



# QxControl™ User Manual

Version 5.1



©2024 Qumulex, Inc. QUMULEX, the QUMULEX logo, the Qx logo, QxCONTROL, QxLINK, QxSTATION, QxPOWER, QxAGENT, and QxAPI are trademarks of Qumulex, Inc.

This document has been compiled using specifications available at the time. The contents of this document, as well as features and specifications contained herein, are subject to change without notice.

Qumulex, Inc.  
qumulex.com

Version 5.1  
2024-03-06



## Table of Contents

Getting Started .....	8
Logging in For the First Time.....	8
Common First Time Log in Issues .....	12
Logging in For the First Time: From a Mobile Device .....	13
Using the application .....	18
Simple to use .....	18
Navigating QxControl .....	19
Search Bar .....	19
Administrator Specific Settings .....	20
Privacy Controls .....	20
Global Two Factor Authentication .....	22
User Menu .....	23
User Settings Menu.....	23
User Settings Menu: Device Settings .....	24
User Settings Menu: Device Settings (Advanced Options) .....	25
User Settings Menu: Your Profile .....	27
User Settings Menu: Authentication (Global Sign Out) .....	28
User Settings Menu: Authentication (2FA) .....	30
User Settings Menu: Removing (2FA) .....	33
User Settings Menu: Offline Access .....	34
User Settings Menu: Offline Access Network Configuration .....	36
Scope Selector .....	37
Cloud Status Icon .....	38
Navigation Menu/Hamburger Icon .....	39
Card View/List View Buttons .....	39
Adjusting for Optimal Viewing .....	40
Adjusting the Browser Resolution .....	40
Adjusting the Browser Size .....	41
Adjusting the QxControl View .....	41
Installing the Browser Extension .....	42
Updating the Browser Client.....	45
Best Practices for Mobile Operation .....	46
Mobile Device Compatibility .....	46

Using Mobile Layouts & Stacked View .....	47
iOS Performance Settings (Selecting Number of Workers) .....	51
PWA-Specific Considerations .....	55
Application Areas .....	57
Live .....	57
Live Actions .....	57
Live Actions: Full Screen .....	58
Live Actions: Mechanical PTZ Control .....	58
Live Actions: Mechanical PTZ Presets .....	61
Live Actions: Digital PTZ .....	63
Live Actions: Onscreen Display .....	65
Live Actions: Save Settings (Onscreen Display Settings) .....	66
Live Features .....	69
Live Tray: Widgets Tab .....	69
Widgets Tab: Cameras .....	70
<i>Widgets Tab: Doors</i> .....	71
<i>Widgets Tab: Other</i> .....	73
<i>Arrange Widgets</i> .....	75
<i>Cycle Cameras</i> .....	76
<i>Loading Widgets on a Mobile Device or Touch Screen</i> .....	77
Live Tray: Layouts .....	78
Live Tray: Views .....	79
<i>Live Tray: Create a Saved View</i> .....	79
<i>Live Tray: Edit a Saved View</i> .....	80
Video Borders .....	81
Timeline .....	82
Basics of Timeline: Choosing a Camera and Filters and using the Player Functions .....	82
Basics of Timeline: Changing the Time Scale in the Timescale Graph .....	89
Basics of Timeline: Using the Legend .....	90
Basics of Timeline: Creating and Exporting Clips .....	91
Search .....	95
Search Actions .....	95
Search Settings .....	97
<i>Health Events</i> .....	97
<i>Auto Play</i> .....	97

<i>Search All Tags</i> .....	99
<i>Search Via Tag Filters</i> .....	102
<i>Tag Filter Categories</i> .....	103
<i>Time-Based Searches</i> .....	104
<i>Creating and Using Saved Searches</i> .....	105
<i>Playing Video Clips</i> .....	106
<i>Saving Video Clips</i> .....	107
Saved Clips .....	111
Managing Clips .....	112
Sharing Clips .....	116
Viewing Shared Clips .....	119
Clip Storage .....	121
Clip Storage for QxOP Licenses (On-Premises) .....	124
Rules .....	125
Rules: Rule Info Fields .....	125
Rules: Triggers .....	126
Rules: Guards .....	131
Rules: Actions .....	133
Rules: Editing and Managing Rules .....	136
Rules: Info Page (Continued) .....	138
Rules: Understanding Trigger Condition Options .....	142
Reports .....	148
User Activity Report .....	151
Door Activity Report .....	151
User List Report .....	151
Exporting Reports .....	152
Places .....	153
What is a place? .....	153
There are four types of places .....	153
Examples .....	153
Scope .....	155
Places Actions Menu .....	155
Places: Create Place Menu .....	156
Creating a customer .....	157
Rules for Creating a Customer .....	158

Editing Places: Place Dragging.....	158
People.....	159
Person Info and Actions .....	160
Edit Person .....	161
Creating a Person .....	162
Groups .....	165
Permissions.....	169
Roles .....	172
Creating Custom Roles .....	174
Gateways .....	177
Gateways: Networking Tab & Scheduling Bandwidth Throttling .....	181
Gateways: Discover Devices .....	188
Cameras.....	194
Adding and Managing Cameras .....	194
<i>Cameras Page: Card View</i> .....	195
<i>Cameras Page: List View</i> .....	196
<i>Camera Info Page</i> .....	197
<i>Camera Settings Page</i> .....	199
<i>Edit Camera Page</i> .....	200
Choosing Continuous or Event Based Gateway Recording .....	201
Adding and Using Fisheye Cameras.....	202
Doors .....	205
Adding Axis Door Controllers.....	206
Adding Axis Doors .....	208
Adding Mercury Controllers and SIO Modules.....	215
Adding Mercury Doors .....	221
Adding and Using Aperio Doors – Axis Door Controllers.....	230
Operating Doors from Doors Main Page .....	231
Operating Doors from an Individual Door Page.....	235
Using Lockdown in QxControl.....	244
Single-Door Lockdowns .....	244
Scope-Level Lockdowns .....	246
Lockdowns: Places Page .....	248
Retention of Access Control Activity .....	249
Views .....	250

Schedules.....252

Holiday Sets .....261

Appendix.....264

Links to more information about the Axis Door Controllers.....264

Links to more information about Qumulex .....264

## Getting Started

If you have not yet initialized your Gateway or created users, please refer to our Quick Start Guide before continuing. This guide is available to our authorized partners in the Qumulex Partner Portal, in the “Docs” folder.

Once you are ready to start using QxControl, click on the link in your welcome email, or the application can be accessed via the following URL:

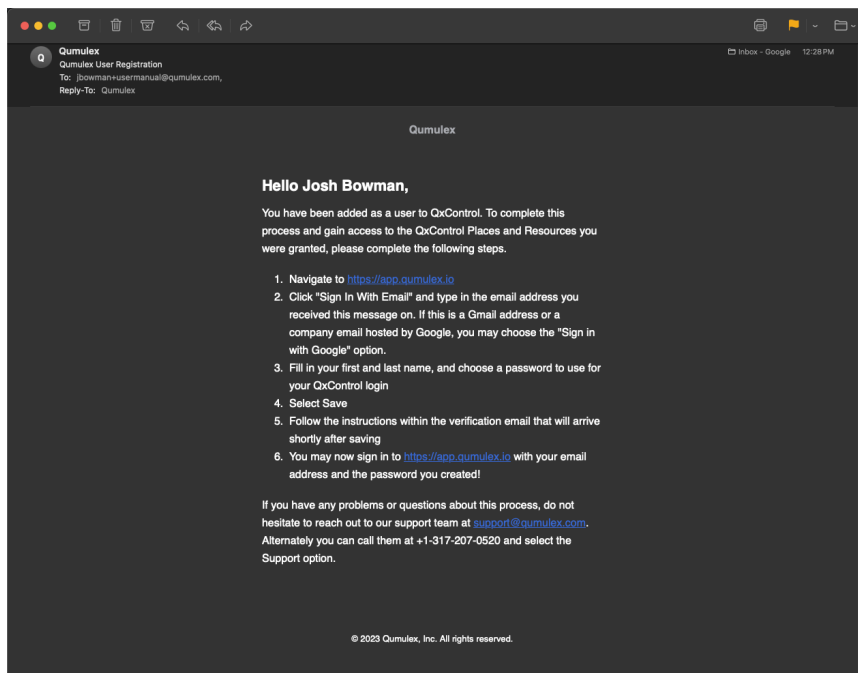
<https://app.qumulex.io>

QxControl is flexible and easy to use, almost any modern browser will work with our application and will provide the same experience on both Mobile and Desktop devices. You can use a Windows, Mac, Chrome OS, or Linux based Operating Systems without any significant change to your experience. For mobile devices, both Android and iOS are supported.

Please Note: Older/Legacy Active-X based browsers, such as Internet Explorer, are not able to work with the modern JavaScript needed to build the QxControl user experience. In the example of Internet Explorer, its replacement (Microsoft Edge) should be used instead.

## Logging in For the First Time

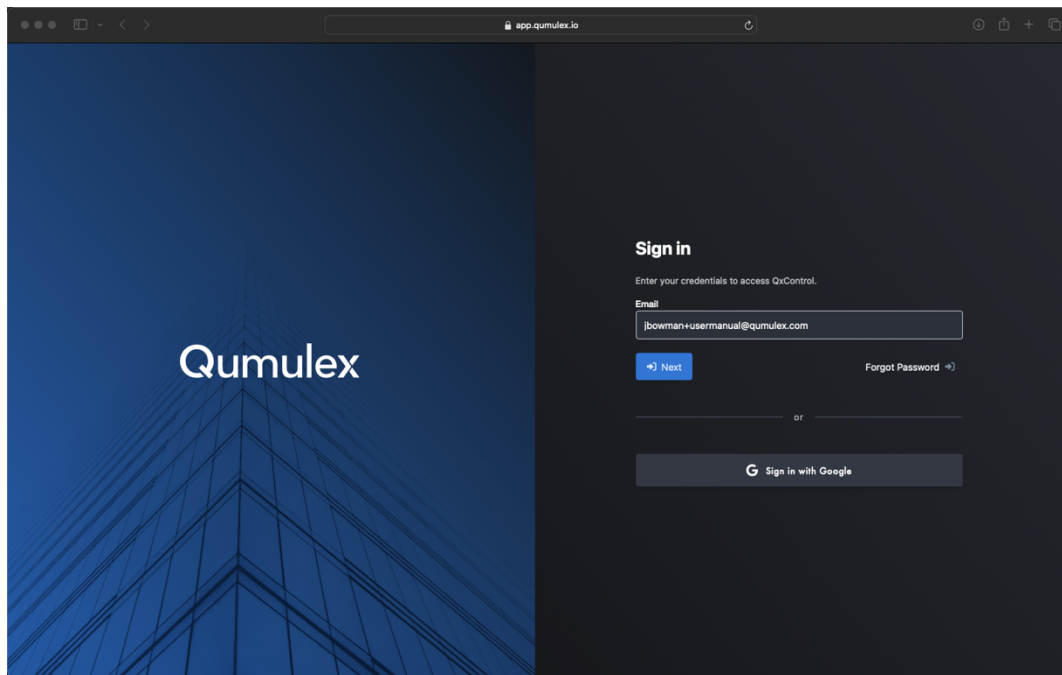
Step One: To log in the first time, follow the link in your “Qumulex User Registration” email, or open your browser and enter the address <https://app.qumulex.io>. (In this example, we are using Google Chrome for all steps.)



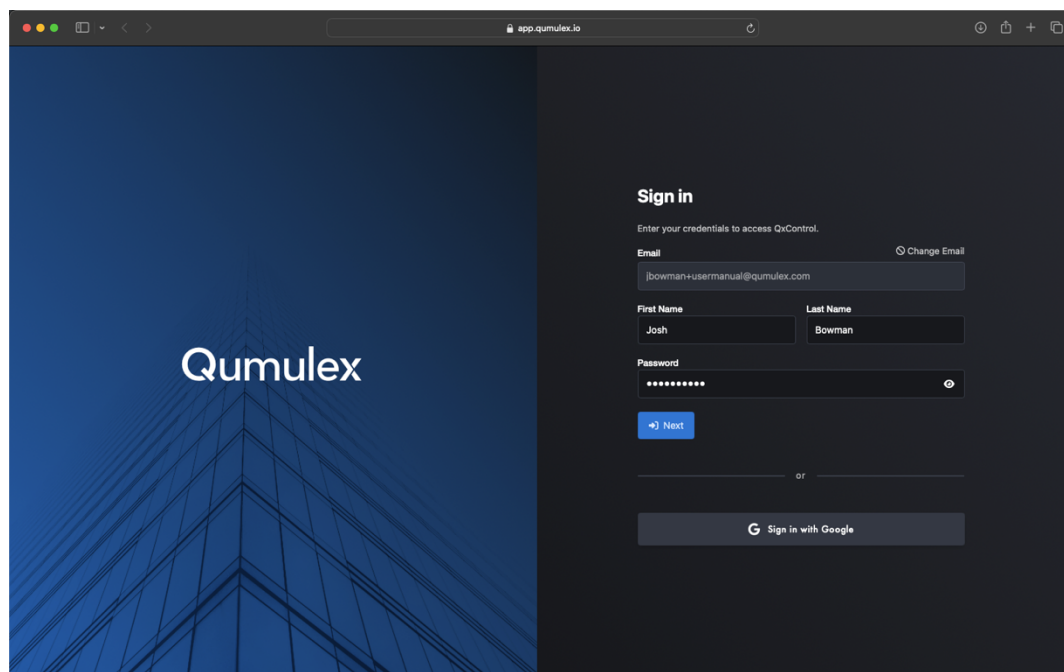
This will bring you to the first-time user log in page. You can choose to log in using your Google profile or use your email address. For this example, we will use our email address.

Step Two:

Enter the email address used by your system administrator to create your user profile, then choose “Next”:

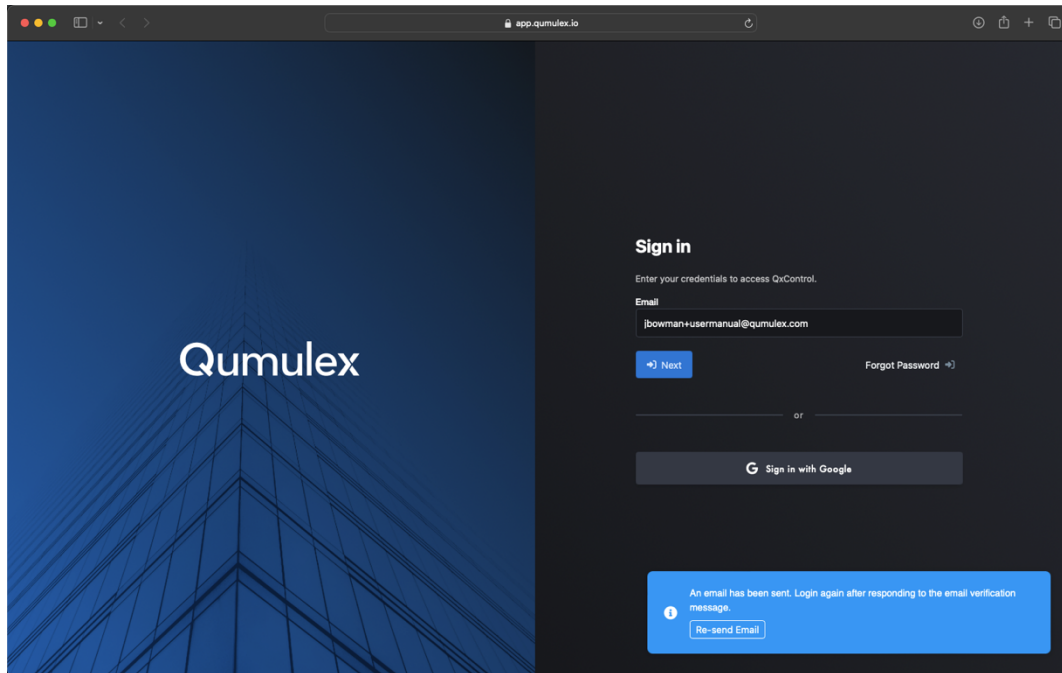


This will bring you to the “Create account” page. Again, use the correct and case sensitive email address provided by your system administrator and for the first and last name. You will then create your own password and choose “Next”.

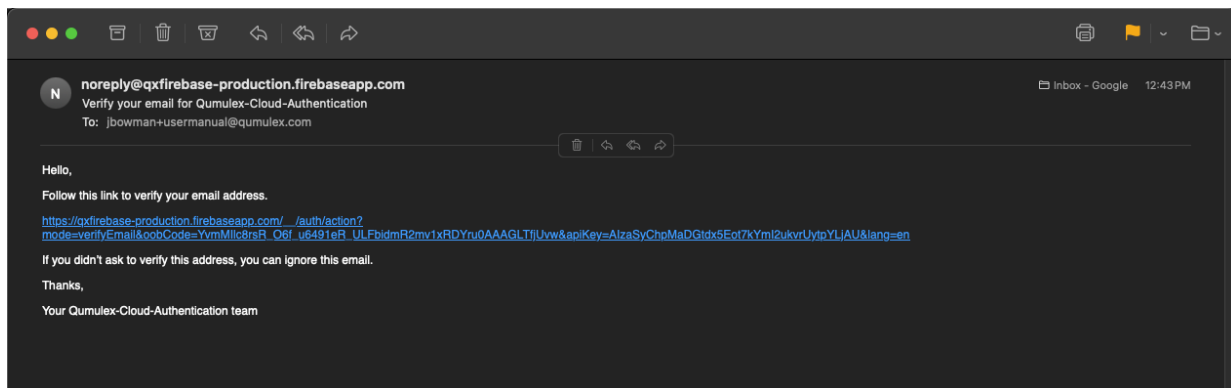


### Step Three:

You will now see a prompt in the lower right of your screen advising that you have received an email for verification. If you check your inbox and spam folder and do not see an email, you can choose to “re-send Email” in the prompt.



Next, open the verification email You will then receive an email at the specified email address. You must click on the link within the message to verify your email address.

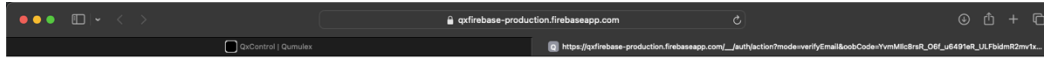


NOTE: If you did not receive the email: (1) verify that your Admin used the correct email address in QxControl (2) and check your spam folder. (3) Go back to the prompt in the beginning of step 3 and choose “re-send email”



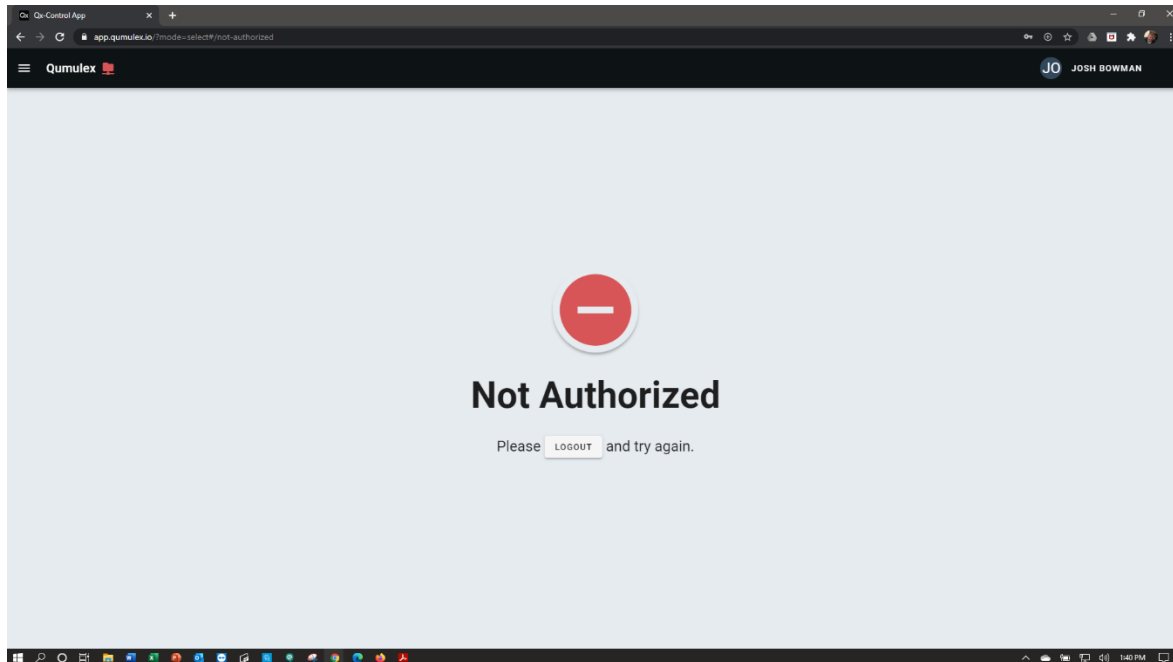
#### Step Four:

Once you have clicked on the link you will receive this message indicating you are successfully authorized. You may now return to <https://app.qumulex.io> and log in to the service!



## Common First Time Log in Issues

Oops! If you receive this message after attempting to log in, something is wrong.



If you receive the “Not Authorized” error page, here are the common reasons and how to resolve:

- 1) Consult with your system administrator to ensure they correctly entered your email address and name.
- 2) Please verify that your system administrator assigned you a “Role” in QxControl. **This is required** for access to the application.
- 3) Please verify with your system administrator that you are a valid user in QxControl. The user authentication system will not stop you from creating a log in, even if you are not yet a user in the QxControl. You will still be allowed to verify your email successfully. You will however see the “Not Authorized” error once you attempt to log in as there is no user in QxControl to authenticate you with.

If you are still unable to access QxControl after completing these steps, please contact your authorized Qumulex partner for help.

## Logging in For the First Time: From a Mobile Device

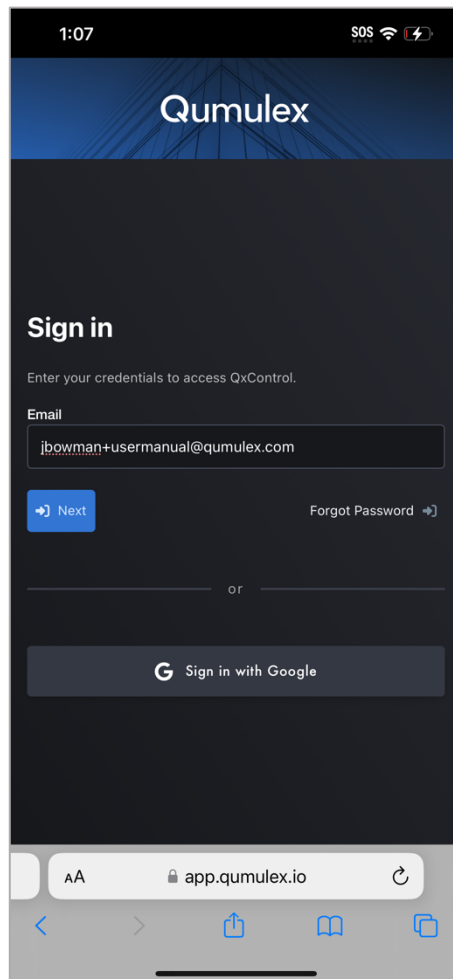
One of the many advantages of QxControl is that you get the same user experience on a mobile device as you do when using your desktop system or laptop. Another advantage is that you do not need to download and configure a mobile app. You will simply use your internet browser just as you would on your PC, for example.

While this is very intuitive and easy to do, here are a few quick tips to get your mobile experience started off right.

Please note: This example uses an Apple iPhone but also works great with Android devices.

### Step One:

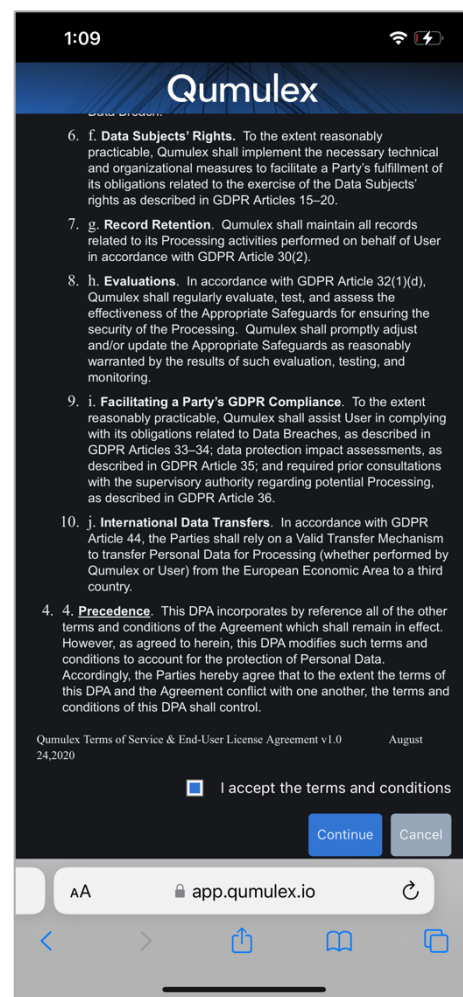
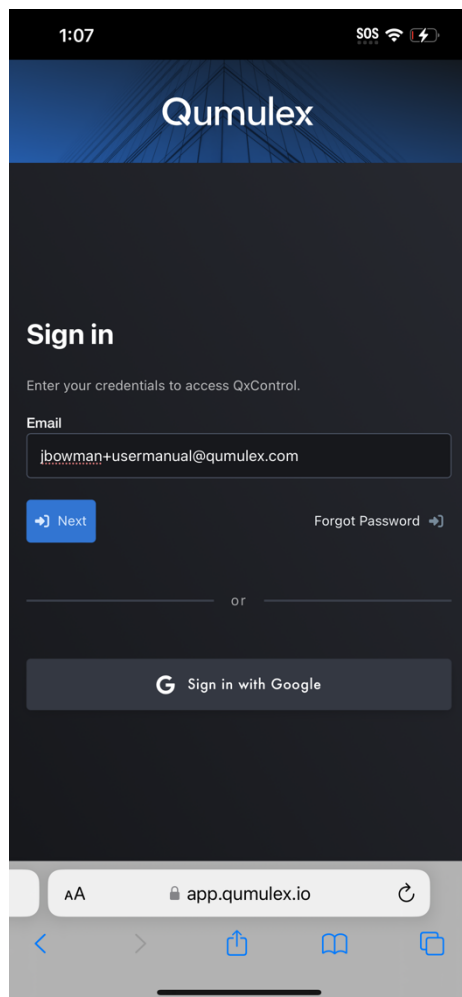
To log in the first time, click on the link in your welcome email, or open your mobile browser and enter the address <https://app.qumulex.io> . In this example, we are using Apple Safari:



Use the same email and password as you used to setup your access from a computer, or follow the same steps as noted on pages 4 through 8 to set up your log in credentials.

## Step Two:

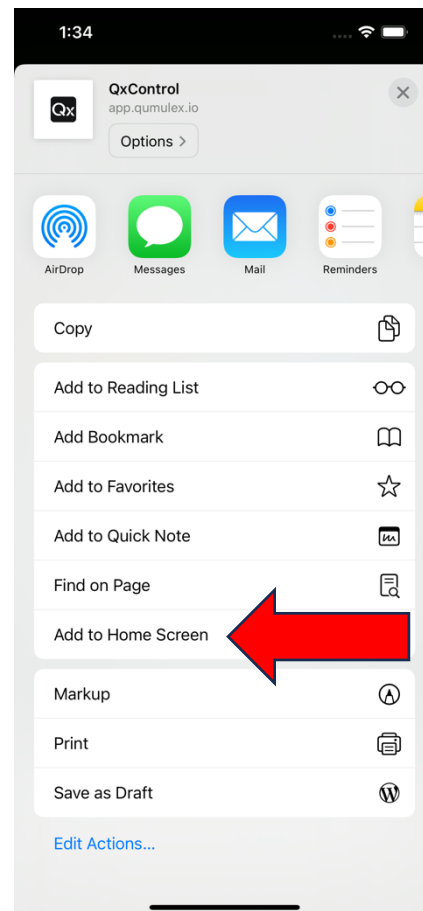
Once you are logged into QxControl, we want to create a shortcut on your device to allow quick and easy access to QxControl.



Open your browser (on iPhone use Safari) and go to <https://app.qumulex.io> . You will authenticate using the same credentials you used when creating your account on desktop. You will need to read and accept the terms & conditions to advance.

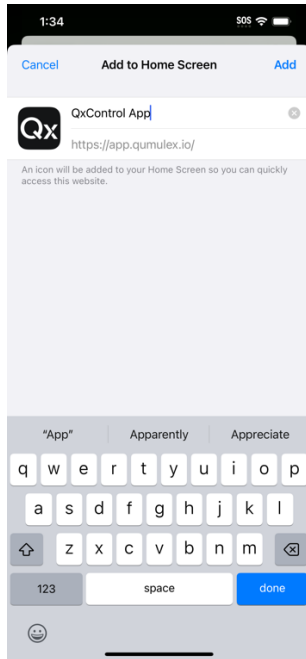
### Step Three:

In this example using an iPhone, we can access the “Share” Menu using the icon that resembles a square with an arrow at the top.

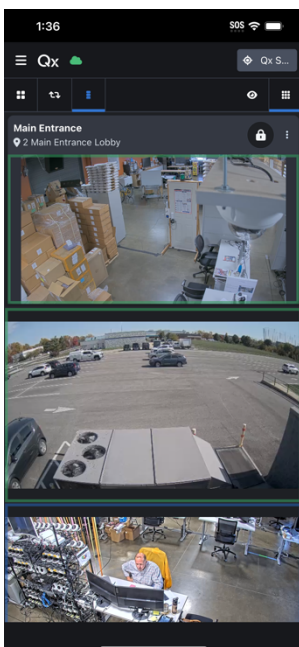


You will now see the “Share” Menu. Select the option for “Add to Home Screen”.

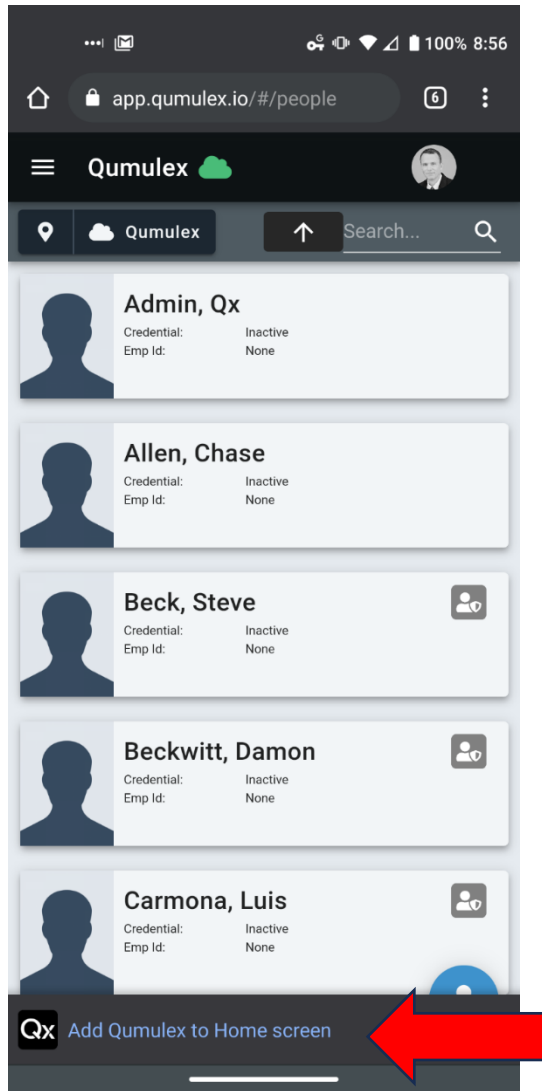
This will present the “Add to Home Screen” menu. Enter the name you would like to see below the shortcut icon and press “Add” to submit your shortcut to Home Screen.



You will now see the icon on your home screen, and opening the app via this shortcut will open a “PWA app” that is easier to use and has the look and feel of a native app.



Note: For iOS devices this procedure works in Safari, however the Google Chrome app or Firefox app may not support Add to Home Screen on iOS, depending on your iOS version.



Note: For an Android device, you will see the option to add to Home screen at the bottom of your webpage view.

## Using the application

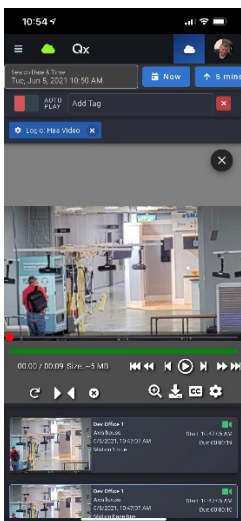
### Simple to use

QxControl is a progressive web app (PWA). This means that it is the same application on every device, computer, tablet, and phone. PWA's are the next generation of application with several benefits over more traditional solutions that have a Windows PC-based browser app, a Mac version, IOS app and Android app, which in its time was an improvement over the fat client PC or Mac application.

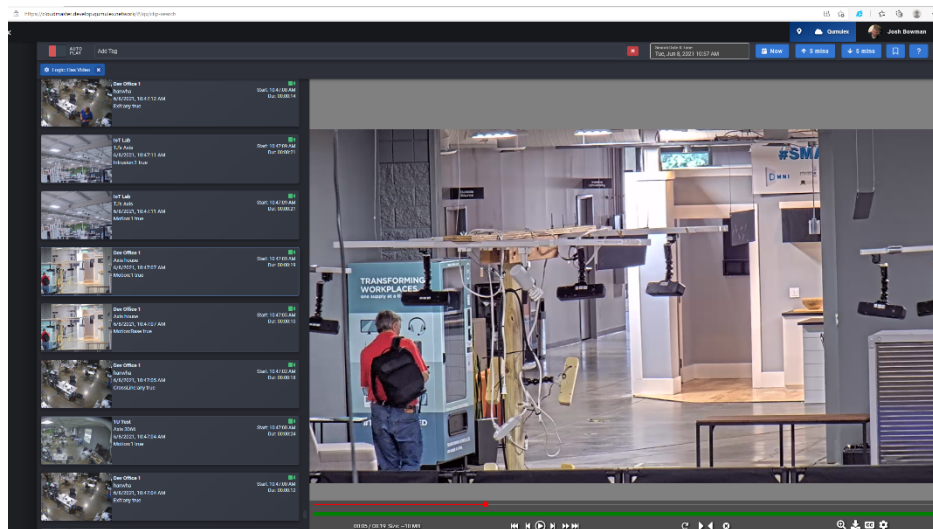
The first key benefit of a PWA is that there is only one app. Only one app to learn and support with the same features and the same experience across all devices. A PWA also means that there is nothing to install on a Mac or PC, just open a browser and browse to <https://app.qumulex.io>.

On iPhones, iPads or Android devices just browse to the same link. For convenience on any mobile device, our app will offer an 'Add Qumulex to home screen' option that will put an app icon on your home screen (see the screenshot on the right) so it feels just like an app.

One of the keys that make PWA's work is that the app will adapt itself to the display size of the device to provide the best experience. A good example of this is the Navigation bar will auto-collapse on smaller screens but still be available by clicking on the hamburger icon.



Mobile

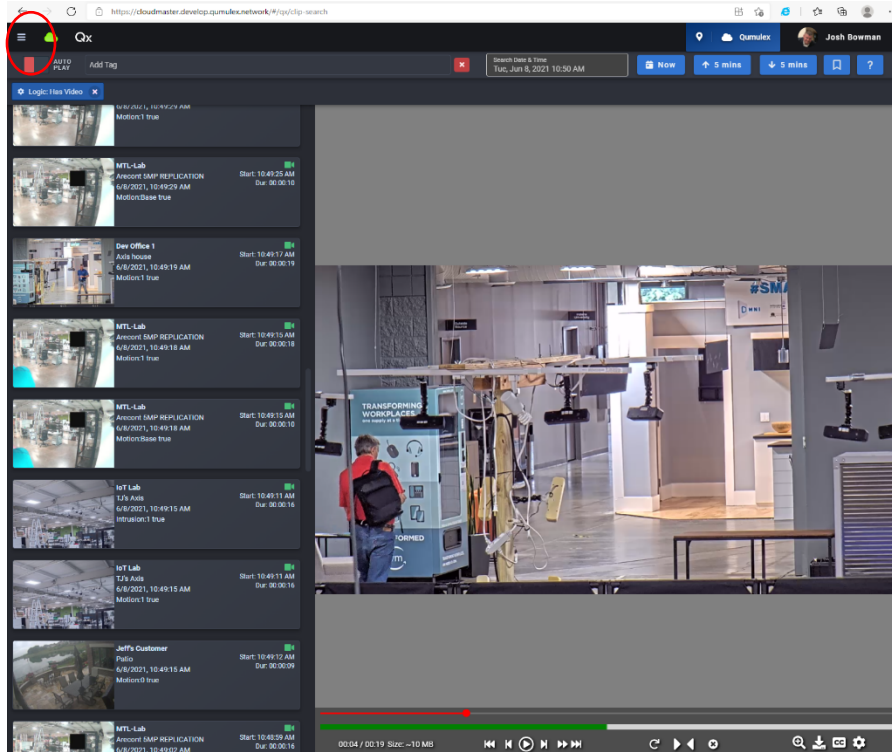


Desktop



On a device with a smaller display or when the browser has been made a small enough size, the navigation menu gets tucked away. To Navigate through the QxControl application and jump to a different page, simply tap the hamburger icon (circled in red) to unhide and then tap again to collapse and regain full view of your screen once you have made your selection.

The menu can also be hidden and will automatically hide when the display area is narrow enough, even on a larger screen.



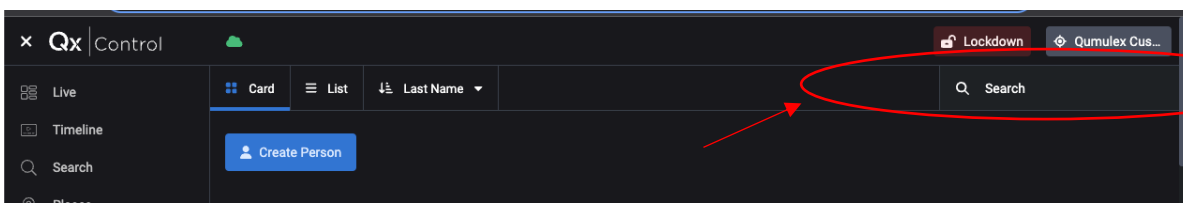
Most items can be edited by double clicking on them. Otherwise click or tap to select the item such as a camera, then click or tap the desired action.

## Navigating QxControl

Using QxControl is an intuitive and simple process. Here are some of the features built into the user interface to help guide your experience.

### Search Bar

Most pages have a search bar in the upper right corner. Typing in the search bar will automatically search across many fields of information. For example, on the People page, the search will look across first name, last name and employee id all at the same time.



## Administrator Specific Settings

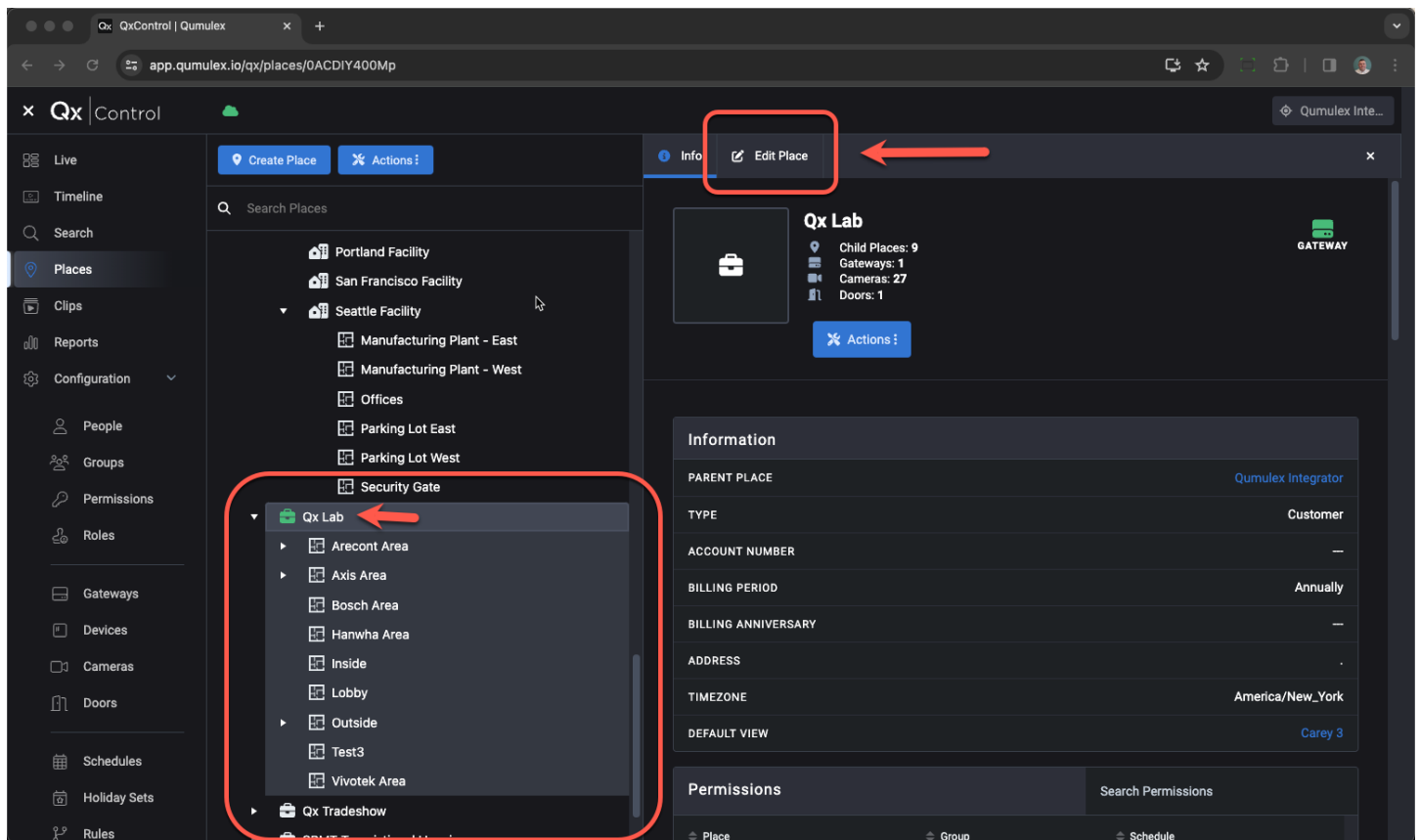
This section will focus on settings that are specific to the Customer Admin.

### Privacy Controls

Privacy controls are available to a Customer level Admin only. This means that an Integrator or Qumulex level user cannot adjust these settings, only a user that is set to the scope of the Customer. This is to allow a Customer to have control over when a support person from Qumulex or the integrator can see video or operate doors.

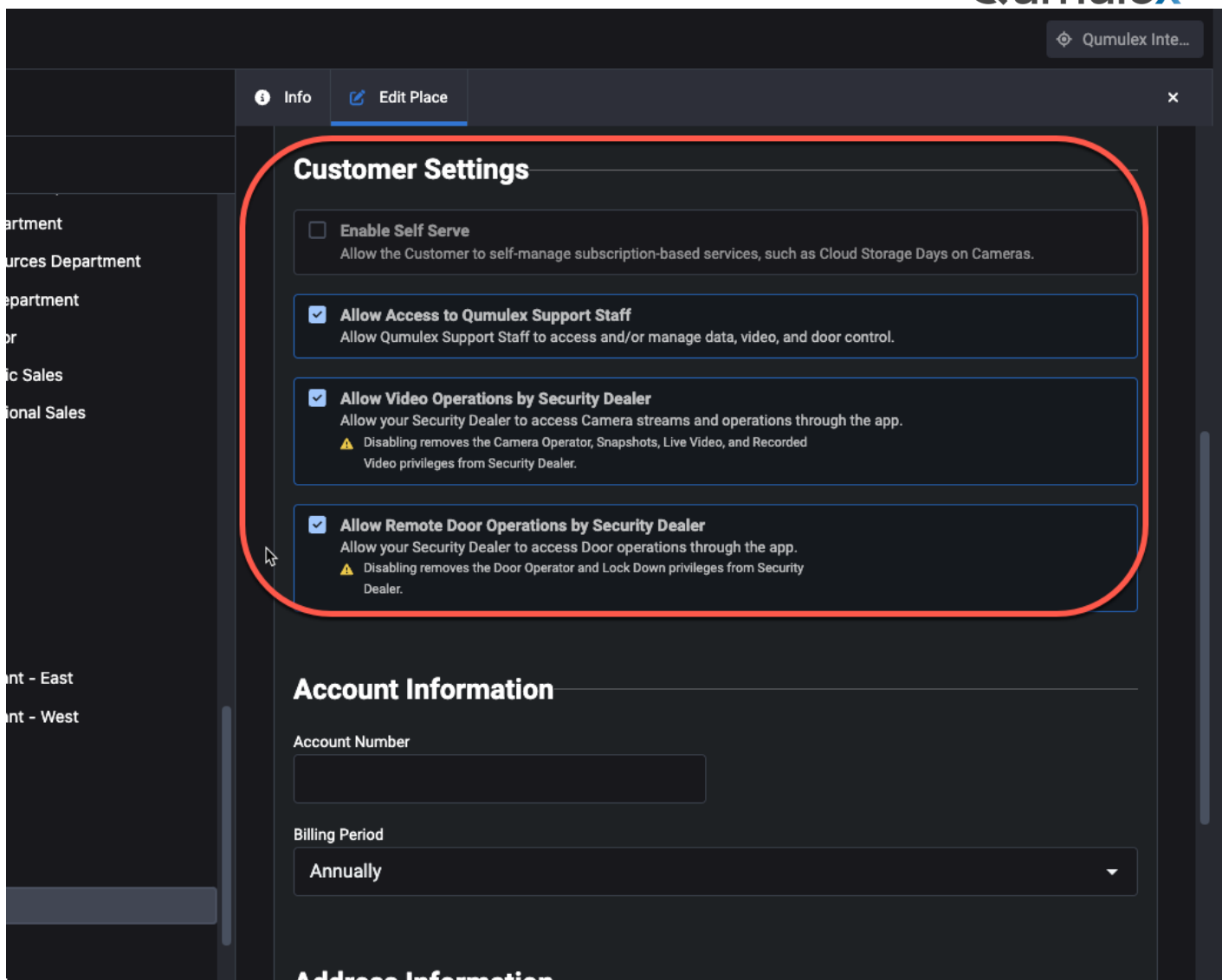
Depending on the type of services being provided by the Integrator, the Customer may prefer to allow access to video or doors. This option is not required but is available to those Customers who prefer to limit external access to configuration settings only.

To change the Privacy settings, a user set to the Customer scope with the “Admin” role should go to the Places Page. Then choose the Customer level and choose “Edit Place”.



The screenshot shows the Qumulex QxControl web interface. On the left is a sidebar with navigation options: Live, Timeline, Search, Places, Clips, Reports, Configuration, People, Groups, Permissions, Roles, Gateways, Devices, Cameras, Doors, Schedules, Holiday Sets, and Rules. The 'Places' section is active, displaying a list of locations including Portland Facility, San Francisco Facility, Seattle Facility, Manufacturing Plant - East, Manufacturing Plant - West, Offices, Parking Lot East, Parking Lot West, Security Gate, Qx Lab, Arecont Area, Axis Area, Bosch Area, Hanwha Area, Inside, Lobby, Outside, Test3, Vivotek Area, and Qx Tradeshow. A red box highlights the 'Qx Lab' entry, with a red arrow pointing to it. Another red box highlights the 'Edit Place' button in the top right corner of the main content area, with a red arrow pointing to it. The main content area shows details for 'Qx Lab', including a brief overview with statistics (Child Places: 9, Gateways: 1, Cameras: 27, Doors: 1) and an 'Actions' button. Below this is an 'Information' section with fields for Parent Place (Qumulex Integrator), Type (Customer), Account Number, Billing Period (Annually), Billing Anniversary, Address, Timezone (America/New\_York), and Default View (Carey 3). At the bottom is a 'Permissions' section with a search bar and filters for Place, Group, and Schedule.

Next you will down scroll to the “Customer Settings” field:



By default, the options are “allowed” to enable Qumulex and your integrator to fully service and operate the customer site. If desired, you can choose to enable or disallow the following options:

**Allow Access to Qumulex Support Staff:** This option enables Qumulex Support to remotely view video and operate doors to troubleshoot & resolve issues when a support call is received. When disabled, Qumulex support will not be able to troubleshoot video or door related problems unless re-enabled in this menu by the Customer Admin.

**Allow Video Operations by Security Dealer:** This option enables the Integrator to remotely view video troubleshoot & resolve issues when a support call is received. When disabled, the Integrator will not be able to troubleshoot video related problems unless re-enabled in this menu by the Customer Admin.

**Allow Remote Door Operations by Security Dealer:** This option enables the Integrator to remotely operate doors to troubleshoot & resolve issues when a support call is received. When disabled, the Integrator will not be able to troubleshoot door related problems unless re-enabled in this menu by the Customer Admin.

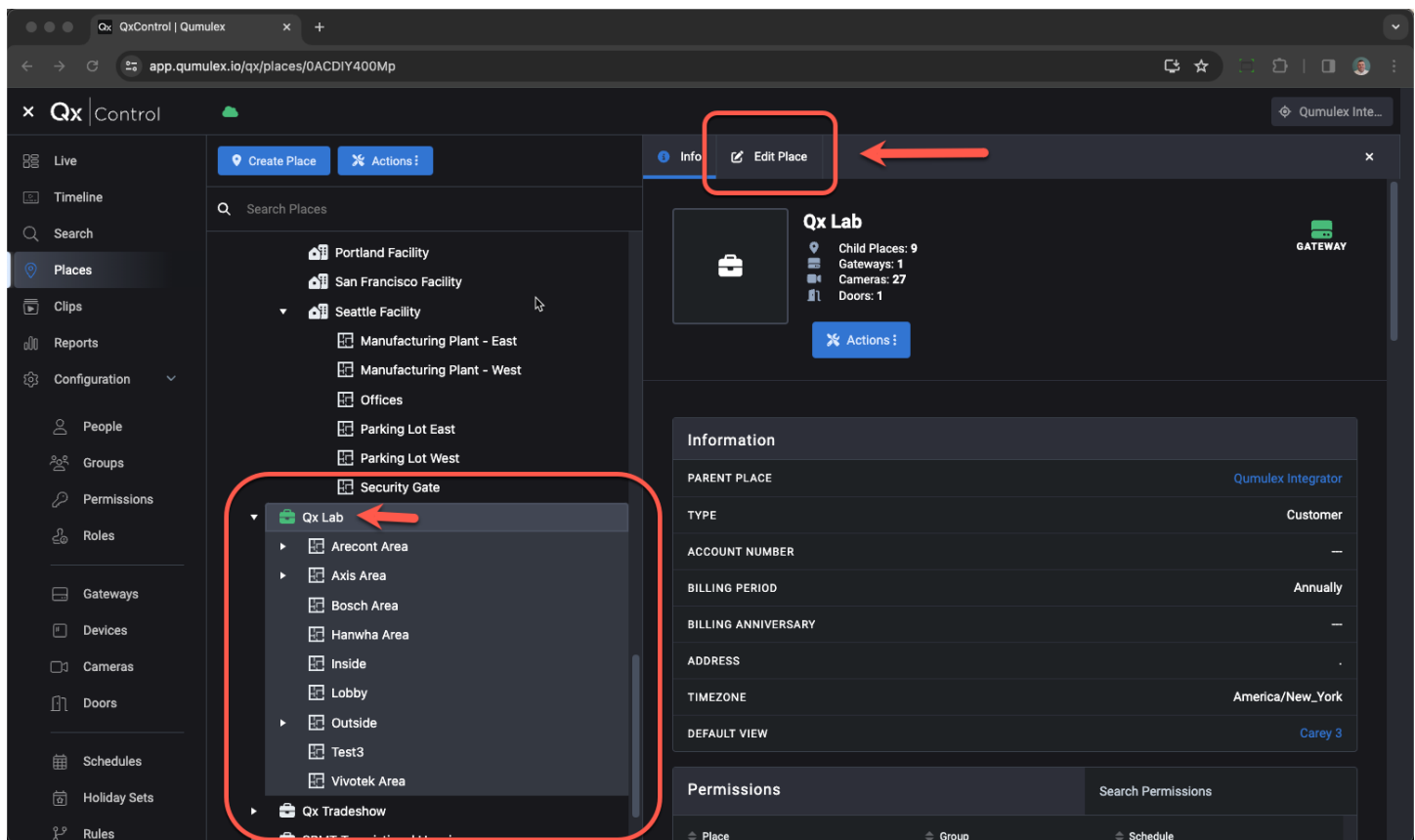
## Global Two Factor Authentication

Customer Admins can choose to force all users in the Customer organization to use Two-Factor Authentication. This section will cover how to enable this option.

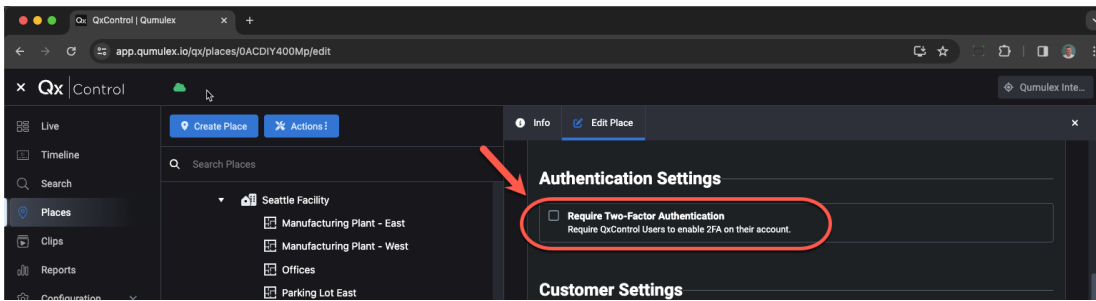
Note: Once enabled, QxControl will force users to exit Globally and require them to setup Two-Factor Authentication before logging in again.

It may be advisable to warn users about the forthcoming change and allow them to download and setup an Authenticator App on their device before requiring 2FA Globally.

The first step is for a Customer Admin to open the Places Page and choose the Customer Scope level. Then choose “Edit Place”:



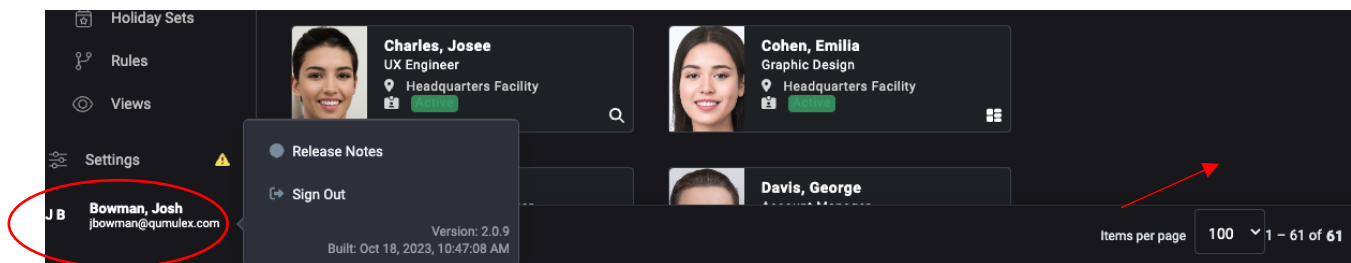
Next, scroll down to “Authentication Settings” and check the box to require 2FA:



## User Menu

located at the very bottom of the navigation tool bar is the user menu which is accessed by clicking on the username or avatar. The user menu offers the following:

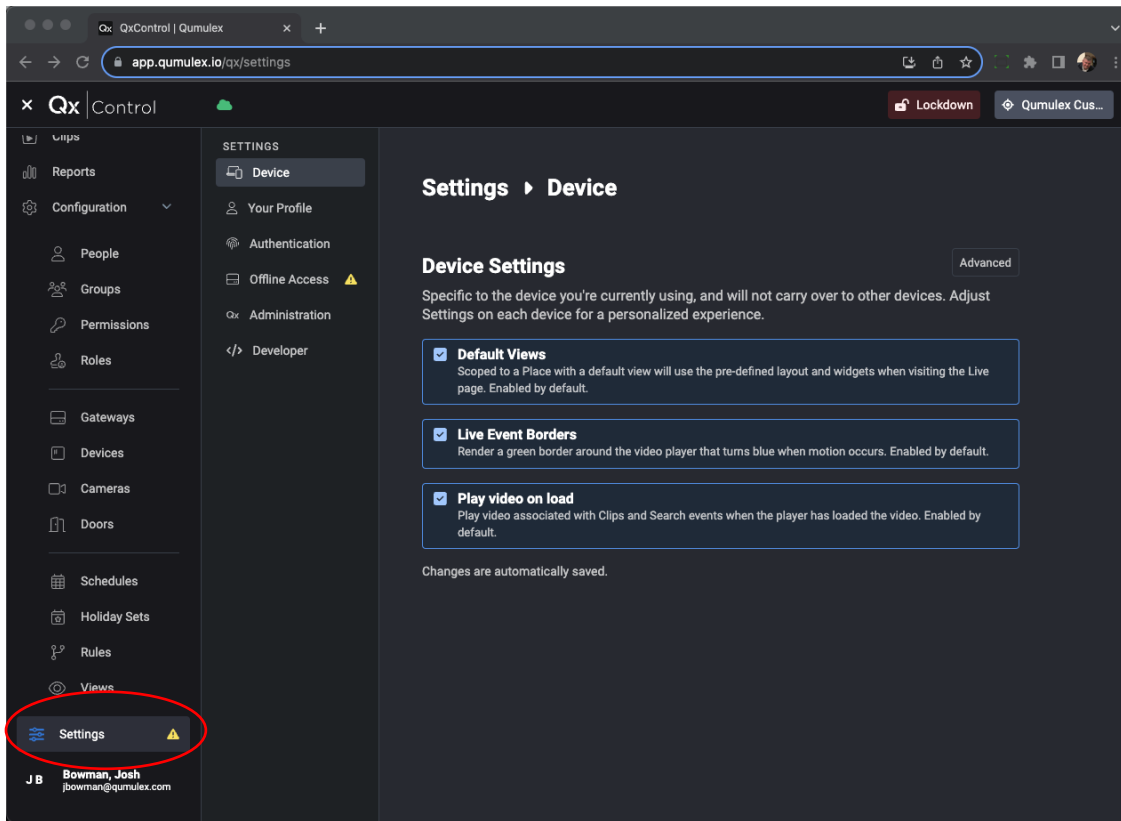
- **Release Notes:** This provides a link to the Release Notes highlighting the changes for each QxControl software update.
- **Sign Out:** Signs user out of the current browser session
- **Version/Build:** Displays the current version of QxControl, and the build date.



## User Settings Menu

located near the bottom of the navigation tool bar is the user settings menu. We will discuss each in more detail in this chapter, in summary however, here are the options are available in this menu:

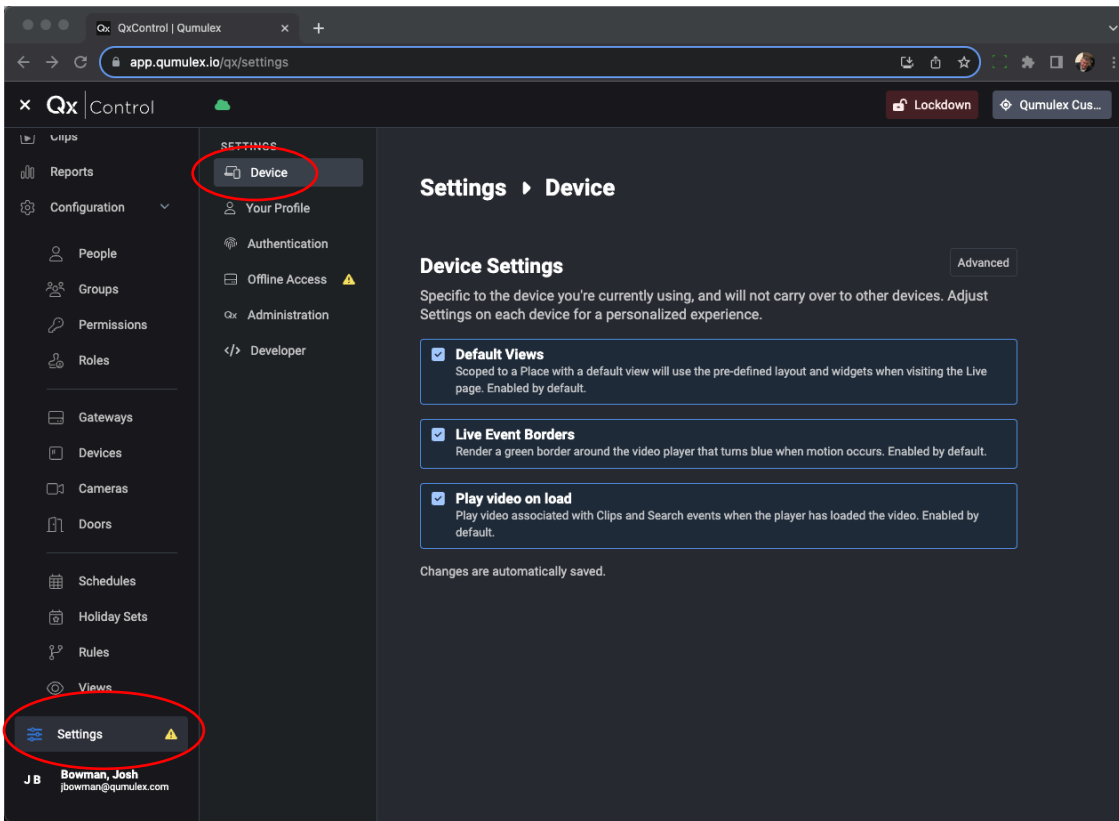
- **Device Settings:** Available settings for playback specific to the device you are using.
- **Profile:** Change your display name and avatar.
- **Authentication:** Options such as Two-Factor Authentication and Global Sign-Out.
- **Offline Access:** Configure your local login access when the internet is down.



### User Settings Menu: Device Settings

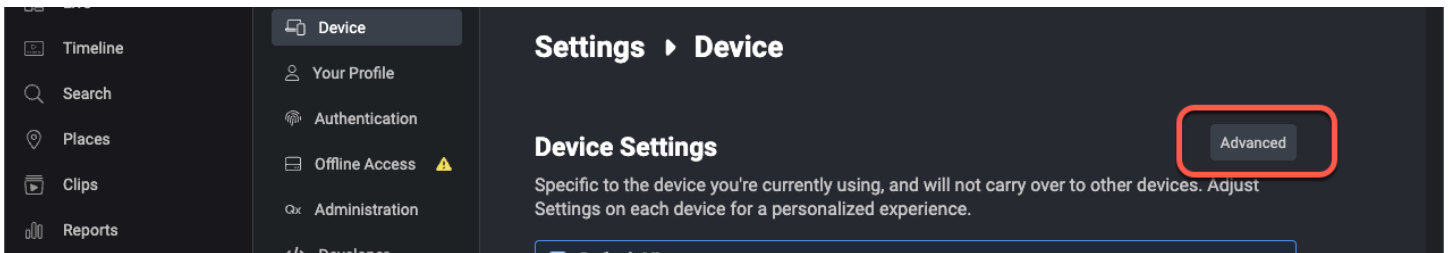
Device settings allows you to make changes to playback behavior on your current device. Changes made here will not affect playback behavior on other devices that you use for QxControl.

- **Default Views:** Enabled by default, this option allows you to enforce the default view when using Live, or not. Do you want to see the default view when you navigate to the Live page? If yes, you want this enabled.
- **Live Event Borders:** Enabled by default, this option allows you to choose if you want the colored borders indicating motion or continuous recording on Live Video. (Blue & Green)
- **Play Video on Load:** Enabled by default, controls if playback or clip video automatically plays when loaded. If not enabled, you would be required to press the play button to start video playback.

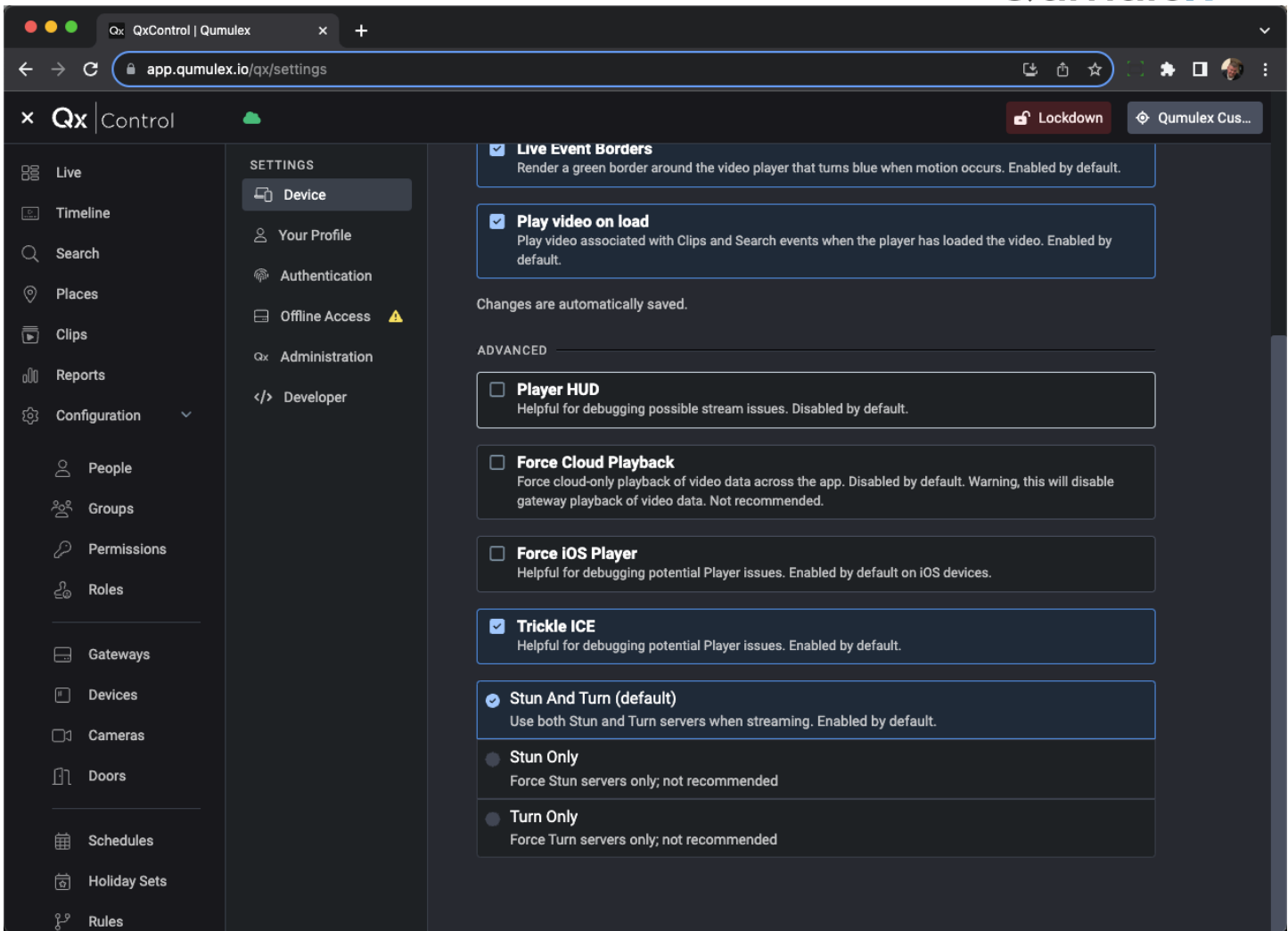


### User Settings Menu: Device Settings (Advanced Options)

By choosing the “Advanced” button, you can expose additional options:

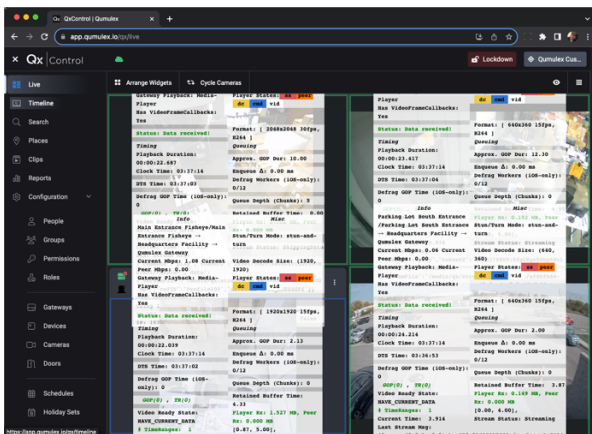


Once the sub-menu is revealed, you will see the following options:



Most of these options are used primarily for troubleshooting but are available to you if desired.

- **Player HUD:** Heads up Display used for troubleshooting and displays technical details about the video streams such as GOP data and duration:



- **Force Cloud Playback:** Choosing this option forces QxControl to ONLY PLAY VIDEO STORED IN THE CLOUD. This will disable any video stored on the Gateway and is NOT RECOMMENDED. This feature



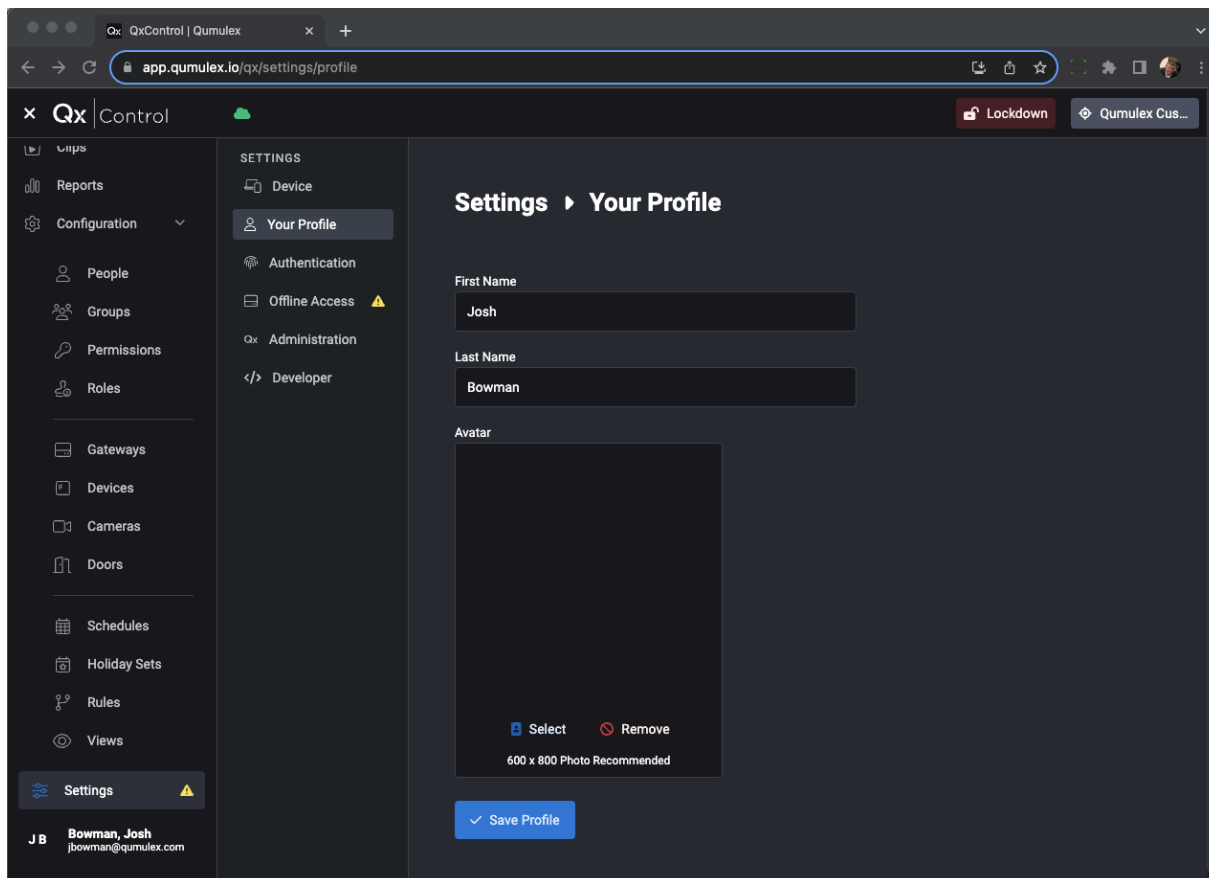
is primarily used to audit and verify that cloud stored video is being stored and is available for playback as expected.

- **Force iOS Player:** This is used for troubleshooting and should not be enabled for normal usage.
- **Trickle ICE:** a supplementary mode of ICE operation in which candidates can be exchanged incrementally as soon as they become available (and simultaneously with the gathering of other candidates). Connectivity checks can also start as soon as candidate pairs have been created. This option is helpful if player debugging should ever be required and is ENABLED by default.
- **Stun and Turn:** By default, this is enabled and allows video streams to connect in the fastest manner, locally if you are local to the Gateway or via the cloud service if remote, for example. Having both enabled allows QxControl to determine the fastest path and deliver the video stream in the fastest way possible.
- **Stun Only:** In effect, choosing this means you will not connect locally to the Gateway if faster, you will always pull video streams from the cloud service. (Not recommended)
- **Turn only:** The reverse of stun only, you will only get video locally from the Gateway and will not pull video from the cloud service. (Not recommended)

**It is not recommended to change Stun & Turn settings unless advised by Qumulex Support to do so.**

### *User Settings Menu: Your Profile*

Very simply, this menu allows you to choose your Avatar image and name.



## User Settings Menu: Authentication (Global Sign Out)

The Authentication menu is a valuable resource allowing you to manage all QxControl browser sessions as well as allowing you to enable Two-Factor Authentication (2FA) natively in QxControl (as opposed to only configuring in your Google profile, for example)

**Settings > Authentication**

Review your active sessions and sign out of devices you do not recognize.

Browser	OS	Device	IP Address	Location	Signed In At
Chrome v118.0.0.0	Mac v10.15.7	Apple desktop	172.12.205.17	Columbus, United States	Fri, Oct 20, 2023, 12:24 PM
Mobile Safari v17.0.1	iOS v17.0.3	Apple desktop	172.12.205.17	Columbus, United States	Mon, Oct 23, 2023, 1:35 PM

[Sign out everywhere](#)

**2FA: Two-Factor Authentication**

**Authenticator App**

Add Two-Factor Authentication to your account using your preferred authenticator app.

[Learn More](#)

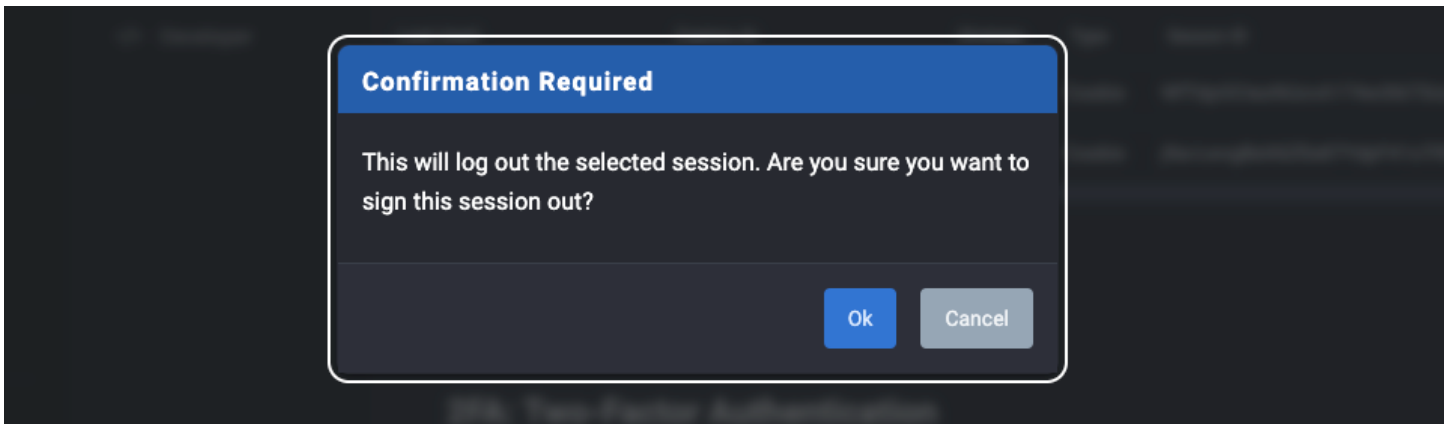
[Generate Token](#)

The first option available in the Authentication Menu is “Sign out everywhere”. This is a very useful tool to either sign out of sessions in devices you no longer possess or if you see a session that seems suspicious.

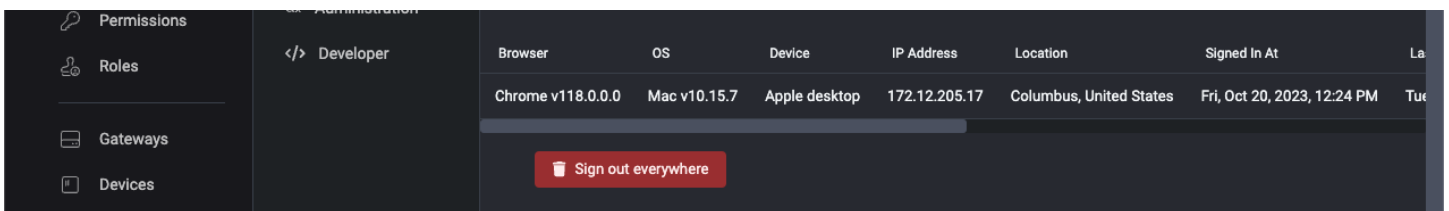
There are two ways you can use this tool. The first, is to close out a single session. To do this you can scroll all the way to the right and choose the delete icon for that session:

Last Used	Expires At	Strategy	Type	Session ID	
Tue, Oct 24, 2023, 4:32 PM	Tue, Nov 7, 2023, 3:32 PM	Firebase	Cookie	WfTdpOCheNlZuA174w3H73zL4VCrx	
Mon, Oct 23, 2023, 1:36 PM	Mon, Nov 6, 2023, 12:36 PM	Firebase	Cookie	jNzLwvgBxKXZ5e67yqF41x79H4p9M	

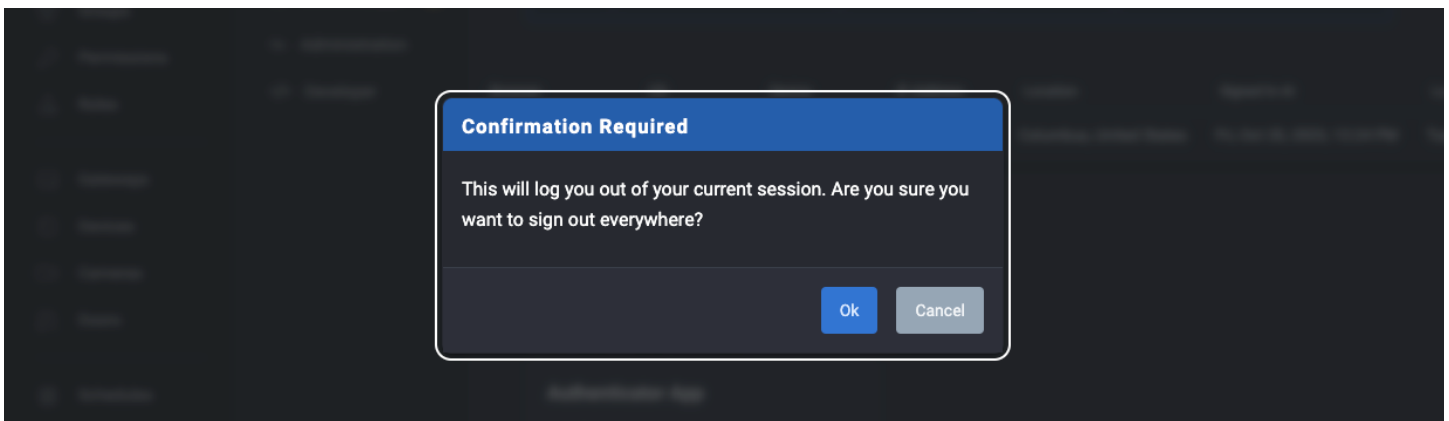
Choose “OK” to confirm the session should be signed out:



You will now see the individual browser session is removed:



The next option is to sign out of all browser sessions. To do this select the “Sign out everywhere” option. Once you click this button you will see a reminder that you will also be logged out from your current device:



Once you log back in, you return to this menu you should only see the login you just created.

Note: if you are doing this based upon suspicious activity you should also reset your password.

## User Settings Menu: Authentication (2FA)

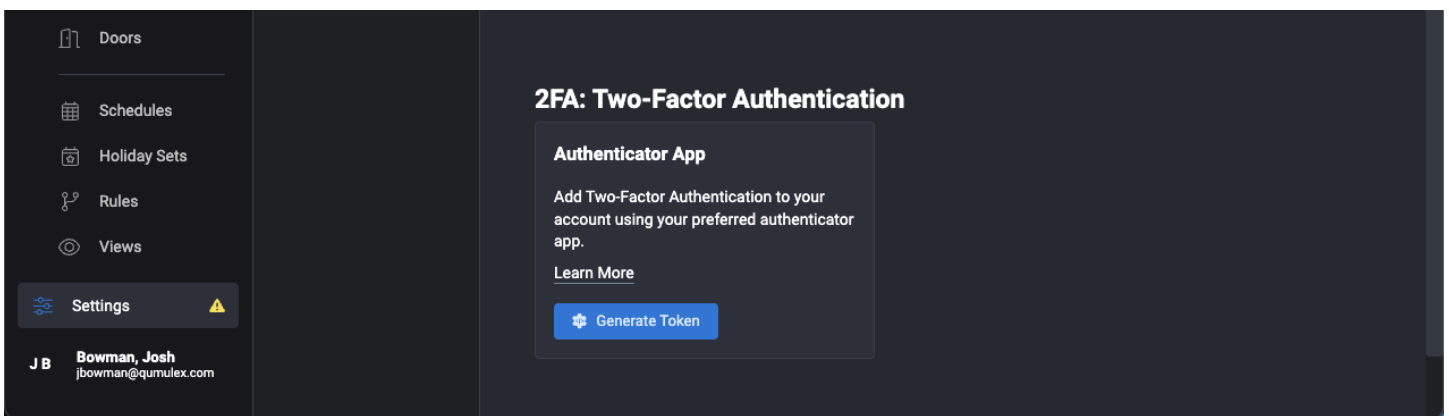
The next option in the Authentication menu is “2FA: Two-Factor Authentication”. This allows you to generate a Token and use an Authenticator App to enforce 2FA when logging into QxControl. This is a great way to prevent hacking attempts from unauthorized users.

Step 1:

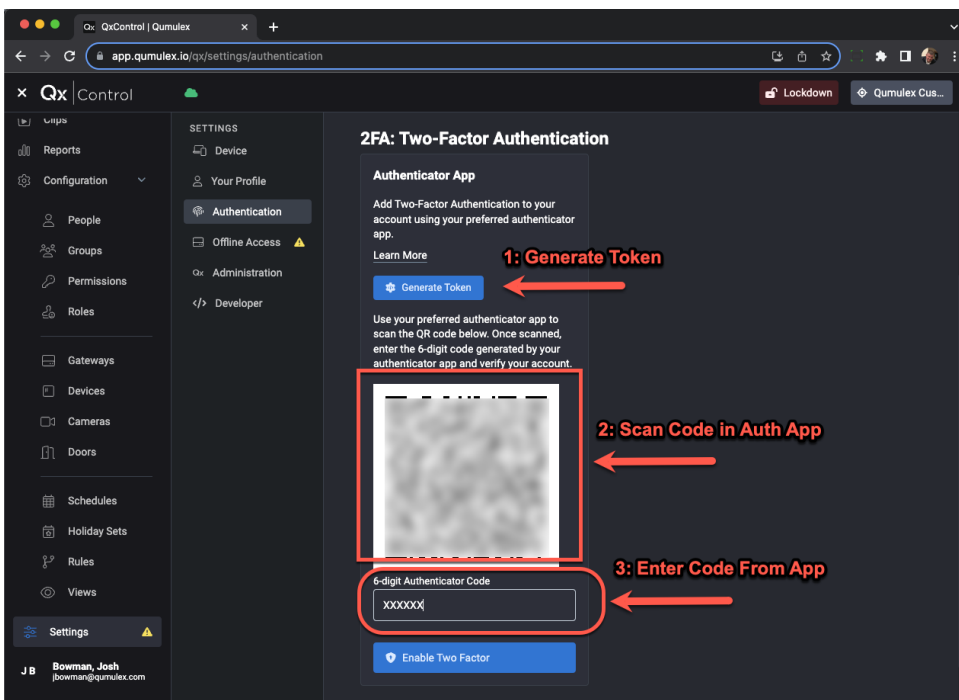
Choose an Authenticator App. In this example we will be using Microsoft authenticator. You will want to choose and setup your Authenticator app PRIOR to beginning step 2.

