Actiontec zControl
User Manual

Table of Contents

1 Introduction

This manual will guide the user through the setup of the Actiontec zControl, our new home monitoring and home control system.

Make sure to read all instructions before proceeding with the installation.
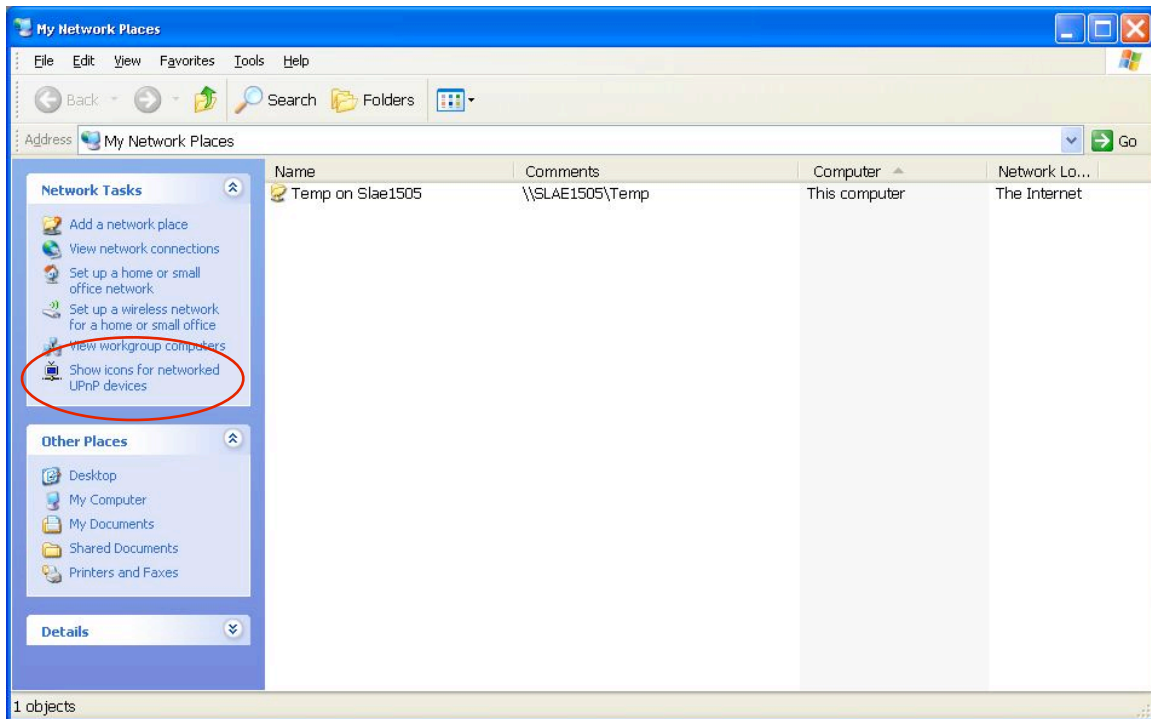

This manual assumes all of the instructions in the Quick Start Guide have been completed. If not, get the Quick Start Guide and follow the instructions.

- Theses steps should be completed before proceeding:
- zControl is powered up and connected to the local network.
- Online registration with the Portal Server has been completed and zControl has been activated.

