~
	(Select)
	0001: User Code 1
	0002: SPIDERMAN
Email: Service	0004: User Code 4
	0005: User Code 5
5 1 6 1	0006: User Code 6
Email: Customer	0007: User Code 7
	0008: User Code 8
Email: Subject	1001: Keyswitch 1
	1002: Keyswitch 2

Driver will download user label data from security system. When a user arm/disarm or performs a user event, the driver will the user\_name associated with that user number for alert messages

### Properties, Connections, Commands, Variables

#### **Driver Properties**

- Cloud Status: Displays driver license state
- Driver Status: Displays driver related information
- Driver Version: Displays driver version
- Driver Actions:
  - **Setup Connection**: Download zone and partition data from Security system. Does not download labels unless initial connection
  - **Check All Partitions**: Checks the status of the active partitions. Good for testing for communication between Security system and Control4
  - **Download User Labels**: Downloads the current user labels from the security system
  - Add Sensor Drivers: Adds sensor drivers to the room security panel is in and binds them automatically to the zones.
  - **Update Sensor Names**: Sets all connected sensor driver names to what is stored in driver.
  - **Test Push Notifications**: Sends a Push Notification for testing driver functionality.
  - **Test Service Email**: Sends test email from driver to email listed under *Email: Service*

- **Test Customer Email**: Sends test email from driver to email listed under *Email: Customer*
- Turn Off All Notifications: Disables all driver alert notifications.
- **Default All Notifications**: Defaults all driver alert notifications.
- Automatic Updates: Allows the 'Cloud Driver' to automatically update the driver when a new version is available
- **Debug Mode**: Displays additional information on the lua tab for debugging purposes
- Number of Zones: The total amount of zones in use on the panel.
- Quick Arm Enabled: Set to yes if the panel has been configured to support arming with a password
- Alarm Lights Flash: Sets which lights will toggle on/off/on during an Alarm (any partition)
  - *Note* Max lights flash time is 4 minutes.
  - Note Lights will toggle, wait 2.5 seconds, toggle
- Number of Partitions: The total amount of Partitions in use on the security system
- Partition Settings: Dropdown menu of additional settings for the partition
  - **Partition Zones**: The zones connected to this partition. Enter single zone numbers *1,2,3* and/or groups of zones *1-3*. Dealers can combine both input styles *1,2,3-5,6,7-9,10*
  - **Partition Exit Delay**: The amount of time (seconds) when the exit delay event happens *default: 60 seconds*
  - **Partition Entry Delay**: The amount of time (seconds) when the entry delay event happens *default: 30 seconds*
  - **Partition Notify**: Dropdown menu of the different notifications that are sent automatically by the driver.
    - Partition Notify Customer: Set Yes/No
    - Partition Notify Service: Set Yes/No
- Users in System: The total amount of users on the security system
- User Settings: Dropdown menu of current users in the system
  - User Name: Edit selected user. Note: This does NOT update the name on Paradox.

#### **Composer Commands**

#### **Partition Functions**

- Arm Driver will attempt to arm the security system using the Alarm code stored in *DEFAULT\_CODE*.
- **Disarm** Driver will attempt to disarm the security system using the Alarm code stored in *DEFAULT\_CODE*.
- **Emergency** Driver triggers the panic command on the security system.
- Execute Function
  - Check Status requests the current partition status of the panel.
  - **Arm All** Will attempt to arm each partition in succession using the partitions stored *DEFAULT\_CODE*.
  - **Disarm All** Similar to *Arm All* except will attempt to disarm partitions.
  - **Utility Key** Used to trigger a Paradox Utility key.
  - **Clear Troubles** Used to clear any troubles registered to the driver. This DOES NOT clear troubles on the Security system and normally not used.

#### **Custom Composer Commands**

- PRESS\_KEY: Sends a specific keypad key to the driver. Legacy feature. DO NOT USE
- **VIRTUAL\_INPUT**: Triggers a virtually created input on the security system.
  - Input 1-16
  - Open, Close
- **UTILITY\_KEY**: Triggers a Utility key action on the security system
  - Key 1-252
- **SMOKE\_RESET**: Performs a smoke detector power reset on the security system
  - Smoke Partition 1-8
- ADV\_CMD: Sends a RS232 message to the Paradox system. Carriage return \r is added to end of the string
  - CMD (string). Example: **RA001** would request partition 1 status