Step 2:

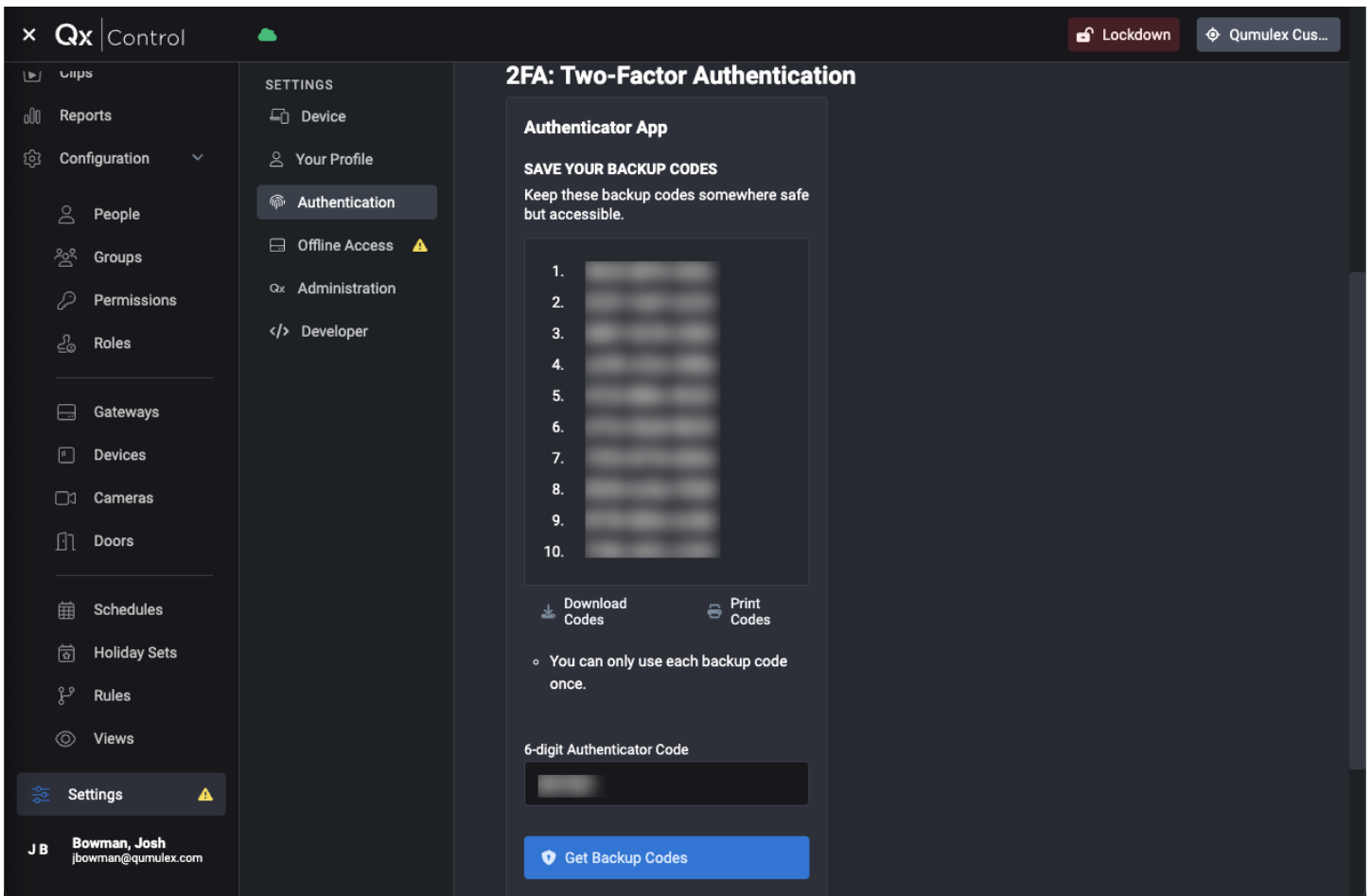
Choose the “Generate Token” button:



Step 3: Scan the QR Code with your authenticator app. The app will then return a 6-digit code, enter that into the field below the QR Code:



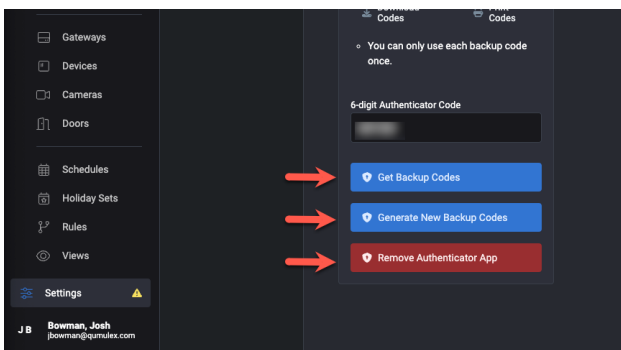
Step 4: Now choose “enable Two Factor” to pair QxControl with your Authenticator app. You will now see a list of “Backup Codes” that you can choose to download or print out.



These codes allow you access to QxControl in the event you lose your Authenticator app. You can choose to either download a text file with the codes, or you can print them.

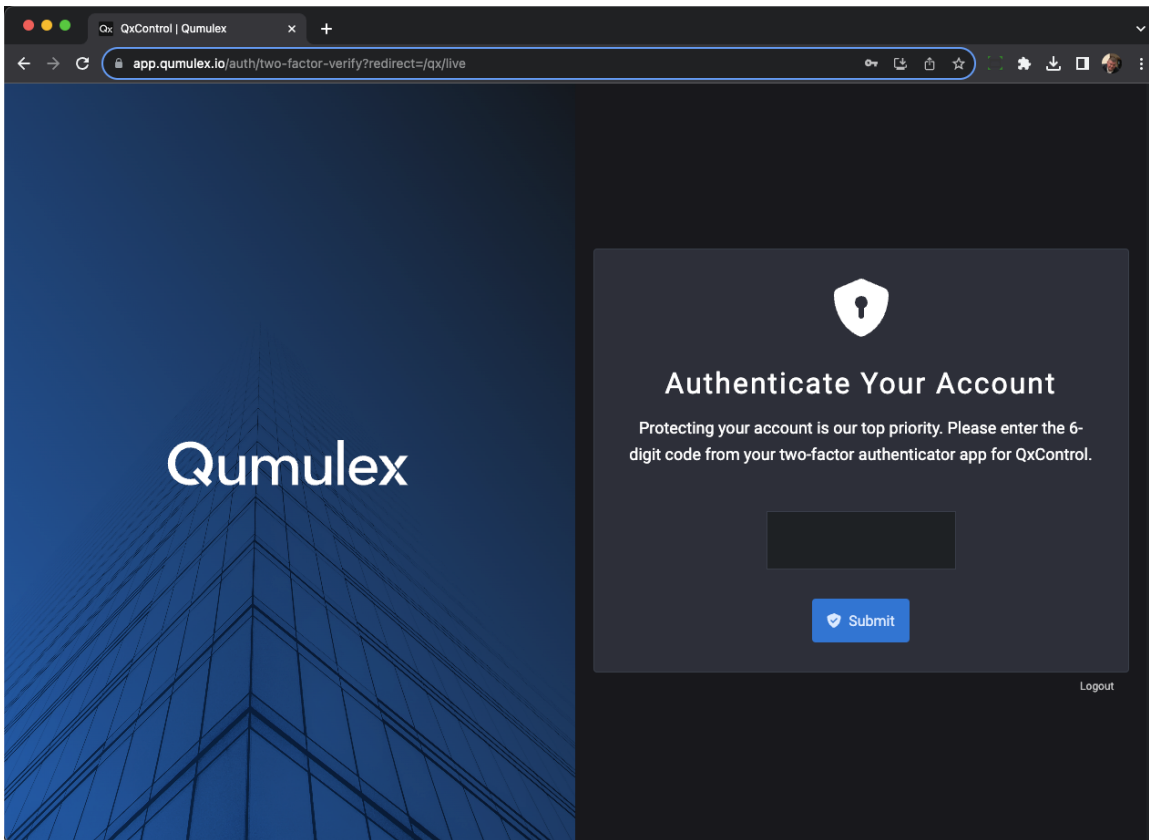
Note: If you lose access to your Authenticator app and do not have backup codes, you will need to contact Qumulex support and provide identity verification to regain access.

Also, while logged in you can return to this menu and get your backup codes, generate new ones, or remove the Authenticator app pairing.



## Step 5:

To verify and complete the changes, sign out from QxControl, and attempt to log back in. You should see the second step of Authentication is now required:



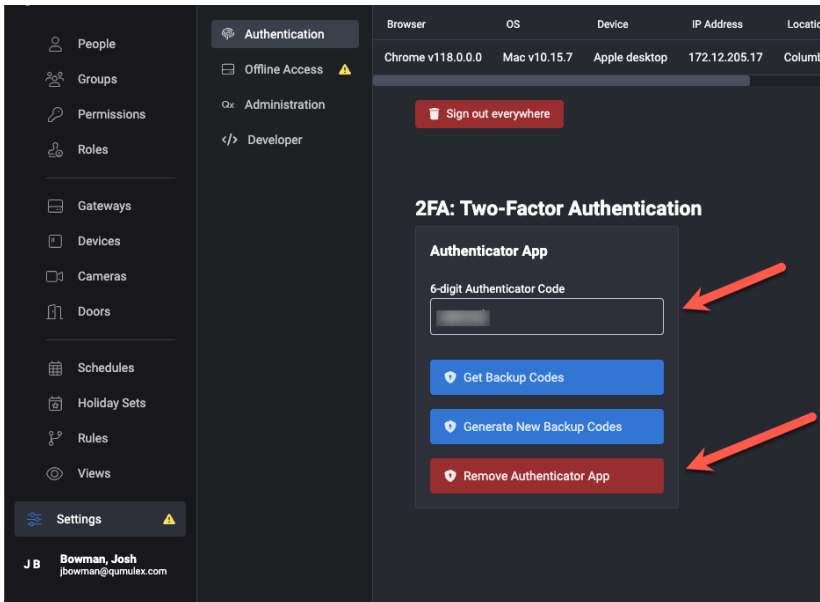
Note: If you lose your authenticator app, this is also where you can apply your backup code to gain access. Once inside, you can remove the pairing and add a new one or revert to non-2FA.

## User Settings Menu: Removing (2FA)

If you lose your authentication app and need to replace it with a new pairing, or wish to remove 2FA altogether, return to User Settings and Choose Authentication to begin this process.

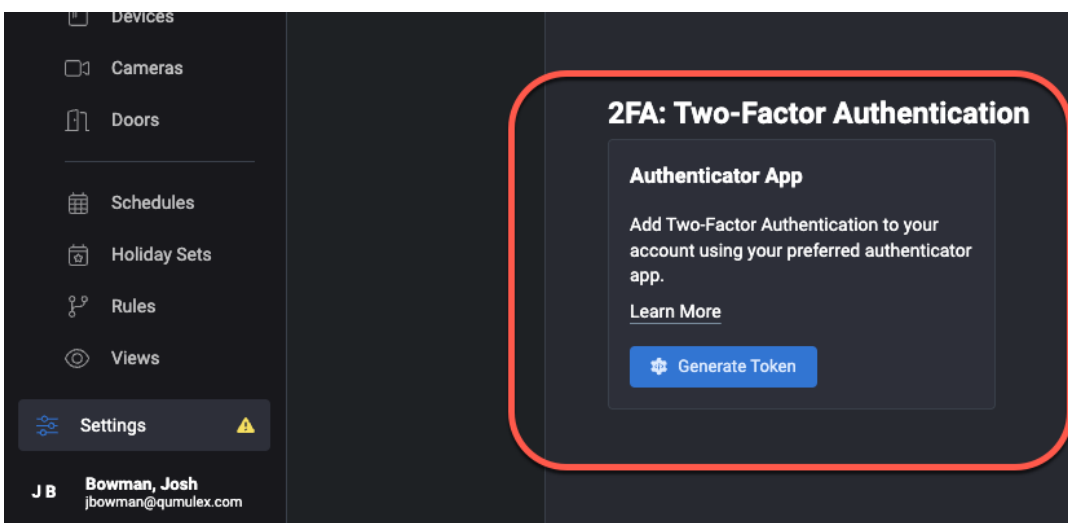
Step 1:

Enter your code and Choose “Remove Authenticator App”



Step 2:

You will now see the default option return and you can now add a new app pairing if desired:



## User Settings Menu: Offline Access

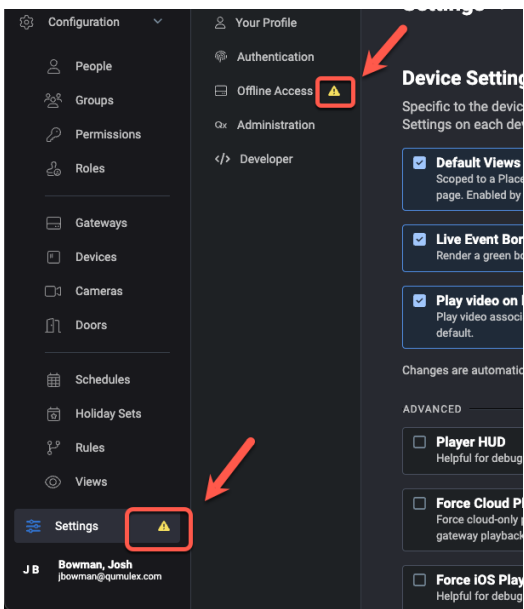
If your site loses connection to the internet and you are on the same local area network as the Gateway, you can still connect and use QxControl.

You will not have access to events and video that are cloud stored during this time, but you can still operate the system and view anything stored locally until your internet service is restored.

This is one of the many valuable reasons Qumulex chose a Gateway based architecture and this chapter will cover how to configure your offline access in QxControl.

### Step 1:

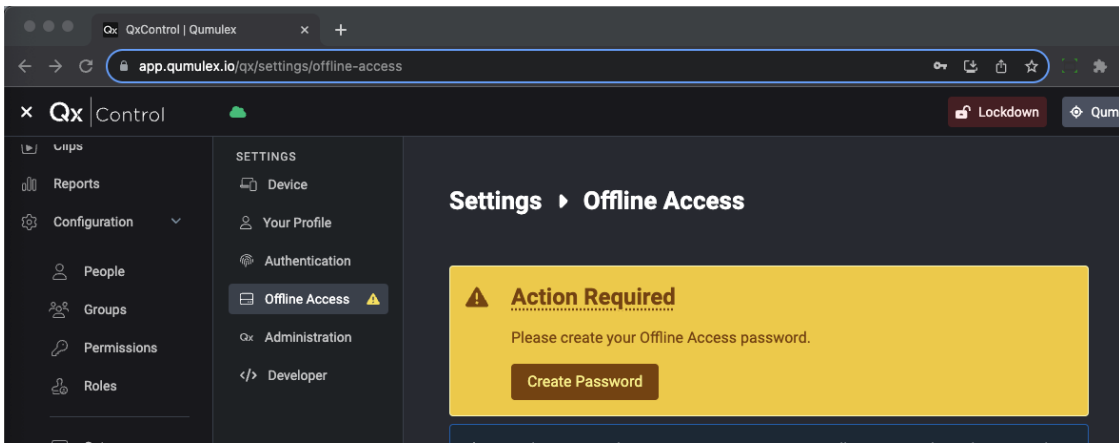
Determine your status: If you see this yellow triangle near the Settings page shortcut, you have not yet set up your offline access:



This will remain in place until you do configure access to make you aware of the need to configure.

### Step 2: Choose “Offline Access” in the User Settings menu:

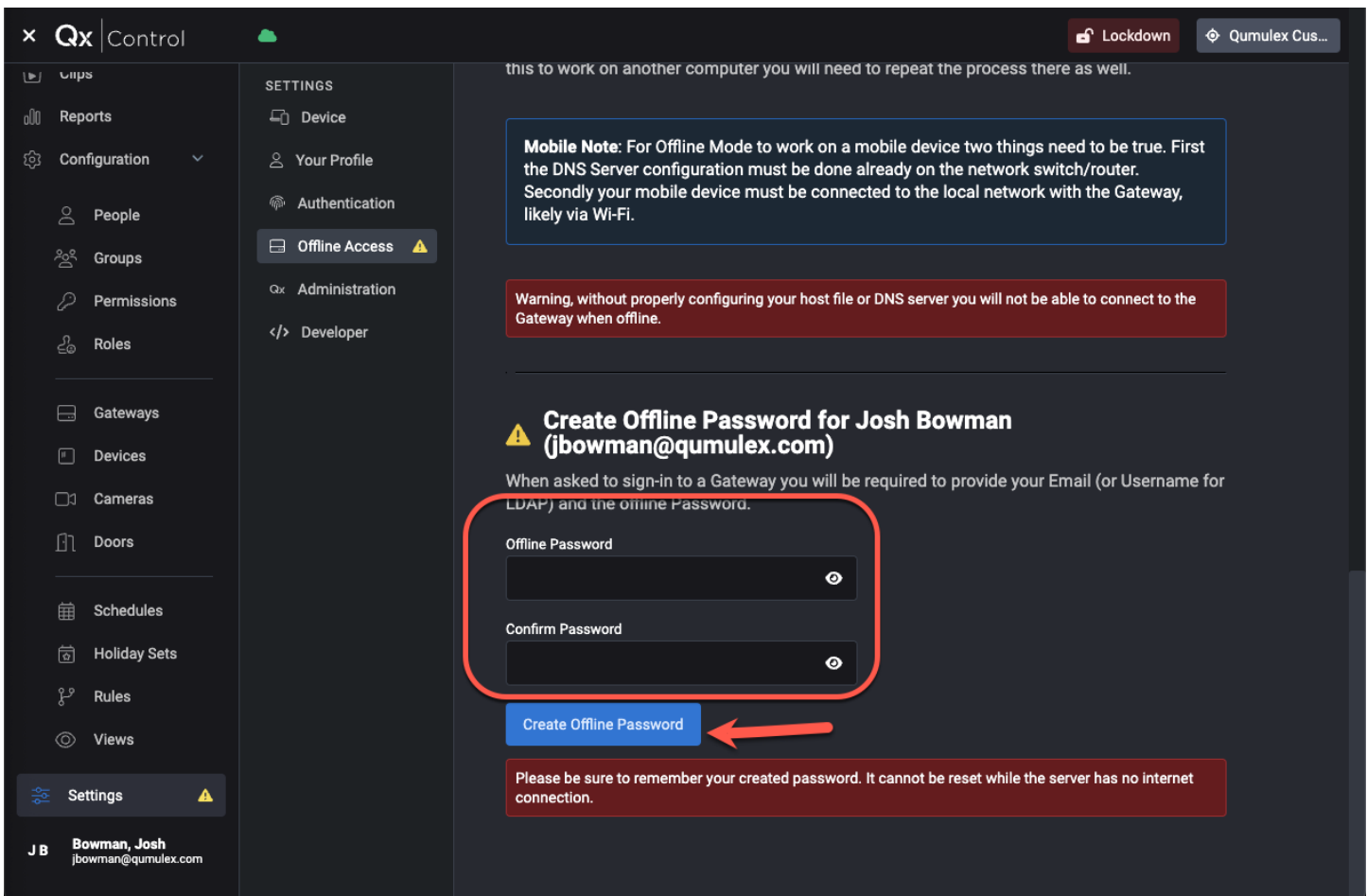




Step 3:

Choose “Create Password”

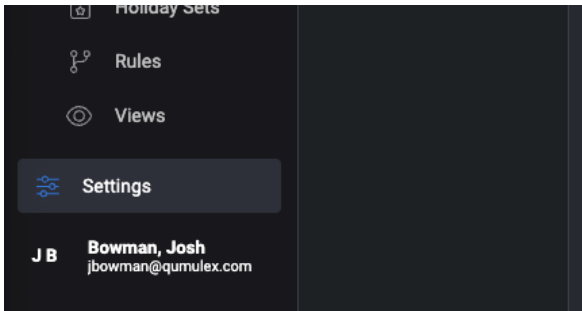
This will bring you to the create password prompt:



Note: This password will be stored directly on the Gateway and will not have a recovery service while offline. It is very important to REMEMBER THE PASSWORD.

After entering the password select the “Create Offline Password” button.

You will now see the warning icon has been removed, indicating you are successfully registered for local offline access:



### *User Settings Menu: Offline Access Network Configuration*

If your site loses connection to the internet and you are on the same local area network as the Gateway, you can still connect and use QxControl.

For this operation to work, your IT Admin must update your DNS Server (s) to include the IP address and hostnames of your Gateways.

The next field in Offline Access provides the information required to do this. First, you will notice instructions for your IT Admin on what is required and an option to download the list of Gateways:

**Configure Host and/or DNS Server**

Click Download DNS List to receive a text file with a list of available Gateways at your current Scope that contains the Name, Hostname, and IP address. Please be aware of your current Scope to ensure you only download the list of Gateways desired. If you are an Integrator configuring this on behalf of a Customer, be sure to double check that your Current Scope (icon on the far top right) is set to the proper Customer Place.

If you are an Integrator configuring this on behalf of a Customer, be sure to double check that your Current Scope (icon on the far top right) is set to the proper Customer Place.

[Reset Scope](#) [Change Scope](#)

[Download DNS List](#) [Copy to Clipboard](#)

Name	IP	Hostname	Place
Qumulex Gateway	10.101.0.92	qx7500c2.qumulex.io	Headquarters Facility

**Preferred Method**

**Configure a DNS Server**  
requires IT Admin or administrative access to the main switch/router for the install site.

Update your DNS Server(s) to include the IP(s) and hostname(s) provided in the downloaded file to allow internal access for anyone using the proper URL from within the local network.

OR

**Secondary Method**

**Configure your local Hosts file**  
requires administrative access to your local computer.

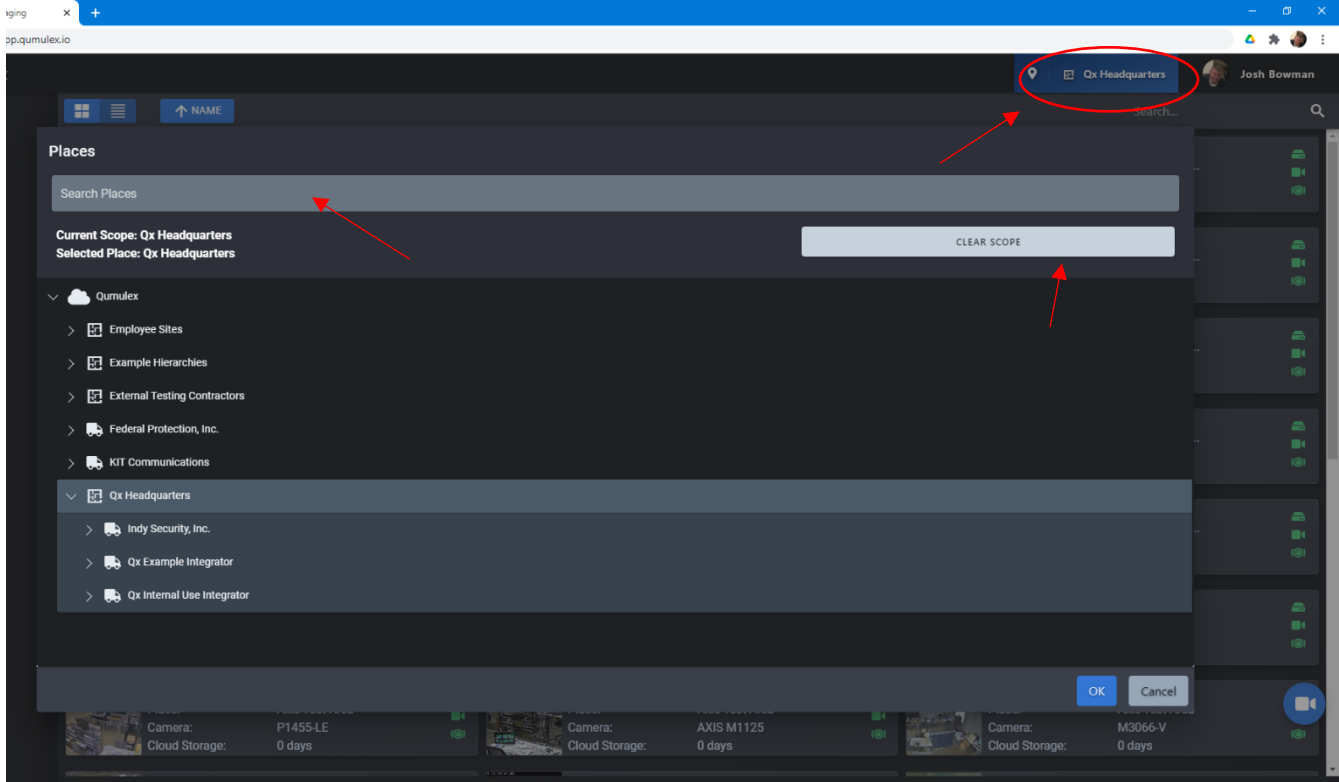
Next, you will also see the list displayed below the download button.

For detailed instructions on the network configuration required, please visit our knowledge base article in the following link: <https://www.qumulex.com/kb/gateway-offline-access>

### Scope Selector

At the top right of every page that you navigate to is the “Scope Selector”. This will always be labeled with the current scope you have selected in your hierarchy. In our case, the current scope selected is named ‘Qx Headquarters’ so that is what you see reflected on the places button. The Places Menu enables you to change or set the scope (i.e., how to select what sites you are working with) without having to leave the current page. You can also use the “Search Places” search bar to easily find sites in a large system.

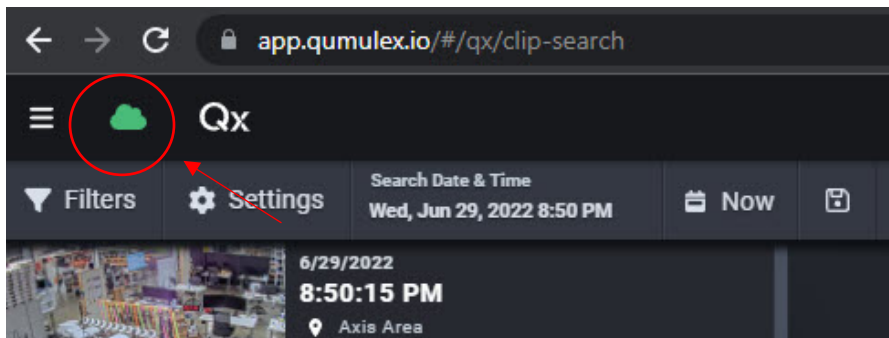
Choose “Clear Scope” to move back to the highest level of your hierarchy and see all sites and areas again.



## Cloud Status Icon

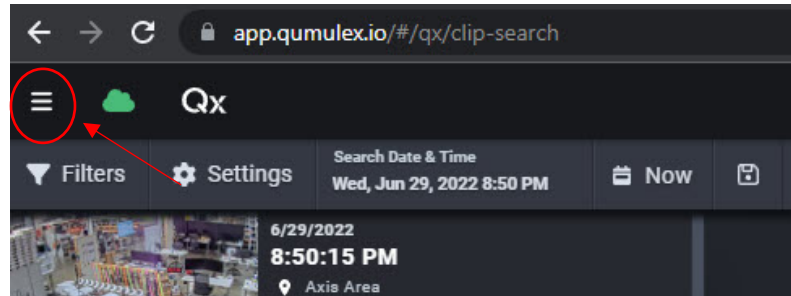
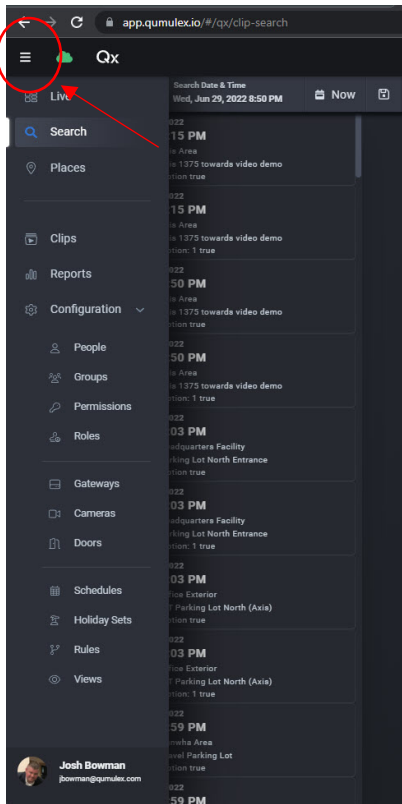
To the top left of the Qx Control App is the Cloud Status icon. This is a “non-clickable” icon that displays the status of QxControl. A green icon indicates that the service is online, and everything is working properly. A red icon indicates that the service is offline or there is a problem.

Note: If there is a system wide update taking place, you may also see a red icon even though QxControl will still be operating properly. This will resolve once the update is complete and return to a green status. You will then also be prompted that an update is available to you.



## Navigation Menu/Hamburger Icon

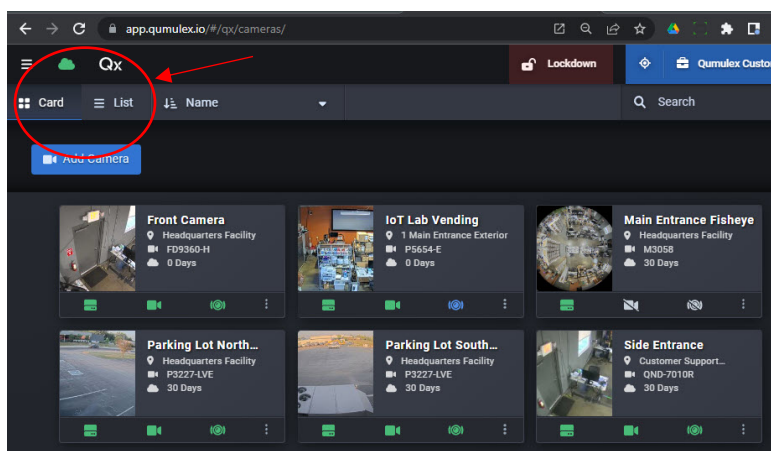
The Navigation Menu is located on the left side of the screen. This is your primary menu for navigating to the various Application Areas available in QxControl. The “Hamburger Icon” is represented by three lines at the top of the Navigation Menu and is used to either hide or reveal the Navigation Menu.

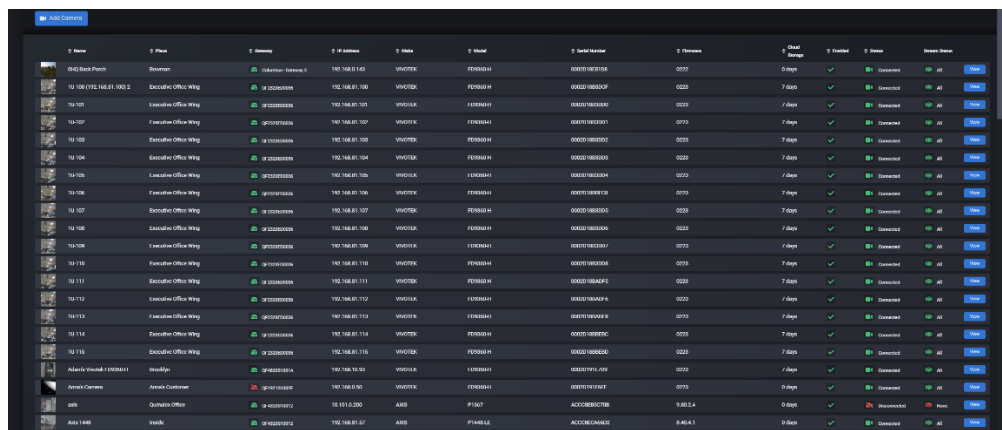


## Card View/List View Buttons

There are several Application Areas that offer the choice of a “Card View” or “List View”. These are typically found in Application Areas that contain People or Devices such as the Cameras, Gateways and People pages.

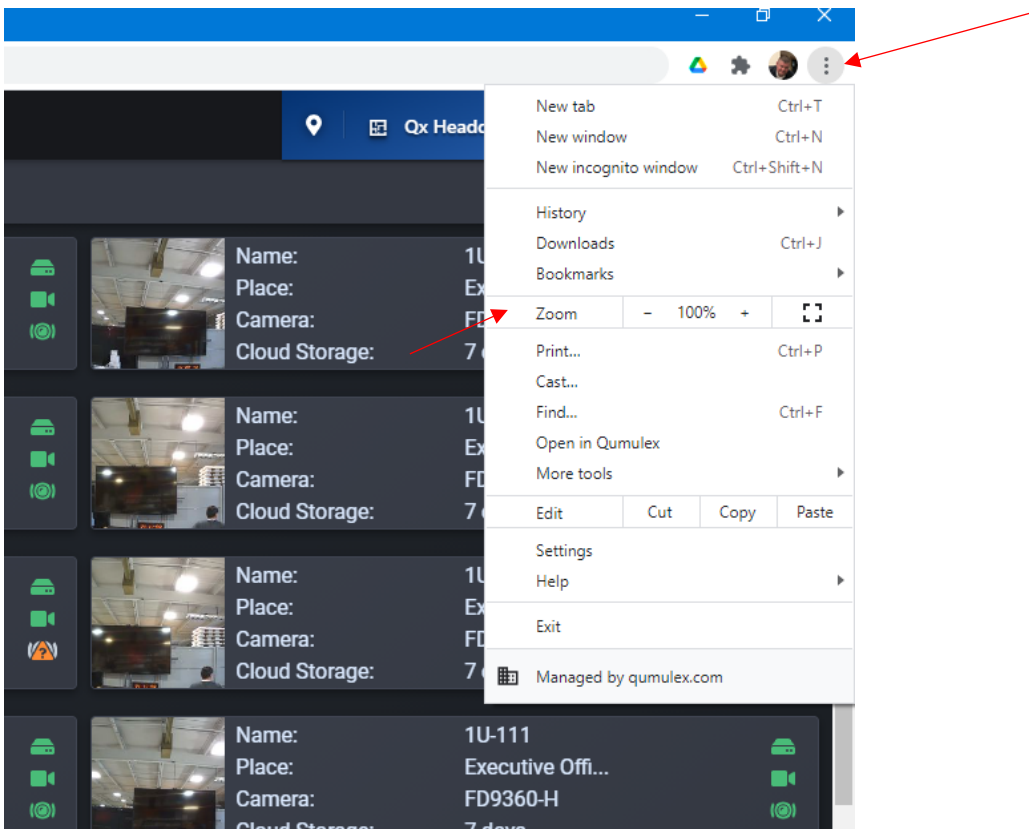
On these pages you can find the Card and List View Buttons at the top of the screen centered above the view.





While using QxControl you can make a few small adjustments to make full use of your browser interface and to tailor the experience to your own preference.

Depending on the size of your monitor, you may want to adjust the “zoom level” of your browser. This will allow you to “zoom out” and make full use of a larger monitor, or for a small monitor you could “zoom in” to make smaller images easier to see. Each browser may place this function in a different place, but every browser should have this option. For example, here is how to make this change in Google Chrome:



### Adjusting the Browser Size

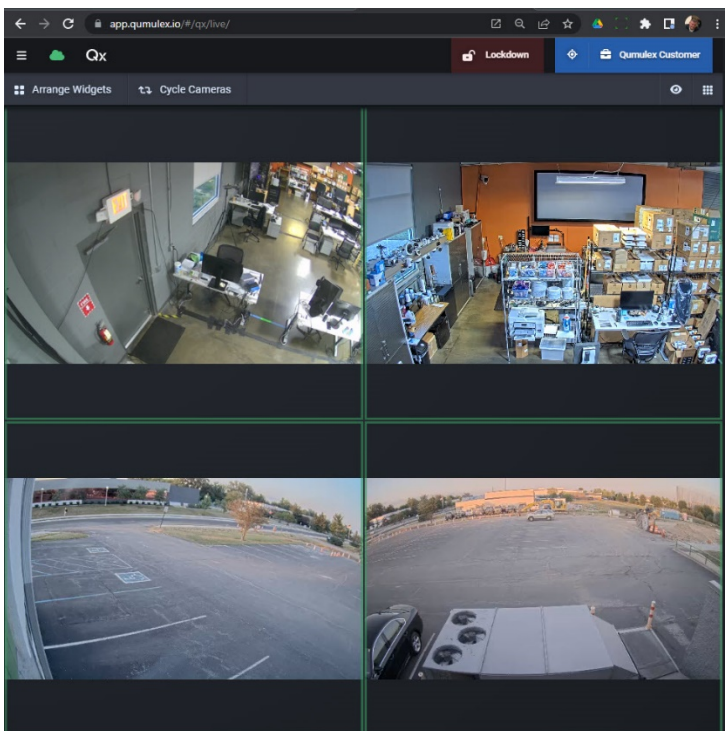
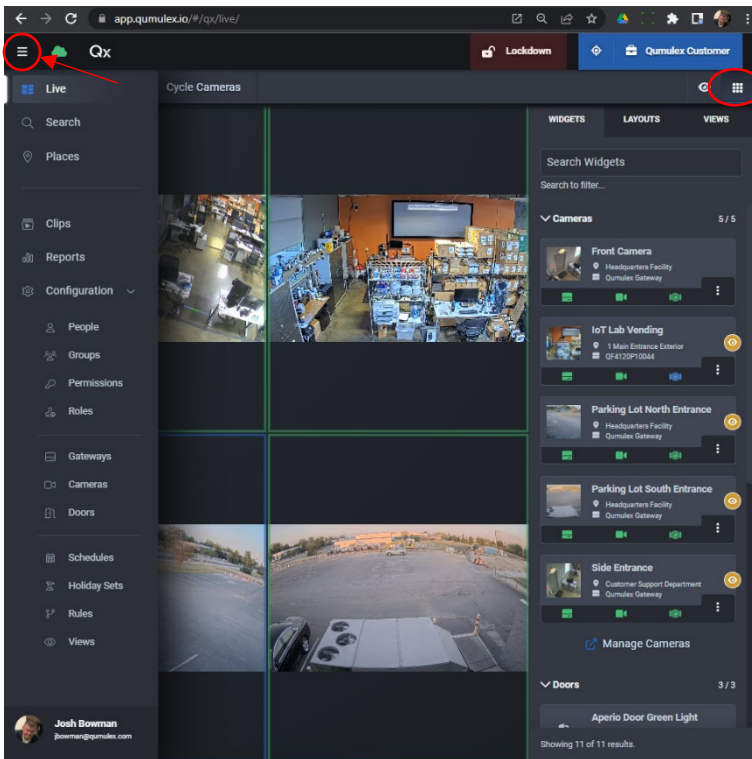
Similar to adjusting the resolution, you may also want to adjust the size of the browser to make full use of your screen, or you may also want to reduce the size to share with other applications on a larger screen.

There are two ways to do this. The easiest and most common method is to use your mouse and drag the edge of the browser window to the size you prefer. You can also use shortcut commands, such as pressing “F11” for full screen when using a Windows device.

### Adjusting the QxControl View

You can also adjust QxControl to enhance your viewing experience. Using the “Live” page as an example, you can use the hamburger icon in the top left to collapse the menu view and make full use of the view. You can also collapse the resources menu in the top right, and you can also use the “F11” command to expand the browser to full screen. Here is an example using Google Chrome where we will use all three of these methods:





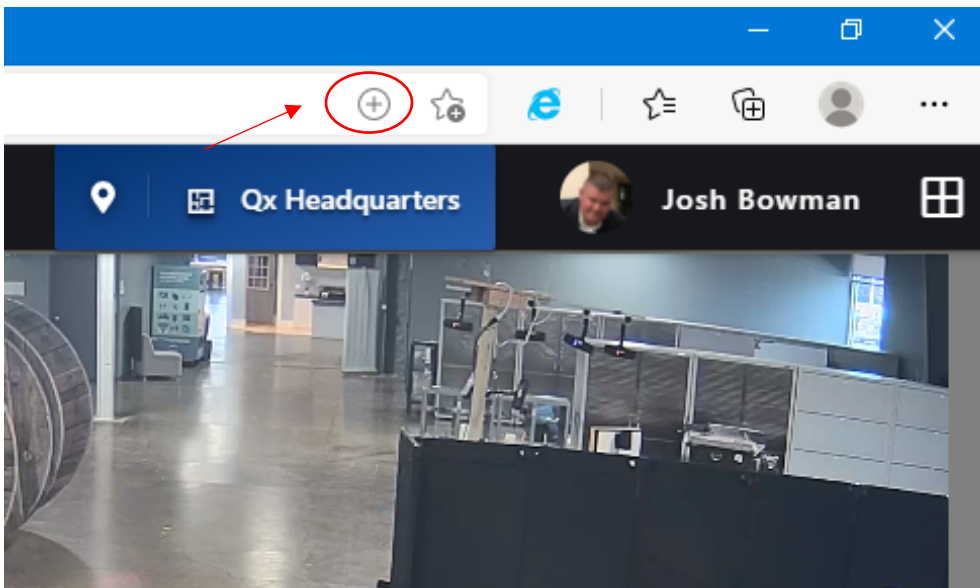
## Installing the Browser Extension

Another option to achieving a full screen browser view, without using the F11 command, is to install the available browser extension. This will also provide you a desktop shortcut and a dedicated browser instance, meaning that you will not share the QxControl tab with other browser sessions. On a Desktop or Laptop this is a similar procedure to the shortcut process using a mobile device. If your browser is PWA compatible, you will see a small “plus” symbol on the far-

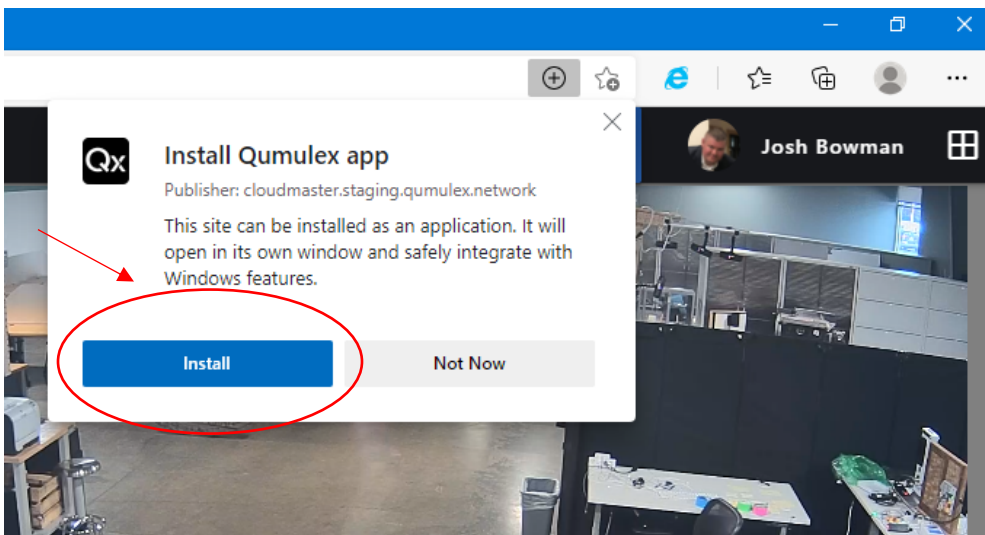


right side of your URL/Address bar in the browser. In this example we will install the Microsoft Edge extension, as Edge is already PWA compatible.

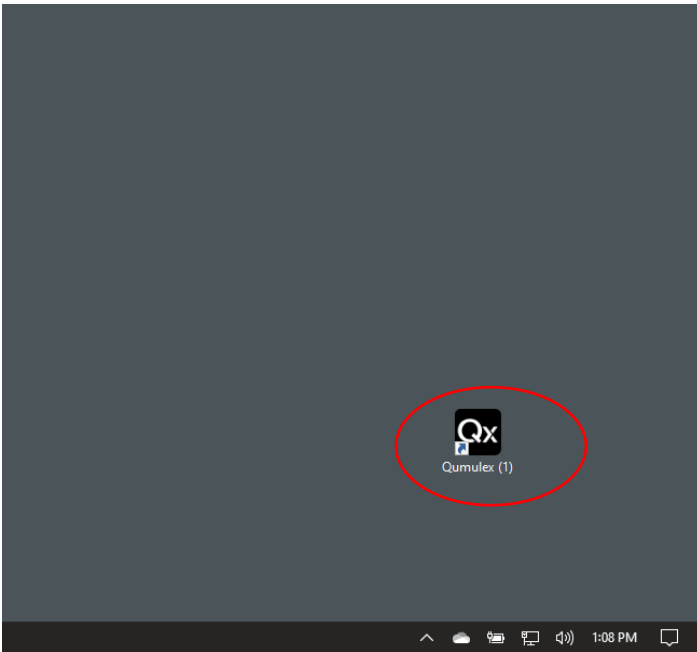
Step One: Select the Edge extension icon:



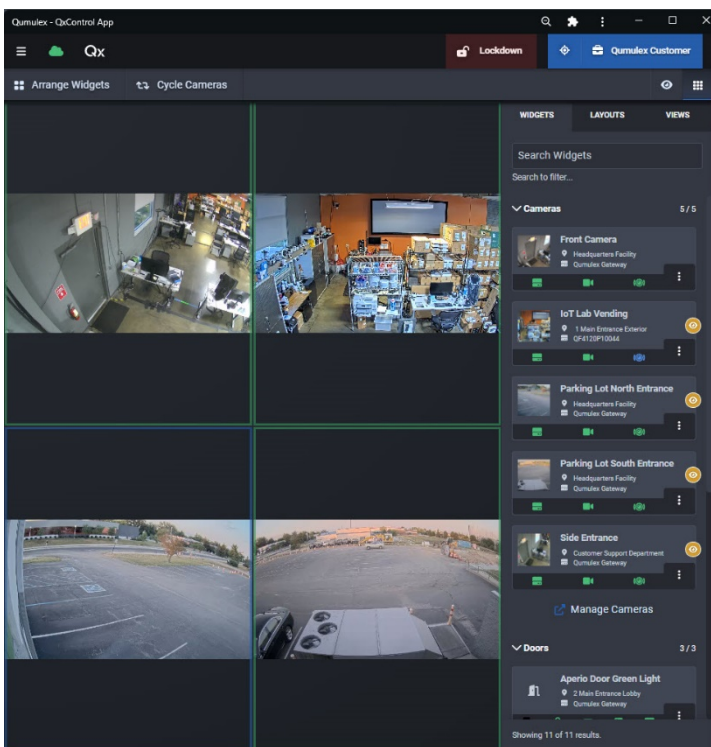
Step Two: Select the option to "Install"



Step Three: You will now have a "Qx" icon on your desktop. Open this shortcut to use the extension.



Success! You are now able to use the browser extension!

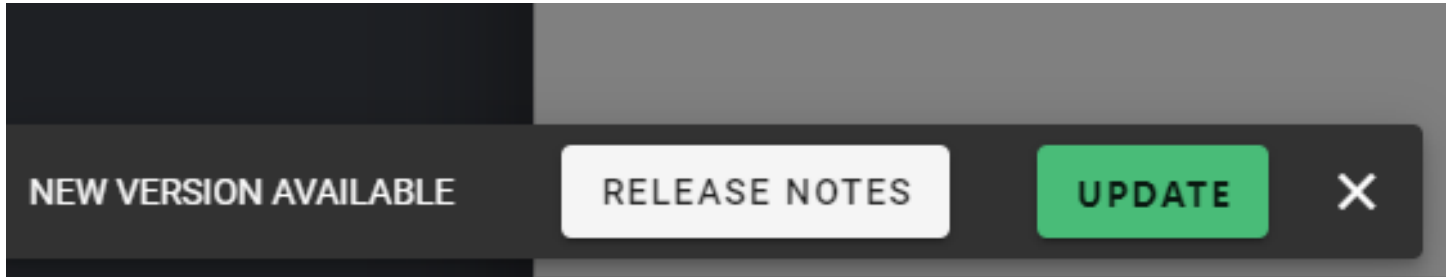


Note: This is not a separate software program. This is simply an extension of your browser that allows easier access via a shortcut, provides a dedicated browser instance to avoid “tab sharing” and allows a more intuitive full screen experience. As described earlier in this guide, use the “share menu” on your mobile device to create this same experience on your mobile device.

## Updating the Browser Client

Updating your browser client to the latest version is simple and easy. When the QxControl software has been updated (both Cloud and On-Premises), you will receive a notification to update to the latest version. Simply click on the “Update” button to complete this process.

If you wish to see what is new in this available update prior to updating, click on “Release Notes”.



The Browser will refresh during the update, and then you will be returned to QxControl. Easy!

Please note: If you use multiple browsers, you will be asked to update in each type of browser that you use.

## Best Practices for Mobile Operation

As a progressive web app, QxControl is designed to offer the same experience, regardless of whether you use the app on a desktop or mobile device. However, there are some inherent differences between the two types of devices and how they operate.

This section offers best practices for using QxControl on mobile devices that will help you have the best possible experience on mobile.

### Mobile Device Compatibility

QxControl is compatible with supported devices using either iOS or Android operating systems. It is important to remember that “supported” means that the device is still new enough that it is eligible to receive OS updates from the manufacturer.

Once a device has been deemed “end of life” by the manufacturer, it is no longer going to be compatible with QxControl. QxControl is a progressive web app and will need the device to be current for all components to operate correctly.

You can verify the status of your device here:

For Android Devices, start by choosing your Manufacturer from this page:

<https://support.google.com/android/answer/3094742?hl=en>

For Apple Devices:

iPhone

<https://support.apple.com/guide/iphone/supported-models-iphe3fa5df43/ios>

iPad

<https://support.apple.com/guide/ipad/supported-models-ipad213a25b2/ipados>

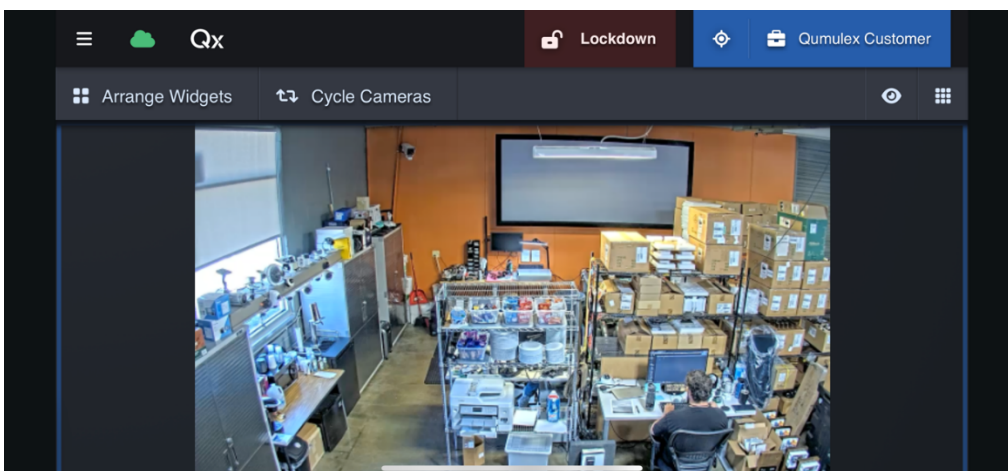
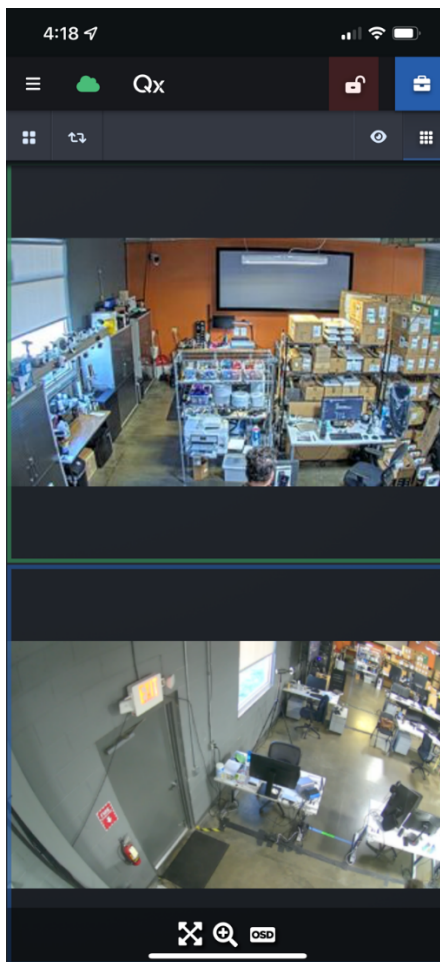
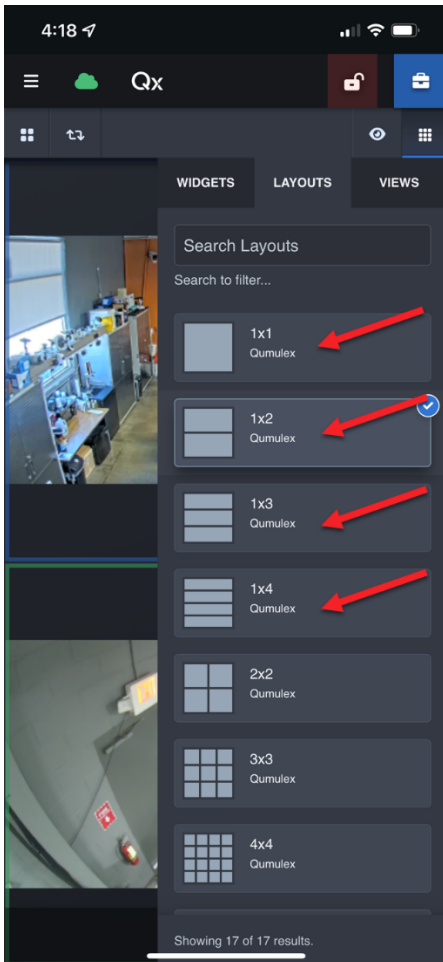
These manufacturers will typically support mobile devices for a very long time. If you have an older device however, it may be beneficial to check the links above if you are having performance issues or if features are not working consistently or correctly.

**NOTE: If you are having issues with mobile operation, make sure that your iOS or Android device is up to date and using the most recent OS version.**

## Using Mobile Layouts & Stacked View

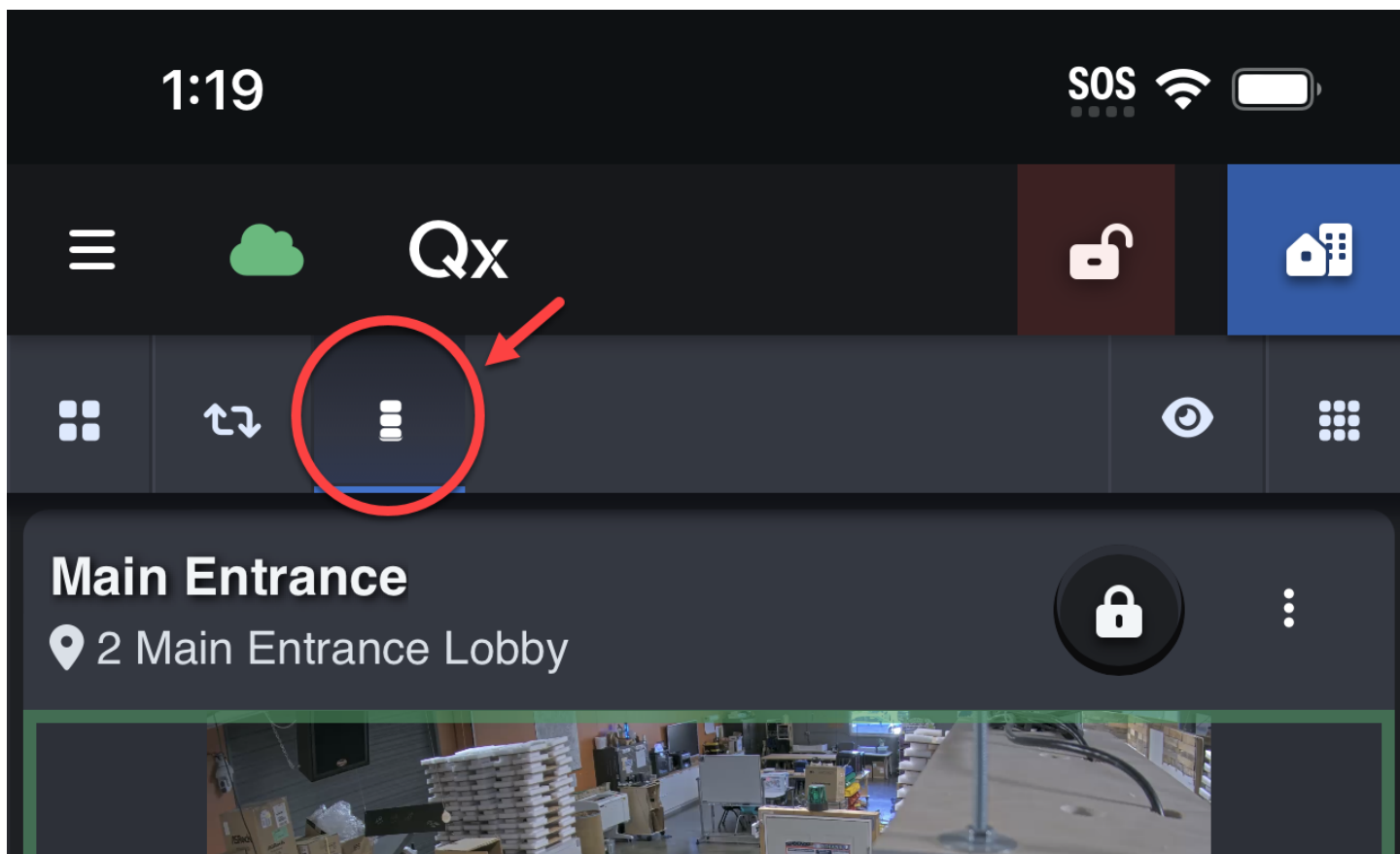
Qumulex has added and will continue to add layouts that are friendly to use on mobile devices. While you can use any desired layout or view that is saved in QxControl, the aspect ratio combined with the smaller screen size will make larger layouts difficult to see.

When you are selecting views from the Live Pane, 1x1, 1x2, 1x3 and 1x4 are the views that work best on mobile screens (1x1 works best in landscape, 1x2/1x3/1x4 in portrait) :

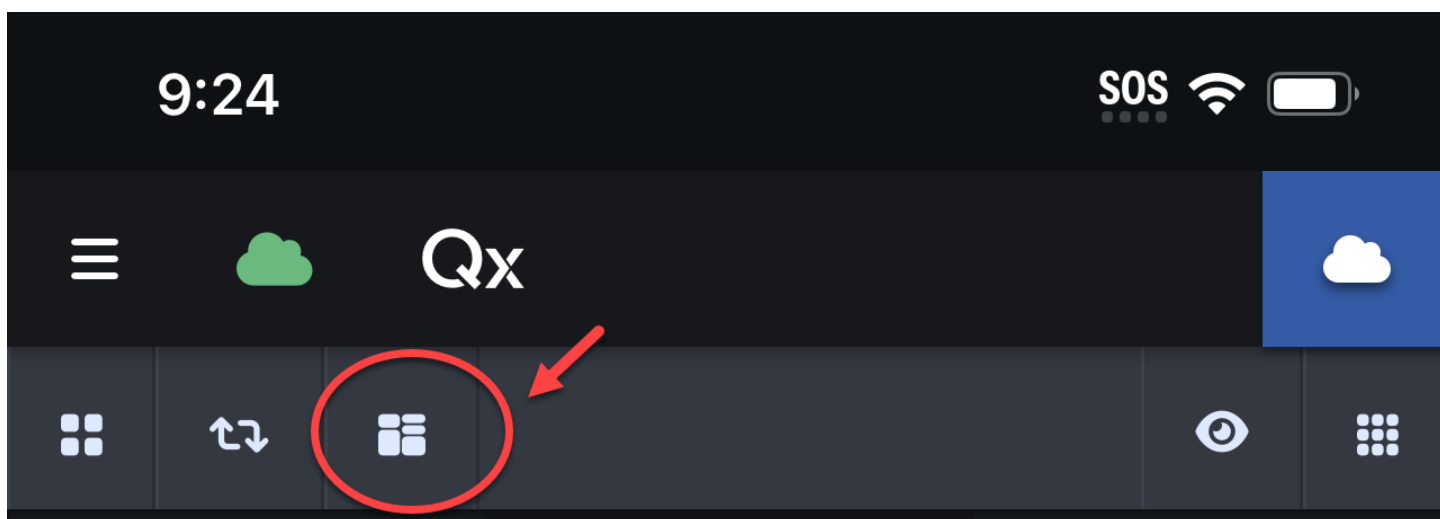


QControl also offers the “Stacked View” on mobile devices. The stacked view can be enabled or disabled by choosing the stack icon at the top of the app view:

Enabled:



Disabled:

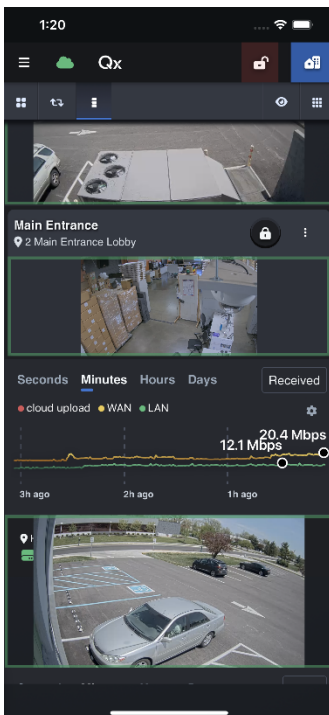




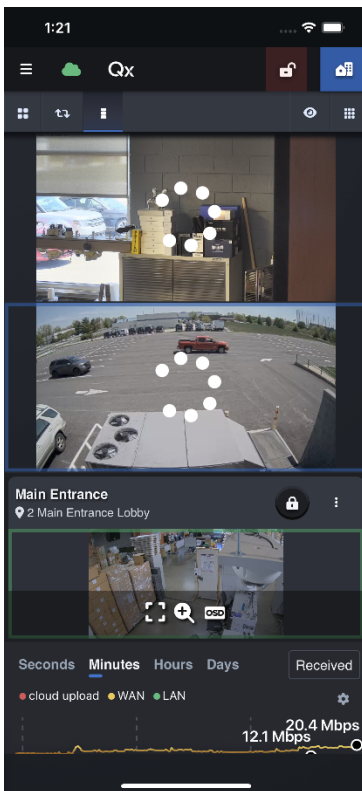
When stacked view is disabled, you will see the layouts in the same format as you would when using a desktop. Some layouts work okay in this format, but many will become challenging to view due to aspect ration and size. This also means that in larger views such as 3x3, you are streaming all cameras at once. This can overtax mobile devices, especially devices that are not the most recent model.



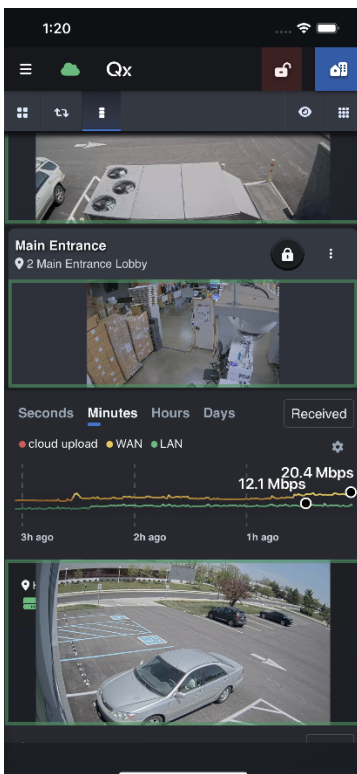
Using the stacked view allows you to scroll vertically through all available widgets in a view.



This makes the widgets easier to view as they are larger and are better able to maintain the proper aspect ratio. Another benefit of this approach is that widgets that are off-screen will be paused, using less bandwidth, processing, and battery.



As you can see in this example, I have scrolled to reveal more widgets. The video was paused and is now re-connecting. This approach allows you to work with larger layouts more easily without overtaxing your mobile device.





### iOS Performance Settings (Selecting Number of Workers)

Apple mobile devices using QxControl support another great feature to enhance performance. You can choose to enable additional workers for newer devices and decrease workers for older devices.

So, what are workers?

Our gateways stream fragmented MP4 video. This helps achieve lower latency. However, iOS does not support the same video playback options as other platforms. This affects all browsers on iOS - obviously Safari but also Chrome, etc.

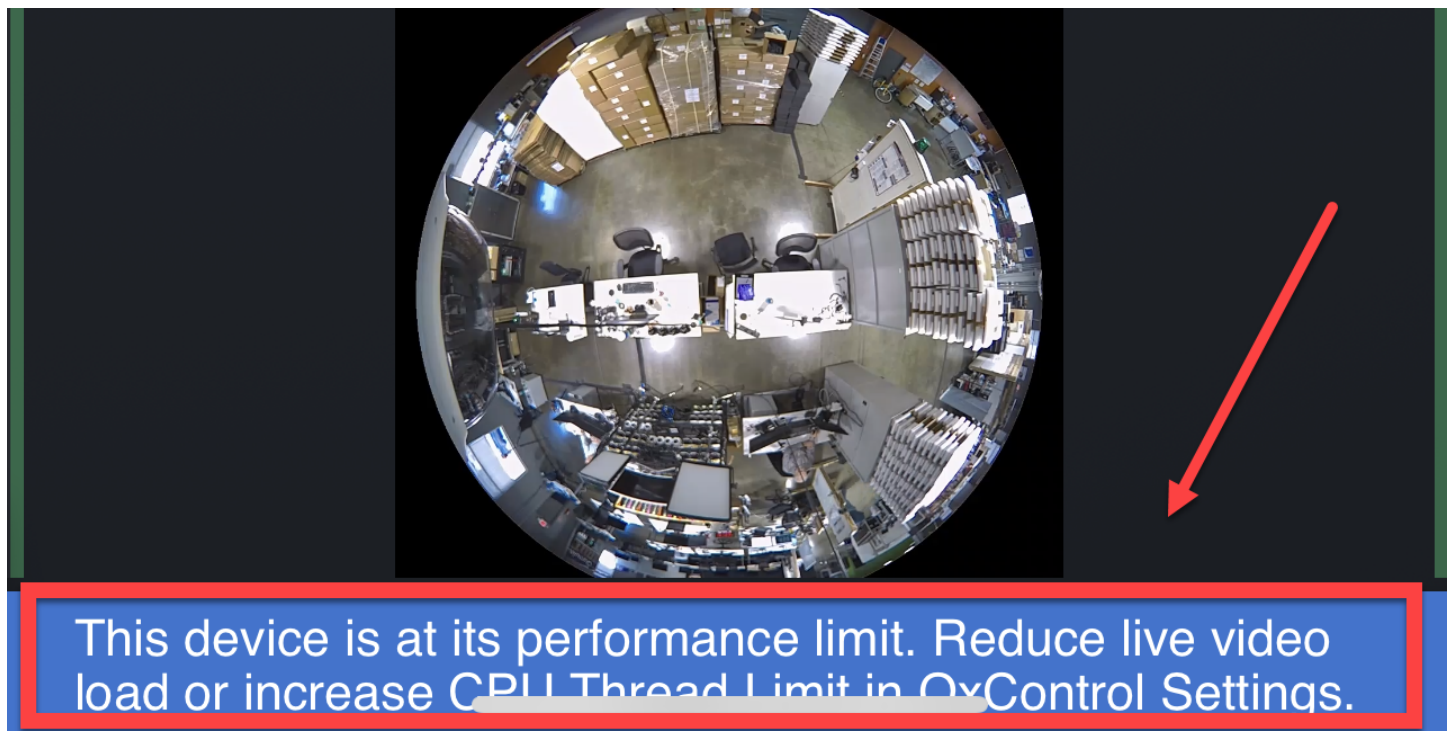
One of the things we do to make video playback work on iOS is to defragment every segment (GOP) before passing it to the browser's HTML video element. A segment is on the order of 1 MB, so this process takes several hundred milliseconds.

To keep that from stalling the user interface, we launch Web Worker background threads to do the defragmentation. Ideally, we'd have one worker per video stream; then we'd never have to wait to start the defragmentation after we receive the segment. However, the workers consume memory, so we must conserve and share them between video streams.

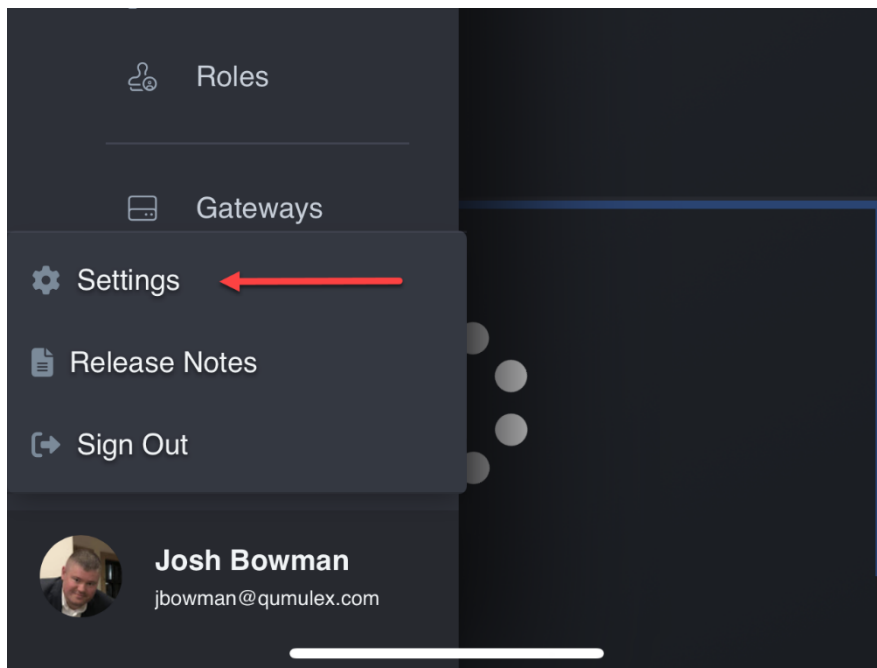
Browsers on iOS are prevented from knowing almost anything about the hardware, including how much memory is being used or available. If we use too much memory, iOS kills the browser tab. Therefore, we choose the minimum (one worker) and let the user increase that minimum based upon their knowledge of the iPhone model.

Now that we know more about workers and why they are useful on iOS devices, let's discuss how to change the worker count.

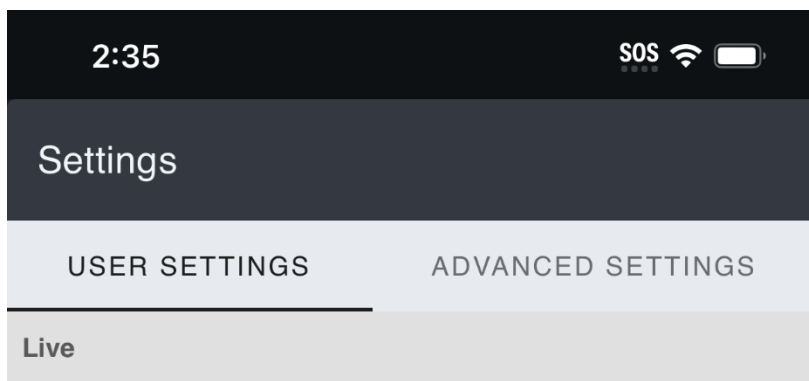
The first step is to decide if you need to make a change. QxControl will offer a warning at the bottom of the screen if you are not using enough workers based on your model and performance:



Click on the user Avatar at the bottom of the screen to reveal the settings menu:



Next, click on the field under “Video Player CPU Thread Limit” to reveal the worker options:

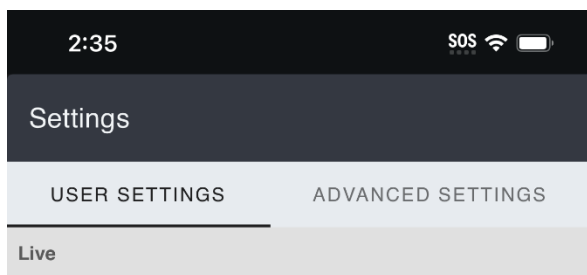


- ☒ Enable Default Views
- ☒ Enable Clickable Cells
- ☐ Enable Live Event Borders

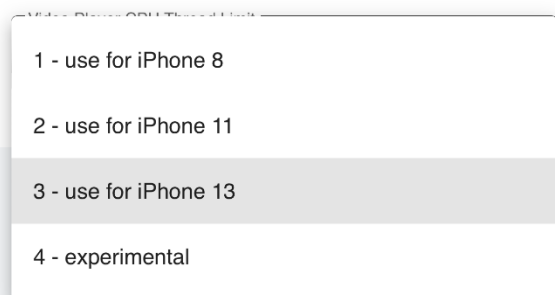
Video Player CPU Thread Limit

1 - use for iPhone 8

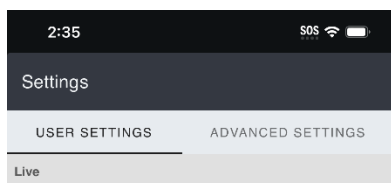
Next, choose the option that best fits your model:



- ☒ Enable Default Views
- ☒ Enable Clickable Cells
- ☐ Enable Live Event Borders

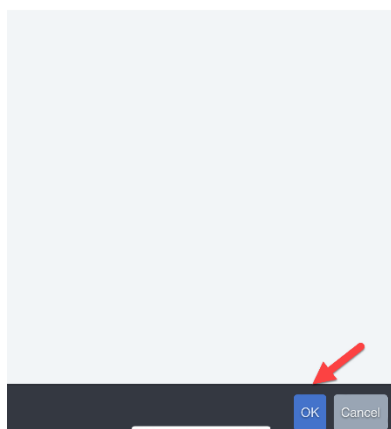


Lastly, choose "OK" to accept and save your selection:



- ☒ Enable Default Views
- ☒ Enable Clickable Cells
- ☐ Enable Live Event Borders

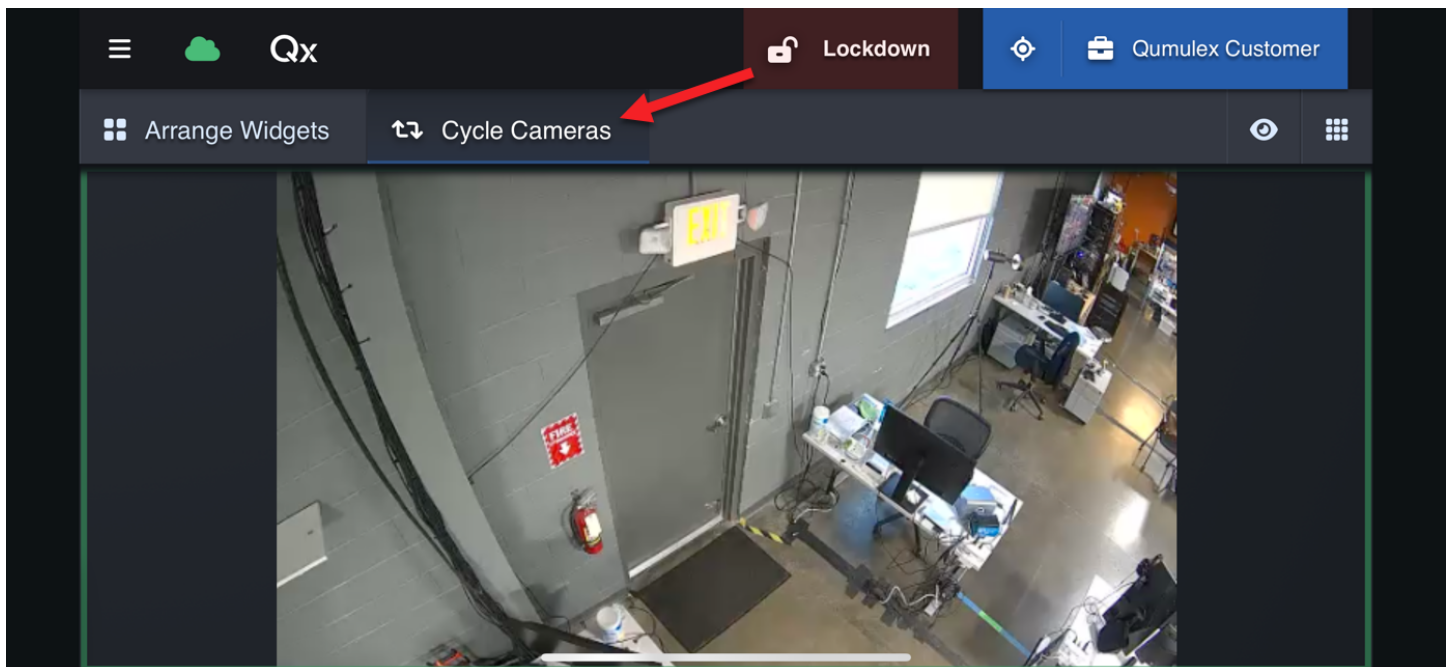
Video Player CPU Thread Limit  
3 - use for iPhone 13



A couple quick notes about the iOS performance settings:

- 1) It is only available on iOS devices such as iPhone and iPad.
- 2) This option will not enable an end-of-life Apple device to work with QxControl
- 3) Unlike many other settings in QxControl the changes you make to performance management will not be reflected on other devices. This is by design as each device may individual needs.

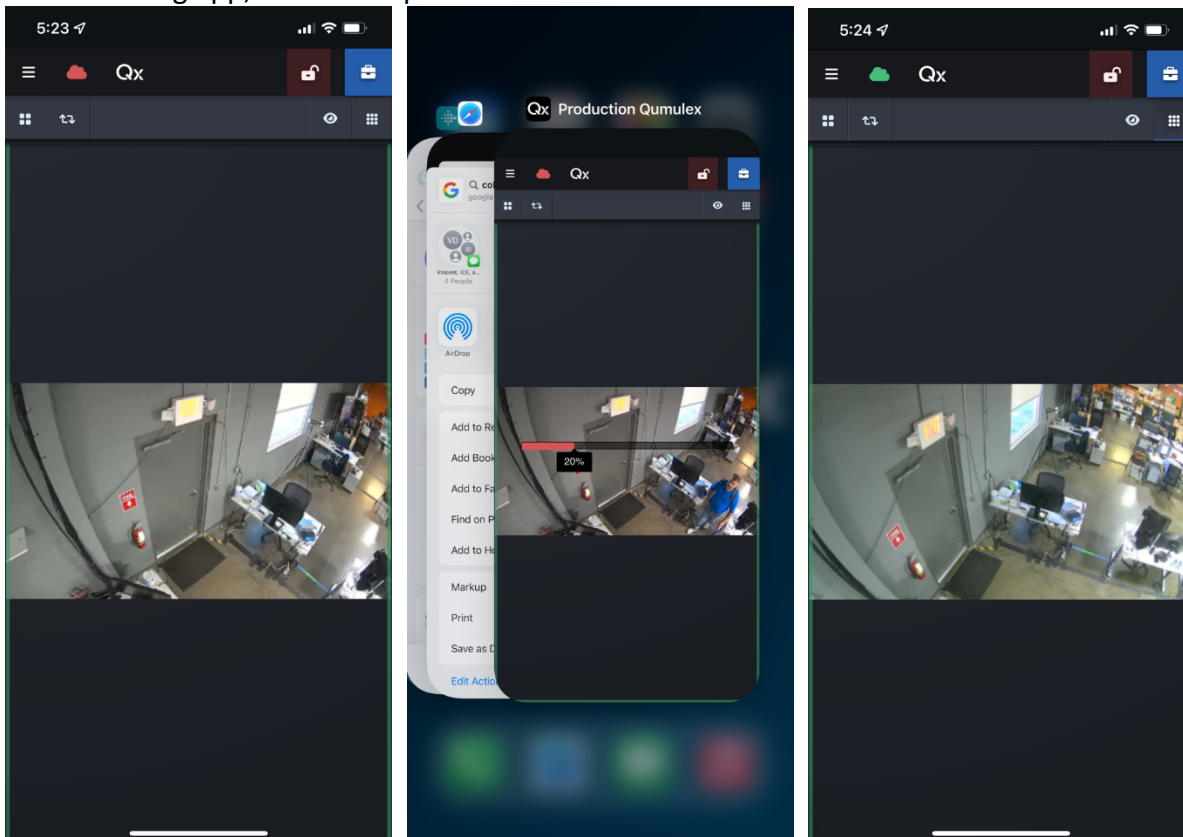
Lastly, another good strategy when viewing on a mobile device is to use the Cycle Cameras button in a 1x1 and quickly flip through the available cameras. This helps you quickly see each camera that is available to you and is also a quick way to work through all cameras and find a real-time event after receiving an alert.



## PWA-Specific Considerations

In this section we will highlight a few factors to consider when using mobile. Because we deliver in a PWA app versus a traditional mobile app, there are many benefits such as being able to use common browsers and always being up to date and in-synch with the desktop app. While this is beneficial, there may be a few actions that you are not accustomed to unless you have used other PWA-based apps. Here are a few tips to ensure the best experience.

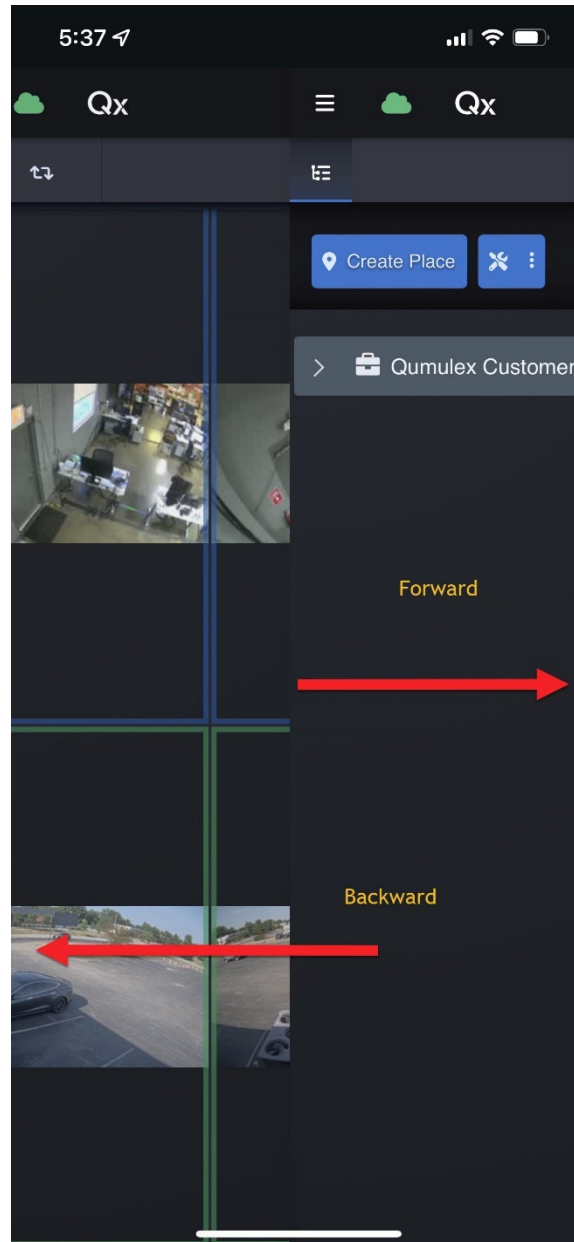
- (1) Be sure to save the app to your home screen. This will allow the app to behave more like a mobile app and will remove the traditional bookmarks, addresses and other items that take up valuable real estate on your screen. It will also place a shortcut with the QX icon that makes it easy to locate. This also prevents you from using a bookmark or typing in our web address to enter the app. Often, time is of the essence when you want to view video or events. Instructions on how to do this are located in this chapter under “Logging in for the first time: From a Mobile Device”
- (2) Sometimes you will see a Red Cloud indicator and video seems to be stuck. If your site is working properly on another device your connection to the service may need refreshed. This can happen on any mobile device but seems to be most prevalent on certain iPhones. To refresh you simply need to reboot the PWA app by pulling upward on the bottom of the page until you see the cards open for each running app, then flick upward to close it.



After doing this procedure you will now see a green cloud and video is restored. Note: the process of rebooting an app may vary on Android devices depending on what manufacturer you use. Consult the device manual for instructions.

- (3) You can use swipe gestures to page forward and backwards, like a page forward or backward arrow button would work. This makes it easier to navigate on mobile. Simply use your finger to swipe right or left in order to use the swipe gestures.