2 Accessing the User Interface (UI)

UPnP Configuration

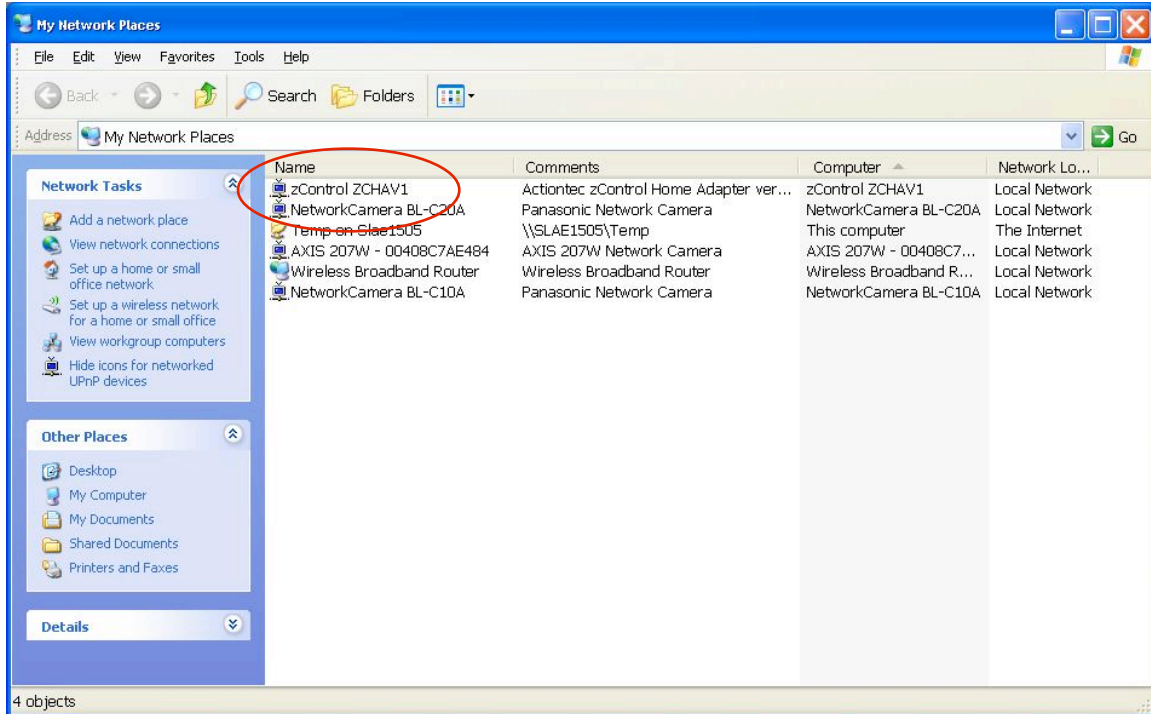Once zControl is turned on and connected to the network, it should appear automatically as a UPnP (Universal Plug-and-Play) device. To confirm that UPnP is enabled in the computer, select **My Network Places** via the "Start" menu or click the associated icon on the desktop. If the text in the left panel reads "Show icons for networked UPnP devices" (circled in the figure below), click to activate.

With UPnP is enabled, zControl will show up in the list as "zControl ZCHAV1" (circled below):

Double-click **zControl ZCHAV1** to access the user interface (UI). The computer's default web browser launches and displays the zControl UI. Bookmark this page in the browser to speed up access to the zControl UI in the future.

Alternate Methods for Accessing the zControl UI

In addition to the list of UPnP devices, the UI can be accessed two other ways:

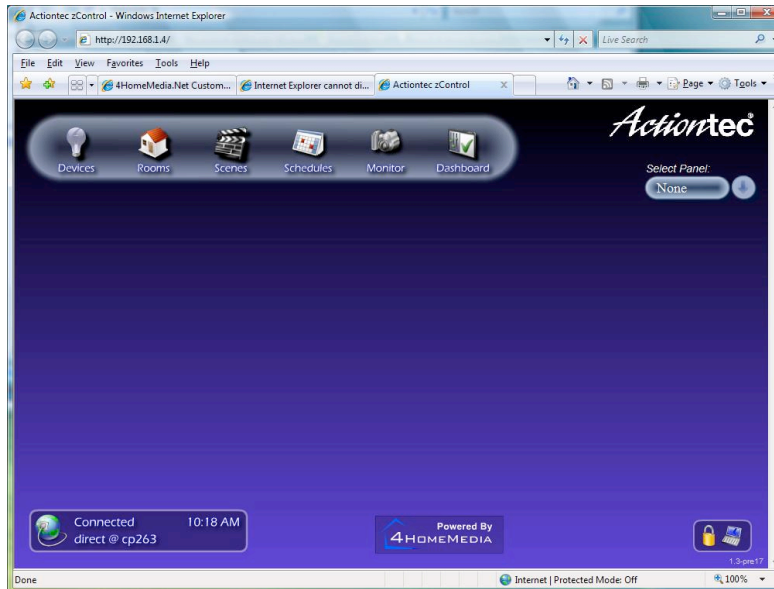- Go to http://www.digitalgardeneronline.com/zControl and enter the login name and password. Use this method to access the UI from any computer and many mobile devices (see page 9 for more information about remote access).