#### **Composer Variables**

#### Main Driver Variables (Panel Proxy)

- **TROUBLE\_TYPE**: (string) last trouble text
- LAST\_TROUBLE\_ID: (string) The last trouble identifier
- DeviceConnectionStatus: (string) The polling status of the driver (Online, Failed to Check In, Stopped)
- LAST\_DOOR\_EVENT: (string) The last door style event
- **LAST\_DOOR\_USED**: (string) the last door name that an event happened on
- **LAST\_PGM**: (number) the last pgm that was triggered
- LAST\_USER\_EVENT: (string) Last User event that happened. Entered Code, Access Granted, Access Denied
- LAST\_USER\_NAME: (string) The last user that accessed the system.
- LAST\_USER\_NUMBER: (number) The last user id that was used to access the system
- UtilityKeyReceived: (number) the last utility key that was triggered
- **ZoneInAlarm**: (number) The the zone that caused the alarm. *Note* Not partition specific

#### **Partition Variables**

- ALARM\_STATE: (bool) Partition is currently in an ALARM state
- **ALARM\_TYPE**: (string) The kind of alarm {{AlarmTypes}}
- **ARMED\_TYPE**: (string) The kind of armed type (Instant, Force, Away, Stay)
- AWAY\_STATE: (bool) Partition currently in away state
- **DELAY\_TIME\_REMAINING**: (number) Amount of seconds left in exit/entry delay
- **DELAY\_TIME\_TOTAL**: (number) Amount of seconds for total exit/entry delay running
- **DISARMED\_STATE**: (bool)Partition is currently disarmed and not in alarm
- DISPLAY\_TEXT: (string) Current text displayed below arm/disarm widget on UI
- **HOME\_STATE**: (bool) Partition is currently armed to Stay
- **IS\_ACTIVE**: (bool) Partition is Online and working
- LAST\_ARM\_FAILED: (string) The last arm attempt that failed
  {{PartitionStates}}
- **LAST\_EMERGENCY**: (string) The last emergency {{EmergencyTypes}}

- **LAST\_ZONE\_FAULTED**: (string) The last zone name that was faulted (triggered)
- **OPEN\_ZONE\_COUNT**: (number) The current amount of zones open on this partition
- **PARTITION\_STATE**: (string) The current partition state {{PartitionStates}}
- **TROUBLE\_TEXT**: (string) The current trouble reported on this partition

## **Email/Text Notification Settings**

Events have the ability to send customized email, text and push notifications to certain groups of people. The properties listed here set those groups for easier programming.

- Email: Service: This property is intended to send an email to the installer or dealership of the project.
- Email: Customer: This property is for the customer. When a message is sent the subject line will come from the property *Email: Subject*
- Email: Subject: This property is the subject line of the email (or push notification subject line). When the driver will build this subject line based on the following criteria:
  - When first loaded the driver will scan the project and look for another driver with the property *Email: Subject* and if found will use what is already being used
  - If no driver is found with *Email: Subject* the driver will use the zipcode of the project [CITY] Smart Home. Example: Denver Smart Home
  - If the driver cannot find a city the subject line will default to: My Control4
    Smart Home

### Locales

This driver has been designed to work with multiple Locales. Dealers should use the driver file for their locale.

Driver filename: paradox\_security\_rs232\_locale.c4z

The following locales are supported: \* English: paradox\_security\_rs232\_en.c4z

#### **Partition States**

- PartitionStates: Disarmed, Instant, Force, Stay, Away
- AlarmTypes: Strobe, Fire, Alarm
- EmergencyTypes: Police, Medical, Fire

### **Dealer Notes**

- The Paradox API does not support Bypassing.
- Paradox does not support triggering PGMs directly. Dealers can use Utility Key programming and/or Virtual Input triggering for PGM execution

### Upgrading from 1026 or older

- Add new driver *paradox\_security\_rs232\_en.c4z* to project
- Wait 10 seconds
- Remove new driver
- At the top of Composer click
  - Driver
  - Manage Drivers and Agents
    - Find the Obsolete driver Paradox EVO RS232 V2 Proxy.c4z
    - Right click and Choose Update
    - Choose Replace Obsolete driver
  - Reboot Director. You MUST Reboot director before making any other changes
- Driver has now been migrated to the new driver format

## **Showroom and Free Trial**

All Cindev drivers for Control4 come with a 7-day trial. Simply add the DriverCentral licensing driver, *Cloud Driver*, along with this driver and you can fully test the driver before purchasing. Including Cindev drivers in your DriverCentral showroom project will give you unlimited use without purchase.

# Support

If you require additional driver assistance or are having some issues please visit our help desk: https://help.drivercentral.io

# Warranty & Disclaimer

### **Developer Information**

brought to you by: Cinegration Development, LLC



<u>www.cindev.com</u> <u>www.drivercentral.io/cindev/</u>

We are always looking to improve our drivers. Please send your suggestions to: info@cindev.com