In this example, I have navigated to places from Live, and I am able to swipe left to return to Live without opening the left-hand toolbar:



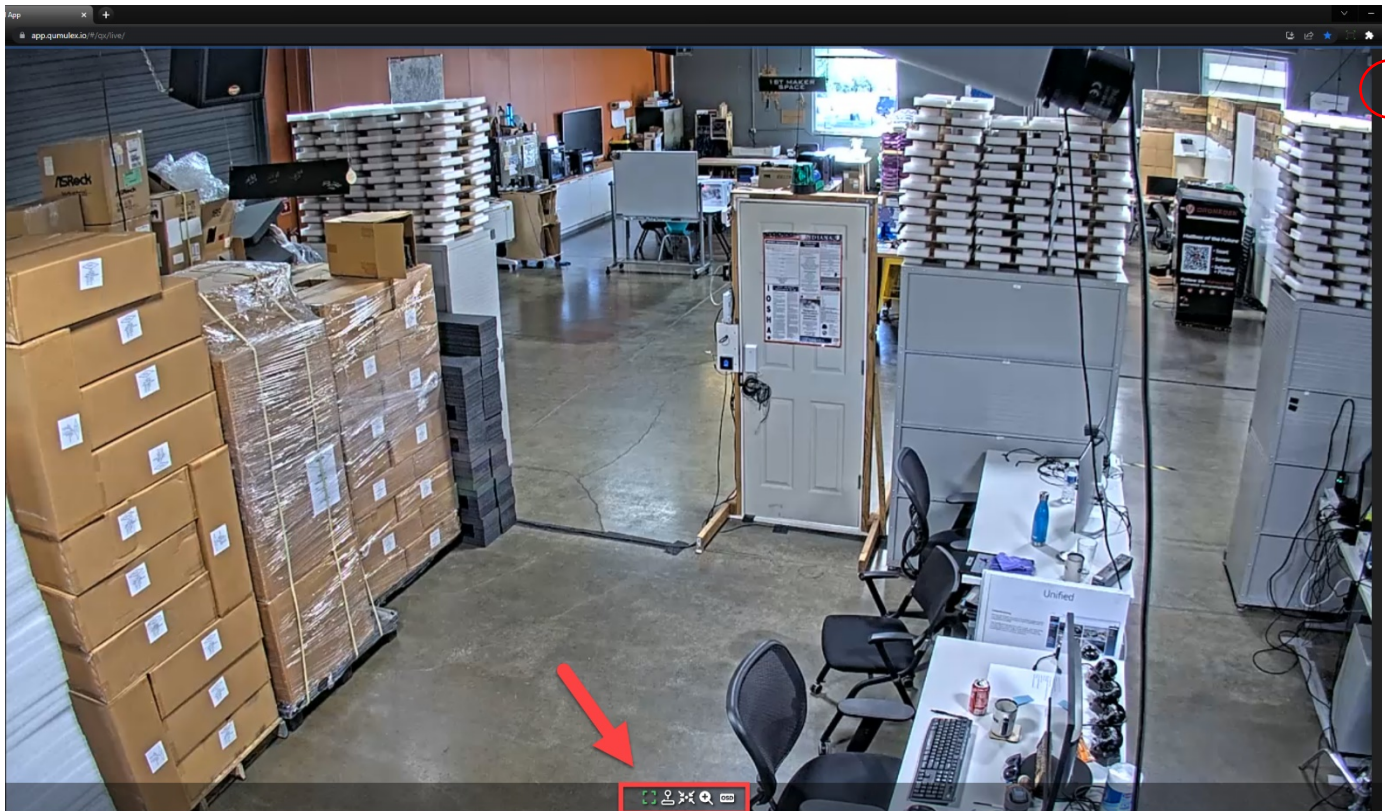
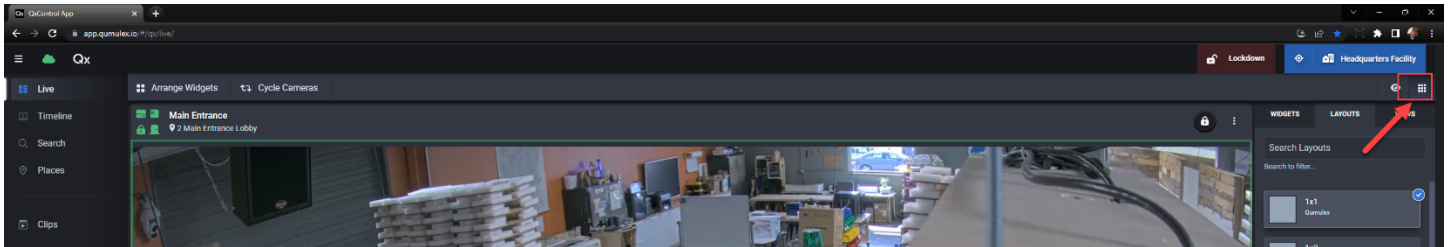


## Application Areas

### Live

The live page is where cameras and events can be monitored, and doors can be operated. Live also allows various status and performance related information to be tracked and displayed with Data Charts. This is accomplished through the available corresponding widgets. Widgets are sorted and classified as “Cameras”, “Doors” and “Other”. The Widgets available will depend on the current scope, such as the site or area you have selected in Places.

Use the icon at the top right to open the Live Tray and select Widgets for the layout, change the layout or to access the saved views.



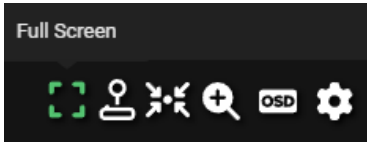
### Live Actions

The following actions are available in the live actions menu. Hover your cursor over the menu to reveal the options:

1. Full Screen: Takes the camera into a 1x1 full screen view.
2. Mechanical PTZ Control\*: Use a digital joystick to maneuver a PTZ camera.
3. Mechanical PTZ Preset\*: Create and select preset positions for a PTZ camera.
4. Digital PTZ: Allows you to navigate the pixels of a fixed or PTZ camera.
5. Onscreen Display: Toggle the OSD (created in the camera's info page) on/off.

**\*This option will only appear for PTZ cameras. Some multi sensor cameras will allow PTZ but none will support presets.**

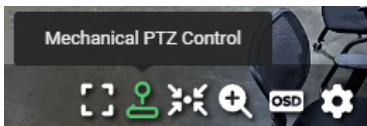
### Live Actions: Full Screen



Full Screen offers the ability to view camera in a large 1x1 layout. When doing so QxControl will display the highest resolution stream that is enabled and will automatically enable Digital PTZ.

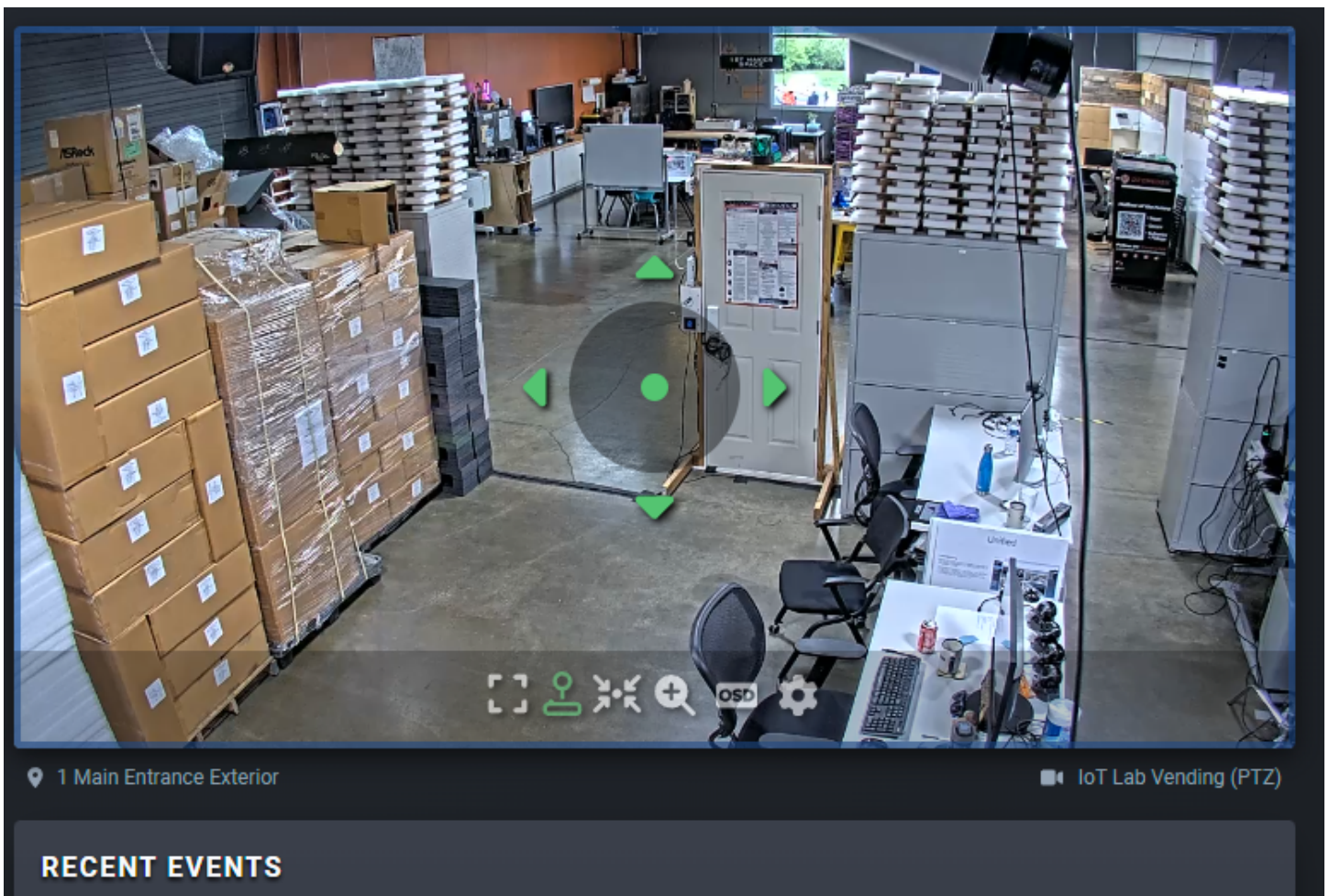
To enable Full Screen, you can either click to select the Full Screen icon, or you can double click on the field of view. To remove the Full Screen, you can also click the icon or double click to remove.

### Live Actions: Mechanical PTZ Control



Mechanical PTZ Control allows you to control the movement of an Onvif S compliant PTZ camera. If the camera is compatible with QxControl the joystick icon will populate automatically. Using this feature is quite easy.

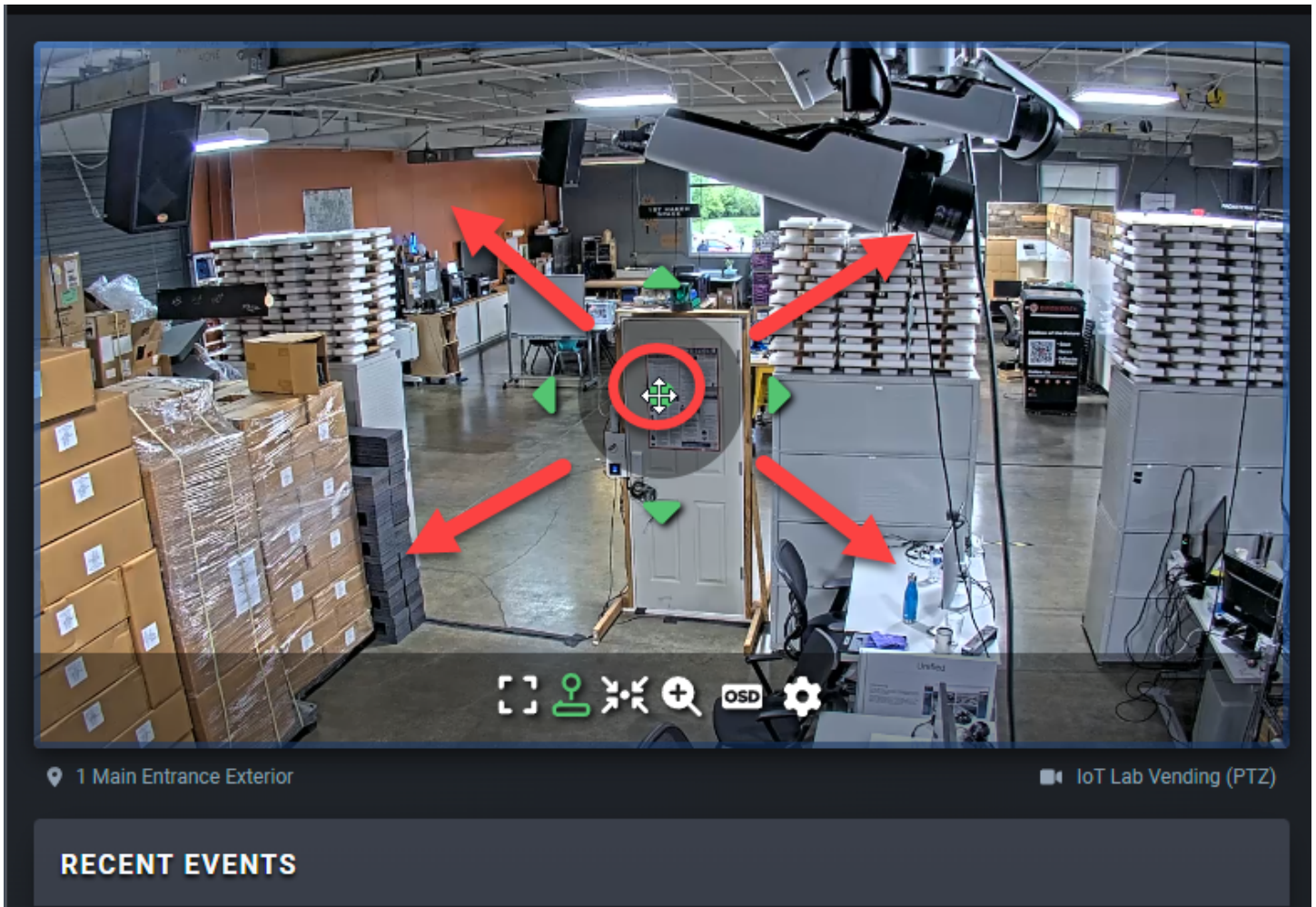
First, click on the joystick icon to bring up the mechanical PTZ controls:





Next, hover your mouse over the center dot until you see the four arrows icon appear, and then click to drag the camera in the direction you want to go. (On mobile you will simply drag the dot)

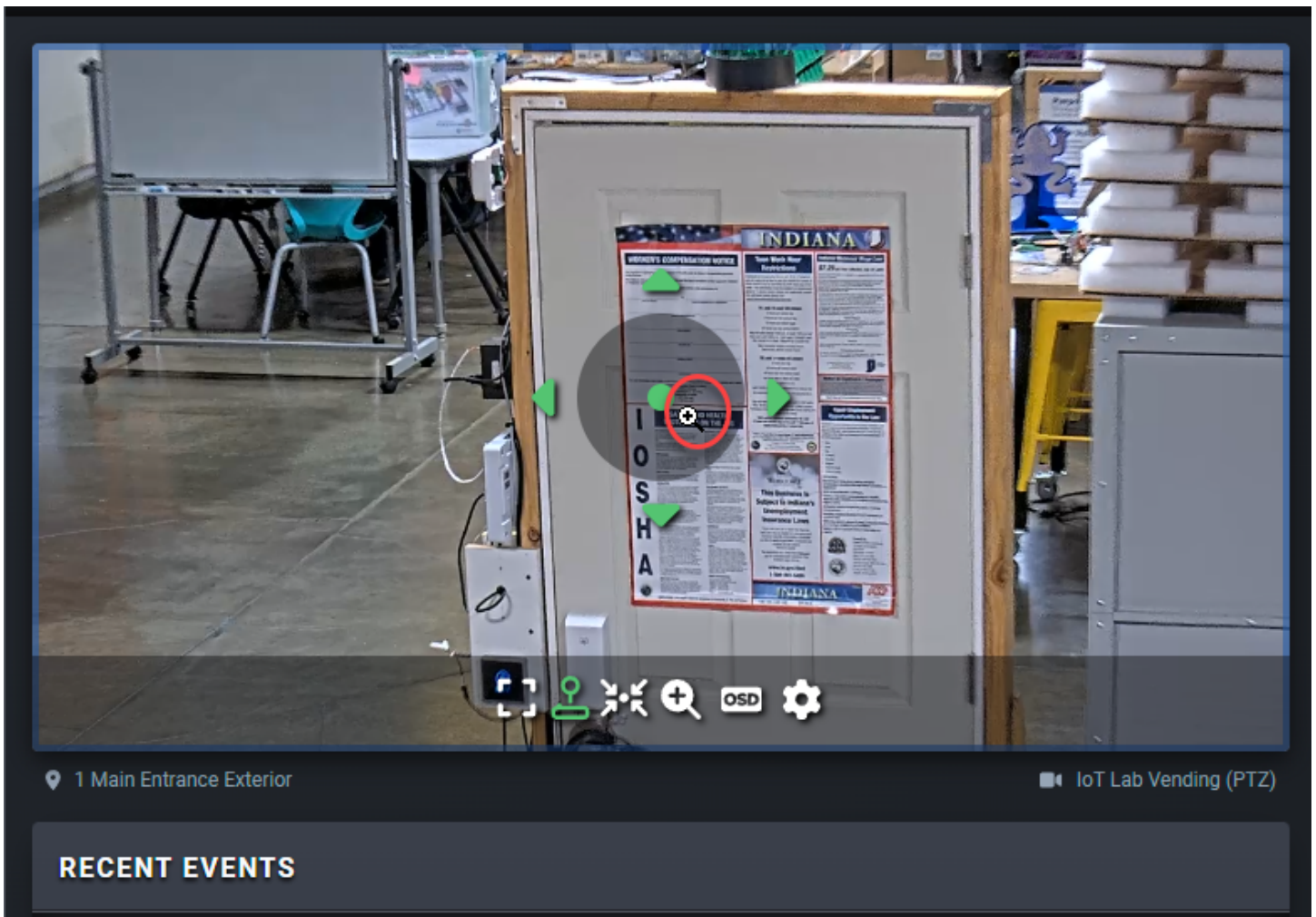
**Note:** The speed of movement will vary based on the motor of your PTZ camera. If you find a camera moves too abruptly for fine adjustment, use the Jog buttons described below.



You can also click on one of the 4 Jog buttons to move incrementally. There are four Jog buttons: Jog Up, Jog Down, Jog Left and Jog Right.



To control the focal zoom of the PTZ camera, ensure that your cursor is away from the center dot, which will change your cursor to a spy glass.

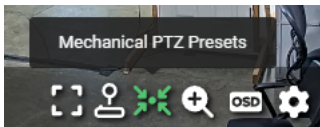


Use your mouse wheel to zoom in and out as desired or use pinch and pull movements if on your mobile device.

Additional notes about PTZ performance:

- 1) The PTZ camera must be Onvif S compliant or must be an analog PTZ camera connected via an Onvif S compliant encoder.
- 2) Currently QxControl does not support the use of USB or other external joysticks. Qumulex is developing the capability to use a USB joystick and that will appear in a later version, date is TBD.
- 3) The directional labeling is based upon the orientation settings in the camera itself. If you mount the camera in a position that is upside down for example, the controls will appear reversed meaning “Jog Down” will equal “Jog Up”, and so on. There is currently no way to change this orientation in QxControl, please check your camera settings in the device web browser to see if orientation can be changed.
- 4) Some cameras that have motorized lenses will appear as a PTZ camera. You may be able to move the lens using the MPTZ feature but you will NOT be able to save a preset.

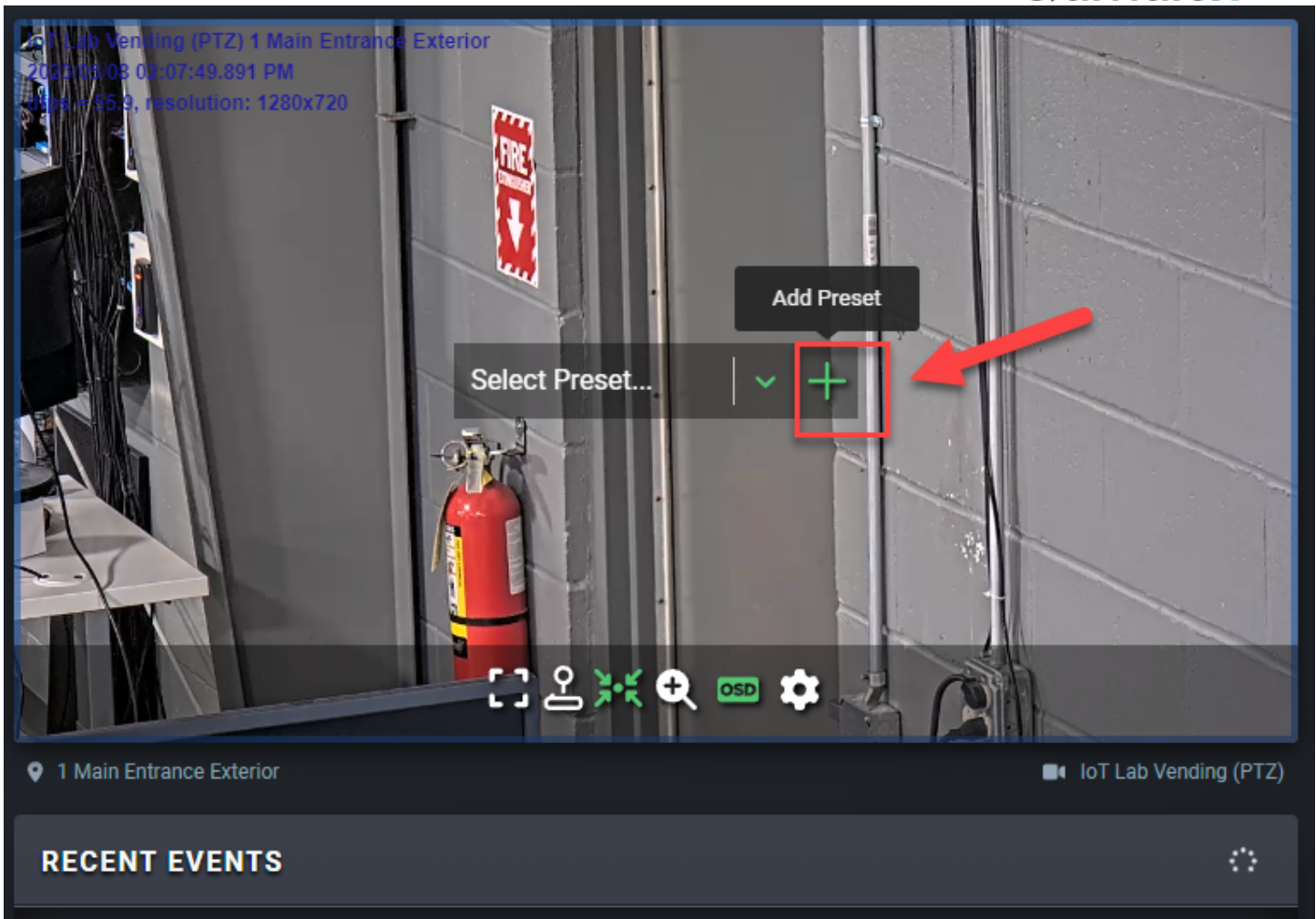
## *Live Actions: Mechanical PTZ Presets*



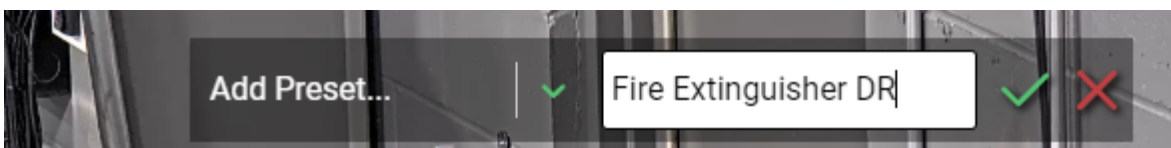
Mechanical PTZ Control Presets allow you to save and return to a variety of “Preset” positions configured by the user. This can be useful to move quickly to frequent points of interest, or to simply save a “home” position that you can return to easily.

The first step in using a preset is to configure one. Let’s create an example where we want to quickly be able to view this door next to the fire extinguisher. First, we click on the Mechanical PTZ Preset button to call up the menu. Then click on the + button to add a new preset:



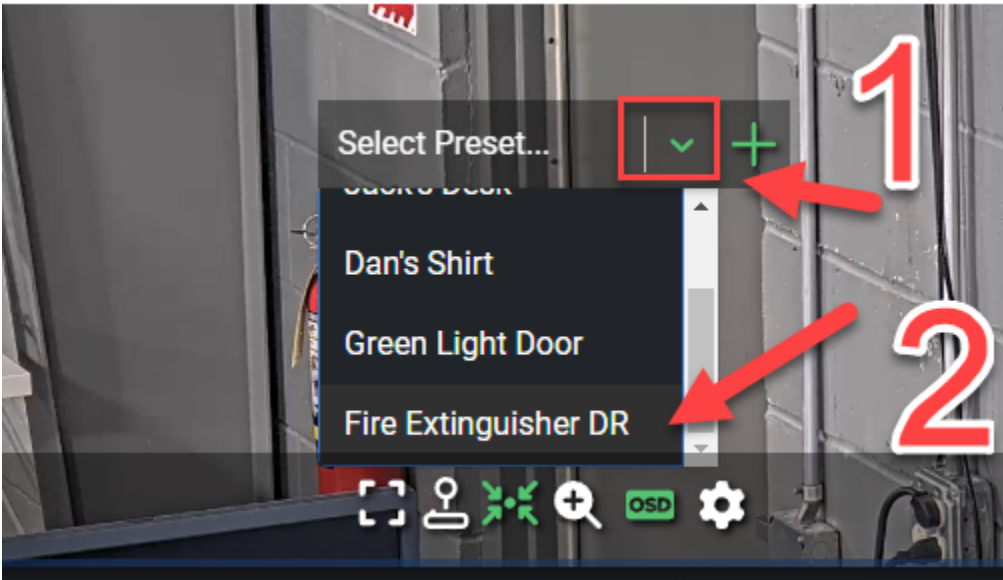


After choosing the “Add Preset” button you will be presented with a text box to label the new Preset:



Once you are satisfied with the name you have entered you can choose the green checkmark to save it or the red x to cancel. You have now successfully created a Preset!

Now, to view and choose an available Preset choose the green down arrow:

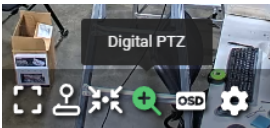


Then, scroll through the options and click to choose the Preset you wish to use.

You can then repeat this operation and save or use additional Presets as desired.

**Note:** The number of presets that can be saved may vary based upon the individual camera model.

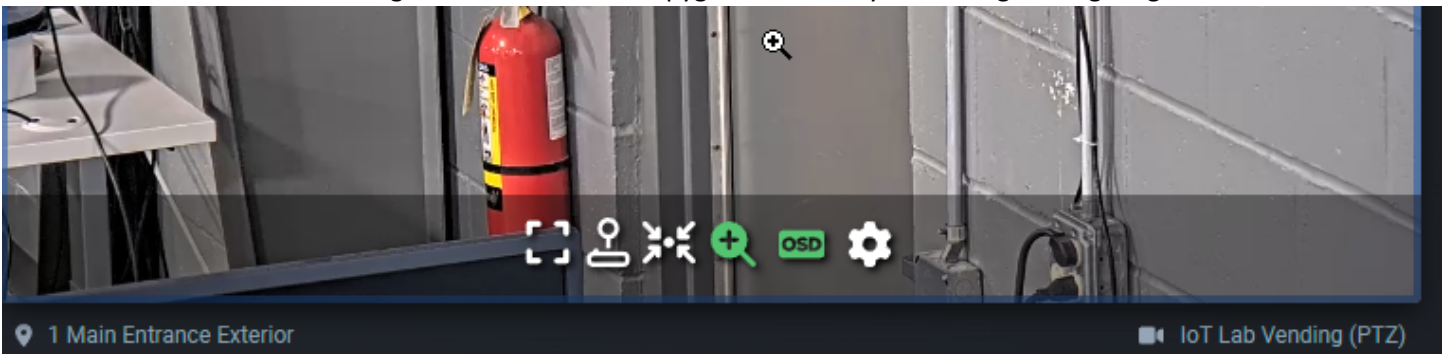
#### Live Actions: Digital PTZ



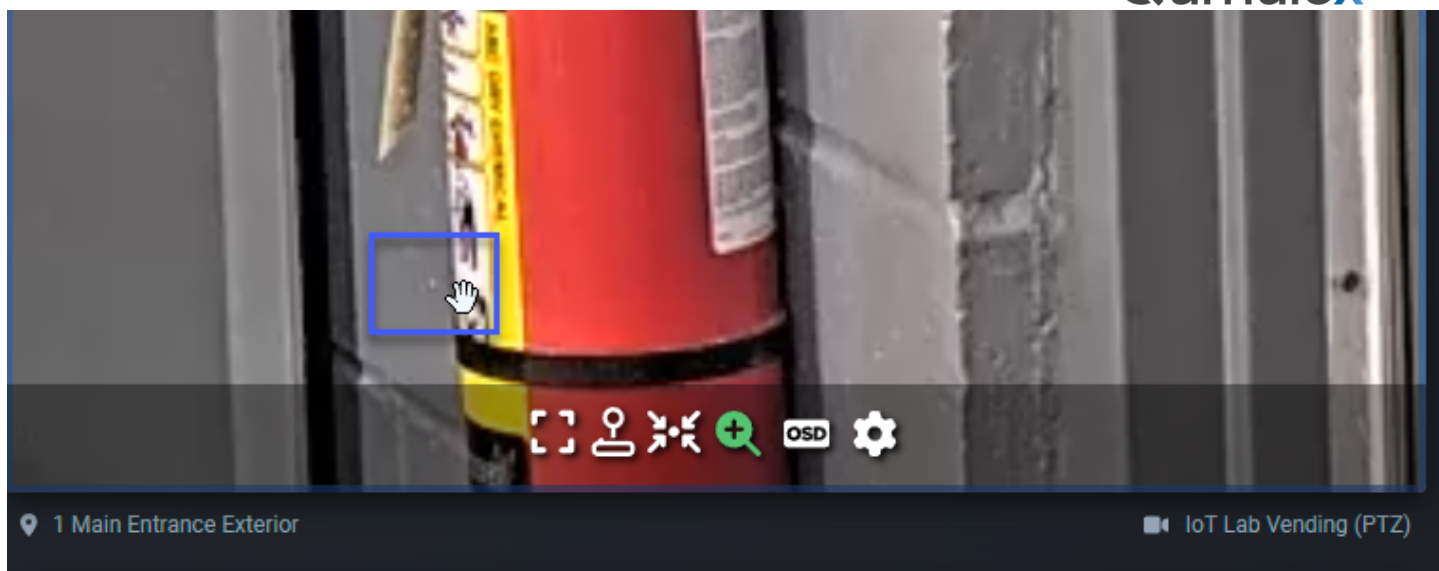
Digital PTZ (Pan, Tilt & Zoom) allows you to navigate the pixels of any camera to get a closer look at activity or a particular part of the scene. Unlike Mechanical PTZ, this feature does not physically move a camera or lens.

To get started, choose the spyglass icon. You will immediately see the camera adjust to the highest resolution stream, which gives you the maximum number of pixels to navigate.

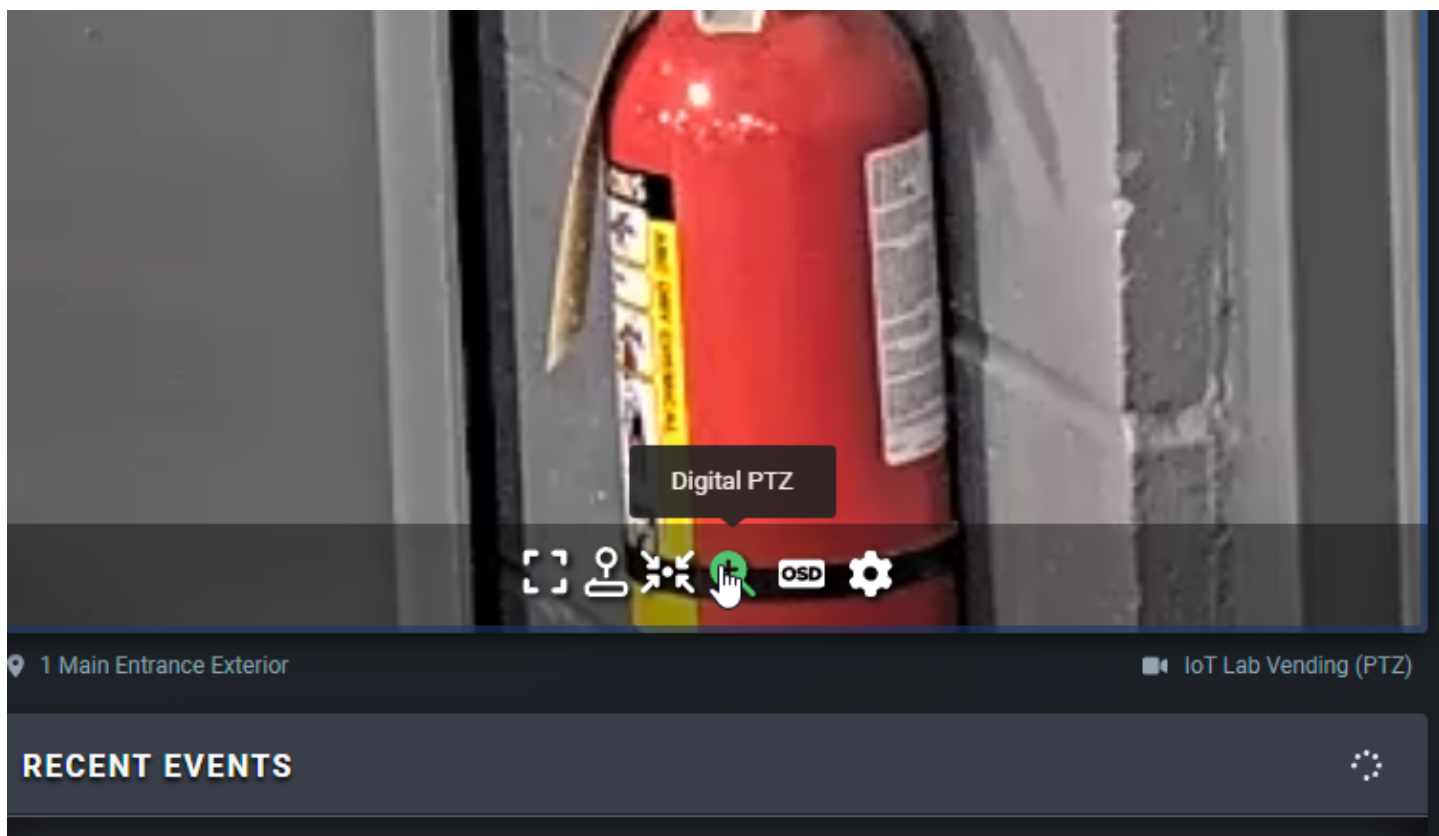
You will now see the cursor change from an arrow to a spyglass and now you can begin navigating:



Now you can use your mouse wheel to zoom in and out (pinch/pull on mobile) and you can also click to change the cursor to a hand, and then drag the cursor to move around the image:

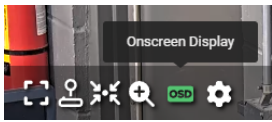


Lastly, you can choose the spyglass icon once more to cancel the operation and disable Digital PTZ:



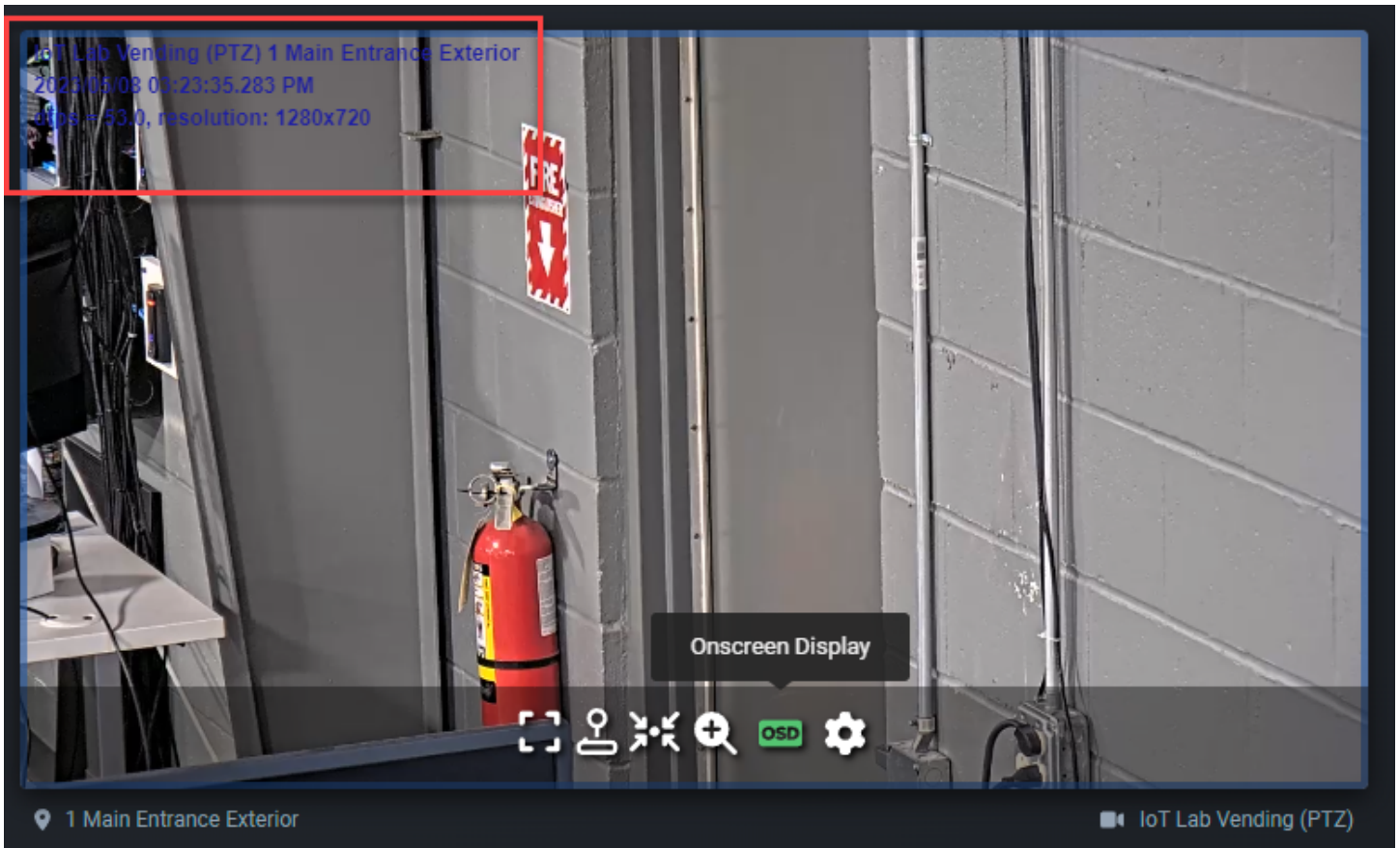
**Note:** Please make sure to enable the highest resolution streams on your cameras. In addition to recording quality, Digital PTZ quality is enhanced by having the most available pixels to navigate.

### Live Actions: Onscreen Display



Onscreen Display toggles on/off the Onscreen Display that can be configured in each camera's Info Page.

The OSD will appear with the font, font color, location, and information that is chosen in the setup menu.

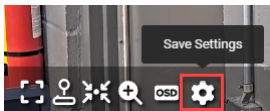


Note: If you are unable to make an OSD disappear, it is likely that the OSD was created in the camera itself. You will need to login to the camera's webpage interface to disable it.

If you are unable to get an OSD to appear, you will need to go to the camera's info page and create an OSD or verify that the desired options are enabled. (See instructions starting next page)

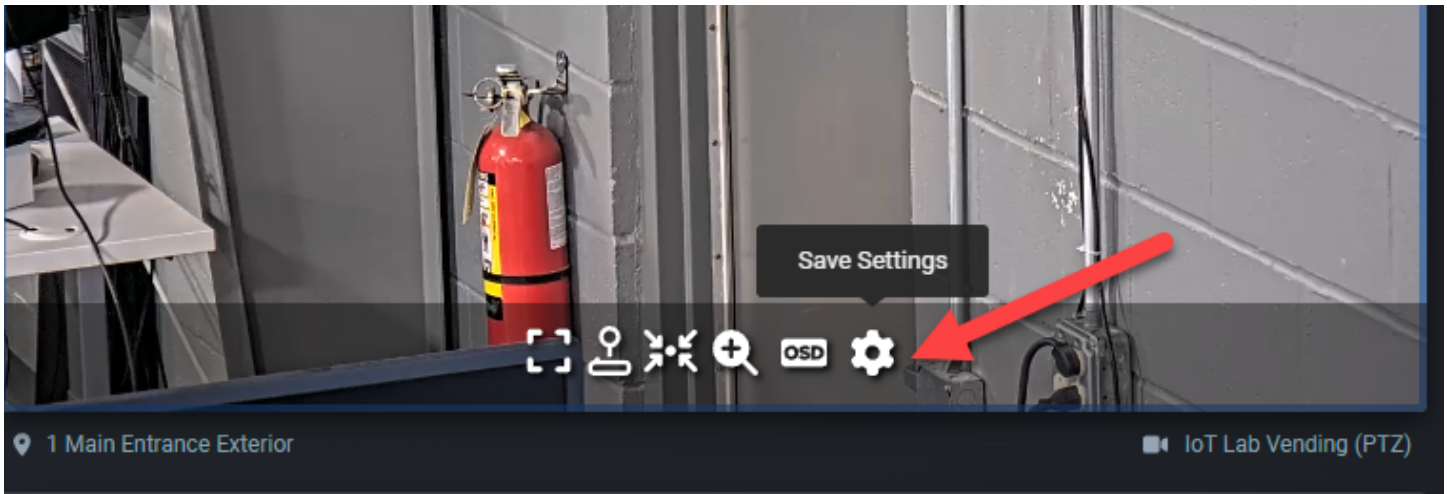


## Live Actions: Save Settings (Onscreen Display Settings)



**Important Note:** The **ONLY** place that you can access this menu is via the camera's Info Page. All other Live Actions in this chapter appear in both the camera's Info Page AND on the Live Page. Instructions have been placed in this chapter due to relevance to viewing in Live.

Save Settings will allow you to choose what information appears when a user enables OSD and where it is located on the screen. To get started, click on the Save Settings icon:

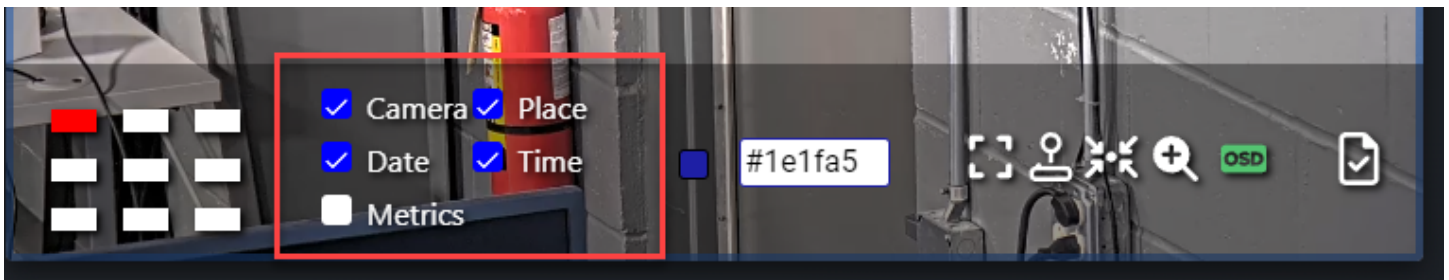


Now you will see all of the available options to choose from. The first option is to choose where the OSD will be located on the camera view. Each box represents the location of the OSD, the currently selected location is highlighted in Red. You can see that the top left box is currently selected and that corresponds with the location of the OSD:





Next, you can check or uncheck the information boxes to choose what information is displayed on the OSD. Most are explained easily by the title of the option. In the case of “Metrics”, the digital frames per second (dfps) and resolution will be displayed:



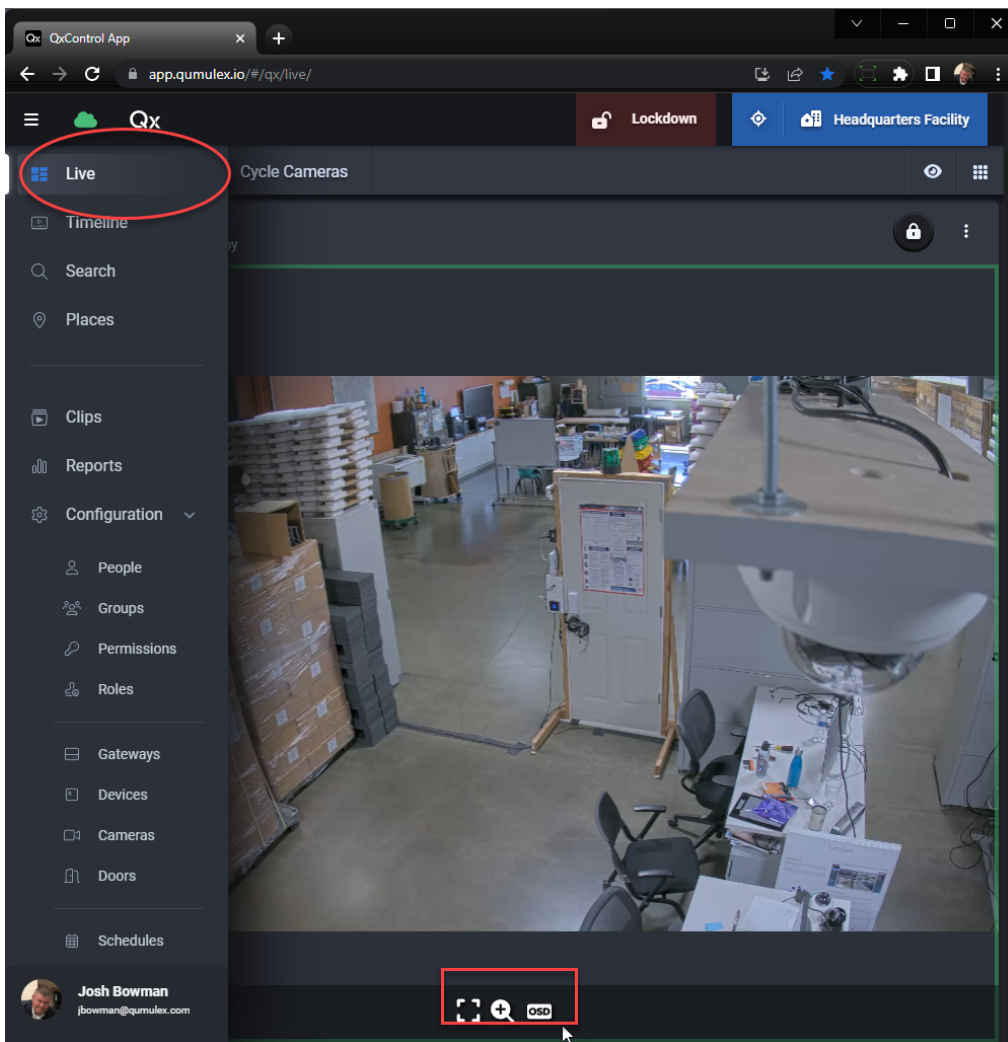
Lastly, you can change the color of the font to make it easier to see. Click on the OSD Color box, and then you have two sliders that are available to fine tune the color. You can see in this example we have chosen a shade of Red (fa1c0e) and the OSD font color has changed.



Once you are pleased with your selections, choose “Save Settings” to save the changes.



Note: If you are unable to edit the OSD, it is likely that the OSD was created in the camera itself. You will need to login to the camera’s webpage interface to disable it.



**Reminder:** The Save Settings menu is not available when viewing in Live, you MUST access the cameras Info Page by navigating to Cameras and then choosing the camera you wish to edit. This prevents unauthorized changes.

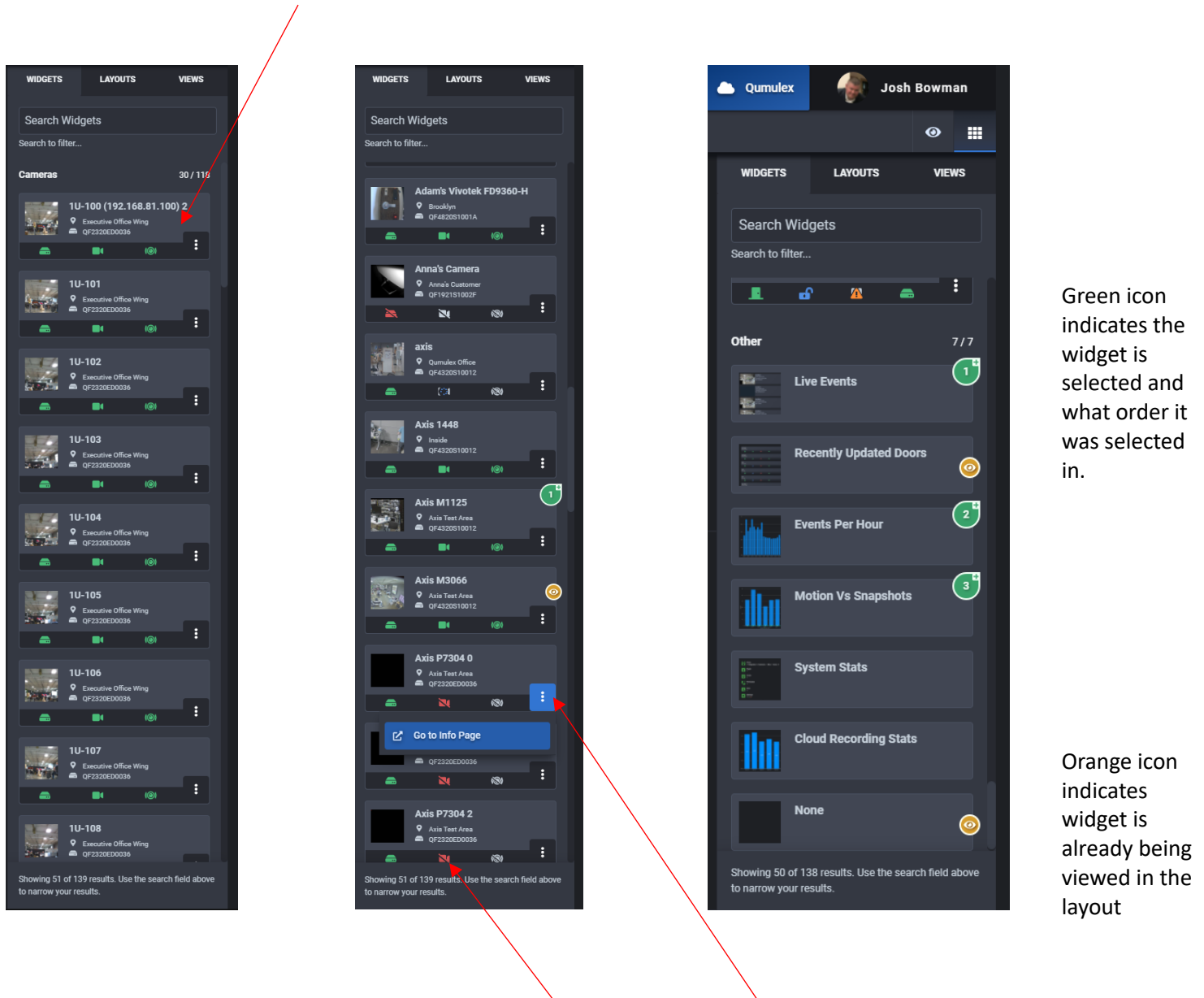
## Live Features

There are several features that are unique to the Live viewing page of QxControl. In this section we will cover each in more detail.

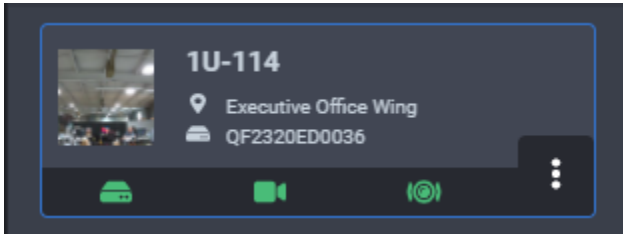
### Live Tray: Widgets Tab

The cameras, doors, and data charts available for viewing on the Live viewing page are referred to as “Widgets”. Widgets can be cameras, doors, events, or data charts. This approach allows you to do much more than just view live cameras. You can create your own dashboard or command center using any of these available Widgets, rather than be limited to a predefined version.

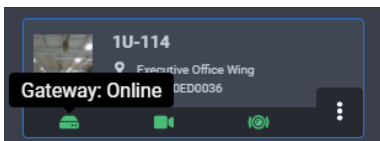
To select an available Widget simply click and hold, and then drag the Widget into your layout.



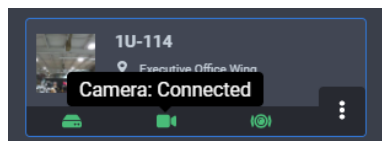
The Widget cards themselves also offer feedback on the status of the devices. You can also choose actions from the 3-dot menu, such as going to the info page of a camera (as shown above). You will also see a green icon when selecting widgets and a number indicating how many you have selected. The orange eye indicates this widget is already in view.



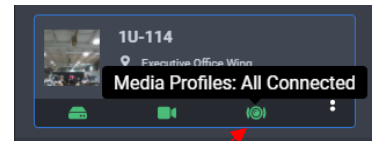
Camera Widgets are used to view cameras in a layout. In addition, the camera widget provides information about the camera itself.



This icon indicates Gateway status.

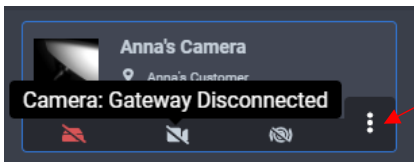


This icon indicates camera status.

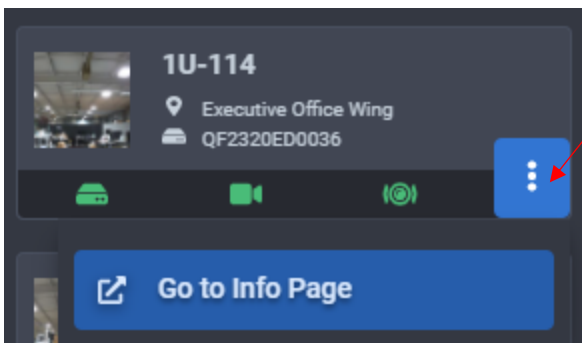


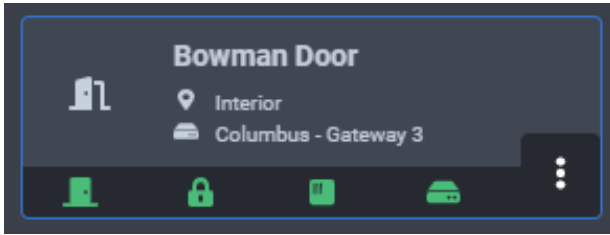
This icon indicates media profile status.

For a Gateway, the status will either be green, or red. Green indicates the Gateway is online, red indicates the Gateway is offline. In the case of the Gateway being red, the camera and media profile statuses will be grayed out.



By choosing the 3-dot menu in the lower right of the Widget, you will be presented with the actions menu. For camera Widgets this will present the option to be taken directly to the camera's info page. The cameras info page gives you access to cameras settings.





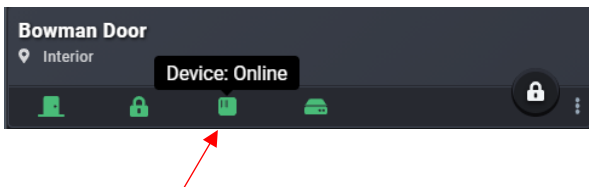
Door Widgets are used to view a door status and allows you to operate the door from the Live page.



This icon indicates door status.



This icon indicates lock status.



This icon indicates door controller status.



This icon indicates Gateway status.

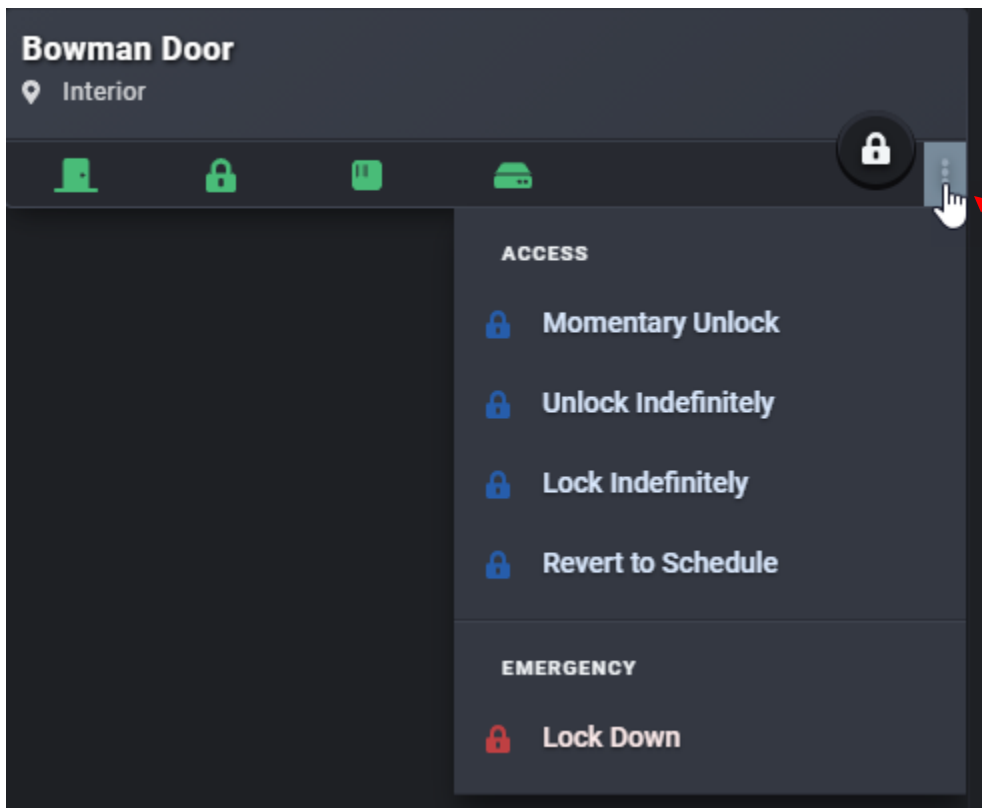


Use the padlock button to pulse unlock the door.



You will see the lock icon status change and the padlock button will also change color to show the door is unlocked.

**Note:** The length of time for the pulse unlock function to last will correspond to the "Access Time" setting. To configure this and other door settings visit the Doors page and select the door you wish to edit. Then choose "Edit Door" from the top menu.



While active in your layout, the 3-dot menu gives you several additional options to operate the door.

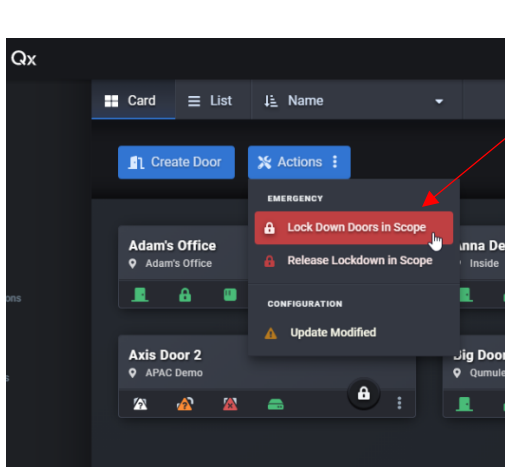
**Momentary Unlock:** This is the same as choosing the padlock button. This will pulse unlock the door.

**Unlock Indefinitely:** This will unlock the door and will not revert to locked until initiated by user prompt.

**Lock Indefinitely:** This will lock the door and will not revert to unlocked until initiated by user prompt.

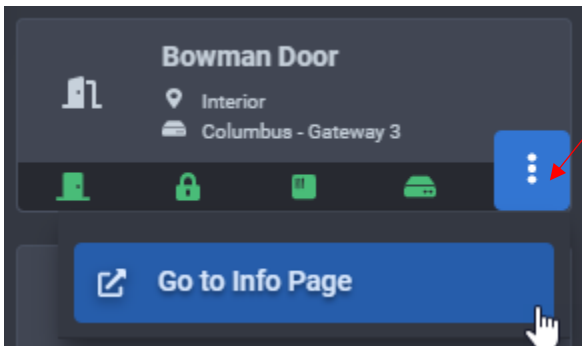
**Revert to Schedule:** This is the prompt used to return to the door schedule and cancel Lock/Unlock Indefinitely.

**Lock Down:** This will initiate a Lock Down of THIS DOOR ONLY. To initiate a scope-wide lockdown, choose “Lock Down Doors in Scope” from the top “Actions” menu of the Doors Page. See example below:



**Note:** User Scope will affect what doors are available!

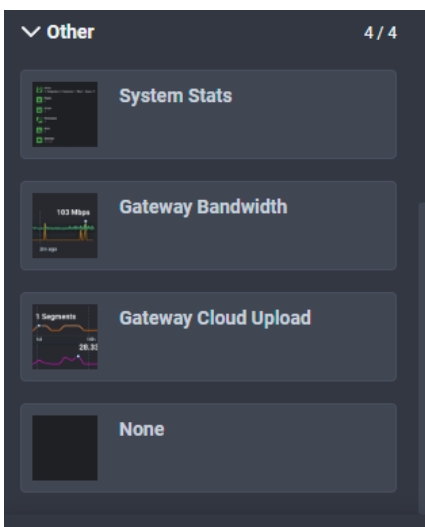
By choosing the 3-dot menu in the lower right of the Widget prior to dragging the widget into your layout, you will be presented with the actions menu. Like camera Widgets, this menu will present the option to be taken directly to the door's info page where you can operate and edit the door.



#### *Widgets Tab: Other*

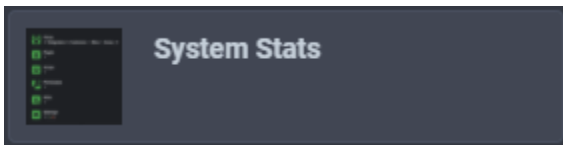
The final group of widgets located in the widgets tab is “Other”. This is where you will find widgets that offer data charts, system status and recent events. There is also a widget labeled “None” that you can use to create empty cells in your layout.

Note: The data shown by these widgets are affected by the selected Scope. Changing your scope will revise what data is displayed.

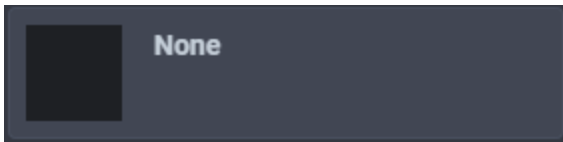


**System Stats:** This widget displays the total number of Places, People, Groups, Permissions, Roles Assigned, Gateways, Cameras, Doors, Views, Schedules, and Holiday Sets at your current Scope. For devices such as cameras or Gateways, you will see the number of online versus offline devices as well. For the subject icon green indicates everything is online, Yellow some are online, red is all offline. For Gateways and cameras, the number of online devices is presented in green font and offline in red.



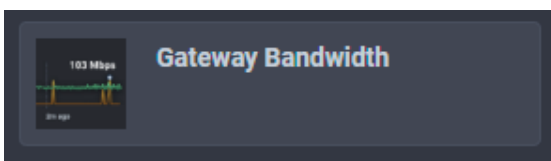


**None:** This widget is used as a blank filler to clear a cell in a layout if you wish to display nothing in that cell.



**Gateway Bandwidth:** This widget is used to display the bandwidth being received or transmitted by a Gateway. You will first choose the Gateway you want to monitor. Then you will see two graph lines for data being received by the Wan port and the LAN port, measured in Mbps. You can choose the Gear icon to choose Transmitted bandwidth per Network Port. You can also choose to enable or disable either NIC Port and you can also choose to enable the Wire Guard bandwidth (VPN) or Cloud Upload.

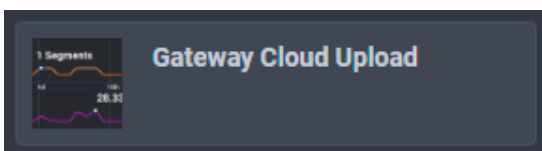
The graph itself can be adjusted to monitor in Seconds, Minutes, Hours or per day by choosing the options at the top of the Widget.



**Gateway Cloud Upload:** This widget is used to measure Gateway queue depth metrics. This is useful to examine how much buffering is being used and displays if you are streaming to the cloud service in real time or if data is being buffered. This could be due to bandwidth throttling schedules, available internet speed, or network speed. This tool is helpful in making sure that the expected results are being achieved.

You will see three metrics, (1) Sent data, (2) Queued data, (3) Total data. Choose the gear icon to choose between bytes or seconds, and to choose another Gateway if desired.

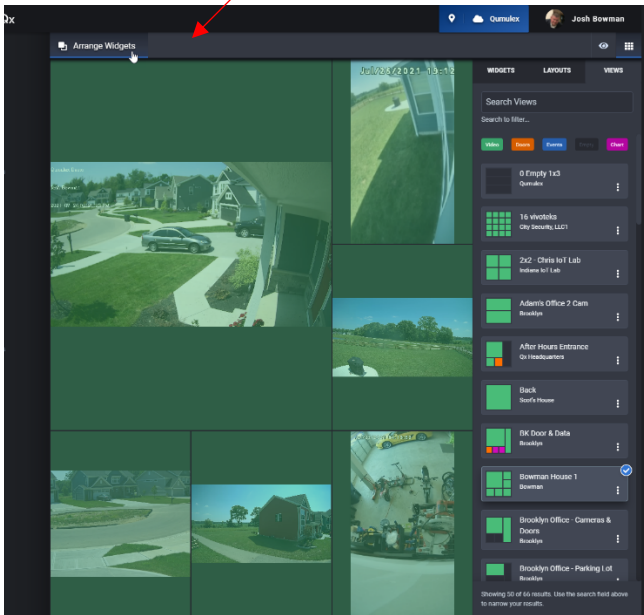
The graph itself can be adjusted to monitor in Seconds, Minutes, Hours or per day by choosing the options at the top of the Widget.



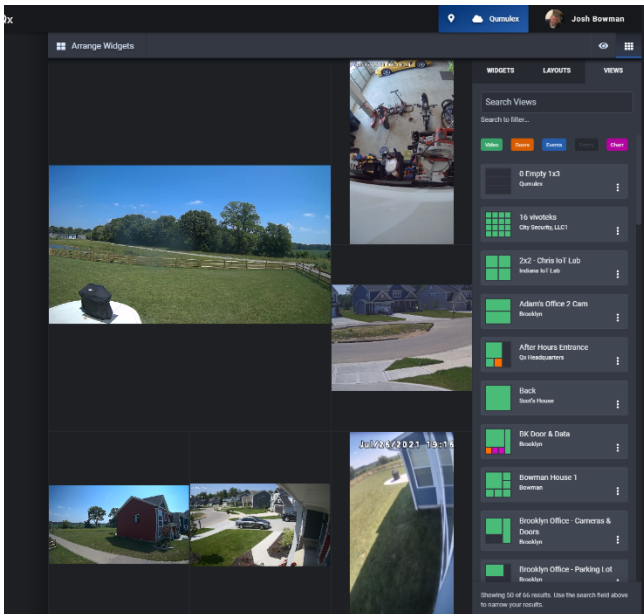


## Arrange Widgets

While we are talking about widgets, another great tool to discuss is the “Arrange Widgets” feature. This allows you to rearrange the widgets that are already being displayed in your layout. To begin arranging the widgets choose the “Arrange Widgets” button in the top left of your screen. This will present the green overlay and you are now in edit mode.



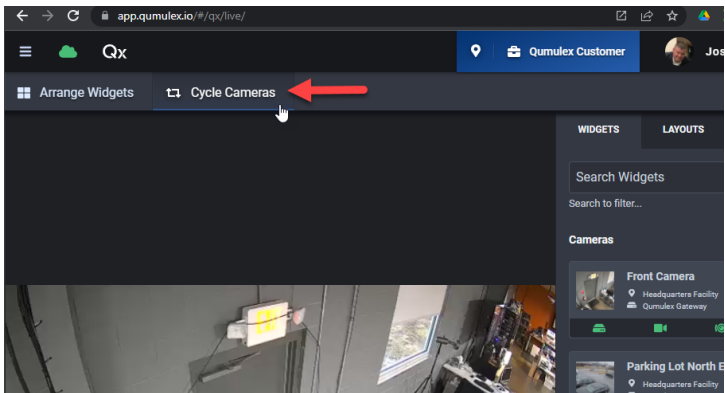
Then simply choose a widget and begin dragging into another cell. Once complete, click on the “Arrange Widgets” button once more to return to your Live layout.



Success! The camera widgets in this example have been re-arranged as desired.

## Cycle Cameras

Adjacent to the Arrange Widgets button is another useful function known as “Cycle Cameras”. This feature will rotate to the next available camera each time you press the “Cycle Cameras” button. This is very useful when you want to see what is happening and are not sure what cameras are available or which camera may be displaying activity you want to see.



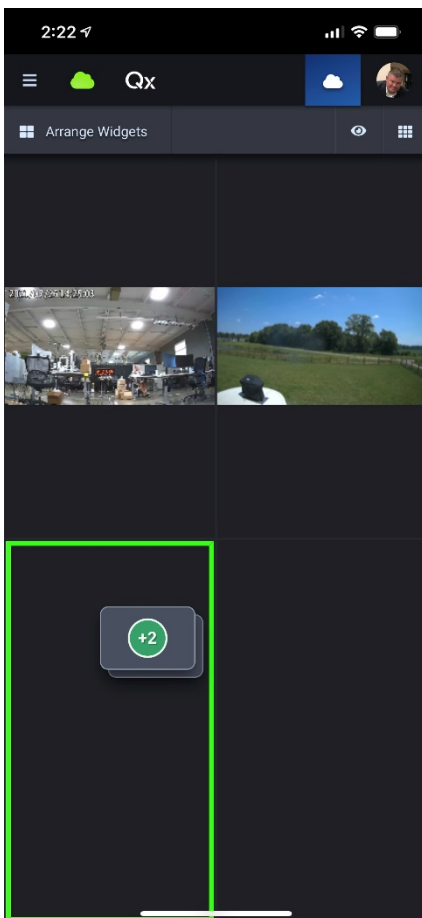
This feature is also very useful when checking for live activity on mobile, allowing you to easily cycle through all available cameras while staying in a 1x1 layout.

### Loading Widgets on a Mobile Device or Touch Screen

From a mobile device or touch screen this is a drag and drop action very similar to using a mouse on a desktop. The primary difference is that on a touch screen device you will need to utilize a “long press” to initiate the selection.

To initiate the long press, click and hold from anywhere inside the desired widget until you see the green box appear in a layout cell. If you release your hold, the widgets tab will re-appear, and you can now select more widgets by a single touch on each.

You can see in the example on the left, we have two empty cells and we have selected two more widgets to drop into the layout. The number of widgets selected is indicated in the green circle icon “+2”.



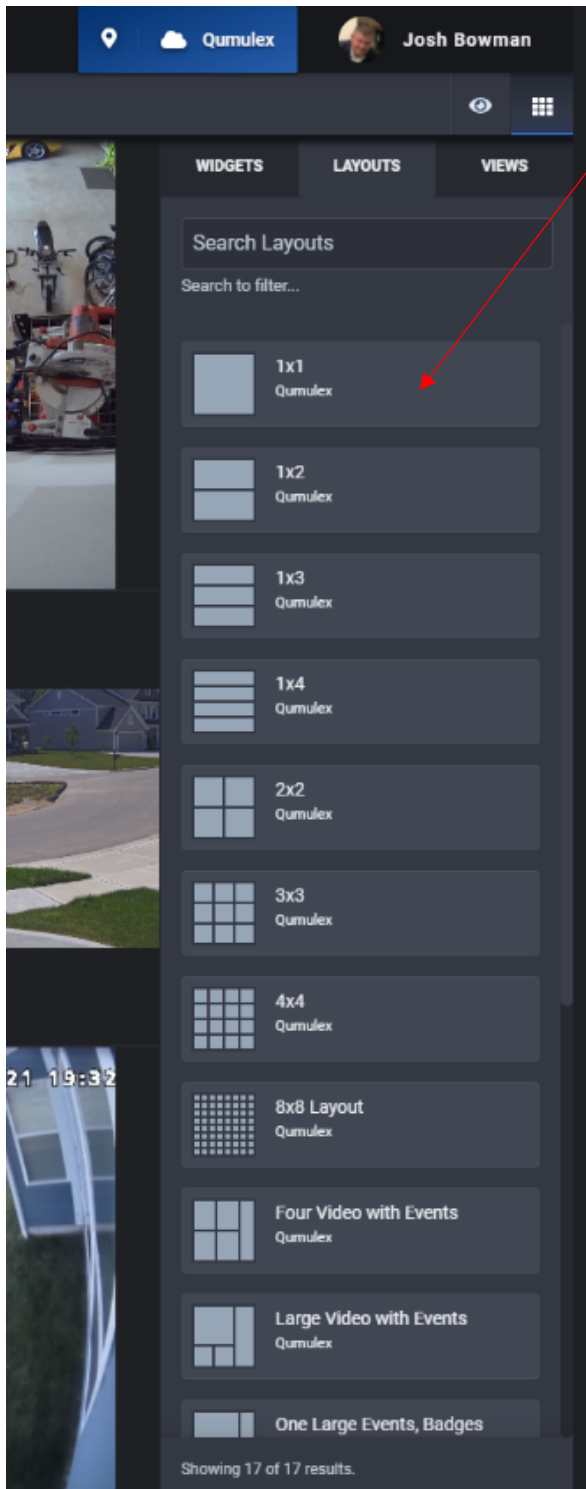
In the example on the right, we can see that the two additional widgets selected have been populated into the layout as desired.

**Note:** If you select more widgets than cells available for your layout, you will receive a warning message and you will not be able to select any additional widgets. To increase the number of available widgets simply change your selected layout to an option that includes the required number of cells.

## Live Tray: Layouts

The next available option in the Live Tray is “Layouts”. This is where you can choose from a large variety of predefined layouts for live viewing.

To select an available Layout simply click once on the desired layout. Widgets already active in your active Layout will populate automatically into the new one.

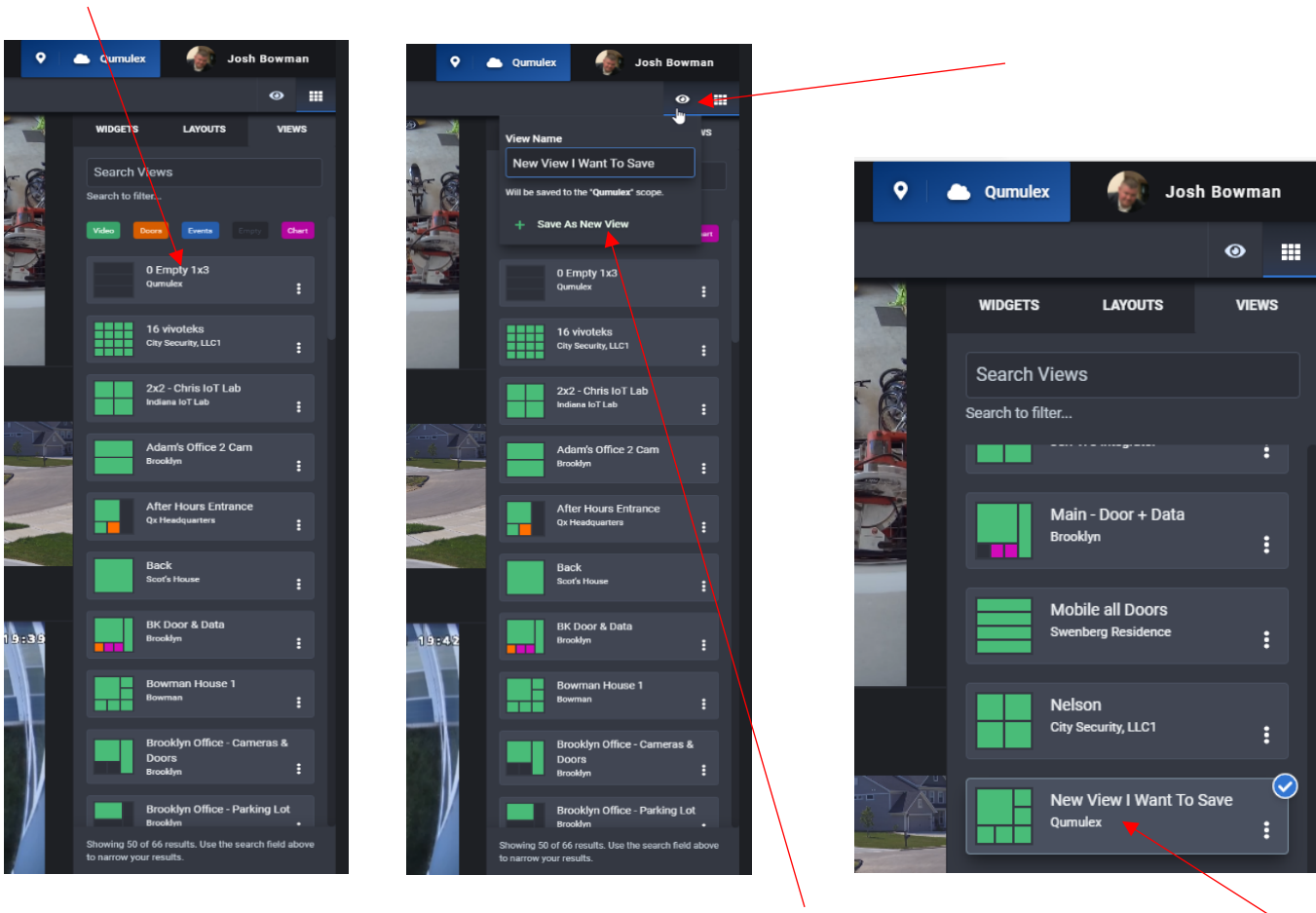


## Live Tray: Views

The third and last available option in the Live Tray is “Views”. This is where you can choose from any of the saved views that are available at your Scope level. You can also update a saved view and edit from this tab.

Saved views are color coded to show what type of Widgets are contained in the saved view. At the top of the saved view window, you will find a legend that explains the color coding.

To select an available View simply click once on the desired View. Widgets saved to this View will populate automatically. This process is identical on a Mobile or Desktop device.

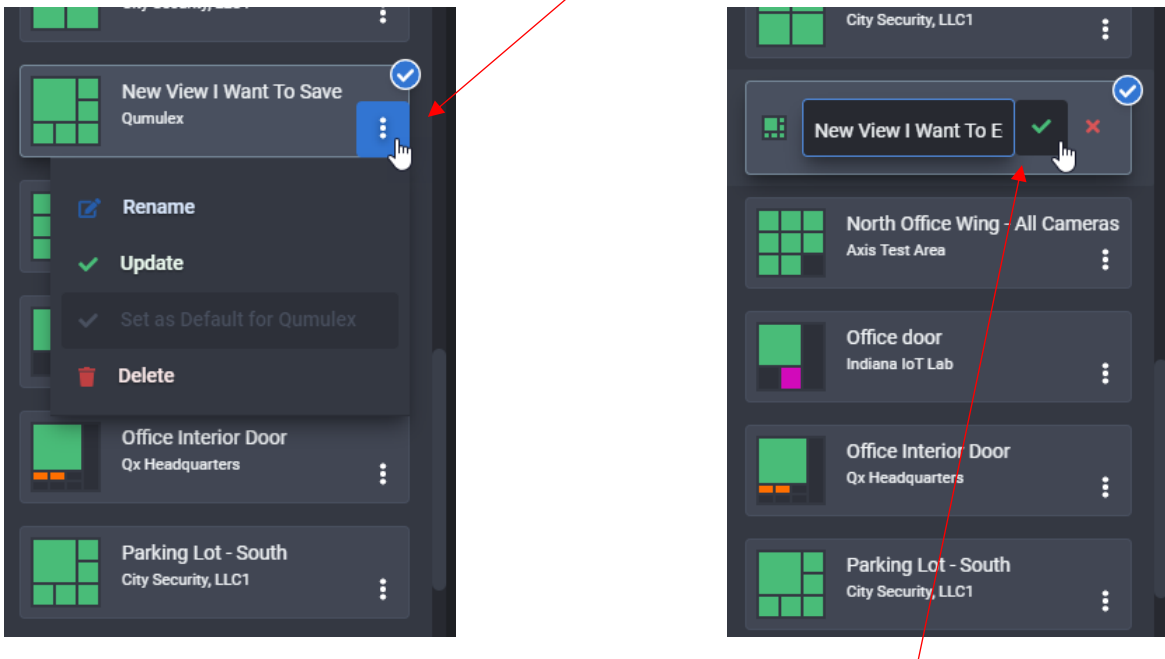


### Live Tray: Create a Saved View

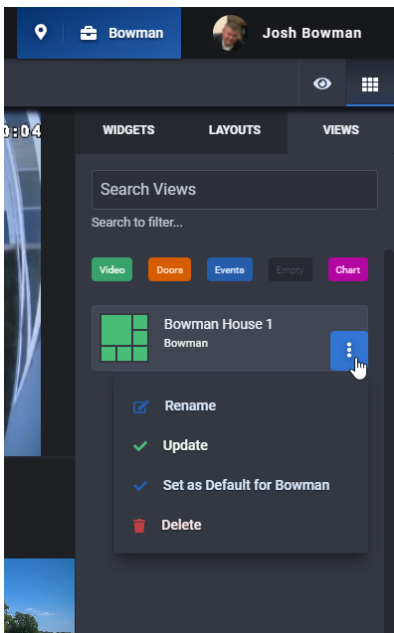
Creating a saved view is easy! If you want to save the current view first select the “Eyecon” to the left of the Live Tray button. Then type a name for your view in the dialog and choose the “Save As New View” button marked with a green plus symbol.

This process is identical on a Mobile or Desktop device.

Editing a saved view is also very easy! You can edit the name and update a saved view without leaving the Live page. To start editing a saved view, choose the 3-dot menu of the view you want to edit:



To rename the view, choose rename, type in your new name and then choose the green checkmark to save your change, or the red x to cancel.



In addition, the 3-dot menu allows you to choose the following actions:

**Update:** This allows you to update the existing saved view if you have changed or re-arranged widgets.

**Set as Default:** Make this saved view the default for your current scope.

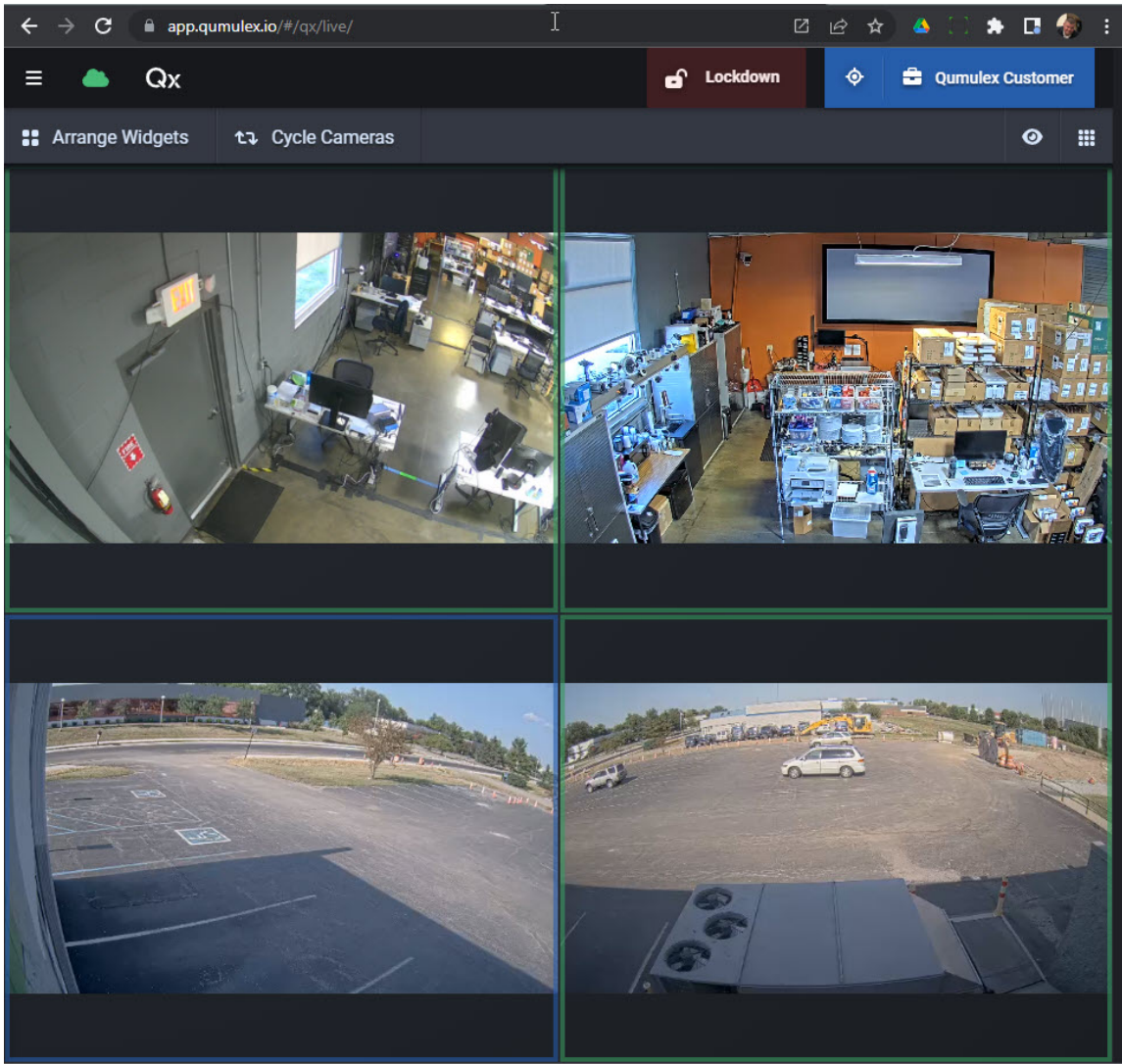
**Delete:** Delete the saved view if it is no longer needed.