- Obtain zControl's IP address from the router's list of attached devices. Then, enter the IP address into the browser's address bar to access the UI from any computer on the network.

3 Basic UI Features

This chapter familiarizes the user with the basic features and elements of the UI.

Home

This is the screen that appears when the UI is first opened.

Login

In the bottom right corner of the Home screen are two icons. The "Login" icon (see figure on the left) prompts the user to enter the PIN (or to initially set up the PIN, if it hasn't yet been set). Entering the correct PIN activates "Administrator Mode," which allows the user to access many of the UI's advanced features..

Settings

Next to the Login icon is the "Settings" icon (see figure on the left). Clicking it allows the user to select the UI's language, and to select whether to use Celsius or Fahrenheit for temperature displays. Clicking Settings while in Administrator Mode allows the user to make additional changes.

Devices

Near the top of the Home screen is a row of six icons. The first one on the left is the "Devices" icon. Clicking on it generates a list of all of the devices zControl has discovered.

Rooms

Next is the "Rooms" icon. After a few devices have been configured and discovered, clicking Rooms will allow the user to organize those devices into groups according to their locations. For more information, see page 15.

Scenes

The next icon is "Scenes." Scenes is an advanced feature which allows the user to control groups of rooms and devices simultaneously. For more information, see page 16.

Schedules

The "Schedules" icon is next. Like the lists of devices, rooms, and scenes, the list of schedules is initially empty. Schedules allows the user to automate home control. For instance, zControl can automatically turn on the lights in the living room at 6 o'clock every evening. For more information, see page 17.

Monitor

After Schedules is the "Monitor" icon. After installing one or more cameras, clicking Monitor allows the user to view and control the camera(s), cycle through camera displays, and create, watch, and delete recordings.

Dashboard

The last icon is "Dashboard." Dashboard allows the user to view and control Devices, Rooms, Scenes, and Schedules on a single screen. In addition, the "Messages" window is displayed here. The Messages window displays changes in the status of zControl, as well as attached devices.

4 Remotely Accessing the UI

This chapter covers accessing zControl from remote locations, using either computers or mobile devices such as cell phones.

Remote Access From a Computer

To access zControl from any computer, open a browser window and enter http://www.digitalgardeneronline.com/zControl in the Address bar. A prompt appears, asking for the login name and password. Once logged in, everything is exactly the same as the UI accessed through the list of UPnP devices.

Remote Access From a Mobile Device

The following sections explain how to access zControl from a mobile device.

Downloading the UI to a Mobile Device

Any smartphone running the Windows Mobile operating system can access the UI. To set up the UI on a smartphone:

1. Open a browser on the smartphone and go to http://www.digitalgardeneronline.com/zControl.

    ➡ *Note*: If the cell phone number was not entered when registering online, do it now to download the UI onto the smartphone. Click **Edit Personal Info** and enter the number into the "Cell phone:" field, then click **Update**.

2. Select the "Products" tab. Click the radio button for zControl, then click **Get Mobile UI**. Click **OK** when asked for permission to send an SMS to the cell phone number entered earlier.

3. When the SMS is received (this may take several minutes), it will contain a link. Open the link on the smartphone and automatically download the UI. It will also download Adobe Flash Lite if it is not installed already. Confirm the installations, if prompted.

4. Whenever a mobile UI upgrade is available, the smartphone will receive another SMS with a link. Open the link to upgrade the UI automatically.

Using the Mobile UI

After downloading the UI, a "Hydrogen" icon is added automatically to the smartphones's main screen. Clicking the icon activates the mobile UI, and a prompt appears, asking for the login name and password.

The mobile UI has a similar look and feel to the regular UI. It can perform nearly all of the same functions. These include:

- Viewing and controlling Devices and Rooms
- Viewing and running Scenes
- Viewing Schedules
- Changing Settings and managing Messages

5 Installing Z-Wave Devices

There are many different kinds of Z-Wave devices, including lamp modules, thermostats, motion detectors, blinds/shades, fans, and appliance modules. To install a Z-Wave device:

1. Plug in the Z-Wave device within three feet of zControl.

2. Press the "Z-Wave" button on the side of zControl. The "Activity" LED will begin slowly blinking green.

3. Push the button on the Z-Wave device (labeled "On/Off," "Service," "Program," or something similar).

4. When the Activity LED illuminates or blinks green rapidly, the Z-Wave device has been successfully added.

5. If the Activity LED blinks red slowly three times, the Z-Wave device has not been successfully added. Go back to step 1 and repeat the procedure.