## Video Borders

Video Borders are used to indicate event or recording status while viewing live video. This is included anywhere you can view live video, not just on the Live page.

Blue – Indicates that a motion event is occurring.

Green – Indicates that Continuous Recording is scheduled and is occurring as scheduled.



This can be a very helpful tool when troubleshooting recording. In the example above, a car has driven past the parking lot and you can see that QxControl has properly received the searchable event as the border has changed to blue.

The other three cameras are recording as scheduled on continuous, but there is no event occurring, so they are green.

Note: If there is no recording scheduled, or no even is detected, you may see no border colors present.

## Timeline

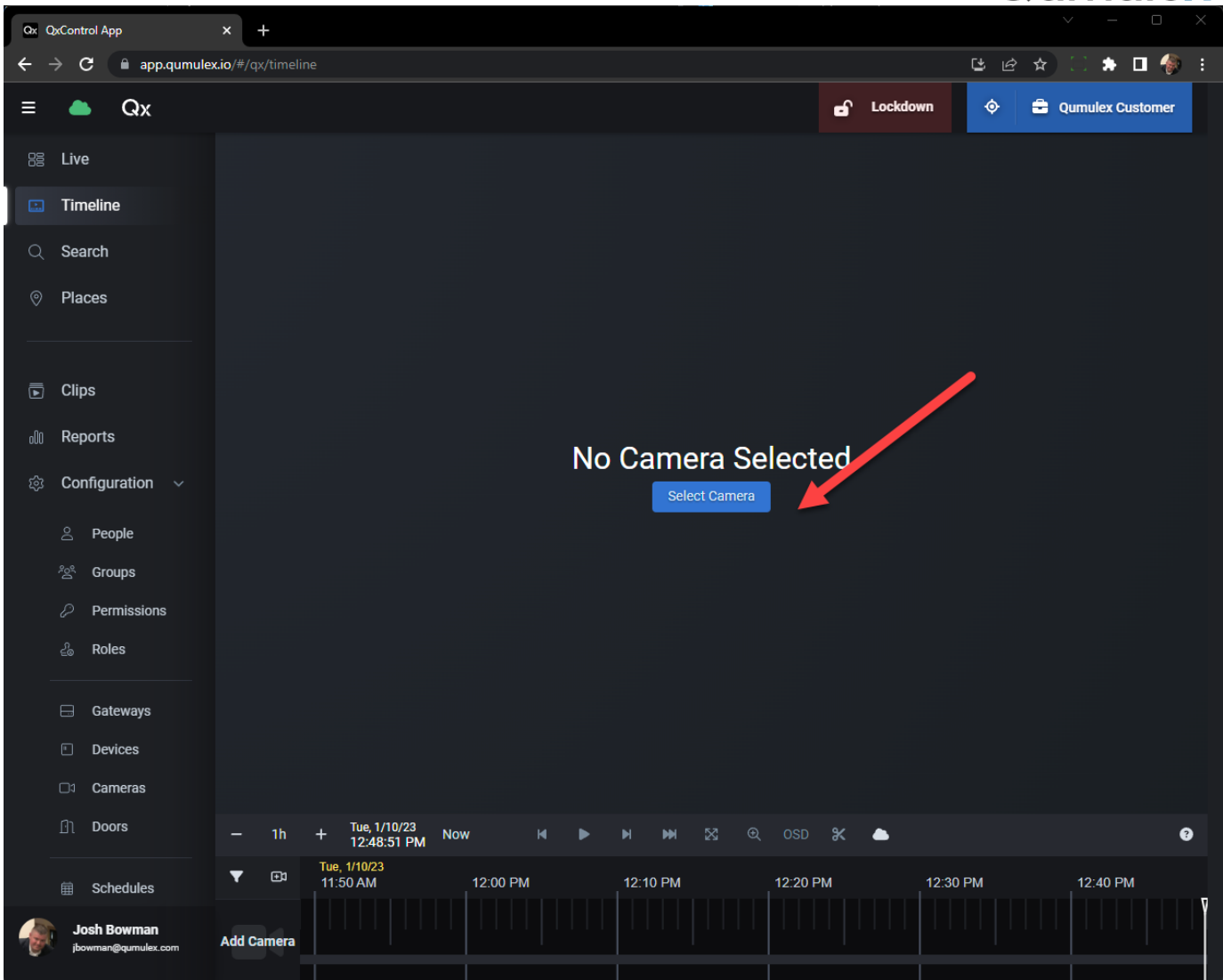
Timeline is a search page that allows you to search both events and continuously recorded video. This feature allows you to select the desired camera, and then use many of the same filters that are also available on the Search page. Some of the highlights that we will cover for Timeline:

- How to select a camera and appropriate filters.
- How to change the time scale.
- Using the Legend to understand what the graph colors mean.
- How to choose between playing video from the cloud service or from the Gateway.
- How to export video from Timeline.

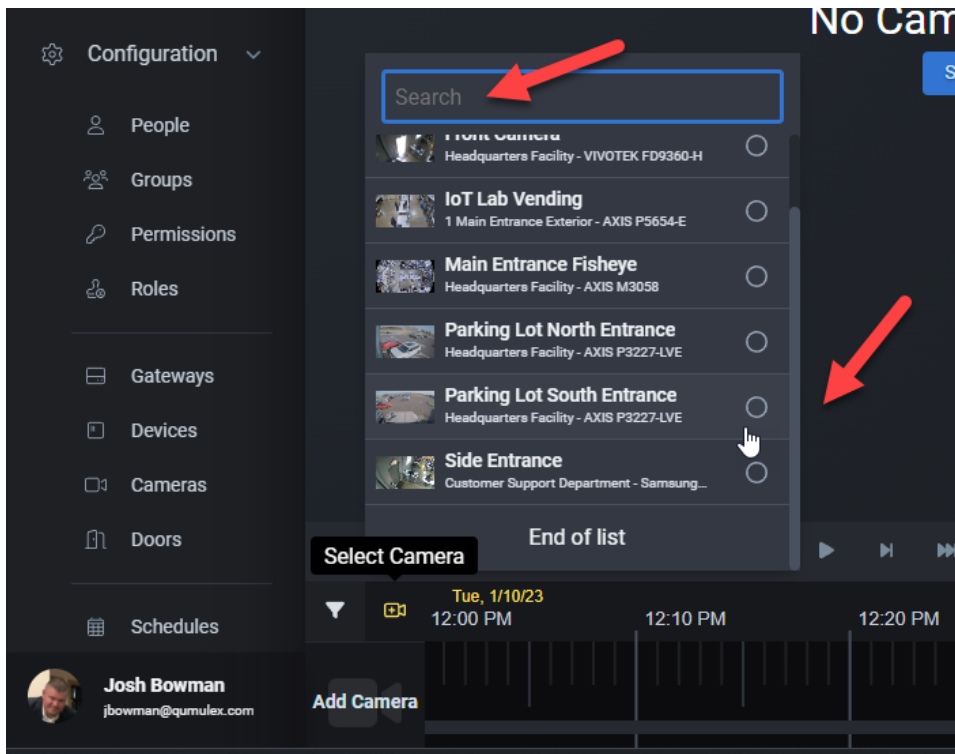
### Basics of Timeline: Choosing a Camera and Filters and using the Player Functions

The first step in using Timeline is to choose the camera you want to search. Start by clicking the 'Select Camera' button:



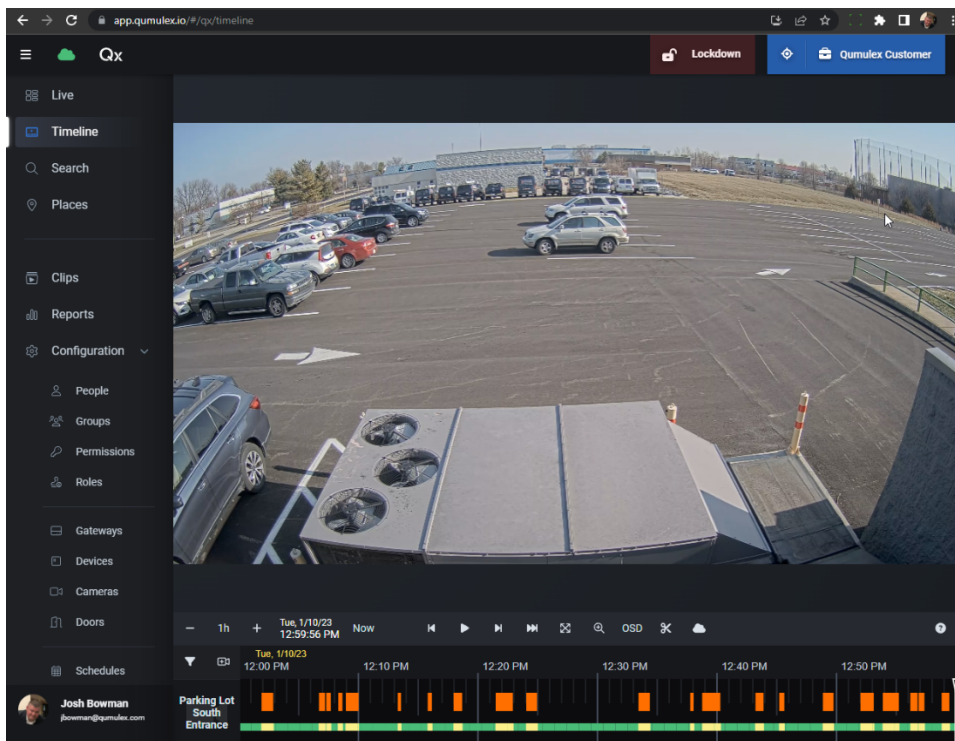


Next, you can either scroll to choose the camera desired or search for a specific camera using the “Search” box:

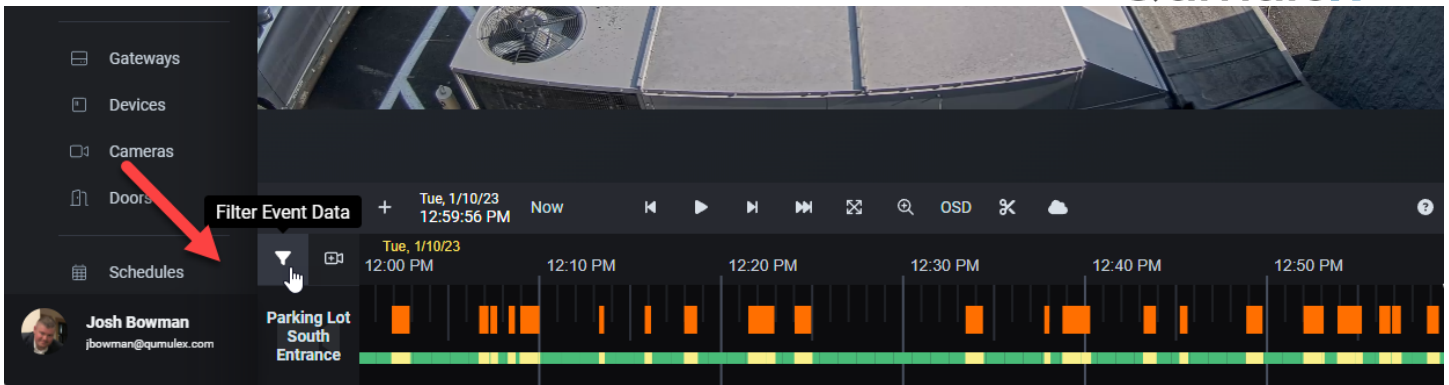


Note: In this release of QxControl, you can only select one camera at a time when using Timeline.

Next, you will see the camera view displayed and events will be shown in the timescale graph line.

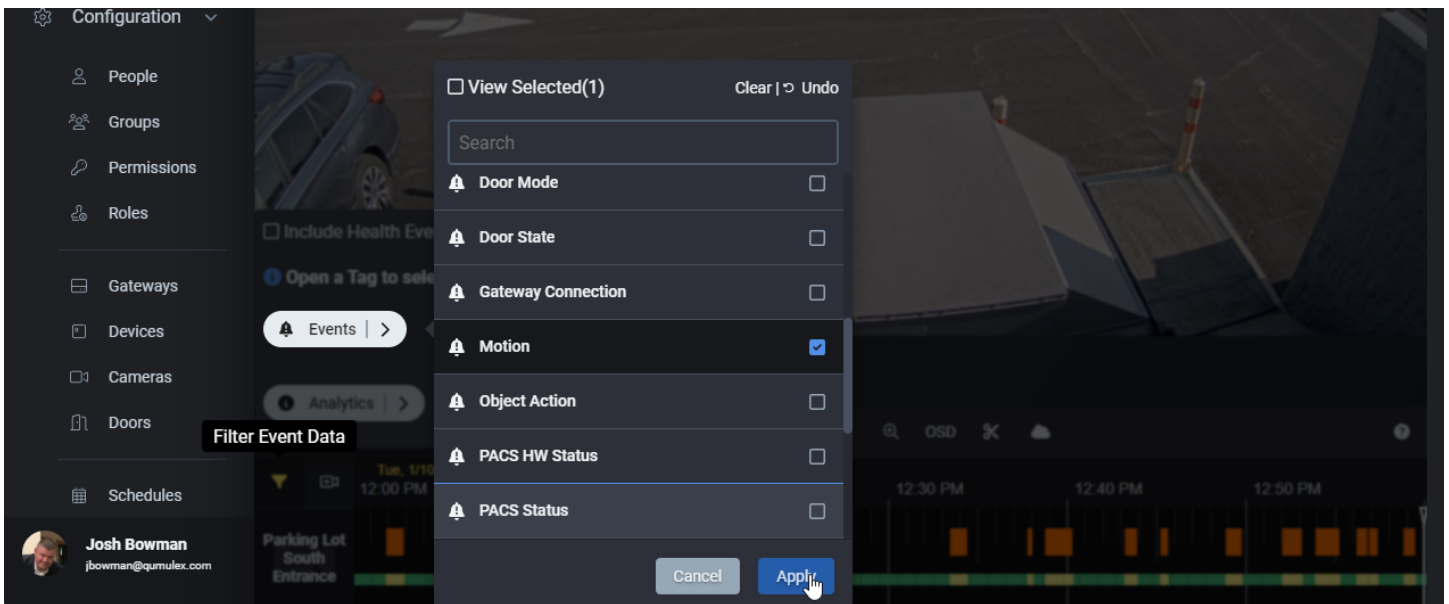


Now that you are seeing all events we will discuss how we can narrow down to specific events that you may be looking for. To begin this process you will need to choose “Filter Event Data” to the lower left:

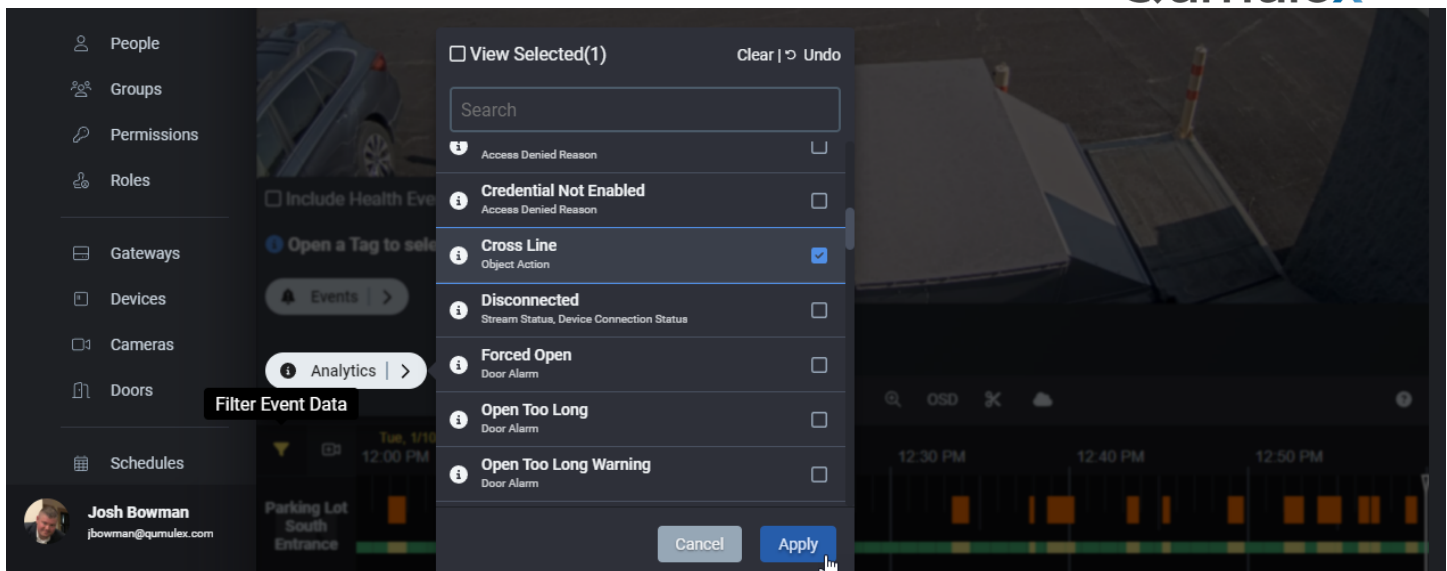


Next, you can choose from Events and/or Analytics that are available from the camera. These are the same options you will also see on the Search Page.

Note: (1) You must enable the analytics in your camera's web interface for QxControl to receive analytic events. (2) All possible analytics and events will be listed, please consult the specifications of your camera to determine what events are available from your specific camera.



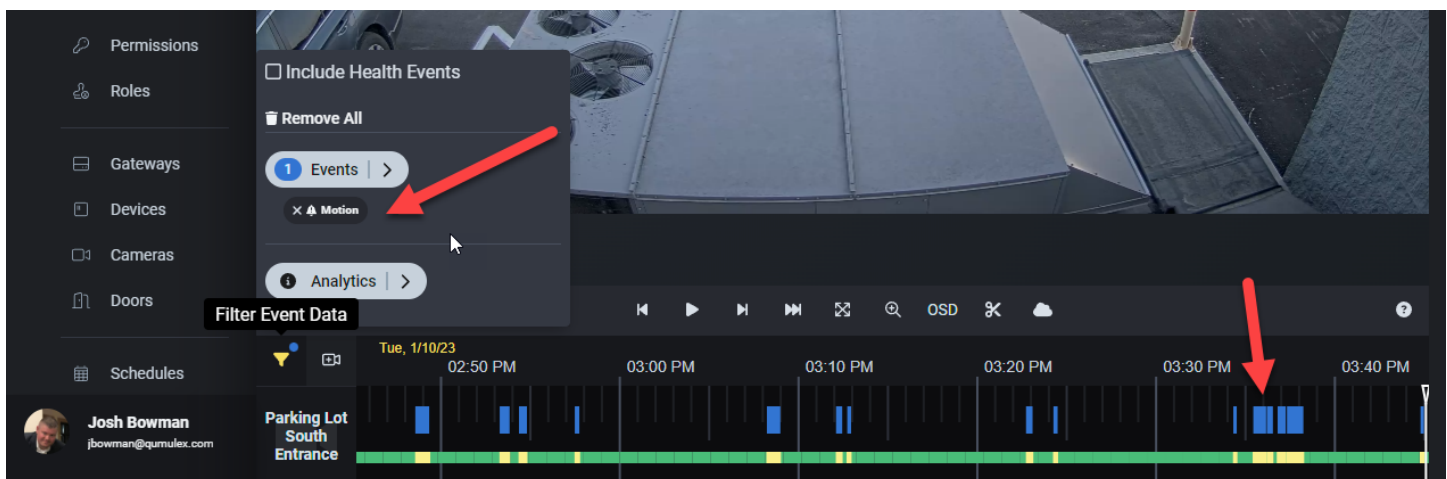
You can see in this example we chose Events > Motion, but you can also combine with other events or Analytics, such as Crossline:



Be sure to choose “Apply” after making each selection to apply the Filter(s).

Note: Be careful not to choose two or more Filters that would negate each other, because they do not typically occur at the same time. When choosing multiple Filters, you will only be presented with events that include all Filters selected. If you receive no results, start by reducing the number of Filters.

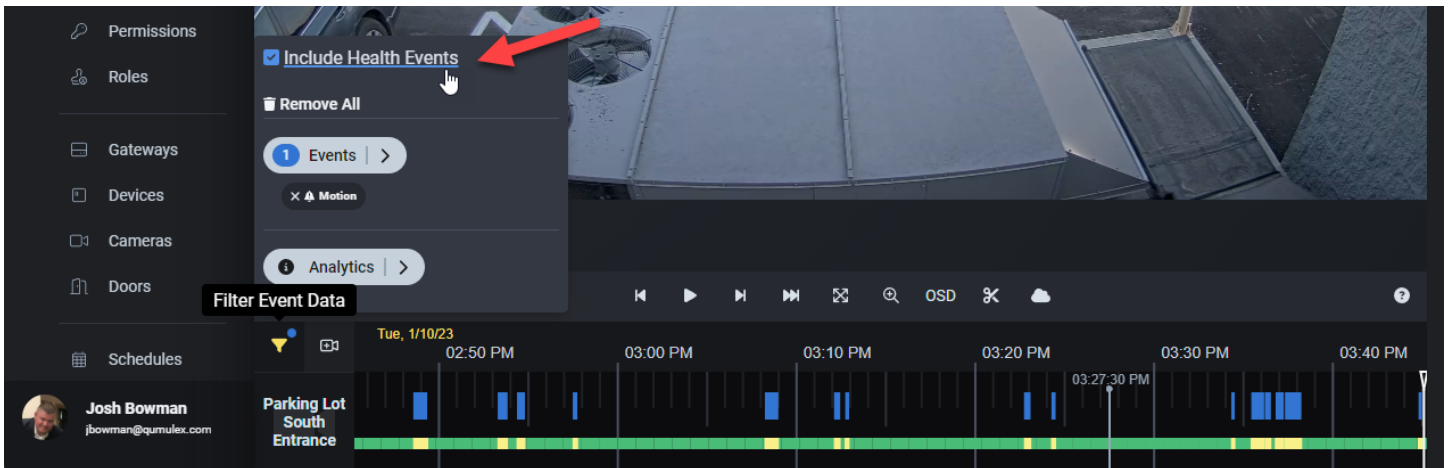
Now that we have selected our desired Filter, you will see the Filter listed in the Filters Menu:



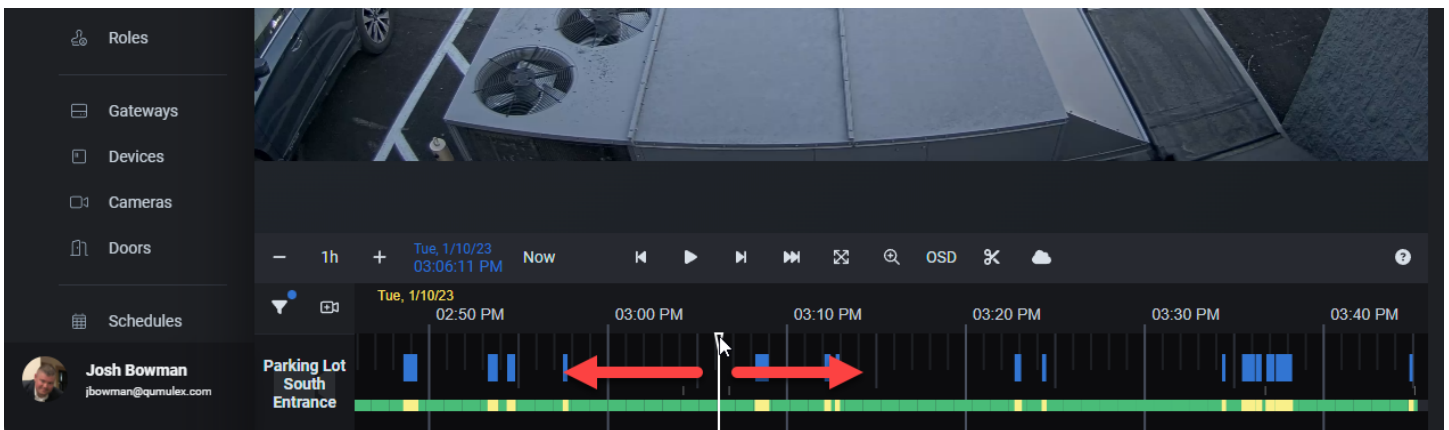
You also can see that the Motion events appear in Blue in the timescale graph.

Note: As you zoom out in the timescale graph, you will see the highest priority events and as you zoom in showing shorter intervals of time, you will be able to see multiple types of events unless Filtered.

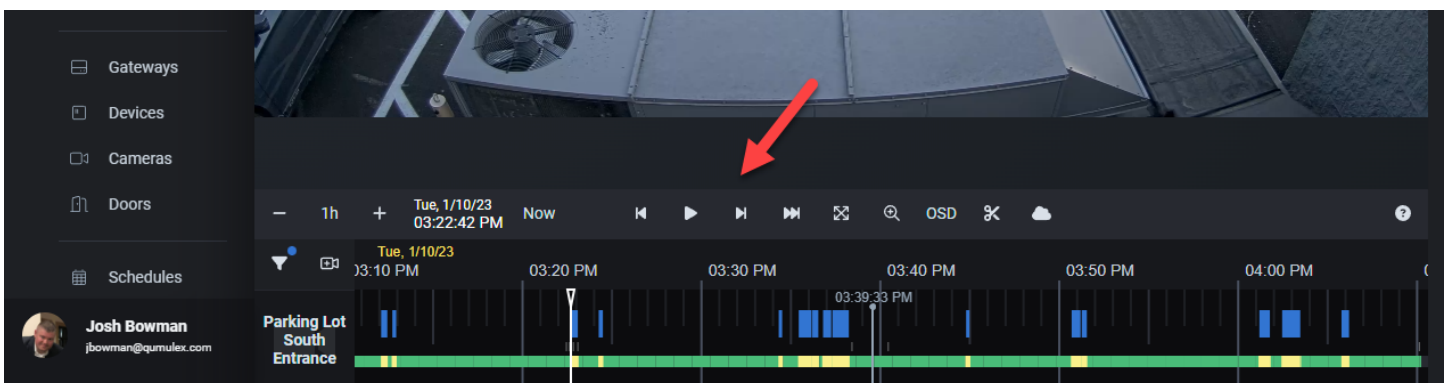
You can also choose to see Health Events displayed on the timescale graph, such as disconnect or offline events. These are events that are related to the status of a device and will not normally have video associated with them. However, you may wish to see if anything occurred prior that could have caused the event.



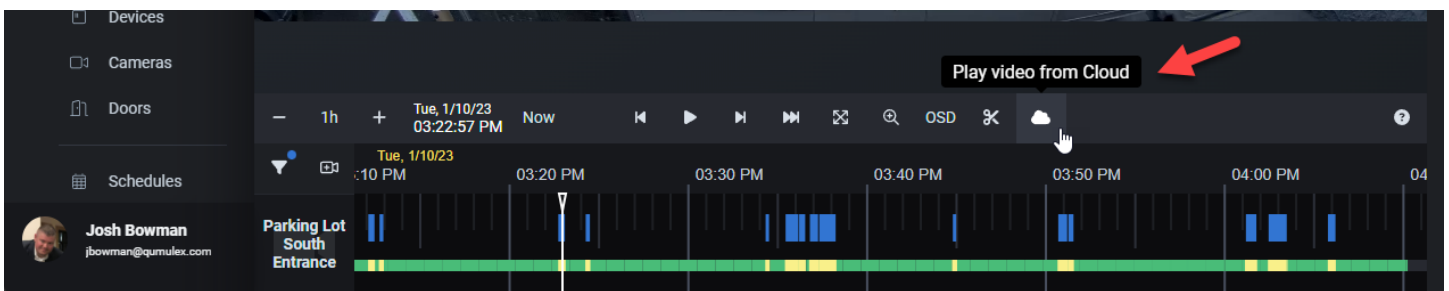
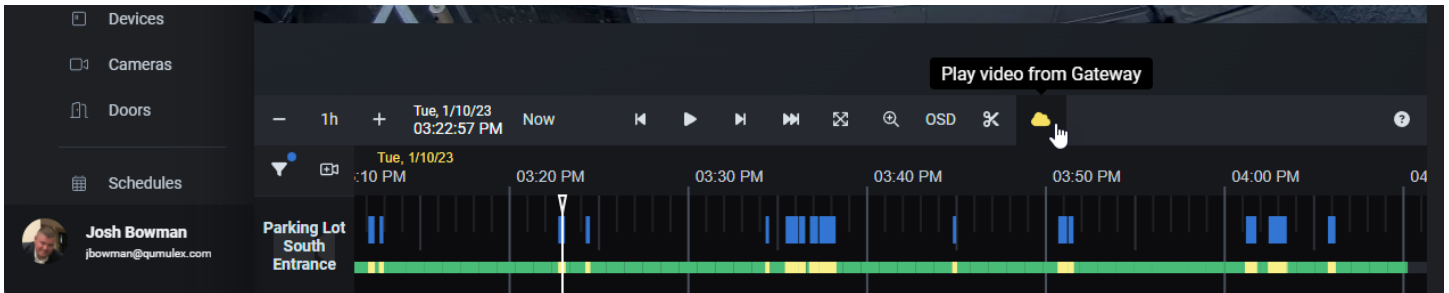
Once we have selected all desired Filters we can now scrub through and find the event(s) we wish to view. Click and drag the cursor to move through time.



The standard playing controls here will be used throughout QxControl. From Left to Right: Step Frame Back, Play/Pause, Step Frame Forward, Fast Forward, Full Screen, Digital PTZ and On Screen Display On/Off



The last two options on the right are “Create Clip” (Scissors) “Play Video from The Cloud/Gateway” (Cloud Icon). Create Clip is used to export a video clip to the Clips page and will be covered later in this chapter. Play Video from the Cloud is used to choose to play the footage stored in the cloud service, in lieu of the local Gateway, where the event has been stored in both places.



This function allows you to toggle between video stored locally or in the cloud service. It should be noted that continuous recording is only stored locally on the gateway. Event data will be stored both in the Gateway and in the cloud.

If you choose “play from the cloud” and your cursor is not placed at an event, you will see no video until you move it to an event. By clicking this button you can toggle back to Gateway to see any recorded video that is not associated with an event, if you have selected continuous recording in that camera’s settings.

You will also see that the timescale graph will display the cloud recording in Yellow and local (Gateway) storage in Green:

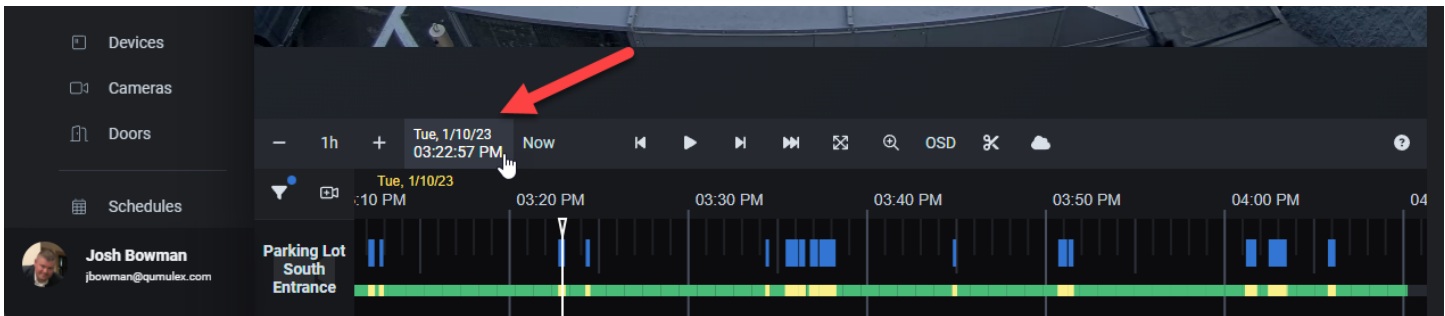


This makes it easy to identify where this video footage is stored.

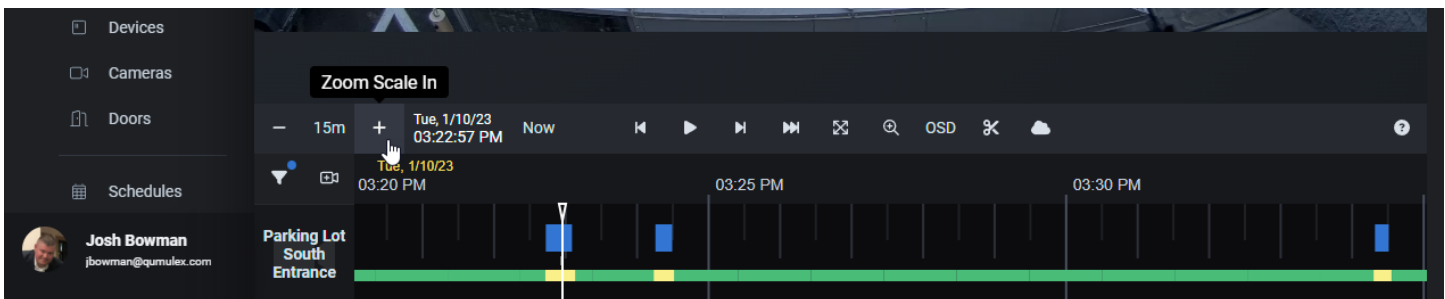


## Basics of Timeline: Changing the Time Scale in the Timescale Graph

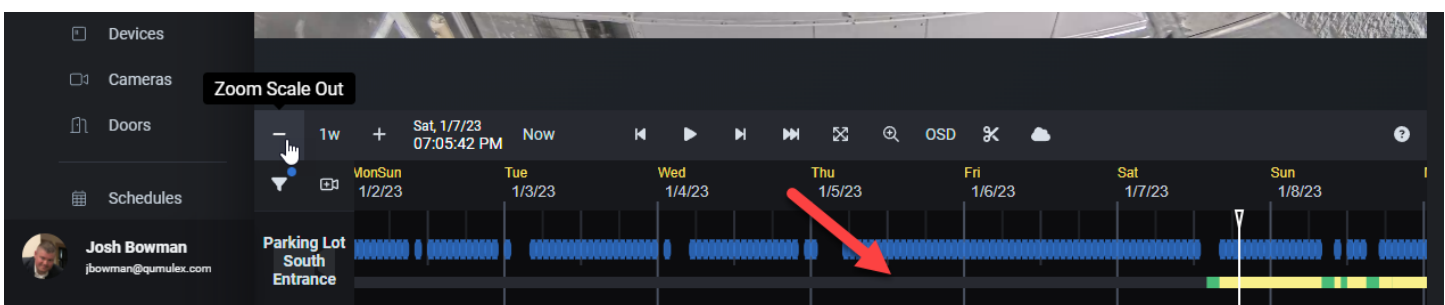
To the far left, above the timescale graph we will see the time related options. You will first see the Date and Time associated with the video you are currently viewing.



Next you will see the + and – to the left of the Date and Time. This is used to zoom the timescale graph in and out. The farther in you go, you will see smaller time increments and will see more detail in the graph. In this example we have zoomed in from 1 Hour to 15 Minutes. This allows us to see more detail:



Now, we can zoom out. Here we have selected a 1 Week timescale. This shows far less detail as we are looking at large increments of time:



Also, you can see that the Green/Yellow bar does not fully populate in the timescale. The area with no Green or Yellow does not have video. This indicates that at current video retention levels, this Gateway does not have video prior to midday on Saturday 1/7/23.

If you are not seeing the video retention that is expected: (1) Check your camera settings for FPS and Resolution versus budget (2) Add additional Local Storage or (3) select a longer retention period in the camera settings for cloud storage.

*(3) will incur additional subscription fees based upon the storage retention you choose.*



## Basics of Timeline: Using the Legend

The legend can be found on the far right of the tool bar, just above the timescale graph. The legend shows what the colors and images in the timescale graph mean.

The screenshot displays the Qumulex interface. On the left is a sidebar with navigation options: Live, Timeline, Search, Places, Clips, Reports, Configuration, People, Groups, Permissions, Roles, Gateways, Devices, Cameras, and Doors. The main area shows a live video feed of a parking lot at night. On the right, a legend titled 'Event Priority' explains the color coding for events: High (red), Low (blue), Alarm (orange), Analytics (yellow), Motion (green), and Health (purple). Below this, two scales are shown: '1 minute - 6 hour scales' and '12 hour - 1 week scales'. The '1 minute - 6 hour scales' shows individual event markers as vertical bars of different colors. The '12 hour - 1 week scales' shows group event markers as horizontal bars. A 'Video Segments' section at the bottom of the legend explains the colors used for video storage: green for 'Video stored on Gateway', yellow for 'Video stored in Cloud', and blue for 'Video buffered for playback'. A red arrow points to a yellow event marker on the timeline at approximately 07:15 PM.

It also provides guidance on the variations between different scales of time.

Event priority lists what items are highest priority and down to the lowest, showing the associated color.

When zooming out to large time increments (such as days or week) you will see the highest priority events listed.

As you zoom in to smaller time increments you may see more detail and more event types listed.

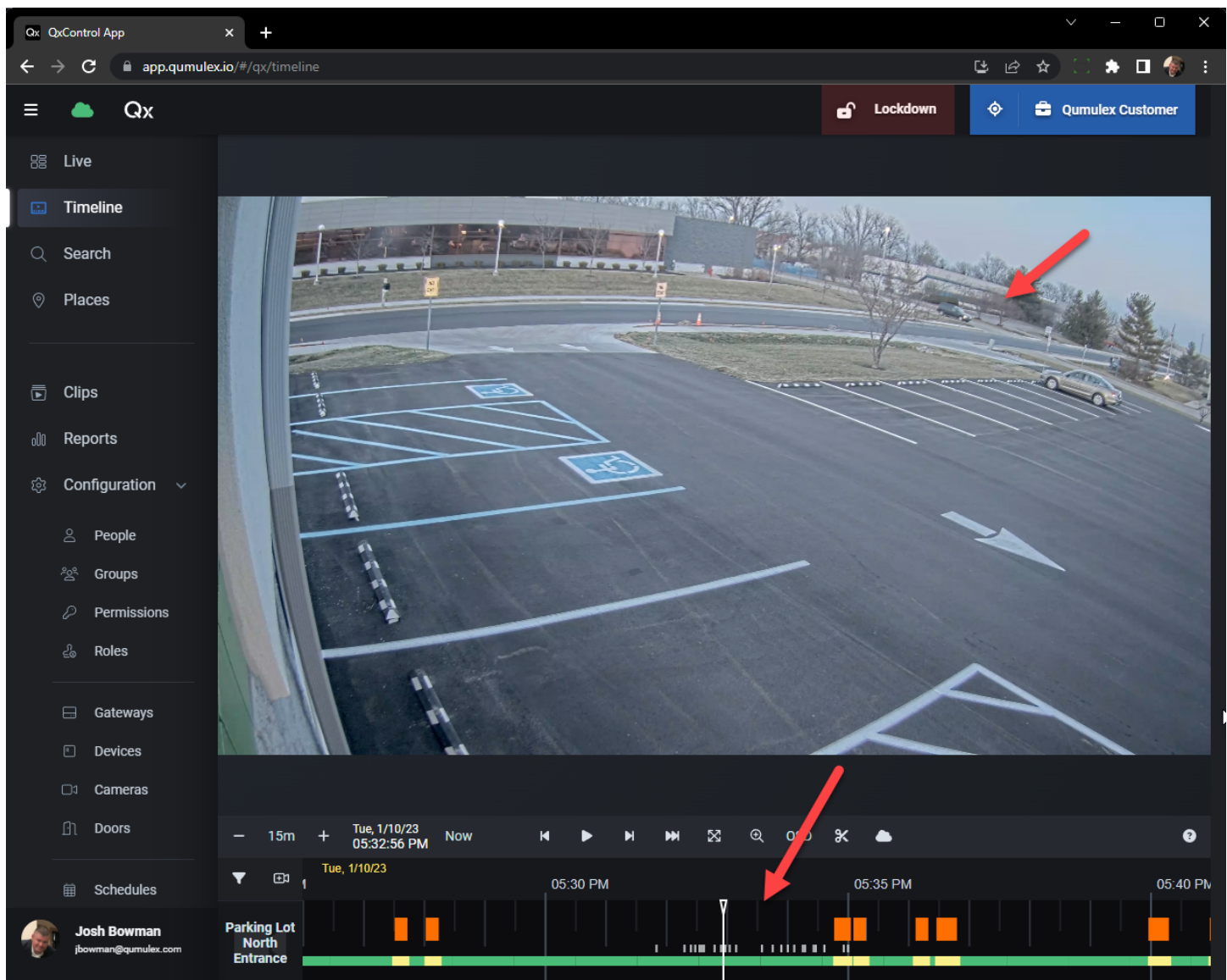
Where multiple exist and overlap, again you will see the color of the highest priority event.

Currently, the user is not able to change or customize the event priority.

## Basics of Timeline: Creating and Exporting Clips

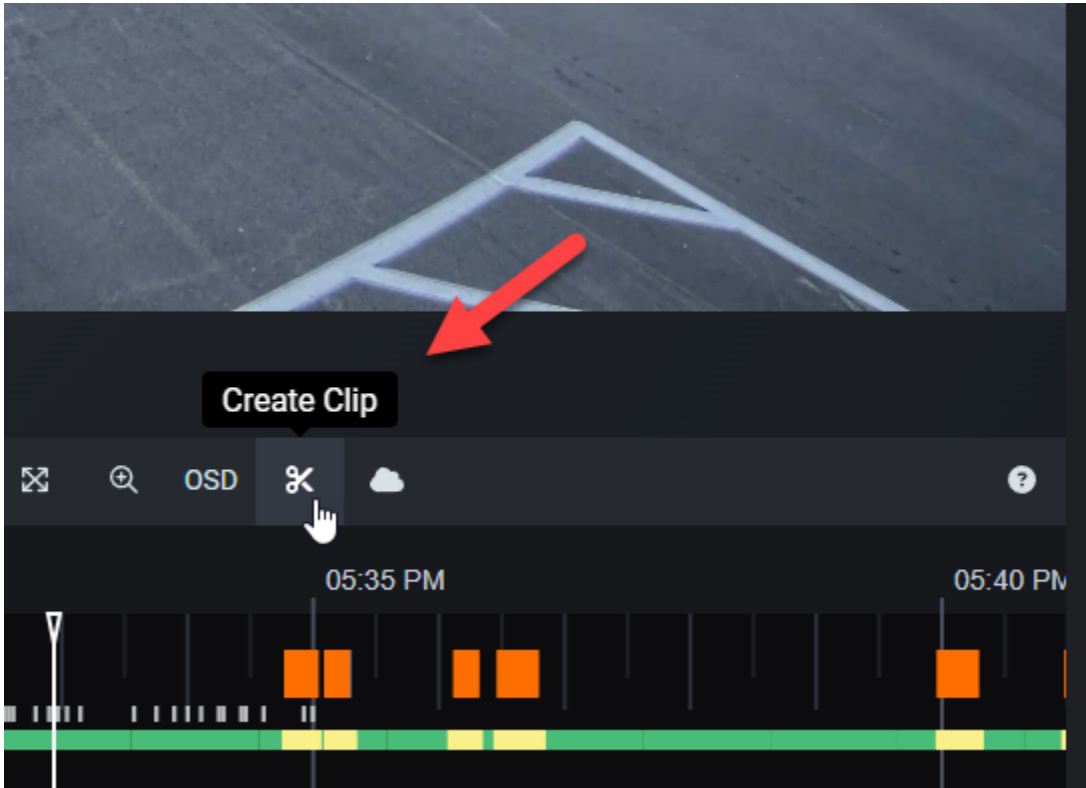
Creating and exporting a clip is very similar to the process when uploading to cloud in Search. The biggest difference is that in Timeline you don't have to export based on an Event. Meaning, you manually select the length of the clip that you wish to upload to the Clips Page. This offers great flexibility and allows you to save footage from Continuously recorded video that has no event associated with it.

So let us work through this process step by step. In the example below we see a Van that is leaving a nearby driveway and is outside of the motion window.



As you can see, there is no event that was triggered and the timescale graph is Green. This means that it was captured by the continuous recording schedule of this camera.

If we need to keep this video we start by selecting “Create Clip”, which is represented by a scissor shaped icon.



Now the Create Clip dialog box appears. This allows us to:

- Manually enter the start and stop time.
- Create a name for the clip.
- Provide a description for the clip.
- Choose if there is an expiration for the clip.

Note: Choosing “No” for expiration means that the clip will need to be manually deleted from the Clips Page.

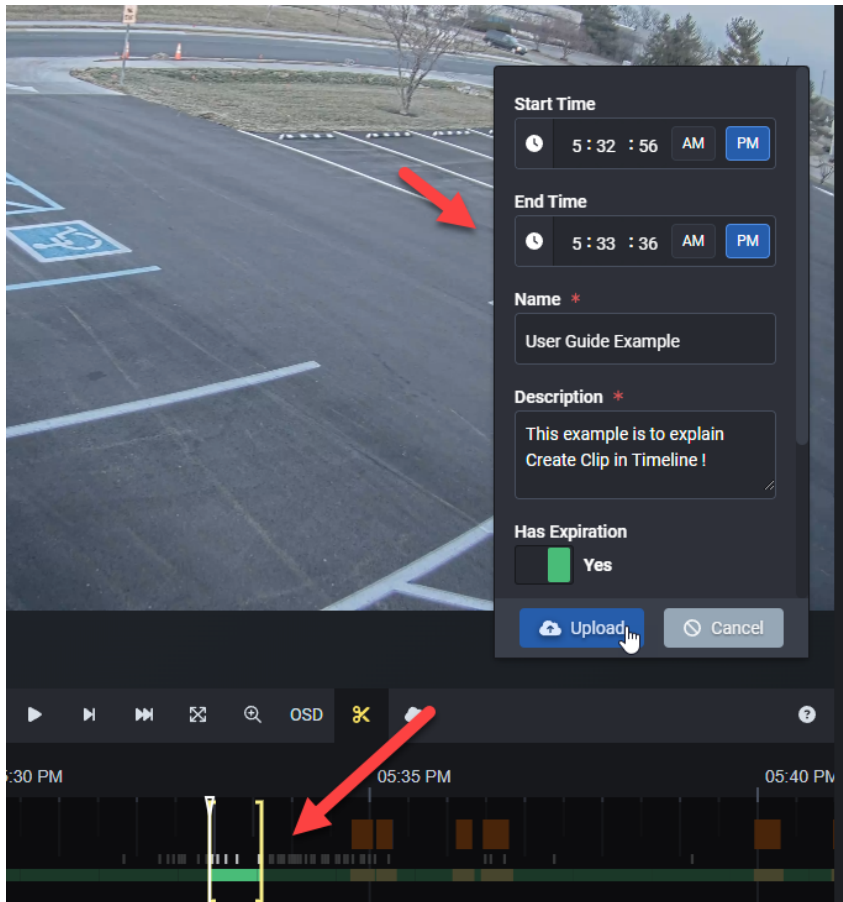
A screenshot of the 'Create Clip' dialog box. It has a dark background with white text. The fields are: 'Start Time' with a clock icon and '5 : 32 : 56 AM PM'; 'End Time' with a clock icon and '5 : 37 : 56 AM PM'; 'Name' with a red asterisk and a text input field containing 'User Guide Example'; 'Description' with a red asterisk and a text area containing 'This example is to explain Create Clip in Timeline!'; and 'Has Expiration' with a green checkbox and the text 'Yes'. At the bottom are two buttons: 'Upload' (blue with a cloud icon) and 'Cancel' (grey).

Once you are satisfied you can choose “Upload” to save the clip.

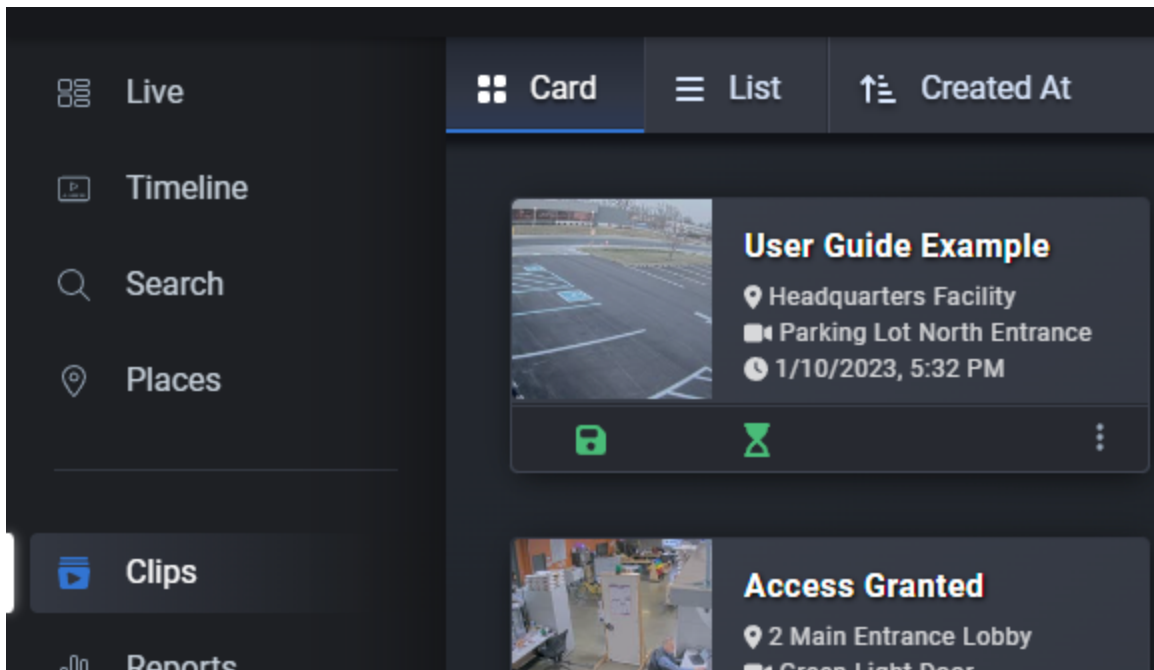
That is very easy, and in that previous example we allowed QxControl to suggest the length of the clip, in this case 5 minutes.

We also have another option for setting the start and end of the clip, aside from using the start/end time text boxes.

If you look at the same clip, you will see the cursor is set at the start time of the clip and there is a bracket to show the end time 5 minutes later. You can drag either bracket to extend or shorten then duration of the clip.



You can see that We have moved the end time bracket closer to the start time, and the end time text box in the dialog menu has automatically changed. This is a very simple and visual way to set the length of your clip.



After choosing “Upload” we now see the clip appears in our Clips Page where we can manage or share the clip.

While we cover the topic of Clips in another chapter, it would be good to provide a reminder of how clip storage works in QxControl.

When uploading to cloud, each camera license comes with 20GB of cloud clip storage for free. Clips that have no expiration assigned will not be overwritten and will need to be manually deleted if no longer needed.

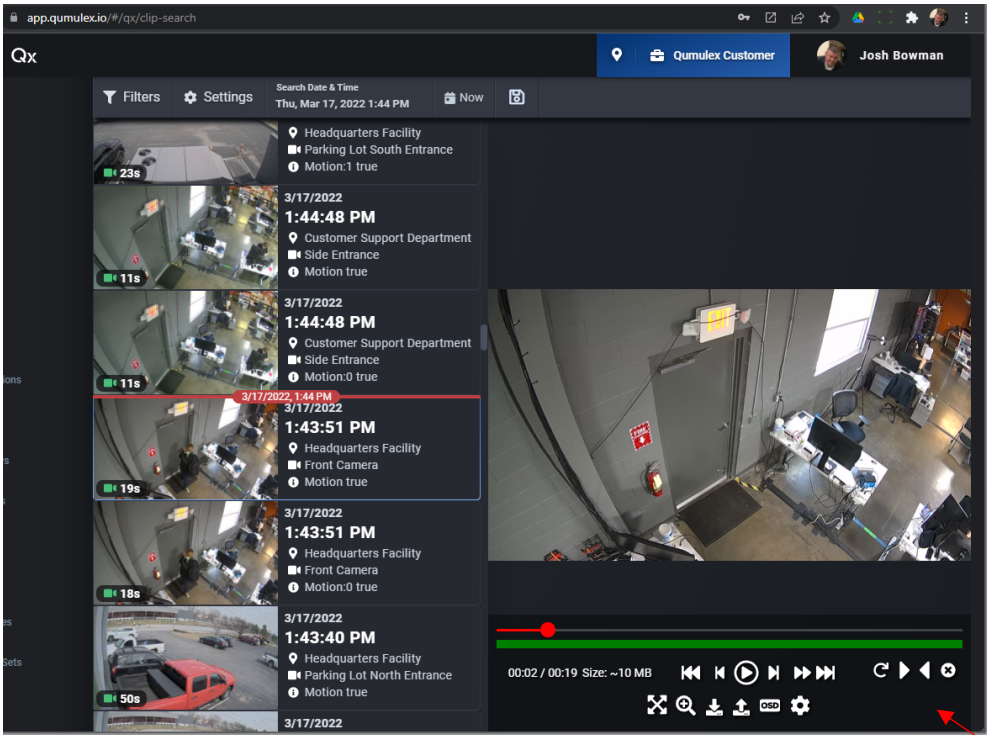
When uploading to Clips in QxONE systems (On-Prem) there will be 20GB of local storage assigned to each camera.

Search

The search page reflects a modern experience that makes finding events easy. There are multiple ways to search for events.

- Use the “Search All Tags” text box under “Filters”. This works like an internet search engine. For example, you could type the word “cameras” and see a list of cameras or enter a Person’s name and see events related to them.
- Using the available Filters, you can choose from any number of cameras, doors, analytic events and so on.
- You can also use “Search Date and Time” to choose a specific time only, or to use Filters and Tags based on a certain time.

In this section, we will detail each of these options and how to use them.

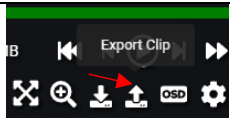
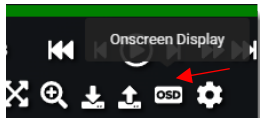




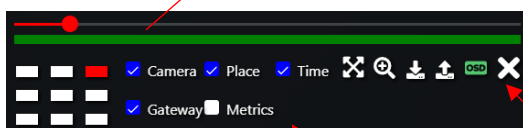
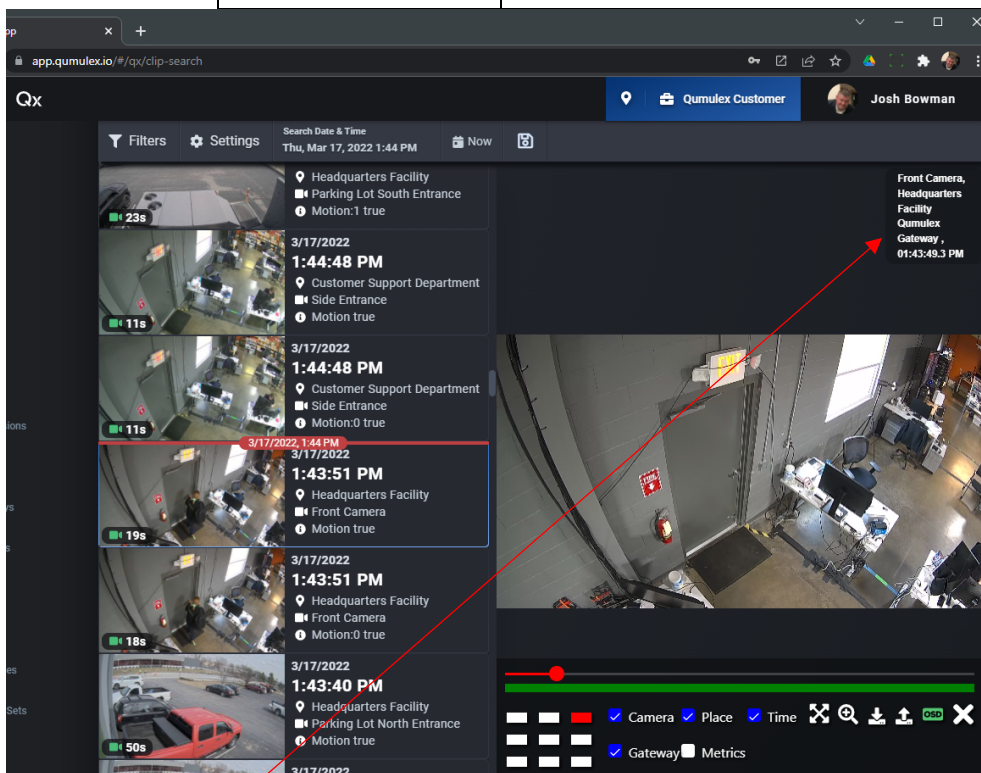
Search Actions

The following actions are available in the search actions menu. Hover your cursor over the menu to reveal the options:

Action	Result
<div>Enable Digital PTZ</div> <div></div>	Enable Digital PTZ function. Allows you to scroll inward to zoom in, outward to move out and move the mouse cursor (or your finger on mobile) to change the field of view and to choose where to zoom.
<div>Download to Desktop</div> <div></div>	Download and save video clip on your local device. It will appear as a file download in your browser.
<div>Export Clip</div>	Allows you to save the clip in the Qumulex cloud service. Each camera subscription includes 20GB of cloud storage.



	This function will allow you to save the clip and then manage or share it in the "Clips" page.
Onscreen Display 	Displays details on screen. Choose what information to display on screen, and where, in the settings menu (detailed below)
Settings 	Choose what information is displayed on screen when Onscreen Display is enabled. Also allows you to choose where on the screen the information will be displayed.
Full Screen 	Displays the Clip in full screen mode



Choose Where to display, Choose What to Display, Close Settings



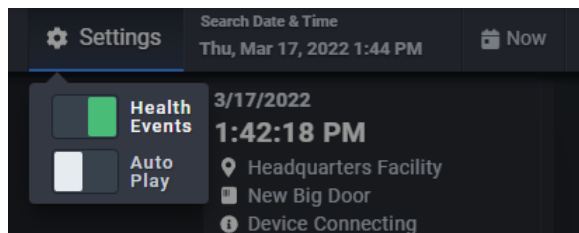
## Search Settings

There are several features that are unique to the Search page of QxControl. In this section we will cover each in more detail.

### Health Events

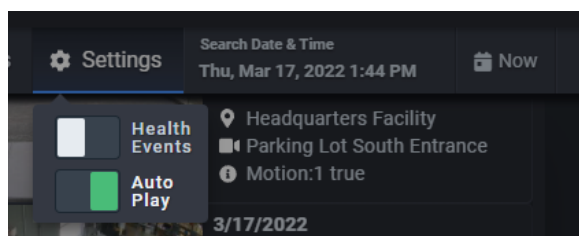
Located in Settings is the option to enable “Health Events”. This feature toggles the inclusion of Device Health events “On” or “Off”. In the example below, you can see this event is showing that a Door connected to QxControl.

This is a helpful feature to enable more efficient searching. Why? Because Device related events typically do not have video clips. Therefore, if you are looking for a video related event, toggling Health Events to “Off” will reduce the number of events you see and reduce the number of events displayed that do not have video.



### Auto Play

Located in Settings, there also an “Auto Play” option. Using this will toggle Auto Play on/off. When this feature is toggled on, the next video clip will automatically play after the current clip is complete.



Note 1: The clips will play from oldest to newest, which means that in your events tab clips will play from the bottom to the top of the tab. If you select the newest video (top of the events tab) nothing will play until the next video clip is produced.

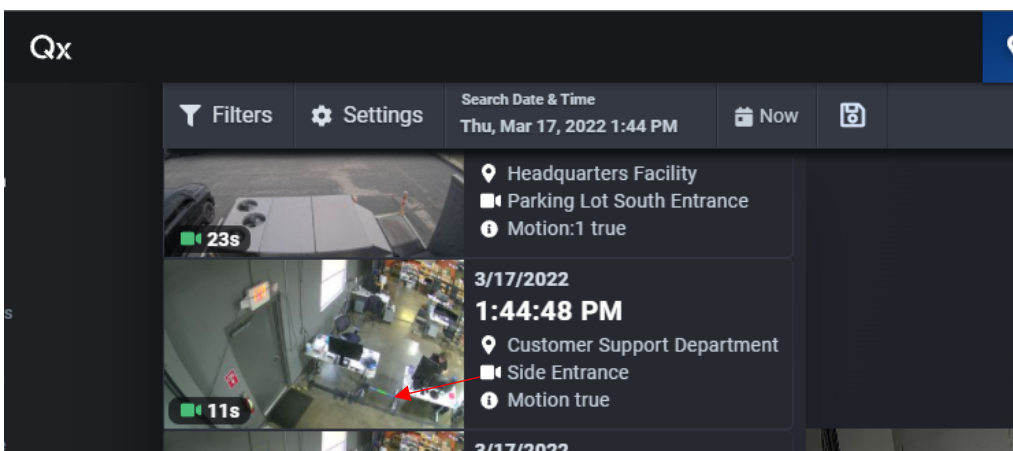


Newer Video Clips

Auto Play Operates Oldest to Newest

Older Video Clips

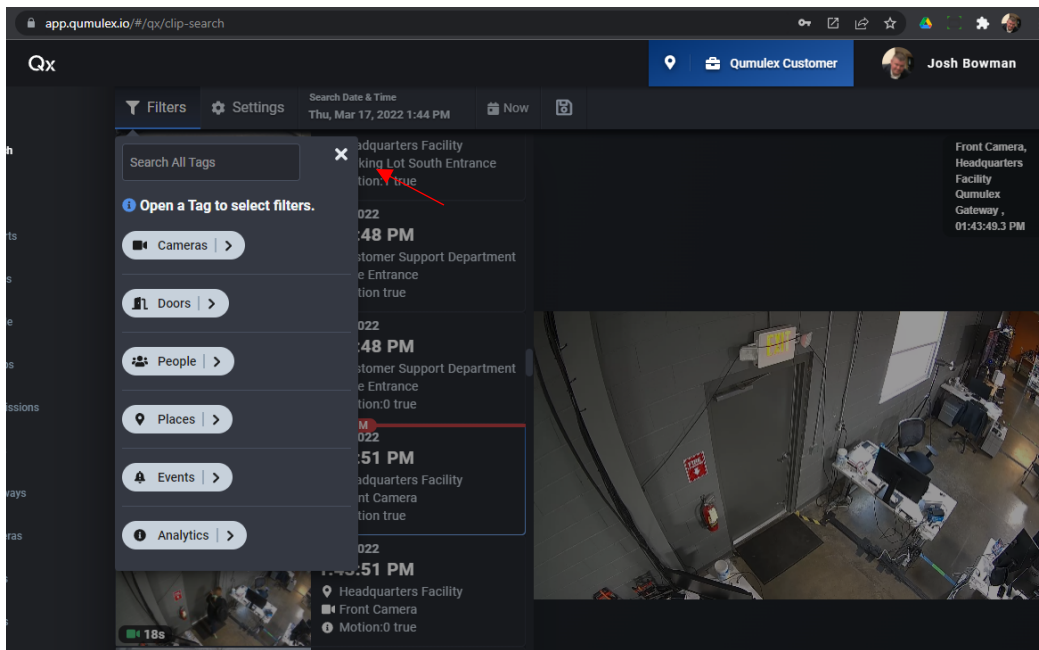
Note 2: Auto Play will stop once it encounters a non-video event in the events tab. To use Auto Play more effectively it is recommended to filter out most events that do not contain video by using Device Health toggle.



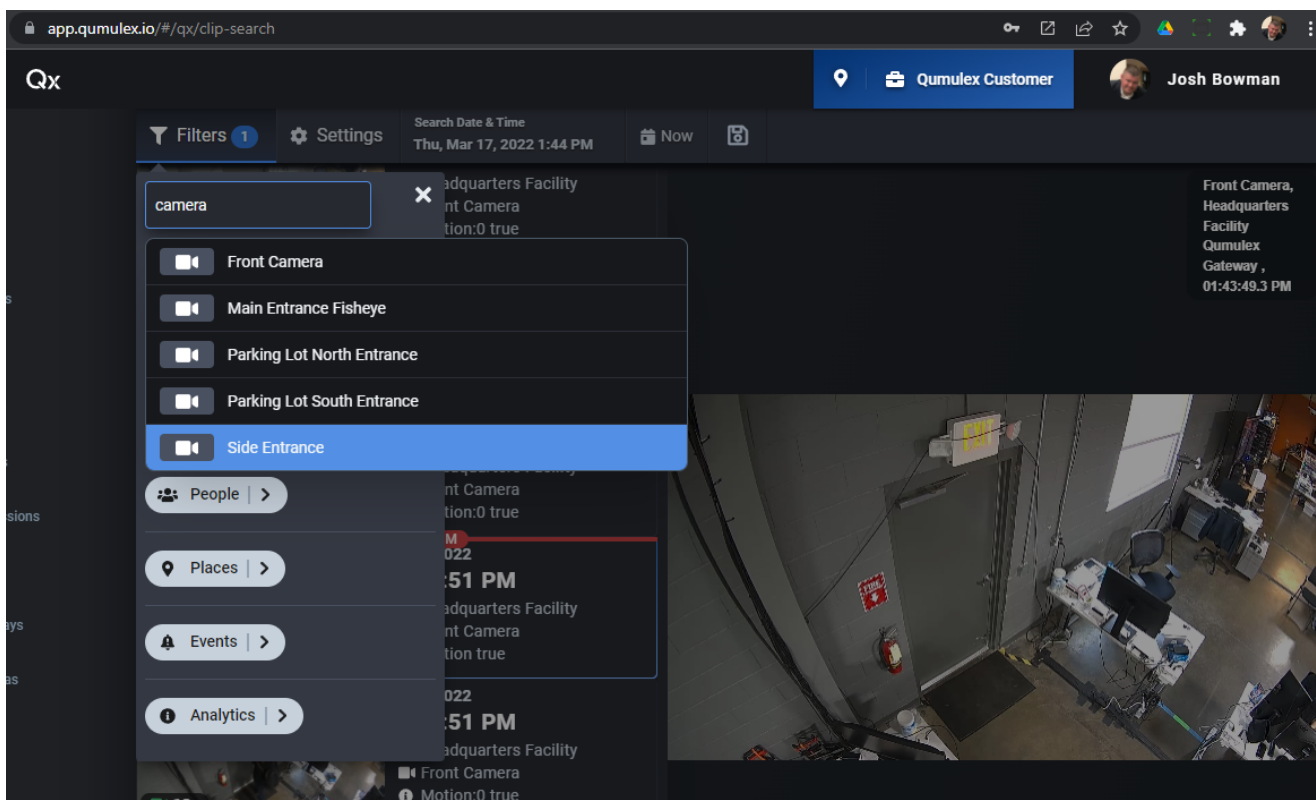
Note: Events that contain a video clip will have a green camera icon and will display the Clip length.

## Search All Tags

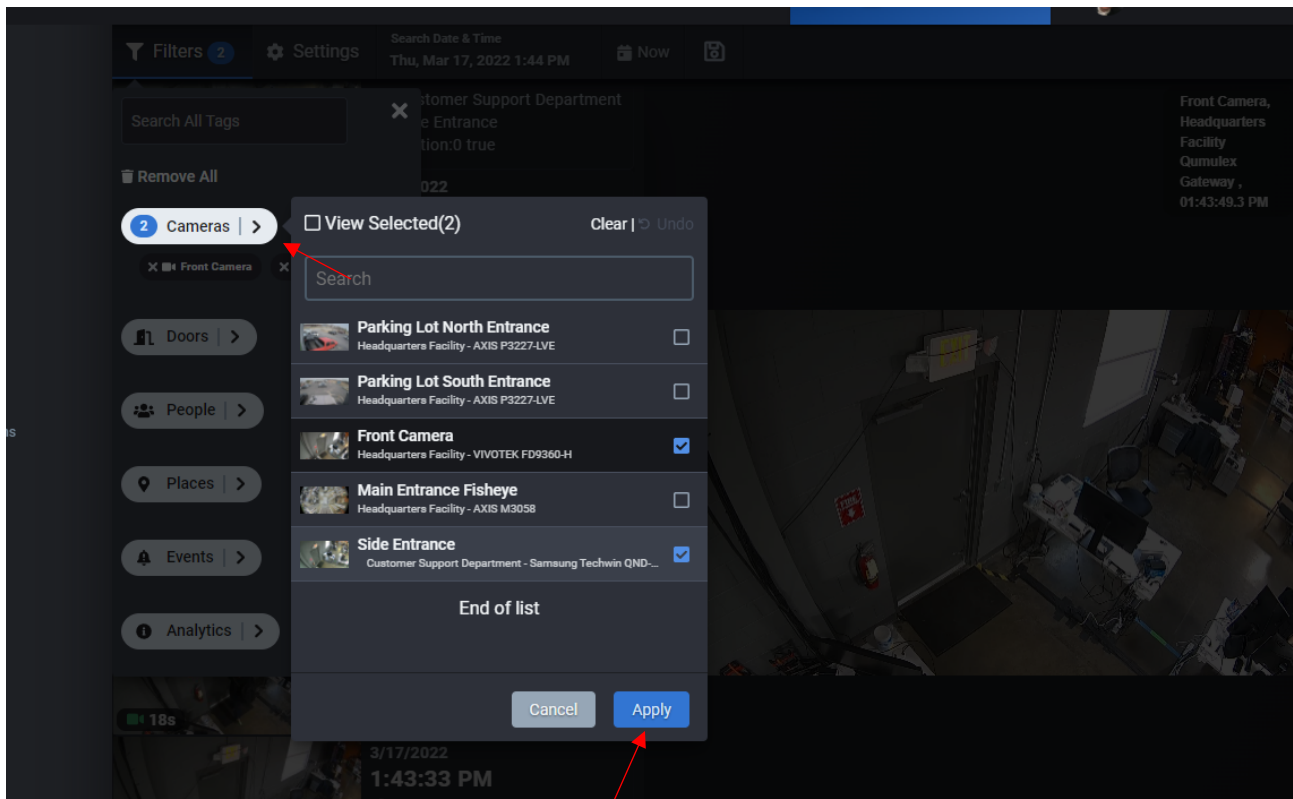
The “Search All Tags” Box is used to refine the events that are displayed in the events tab. Anything that is searchable in QxControl will have an associated tag making it easy to search. You can search based on Time, Events, People, Places, Devices and even Analytics .



As you type information into the Search Box the available options will appear Automatically. In this example, we can enter the word “Camera” and you will begin to see available cameras that you can apply to the search.

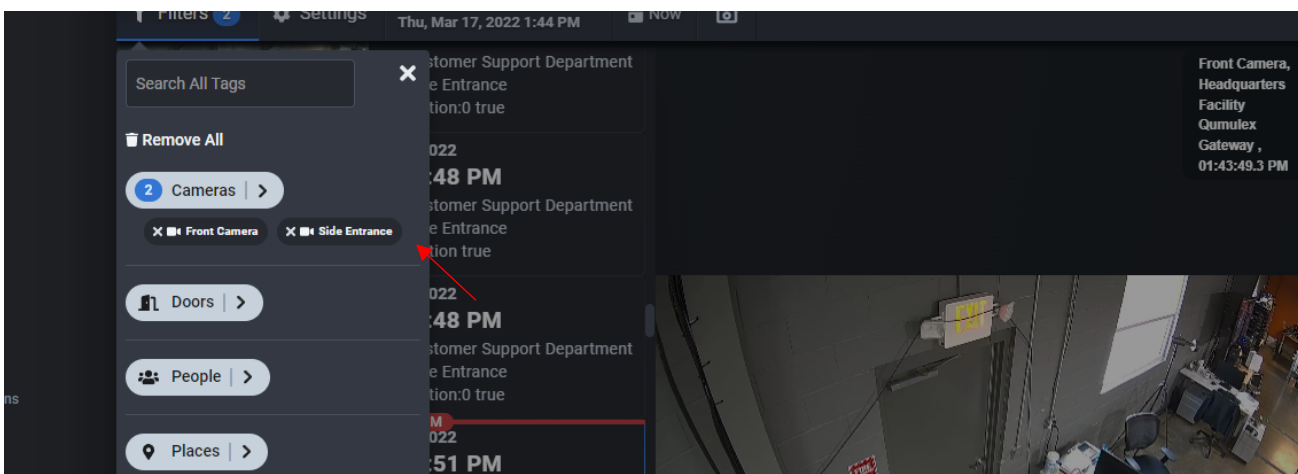


Once you have selected the desired Smart Tags and applied them, you will see the number of applied Tags for each Filter category. In this example, you can see we searched for and applied two camera Smart Tags and that number is displayed by the Cameras Filter button.



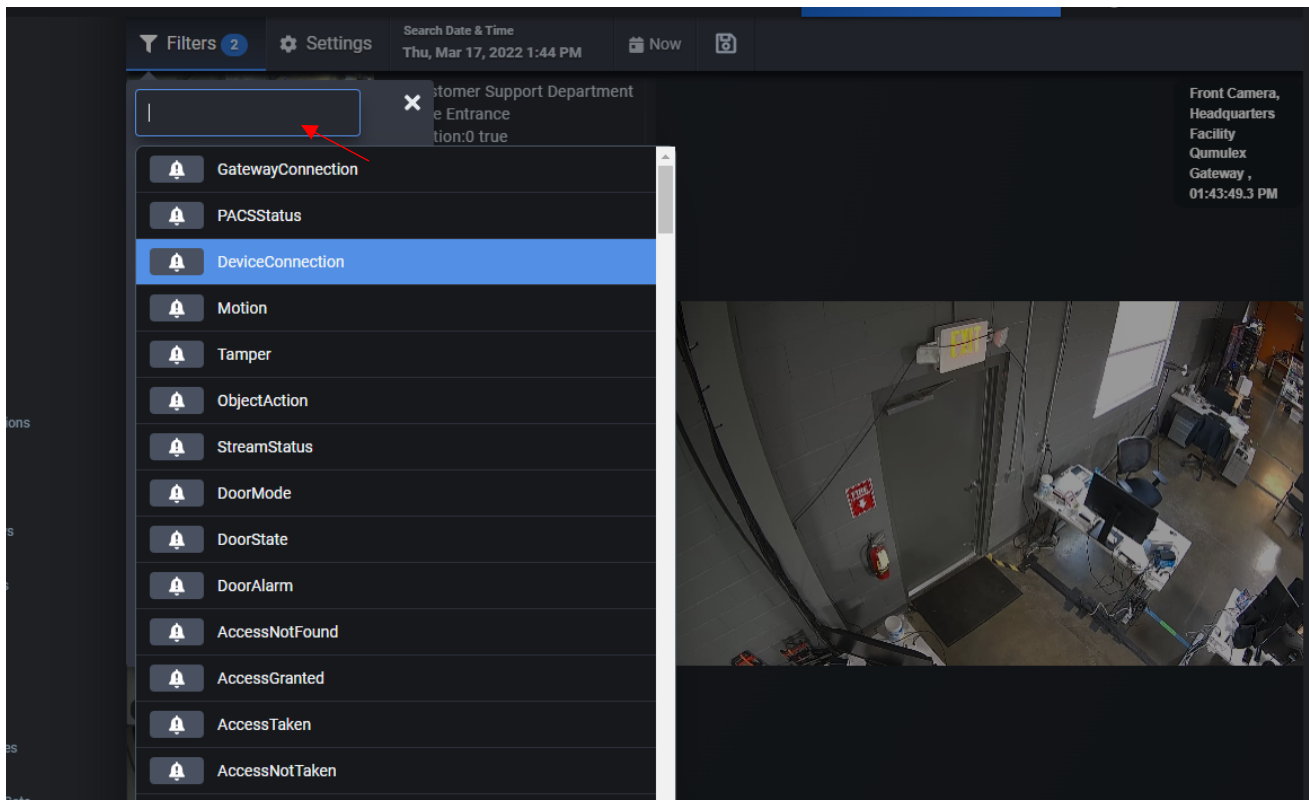
You can also click on the Filter and see a list of all available items; in this case it shows all available cameras. You can see the two cameras already selected show as a blue check mark. Here you can select or remove any desired items, and then choose “Apply” to save these changes and see the appropriate Search results.

You can also see that once applied there is an icon for each Smart Tag item that was selected. You can easily remove them by choosing the “x” on the left side of the icon.



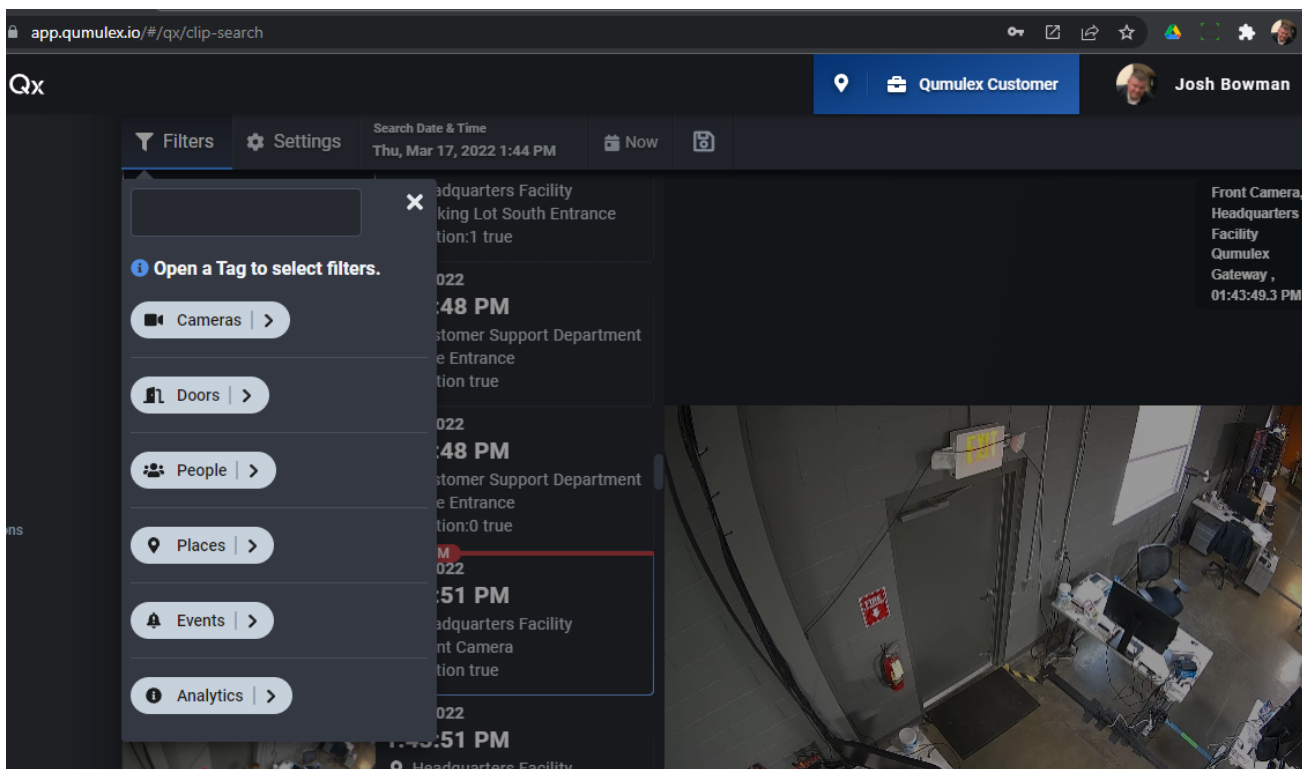
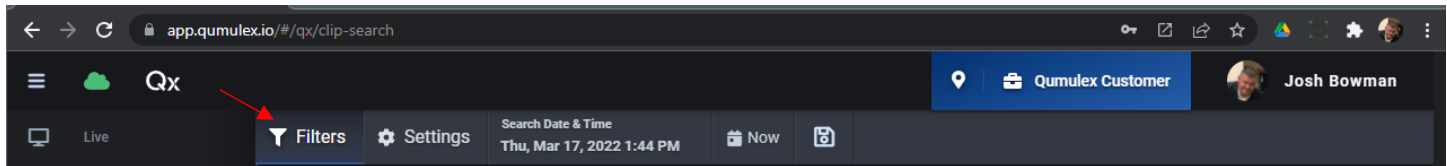
Another great tip is to press the SPACE BAR in the Search box to see a list of every available Smart Tag. This is a great way to see what Smart Tags are available!

Note: With the increasing number of Smart Tags, and the frequency of additions, we have removed the static legend that was previously available. Using the SPACE BAR has replaced the legend.



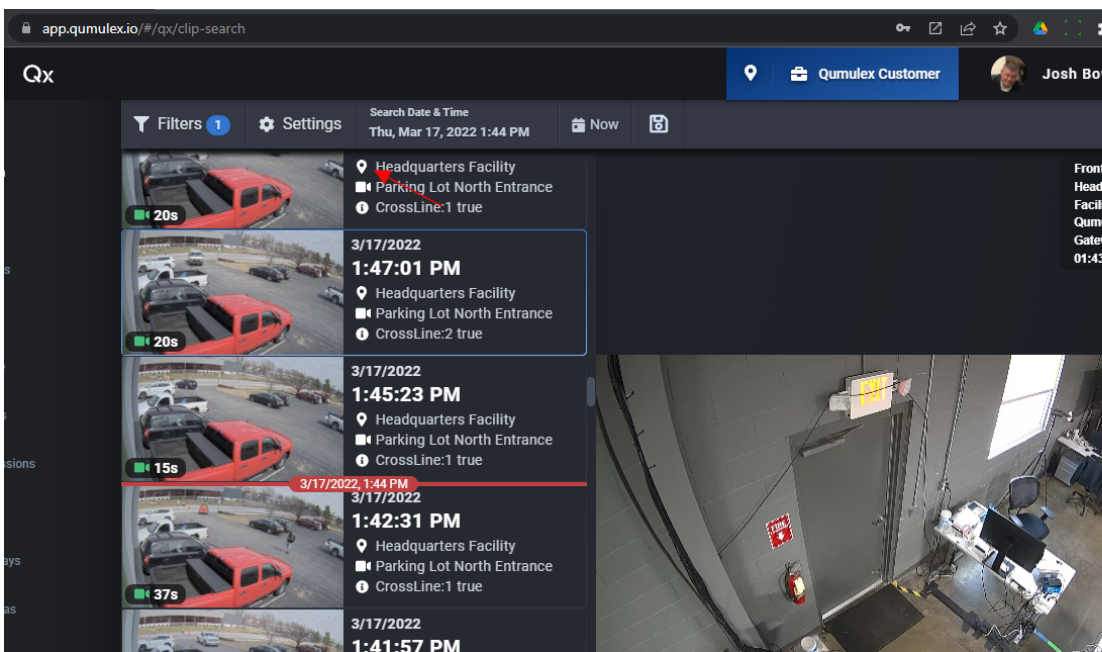
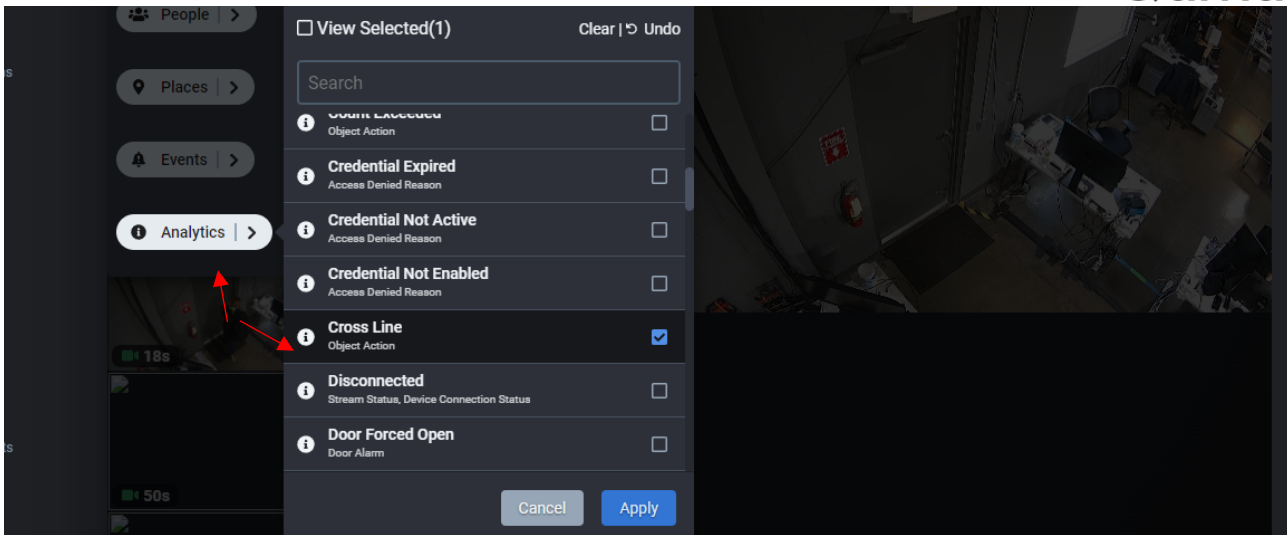
### Search Via Tag Filters

Another great way to use Smart Tags in QxControl, is to use our Tag Filters. Tag Filters can be found by choosing “Filters”, located just to the left of “Settings”



Next, choose Filters from the available options to help narrow down your Search results as desired. For example, if we want to search on a Line Cross analytic, we can choose “Analytics”, and then search or scroll until we find the Cross Line Smart Tag:





After you choose “Apply”, you can now see that we have filtered on Crossline events only.

You can choose any combination of Smart Tags that you want! Just remember that if you begin to see a message stating “No Search Results Found”, you may need to start removing some of the Smart Tags until you receive results again.

### Tag Filter Categories

There are six categories of Tag Filters:

**Cameras** – Used to search on Cameras in your current scope.

**Doors** – Used to search on Doors in your current scope.



**People** – Used to search on People in your current scope.

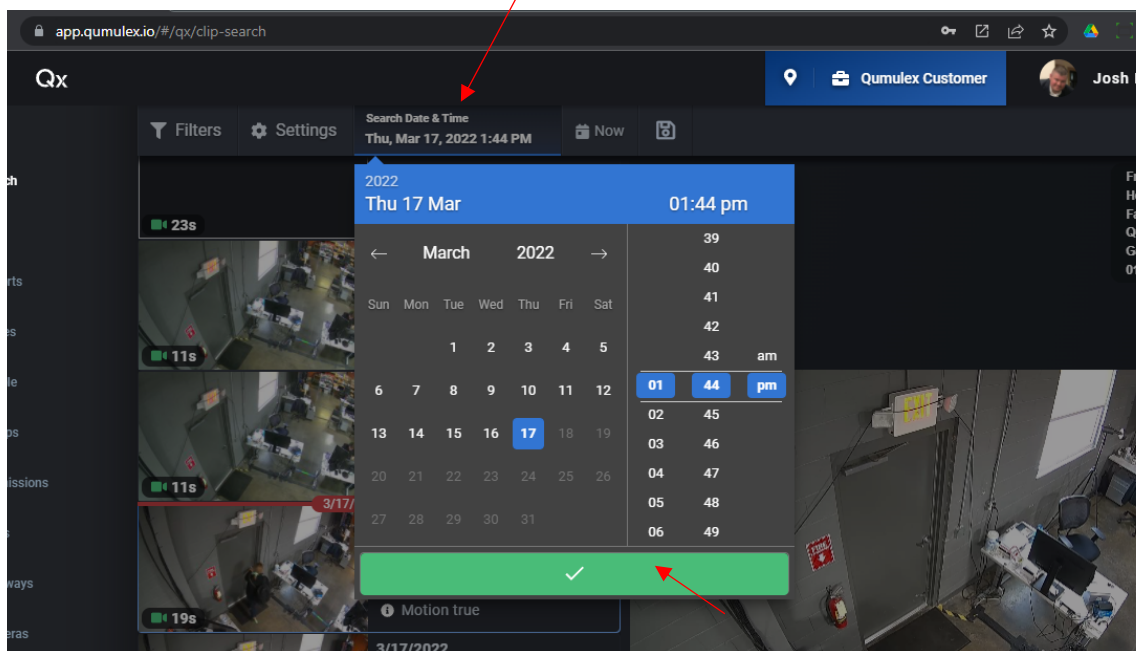
**Places** – Used to search based on places available at your current scope.

**Events** - Used to search events at your current scope. Some examples of events might include Motion, Gateway Connection, Tamper, Door Alarm, and many more...

**Analytics** – Used to search on Analytic events at your current scope. Examples may be Cross Line, Person Detected, Vehicle Detected, Mask Detected, Face Detected etc. You will also see Battery and other status alarms.

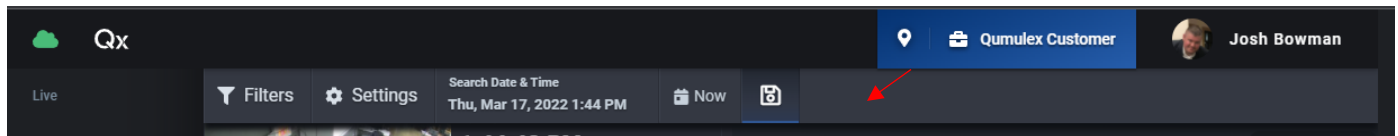
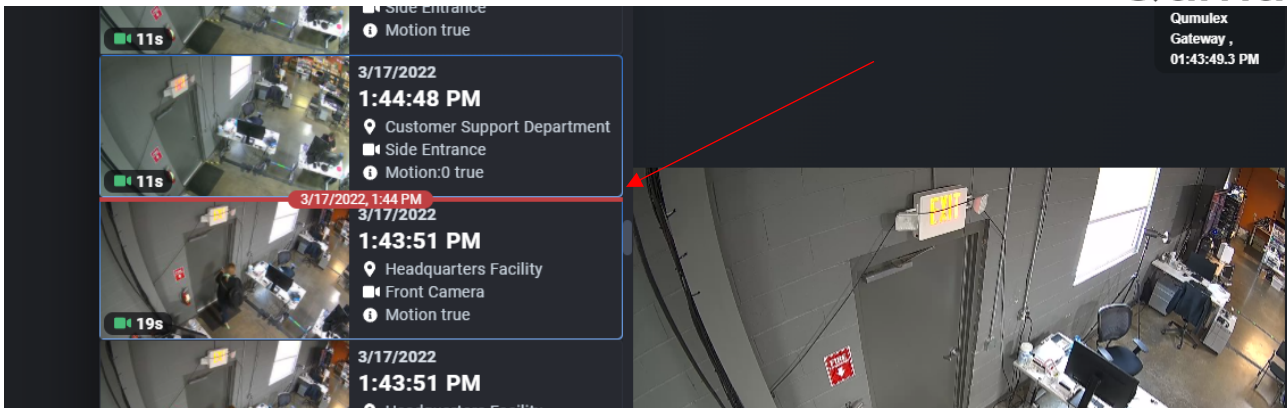
### Time-Based Searches

You can also use a traditional “Date and Time” method to search for video, instead of, or in conjunction with the Tag based search. To search by Date and Time, click on the “Search Date & Time” field.



Then choose the Month, Year and Time of your search and choose the green check mark to apply it.

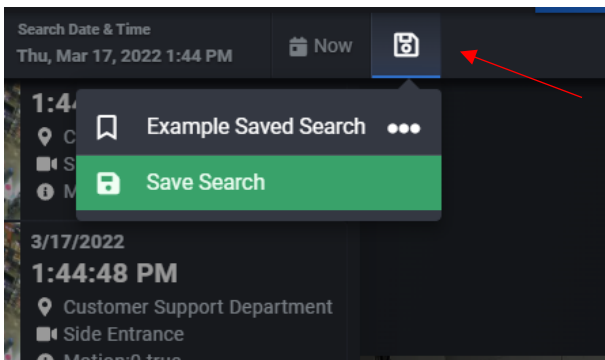
Then, once applied you will see a marker indicating the time you have chosen, and allows you to scroll before or after that time in the Events Pane.



If you want to clear the time chosen and show the newest events first, select the “Now” button to the right of the Search Date and Time field.

### Creating and Using Saved Searches

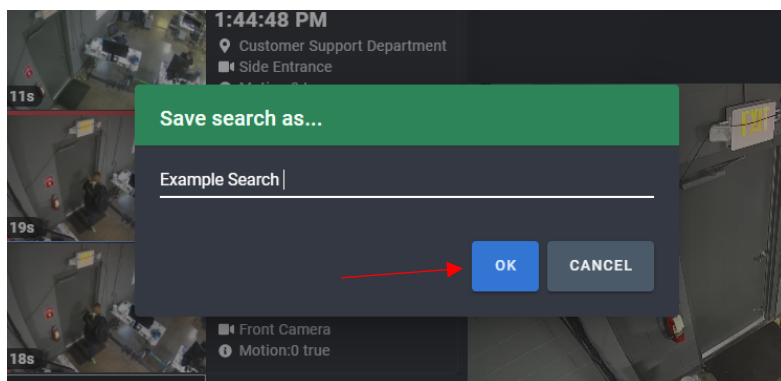
After successfully creating a search, you can save it for use later. Simply click on the diskette icon to reveal the “Saved Search” menu.



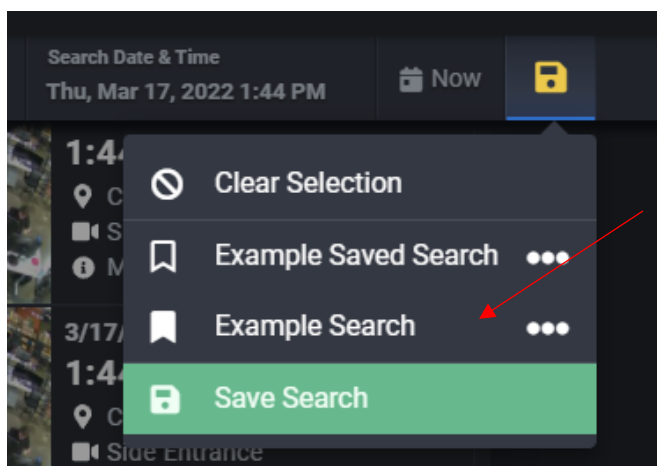
Next choose the “Save Search” option.

This will present the save menu. Provide a name for your search and then click “OK”.



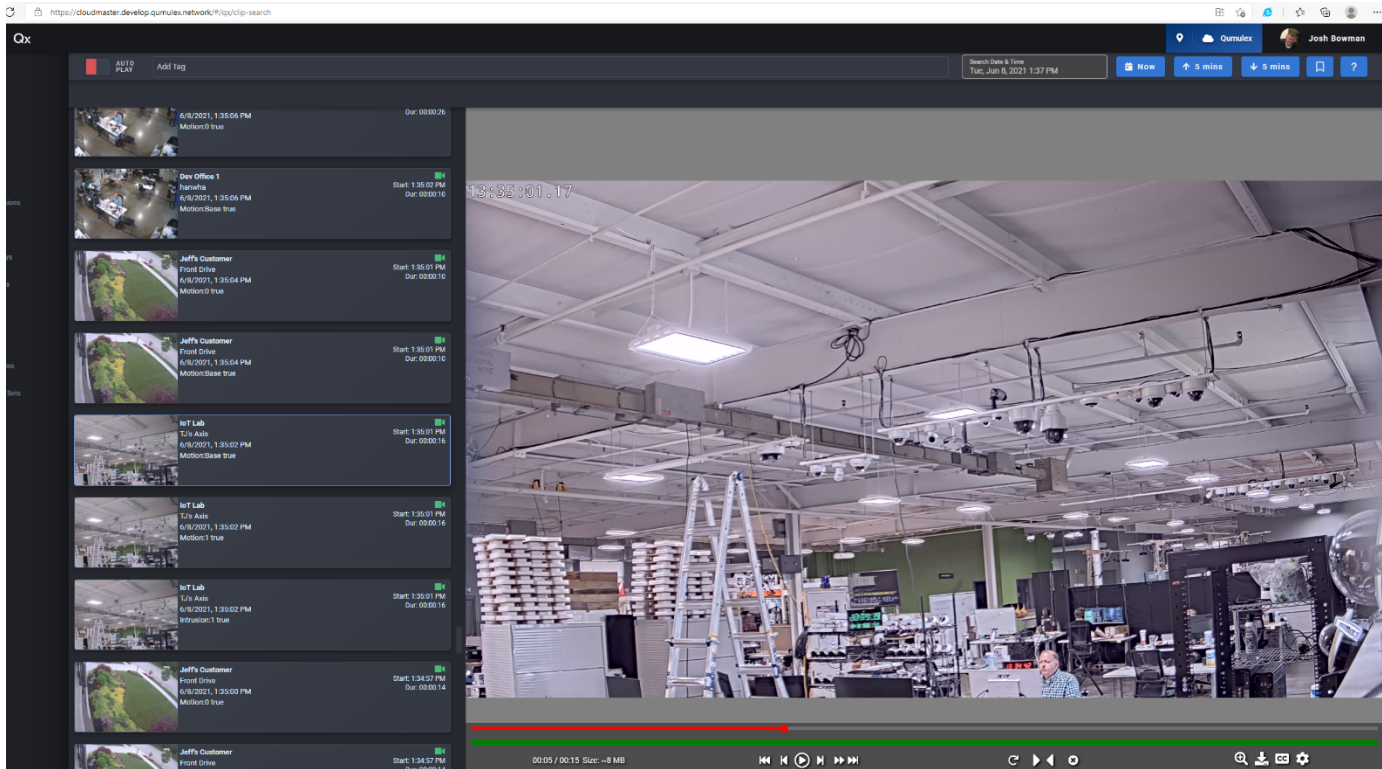


The new saved search will now be available when choosing the diskette icon. Simply click on it to apply the search parameters.

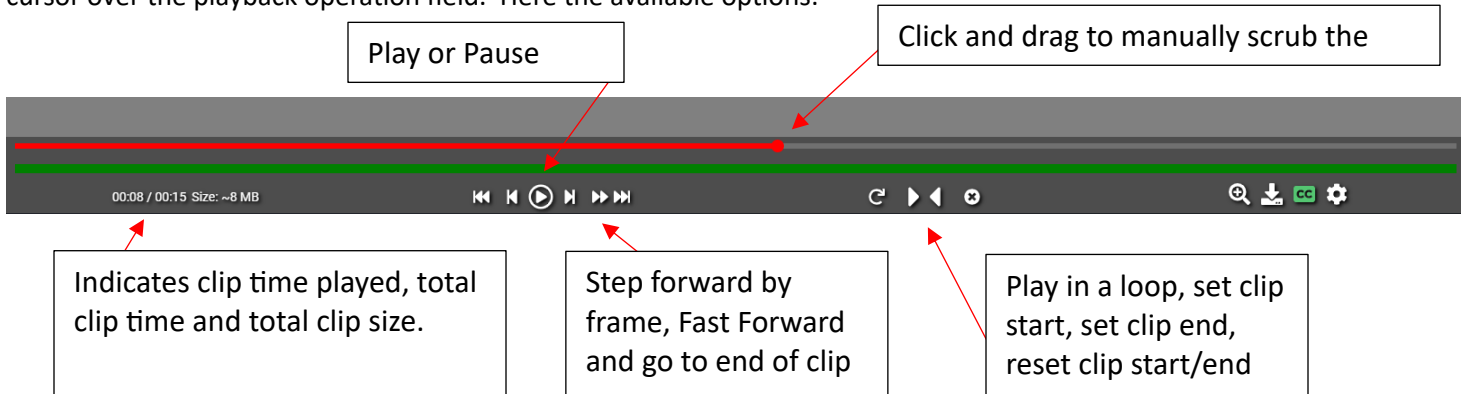


### *Playing Video Clips*

Once you have found the Video Clip that you would like to play, click on the Event Thumbnail and press Play in the scrub bar below the clip to start playback.

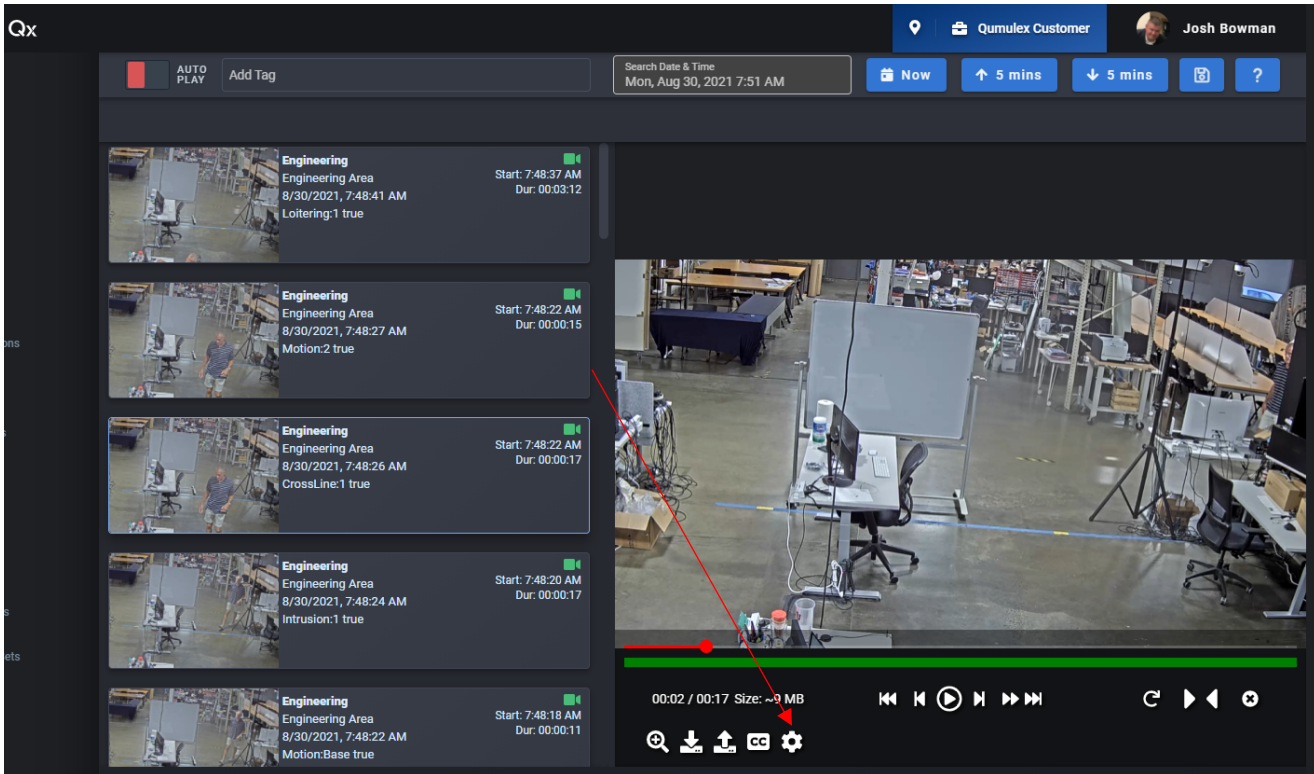


Use the playback controls to operate the video playback. The scrub bar will become visible by hovering your mouse cursor over the playback operation field. Here the available options:

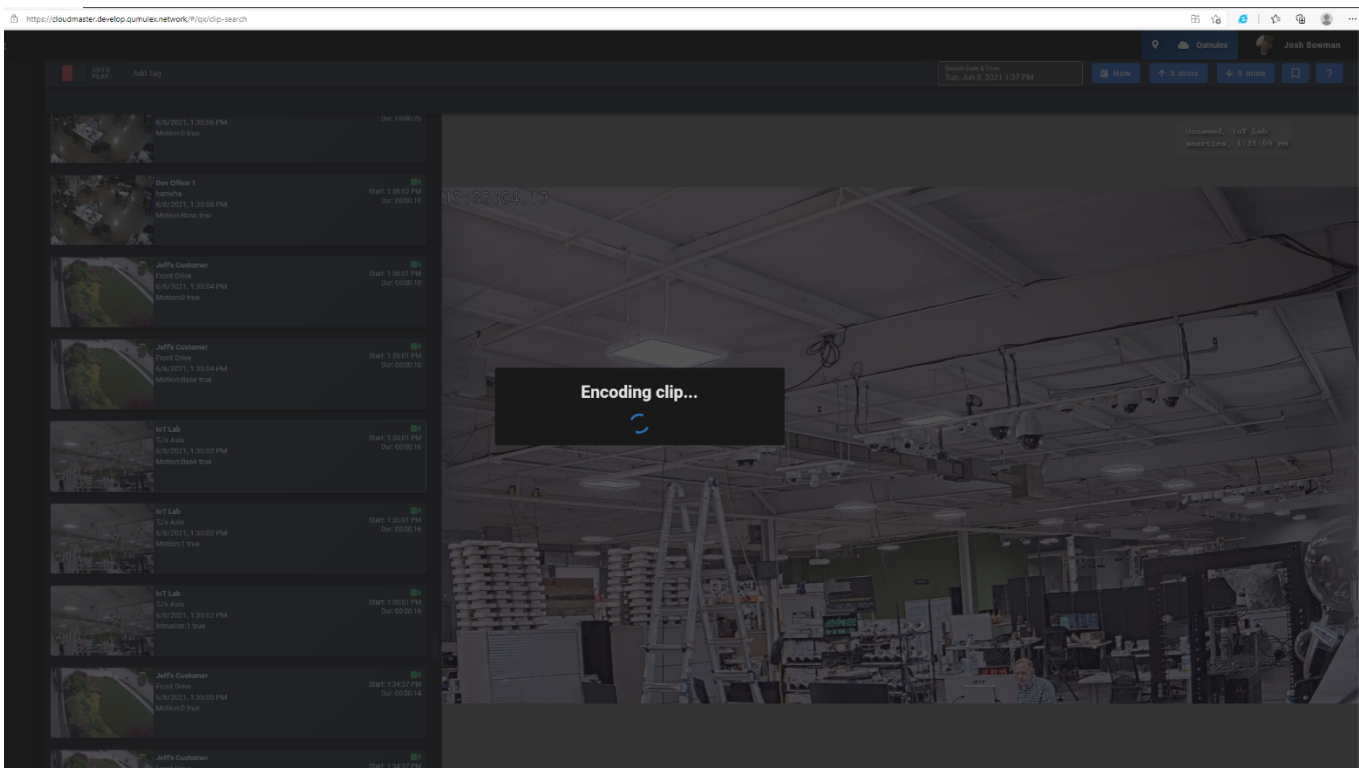


### Saving Video Clips

To save and export the video clip, choose either “Download to Desktop” (down arrow) or “Export” (up arrow) in the actions menu. Download to desktop saves on your device, Export saves in the QxControl cloud service.

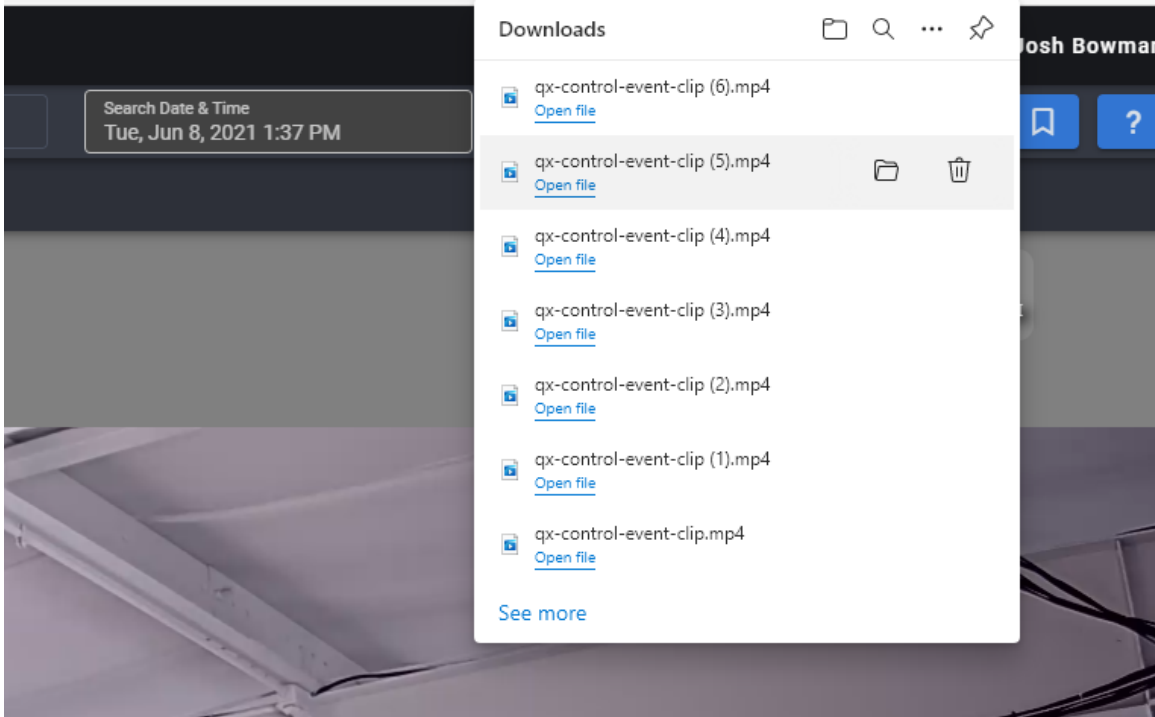


For example, choosing download to desktop you will then see visual feedback as the Video Clip begins downloading.



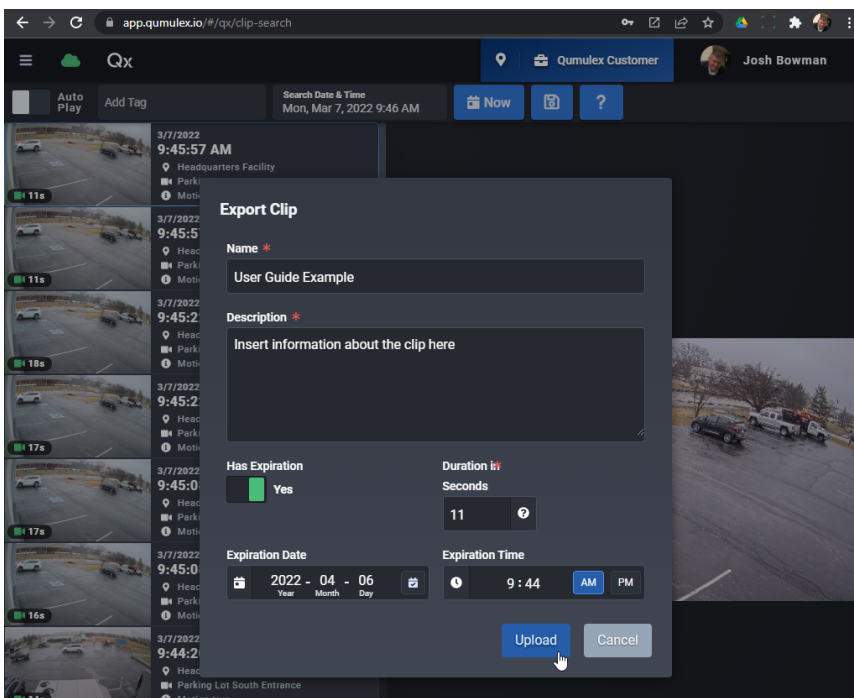
The video will then be available as a “download” from your browser. Each type of browser will vary in how it presents the download. Here is an example using Microsoft Edge.





In this example, you will simply select the downloaded file and save it where desired.

In the example of “Export”, you will be presented with a menu. This menu will require you to name the clip and provide a description. You also can choose if the clip expires and then choose an expiration date if yes. By default, the clip will have an expiration date of 30 days.

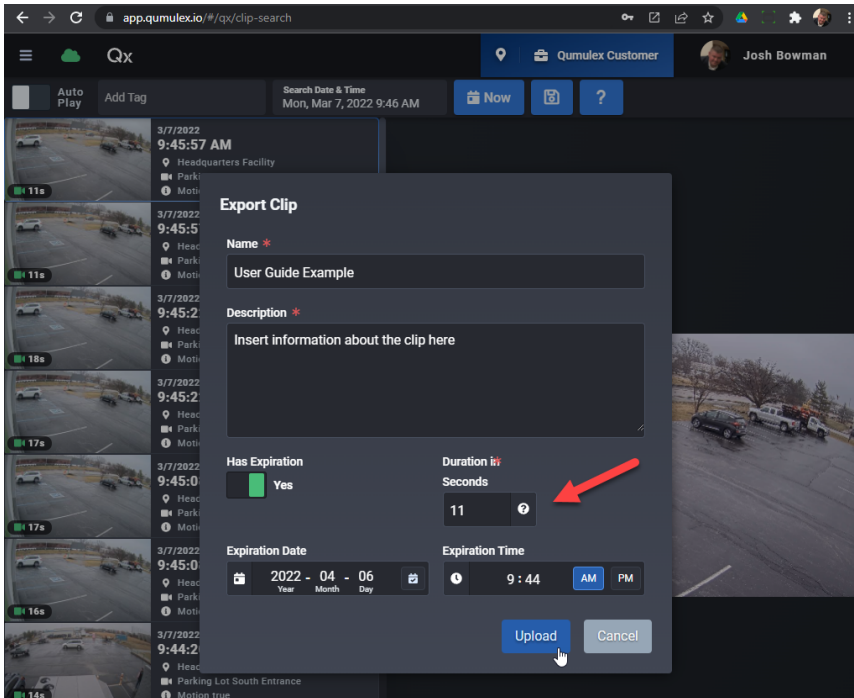


Also available when using the Export function, is the ability to lengthen or shorten the clip by entering the length of the clip, in seconds. By default, the actual clip duration will appear. However, you can shorten or lengthen the clip by altering

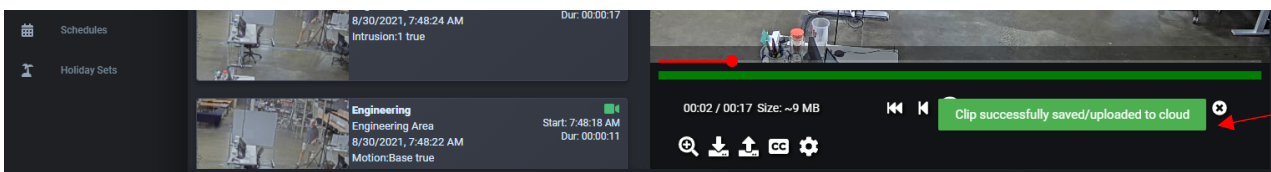
the clip length. This allows you to extend the clip to catch more post-record activity, or to shorten the length to only what is most Important.

There are two important reminders when using this feature:

- 1) You MUST choose Continuous recording for this feature to provide extended footage beyond the initial clip.
- 2) The event start will always remain. What you can change is the end point of the clip.



Finally, once you press the “upload” button, you will receive confirmation that the clip has successfully uploaded.



If you receive an error message instead, try uploading the clip again.

Please note, for additional information on uploading clips to the cloud, please visit the “Saved Clips” section of this User Guide.

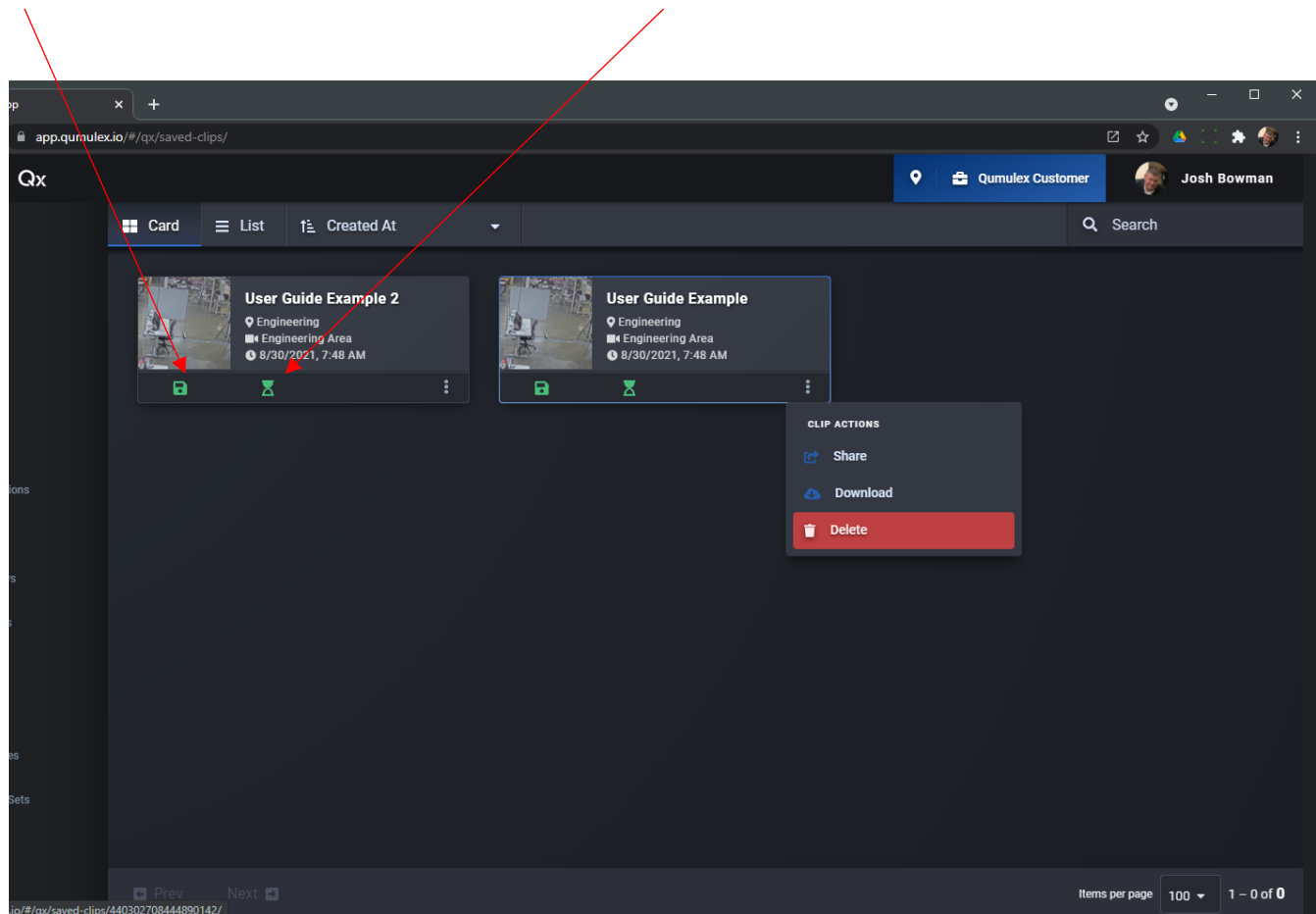


## Saved Clips

To manage saved clips in the cloud service, choose the application area “Clips” from the left-hand navigation window. The Clips page will display the saved clips in either a Card View or List View format, similar to other pages like Cameras or Groups.

The following examples are being displayed in Card View. You will see a couple points of feedback about the clip in this view.

The diskette indicates that the clips has finished processing. Hovering over the hourglass provides the expiration date.



In addition, choose the 3-dot menu to find options for this clip.

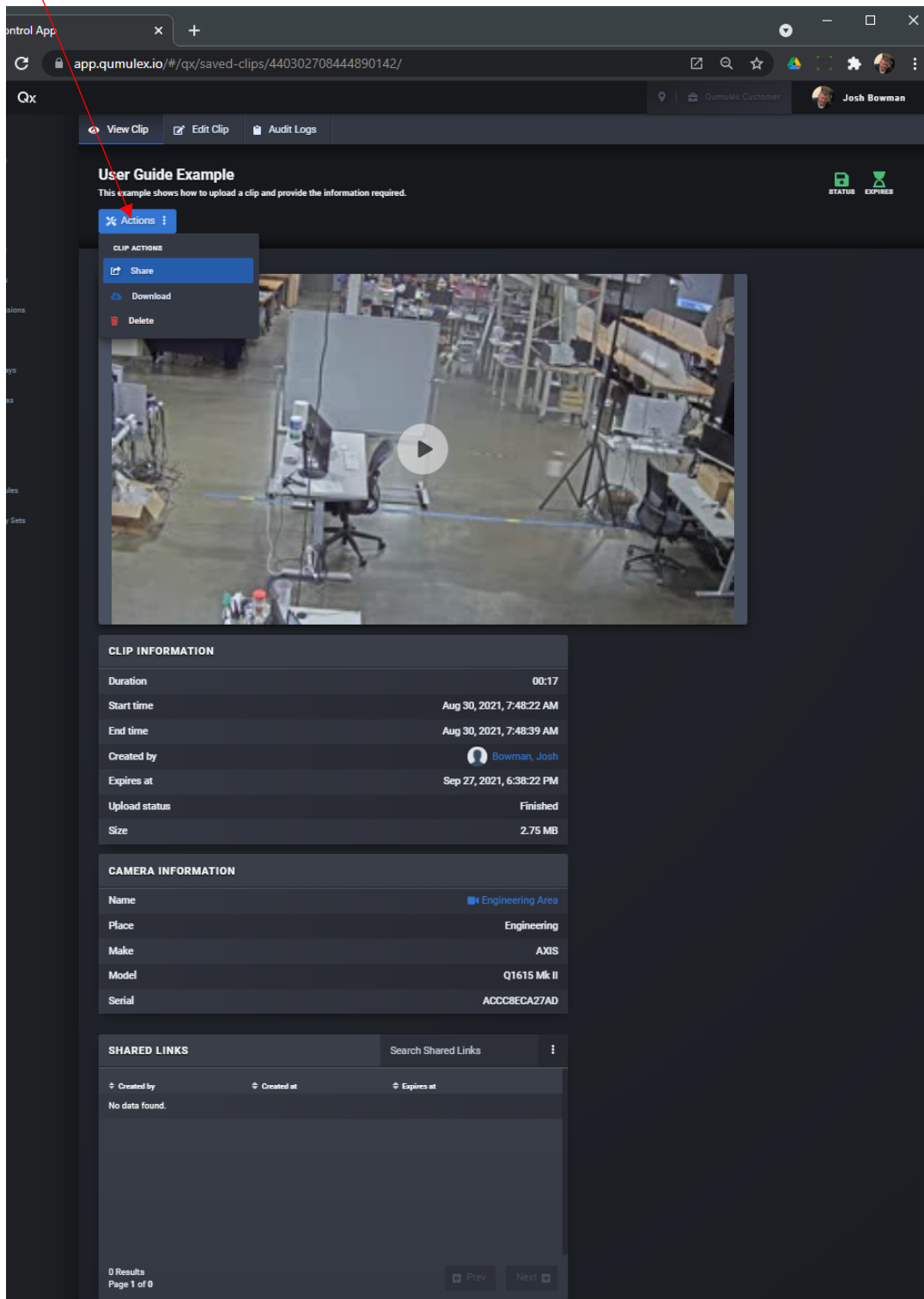
Share: Takes you to the clip sharing menu.

Download: Allows you to download the clip to your device, similar to “Download to Desktop” while in Search.

Delete: Delete the clip from the cloud service. You cannot undo this action so please be sure you are finished with this clip before deleting.

## Managing Clips

Double click on a clip to reveal the Clip Info page, “View Clip”. From here you can play, share and edit the clip as well as see an audit log for the clip. You can also choose the Actions menu and share, download to your device as well as delete the clip.



The screenshot displays the 'View Clip' page in the Qumulex application. The browser address bar shows the URL: `app.qumulex.io/#/qx/saved-clips/440302708444890142/`. The top navigation bar includes tabs for 'View Clip', 'Edit Clip', and 'Audit Logs'. The left sidebar contains an 'Actions' menu with options: 'Share', 'Download', and 'Delete'. The main content area features a video player showing a scene from an engineering area. Below the video player, there are three sections: 'CLIP INFORMATION', 'CAMERA INFORMATION', and 'SHARED LINKS'.

**CLIP INFORMATION**

Duration	00:17
Start time	Aug 30, 2021, 7:48:22 AM
End time	Aug 30, 2021, 7:48:39 AM
Created by	Bowman, Josh
Expires at	Sep 27, 2021, 6:38:22 PM
Upload status	Finished
Size	2.75 MB

**CAMERA INFORMATION**

Name	Engineering Area
Place	Engineering
Make	AXIS
Model	Q1615 Mk II
Serial	ACCC8ECA27AD

**SHARED LINKS**

Search Shared Links

Created by Created at Expires at

No data found.

0 Results  
Page 1 of 0

Just below the viewing window where you can play the clip, you will see “Clip Information”. This section provides data such as the duration, date, and size of the clip.

The screenshot shows the Qumulex Control App interface. At the top, there's a browser address bar with the URL `app.qumulex.io/#/qx/saved-clips/440302708444890142/`. Below the browser, there's a navigation bar with tabs for "View Clip", "Edit Clip", and "Audit Logs". The main area is divided into two sections: a video player and a metadata panel.

The video player shows a security camera feed of an office interior. Below the video player, the "CLIP INFORMATION" section displays the following data:

CLIP INFORMATION	
Duration	00:17
Start time	Aug 30, 2021, 7:48:22 AM
End time	Aug 30, 2021, 7:48:39 AM
Created by	Bowman, Josh
Expires at	Sep 27, 2021, 6:38:22 PM
Upload status	Finished
Size	2.75 MB

Below the clip information, the "CAMERA INFORMATION" section displays the following data:

CAMERA INFORMATION	
Name	Engineering Area
Place	Engineering
Make	AXIS
Model	Q1615 Mk II
Serial	ACCC8ECA27AD

Below that is the section labeled “Camera Information”. This section provides details such as the name, place and model of camera that was used to record the clip.

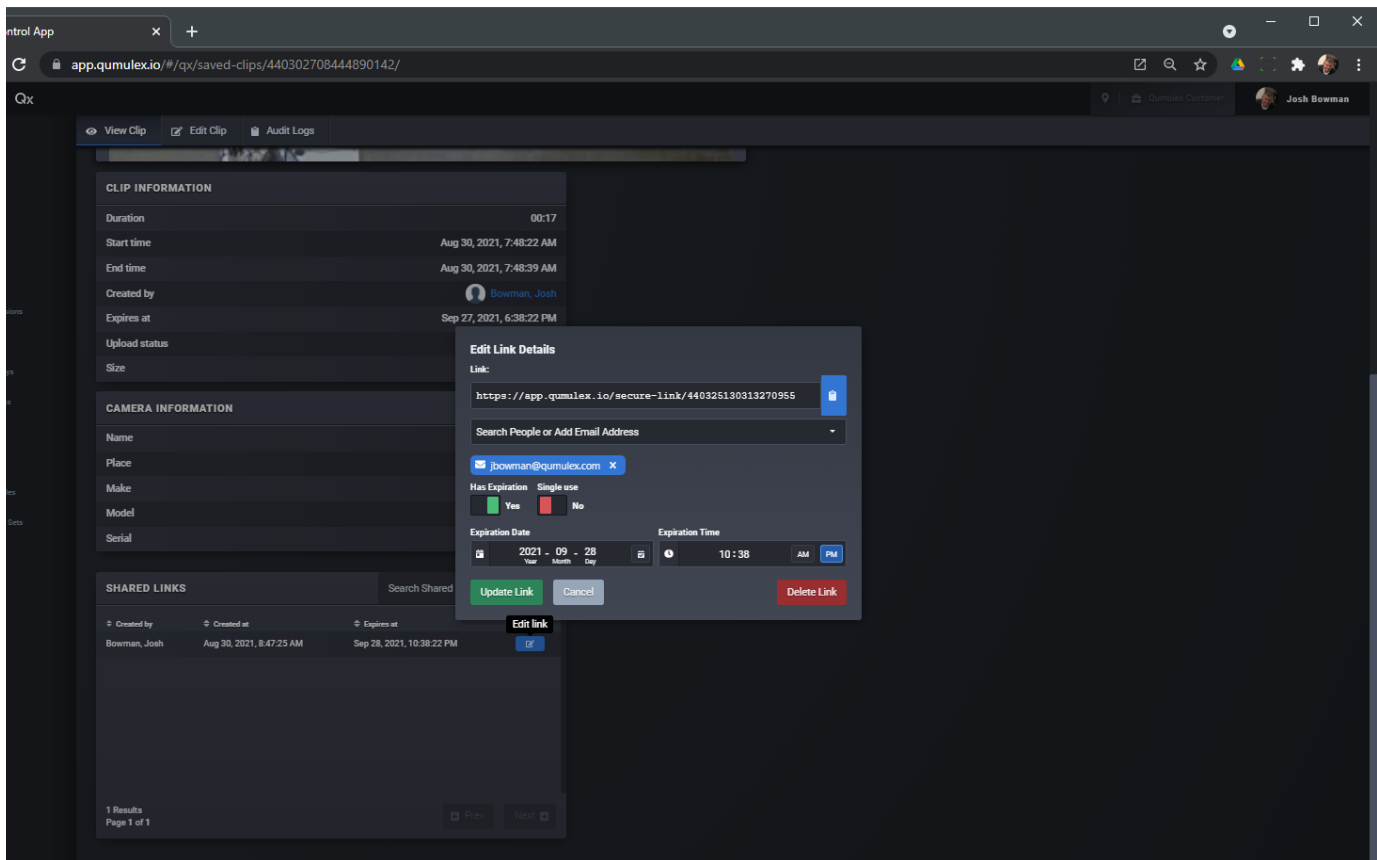
Next is the section labeled “Shared Links”. This will display a list of the links that have been shared for this clip. You will see information about who create the link, when and when the link expires.

The screenshot shows the "SHARED LINKS" section of the Qumulex Control App. It features a search bar labeled "Search Shared Links" and a table with the following data:

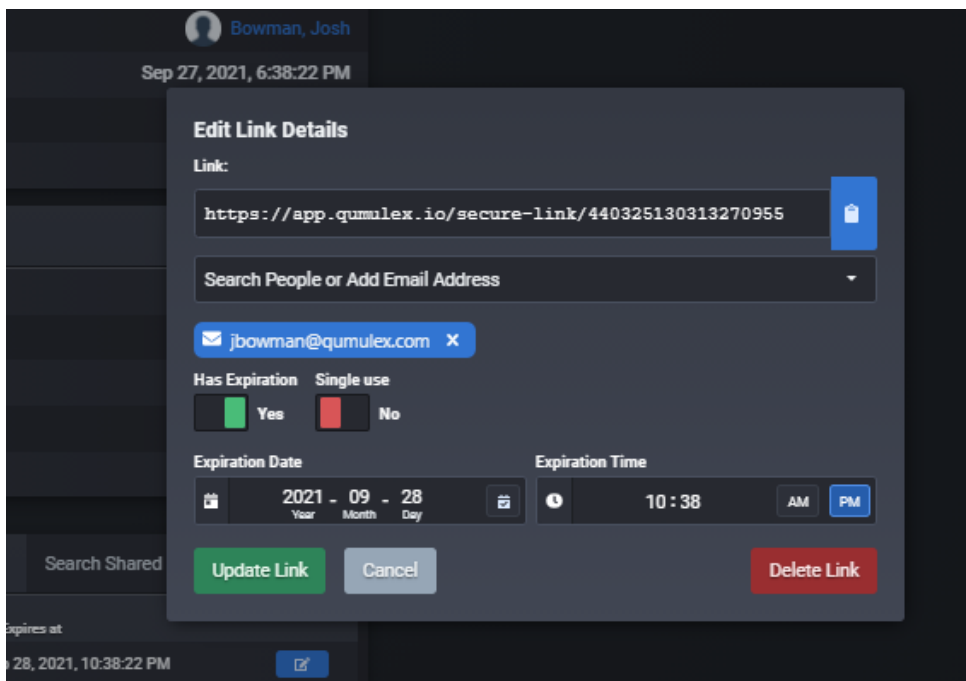
Created by	Created at	Expires at	
Bowman, Josh	Aug 30, 2021, 8:47:25 AM	Sep 28, 2021, 10:38:22 PM	<a href="#">Link</a>

At the bottom of the section, it indicates "1 Results" and "Page 1 of 1". There are also "Prev" and "Next" navigation buttons.

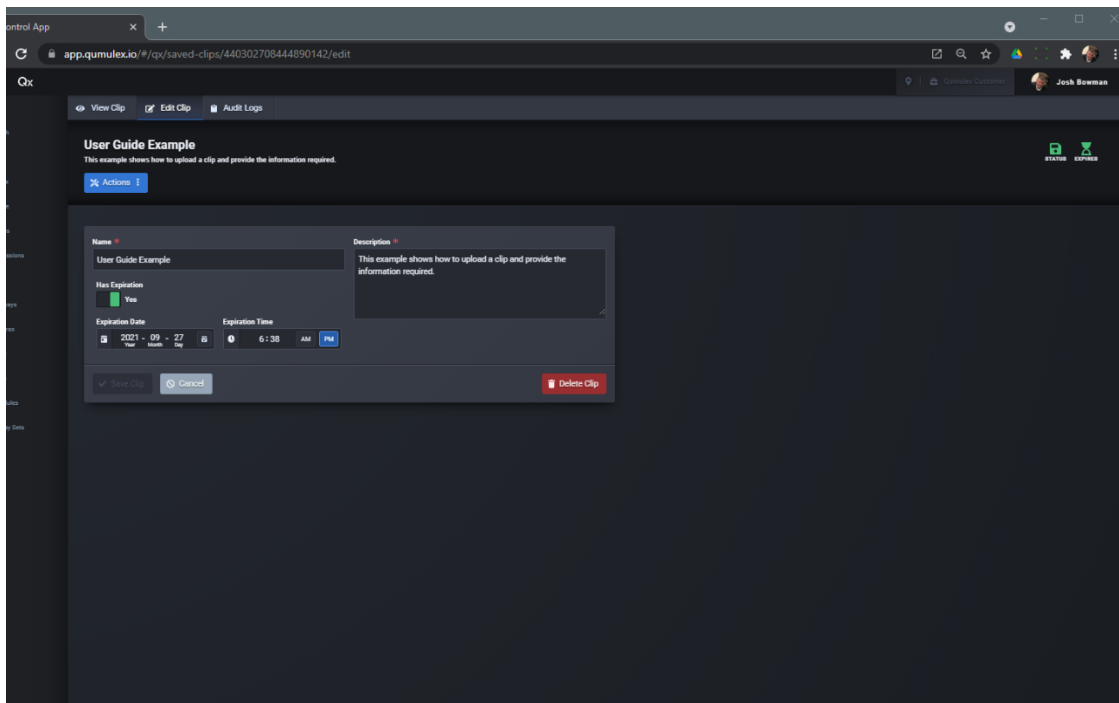
You can also choose the edit button to the right of the expiration date, and reveal the “edit Link Details” menu.



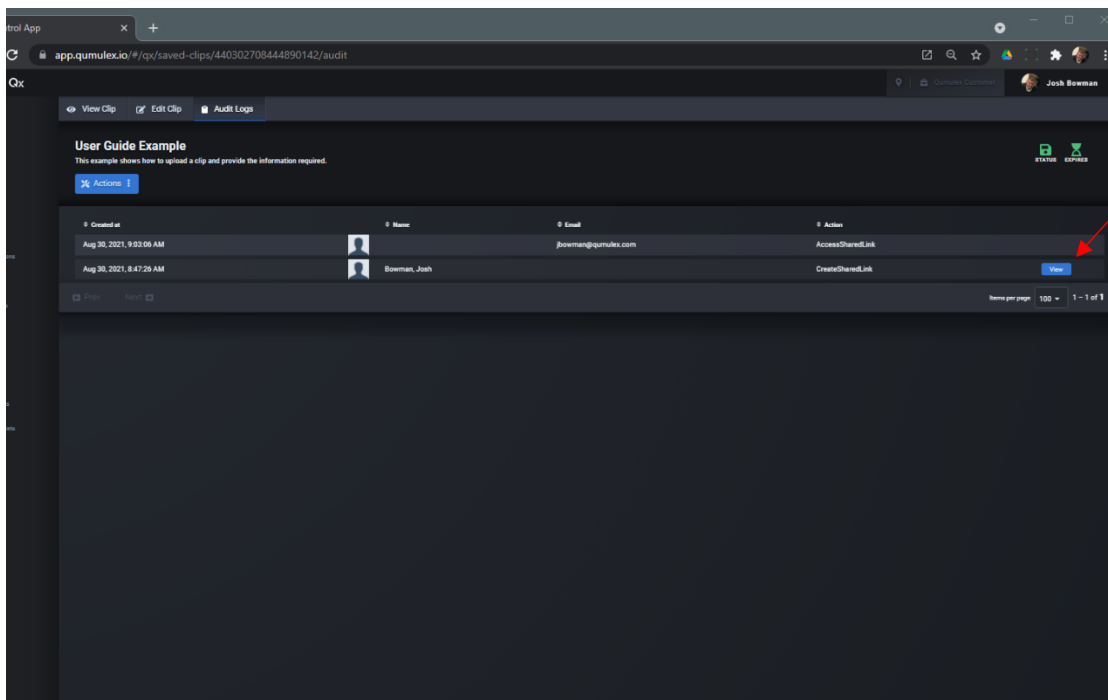
This menu will allow you to share the link with a new email recipient, copy the link, set or remove the expiration date, or to change the single use option.



The next tab after “View Clip” is the “Edit Clip” page. This page allows you to rename the clip, edit the description, change the expiration date, or delete the clip.



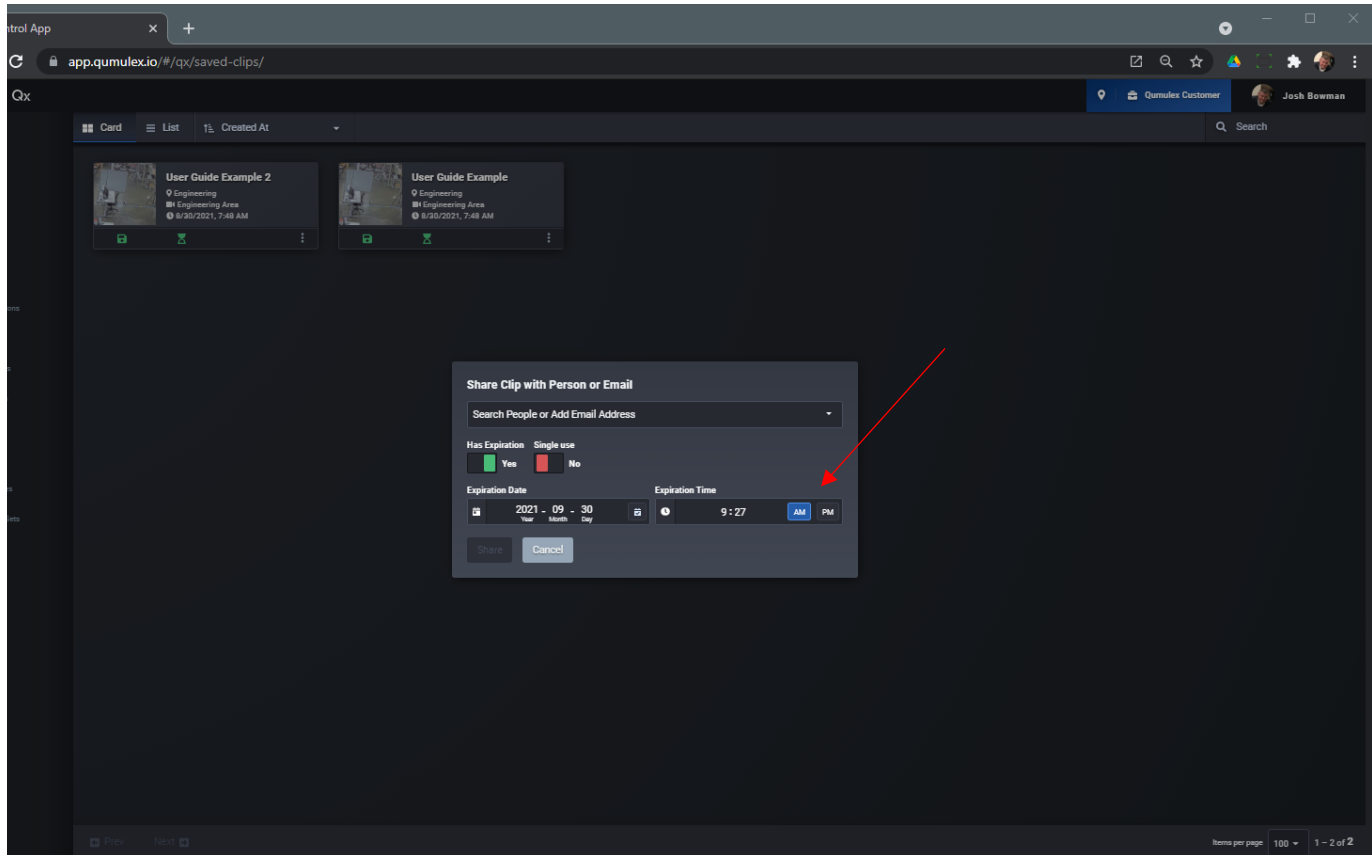
Lastly, the Audit Logs tab allows you to see each user action in regard to the clip. If the user happens to also be a QxControl Person in your scope, you will also be able to choose the “View” button to the right and see the Person’s details.



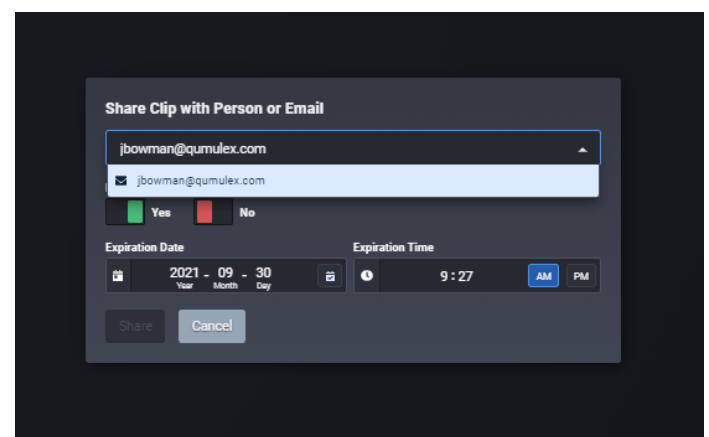
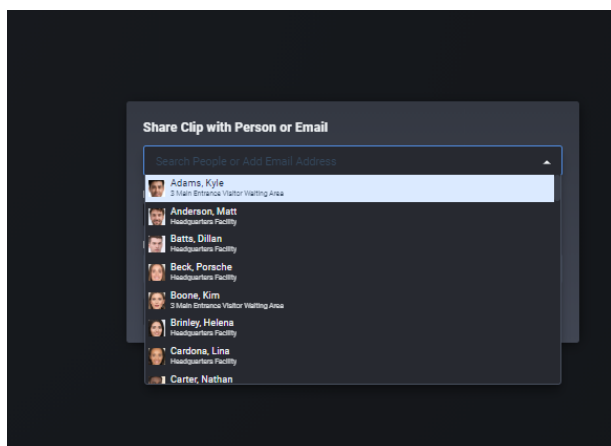
## Sharing Clips

This section will walk through the steps required to share a clip with someone. This feature allows you to share clips with not only fellow users of QxControl, but also allows you to share the clip externally with people who are not already users of QxControl. This makes it very easy to share video clips, without having to download them to your device, keeping them securely in our cloud service.

First, choose the option to share from the 3-dot menu, or Actions menu and you will then receive this prompt:



To choose a person to share the clip with, you can either choose a QxControl user in the drop-down menu or type the email address you wish to use in the box.



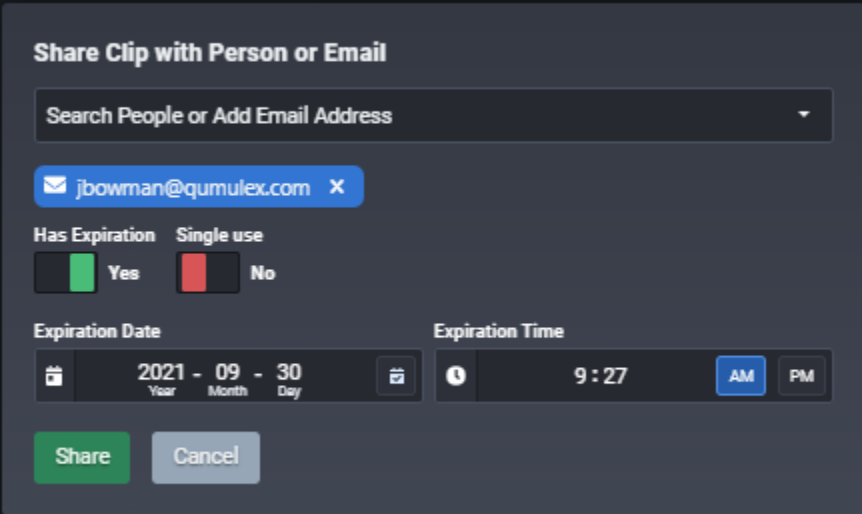
Please note: To share the clip with someone, you must associate it with an email address. Even though you can easily paste the link into a text or other non-email message, the email address is used to authenticate the person and verify they are allowed to view the clip, and to support audit logs via this authentication.

The next steps in sharing the clip, are to choose:

Expiration: Will the clip link expire and remove the shared access?

Expiration Date/Time: If yes to expiration, you need to choose the date and time it occurs.

Single Use: This option allows the person you share the clip with to authenticate and view it only once, and then it expires.



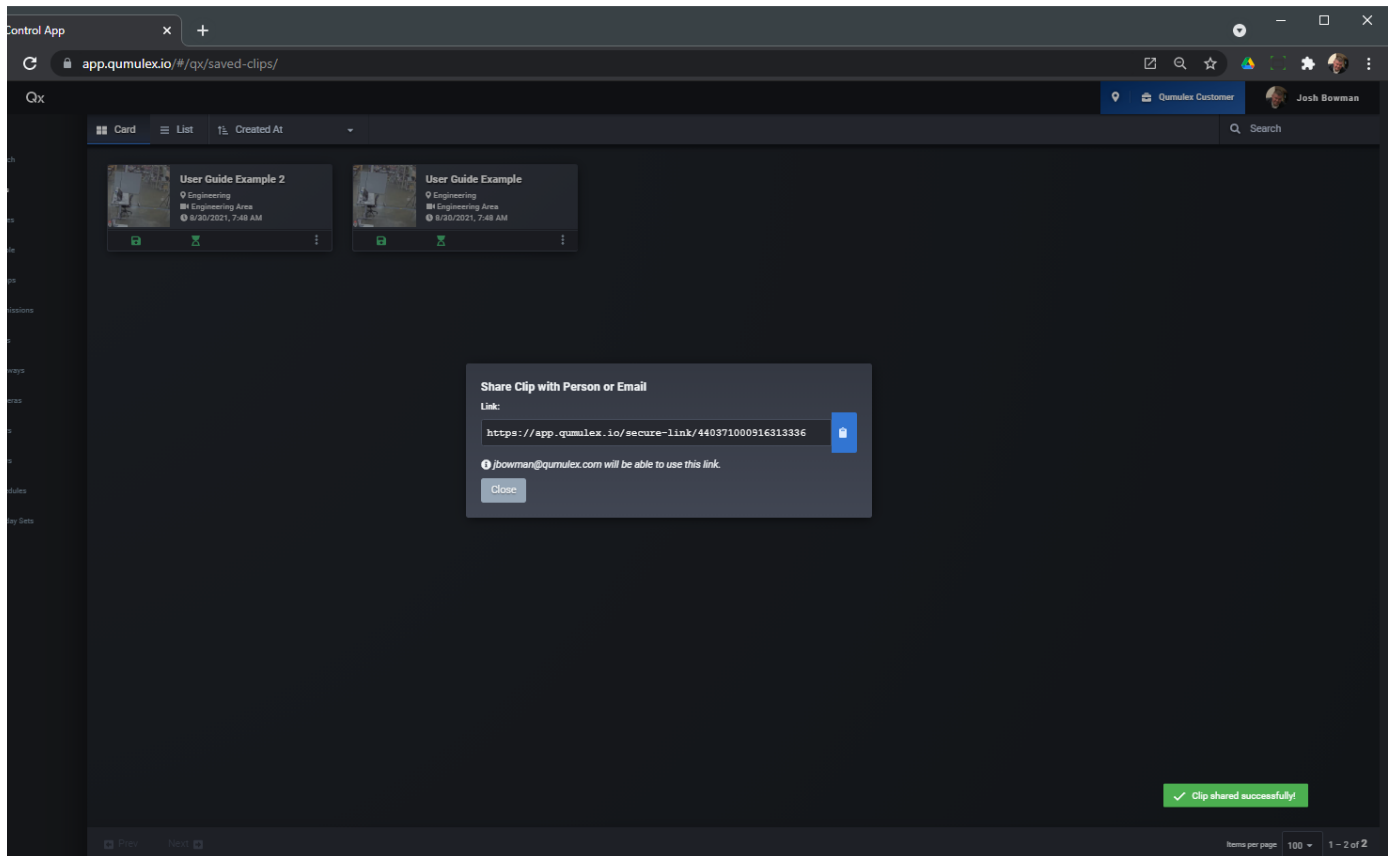
The screenshot shows a dark-themed dialog box titled "Share Clip with Person or Email". At the top is a search bar with the placeholder text "Search People or Add Email Address". Below the search bar, an email address "jbowman@qumulex.com" is entered and highlighted in a blue box with a close icon. Underneath, there are two sections: "Has Expiration" with a green "Yes" button selected, and "Single use" with a red "No" button. Below these are two date/time pickers. The "Expiration Date" picker shows "2021 - 09 - 30" with "Year", "Month", and "Day" labels. The "Expiration Time" picker shows "9 : 27" with "AM" and "PM" buttons. At the bottom are two buttons: a green "Share" button and a grey "Cancel" button.

Once you have selected your options and you are ready to advance, select the green “share” button.

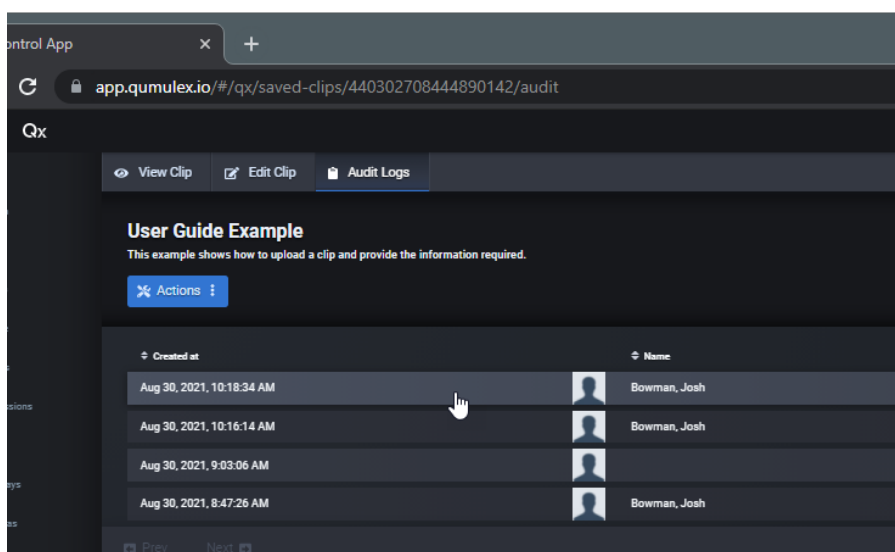


Once you shared the clip via email, you will receive a brief confirmation message that the share was successful.

You now also have the option to paste the link to your clipboard. This allows you to easily paste the link into a text message, chat message or similar.



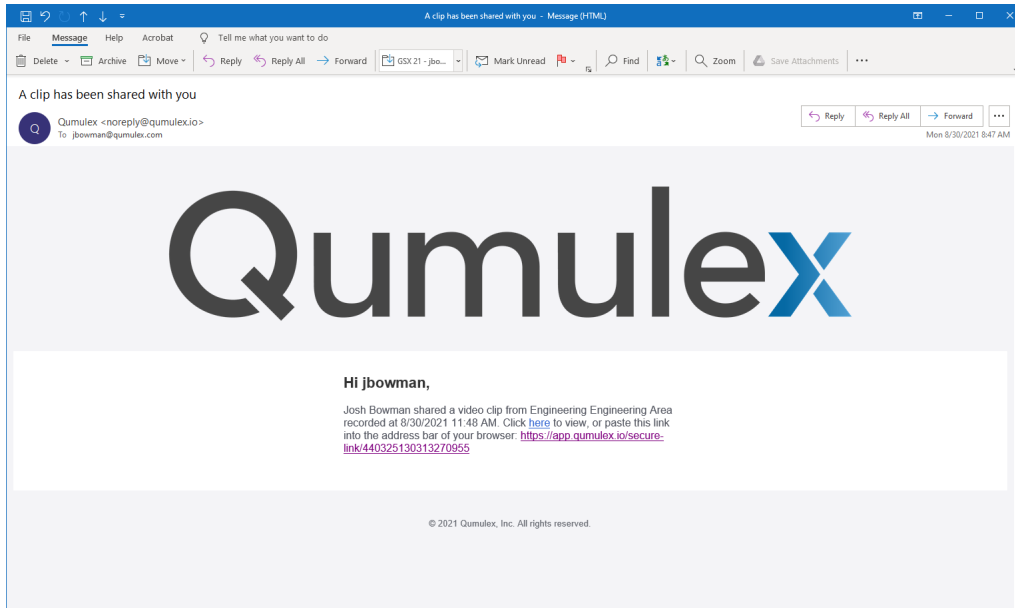
Once you are finished with copying the link, you can now press “Close”, and the sharing process is now complete. You will now be able to visit the Audit Log in the Clip Info pages and view the share. Once the person has viewed the link you will also see that information in the Audit Log.



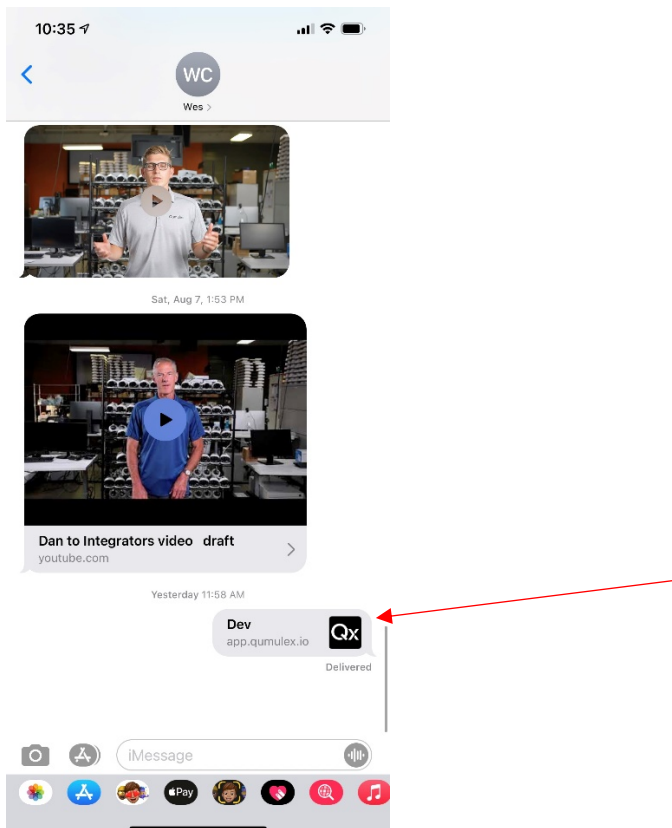
## Viewing Shared Clips

This section will walk through the steps required to view a clip that someone has shared with you. The first step is you will receive either a link via email or text/chat message. The message will look like this:

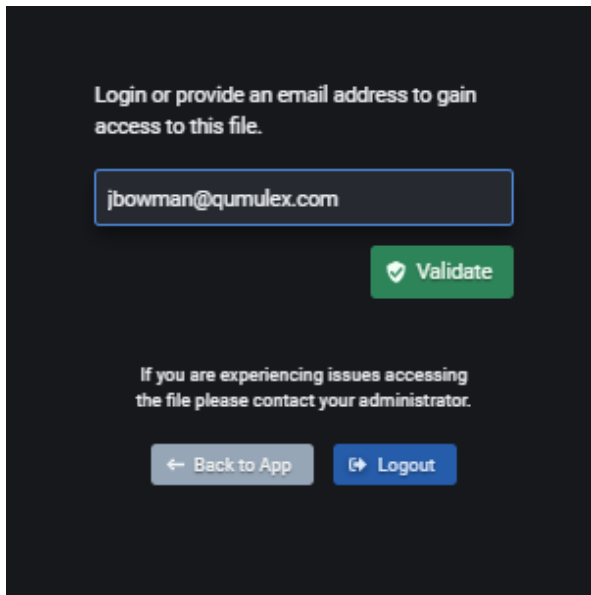
### Email



### Text Message



After clicking on the link in either a message or email, you will be presented with this screen in your browser window, which should open automatically for you when you click on the link.



Login or provide an email address to gain access to this file.

jbowman@qumulex.com

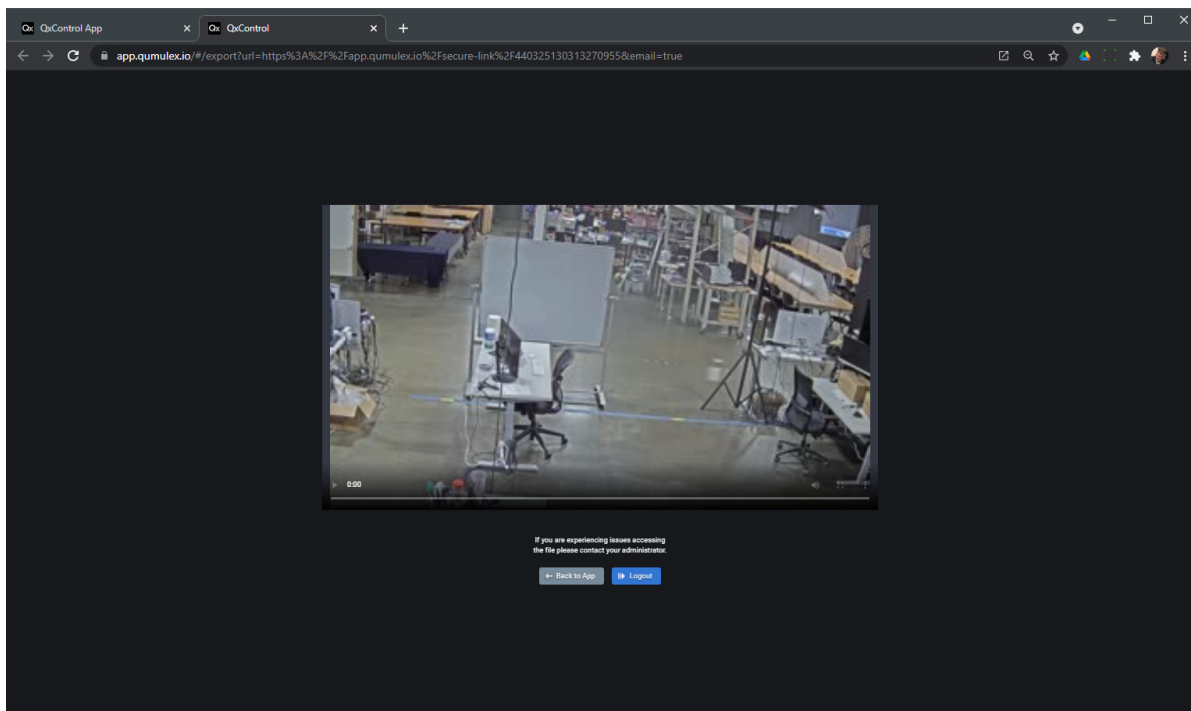
Validate

If you are experiencing issues accessing the file please contact your administrator.

Back to App Logout

You will need to enter the email address that was used to send the clip, even if you also received it via a text or chat message. The reason is so that you can authenticate as a valid viewer of this clip and to audit and track your activity with the clip. After entering your email choose “Validate” to open the clip player.

After validation completes, you will then be presented with the clip player and be able to view the clip.



## Clip Storage

Each cloud subscription for a camera will include 20GB of cloud storage for clips, at no additional charge. The amount of storage available is reflected on the Camera Info page for each camera.

The screenshot displays the Qumulex Control App interface for a specific camera. The browser address bar shows the URL: `app.qumulex.io/#/qx/cameras/436140525691602270/`. The app header includes tabs for 'Info', 'Settings', and 'Edit Camera'. The main content area features a live video feed of a 'Side Entrance' at the 'Customer Support Department'. To the right of the video feed, a 'Clip Storage' section shows a green circular progress indicator representing the storage status. A red arrow points from the storage status text to the green portion of the circle.

**Clip Storage**

- Available: 20.0 GB
- 20.0 GB
- 6.07 MB Used
- 20.0 GB Available

Below the video feed, the 'RECENT EVENTS' section displays a grid of four motion-triggered clips, each labeled 'Motion' and dated 'Aug 30, 2021'. At the bottom, the 'DOORS' section includes a 'Search Doors' input field and a table with columns for Name, Goes From, To, and Address. The table currently shows 'No data found.'

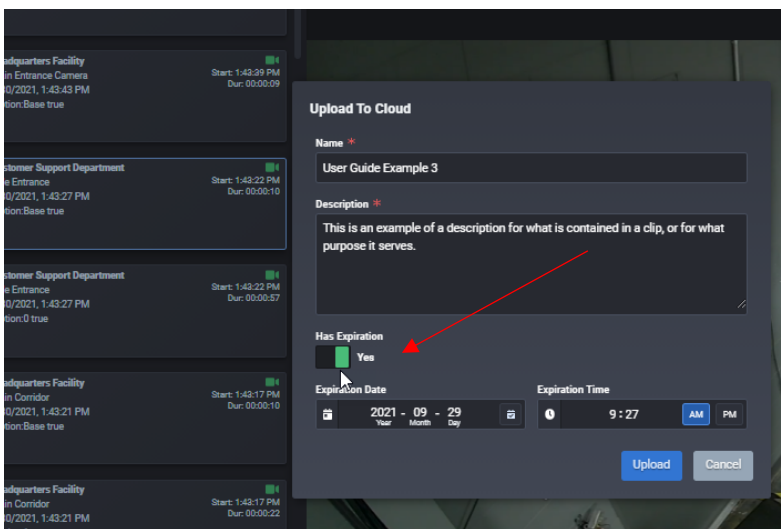
Clips can be set to expire, or not. There is no time limit for how long a clip may be stored unless you choose to delete the clip or set an expiration for it.

If you have a larger clip that you want to upload to the cloud, and it exceeds your 20GB limit available for that camera, it will not overwrite the existing clips. You will be prompted instead to download the new clip to your device.

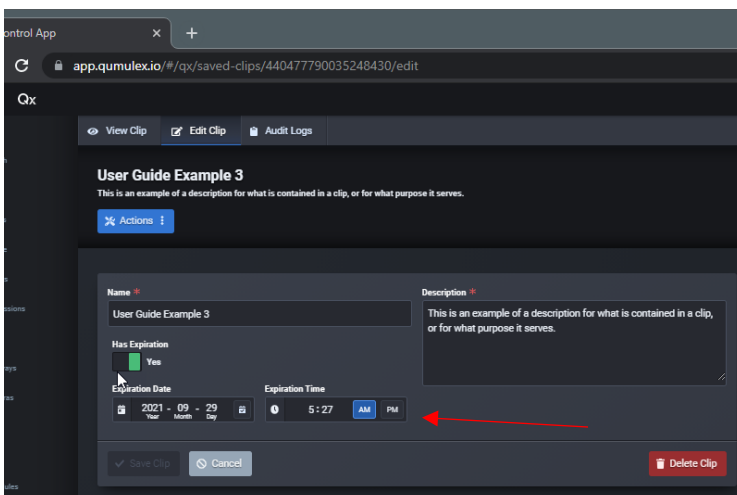
To make space available for future clip uploads, be sure to follow these “rules” of good housekeeping.

1. Use the expiration date option when creating clips that you know you will only need for a certain period of time. Using this option will prevent you from having to remember to delete the clip later. If you decide later that you need a particular clip for longer than expected, you can always edit the clip in the Clips page, and extend the duration.

Example: Setting expiration during upload process

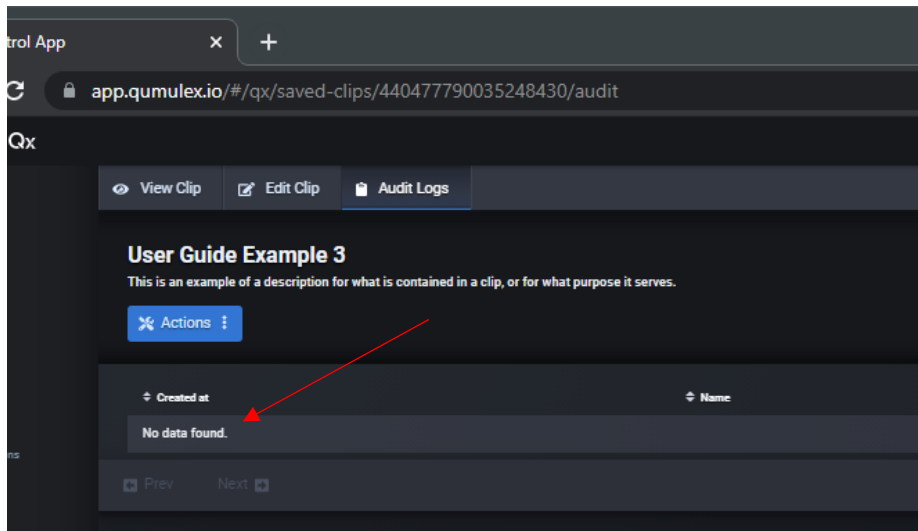


Example: Editing the expiration of a saved clip

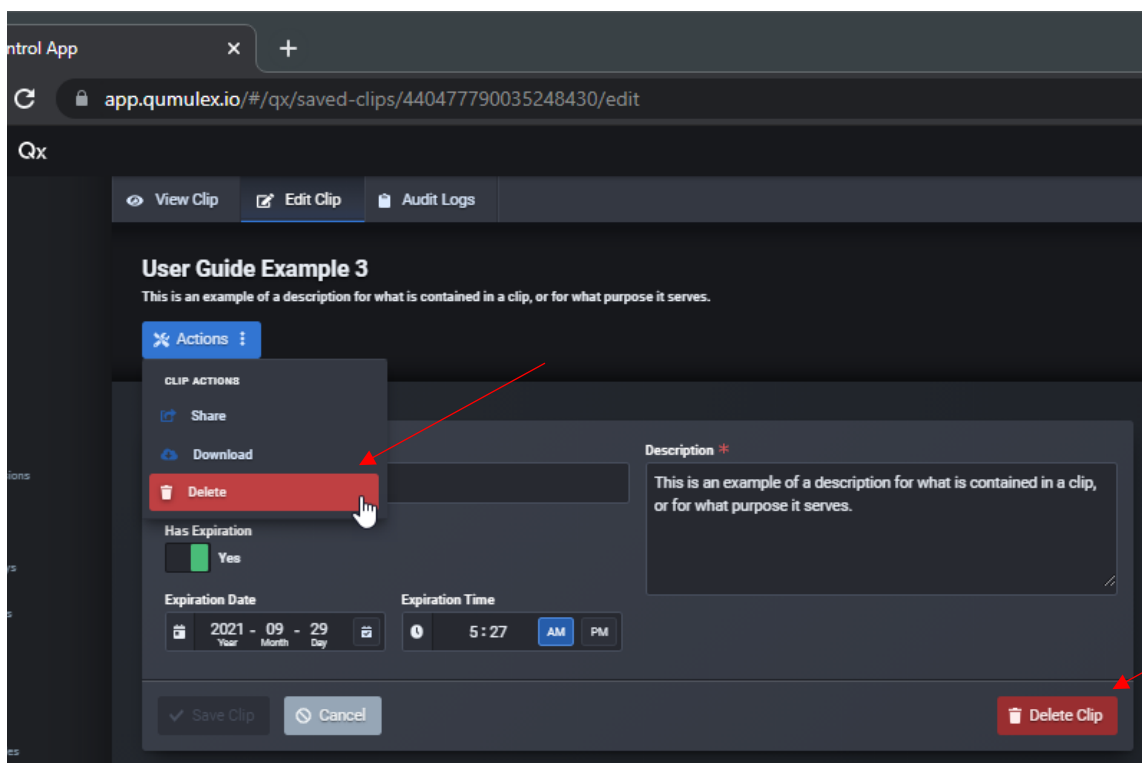


- If you prefer not to set expiration dates for clips, be certain to go back periodically to the Clips Page and check for unneeded clips that can be deleted. One way to do this is to check the Audit Logs and see if an older clip has been shared or has any activity. Manually delete saved clips that are no longer needed.