6. Repeat steps 1 through 4 for each Z-Wave device.

7. Unplug the Z-Wave devices and plug them in their intended locations (other rooms, etc.).

8. Open the zControl UI.

9. Turn on Administrator Mode (clicking the Login icon in the bottom right corner, then entering the PIN)

10. Click the Settings icon.

11. Click the "Z-Wave" icon.

12. Click .

13. Click **Devices**. The list should now include the Z-Wave devices.

> ➡ *Note*: If a Z-Wave device is unplugged (to move it to another location, for example) after completing this procedure, the device must be rediscovered (steps 8 - 12 in the above procedure). If the device is not rediscovered, repeat entire the installation procedure.

6 Installing Home Monitoring Devices

Installing Motion Detectors

To install a motion detector (including the CA9000, which is included with zControl), follow the instructions in chapter 5 ("Installing Z-Wave Devices"). Additionally, after installing the CA9000, click the "*" button on the bottom right of the front of the device (circled in the figure below) to activate motion control.

Configuring the CA9000

The CA9000 motion detector has a 5-position switch on the bottom of the unit that determines how quickly it responds to the absence of motion.

Setting the switch to the position closest to the power connector jack (as shown in the figure below) puts the CA9000 into "Manual Off Mode." In Manual Off Mode, the CA9000 turns on when it detects motion and remains on until manually turned off.

Moving the switch away from the power connector jack will put the CA9000 into either a 15-minute delay, 10-minute delay, 5-minute delay, or "pulse mode" (the pulse mode position is shown in the figure below), depending on the switch's position.

When set to pulse mode, the CA9000 will turn off approximately 5 seconds after it stops detecting motion. Pulse mode is recommended.

Installing UPnP Cameras

UPnP (Universal Plug-and-Play) cameras are automatically detected by zControl once they are on the network. Consult the camera's documentation to set it up and configure for network access. It will appear in the Device listing, as well as the "Cameras" screen on the Monitor and Dashboard.

Panasonic BL-C10A Camera Setup

Although the Panasonic BL-C10A is a UPnP camera, it typically ships with UPnP turned off. To set it up with UPnP enabled:

1. Plug in the camera's power jack and Ethernet cable. If 20 minutes have passed since the camera was initially plugged in, unplug it and plug it in again.

2. With a pen or pencil, press the **Factory Default Reset** button on the bottom of the unit.

3. Insert the camera's CD into a computer on the same network as the camera. The "Setup.exe" program launches.

4. Click **Camera Setup**. After a moment, an "Easy Setup" dialog appears.

5. Select the entry in the Easy Setup dialog and click **Execute**.

6. Select **Automatic Setup**. The "Security Administrator" screen appears.

7. Choose an administrator name and password for the camera, then click **Save**.
   A dialog asking for the camera's username and password may appear. If this occurs, enter the requested information, select **Remember my password**, then press **OK**.

8. The camera's UI appears, with the camera image displayed.

9. Select the "Setup" tab at the top of the page, then click **DHCP**. At the bottom of the "DHCP" screen, click **Save**.

10. Make sure the camera is UPnP enabled, and access by guest users is permitted.

11. Close all setup software, including the browser, and restart the camera by unplugging it and plugging it back in.

Installing Non-UPnP Cameras

To install a non-UPnP camera, refer to its documentation to issue it an IP address and configure it for network access. Once on the network, the camera will be detected automatically by zControl and appear in the Device listing, as well as the Cameras screen on the Monitor and Dashboard.

➡ *Note*: Some cameras require the user to enter a username and password. Consult the documentation of such cameras to learn how to set them to allow anonymous access. Once they've been set to be accessible anonymously (without entering a username and password), they will appear in the Device listing, as well as the Cameras window on the Monitor and Dashboard.

7 Advanced UI Features

This chapter explains how to use the advanced features of zControl.