Example: A clip with no activity may no longer be needed

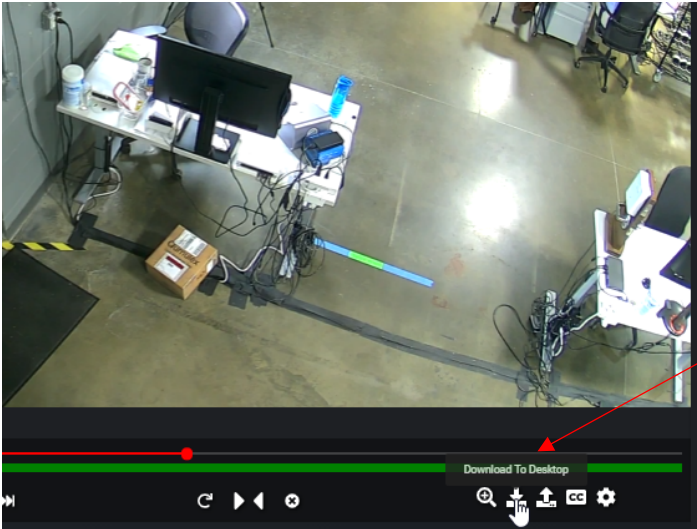


Example: Deleting a clip is easy. You can choose the 3-dot menu in Card View, or you can enter the Saved Clip Info page and delete via the Actions button, or choose the Edit Clip tab to choose “Delete Clip”.



3. If you have an extraordinarily large clip or set of clips from the same camera, consider downloading these to your device and storing/sharing manually. This also reduces processing times for extremely large files.

Example: Using “Download to Device”



#### Clip Storage for QxOP Licenses (On-Premises)

As with most features in QxControl, the look and feel of clip storage and using the Clips page will be the same. However, there are some key differences for this feature when comparing a cloud subscription to an on-premises license:

- Cloud subscriptions (QxCXXX) provide you 20GB of free cloud storage for clips, for each camera. In the case of QxOP licenses (on-prem) you will use local storage on your Gateway.
- When sharing clips with a cloud subscription you can upload to cloud and share via email/link directly from the cloud service. With a QxOP license you will be required to download to device and then share manually.

These are the primary differences in saving and sharing clips. There is also contextual feedback when using QxOP to inform you of these differences.



## Rules

In this version of QxControl, Rules are used primarily to create notifications based upon selected conditions and criteria. The Rules page provides great flexibility with many options to choose from and sets the table for later releases that will introduce additional functionality via the Rules page.

In this section we provide an overview of the Rules page, and what options are contained within.

### Rules: Rule Info Fields

The Rule Info Fields allow you to input basic information about the Rule. This is the first step in creating a Rule.

**Name:** What you want to name the Rule.

**Description:** You can provide a description about the Rule here. (This is not what will be in the notification message)

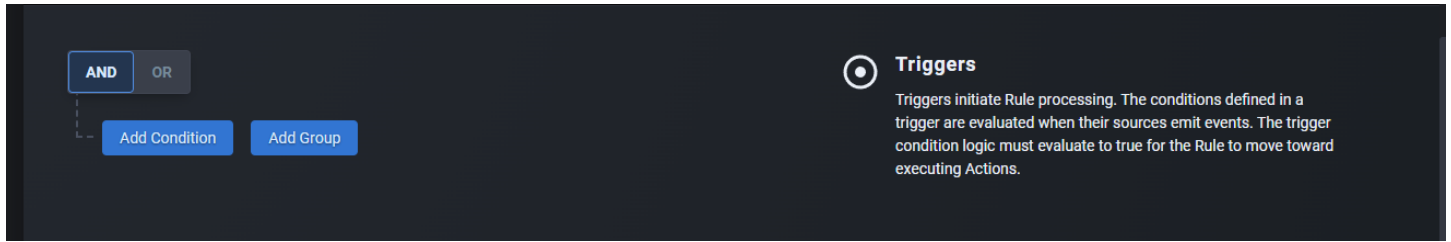
**Place:** The Scope of where the rule will apply. This will be set by the current Scope when you create the Rule.

**Schedule:** This allows you to set a Schedule for when the Rule applies. You can use any Schedule that has been created or go to the Schedules page and create a new one. In this example we chose “Always” to make the Rule always apply.

The screenshot shows the 'Create Rule' interface in the Qumulex application. The form is titled 'Create Rule' and includes the following fields and options:

- Name \***: A text input field containing 'Crossline Event Notification'.
- Active**: A toggle switch with 'Enabled' selected (indicated by a blue circle) and 'Disabled' (indicated by a grey circle).
- Description \***: A text area containing 'This Rule will notify when a Crossline event occurs'.
- Place**: A dropdown menu showing 'Qumulex Customer'.
- Schedule \***: A dropdown menu that is open, showing a list of schedules:
  - Always (Read only)
  - Customer Support Door Schedule
  - Main Entrance Door Schedule
  - Never (Read only)
  - Shipping and Receiving Door Schedule

At the bottom of the form, there are buttons for 'AND', 'OR', 'Add Condition', and 'Add Group'.



Triggers are the next component of a Rule. Triggers are the Devices, Places, People, Conditions and more that can be used to trigger a Rule. You will need to have at least one Trigger to allow a Rule to function. However, you can add many Triggers to a Rule and create a limitless number of options and scenarios in a Rule.

With the power and flexibility with Triggers, we will describe each component to help you understand what is available to you.

### And/or Statements

When adding Triggers they can be applied as an “And”, or an “Or” statement.

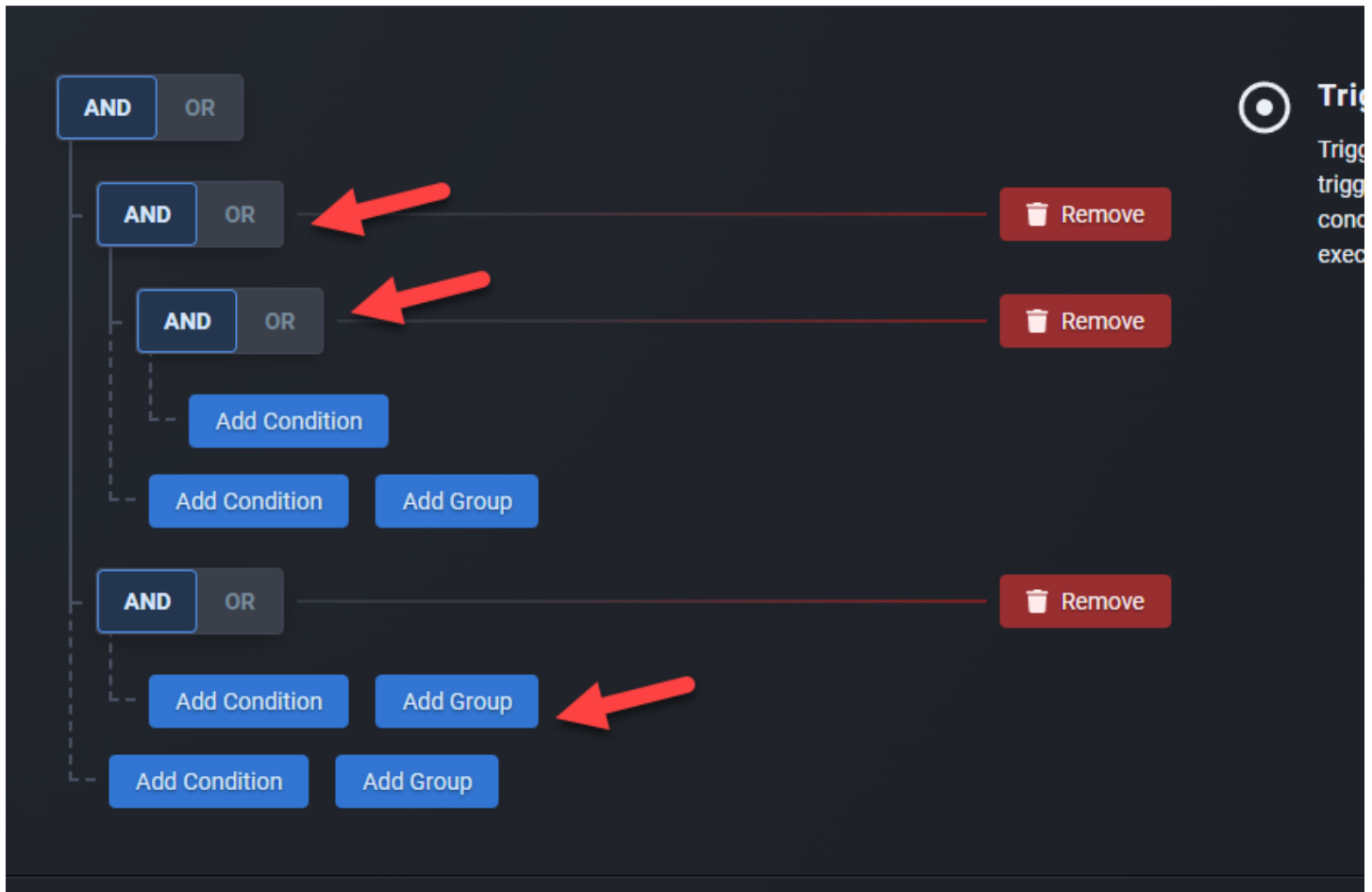
“And” means that you can say a Rule must have a successive number of conditions before being Triggered. Such as “Camera 1, and Camera 2, And Camera 3 Must be offline”. Using an “And” statement for this means that all three cameras must be offline.

Conversely, an “Or” statement indicates that any of the conditions listed can trigger the Rule. For example, “Camera 1, or Camera 2, or Camera 3 must be offline”. In this case by using an “Or” statement we indicate that any of the three cameras being offline will trigger the Rule.

### Groups

Adding Groups will nest new conditions under the current. It is a quick way to begin framing out the conditions for a more complex Rule.

In this example, we added two Groups under the first condition. We then added a second condition with one Group.

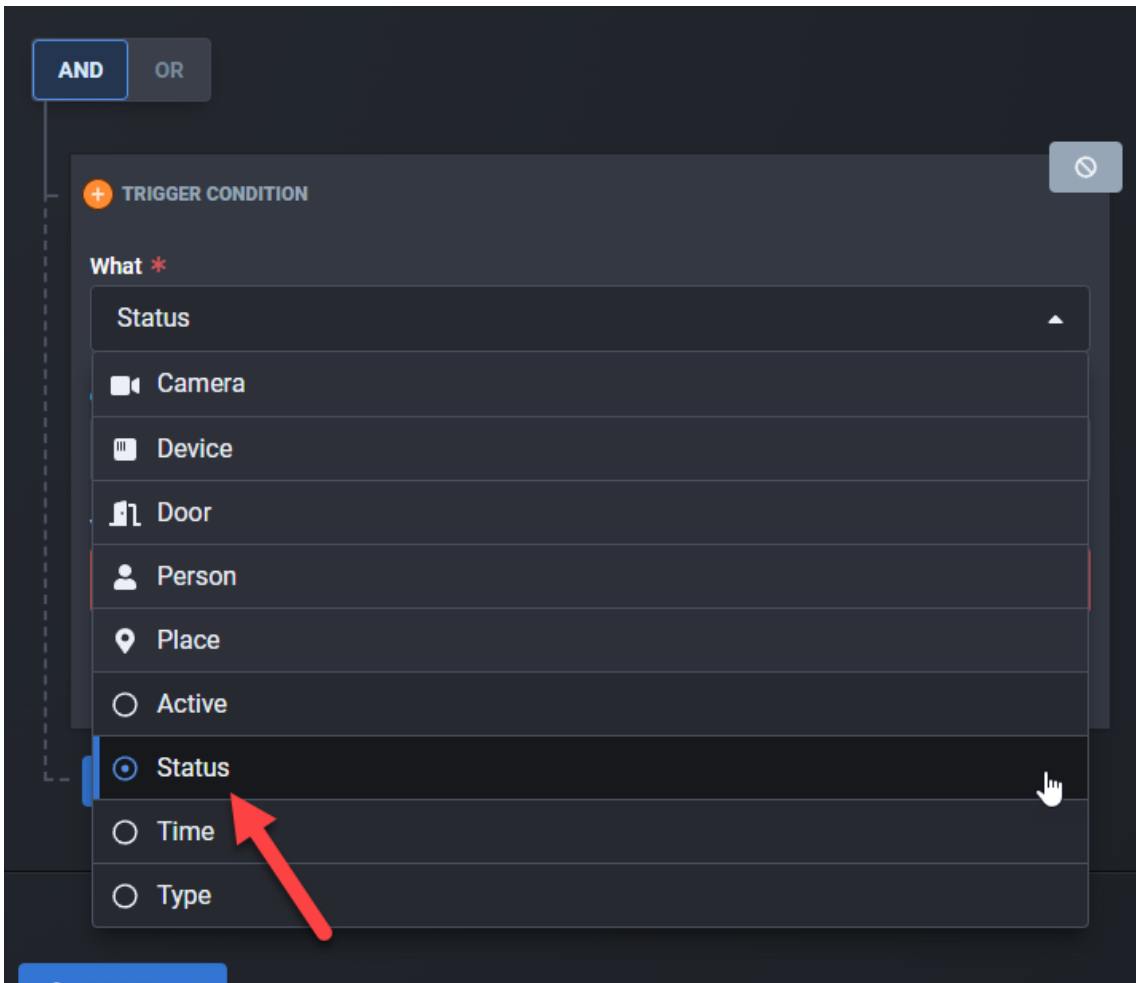


There are many ways that this function could be used. One example may be that you want a set of conditions to occur before the Rule triggers (And Statement), or you may want to include several options that can trigger a Rule (Or Statement)

Using Groups in combination with and/or statements allows maximum flexibility in creating a Rule.

## Conditions

Conditions are the statuses, devices, people etc. that can be used to trigger a Rule. The Conditions themselves are like the options in our dynamic Smart Search table, which means that there are a lot of options to choose from:



In addition to Devices, people, and Places you can also choose from Active, Status, Time and Type. At this end of this subsection we will review the type of options available in for Condition group, in more detail.

For now, we will continue our example of a Crossline notification to understand how this section works. We are going to choose "Add Condition" and choose "Status".

Then we can choose our desired condition in the “Value” Menu.

The screenshot shows a configuration interface for a trigger condition. At the top, there are two buttons: 'AND' (selected) and 'OR'. Below this is a section titled 'TRIGGER CONDITION' with a close button. The configuration is divided into three parts: 'What \*' with a dropdown menu showing 'Status'; 'Operator' with a dropdown menu showing 'is equal to'; and 'Value' with a dropdown menu. The 'Value' menu is open, displaying a list of conditions: 'Credential Not Active' (Access Denied), 'Credential Not Enabled' (Access Denied), 'Cross Line' (Object Action), 'Disconnected' (Device Connection, Stream Status), 'Forced Open' (Door Alarm), and 'Open Too Long'. A hand cursor is pointing at the 'Cross Line' option.

Again, for this example we will select our Crossline condition.

As a best practice, select “Create” to save the conditions while we work through the options to avoid losing our work if interrupted:

The screenshot shows the same configuration interface as before, but now the 'Cross Line' option is selected in the 'Value' dropdown menu. Below the dropdown menu, there is a green 'Create' button with a hand cursor pointing at it. At the bottom of the interface, there are two blue buttons: 'Add Condition' and 'Add Group'.

After saving our first condition we see the following screen displayed:

## Create Rule

**Name \***

Crossline Event Notification

**Active**

☒ Enabled

**Description \***

This Rule will notify when a Crossline event occurs

**Place**

Qumulex Customer

**Schedule \***

Always (Read only)

AND

OR

This event ▸ Status is equal to

CrossLine

Add Condition

Add Group

**Triggers**

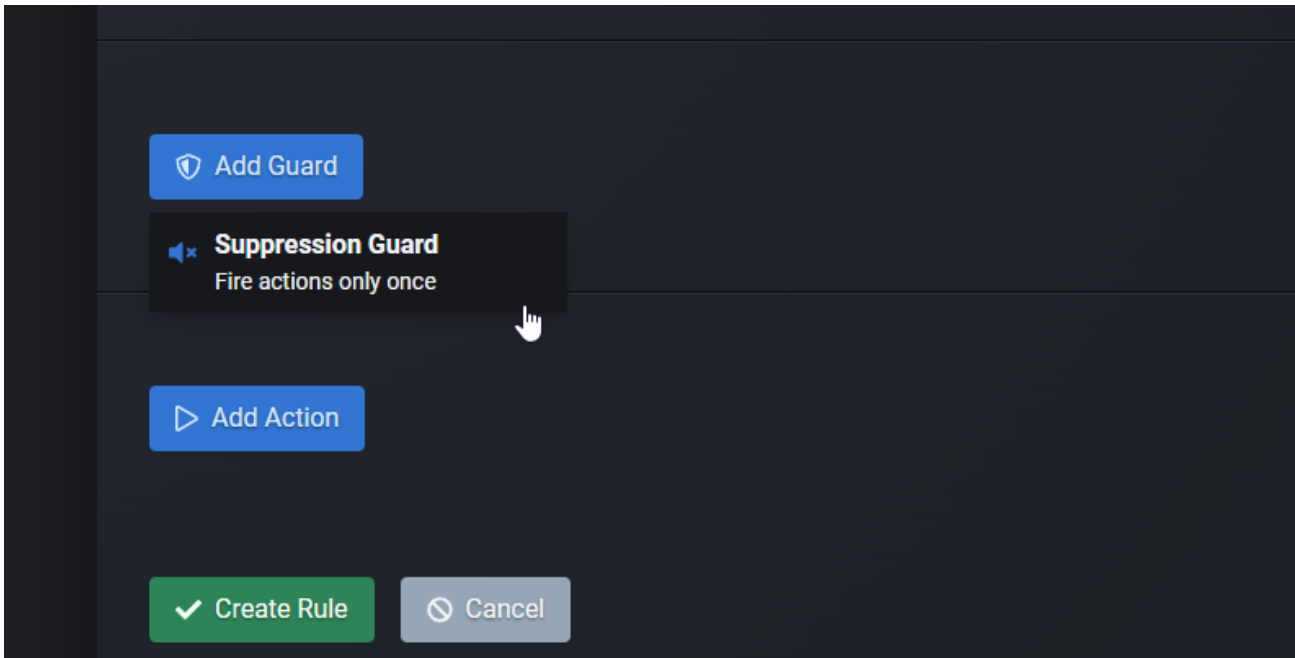
Triggers initiate trigger are eval condition logic executing Actio

At this point, we have configured enough conditions to trigger the rule and we can move on to Guards and Actions.

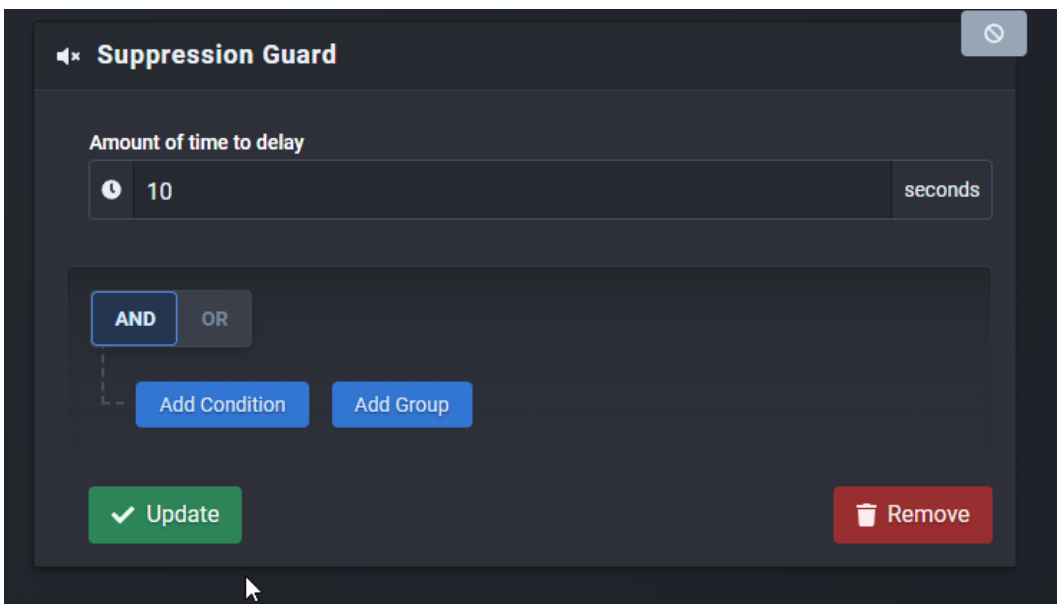
## Rules: Guards

Guards are used to limit the amount or frequency of notifications. This is especially helpful for notifications such as Motion, Devices that are offline, etc. where the condition could persist or repeat for a lengthy period. You can use Guards to help prevent an overabundance of notifications

Continuing our Crossline example, we choose “Add Guard” to see the options for rate limiting.



We can then choose “Suppression Guard. This allows us to choose the amount of time before the Trigger can repeat for the same condition, and allows us to add more conditions. In this example we will choose a simple 10 second delay.





After that we will choose the same Condition, Crossline, as that is the only event type we want to notify on with this Rule. (We could, however, choose to have other conditions in a more complex rule, such as do not notify again until the Delay is met and we also get Motion, for example):

The screenshot shows a rule configuration interface with a dark theme. At the top, there are two buttons: "AND" (selected) and "OR". Below this is a "TRIGGER CONDITION" section with a plus icon and a close icon. Inside this section, there are three dropdown menus: "What" with "Status" selected, "Operator" with "is equal to" selected, and "Value" with "Cross Line" selected. Below these dropdowns is a green "Create" button with a hand cursor over it. At the bottom of the configuration area, there are two blue buttons: "Add Condition" and "Add Group". At the very bottom of the interface, there are two large buttons: a green "Update" button with a checkmark icon and a red "Remove" button with a trash icon.

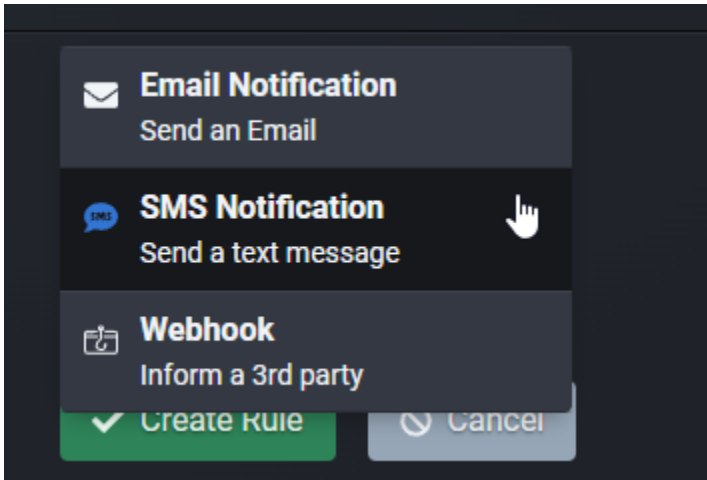
Once you are finished, choose "Create" to save your options and then "update" to save your progress in creating the Rule. Now we can move on to creating the Actions.

The screenshot shows the "Suppression Guard" configuration interface. At the top, there is a title "Suppression Guard" with a speaker icon and a blue button with a link icon. Below the title, there is a text box that says "The Rule actions will be delayed from execution for 10 seconds". Below this text box, there is a paragraph of text explaining the suppression guard: "During a Rule's Delay Guard, its firing status will be indicated. If the Delay Guard conditions are met during the delay period, the firing status will be reset and the Rule Actions will not execute. If the Delay Guard conditions are not met, the Rule Actions will execute, the Rule status will continue firing, and the Rule Actions will not execute again until the trigger sources are reset or the Rule is manually reset." Below the text is a configuration area with a dark background. It has a tab labeled "AND" and a green circle with an equals sign. To the right of the equals sign, there is a text box that says "This event ▶ Status is equal to" and another text box below it that says "CrossLine".

## Rules: Actions

The final step in creating a new Rule is to configure the Actions. The Actions are the result of the rule, in this version of QxControl Actions are focused on sending notifications.

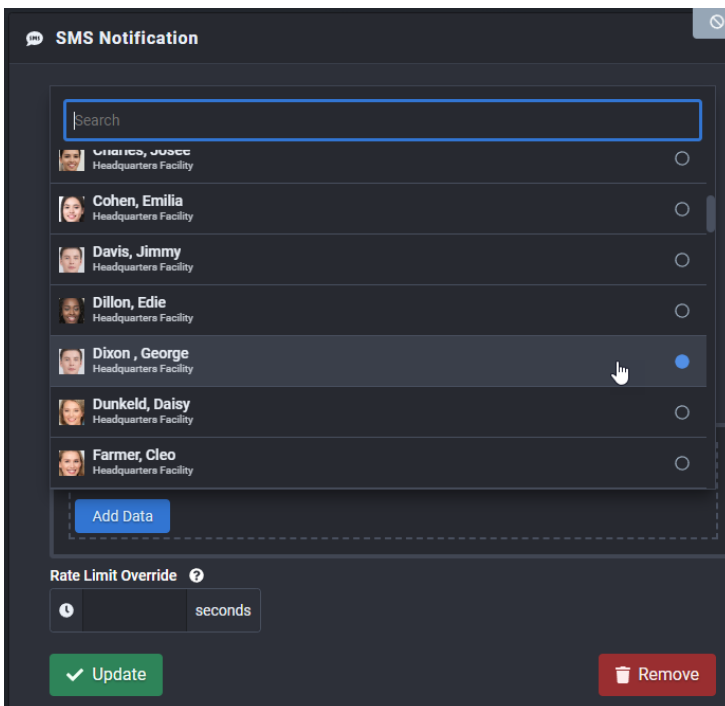
Choose “Add Action” to continue. This will present three options: Email, SMS and Webhook.



Note: Webhook is a Beta feature that will be available in a later release.

Starting with SMS in this example, we can choose one or more numbers to send an SMS (text) message to when a condition is Triggered. In our example, this will be when a Crossline event is detected.

The first step is to select one or more people from the “Search People or Add Phone Number” field.



Once you have selected your recipients, you can now choose what to display in the message. You can manually type in a message if you like:

The screenshot shows a list of two recipients: Beck, Porsche (317) 000-0000 and Boone, Kim (614) 000-0000. Below the list, a message preview box contains the text "A Crossline event has been detected" and an "Add Data" button. At the bottom, there is a "Rate Limit Override" section with a clock icon and a text input field labeled "seconds". A green "Update" button and a red "Remove" button are at the bottom right.

Or you can use the "Add Data" feature to provide automated data such as names, statuses, and time. For this example we will choose the event type, camera, and time that it occurred. Choose "Update" to save once completed.

This screenshot shows the "Add Data" dropdown menu. It lists several categories: Camera, Device, Door, Person, Place, Active, Status, Time (highlighted with a mouse cursor), and Type. Below the list is an "Add Data" button and a red error message "At least 2 characters required". At the bottom, there is a "Rate Limit Override" section with a clock icon and a text input field labeled "seconds".

The screenshot shows the "SMS Notification" interface. At the top, there is a search bar labeled "Search People or Add Phone Number". Below it, a list of "4 Phone Numbers Selected" is shown, including (614) 284-1106, Dixon, George (317) 000-0000, Beck, Porsche (317) 000-0000, and Boone, Kim (614) 000-0000. A message preview box contains the text "Will receive the following message." and a code snippet: `{{ _data:videoSource.name }}{{ _data:status }}{{ _data:serverTime }}`. Below the preview is an "Add Data" button. At the bottom, there is a "Rate Limit Override" section with a clock icon and a text input field labeled "seconds". A green "Update" button and a red "Remove" button are at the bottom right.

Once completed, you will see the Data Fields and recipients listed:

The screenshot shows the 'SMS Notification' configuration window. At the top, it says '4 Phone Numbers Selected'. Below this, there are four entries, each with a profile picture, a name, a phone number, and a link icon. The entries are: Dixon, George (317) 000-0000; Beck, Porsche (317) 000-0000; and Boone, Kim (614) 000-0000. Below the list, it says 'Will receive the following message.' and there is a table with headers 'Videosource Name', 'Status', and 'Time'. At the bottom, there is a 'Rate Limit Override' section with a clock icon, a text input field, and the unit 'seconds'. There are three buttons at the bottom: 'Add Action' (blue), 'Create Rule' (green), and 'Cancel' (grey).

**SMS Notification**

4 Phone Numbers Selected

- (614) 284-1106
- Dixon, George**  
(317) 000-0000
- Beck, Porsche**  
(317) 000-0000
- Boone, Kim**  
(614) 000-0000

Will receive the following message.

Videosource Name	Status	Time
------------------	--------	------

Rate Limit Override ?

seconds

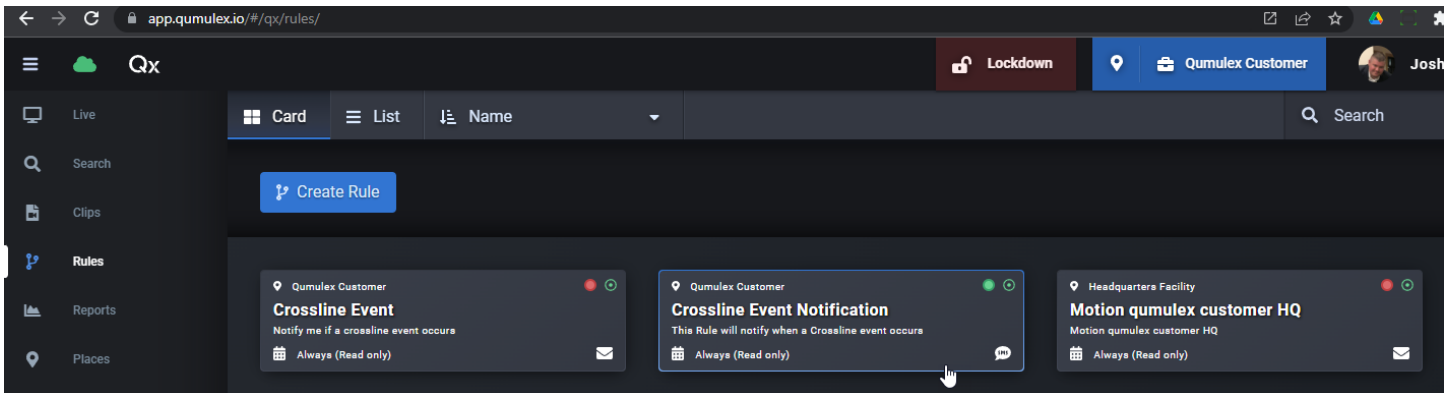
**Add Action**

**Create Rule** **Cancel**

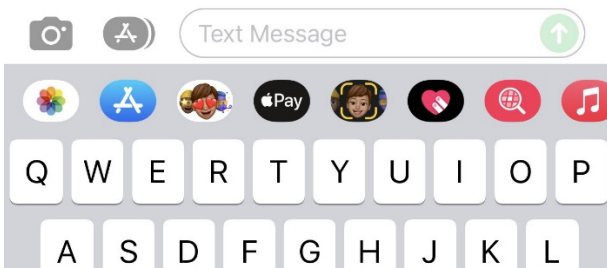
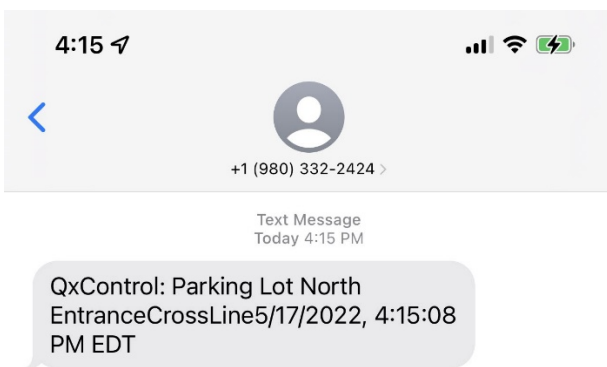
If you are finished, choose “Create Rule” to save the rule or choose “Add Action” to continue adding more notifications.

## Rules: Editing and Managing Rules

Once you have created one or more Rules, you can view or edit these Rules on the Rules Info Page.



You can select and edit an existing Rule, and you can also examine the Firing Data of Rule Triggers. In our example of Crossline Event Notification, we have received the following notification:



Now that we are receiving notifications, we can examine the Firing Data that created the notification. To do that we can open the Rule Card and scroll down to the “Triggered Sources” table:

The screenshot shows the Qumulex interface with a rule card for 'Qumulex Customer'. The 'Info' tab is selected, and the 'Config' button is visible. The 'Triggered Sources' table is displayed, showing one result for the 'Parking Lot North Entrance'.

Customer	Place	Name	Status
Qumulex Customer	Headquarters Facility	Parking Lot North Entrance	

1 Results  
Page 1 of 1

**Firing Data**  
A Rule in the "Firing" state indicates it has been triggered and at least one source is still active. Before the rule can re-trigger and initiate actions, all active triggers must be resolved or the rule must be reset.

If we are receiving too many notifications, we can also use this screen to edit the Rule, or we can disable it if we no longer want to receive this notification:

The screenshot shows the 'Edit Rule' screen for 'Crossline Event Notification'. The rule is currently 'Enabled'. The 'Name' field is 'Crossline Event Notification', the 'Description' is 'This Rule will notify when a Crossline event occurs', the 'Place' is 'Qumulex Customer', and the 'Schedule' is 'Always (Read only)'. The 'Active' toggle is set to 'Disabled'.

**Crossline Event Notification**  
This Rule will notify when a Crossline event occurs

Qumulex Customer  
Enabled

**Name \***  
Crossline Event Notification

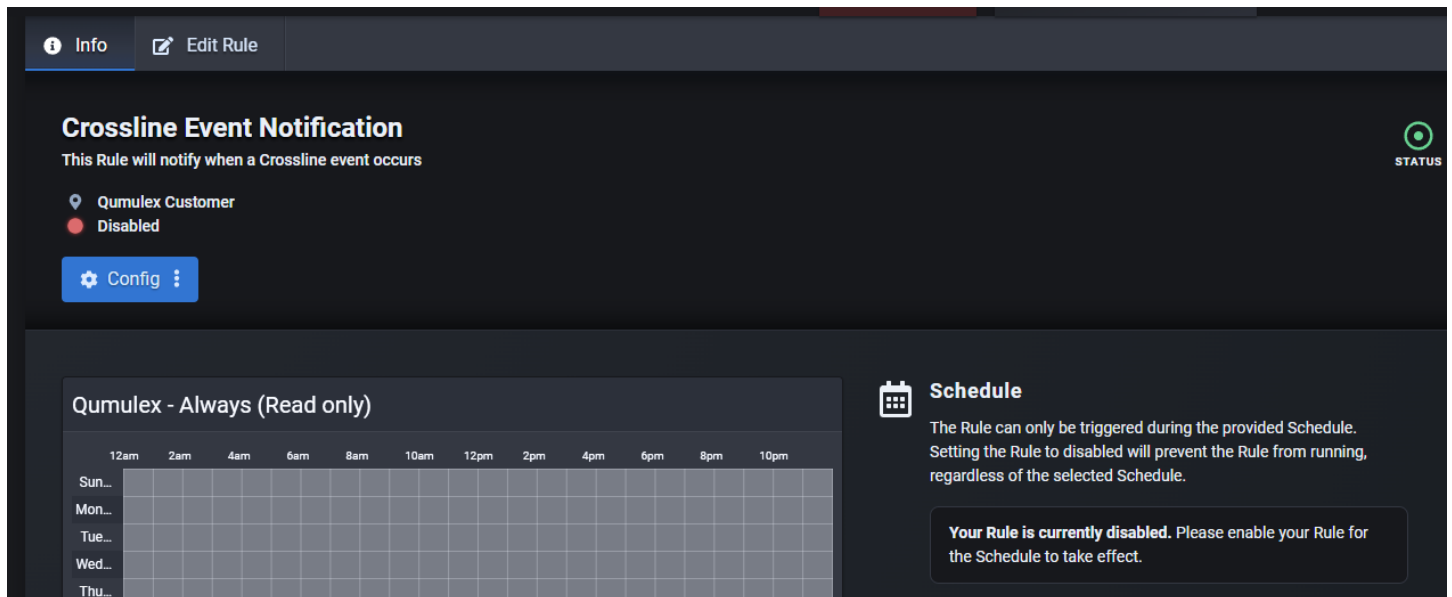
**Description \***  
This Rule will notify when a Crossline event occurs

**Place**  
Qumulex Customer

**Schedule \***  
Always (Read only)

**Active**  
Enabled ☐ Disabled ☒

Once successfully disabled, you will see verification and the status light will be red:



**Crossline Event Notification**  
This Rule will notify when a Crossline event occurs

Qumulex Customer  
Disabled

Config

**Qumulex - Always (Read only)**

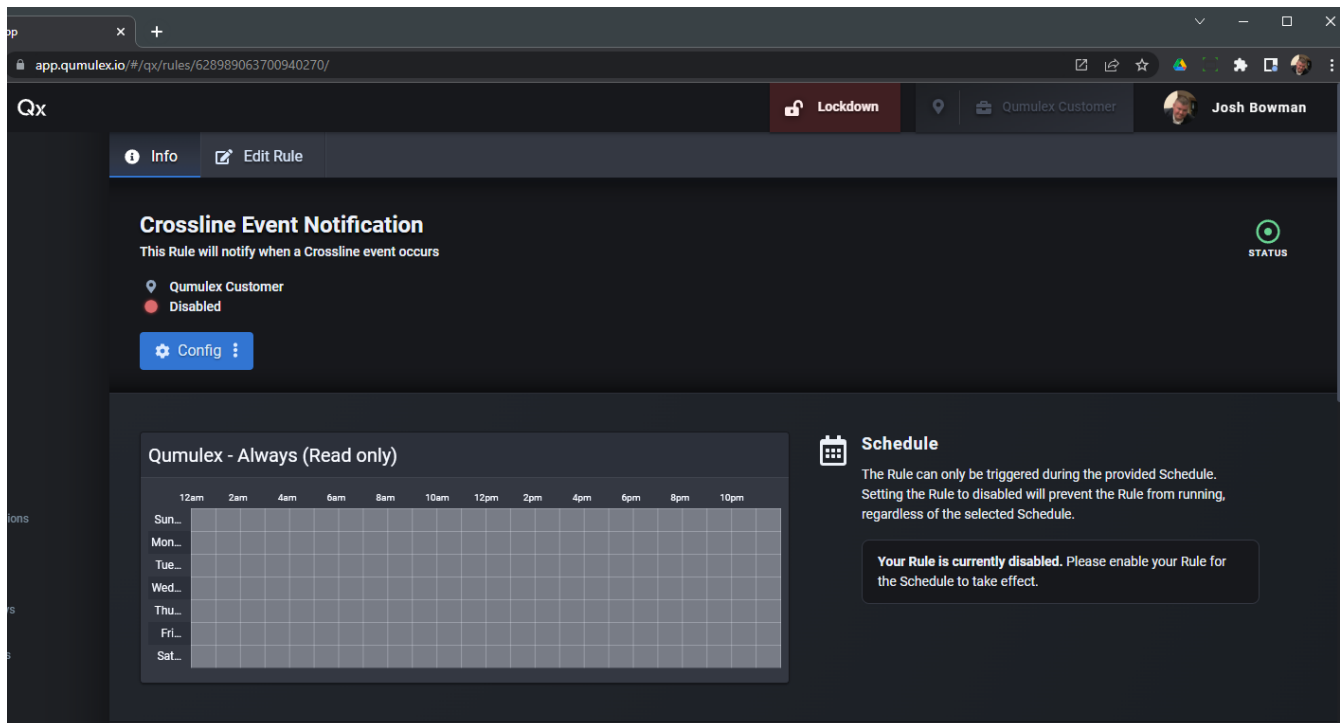
	12am	2am	4am	6am	8am	10am	12pm	2pm	4pm	6pm	8pm	10pm
Sun...												
Mon...												
Tue...												
Wed...												
Thu...												

**Schedule**  
The Rule can only be triggered during the provided Schedule. Setting the Rule to disabled will prevent the Rule from running, regardless of the selected Schedule.

**Your Rule is currently disabled.** Please enable your Rule for the Schedule to take effect.

## Rules: Info Page (Continued)

In this section we will review the components of the Rule Info Page in more detail.



app.qumulex.io/#/qx/rules/628989063700940270/

Qumulex Customer Josh Bowman

**Crossline Event Notification**  
This Rule will notify when a Crossline event occurs

Qumulex Customer  
Disabled

Config

**Qumulex - Always (Read only)**

	12am	2am	4am	6am	8am	10am	12pm	2pm	4pm	6pm	8pm	10pm
Sun...												
Mon...												
Tue...												
Wed...												
Thu...												
Fri...												
Sat...												

**Schedule**  
The Rule can only be triggered during the provided Schedule. Setting the Rule to disabled will prevent the Rule from running, regardless of the selected Schedule.

**Your Rule is currently disabled.** Please enable your Rule for the Schedule to take effect.



**Crossline Event** 1

Notify me if a crossline event occurs

Qumulex Customer

Enabled

Config 2

Reset Rule

**TRIGGERED SOURCES** 3

Customer	Place	Name	Status
Qumulex Customer	Headquarters Facility	Parking Lot North Entrance	

1 Results  
Page 1 of 1

**Firing Data** 4

A Rule in the "Firing" state indicates it has been triggered and at least one source is still active. Before the rule can re-trigger and initiate actions, all active triggers must be resolved or the rule must be reset.

- 1) This field displays the Title of the Rule, the Description you provided for the Rule, the Scope of the Rule (Where it applies), and displays if the Rules Enabled Disabled.
- 2) Config allows you to Reset the Rule if a Trigger is not working properly or you need to clear the Queue.
- 3) Firing Data will appear in the Triggered Sources table. This will show the conditions that are Triggering the Rule and in the case of Resources such as Devices and People, you can click on the row to visit the Resource's Info Page.

Lockdown Qumulex Customer Josh Bow

Info Edit Rule

### Qumulex - Always (Read only)

**1**

**Schedule**

The Rule can only be triggered during the provided Schedule. Setting the Rule to disabled will prevent the Rule from running, regardless of the selected Schedule.

**AND**

**2**

This event ▶ Status is equal to

CrossLine

**Triggers**

Triggers initiate Rule processing. The conditions defined in a trigger are evaluated when their sources emit events. The trigger condition logic must evaluate to true for the Rule to move toward executing Actions.

- 1) Displays the Schedule associated with the Rule.
- 2) Displays the Triggers associated with the Rule.
- 3) Shows the Suppression Guards associated with the Rule. In this example you see that we have a delay of 10 seconds after the Rule has been triggered before it can be triggered again.

**Suppression Guard**

**3**

The Rule actions will be delayed from execution for **10 seconds**

During a Rule's Delay Guard, its firing status will be indicated. If the Delay Guard conditions are met during the delay period, the firing status will be reset and the Rule Actions will not execute. If the Delay Guard conditions are not met, the Rule Actions will execute, the Rule status will continue firing, and the Rule Actions will not execute again until the trigger sources are reset or the Rule is manually reset.

**AND**

This event ▶ Status is equal to

CrossLine

**Guards**

Guards may prevent execution of the Rule's Actions.

Lockdown Qumulex Customer Josh B

Info Edit Rule

### SMS Notification

4 Phone Numbers Selected

- (614) 284-1106 **1**
- Dixon, George (317) 000-0000 **2**
- Beck, Porsche (317) 000-0000 **2**
- Boone, Kim (614) 000-0000 **2**

Will receive the following message.

Videosource Name	Status	Time

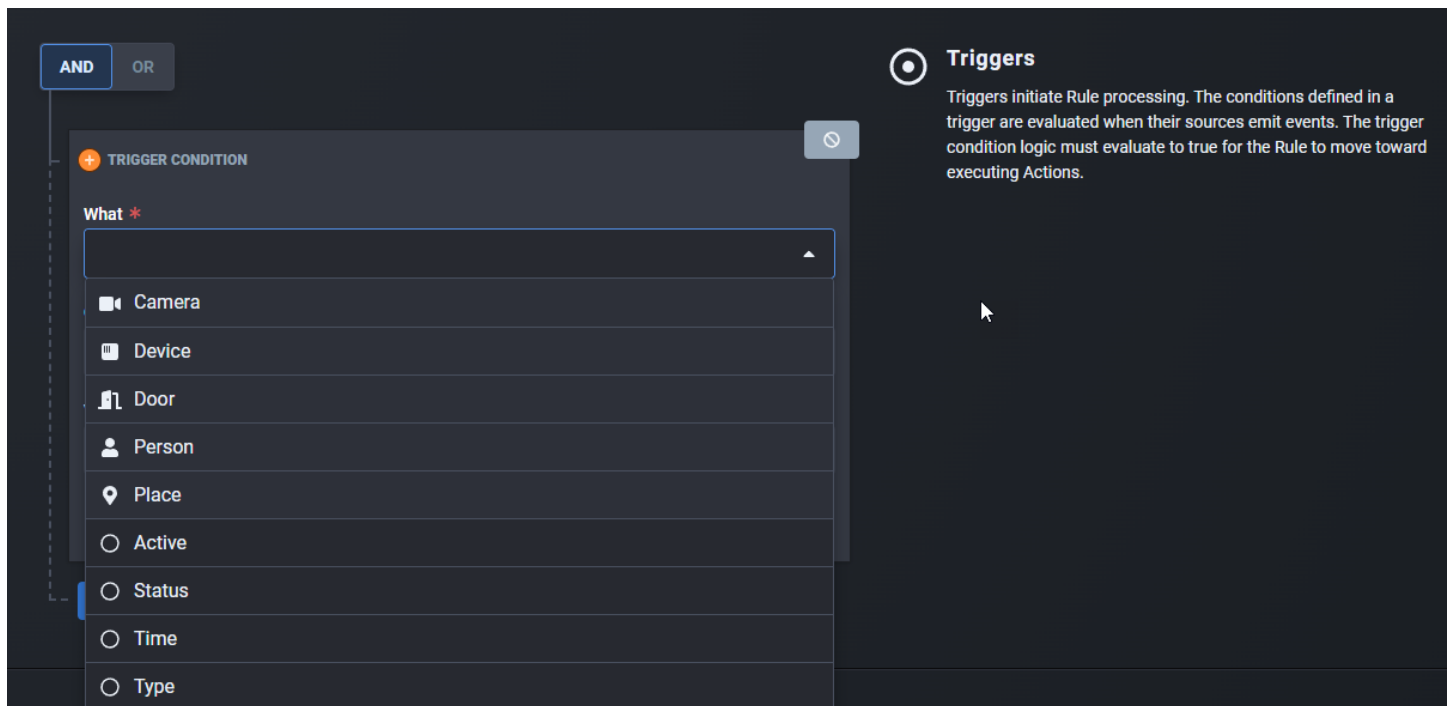
Rate Limit Override ?

seconds **4**

### Actions

Actions are executed once the Rule is triggered and any configured guards have been resolved.

- 1) Displays manually entered (Not a system user) phone numbers and email addresses.
- 2) Displays People who receive notification and links back to their People Info Page.
- 3) Displays the message that will be sent, including any Data Tags applied as shown here where the Camera name, Status and Time the event occurred will be automatically displayed in the message.



One aspect of the Rules feature that makes it so powerful, is that the list of Trigger Conditions shares the same database of options as our powerful Smart Search.

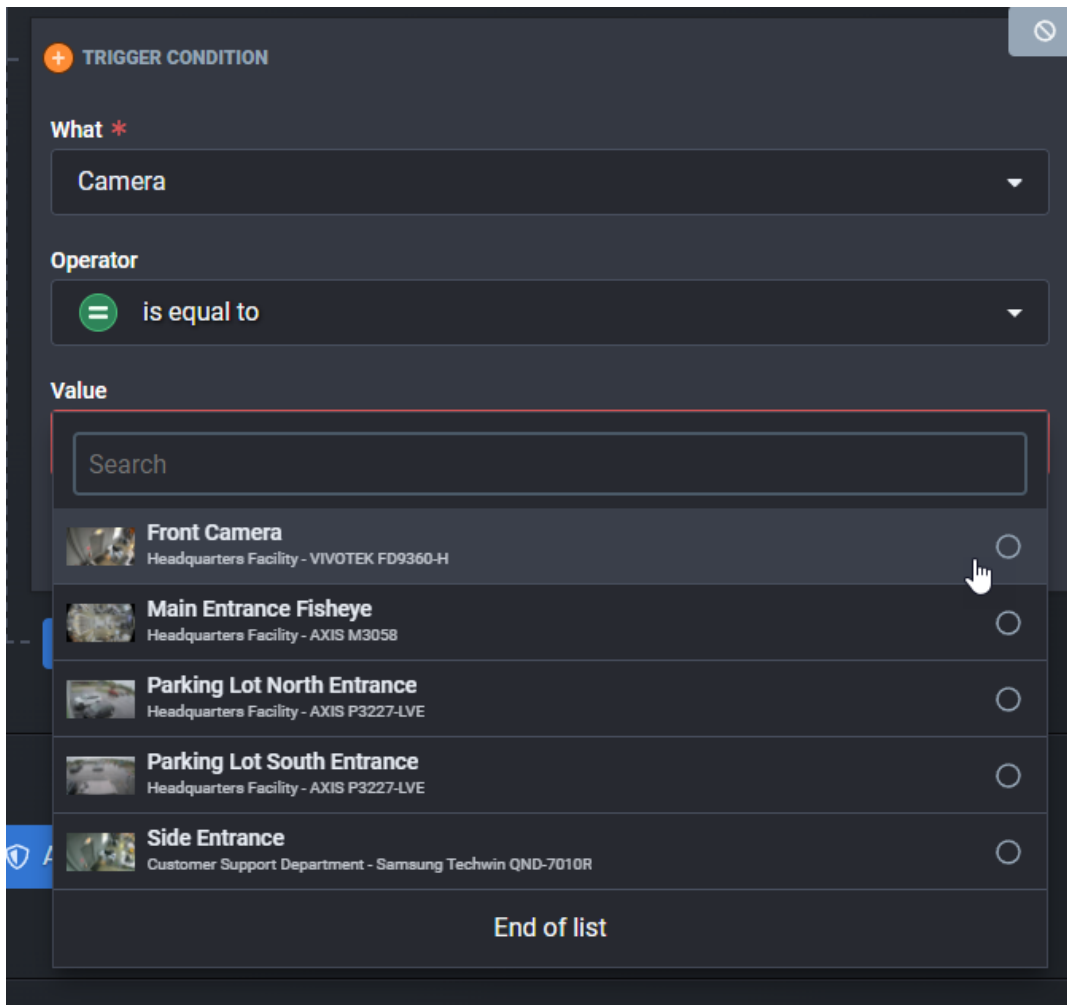
This means that in addition to Devices, People, and other conditions you can also select from our list of supported Camera analytics, such as Crossline, Motion, Vehicle Detection and more.

This database is also dynamic, and you will see more options available as the list of supported analytics grows, as well as the number of Devices and People grows.

To understand what options are available and where to find them, this section will break down the following sections to provide guidance:

- Resources (Camera, Device, Door, Person, Place)
- Active
- Status
- Time
- Type

These are the most intuitive options. Here you can select Resources from QxControl to use as a Trigger. In the example below, we have chosen a Camera:



**TRIGGER CONDITION**

**What \***






Camera

**Operator**

= is equal to

**Value**

Search

-  **Front Camera**  
Headquarters Facility - VIVOTEK FD9360-H ☐
-  **Main Entrance Fisheye**  
Headquarters Facility - AXIS M3058 ☐
-  **Parking Lot North Entrance**  
Headquarters Facility - AXIS P3227-LVE ☐
-  **Parking Lot South Entrance**  
Headquarters Facility - AXIS P3227-LVE ☐
-  **Side Entrance**  
Customer Support Department - Samsung Techwin QND-7010R ☐

End of list

Once you select the Camera option, you will then move to Value. As you can see the Value field will then present all available options for selecting a camera.

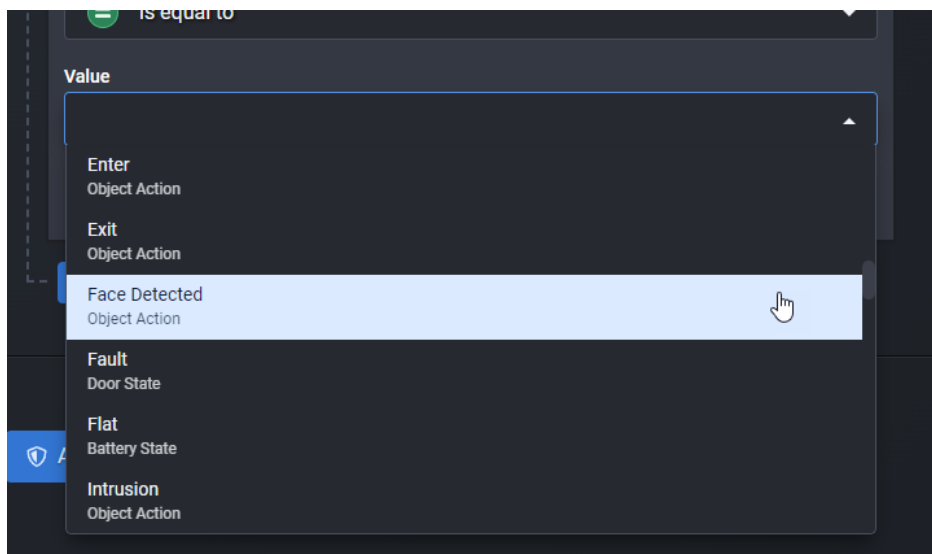
This procedure will work the same for Device, Door, Person, and Place.

Note: If you do not see all the items you expect to see, you should verify that you are set to the correct scope.

Active allows you to set a condition based on the value of “On” or “Off”. This is another component that can be used in creating your And/or statement.

The screenshot shows a configuration interface for a trigger condition. At the top, there are two buttons: "AND" (highlighted in blue) and "OR" (grey). To the right is a circular icon with a dot. Below these is a large dark grey panel titled "TRIGGER CONDITION" with a close button (X icon) in the top right corner. Inside this panel, there are three sections: "What \*" with a dropdown menu showing "Active"; "Operator" with a dropdown menu showing "is equal to" (preceded by a green equals sign icon); and "Value" with a toggle switch. The toggle switch has two positions: "On" (selected, indicated by a blue checkmark icon) and "Off" (indicated by a grey circle icon). Below the toggle switch is a green "Create" button. At the bottom of the interface, outside the main panel, are two blue buttons: "Add Condition" and "Add Group".

Status will provide you with several options, including many of the available Camera analytics.



This is a dynamic table and will continue to grow, but some options you will see are:

- Accessed – Door Mode
- Appear/Disappear – Object Action
- Audio Detected – Object Action
- Battery Alarm – Door Alarm
- Blocked – Door Mode
- Closed – Door State
- Connected – Device Connection, Stream Status
- Count Exceeded – Object Action
- Credential Expired – Access Denied
- Cross Line – Object Action
- Disconnected – Device Connection, Stream Status
- Forced Open – Door Alarm
- Face Detected – Object Action
- Flat – Battery State
- Intrusion – Object Detection
- Left Object – Object Action
- Locked Down – Door Mode
- Loitering – Object Action
- Mask Detected – Object Action
- Open – Door State
- Person Detected – Object Action
- Vehicle Detected – Object Action

Note: There are many more options available. These are just some of the options available in Status.

Time



Like “Active”, time allows you to specify a specific time in your And/or statement.

AND OR

TRIGGER CONDITION

What \*

Time

Operator

= is equal to

Value

05/18/2022 03:05 PM

(GMT-5:00:00) America/New\_York

Create

Add Condition Add Group

Triggers in trigger are condition l executing

## Type

Type is like “Events” in search. This will include any sub-options for the Type. An example of this would be Object Action would include all events that are an Object Action, such as Person Detected, Vehicle Detected, Left Object and so on. This is a good option to use when you want to Trigger an Action based on a broader scope of Conditions.

AND OR

TRIGGER CONDITION

What \*

Type

Operator

= is equal to

Value

Door Mode

Door State

Gateway Connection

Motion

Object Action

Pacs Device

PACS HW Status

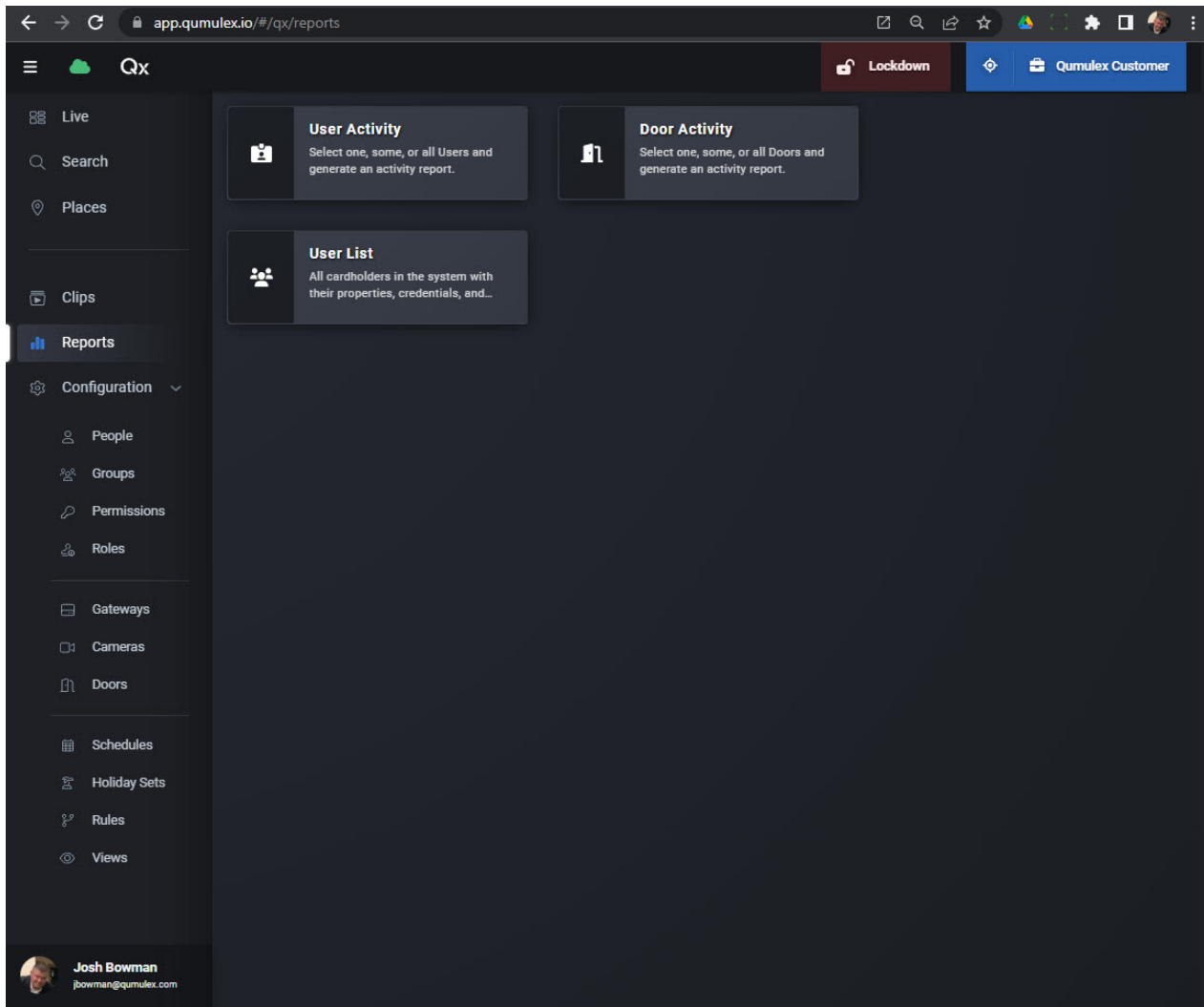
This is a dynamic table and will continue to grow, but some options you will see are:

Access Denied  
Access Granted  
Access Not Found  
Access Not Taken  
Access Taken  
Battery State  
Device Connection  
Door Alarm  
Door Mode  
Door State  
Gateway Connection  
Motion  
Object Action  
Pacs Device  
Pacs HW Status  
Place Lockdown  
Stream Status  
Tamper

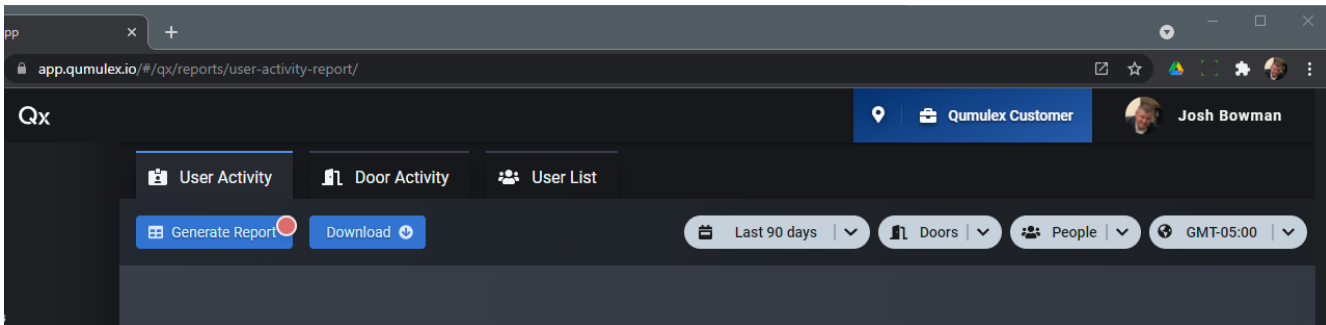
## Reports

The Reports page is used to view and export information about Access Control users and events. Options may vary for each report that you can run but are similar. We will start by covering the basics of the reporting feature before describing each report type.

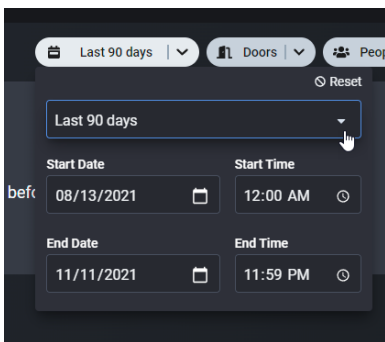
First, click on the report type that you wish to work with:



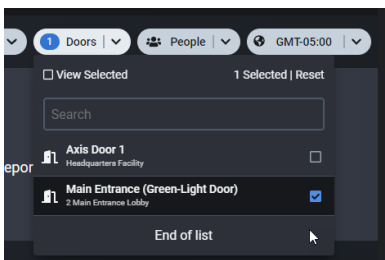
Next, you will choose from the available options to generate your desired report. These Options are located along the top of the page:



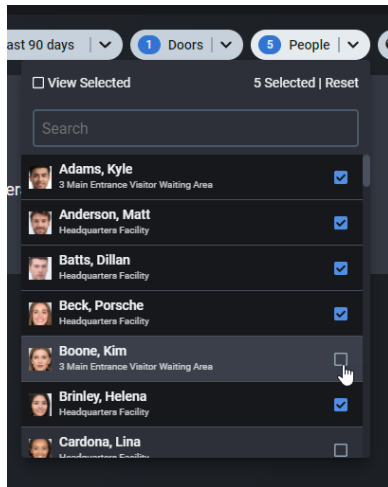
The first option is to select the time range for the report. You can either select the easy predefined options from the drop-down list (Such as last week, last 30 days etc.) or you can directly enter the specific time range you want to view.



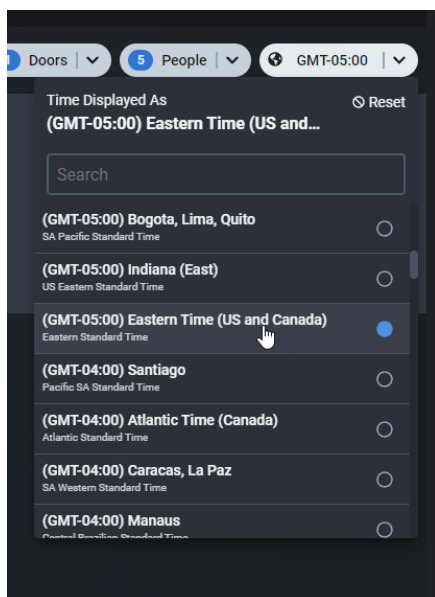
The next option is to select the Doors to include in the report. You can either scroll through the list of doors and select the doors you prefer, or you can use the search box to find specific doors and include them. As you select doors, you will see the quantity of selected doors represented inside the blue circle. In this example, we have one door selected and the number shown is "1".



The third option is to select the people to be included in the report. You can either scroll through the list of people and select the people you prefer, or you can use the search box to find specific people and include them. As you select people, you will see the quantity of selected people represented inside the blue circle. In this example, we have 5 people selected and the number shown is “5”.



The final option is to select the time zone. By default, the time zone you are currently in will be selected. However, if you are remote to the site location you may need to manually select the time zone desired. An example may be that you are in California but are running reports for a location in Boston. In this example you would want to run the reports in the Eastern Time Zone, rather than Pacific.



## User Activity Report

The User Activity report provides data based upon credential holder activity. It will display along with card holder name the credential ID number, event type (such as access granted) and the door that was interacted with.

Card	Time	Type	First Name	Last Name	Door Name
118-22768	11/10/2021, 4:13:47 PM	AccessGranted	Bryant	Richardson	Main Entrance (Green-Light Door)
118-22769	11/10/2021, 4:13:40 PM	AccessGranted	Dan	Kiefer	Main Entrance (Green-Light Door)
118-22764	11/10/2021, 4:13:33 PM	AccessGranted	Cordner	Peter	Main Entrance (Green-Light Door)

## Door Activity Report

The Door Activity report provides data based upon door activity. It will display along with the door name the credential ID number, the card holder name, event type (such as access granted) and the door that was interacted with. In addition, this report will also show non-user related events such as connection status and battery life information for Aperio doors.

Card	Time	Type	First Name	Last Name	Door Name	Description
	11/10/2021, 4:13:53 PM	DoorMode			Main Entrance (Green-Light Door)	
	11/10/2021, 4:13:47 PM	DoorMode			Main Entrance (Green-Light Door)	
118-22768	11/10/2021, 4:13:47 PM	AccessGranted	Bryant	Richardson	Main Entrance (Green-Light Door)	
	11/10/2021, 4:13:46 PM	DoorMode			Main Entrance (Green-Light Door)	

## User List Report

The User List report provides does not provide activity related information. This report is used to provide a list of all card holders at the selected scope. It will display name, credential ID #, email address, department, title, and groups that are associated. This is helpful when you need to export a list from QxControl and import into other software systems.

First Name	Last Name	Credentials	Email	Department	Title	Groups
Alfredo	Wehunt	118-00061	wehunt@qumulex.com	Engineering	DevOps	Engineering
Adrienn	Molloy	118-00029	amolloy@qumulex.com	Finance Department	Controller	Finance Department
Aubree	Montgomery	118-00030	montgomery@qumulex.com	Human Resources	VP of HR	Human Resources

## Exporting Reports

For each of these reports you can easily export the information out of QxControl. Simply click on “Download” and you will receive a .csv file in your browser download area.

The screenshot shows the QxControl App interface. The top navigation bar includes a search bar, a 'Qumulex Customer' button, and a user profile for 'Josh Bowman'. The left sidebar contains various navigation options like 'Live', 'Search', 'Clips', 'Reports', 'Places', 'People', 'Groups', 'Permissions', 'Roles', 'Gateways', 'Cameras', 'Doors', 'Views', 'Schedules', and 'Holiday Sets'. The main content area displays the 'User List' report. At the top of this report, there are buttons for 'Generate Report' and 'Download'. A red arrow points to the 'Download' button. Below the buttons is a table with columns: First Name, Last Name, Credentials, Email, Department, Title, and Groups. The table lists 13 users. At the bottom of the table, there is a 'Download' button and a status message: 'Attempting to download report. Please wait.' A red arrow points to the 'Download' button. The bottom of the interface shows a download bar with the file 'report (13).csv' and a 'Show all' button.

First Name	Last Name	Credentials	Email	Department	Title	Groups
Alfredo	Wehunt	118-00061	wehunt@qumulex.com	Engineering	DevOps	Engineering
Adrienn	Molloy	118-00029	amolloy@qumulex.com	Finance Department	Controller	Finance Department
Aubree	Montgomery	118-00030	montgomery@qumulex.com	Human Resources	VP of HR	Human Resources
Bryant	Richardson	118-22768	richardson@qumulex.com	International Sales	VP of Sales	Sales - International Sales
Cason	Janson	118-00021	janson@qumulex.com	International Sales	Account Manager	Sales - International Sales
Caillin	Ibbott	118-00020	ibbott@qumulex.com	Marketing	Marketing Manager	Marketing
Coriander	Peter	118-22764	peter@qumulex.com	Corporate Management	CEO	Corporate Management
Deryck	Todd	118-00050	todd@qumulex.com	Domestic Sales	VP of Sales	Sales - Domestic Sales
Dan	Kiefer	118-22769	kiefer@qumulex.com	Operations	Operations Manager	Operations
Dillan	Batts	118-00003, 115-1005	batts@qumulex.com	Domestic Sales	Account Manager	Tradeshow, Sales - Domestic
Eunice	Irvine	118-22750	irvine@qumulex.com	Customer Support	Support Agent	Customer Support
Eleonora	Kuznetsov	118-00025	kuznetsov@qumulex.com	International Sales	Account Manager	Sales - International Sales
Garth	Miller	118-22767	miller@qumulex.com	Information Technology	IT Director	Information Technology
Porsche	Beck	118-22765, 115-1006	beck@qumulex.com	Product Management	Director	Product Management , Admir
George	Dixon	118-00012	dixon@qumulex.com	Domestic Sales	Account Manager	Sales - Domestic Sales
Helena	Brinley	115-1008, 118-00005	brinley@qumulex.com	International Sales		al Sales, Tr

AutoSave Off report (13) Search (Alt+Q)

File Home Insert Page Layout Formulas Data Review View Help Acrobat

Clipboard Font Alignment Number Styles

	A	B	C	D	E	F	G	H	I
1	personID	firstName	lastName	email	department	title	credentials	createdAt	groups
2	01fBqwy00Mr	Alfredo	Wehunt	wehunt@qumulex.com	Engineering	DevOps	118-00061	4/23/2021, 12:52:37 PM	Engineering
3	01fBxK00QO	Adrienn	Molloy	amolloy@qumulex.com	Finance Department	Controller	118-00029	4/23/2021, 12:49:54 PM	Finance Department
4	01fC4jPv0Nc	Aubree	Montgomery	montgomery@qumulex.com	Human Resources	VP of HR	118-00030	4/23/2021, 12:54:27 PM	Human Resources
5	01fCkIV0JM	Bryant	Richardson	richardson@qumulex.com	International Sales	VP of Sales	118-22768	4/23/2021, 12:56:33 PM	Sales - International Sales
6	01fCvQ00Jz	Cason	Janson	janson@qumulex.com	International Sales	Account Manager	118-00021	4/23/2021, 1:00:40 PM	Sales - International Sales
7	01fCYTyV0HG	Caillin	Ibbott	ibbott@qumulex.com	Marketing	Marketing Manager	118-00020	4/23/2021, 12:58:42 PM	Marketing
8	01fD8ghV0P8	Coriander	Peter	peter@qumulex.com	Corporate Management	CEO	118-22764	4/23/2021, 1:03:47 PM	Corporate Management
9	01fDINVV0MX	Deryck	Todd	todd@qumulex.com	Domestic Sales	VP of Sales	118-00050	4/23/2021, 1:08:55 PM	Sales - Domestic Sales
10	01fDLtU00TT	Dan	Kiefer	kiefer@qumulex.com	Operations	Operations Manager	118-22769	4/23/2021, 1:05:43 PM	Operations



## Places

### What is a place?

The places tree is a multi-level hierarchy of places. Imagine the root structure of a tree, Qumulex is at the top, then integrators see their account and underneath the integrator are their customers and below that the customer's sites and areas.

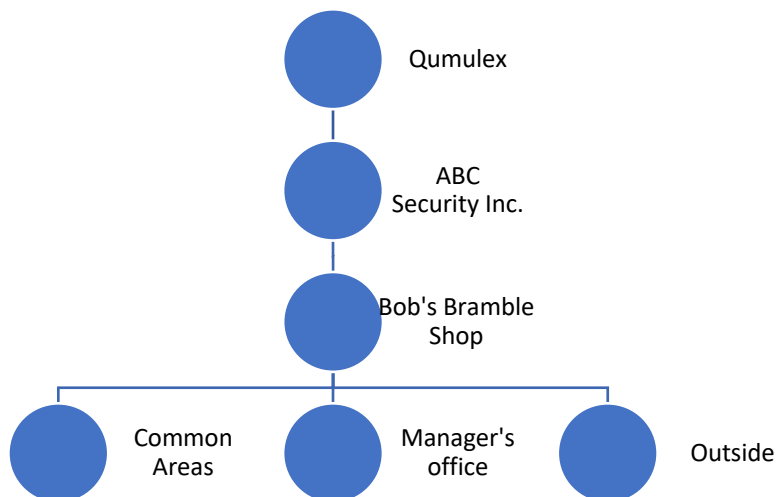
The hierarchy is used to determine what a user of the software can see. This is then paired with the user's role which defines what a user can do. It is this combination of what and where that defines a users' ability to operate in the software.

### There are four types of places

Integrator	The customer of Qumulex that sells and installs security systems
Customer	Customer of the integrator, where the security equipment is installed, i.e. End User
Site	A physical location for a customer. Used if the customer has multiple locations
Area	A secured area for access control and also a logical intermediate level in the hierarchy

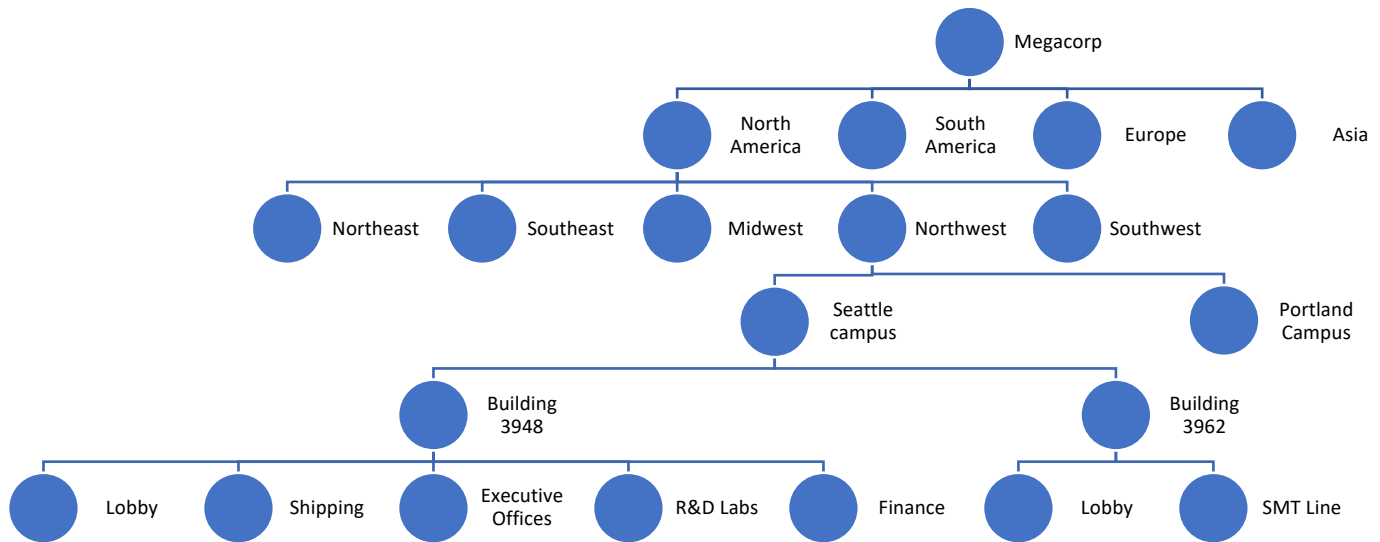
### Examples

A typical structure for an integrator named ABC Security with a customer named Bob's Bramble Shop would look like:



The doors coming into the shop would go from Outside (unsecured) to Common Areas (secured). The door for the manager's office would go from Common Areas (unsecured) to Manager's Office (secured). Cameras get put in places, and when something happens in a place, video gets recorded. Later, someone can search for events on the Manager's door and see video clips from the cameras in the two places that door separates.

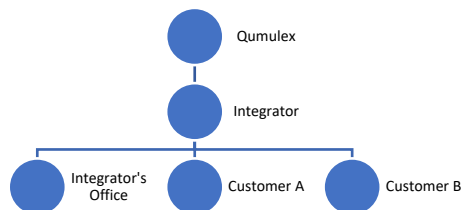
Below is an abbreviated example of a large organization.



As you can see, the hierarchy for a customer or integrator can be as simple or as detailed as necessary.

A national integrator might create a structure under their root account so that employees at each branch or region can only see and operate on their customers, but someone set up at the top level can operate on all customers and therefore can manage national accounts or step in and help out on a regional account.

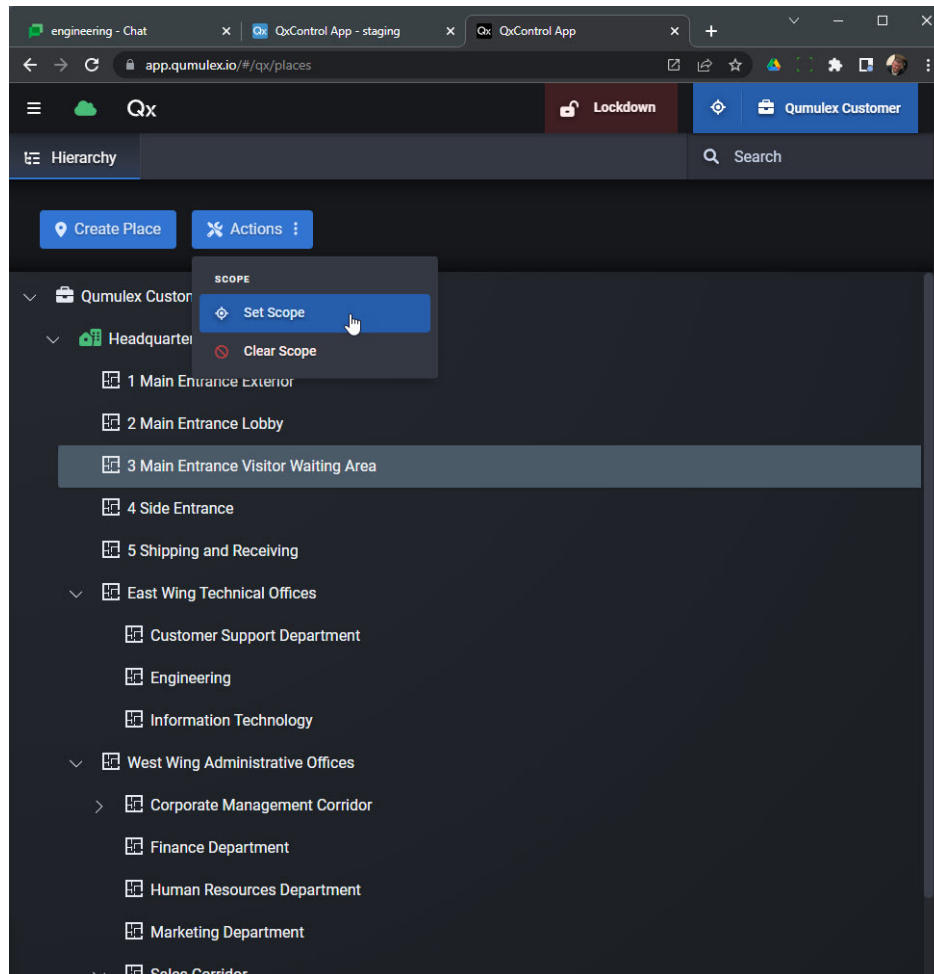
When installing a system in the integrator's office, create a 'customer' below the integrator's root level and use that as the starting point for the internal installation. This way a user can be added who can manage the company system and not see anything about any customers. The top of the hierarchy should look like:



Once the hierarchy from the integrator to where you wish to place customers is set up, move on to the next step. (Typically, the basic integrator node is sufficient and nothing additional is needed)

## Scope

Every user is assigned to a place in the places tree and can see everything located at that place and any place below. To make managing a large system or multiple customers easier, use scope. Setting scope limits what is shown in the application to the place selected and anything below that place. This can be done from the Places page by selecting a point in the places tree and clicking Set Scope under the Actions menu or scope can be set while on any page, by clicking the folder tree icon in the upper left which will bring up the Area's Info page. Select the desired place and click OK. To revert, select clear scope under the Actions menu.

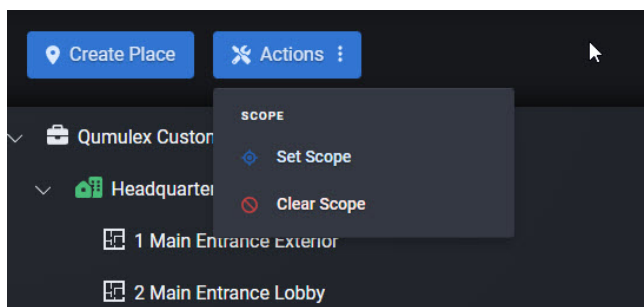


## Places Actions Menu

The following actions are available in the Actions Menu:

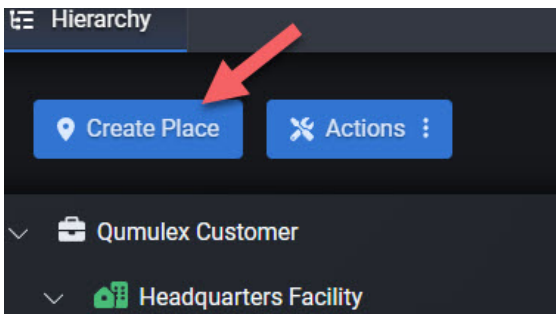
**Set Scope:** Set your Scope to the selected Area

**Clear Scope:** Clear the Scope to the top of your available Hierarchy (See every Area you have permissions for)



## Places: Create Place Menu

The Create Place menu is access by choosing the “Create Place” button. You will use this menu to create an Area in QxControl.



Once you click the Create Place Button, the Create Place Menu will appear:

 A screenshot of the 'Create Place' form in the Qumulex application. The form is displayed in a modal window with a title bar that says 'Create Place'. On the left, a sidebar shows the hierarchy: 'Qumulex Customer' > 'Headquarters Facility' > a list of areas including '1 Main Entrance Exterior', '2 Main Entrance Lobby', '3 Main Entrance Visitor Wait', '4 Side Entrance', '5 Shipping and Receiving', 'East Wing Technical Offices' (with sub-items like 'Customer Support Depar', 'Engineering', 'Information Technology'), 'West Wing Administrative O' (with sub-items like 'Corporate Management', 'Finance Department', 'Human Resources Depar', 'Marketing Department'), 'Sales Corridor' (with sub-items like 'Domestic Sales', 'International Sales'). The main form contains the following fields:
 

- Parent Place \***: A dropdown menu showing 'Qumulex Customer'.
- Name \***: A text input field.
- Type \***: A dropdown menu showing 'Site'.
- Timezone \***: A dropdown menu showing '(GMT-5:00:00) America/New\_York'.
- Account Information**: A section header.
- Billing Period \***: A dropdown menu.
- Anniversary Date**: A date input field showing '06/29/2022'.
- Billing Start Date**: A date input field showing '06/29/2022'.
- Address Information**: A section header.
- Address 1**: A text input field.
- Address 2**: A text input field.
- City**, **State**, and **Zip**: Three separate text input fields.

 At the bottom of the form are two buttons: a green 'Create Place' button with a checkmark icon and a grey 'Cancel' button with a close icon.

## Creating a customer

A customer (or end user) is where the system is installed. An Integrator would typically be the one to create a new customer while installing cameras and/or access control onsite. Creating a customer is done in the Create Place Menu.

When setting up a new Customer, Qumulex will assign a Account Number and choose the Billing Period based upon the purchase order provided by the Integrator. The time zone will typically be automatically populated but is critical to many functions in QxControl and **should be verified**.

You will need to verify or provide the customer's name and address information, and the choose "Create Place". From there you can begin to setup any additional Sites or Areas for this Customer.

The screenshot displays the 'Create Place' form in the Qumulex web application. The browser address bar shows the URL: `app.qumulex.io/#/qx/places/create?placeID=0ACBnRw00FB`. The application interface includes a sidebar with a 'Hierarchy' view and a 'Create Place' button. The main form area is titled 'Create Place' and contains the following sections:

- Parent Place \***: A dropdown menu showing 'Qumulex Integrator'.
- Name \***: A text input field containing 'New Customer Example'.
- Type \***: A dropdown menu showing 'Customer'.
- Timezone \***: A dropdown menu showing '(GMT-5:00:00) America/New\_York'.
- Account Information**:
  - Account Number**: A text input field containing 'Provided by Qumulex'.
  - Billing Period \***: A dropdown menu showing 'Annually'.
- Address Information**:
  - Address 1**: A text input field containing '123 My Street Way'.
  - Address 2**: An empty text input field.
  - City**: A text input field containing 'Fishers'.
  - State**: A text input field containing 'IN'.
  - Zip**: A text input field containing '46038'.

At the bottom of the form, there are two buttons: 'Create Place' (with a green checkmark icon) and 'Cancel' (with a grey circle icon).

## Rules for Creating a Customer

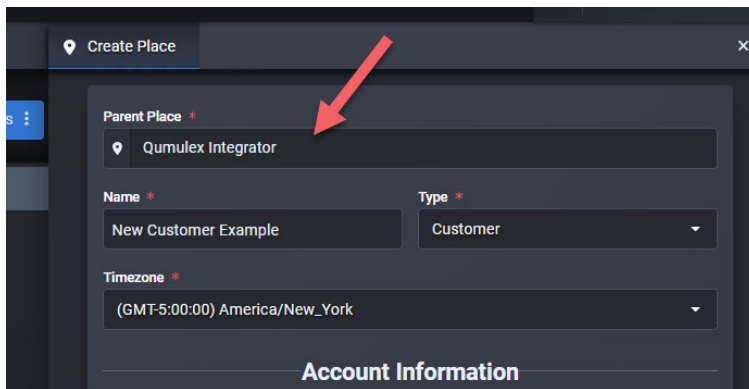
In QxControl there are certain “rules” that should be followed to ensure that the hierarchy is set up correctly. You will likely receive an error message indicating the required correction if one of these rules is not followed. Here is a list of the rules to follow for the best results:

**Rule 1:** An integrator must not have any other integrators, customers, or sites between itself and Qumulex. This means in other words that the Integrator account must always be at the top of their own hierarchy and should not attempt to place any folders above their own.

**Rule 2:** A customer must have one integrator and no other customers, or sites between it and Qx. This means in other words that a customer should be a direct descendant of one Integrator account and should also not pass through another customer’s account to get there in the hierarchy.

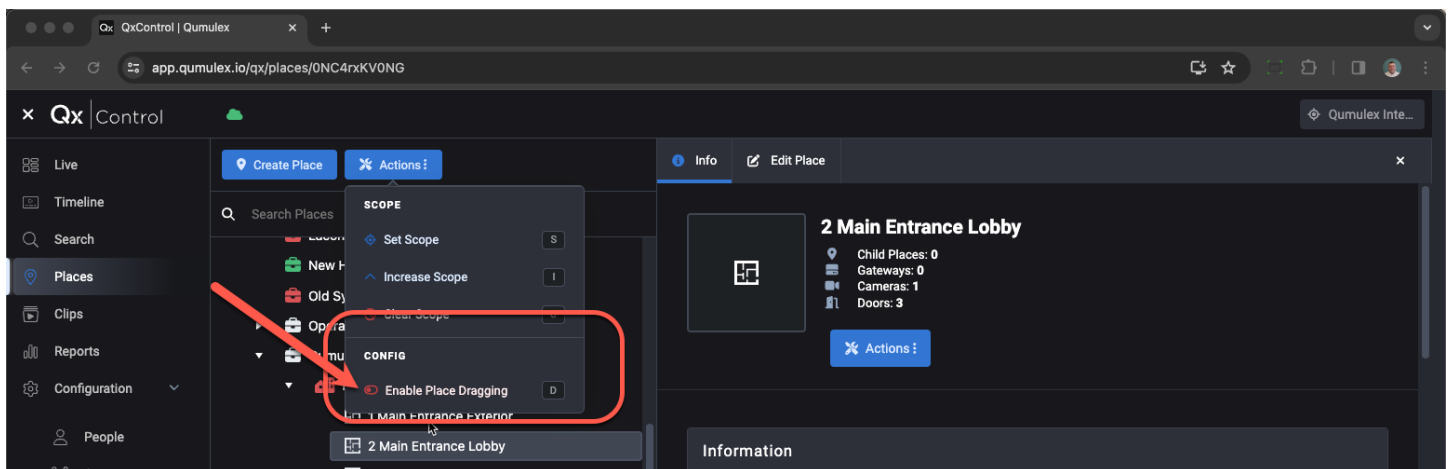
**Rule 3:** A Site must have a customer above it, as a site is a descendant of a customer. It should not be directly linked to the Integrator. A site also may not have other sites above it as it is a direct descendant of a customer.

**Rule 4:** Areas can be anywhere.



## Editing Places: Place Dragging

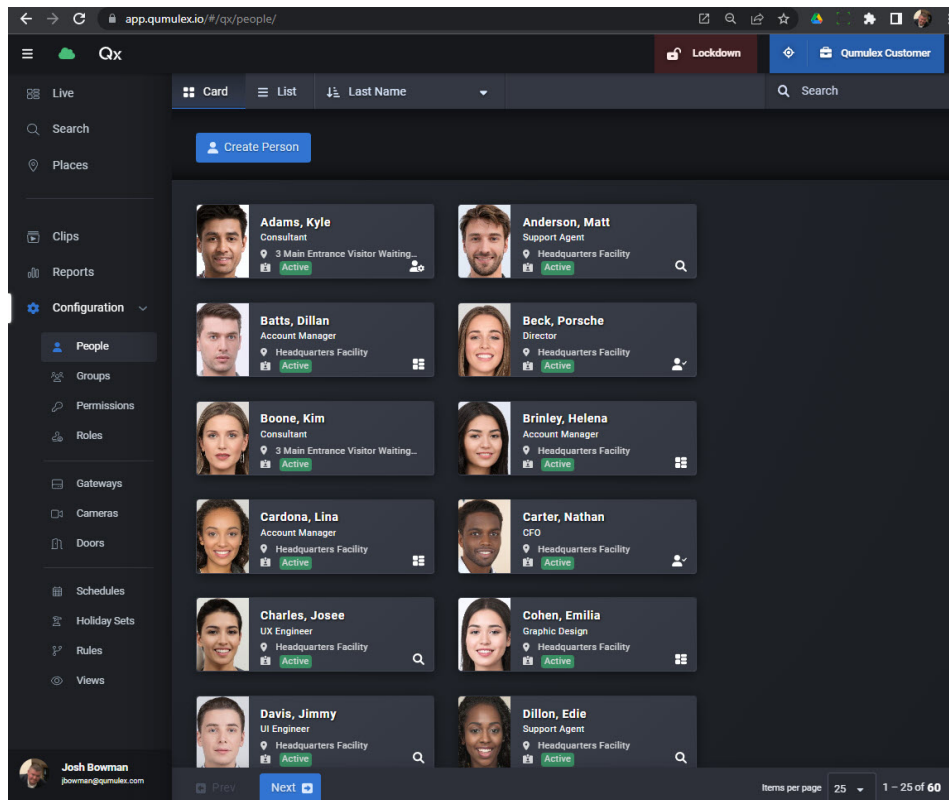
Qumulex has added the ability to drag and drop Places to make editing easier. By default, this is not enabled to avoid accidental movement of Places. To enable this feature, choose the “Actions” menu and select “Enable Place Dragging”:



## People

In QxControl, a person will have credentials of some type. A login to the software making them a user of the system is one type of credential. Badges, fobs, biometrics, etc. are also credentials. A person is only created once for the entire system and then is given whatever credentials they need to do their job. Only a few people will have a login, most people will have some form of access credential for getting in and out of a building.

To see the people in the system, click “People” on the left-hand navigation menu. With the people cards as shown to the right, if the desired person is not shown, scroll down to find them. If there are a lot of people, it can be much faster to use the search box and start typing some identifying information. The search will search by last name, first name and employee id.



People page (card view)

Once you have found the person you want to manage, you can click on the card to edit them.



## Person Info and Actions

Once you have clicked on a Person's card you will see the info page. You will also see an Actions button just below the Person's name and their assigned Scope. The Actions button will allow you to 1) Disable the Person and 2) Print a Badge.

Please note: Currently there is no ability to edit or alter the format of the Badge when printing.

The screenshot displays the 'Person Info' page for Janet Anders. At the top, there are tabs for 'Info' and 'Edit Person'. Below the profile picture, the name 'Janet Anders' is shown along with a location pin 'Qx Lab' and an 'Actions' button. The 'Actions' dropdown menu is open, showing 'Print Badge' and 'Disable Person'. The main content area is divided into several sections: 'INFORMATION' with fields for Phone, Email, Role, Employee ID, Department, License Plate, and Certification; '1 CREDENTIAL' showing an active credential with ID AQ200835 and PIN 2203; 'RECENT EVENTS' with a message 'No events found for this person.'; 'GROUPS' with a table listing groups and a 'View' button; and 'PERMISSIONS' with a table listing permissions and a 'View' button. Red arrows from external callout boxes point to the 'Actions' button, the '1 CREDENTIAL' section, and the 'View' buttons in the 'GROUPS' and 'PERMISSIONS' sections.

Name	Place	Permissions
Qx Test	Qumulex Demo	1

Place	Schedule
Qumulex Demo	Exterior Doors Schedule

Actions button to Disable or Print a badge.

Person information and Credential information

These fields display Groups and Permissions that the person belongs to. You can also select "View" to view the Group/Permission and see what other members are included.


## Edit Person

To edit a person, simply choose the “Edit Person” tab and you can easily change or add any new details or Credentials required.


Note: To set or change the Scope of what a Person has access to, choose the appropriate Place, and for People with QxControl log in access you must also choose a Role. This defines their level of access.

https://app.qumulex.io/#/qx/people/0ACMLZL00HO/edit

Info
Edit Person


**Janet Anders**  
Qx Lab

Picture



Select
Remove

600 x 800 Photo Recommended

Place \*

Qx Lab

Salutation
First Name \*
Last Name \*
Suffix

Email
Phone
Employee ID
Title

Department
Certification
License Plate

Role
None

User has no privileges.

Groups

Add Groups

MEMBER OF

Search Members

Qx Test
Qumulex Demo

Credential

Site Code \*
Card Number
PIN
Enabled

Activation Date \*
Activation Time \*
Expiration Date \*
Expiration Time \*

Credential

Site Code \*
Card Number
PIN
Enabled

Activation Date \*
Activation Time \*
Expiration Date \*
Expiration Time \*

Add Credential

Save Person
Cancel
Delete Person

Add or edit basic information here, as well as set the user Scope.

Add or remove Group memberships and select a Role.

Add or view Access Control Credentials.

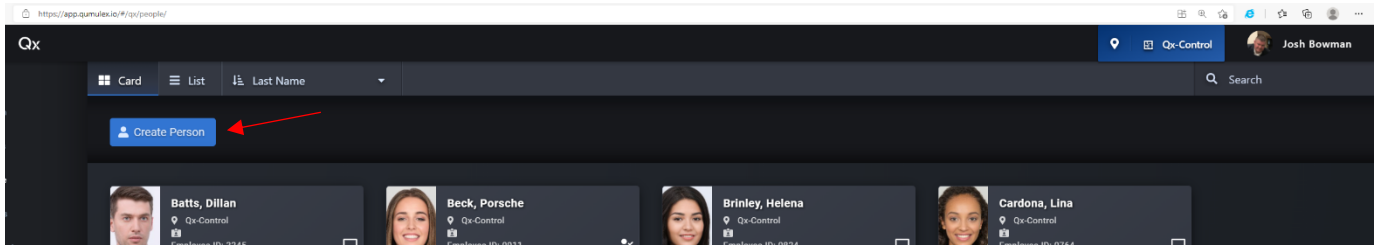
Save or cancel changes or delete the Person.

## Creating a Person

When creating a person, at a minimum they need a first name, last name. Issuing an access control credential and group membership is required for door access. (The group membership will be given one or more permissions to get into specific areas based on a schedule.)

*To create a Person that logs into QxControl, the Person will need a Role assigned and an email address.*

To begin creating a new person, choose “Create Person”.



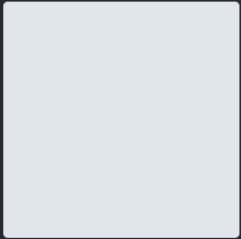
This will present the “Create Person” page.

A screenshot of the 'Create Person' form in the QxControl application. The form is titled 'Create Person' and has a dark theme. It contains several sections: 'Picture' with a placeholder image and 'Select'/'Remove' buttons; 'Place' with a location pin icon; 'Salutation', 'First Name', 'Last Name', and 'Suffix' fields; 'Email', 'Phone', 'Employee ID', and 'Title' fields; 'Department', 'Certification', and 'License Plate' fields; 'Role' with a dropdown menu set to 'None' and a note 'User has no privileges.'; 'Groups' with an 'Add Groups' button and a search bar; and 'Credential' with fields for 'Site Code', 'Card Number', 'PIN', 'Enabled' (toggle), 'Activation Date', 'Activation Time', 'Expiration Date', and 'Expiration Time'. At the bottom, there are 'Add Credential', 'Create Person', and 'Cancel' buttons.

Follow these steps to create a new Person:

https://app.qumulex.io/#/qx/people/create

## Create Person



Select Remove

600 x 800 Photo Recommended

Place \*

Salutation First Name \* Last Name \* Suffix

Email Phone Employee ID Title

Department License Plate

Role

None

User has no privileges.

Groups

Add Groups

MEMBER OF

Search Members

No options selected.

Credential

Site Code \* Card Number PIN Enabled On

Activation Date \* Activation Time \* Expiration Date \* Expiration Time \*

2021 - 06 - 08 4 : 45 AM PM 2061 - 06 - 08 4 : 45 AM PM

Add Credential

Create Person Cancel

1 - Set the Scope by

2 - Enter basic Person Info and upload a photo

3 - Choose a Role if the person will need to log in to

4 - Add the Person to any Groups as required

5 - Add any Access Control credentials and then choose "Create Person"

The result will look similar to this:

The screenshot displays the Qumulex user management interface. At the top, there's a navigation bar with 'Info' and 'Edit Person' tabs. Below this is a user profile card for Janet Anders, showing her photo, name, and a location pin for 'Qx Lab'. An 'Actions' button is visible. The main content area is divided into several sections:

- INFORMATION:** A table listing user details.
 

Field	Value
PHONE	317-207-0520
EMAIL	janders@qumulex.com
ROLE	
EMPLOYEE ID	20-0835
DEPARTMENT	Engineering
LICENSE PLATE	
CERTIFICATION	
- 1 CREDENTIAL:** A table showing credential details.
 

Field	Value
Status	Active
Card	AQ200835
Exp	2203
Valid From	Aug 23, 2020, 8:00:00 PM
Valid To	Aug 23, 2040, 8:00:00 PM
- RECENT EVENTS:** A section stating 'No events found for this person.'
- GROUPS:** A table listing groups.
 

Name	Place	Permissions
Qx Test	Qumulex Demo	1
- PERMISSIONS:** A table listing permissions.
 

Place	Schedule
Qumulex Demo	Exterior Doors Schedule

For more detailed information on Groups or Roles, please visit the chapters that discuss these options.

**Note:** If a user will need to login to QxControl, you **MUST** assign (1) a valid email address and (2) a Role must be assigned. If a user is unable to login to QxControl, check these items first.

A user does not require an email address or role if they are simply an access credential user with no need to login to QxControl.

## Groups

A group is a collection of people. Many operations such as granting access permissions use groups to make it easier and faster to configure your QxControl Site.

In QxControl, a Group is one of three parts required to make up a Permission. To create a Permission you need:

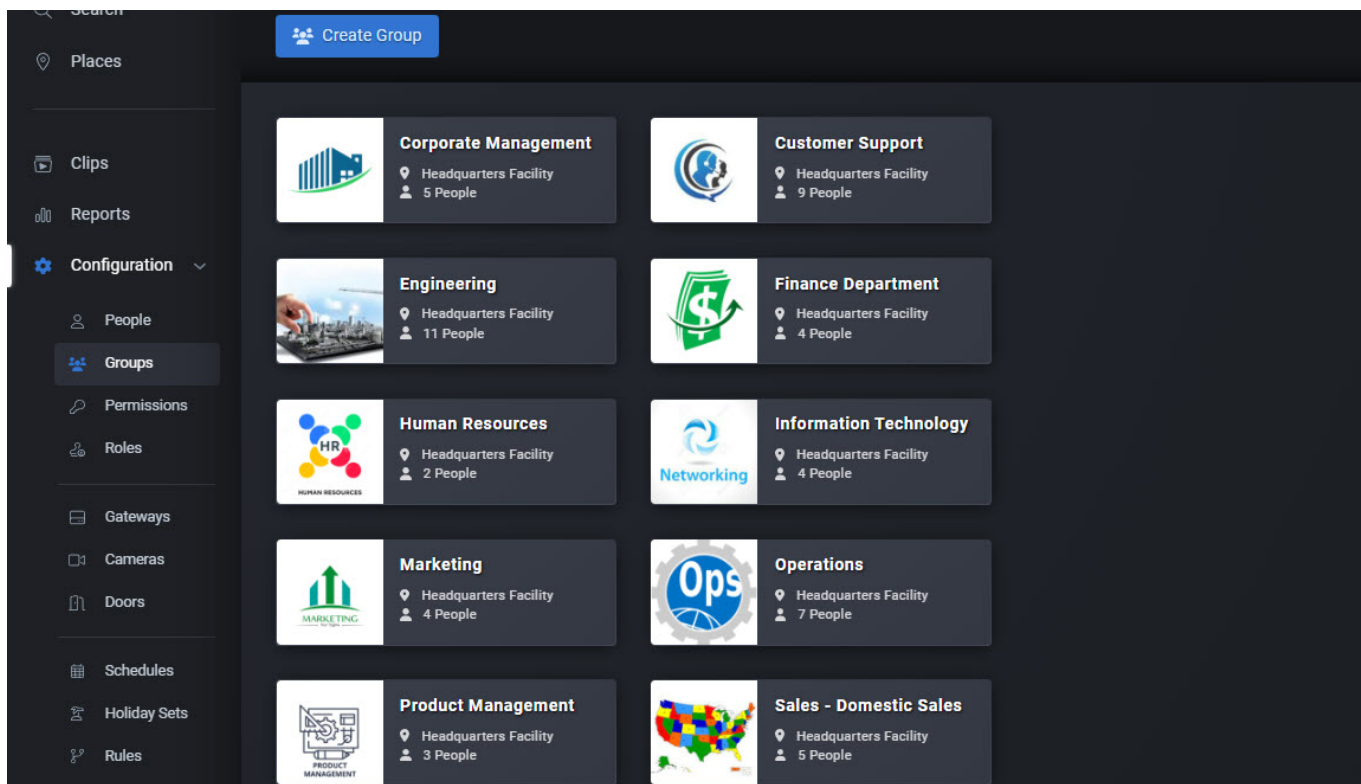
- 1) A group
- 2) A Schedule
- 3) The Permission itself

For Door permissions, this is how People can access a Door with their Credential. By assigning a schedule and Group to a Permission you can assign access to a Door or group of Doors.

**Note:** *Pay close attention to the Scope assigned to these components.* As one example, If you create a Schedule that is set out of Scope (where it is assigned in Places) for the Group, or the Permission you may not be able to achieve the desired access level.

In the future QxControl will expand and use Groups to control other levels of access or provide benefit in other ways. As of this revision of the User Guide, Groups is primarily used a component related to Permissions for Access Control.

To view a Group, click on a Group Card.



The Group info page provides information such as the list of People assigned to the Group, and any Permissions that the Group is assigned to.


You can choose “View” on any of the People or Permissions and you will be taken to the associated Info page. (These pages are covered in the sections covering People and in Permissions, respectively.)

<https://app.qumulex.io/#/qx/groups/0IMv7GN00PG/>

Qx

Info

Edit Group







**Sales - International Sales**

- Qx-Control
- 4 People
- 1 Permission

PEOPLE

Search People

	Role	Name	Employee ID	Department	
	Live	Brinley, Helena	0824	International Sales	<a href="#">View</a>
	Live	Janson, Cason	2266	International Sales	<a href="#">View</a>
	Live	Kuznetsov, Eleonora	3367	International Sales	<a href="#">View</a>
	Live and Search	Richardson, Bryant	1235	International Sales	<a href="#">View</a>


4 Results  
Page 1 of 1

Prev

Next

PERMISSIONS

Search Permissions

	Place	Schedule	
	Qx-Control	Executive Office Door Schedule	<a href="#">View</a>

1 Results  
Page 1 of 1

Prev

Next



To edit the Group, choose “Edit Group” from the Info page.

The screenshot shows the 'Edit Group' page in the Qumulex application. The URL in the browser is <https://app.qumulex.io/#/qx/groups/0IMv7GN00PG/edit>. The page has a dark theme with a top navigation bar containing 'Info' and 'Edit Group' tabs. The 'Edit Group' tab is active. Below the tabs, there's a group header section with a world map thumbnail, the group name 'Sales - International Sales', and statistics: 'Qx-Control', '4 People', and '1 Permission'. The main editing area contains three sections: 'Thumbnail' with a world map image and 'Select'/'Remove' buttons; 'Name' with a text field containing 'Sales - International Sales'; and 'Place' with a dropdown menu showing 'Qx-Control'. Below these is a 'People' section with an 'Add People' button and a list of 'SELECTED OPTIONS' including Brinley, Helena; Janson, Cason; Kuznetsov, Eleonora; and Richardson, Bryant, all with 'Qx-Control' roles. At the bottom, there are 'Save Group', 'Cancel', and 'Delete Group' buttons.

From this page, you can:

- Change the Group Name
- Change the Place (Assign Scope)
- Add or remove People from the Group
- Add or Change the Thumbnail Image
- Delete the Group

Please remember that you can also assign a Person to a group from the People edit page.

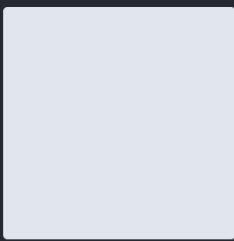
To create a Group, choose “Create Group” from the main Groups page.

https://app.qumulex.io/#/qx/groups/create

Qx

## Create Group

Thumbnail



Select Remove

800 x 800 Photo Recommended

Name \*

Place \*

People

+ Add People

SELECTED OPTIONS

Search Selected

No options selected.

✓ Create Group

⌂ Cancel

To create a Group, you will need to enter the following information:

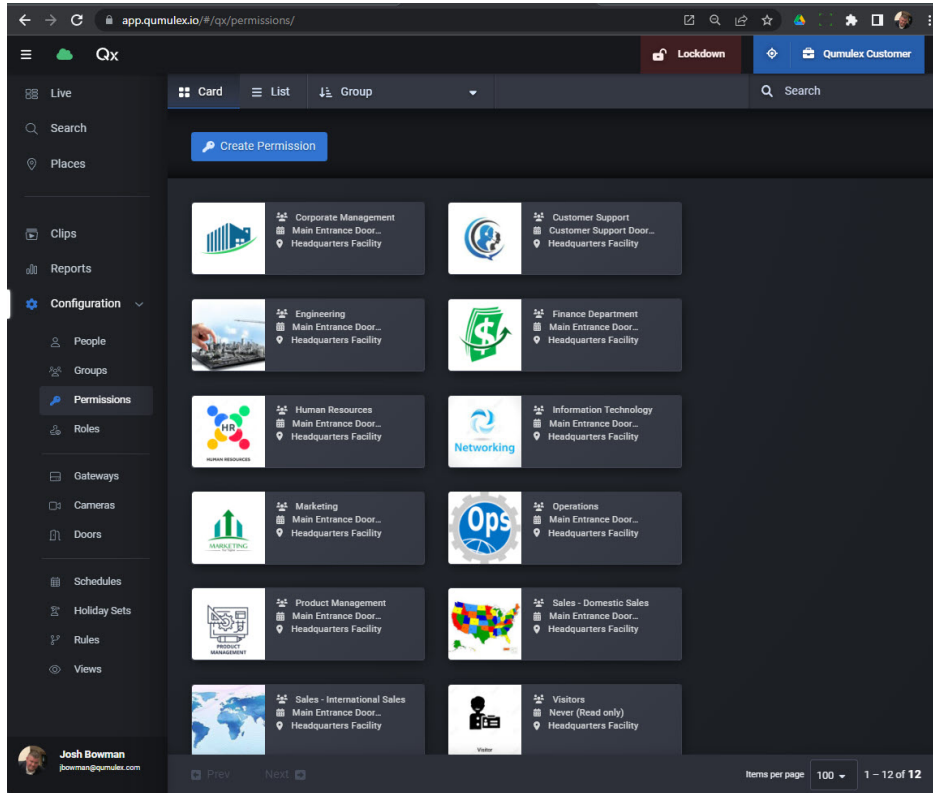
- The Group Name
- The Place for the Group (Assign Scope)
- Add People to the Group
- Add the Thumbnail Image

Once completed, choose “Create Group” to complete the process and save the Group.

## Permissions

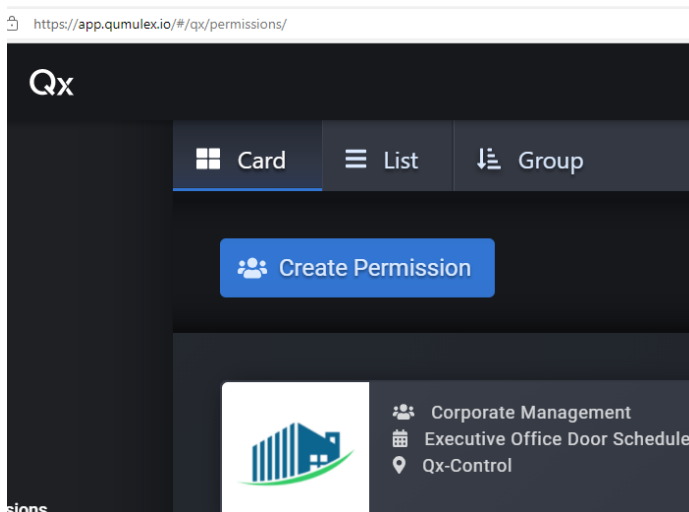
A permission has three parts and is how you grant a group of people access to a place on a schedule (Group – Place – Schedule).

For example, employees (group) have 7am to 6pm access (schedule) to the shipping area (place).



Permissions Page

To add a new permission, choose “Create Permission”.

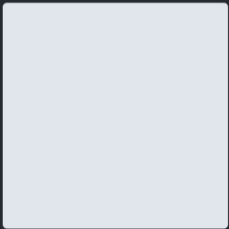


https://app.qumulex.io/#/qx/permissions/create

Qx

## Create Permission

Thumbnail



Select Remove

800 x 800 Photo Recommended

Group \*

Place \*

Schedule \*

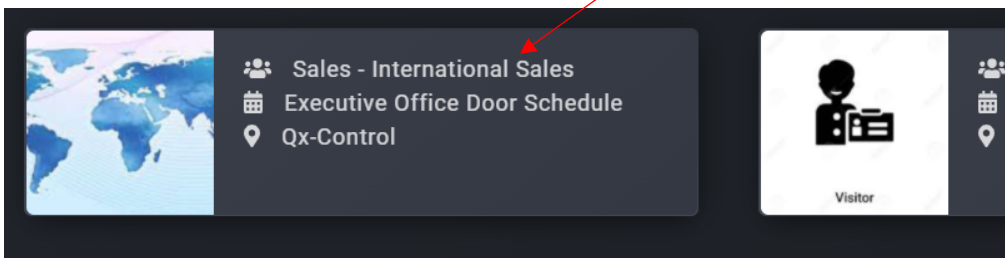
✓ Create Permission Cancel

To create a Permission, you will need to enter the following information:

- Choose a Group from the List
- Choose a Place (Assign Scope)
- Choose a Schedule
- Add a Thumbnail Image

Once completed, choose “Create Permission” to complete the process and save the Permission.

Once saved you will see the Permission is automatically labeled based upon the three required components. (Group, Schedule and Place/Scope)



Once a Permission is created, the Permission info page will show:

- The assigned Schedule
- A list of People who belong to Groups assigned this Permission

You can click “View” on any of the People and will be routed to their Info page.

https://app.qumulex.io/#/qx/permissions/0IN1eNp0006/

Qx

Info

Edit Permission

SCHEDULE

Qx Lab - Executive Office Door Schedule

12am1am2am3am4am5am6am7am8am9am10am11am12pm1pm2pm3pm4pm5pm6pm7pm8pm9pm10pm11pm

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

PEOPLE

Search People

	Role	Name	Employee ID	Department	
	Live	Brinley, Helena	0824	International Sales	<button>View</button>
	Live	Janson, Cason	2266	International Sales	<button>View</button>
	Live	Kuznetsov, Eleonora	3367	International Sales	<button>View</button>
	Live and Search	Richardson, Bryant	1235	International Sales	<button>View</button>

4 Results

Page 1 of 1

Prev

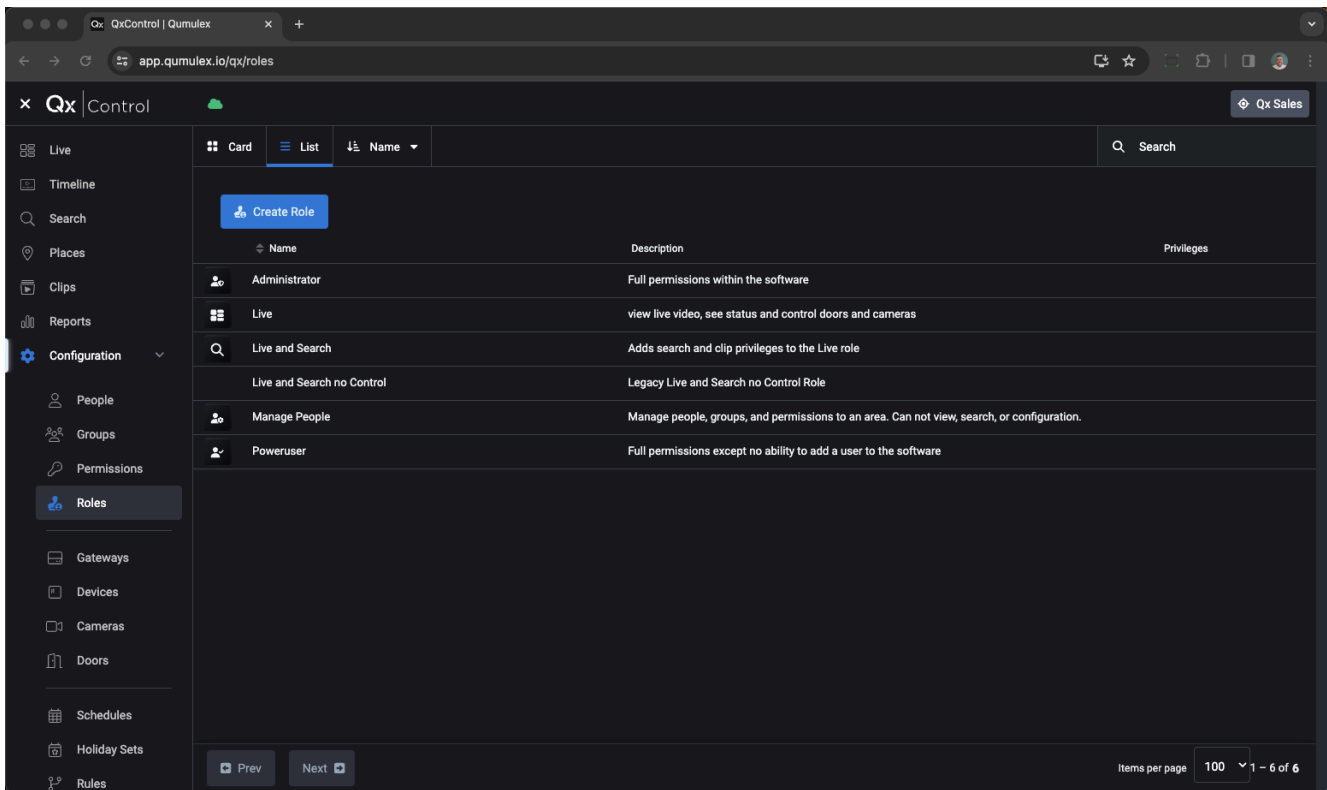
Next

You can choose “Edit Permission” to edit any of these details.

171 | www.qumulex.com

## Roles

Roles define what privileges are assigned to an individual user in QxControl. You can either use one of the pre-defined roles provided in QxControl, or you can create a custom role.



Roles page

QxControl Pre-defined Role Privileges:

- **Administrator** – Full permissions within the software
- **Live** – View live video, see status, and control doors and cameras.
- **Live and Search** – View live video, see status, and control doors and cameras, search and clips.
- **Live and Search no Control**- View live video, see status, search and clips.
- **Manage People** – Manage people, groups and permissions to an area. No view, search or config.
- **Poweruser** – Full permissions but no ability to add a user.

Roles are assigned in the People page, by editing a specific user. From the Role field, choose a role from the drop-down menu.

**Create Person**

Picture: [Placeholder] Select Remove 600 x 600 Photo Recommended

Place: [Dropdown]

Salutation: [Dropdown] First Name: [Text] Last Name: [Text] Suffix: [Text]

Email: [Text] Phone: [Text] Employee ID: [Text] Title: [Text]

Department: [Text] Certification: [Text] License Plate: [Text]

Role: [Dropdown: None] User has no privileges.

Groups: [Add Groups] MEMBER OF: [Search Members] No options selected.

Credential: [Site Code: [Text]] [Card Number: [Text]] [PIN: [Text]] [Enabled: On] [Add Credential]

Activation Date: [2021-06-08] Activation Time: [4:45 AM] Expiration Date: [2061-06-08] Expiration Time: [4:45 PM]

[Create Person] [Cancel]

You can also click on any of the Roles to see a description of the Privileges for the Role, and what People are assigned to the Role. You can also click on a user to see their Info page.

**Qumulex Control**

Live, Timeline, Search, Places, Clips, Reports, Configuration, People, Groups, Permissions, Roles, Gateways, Devices, Cameras, Doors, Schedules

**Info**

- People: User Creation, Config, View
- Places: Config
- Reporting: Access Reports, Audit
- Roles: Config
- Rules: Config, View
- Schedules: Config
- Views: Config

**People with this Role**

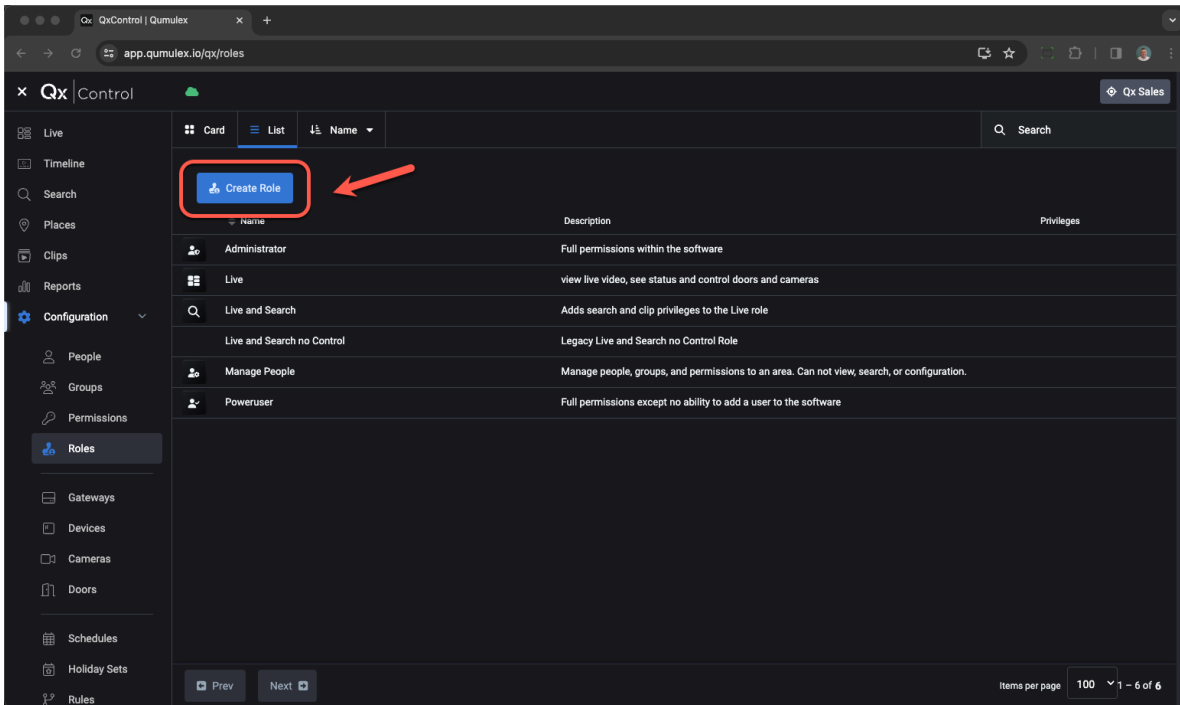
Search People

Name	Place	Employee ID	Department
A, Bill	Qumulex Integrator		
A, Caleb	Qumulex Integrator		
A, Jessica	Qumulex Integrator		
A, Jim	Qumulex Integrator		
A, Tom	Qumulex Integrator		
Access Control, Qx Demo	Qx Sales		

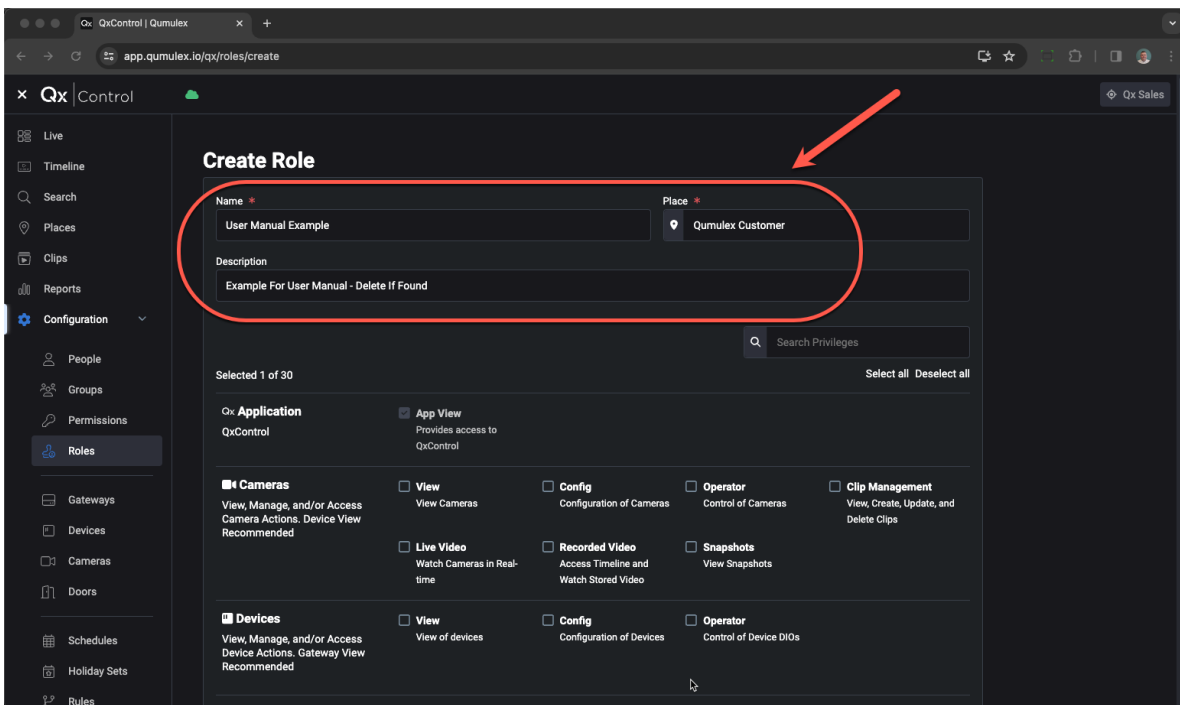


## Creating Custom Roles

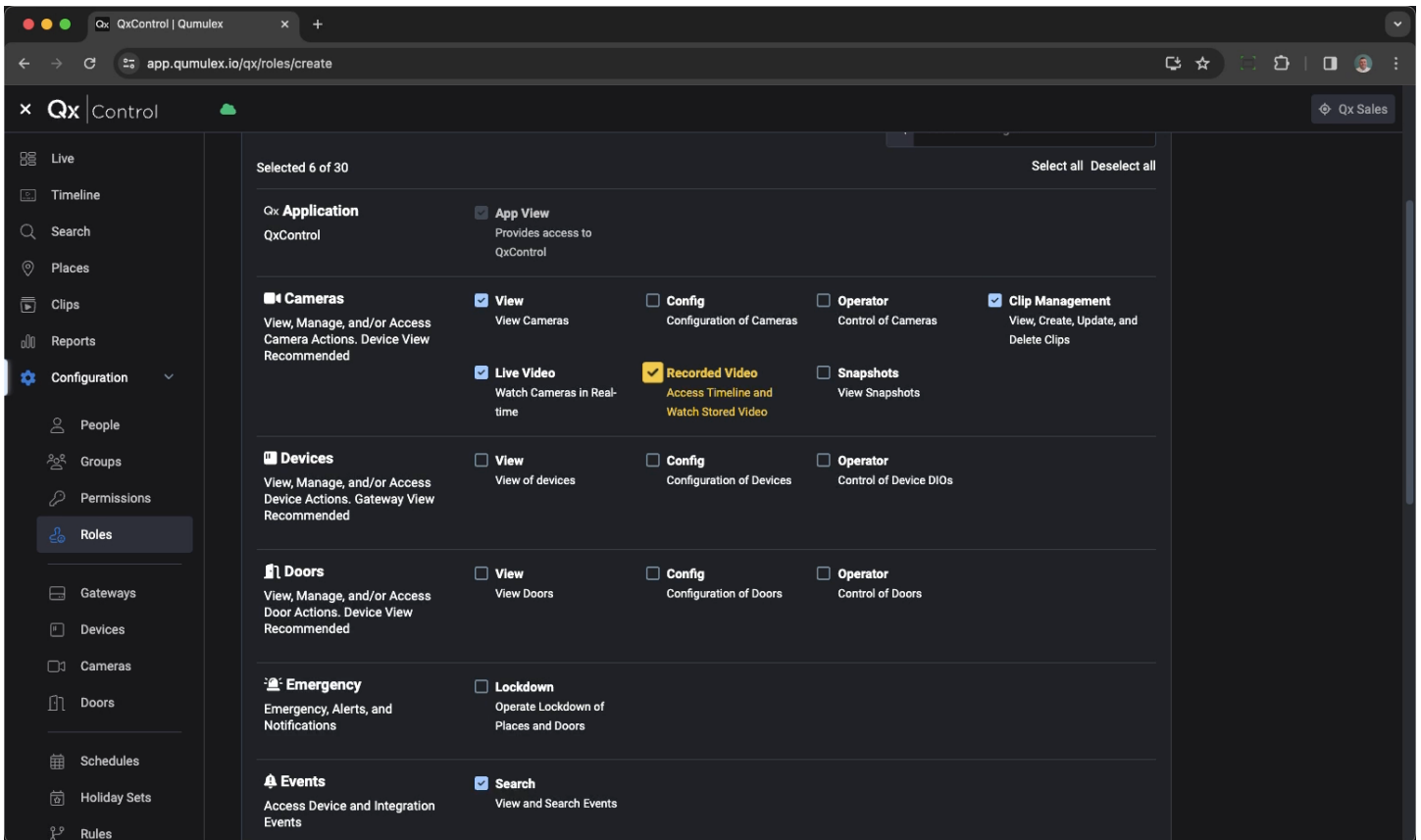
To begin creating a custom Role, choose “Create Role”:



First, you need to provide a name and description to help users understand what this role can do. You must also provide a Scope for where this custom Role can be used.

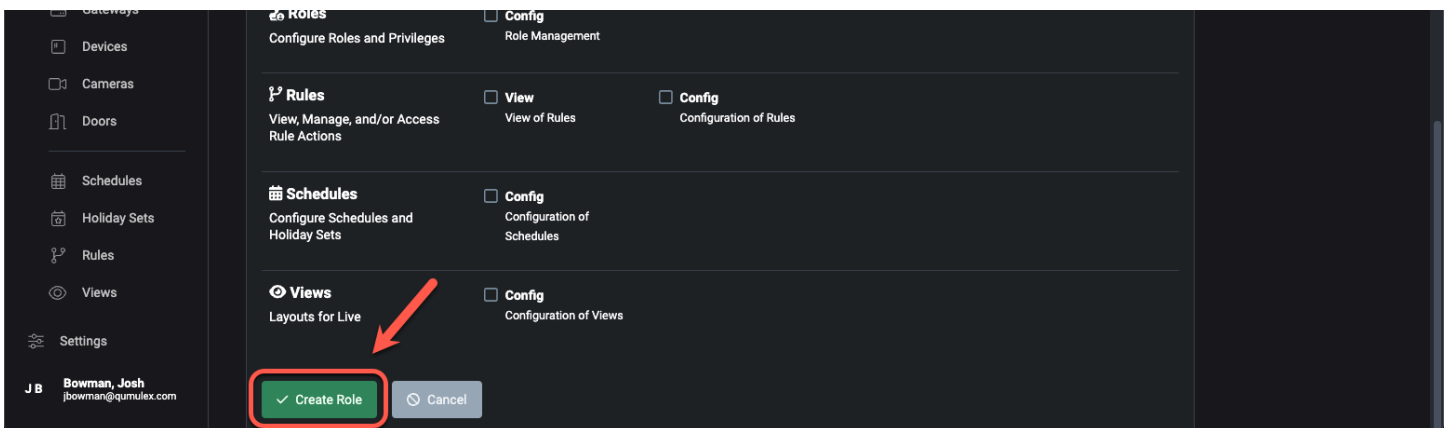


Next, you can begin to choose what Privileges that this custom Role will have. The term “Privileges” is like saying “what this Role is allowed to do”. Privileges are grouped for easy identification, but each desired Privilege must be chosen if desired. Complete this next step by choosing each individual Privilege that is desired:

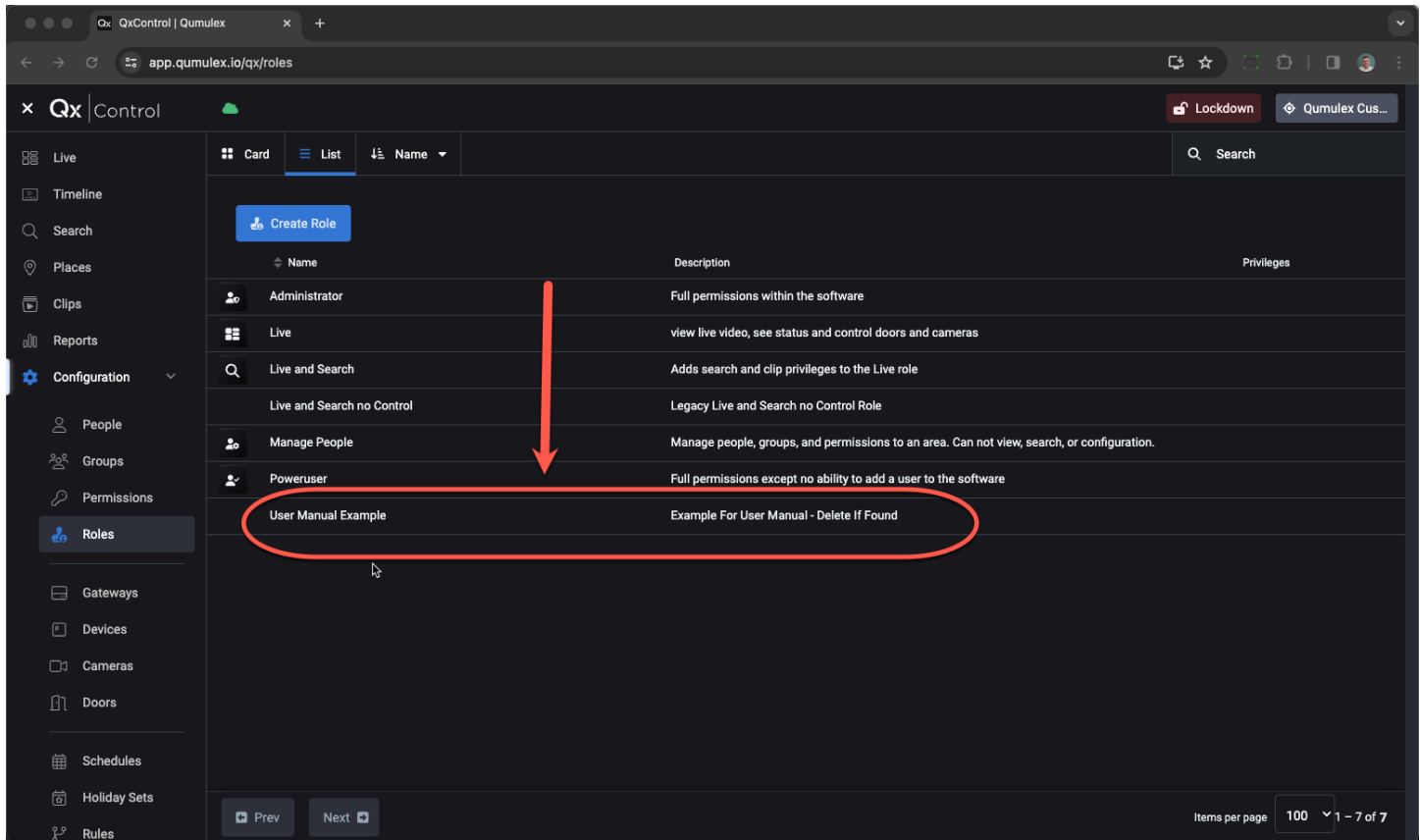


Note: If you select a Privilege that is dependent on another privilege, such as “clip management” in this case, the required privilege will change color and then also be selected, as “recorded video” in this example above.

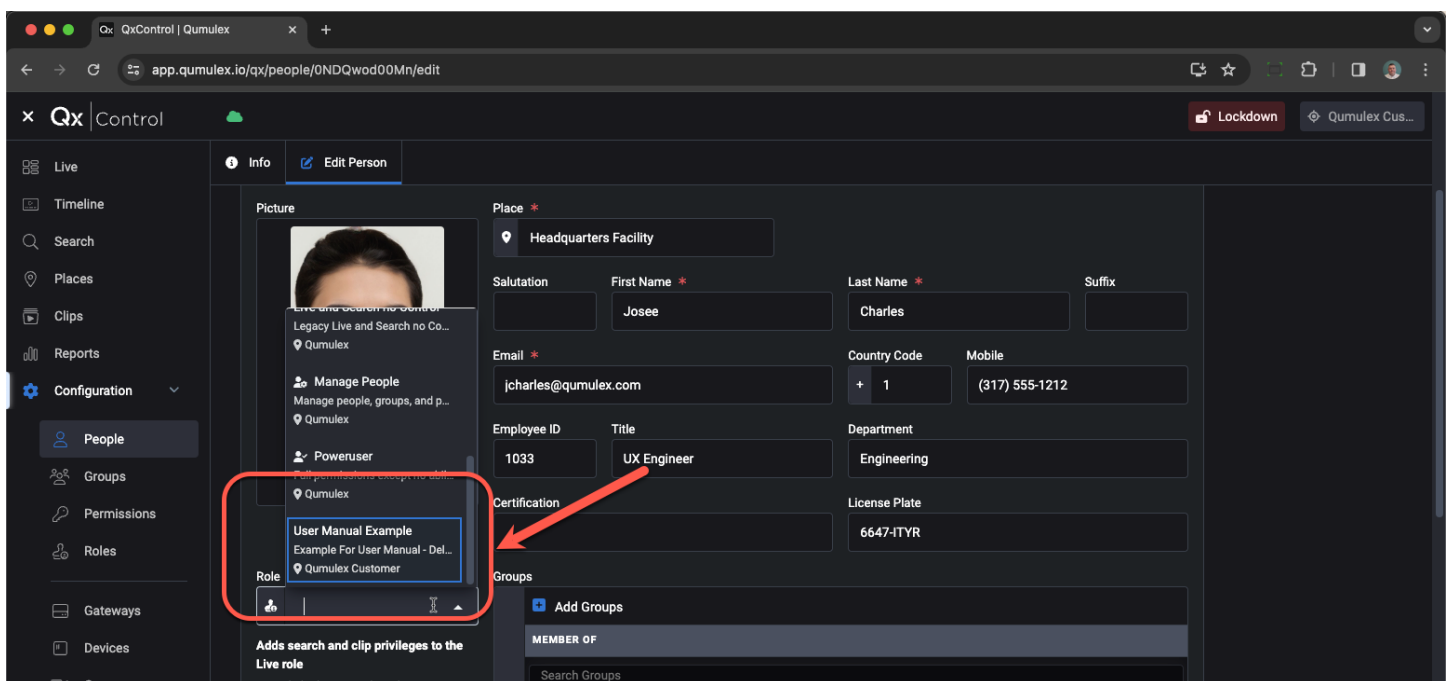
This is done to prevent accidental omissions resulting in lack of functionality for a user who is assigned this role. Once you are satisfied with your selections, choose “Create Role” at the bottom of the page:



Now you will see a profile for this Role in the Roles Page:

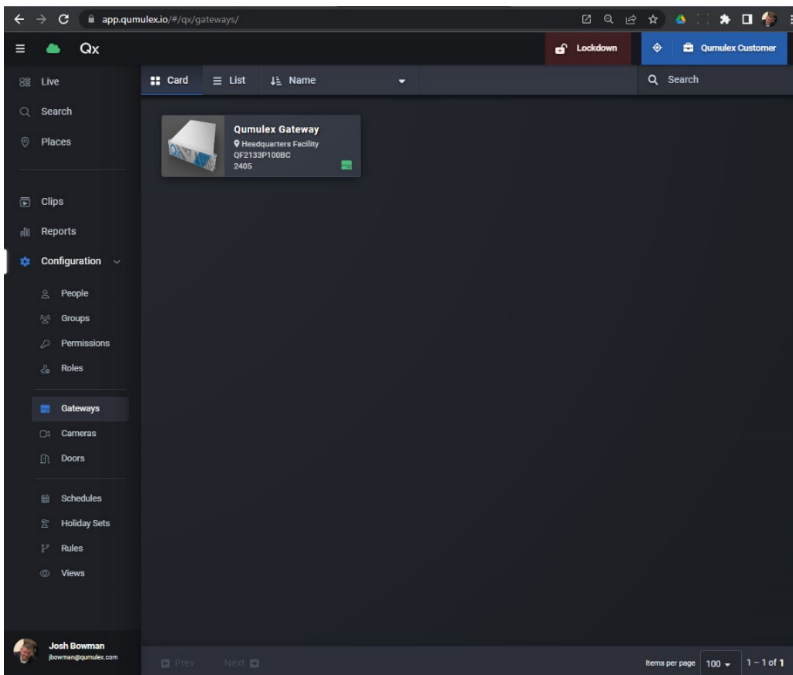


Now you can create or edit a Person, and assign your new Role:



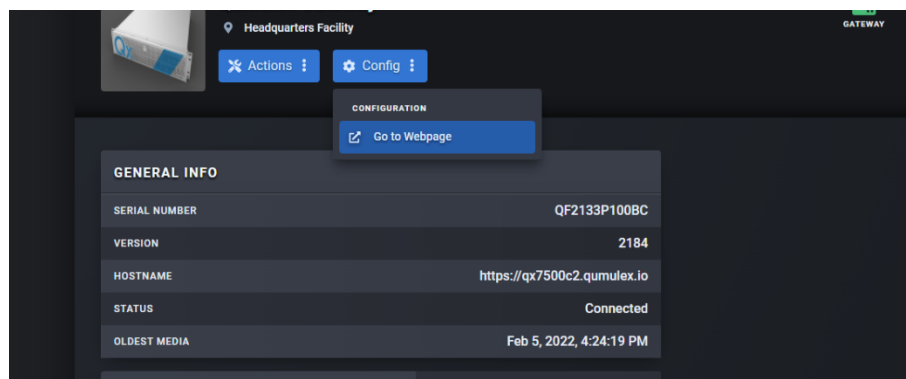
## Gateways

Gateways are especially important in the QxControl architecture and can be managed by using the Gateways page.



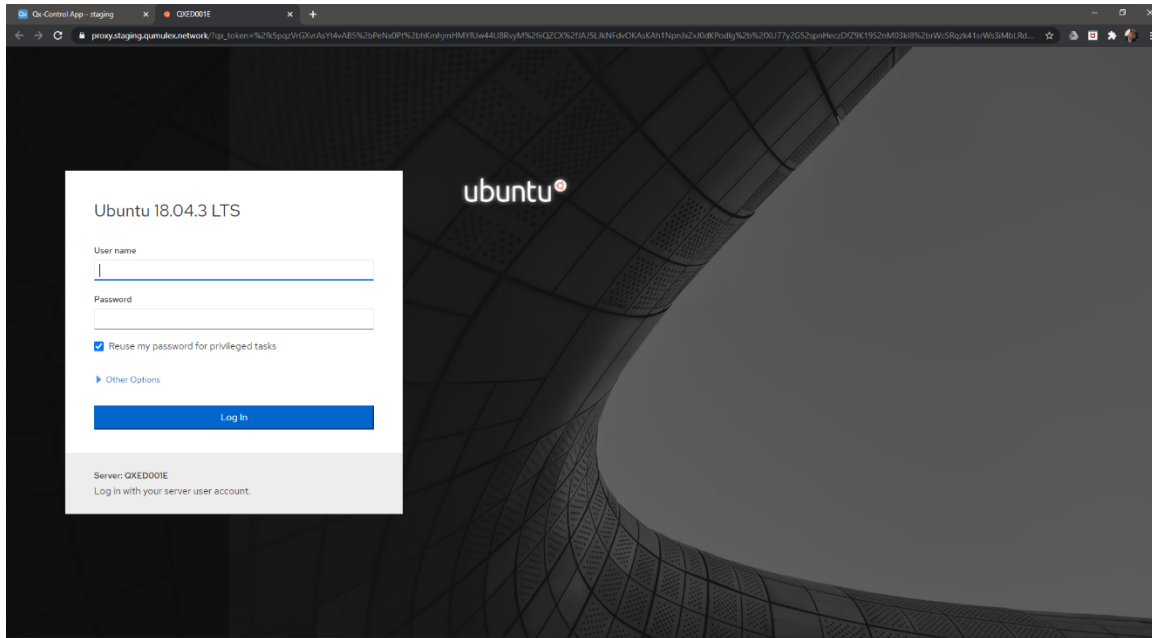
Gateways page (Card View)

Clicking on a Gateway will reveal the Gateway's Info page. At the top of this page, you can choose "Config" to access the Cockpit interface.



Cockpit is used to manage the Linux Ubuntu operating system and is available locally or remotely (with Cloud Subscription) to System Administrators who need to perform maintenance actions for the Gateway itself. This access is easily gained by choosing the "Go To Webpage" option in the "Configuration" menu.

This will then present the Ubuntu interface in a new browser tab. The OS password is unique to each gateway and was provided on the documentation that accompanied the gateway.



The Gateway Info page also offers other information, such as Gateway specific details like Serial Number and Status, as well as a list of Cameras and Doors that are installed on the Gateway. You can also view recent connection statuses, storage utilization and even your VPN IP Address.

**Qumulex Gateway**  
Headquarters Facility

**GENERAL INFO**

SERIAL NUMBER	QF2133P100BC
MODEL	QXS300-04
VERSION	3676
HOSTNAME	<a href="https://qx7500c2.qumulex.io">https://qx7500c2.qumulex.io</a>
STATUS	Connected
UPLOAD DEPTH	0
OLDEST MEDIA	Feb 26, 2023, 7:58:08 AM

**STREAM STORAGE STATS** (Amount of Temporary Video)

Total	Available	Used	Percent Used
1 GiB	980 MiB	44 MiB	4.3%

**DISK STORAGE STATS** (Amount of Video Storage)

Path	Total	Available	Used	Percent Used
/media/hd0	47.1 GB	46.7 GB	362.2 MB	0.8%
/media/hd1	4 TB	399.9 GB	3.6 TB	90%

**QUMULEX**

Wireguard IP: 10.117.0.194


**Connections**  
Last ran: 07:48:35 PM

- Mar 18, 2023, 10:13:47 AM
- Mar 18, 2023, 10:13:30 AM
- Mar 11, 2023, 1:46:46 PM
- Mar 11, 2023, 1:46:16 PM
- Mar 11, 2023, 1:42:01 PM
- Mar 11, 2023, 1:41:45 PM
- Mar 9, 2023, 1:56:03 PM

The Gateway System tab contains information about the software and build versions. This is especially useful for troubleshooting and also prevents you from having to use Go To Webpage to access this information.

**Qx**

Qumulex Customer

 Josh Bowman

Info

System

Discover Devices

Edit Gateway

**AGENT**

Mar 5, 2022, 3:02 PM BOOT TIME		Mar 17, 2022, 6:26 PM TIME
production PROD LEVEL	2184 BUILD ID	develop.2184 VERSION

**MINION**

BOOT TIME		TIME
production PROD LEVEL	775 BUILD ID	develop.775 VERSION

**DISCOVERY**

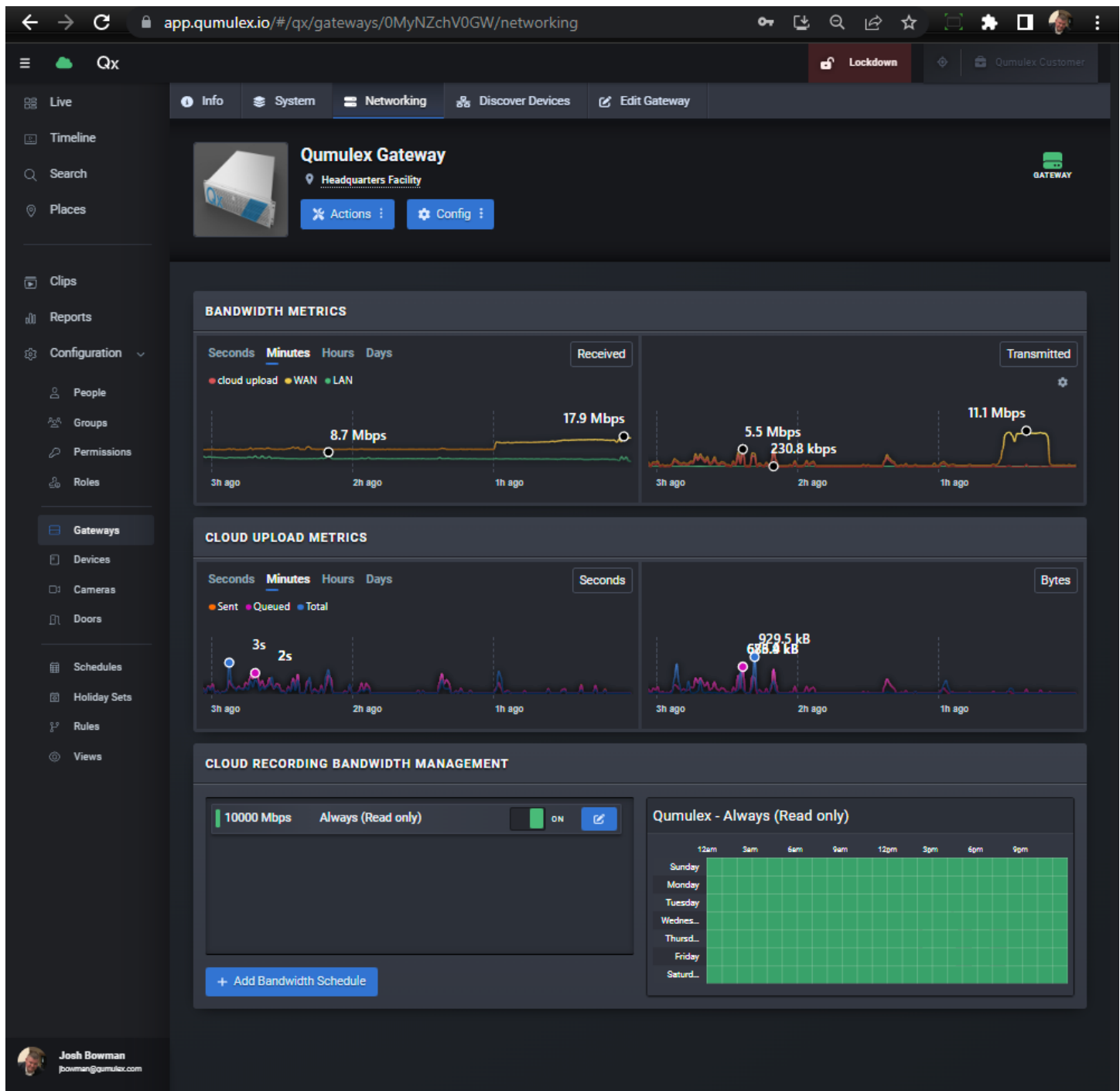
BOOT TIME		TIME
production PROD LEVEL	88 BUILD ID	develop.88 VERSION

**QXDC**

BOOT TIME		TIME
production PROD LEVEL	268 BUILD ID	develop.268 VERSION

## Gateways: Networking Tab & Scheduling Bandwidth Throttling

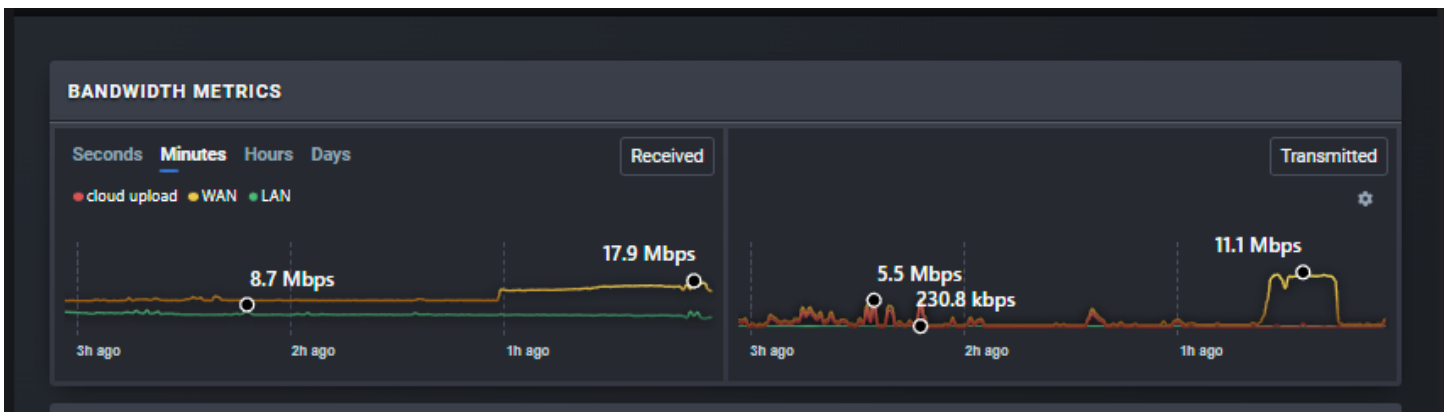
The Gateway Networking tab provides feedback on bandwidth usage (similar to the Widgets used in Live) and also offers the ability to manage the amount of bandwidth that can be used for Cloud uploading, and when, based on a schedule. This is one of the most valuable pages in the QxControl application.





## Bandwidth Metrics

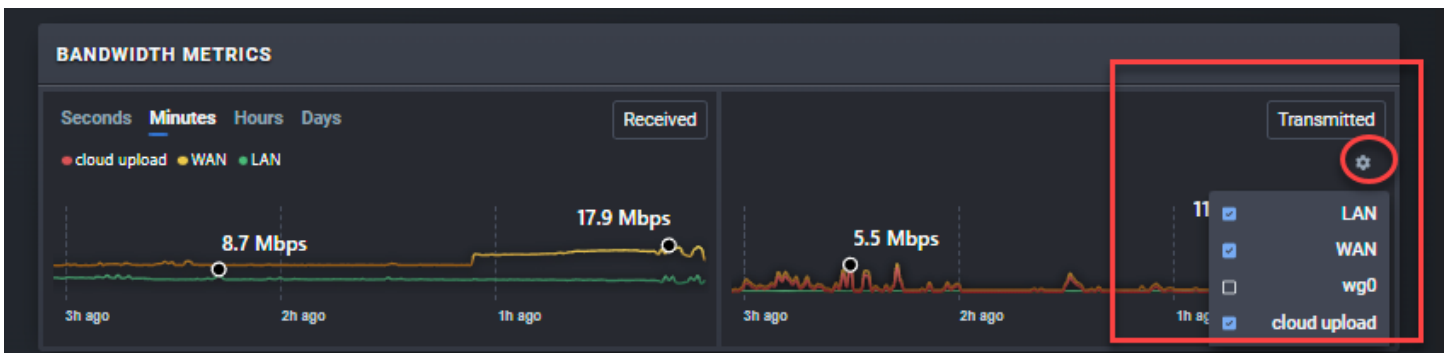
The Bandwidth Metrics charts allow you to monitor the network traffic from your WAN and LAN ports and can also be used to monitor the VPN (wg0) and Cloud Upload Traffic.



You can choose to evaluate these metrics against Seconds, Minutes, Hours and Days. You can make this selection by clicking on the desired time metric at the top of the graph.

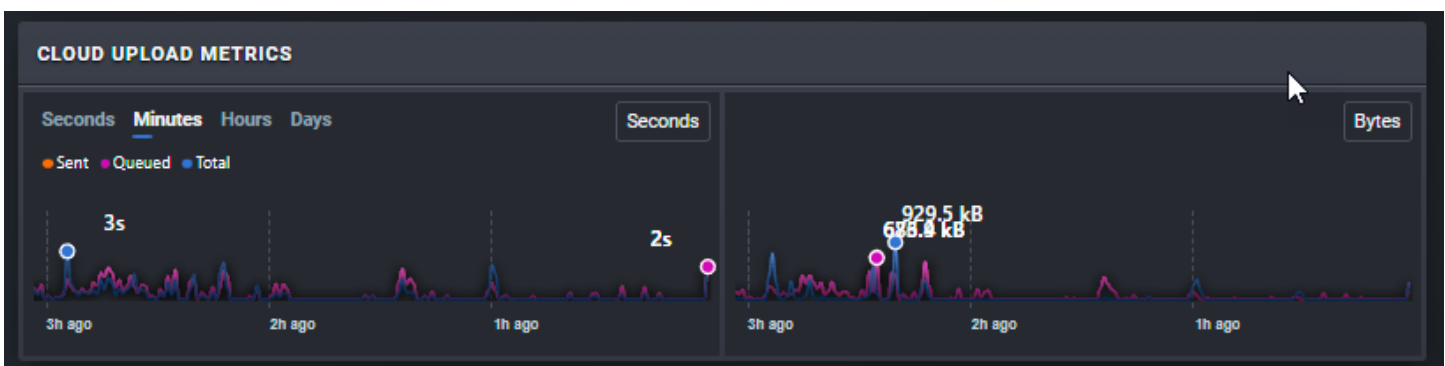
By choosing the gear icon you can choose what Network Traffic is monitored. You can choose between LAN, WAN, wg0 (VPN) and Cloud Upload.

You can choose to monitor one, or all these options at once.

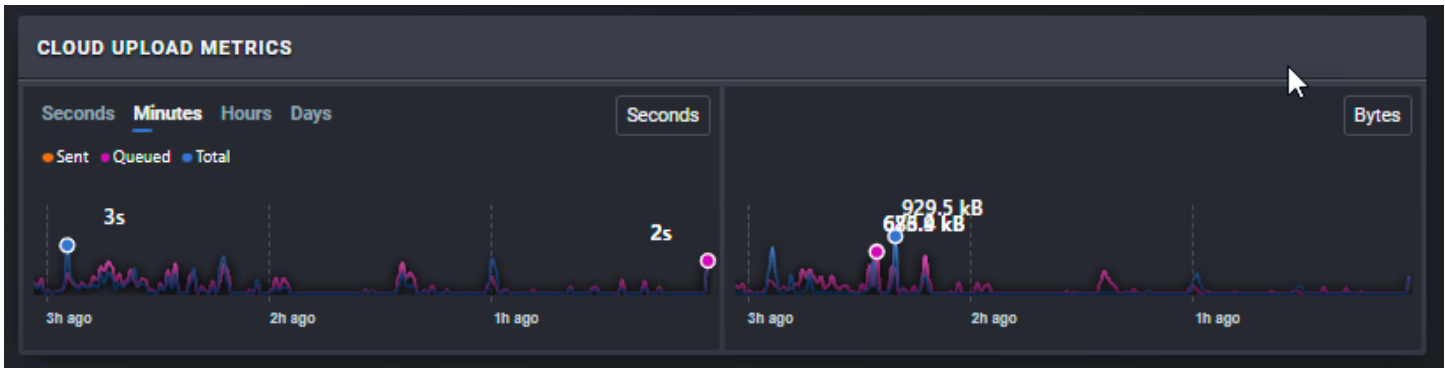


## Cloud Upload Metrics

The next available graph is cloud upload metrics. This is useful to see how much traffic is being queued.



This is helpful to determine how much data is being queued/buffered and scheduled to upload to the cloud.



You can change the time metric by selecting Seconds, Minutes, Hours, or Days from the top of the Graph.

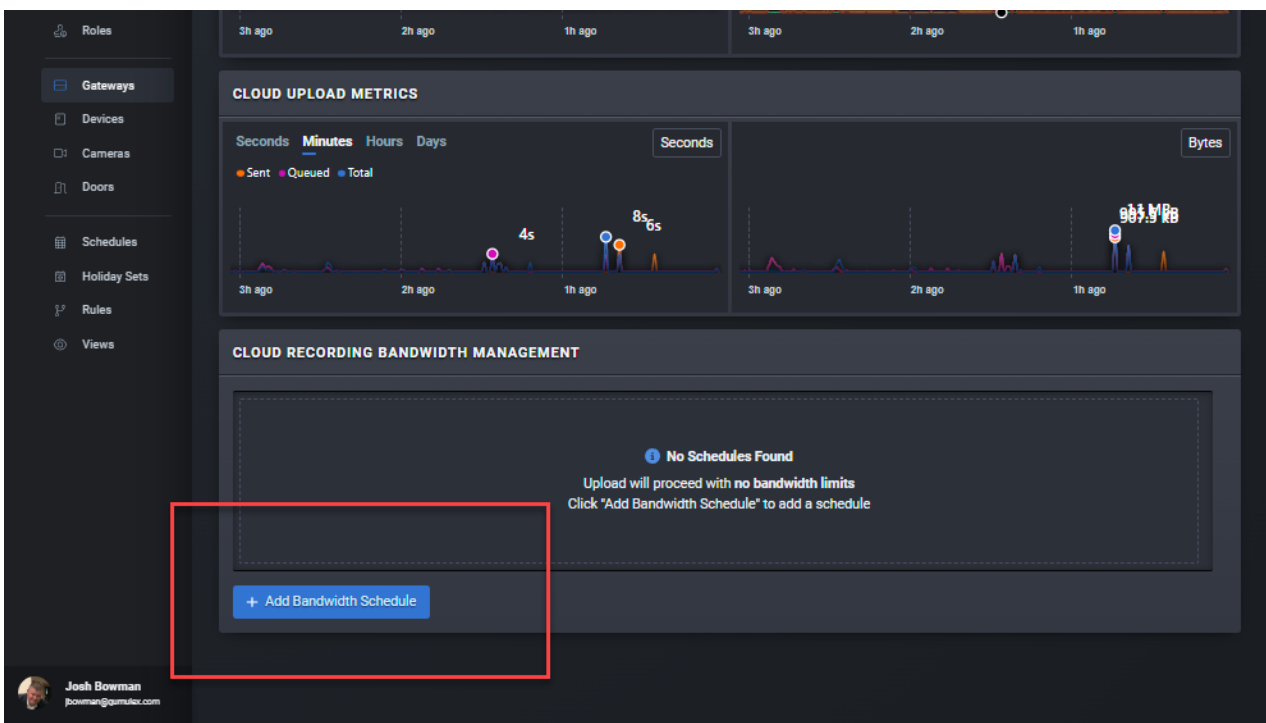
### Scheduling Bandwidth Throttling

One of the most important aspects of the Networking tab is the ability to control how much bandwidth is available for cloud uploads and to base these constraints on a schedule.

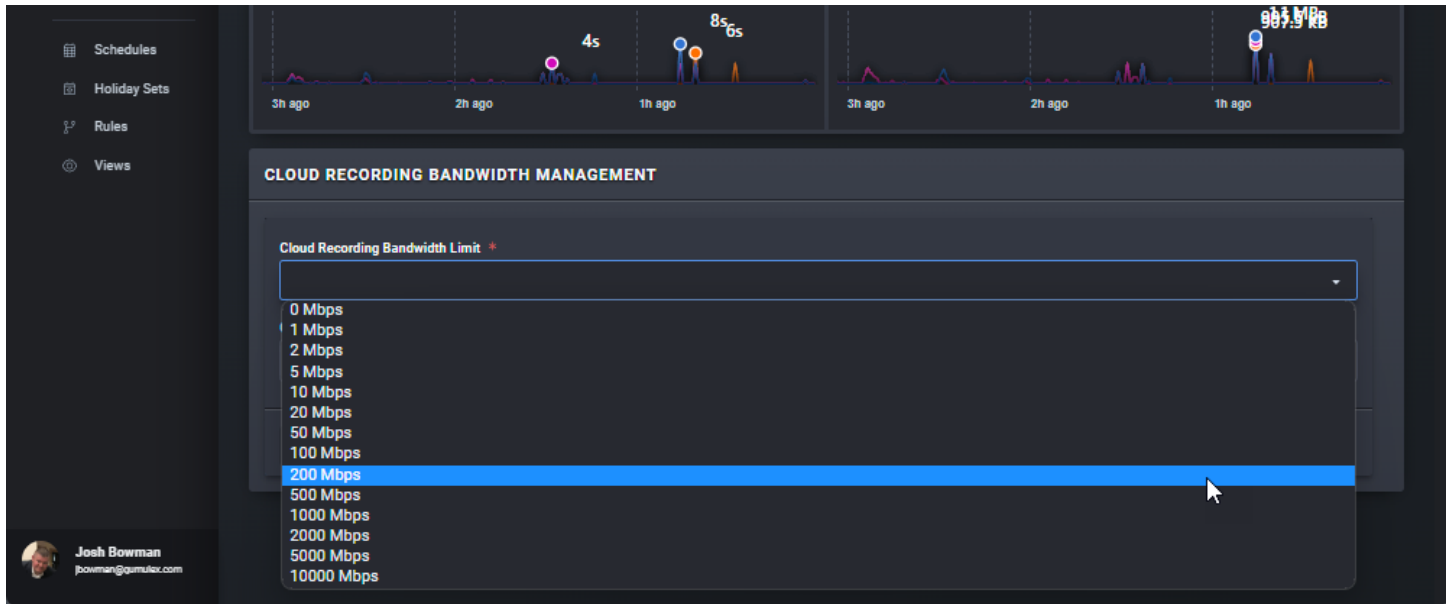
If no Bandwidth Schedule is assigned, QxControl will send all Gateway data required to the cloud in real time. If there is not enough bandwidth available, the Queuing system will stage it to synchronize as bandwidth is available.

What if, however, we share the available bandwidth with other systems? What if we want to control how much ISP bandwidth QxControl consumes so that other systems are not disrupted?

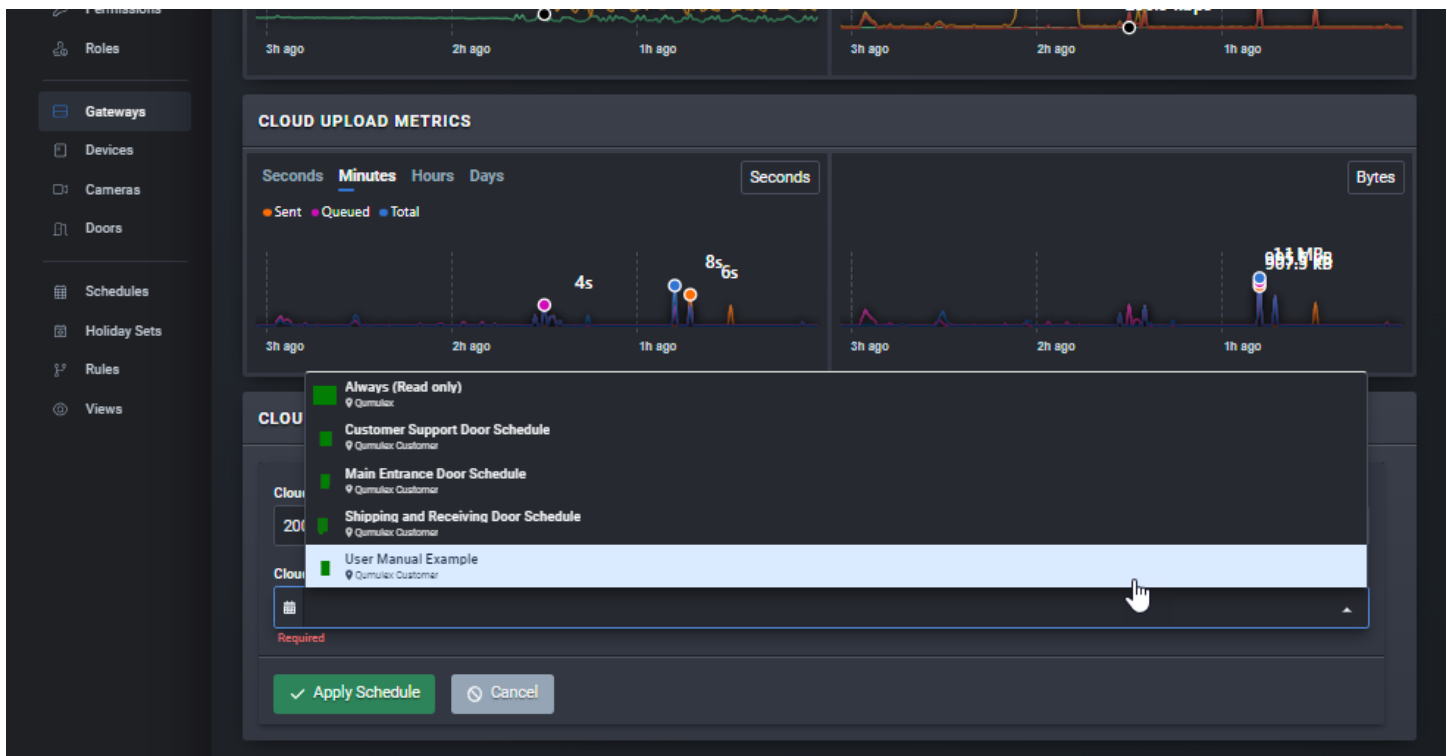
The answer to this question is that we create a Bandwidth Schedule. This process is extremely easy and uses any available schedule. To begin creating our Bandwidth Schedule, choose “Add Bandwidth Schedule” at the bottom of the Networking Page:



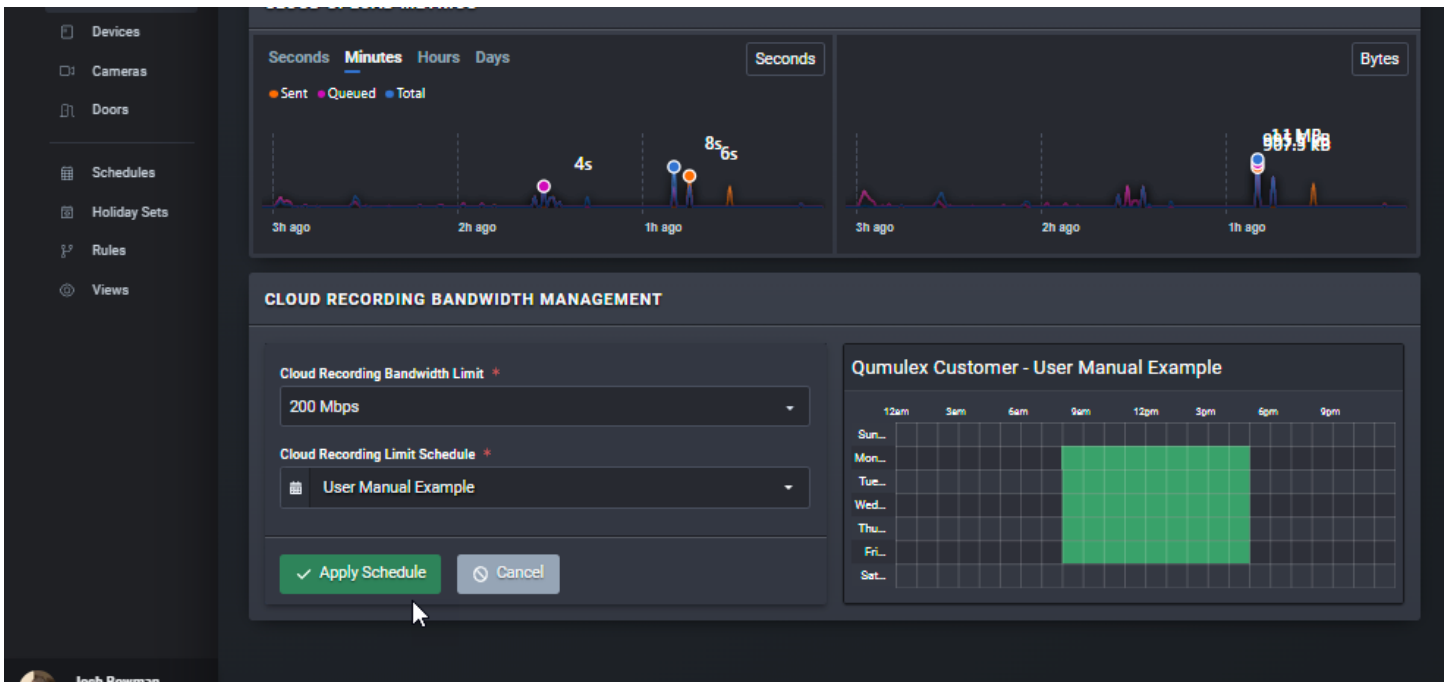
The next step is to choose the desired bandwidth limitation:



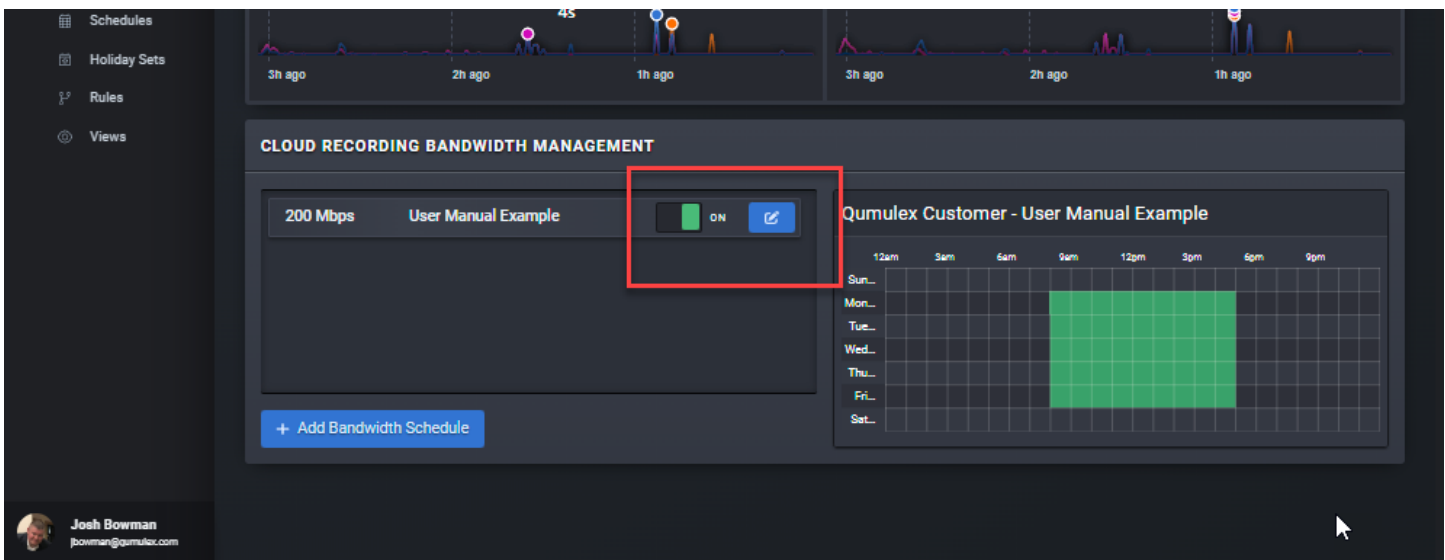
Next, Choose a Schedule from the drop-down menu. You can use any available schedule, or you can go to the Schedules Page and create a schedule just for this purpose.