Device Management

Open the UI and click the "Devices" icon. Clicking on any device in the list allows the user to focus on that device. In Administrator Mode, devices can be renamed (it is recommended to give each device a unique name). Focusing on a device brings up a different set of options, depending on what kind of device it is. For example:

- Focusing on a lamp allows it to be turned on/off, and its level of brightness set (0% – 100%).

- Focusing on a thermostat allows access to its temperature controls.

- Focusing on a camera allows the user to see the camera's feed, and, depending on the camera model, control other features, such as pan, tilt, and zoom.

- Focusing on a motion or occupancy detector allows triggering (see "Triggers" on page 19).
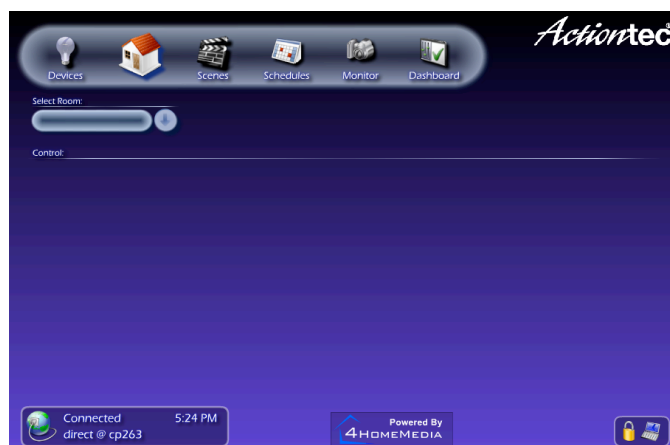
Rooms, Scenes, and Schedules

Rooms, **Scenes**, and **Schedules** are some of the most useful and powerful features of zControl. These features allow the user to control devices in the home by location, situation, and/or time.

Rooms

Organizing devices into "Rooms" makes it easier to find and control any device. To create a Room:

1. Activate Administrator Mode.

2. Click the "Rooms" icon.

3. Click the "Rooms: Add" icon and enter the new Room's name.
4. Click the "Devices: Add" icon and select at least one device from the list.
   - The pull-down menu can display only one type of device at a time.
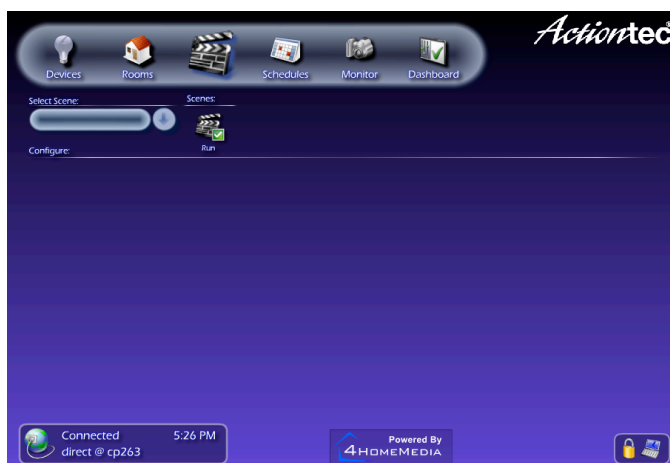   - Control-click or shift-click to select multiple devices at once.

When adding a device to a Room, that device will appear in the listing under the "Room" name. Clicking on any device in the listing focuses on that device. Note that in Administrator Mode, the user can add or delete a Room, edit a Room's name, or add more devices to a Room.

Once two or more Rooms are set up, choose which Room to display from the pull-down menu.

Scenes

Creating "Scenes" allows control of Rooms and/or groups of devices with the push of a button. To create a Scene:

1. Activate Administrator Mode.
2. Click the "Scenes" icon.

3. Click the "Scenes: Add: icon and enter the new Scene's name.
4. Click the "Devices: Add" icon and select at least one device from the list.
   - Select a Room to add all of the devices in the Room at once.
   - The pull-down menu displays only Rooms or only one type of device at a time.
   - Control-click or shift-click to select multiple devices or Rooms at once.

When adding a device to a Scene, that device will appear in the listing under "Scene." Clicking on any device in the listing focuses on the device. Rather than controlling a device's current state, focusing on a device while editing a Scene allows it to be set to its Scene state. When a Scene is activated, all devices in that Scene immediately switch to their Scene states.
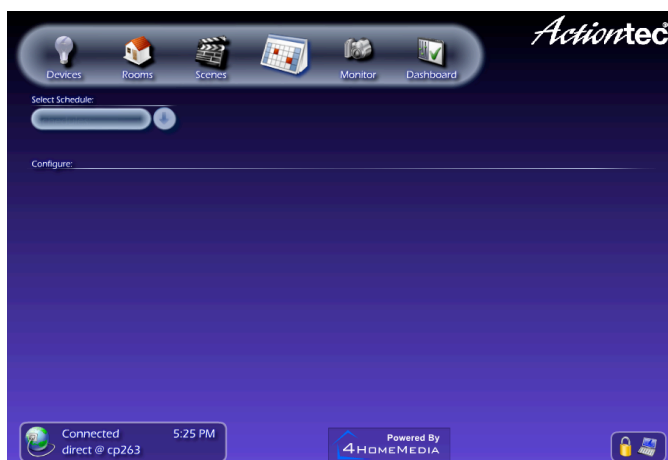
For example, a Scene is created named "Wake up!" In this Scene, all of the lights in a particular bedroom will be turned on at 100% brightness, and the radio will be turned on. To activate the "Wake up!" Scene, open the zControl UI, click the Scenes icon, select "Wake up!" from the pull-down menu, and click **Run**. The Scene runs, and the lights and radio turn on.

A Scene can be run at any time. Note that the user must be in Administrator Mode to add or delete a Scene, edit a Scene's name, or add more devices to a Scene.

Schedules

"Schedules" allows any Scene to automatically run at a predetermined time. To create a Schedule:

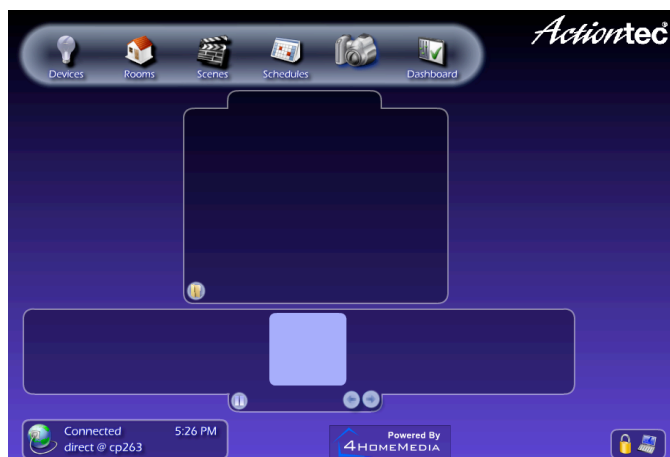1. Activate Administrator Mode.
2. Click the "Schedules" icon.

3. Click the "Schedules: Add" icon.
4. Enter the new Schedule's name and set the days and time of day to run the Scene.
5. Click the "Devices: Add" icon and select at least one device from the list.
   - Select a Scene to add all of the devices in it; adding a Scene will automatically import the Scene states of all of the devices in it.
   - The pull-down menu displays only Scenes or one type of device at a time.
   - Control-click or shift-click to select multiple devices or Scenes at once.

As with Scenes, a device's Scene state can be changed by focusing on it from the "Schedule" listing. The user must be in Administrator Mode to add or delete a Schedule, edit a Schedule's name or time settings, or add more devices or Scenes to a Schedule. Click **Run** to test the Schedule's behavior.

Monitoring

Clicking the "Monitor" icon generates two panes. The top pane displays whatever the selected camera currently sees (the camera's "feed") and is labeled "Display." The bottom pane shows thumbnails of the other cameras' feeds, and is labeled "Filmstrip."

Filmstrip Pane

Clicking on any thumbnail in the "Filmstrip" pane selects the associated camera and display its feed in the "Display" pane. At the bottom of the Filmstrip pane are three buttons: a left arrow, a right arrow, and a "Play" button. Clicking the left or right arrows selects the thumbnail next to currently selected camera. Clicking **Play** automatically cycles through the camera displays until **Pause** is clicked.

Display Pane

If the camera has features like pan, tilt, and zoom, they can be controlled from the "Display" pane.

Using Record or Archive with External Storage Devices

At the bottom of the Display pane is a "Record" button and, in the bottom-left corner, an "Archive" button. If there is no USB memory stick or other external USB storage device plugged in to zControl (via the USB port on the back of the zControl unit), these buttons are inactive. If a storage device is connected (indicated by the illuminated green USB LED on the front of the zControl unit), clicking **Record** records video from the camera to the storage device. Clicking **Archives** generates the "Archives" pane, which contains a list of previously recorded videos. These recordings can be viewed at any time using the Archives pane. To delete recordings, the user must be in Administrator Mode.

Triggers

Triggers are one of the most powerful features of zControl. Setting up triggers allows changes in a motion or occupancy detector's state to "trigger" any of zControl's other functions. For example, a light can be set to turn on whenever motion or occupancy is detected in the room.

To set up a trigger, focus on a motion or occupancy detector through the Device listing. A pane appears with one or more Rules listed. To edit an existing Rule, click on it. To create a new Rule, click **Add**. A Rule consists of two parts:

1. The first part is the trigger. A motion or occupancy detector has two possible states: "motion/occupancy detected"; and "no motion/occupancy detected." Either state can act as a trigger.

2. The second part is the triggered behavior. A triggered behavior can be anything from a device turning on or off to an entire Scene being run.

   • To trigger both the lights turning on and a camera starting to record from a detected motion, two separate Rules must be created. A Rule can only control one behavior.

   • It's often a good idea to create two "opposite" Rules. For example, if one Rule turns on a lamp when occupancy is detected, create another Rule that turns off the lamp when no occupancy is detected.

Each motion or occupancy detector can have any number of Rules.

Controlling Multiple zControls

This section describes how to control multiple zControl units. Note that before controlling additional zControls, they all must activated online.

Activating Additional zControls Online

To activate additional zControl units online:

1. Open a browser and go to http://www.digitalgardeneronline.com/zControl.

2. Enter the username and password used when registering zControl to access the profile.

3. Click **Activate ControlPoint** in the menu on the left, and enter the new zControl's information.

Multiple zControls on a Single Network

After activating additional zControls, they'll automatically appear on their local networks. If there are multiple zControls on one network, all of them will appear in the list of UPnP devices. They will also all be accessible by typing their IP addresses into the browser's Address field.

➡ *Note*: If the local network does not have a DHCP server, every additional zControl will default to the same IP address (192.168.1.55). Because two devices on one network cannot have the same IP address, manually issue each zControl a different IP address before connecting more zControls.

Multiple zControls on Multiple Networks

If there are multiple zControls on multiple networks (for example, one in the home and another in the office), only the ones on the local network will appear in the list of UPnP devices, accessible by typing their IP addresses into a browser's Address field. The zControl units on other networks are only accessible remotely. To access them:

1. Enter http://www.digitalgardeneronline.com/zControl in a browser's Address field.
2. A prompt appears, asking for the username and password. Enter the requested information.
3. Another window appears, with a list of all active zControl units. Click on on one of the units, then click **Select**. The UI associated with that unit appears.
4. To access a different zControl unit, open a new browser window and repeat steps 1–3.

8 Additional Suggestions

zControl is both flexible and powerful. Below is a list of some of the different ways to monitor and secure a home or office using zControl

- For home security, set up a trigger that causes the lights to turn on and camera(s) to start recording in a particular room when motion/occupancy is detected.
- Create a Schedule that turns on a coffee-maker or electric teakettle so that it's ready when in the morning or when coming home from work.
- To conserve energy, create a Schedule that turns off all of the lights and devices in the home after everyone is asleep.
- For home security, create Schedules to turn lights on and off at various times while away to create the impression that someone is home.
- Turn off the kids' computer or television for a certain period of time to help them get their homework done on time.
- Using remote cameras, monitor the home while at work.
- Set up a zControl in the home of an elderly family member for unobtrusive monitoring.

9 Regulatory Compliance Notices

Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by implementing one or more of the following measures:

- Relocate the unit and antenna (built-in).
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or experienced radio/TV technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Actiontec Electronics, Inc., may void the user's authority to operate the equipment.

Declaration of conformity for products marked with the FCC log – United States only.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interferences.
2. This device must accept any interference received, including interferences that may cause unwanted operation