Now that we have selected our desired limit and a schedule, you will see the hours where the throttling will be active displayed in the right-side display area. If you are pleased with the selections, choose “Apply Schedule” to save it.

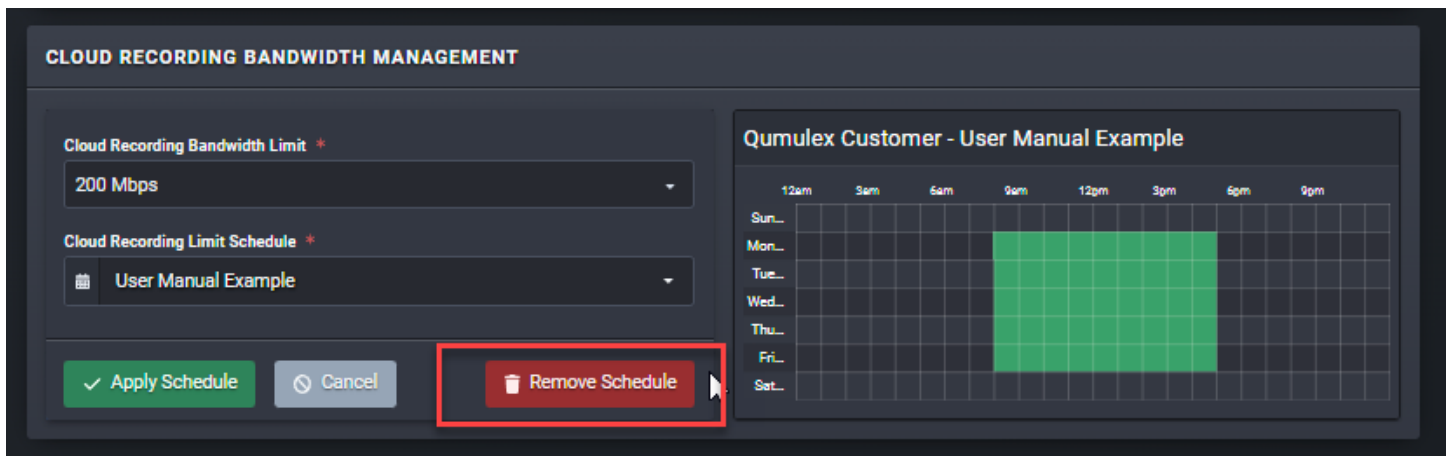


Once you saved the schedule, you will see two options in the Saved Schedule:  
First you will see that you can toggle the Schedule On/Off :



Next you will see the option to edit the schedule.

After choosing the blue edit button, you will be able to choose a new schedule or bandwidth limit as needed. You also have the option to “Remove Schedule” if it is no longer needed.



Lastly, it should be noted that you can add multiple schedules and either toggle them on/off or choose varying schedules that apply at different times. This helps for more complex scenarios where you may have varying needs at different times.

However, be very careful to ensure that the schedules do not overlap in a way that interferes with the intended result.

In most cases, you are best served to keep it simple and use as few schedules as possible.

## Gateway Edit Page

The Gateway Edit page allows you to:

- Rename the Gateway
- Choose the Place of the Gateway (Assign Scope)
- Edit the thumbnail image that used for the Gateway

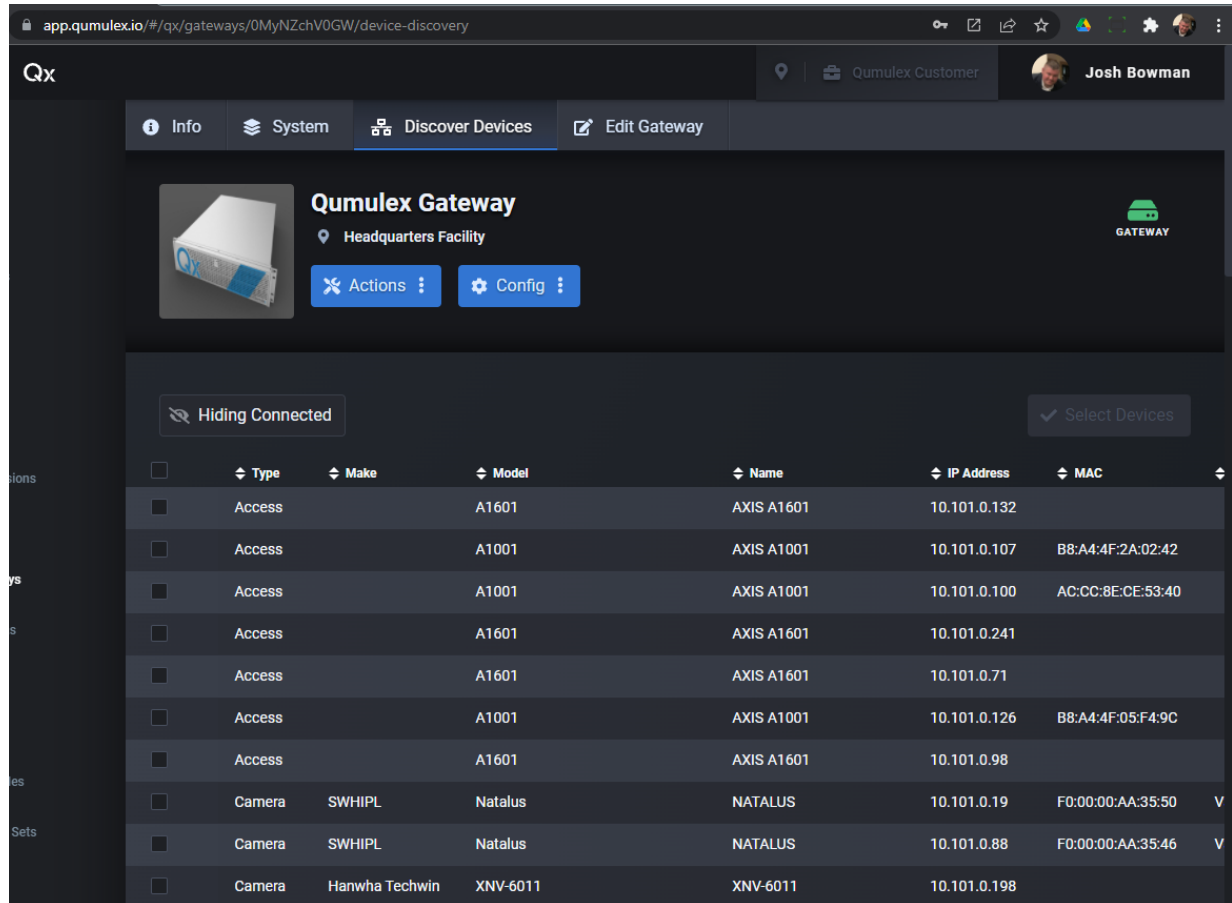
If you edit any settings on the Edit Gateway tab, choose “Save Gateway” to apply the changes.

The screenshot shows the 'Edit Gateway' page in the Qumulex web application. The browser address bar shows 'app.qumulex.io/#/qx/gateways/0MyNZchV0GW/edit'. The page has a dark theme with a top navigation bar containing 'Info', 'System', 'Discover Devices', and 'Edit Gateway' (which is active). The user 'Josh Bowman' is logged in. The main content area is titled 'Qumulex Gateway' and shows the current gateway name 'Qumulex Gateway' and its location 'Headquarters Facility'. Below this, there is a 'Thumbnail' section with a placeholder image and buttons for 'Select' and 'Remove'. A note indicates '800 x 800 Photo Recommended'. At the bottom, there are two buttons: 'Save Gateway' (green) and 'Cancel' (grey).

## Gateways: Discover Devices

An extremely useful, and time saving feature is available from the Gateway management tabs. “Discover Devices” allows you to scan and find devices that you want to install in QxControl.

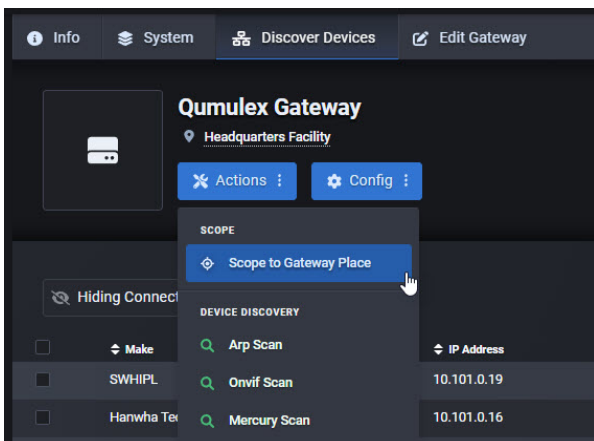
When you first choose the Discover Devices tab, the Gateway will automatically choose an “Onvif” network scan and will present any available devices that have an Onvif profile that is compatible.



The screenshot shows the 'Discover Devices' tab in the Qumulex Gateway management interface. The interface includes a header with navigation tabs (Info, System, Discover Devices, Edit Gateway) and a user profile for Josh Bowman. Below the header, there's a section for the 'Qumulex Gateway' at 'Headquarters Facility' with 'Actions' and 'Config' buttons. A 'Hiding Connected' toggle is visible. The main area displays a table of discovered devices with columns for checkboxes, Type, Make, Model, Name, IP Address, and MAC. The table lists several Axis A1601 and A1001 access points, and three cameras (Natalus and Hanwha Techwin). A 'Select Devices' button is in the top right of the table area.

	Type	Make	Model	Name	IP Address	MAC
<input type="checkbox"/>	Access		A1601	AXIS A1601	10.101.0.132	
<input type="checkbox"/>	Access		A1001	AXIS A1001	10.101.0.107	B8:A4:4F:2A:02:42
<input type="checkbox"/>	Access		A1001	AXIS A1001	10.101.0.100	AC:CC:8E:CE:53:40
<input type="checkbox"/>	Access		A1601	AXIS A1601	10.101.0.241	
<input type="checkbox"/>	Access		A1601	AXIS A1601	10.101.0.71	
<input type="checkbox"/>	Access		A1001	AXIS A1001	10.101.0.126	B8:A4:4F:05:F4:9C
<input type="checkbox"/>	Access		A1601	AXIS A1601	10.101.0.98	
<input type="checkbox"/>	Camera	SWHIPL	Natalus	NATALUS	10.101.0.19	F0:00:00:AA:35:50
<input type="checkbox"/>	Camera	SWHIPL	Natalus	NATALUS	10.101.0.88	F0:00:00:AA:35:46
<input type="checkbox"/>	Camera	Hanwha Techwin	XNV-6011	XNV-6011	10.101.0.198	

You can also choose to run the scan again by choosing the “Actions” menu.



This screenshot shows the 'Discover Devices' tab with the 'Actions' menu open. The menu has a 'SCOPE' section with 'Scope to Gateway Place' and a 'DEVICE DISCOVERY' section with 'Arp Scan', 'Onvif Scan', and 'Mercury Scan'. A hand cursor is pointing at the 'Onvif Scan' option. The background shows the same device list as the previous screenshot.

From the Actions menu, you will have four options:

**Scope to Gateway** – This very simply will set your scope to the scope of the Gateway itself. This is an easy way to reduce scope to only the site you are working with, without having to leave the Gateway Info Page.

**Arp Scan** – Scan for all devices on a Network regardless of any available Onvif profile. This is useful if you are not seeing the devices that you intended, or if you are getting incomplete information from the Onvif profile. This will return all visible devices on the network and will require more filtering to sort and find the devices relevant to QxControl.

**Onvif Scan** – This scan will only look for devices that have an Onvif profile. This option is preferable as you will not see devices that are incompatible with QxControl (such as printers and laptops).

**Mercury Scan** – This scan will only look for Mercury Controllers and SIO modules.

Note: The Arp scan is best reserved as a second step when needed after first trying an Onvif scan.

The following Device properties will be shown after a scan:

Type

Make

Model

Name

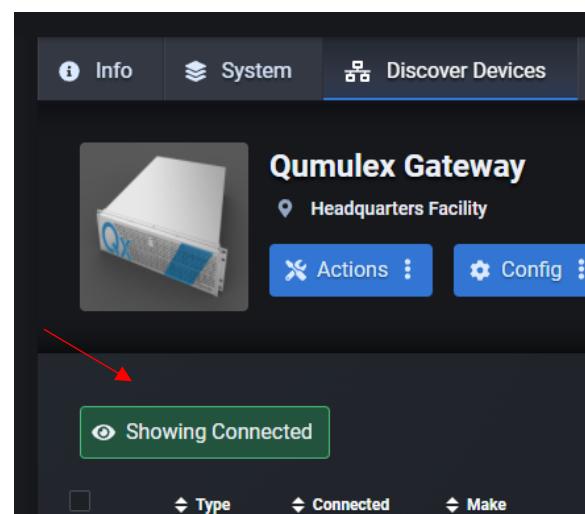
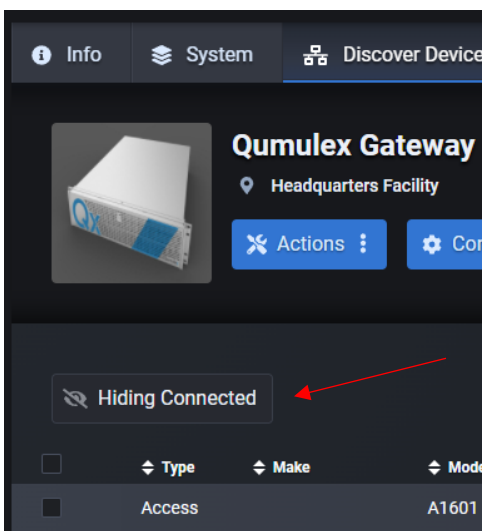
Ip Address

MAC Address

Firmware Version

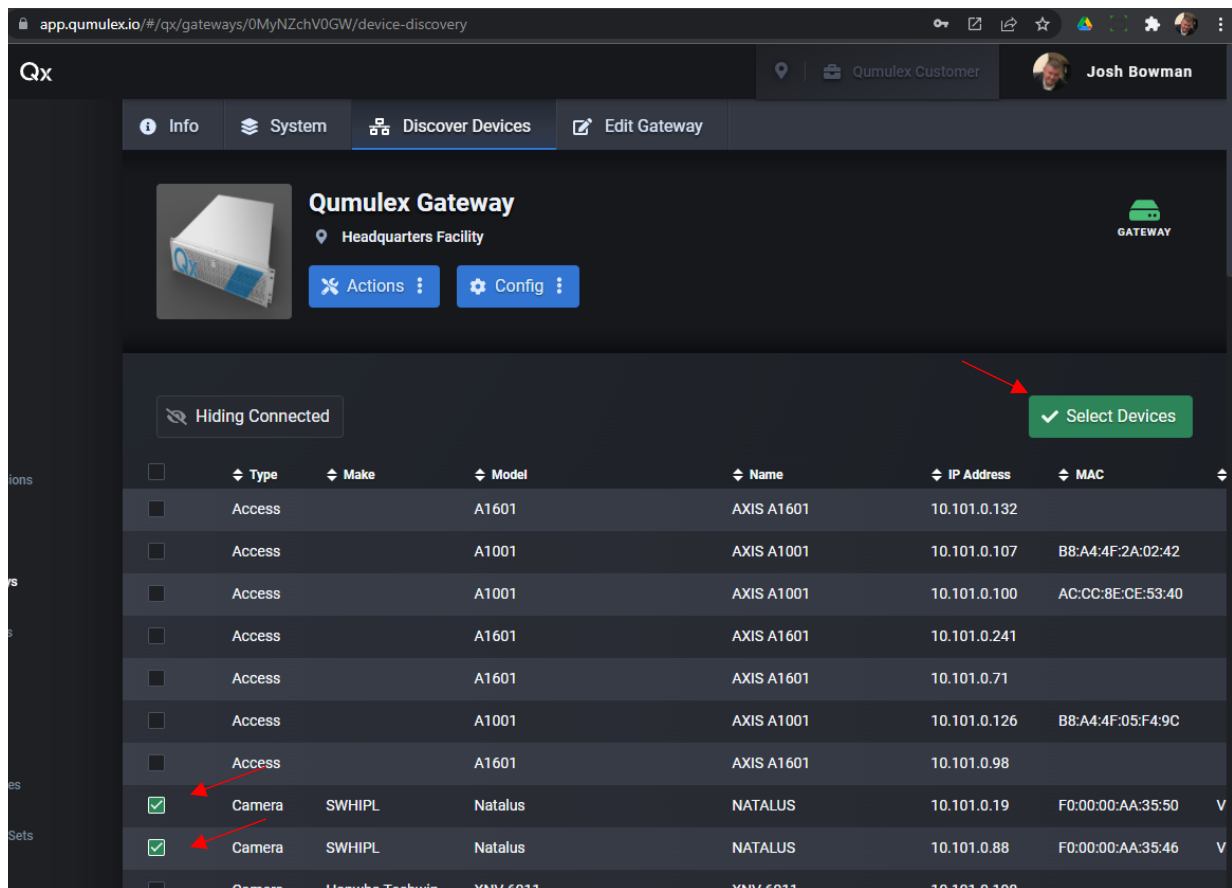
NIC (Indicates if the device was found on the LAN or WAN port of the Gateway)

You can also toggle between showing devices already installed on your QxControl Gateway, or only showing non-installed devices. This is available by choosing the “Hide Connected” or “Hiding Connected” button:





Once you are satisfied with your scan, you can now use Discover Devices to install one or multiple Devices in QxControl. Start by clicking on any Devices that you wish to install (As many as you want) and then choose “Selected Devices” to continue to the next step:



That will bring you to the next page, where you will need to click on each Device you want to add and provide the required details to install in QxControl.

app.qumulex.io/#/qx/gateways/0MyNZchV0GW/device-discovery

Qx | Qumulex Customer | Josh Bowman

Info | System | **Discover Devices** | Edit Gateway

**Qumulex Gateway**  
Headquarters Facility

Actions | Config

Back | Add Devices

	IP Address	Make	MAC	NIC	Status
⊖	10.101.0.19	SWHIPL	F0:00:00:AA:35:50	WAN	Needs Config
⊖	10.101.0.88	SWHIPL	F0:00:00:AA:35:46	WAN	Needs Config
⊖	10.101.0.130	SWHIPL	F0:00:00:9C:7F:FF	WAN	Needs Config
⊖	10.101.0.16	Hanwha Techwin		WAN	Needs Config
⊖	10.101.0.114	Hanwha Techwin		WAN	Needs Config
⊖	10.101.0.195	Hanwha Techwin		WAN	Needs Config

Next, choose the first Device you want to install from the list by clicking on it. Enter the required information then “OK”

app.qumulex.io/#/qx/gateways/0MyNZchV0GW/device-discovery

Qx | Qumulex Customer | Josh Bowman

Info | System | **Discover Devices** | Edit Gateway

**Qumulex Gateway**  
Headquarters Facility

Actions | Config

Back

IP Address	Make
10.101.0.19	SWHIPL
10.101.0.88	SWHIPL
10.101.0.130	SWHIPL
10.101.0.16	Hanwha Techwin
10.101.0.114	Hanwha Techwin
10.101.0.195	Hanwha Techwin

**Configuring Device 1/6**

Type \*  
Camera

Name \*  
NATALUS

Description  
Example Camera

Gateway \*  
Qumulex Gateway

Hostname / IP Address  
10.101.0.19

Port \*  
80

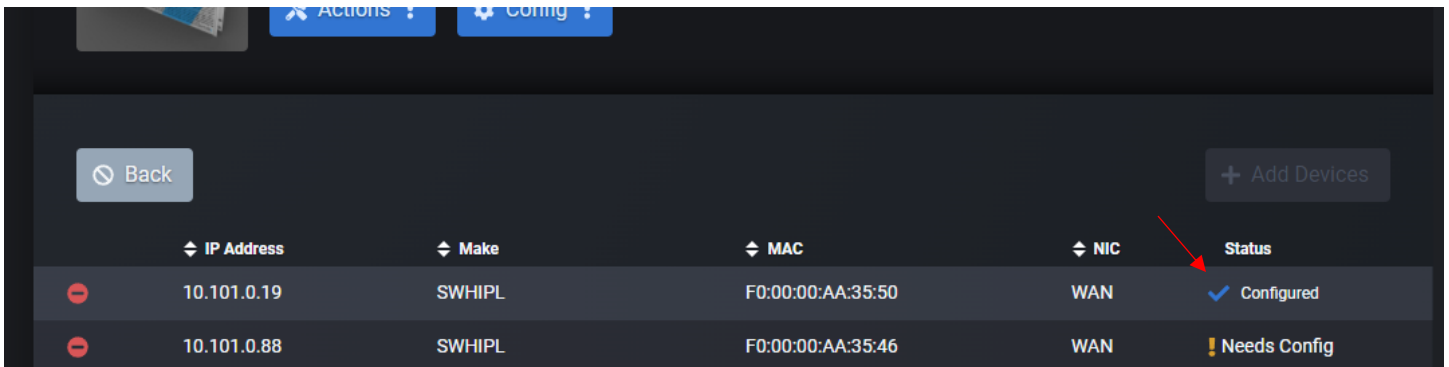
TLS  
Off

Username \*  
jbowman@qumulex.com

Password \*  
.....

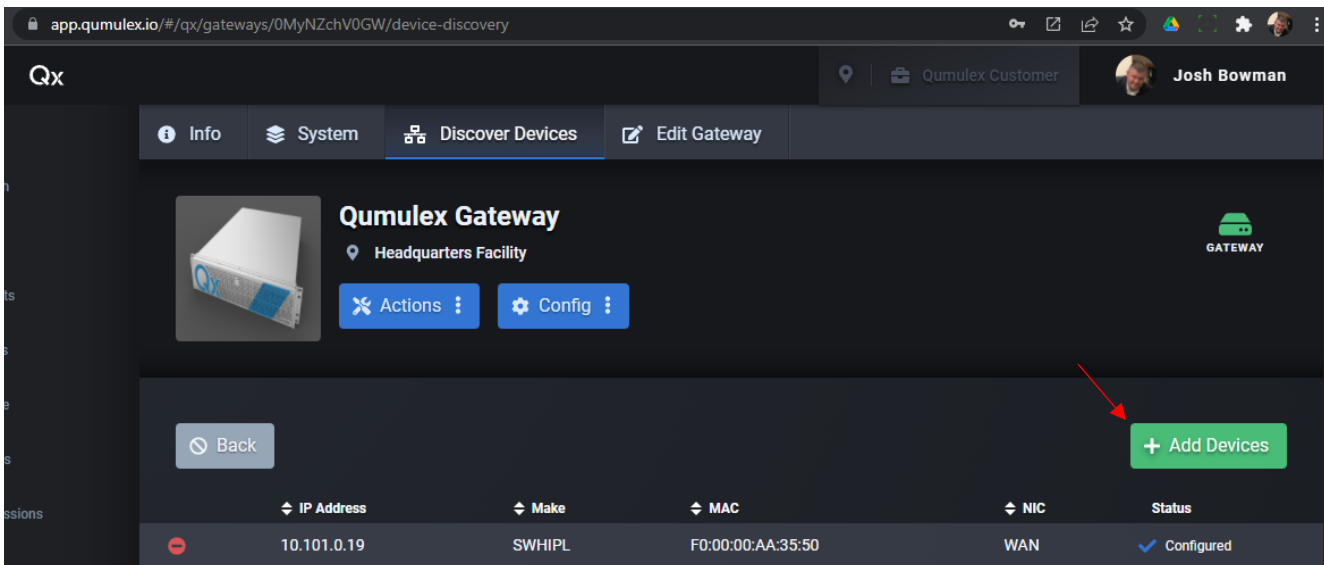
OK Close Prev Next

Or choose “Next” to move to the next Device to configure. When a Device has been configured you will see the status change from “Needs Config” to “Installed”:



	IP Address	Make	MAC	NIC	Status
⊖	10.101.0.19	SWHIPL	F0:00:00:AA:35:50	WAN	✓ Configured
⊖	10.101.0.88	SWHIPL	F0:00:00:AA:35:46	WAN	! Needs Config

Once you have configured all Devices that you wish to install, press “Add Devices”:



app.qumulex.io/#/qx/gateways/0MyNZchV0GW/device-discovery

Qx

Qumulex Customer Josh Bowman

Info System Discover Devices Edit Gateway

**Qumulex Gateway**  
Headquarters Facility

Actions Config

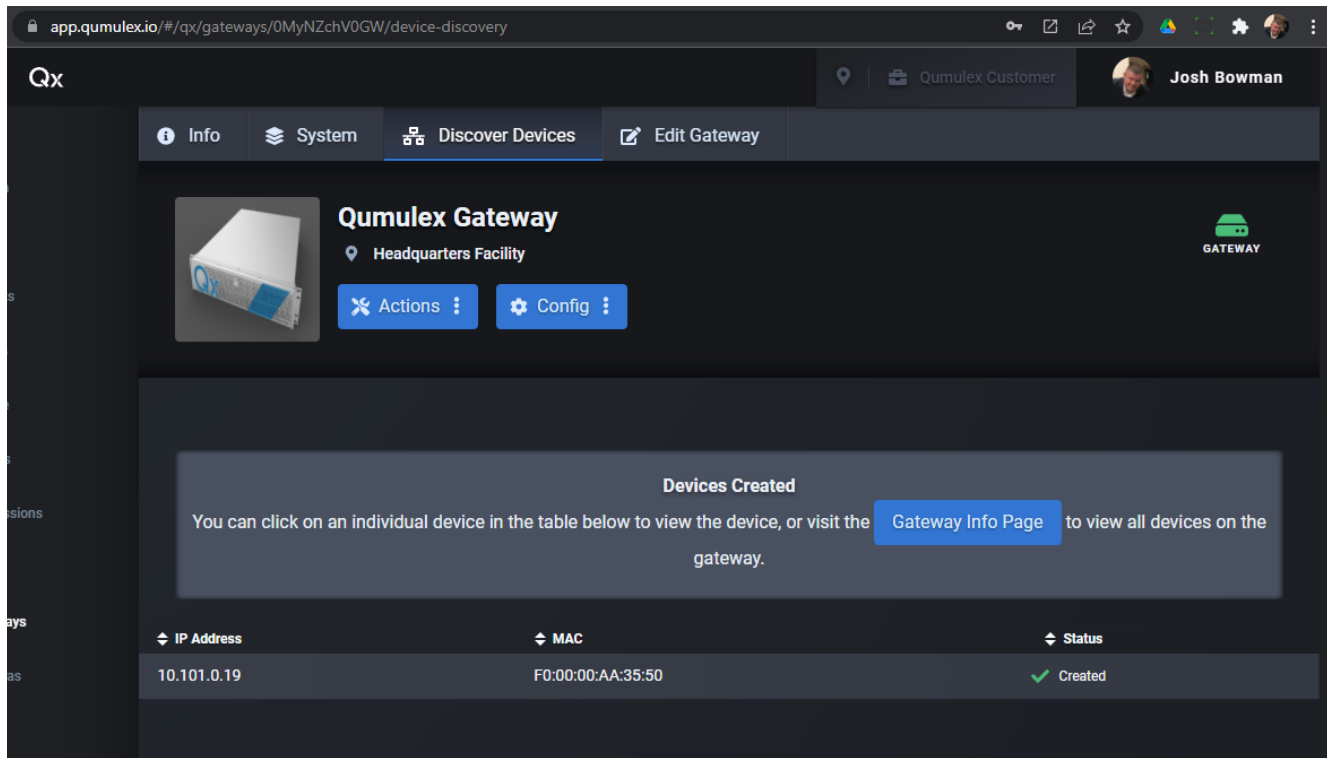
Back

+ Add Devices

	IP Address	Make	MAC	NIC	Status
⊖	10.101.0.19	SWHIPL	F0:00:00:AA:35:50	WAN	✓ Configured

Note: The Add Devices button will grey out until all selected devices are added. If you wish to move forward without installing all of the selected Devices, choose the delete button on the far left side of the row.

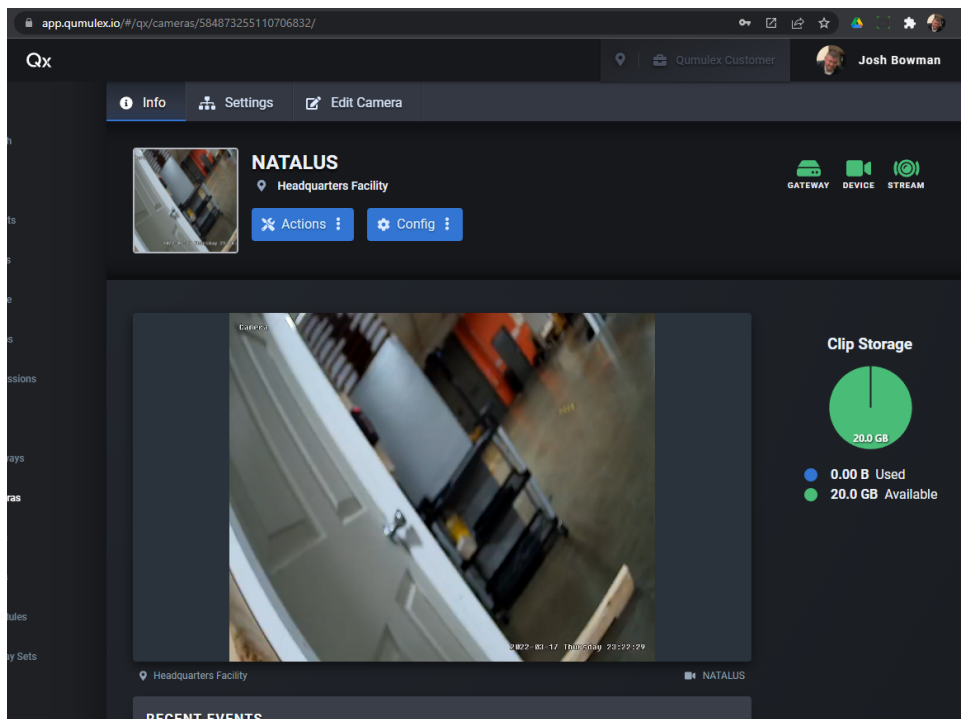
Once you choose “Add Devices”, you will then see a notification that the Devices have been created, and instructions on where you can find the Devices:



The screenshot shows the Qumulex Gateway interface. The top navigation bar includes 'Info', 'System', 'Discover Devices' (active), and 'Edit Gateway'. The main header displays 'Qumulex Gateway' for the 'Headquarters Facility'. Below this are 'Actions' and 'Config' buttons. A notification box states: 'Devices Created. You can click on an individual device in the table below to view the device, or visit the [Gateway Info Page](#) to view all devices on the gateway.' Below the notification is a table with the following data:

IP Address	MAC	Status
10.101.0.19	F0:00:00:AA:35:50	Created

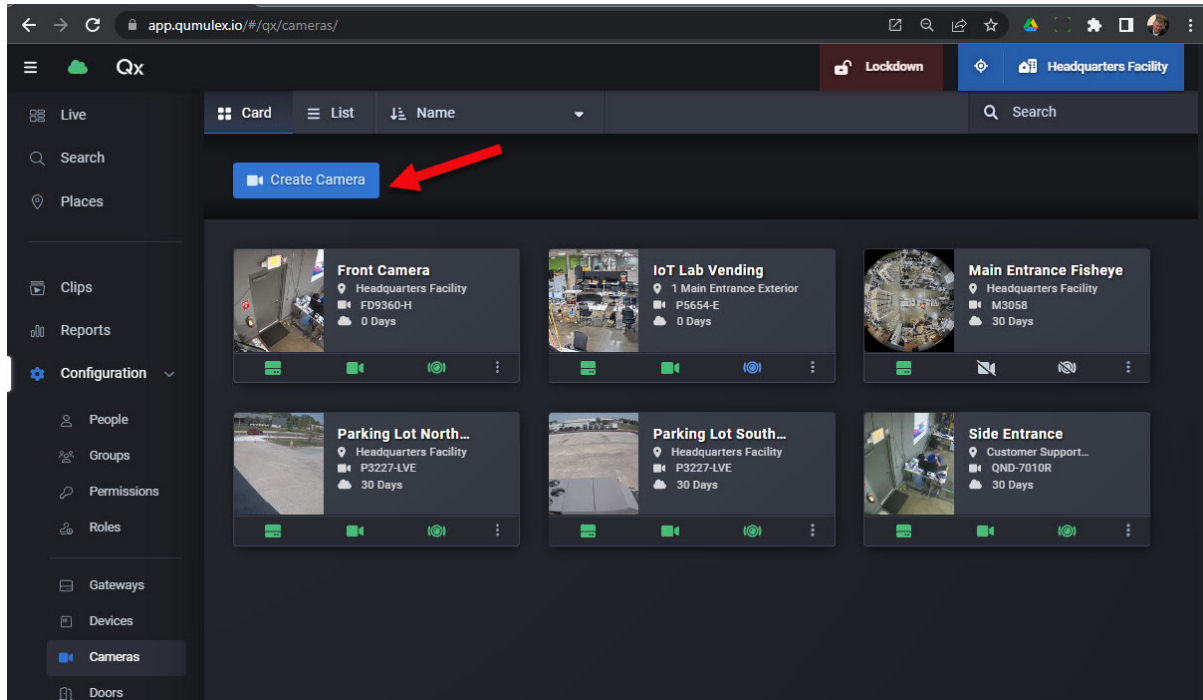
You can also click on the row itself and it will take you to the Device’s Info Page:



The screenshot shows the Qumulex NATALUS device info page. The top navigation bar includes 'Info' (active), 'Settings', and 'Edit Camera'. The main header displays 'NATALUS' for the 'Headquarters Facility'. Below this are 'Actions' and 'Config' buttons. The page features a live video feed of a warehouse interior. To the right of the video feed is a 'Clip Storage' section with a green progress bar indicating 0.00 B Used and 20.0 GB Available. At the bottom, there is a 'RECENT EVENTS' section.

## Cameras

Cameras are managed using the Cameras page.



Cameras page

## Adding and Managing Cameras

Adding a camera is easy and can be done from either the “Devices” Page, or, from the cameras page, choose “Create Camera” from the top menu. At minimum, you will need to enter the IP address, port (if other than Port 80) , username, and password, choose a Gateway from the drop-down menu, and then click save. QxControl will attempt to connect to the camera and if successful, will populate the make, model, firmware version and serial number automatically after you save the camera.

Note for RTSP: Provide the appropriate Host Name and Credentials to connect via RTSP using the same fields

**Create Camera**

Camera Name \*  
Example

Gateway \*  
Qumulex Gateway

Hostname / IP Address \*  
192.0.0.0

Port \*  
80

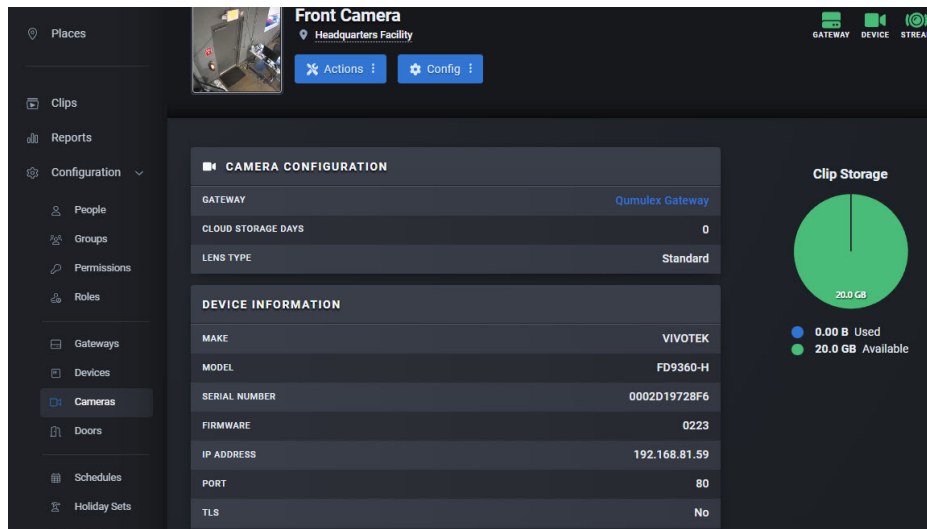
TLS  
Off

Username \*  
jbowman@qumulex.com

Password \*  
.....

✓ Create Camera Cancel

Once a camera has been saved, you can now manage the camera settings in QxControl.



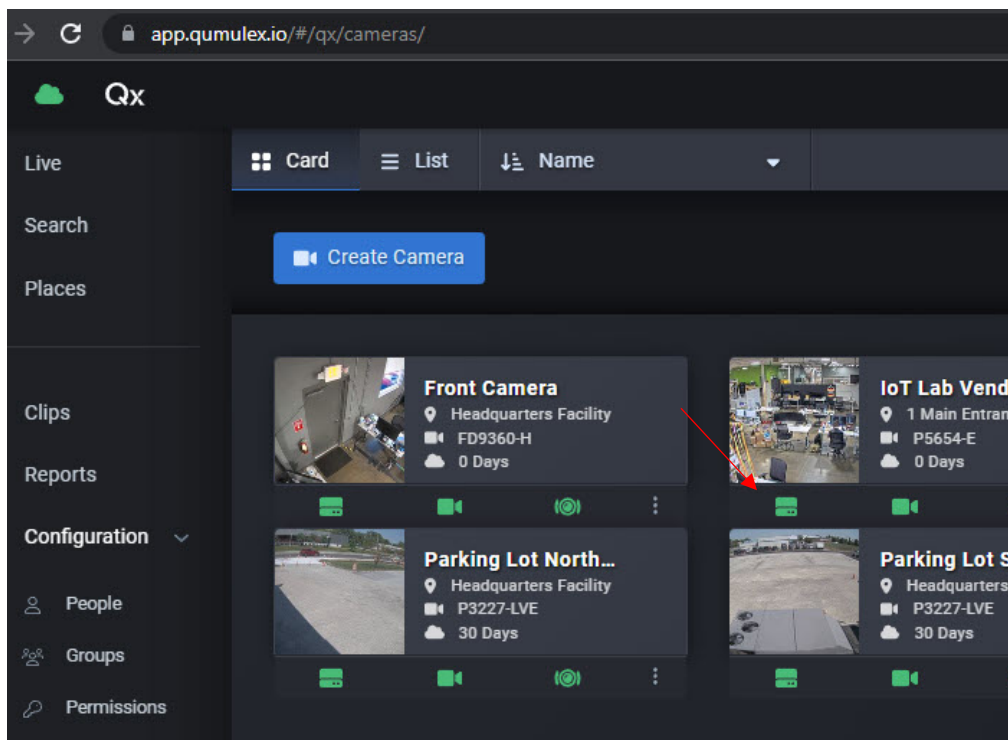
### Cameras Page: Card View

On the Cameras main page, you have the option to manage cameras from either Card or List view. This can be toggled at the top menu for the page itself. In this section we will focus on Card view options. Available actions for each camera card are available in the 3-dot menu. For cameras you will have two options in the menu:

**Go to Search:** This function will take you to the search page with a tag pre-applied for this camera to quickly view events for this camera.

**Go To Live:** This function will take you to the Live page in a 1x1 layout allowing you to quickly begin live viewing this camera.

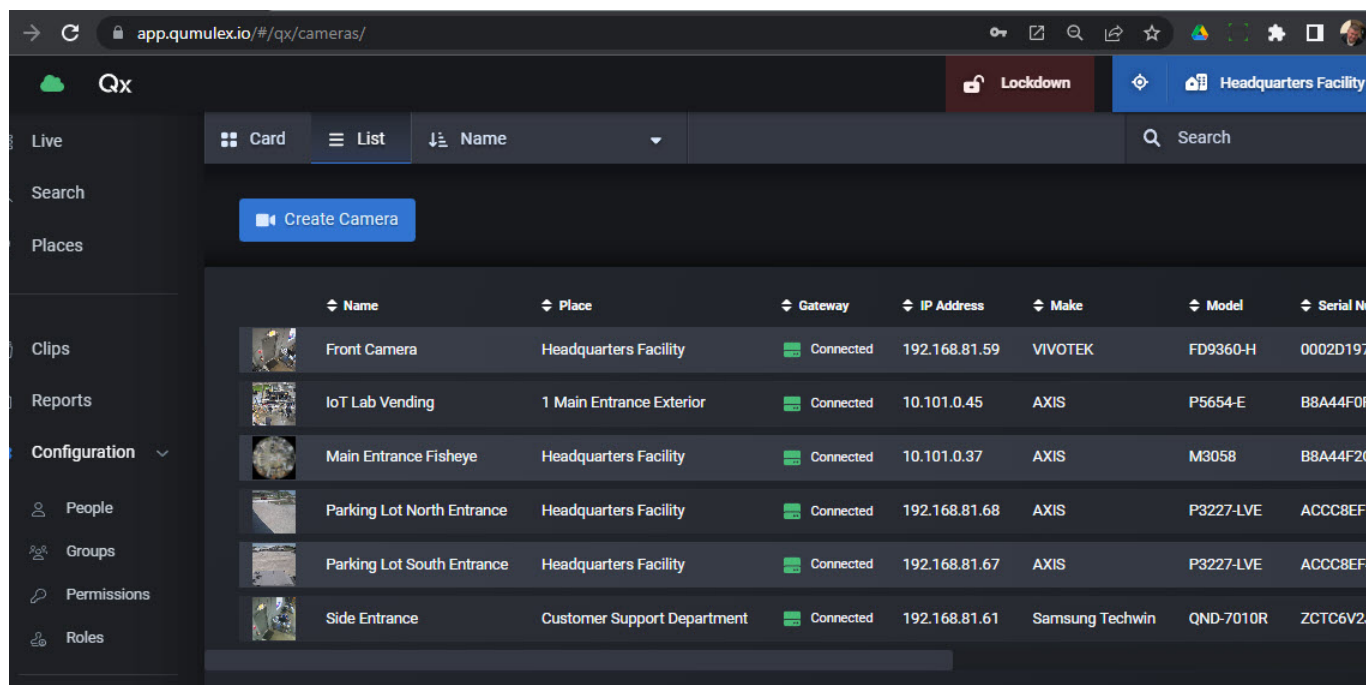
You will also see status icons that are identical to those displayed for camera widgets in Live.



### Cameras Page: List View

In this section we will focus on List view options. List view is higher density allowing more cameras per page than Card view. Also, there is more detailed information available.

Please note that due to the number of columns displayed, it may be advantageous to use a more focused resolution and slide your screen cursor left and right to view all columns.



Columns Displayed are the following:

**Name:** Name of the camera.

**Place:** Scope of the camera.

**Gateway:** The Gateway that the camera is associated with.

**IP Address:** The IP Address of the camera.

**Make:** The manufacturer of the camera.

**Model:** The model number of the camera.

**Serial Number:** The serial number of the camera.

**Firmware:** Version of firmware installed on the camera.

**Cloud Storage:** The cloud storage subscription assigned to the camera.

**Enabled:** Green check mark indicated camera is enabled. Red x indicates disabled.

**Status:** Provides the status of the camera, whether it is online, offline.

**Stream Status:** Provides the status of streams for the camera. Multiple streams will show as a green icon, only one indicates blue for more is desirable. Red indicates that the streams are all disconnected.

**View:** This function will take you to the Live page in a 1x1 layout allowing you to quickly begin live viewing this camera.

## Camera Info Page

Selecting a camera from List or Card view will take you to the camera info page. This is where you manage and edit a camera that is installed in QxControl.

In addition to the Top Menu, the camera info page provides the following:

**Live View:** Live view of the camera. This view also allows full screen, digital PTZ, onscreen display and editing the OSD.

**Recent Events:** Allows you to swipe left and right to identify recent events for this camera.

**Media Profiles:** Displays Media Profiles and their connection status.

**Doors:** Any door that is associated with this camera will be listed here. Choose “View” to visit that Door’s info page.

**Multi-Sensor Relation:** If the camera has multiple sensors this field allows you to see the relation to the other sensors. Clicking on the other sensors will take you to their associate camera page.

umulex.io/#/qx/cameras/436072260105668464/

Lockdown

Info Settings Edit Camera

### RECENT EVENTS

Event Type	Timestamp
Motion	Sep 8, 2022, 4:21:33 PM
Unknown	Sep 8, 2022, 4:21:32 PM
Motion	Sep 8, 2022, 4:21:32 PM
Motion	Sep 8, 2022, 4:21:32 PM

### MEDIA PROFILES

Enabled	Status	Resolution	FPS	GOP	Quality	Bitrate	Encoding
✓ Enabled	✓ Connected	640x360	15	30	70	2147483647	H264
✓ Enabled	✓ Connected	3072x1728	15	32	70	2147483647	H264
✗ Disabled	✗ Disconnected	3072x1728	30		70	2147483647	JPEG

3 Results  
Page 1 of 1

Prev Next

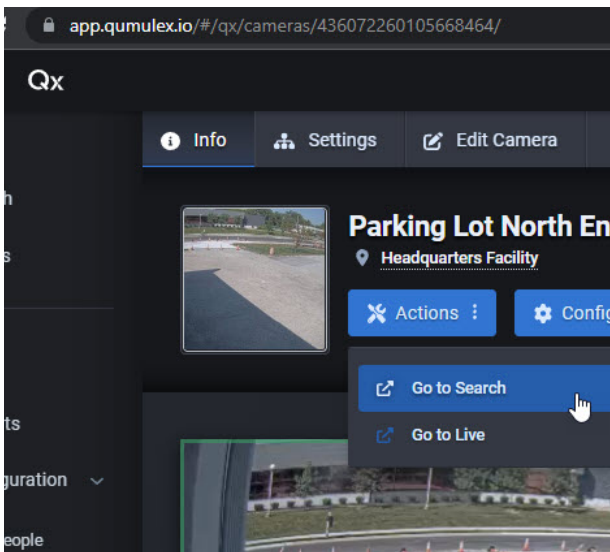
### DOORS

Search Doors

Name	Goes From	To	Address
Parking Lot North Entrance	1 Main Entrance Exterior	2 Main Entrance Lobby	10.101.0.23



The top menu provides additional options under Actions and Config. Starting with Actions, you will have similar options as the 3-dot menu for a Door Card in Card View.



**Go to Search:** This function will take you to the search page with a tag pre-applied for this camera to quickly view events for this camera.

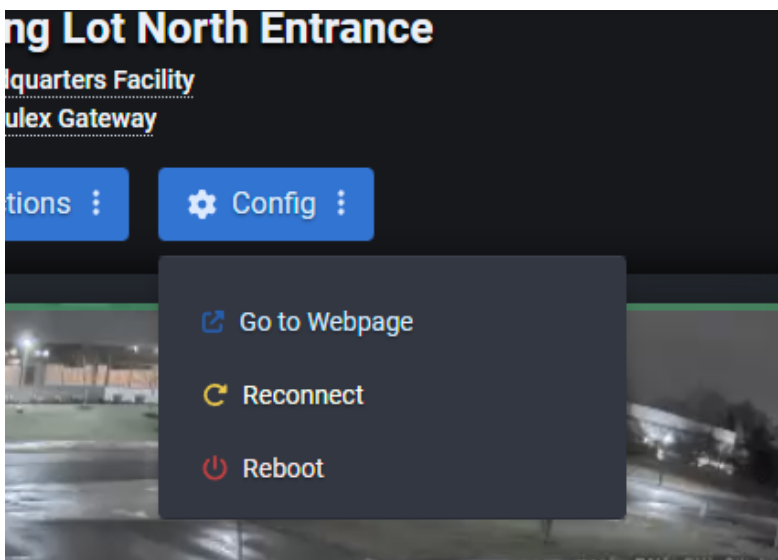
**Go To Live:** This function will take you to the Live page in a 1x1 layout allowing you to quickly begin live viewing this camera.

Choosing the Config button adjacent to Actions, will provide you two options:

**Go to Webpage:** This function will take you to the camera's web interface page to allow configuration of the device.

**Reconnect (Default Settings):** This option is a shortcut to deleting and re-adding a camera that is not functioning properly. Choosing this will cause QxControl to refresh the connection to this camera and the settings associated with it.

**Reboot:** Sends an Onvif call to the Camera and initiates a power cycle



## Camera Settings Page

Selecting Settings above the Top Menu takes you to the Settings page. This is where you can review and find valuable information about the camera:

**Camera Configuration:** This will display the Gateway associated to this camera and provides a clickable link to the Gateway page. This section also displays the current cloud storage retention in days.

**Device Information:** This displays important information about the camera such as the make, model, serial number, firmware version, IP Address and the username and password of the camera can be found here as well.

**Multi-Sensor Relation:** If the camera has multiple sensors this field allows you to see the relation to the other sensors. Clicking on the other sensors will take you to their associate camera page.

**Clip Storage:** Each cloud subscription (issued per camera) also includes 20GB of cloud storage for clips at no additional charge. To help manage the available clip storage for each camera, Clip Storage used, and available, is displayed in the Clip Storage field.

**Note 1:** If you save clips with no expiration date you will need to manually delete from the Clips page once storage is exceeded. It will not overwrite what is already stored.

**Note 2:** Cloud clip storage is not offered for QxOP systems. (On-Premises) These systems will utilize local storage onboard the Gateway for clip storage.

The screenshot shows the Qumulex web interface for a camera named 'Parking Lot North Entrance' at the 'Headquarters Facility'. The interface includes a top navigation bar with 'Info', 'Settings', and 'Edit Camera' tabs. Below the camera name, there are 'Actions' and 'Config' buttons. The main content area is divided into two sections: 'CAMERA CONFIGURATION' and 'DEVICE INFORMATION'. The 'CAMERA CONFIGURATION' section shows 'GATEWAY' as 'Qumulex Gateway', 'CLOUD STORAGE DAYS' as '30', and 'LENS TYPE' as 'Standard'. The 'DEVICE INFORMATION' section lists details such as 'MAKE' (AXIS), 'MODEL' (P3227-LVE), 'SERIAL NUMBER' (ACCC8EF1BB2D), 'FIRMWARE' (8.40.4.4), 'IP ADDRESS' (192.168.81.68), 'PORT' (80), 'TLS' (No), 'USERNAME' (root), 'PASSWORD' (masked), and 'CREATED DATE' (Aug 24, 2021, 11:57:36 AM). To the right of these sections is a 'Clip Storage' widget with a green circular progress indicator showing '20.0 GB' available and '12.5 MB' used.

CAMERA CONFIGURATION	
GATEWAY	Qumulex Gateway
CLOUD STORAGE DAYS	30
LENS TYPE	Standard

DEVICE INFORMATION	
MAKE	AXIS
MODEL	P3227-LVE
SERIAL NUMBER	ACCC8EF1BB2D
FIRMWARE	8.40.4.4
IP ADDRESS	192.168.81.68
PORT	80
TLS	No
USERNAME	root
PASSWORD	.....
CREATED DATE	Aug 24, 2021, 11:57:36 AM

**Clip Storage**

20.0 GB Available

12.5 MB Used

## Edit Camera Page

Selecting Edit Camera above the Top Menu takes you to the Edit Camera page. This is where you can modify and edit settings related to the camera:

In the first field you can edit the camera name, enable/de-enable, change the Gateway association, IP Address, Port, enable TLS, update the username and password, the Scope where the camera is available and the cloud storage option. You will also see a warning for multi-sensor cameras that changes may affect other cameras (sensors) that are attached to this one.

Please Note: When you change setting for IP Address and username/password, you are changing the information that QxControl uses to log in to the camera. This will not update the camera itself. You must log into the web interface of the camera and apply changes there.

In the second field you will see all available media profiles (streams) listed. You can use the Enabled option to enable or de-enable these streams in QxControl. For example, QxControl will ignore any streams not enabled. Just below the media profiles you can save or cancel your changes or delete the camera.

The screenshot shows the 'Edit Camera' page in the QxControl interface. The camera is named 'Driveway' and is currently enabled. The settings are as follows:

- Gateway:** Columbus - Gateway 3
- Hostname / IP Address:** 192.168.0.80
- Port:** 80
- TLS:** Off
- Username:** admin
- Password:** (masked)
- Place:** Bowman House
- Cloud Storage Option:** QXC30

Below the settings, there are four media profiles listed, each with a table of details and an 'Enabled' toggle:

Profile	Resolution	FPS	Encoding	Bitrate	Quality	GOP	Status
High	640x480	10	H264	2048	10	20	Connected
High	3840x2160	10	H264	5120	10	5	Connected
Main	3840x2160	30	H265	12288	10	60	Disconnected
	3840x2160	1	JPEG	6144	10		Disconnected

At the bottom of the page, there are three buttons: 'Save Camera', 'Cancel', and 'Delete Camera'.

## Choosing Continuous or Event Based Gateway Recording

In both On-Premises (QxOP) and Cloud (QxC+) applications your Gateway will locally record and store video. How much local storage you have is dependent on the options you choose when ordering your Gateway. There are ways to maximize your local storage, starting with choosing which local recording mode you use. Let's take a closer look at both to understand which is recording mode better for you:

### Continuous

Continuous recording mode will use the most local storage, as it stores continuously 24x7. This is useful for making sure all events are recorded regardless of motion or analytic triggers from your camera. In the case of Exporting a clip to the cloud, using this recording mode also allows you to extend the duration of a clip.

*Note: A future update of QxControl will allow you to view and scrub through continuously recorded video. At this time, you can only search for video based upon events.*

### Event Based

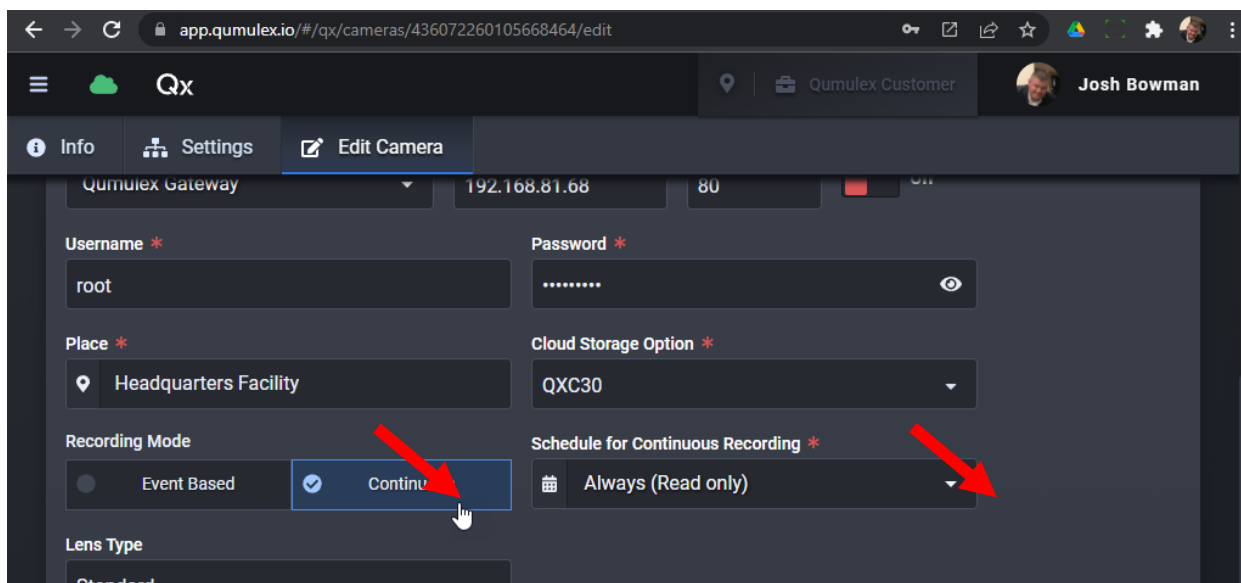
Choosing this recording mode allows you to record only when there is an event, such as motion. Choosing this option is the most storage efficient recording mode and will allow a longer retention of locally stored video, depending on how many motion events you have.

*Note: While more efficient in use of storage, you will not be able to extend the length of an exported video clip using this recording mode.*

### Schedule for Continuous Recording

Lastly you can assign a schedule for your Continuous recording. To create a schedule, visit the "Schedules" page. To use a schedule, choose from the available options in the drop-down menu.

For clarity, this feature means that during the schedule times you are continuously recording. Outside of those times, you are Event Based recording.



## Adding and Using Fisheye Cameras

Adding a Fisheye camera is very similar to adding any other camera. There are, however, a couple of extra steps to consider so that your experience matches expectations.

First, when adding a Fisheye camera to QxControl you need to ensure that you disable Dewarping of the Fisheye in the camera itself (edge dewarping), if you wish to record the full Fisheye view, use Digital PTZ to navigate the full viewing area, and Dewarp from within QxControl. For many cameras this should be the default setting.

Second, be sure to enable “Warped” for the selected streams when adding to QxControl. This will allow you to record the entire viewing area and then Dewarp/DPTZ in both Live and Recorded footage to see your desired viewing angle.

The screenshot shows the 'Edit Camera' configuration page in QxControl. The camera is named 'Main Entrance Fisheye' and is enabled. The gateway is 'Qumulex Gateway' with a hostname of '10.101.0.37' and port '80'. The username is 'root' and the password is masked. The place is 'Headquarters Facility' and the cloud storage option is 'QXC0'. The lens type is 'Fisheye Ceiling'.

The 'MEDIA PROFILES' section contains a table with two profiles:

Resolution	FPS	GOP	Quality	Bitrate	Encoding	Profile	Warped	ID
1440x1440	15	32	70	2147483647	H264	Main	ON	profile0
2992x2992	15	32	70	2147483647	H264	Main	ON	profile_0_h264

A yellow arrow points to the 'Warped' column, indicating that it should be enabled for the selected streams.

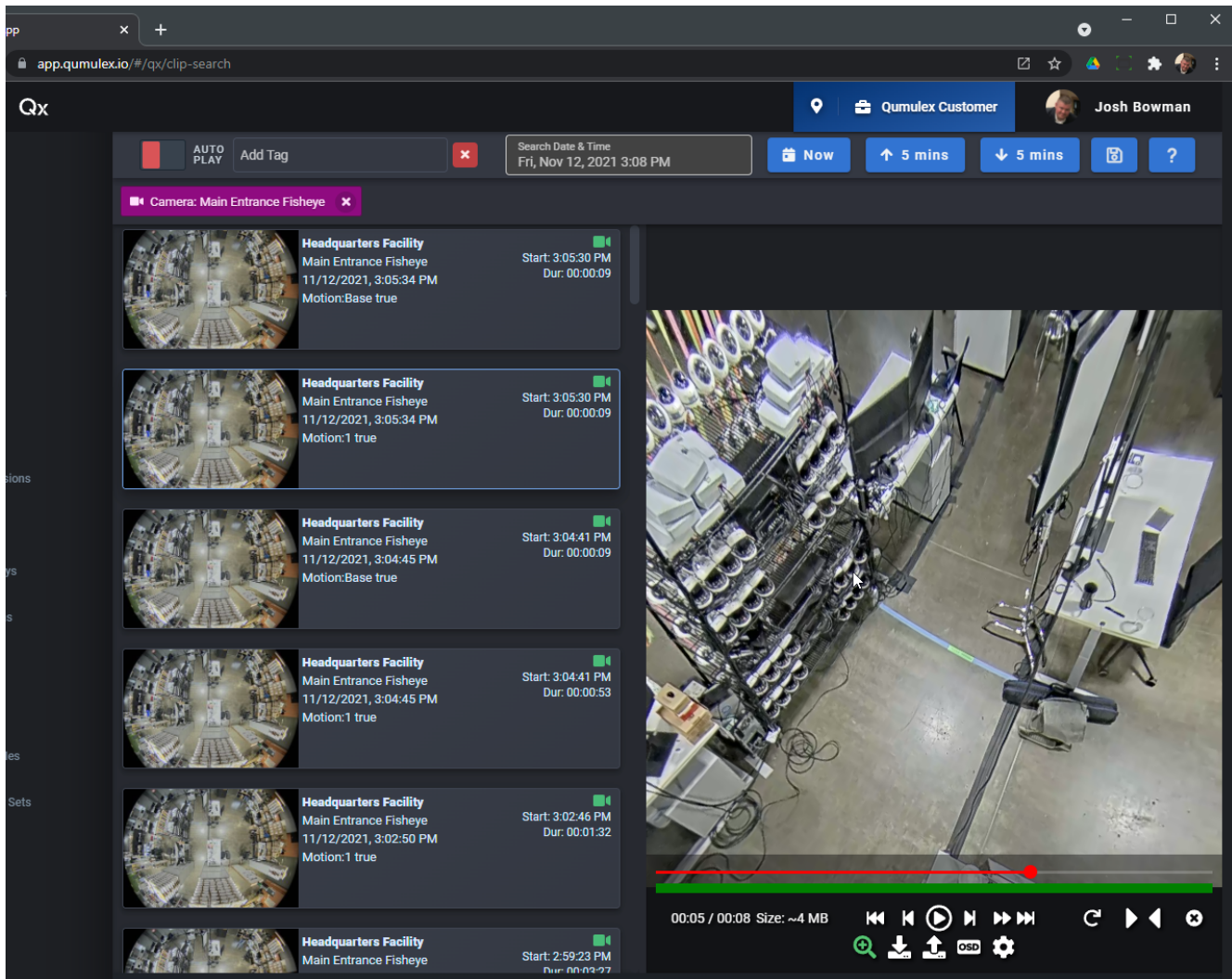
When viewing Fisheye cameras, use the DPTZ function to move around the Fisheye viewing area and see the desired viewing angle.

The screenshot displays the Qumulex web application interface. At the top, there's a navigation bar with the Qumulex logo, a user profile for Josh Bowman, and a search bar. Below the navigation bar, there's a sidebar with a list of recorded clips. The main area features a large video player showing a fisheye view of a warehouse interior. The video player includes a timeline at the bottom with playback controls and a red progress bar. The sidebar lists several clips, each with a thumbnail, title, start time, duration, and motion status.

Thumbnail	Title	Start Time	Duration	Motion
	Headquarters Facility Main Entrance Fisheye	11/12/2021, 3:05:34 PM	00:00:09	Base true
	Headquarters Facility Main Entrance Fisheye	11/12/2021, 3:05:34 PM	00:00:09	1 true
	Headquarters Facility Main Entrance Fisheye	11/12/2021, 3:04:45 PM	00:00:09	Base true
	Headquarters Facility Main Entrance Fisheye	11/12/2021, 3:04:45 PM	00:00:53	1 true
	Headquarters Facility Main Entrance Fisheye	11/12/2021, 3:02:50 PM	00:01:32	1 true
	Headquarters Facility Main Entrance Fisheye	11/12/2021, 2:59:23 PM	00:02:27	1 true

Recorded clip showing warped view



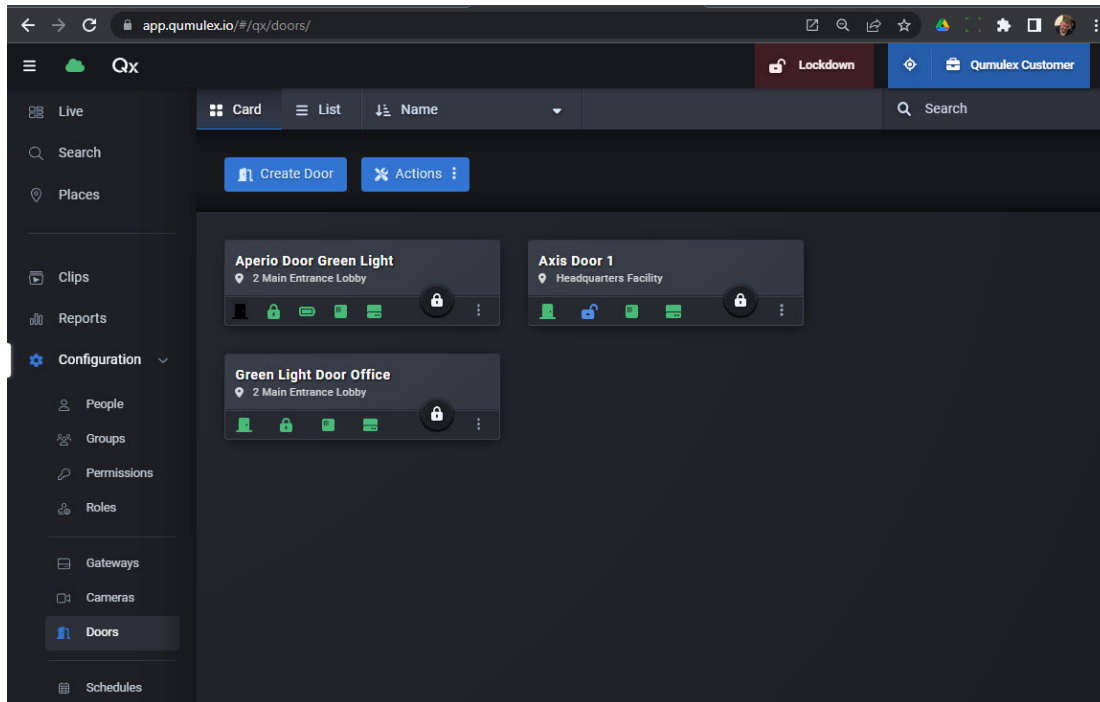


## Dewarped View

Using your mouse or by pinching on mobile, you can easily navigate within the now dewarped view and see the angle you desire. This works on both Live and Recorded video.

## Doors

The Doors page is where Doors are managed and is the primary area that Access Control functions are managed and performed.



You will use the Doors page for the following:

- Add a new Door
- Edit a Door
- Operate a Door
- Associate a Camera with a Door
- View Door related events
- Assign Groups and Schedules to a Door
- Update and push new config, users and other settings to Door Controllers

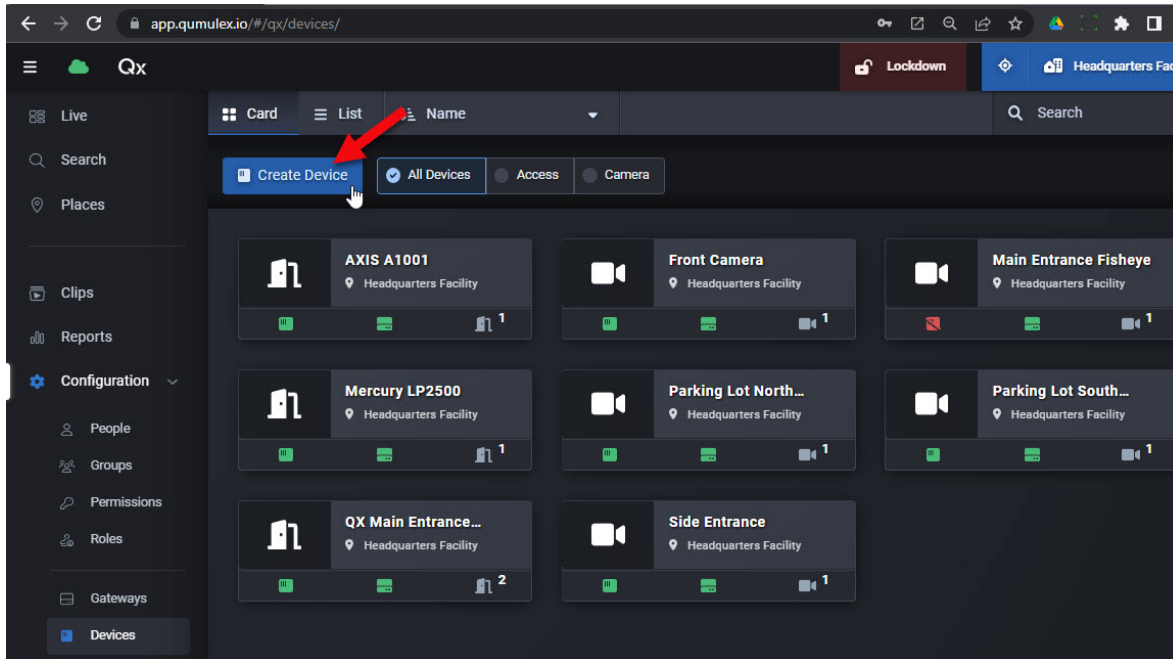
As QxControl is a Unified Video and Access Control solution, there are other areas where some of these functions may be performed.

- Devices Page – This page is used to create the “Device”, the Door Controller itself. You can also perform a Reboot of a Door Controller from the Config menu here.
- Live Page – Use Door Widgets to operate doors from a View or Layout.
- Search Page – Search for Door related events (Search Door Name, Doors, Person, Person Name, Event Actions)
- Create Schedules, Groups, Holiday Sets and Permissions that are assigned to these Doors from their respective pages.
- Create Access credentials and assign roles and disable users in the People page.



## Adding Axis Door Controllers

The first step in using Access Control in QxControl is to add a Door Controller. The process to add a Door Controller in QxControl is simple and easy. In this example we will add an Axis door controller. To add a new Door Controller, navigate to the “Devices” Page and select “Create Device”



Next, we are presented with the “Create Device” Page. Choose Device Kind “Access” to reveal access control hardware options. You will need the IP Address, login and password, and then choose “Axis” for the Make.

**Create Device**

**Device Kind \***

- Access**  
Add a device for access control management.
- Camera**  
Add a device with 1 or more video sensors.

**Device Name \***  
Example Axis Door Controller

**Description**  
Example For User Manual

**Gateway \***  
Qumulex Gateway

**Hostname / IP Address \***  
192.0.0.000

**Port \***  
80

**TLS**  
☐ Off

**Username \***  
jbowman@qumulex.com

**Password \***  
.....

**Make \***  
Axis  
Mercury

**Model \***

**Device Protocol \***

Next, we can choose the Model of Axis, A1601 in this example, and we can choose the Device Protocol. We will choose Wiegand for this controller. After choosing these options, we can then choose the Device Configuration. The A1601 is capable of being either a Single 2 Reader Door, Two One Reader Doors, or a Single 1 Reader Door with Aperio Wireless Lock. We will choose Two One Reader Doors:

**Create Device**

**Device Kind \***

- Access**: Add a device for access control management.
- Camera**: Add a device with 1 or more video sensors.

**Device Name \***: Example Axis Door Controller

**Description**: Example For User Manual

**Gateway \***: Qumulex Gateway

**Hostname / IP Address \***: 192.0.0.000

**Port \***: 80

**Username \***: jbowman@qumulex.com

**Password \***: .....

**Make \***: Axis

**Model \***: A1601

**Device Protocol \***: Wiegand

**Device Configuration**

- Single 2 Reader Door
- Two 1 Reader Doors**
- Single 1 Reader Door with Aperio

Now choose “Create Device” to save this new Door Controller. You can now visit the Info and Edit Pages to manage this controller from the Devices Page.

**Info** | **Edit Device**

**GENERAL INFO**

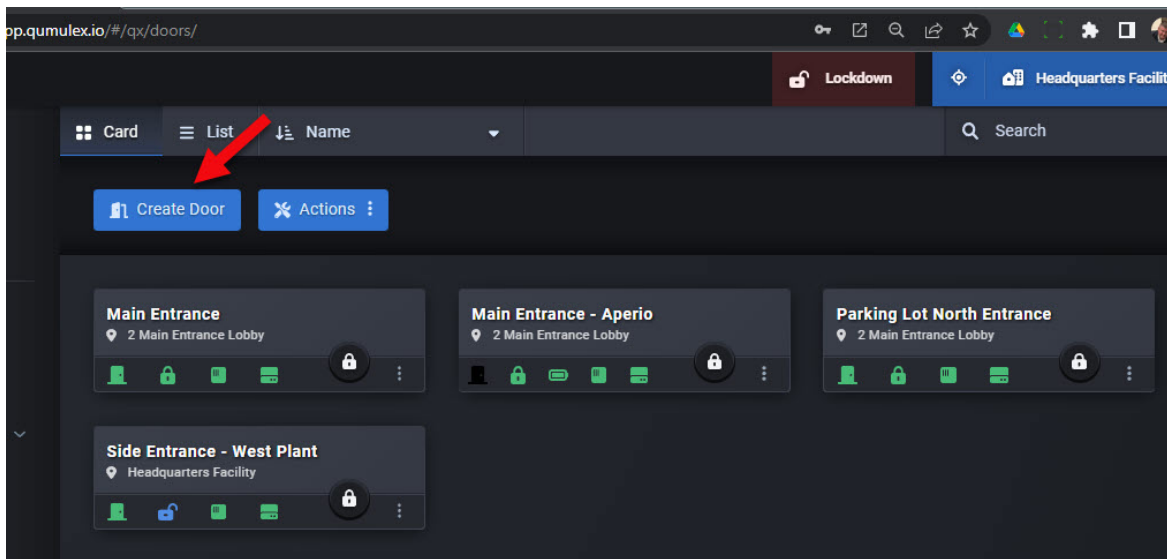
MAKE	AXIS
MODEL	P3227-LVE
SERIAL NUMBER	ACCC8EF1BB2D
IP ADDRESS	192.168.81.68
PORT	80
MAC ADDRESS	AC:CC:8E:F1:BB:2D
FIRMWARE VERSION	8.40.4.4
USERNAME	root
PASSWORD	.....

**CAMERAS**

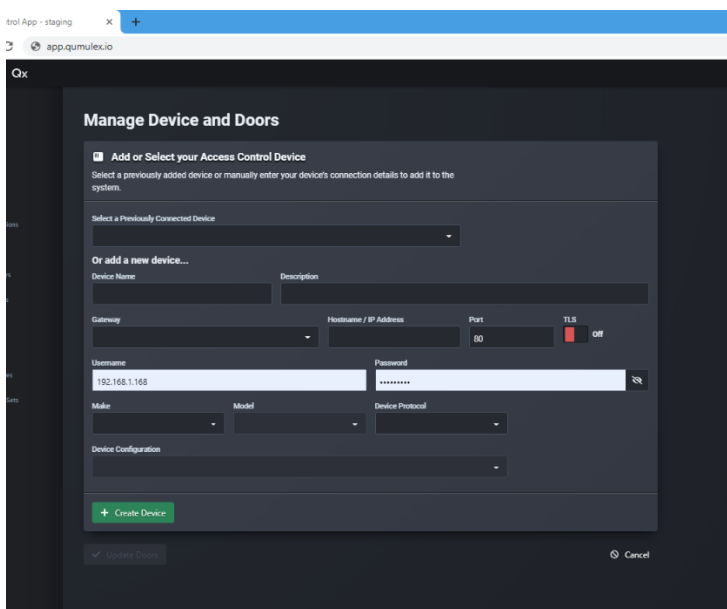
Name	Goes From	To	Address
Parking Lot North Entrance	📍	📍 Headquarters Facility	192.168.81.68

### Adding Axis Doors

Now we are ready to install a door using our new Axis Door Controller. First, Navigate to the Doors Page and then select “Create Door” at the top left of the Doors page.



This will present the Add Door Menu.



You have the option to select and manage an existing device from the drop-down menu or use the fields below to add a new device. In this example we will add a new device.

In the data fields below, enter the required information to add the new Door Controller.

**Note:** Before adding the Door Controller into QxControl you must first activate it and install it onto the same network as your Gateway. As of this revision Axis A1001 and Axis A16001 are the supported Door Controllers that you can use. For

information on how to initialize the Axis Door Controllers please see the links provided in the appendix at the end of this User Guide.

You will need the following information to complete this Field:

- 1) The IP Address of the Door Controller
- 2) MAC Address (if installing multiple this helps identify them)
- 3) The username and password to log into the Door Controller
- 4) The QxControl Gateway that you will associate with the Door controller
- 5) Make and Model – At this Time it will be either an A1001 or A16001
- 6) Will you use Wiegand or OSDP?
- 7) A name and description (Preferably you will use something that helps identify location)
- 8) Will you configure this controller to operate one 2 reader door? Or two 1 reader doors?

When complete, select the button labeled “Create Device” to move to the next step.

After choosing “Create Device” , you will now have the option to update the Door Controller to be managed by QxControl. To do this select “Update device” which is now available at the bottom left of the Door page.

## Manage Device and Doors

### ■ Add or Select your Access Control Device

Select a previously added device or manually enter your device's connection details to add it to the system.

Select a Previously Connected Device

#### Or add a new device...

Device Name

Description

Gateway

Hostname / IP Address

Port

TLS

☐ Off

Username

Password

Make

Model

Device Protocol

Device Configuration

✓ Update Device

🗑 Delete Device

### 🚪 Lab Entry

Door Name

Door Camera

Unlock Schedule

Goes From

To

Access Time

 seconds

Door Contact

☒ None ☐ Open Circuit - Open Door ☐ Open Circuit - Closed Door

REX

Reader

Reader

After choosing “Create Device” you will also now see the next list of options for installing a Door will have appeared below the “Update Device” button.

Qx

### Lab Entry

Door Name

Lab Entry

Door Camera

Unlock Schedule

Goes From

To

Access Time

Door Contact

10 seconds

☒ None
 ☐ Open Circuit - Open Door
 ☐ Open Circuit - Closed Door

REX

Reader

Reader

REX/PIR Name

Door 1 Entrance REX

Grants Access To

☒ Non-Secure
 ☐ Tradeshow Rack Power Series

Default State

☐ Normally Closed
 ☐ Normally Open

PIR Bypass

Off

Reader Name

Door 1 Entrance Reader

Grants Access To

☐ Non-Secure
 ☒ Tradeshow Rack Power Series

Reader Name

Door 1 Entrance Reader

Grants Access To

☐ Non-Secure
 ☒ Tradeshow Rack Power Series

Lock

Lock Name

Door 1 lock

Mode

☐ Relay Open = Locked
 ☐ Relay Open = Unlocked

Delay Time

5 seconds

This will now allow us to enter information that is pertinent to the setup of the Door itself, now that we have configured and installed the Door Controller.

Use the fields below to decide the following:

- 1) Choose a name for the Door
- 2) Choose a Camera to associate with Door actions
- 3) Choose a Schedule

- 4) Choose an “Area From” and an “Area To” – Use the Places page to set these up in advance
- 5) Choose “Access Time” – How long will the door remain unlocked when a valid credential is presented?
- 6) Choose your Door Contact. None, Normally Open and Normally Closed contacts are options.

The screenshot shows the 'Lab Entry' configuration page in the Qumulex web interface. At the top, there are two buttons: 'Update Device' (green) and 'Delete Device' (red). Below these, the 'Lab Entry' section is visible. It includes a 'Door Name' field with 'Lab Entry' entered, a 'Door Camera' dropdown menu, an 'Unlock Schedule' calendar icon, 'Goes From' and 'To' location fields (with 'Tradeshow Rack Power Series' selected in the 'To' field), an 'Access Time' field set to '10 seconds', and a 'Door Contact' section with three radio buttons: 'None' (selected), 'Open Circuit - Open Door', and 'Open Circuit - Closed Door'.

Continuing, use the fields below to decide the following for the Request to Exit (Rex):

- 1) Choose a name for the REX
- 2) Choose the Area this Rex grants access to
- 3) Choose a “Default State” – Normally closed or Normally open
- 4) “PIR Bypass – on or off

The screenshot shows the 'Request to Exit (Rex)' configuration page. It includes a 'Lock' button at the bottom. The main configuration area has a 'REX/PIR Name' field with 'Door 1 Entrance REX' entered. Below this is the 'Grants Access To' section with two radio buttons: 'Non-Secure' (selected) and 'Tradeshow Rack Power Series'. The 'Default State' section has two radio buttons: 'Normally Closed' (selected) and 'Normally Open'. The 'PIR Bypass' section has a red toggle switch labeled 'Off'.

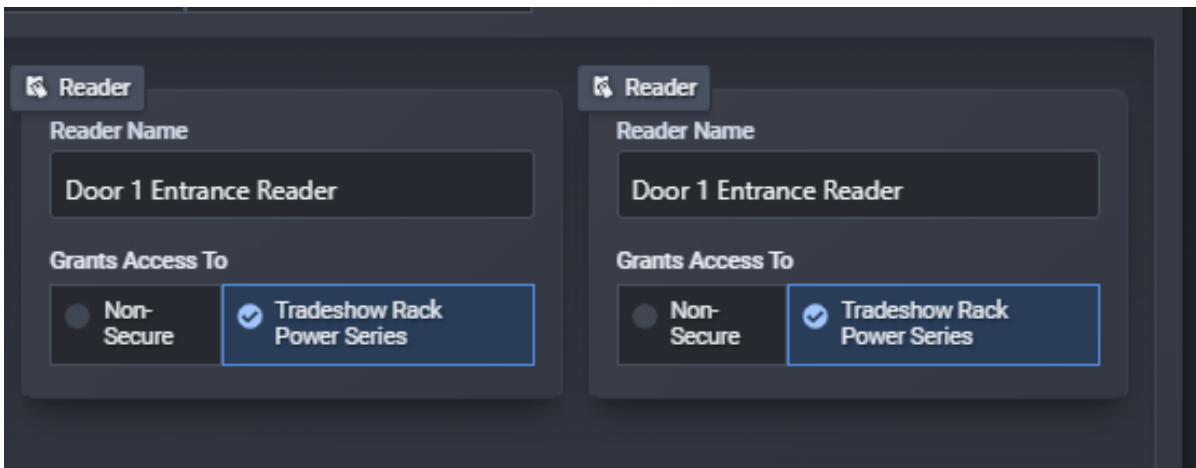
Next, use the fields below to decide the following for the Readers. We selected “1 Door 2 readers” for this example and because of that we are presented with up to 2 readers we can configure for this door.

If we had chosen 2 Doors 1 Reader, we would instead be presented with two sets of doors to configure following the Door Controller data entry fields.



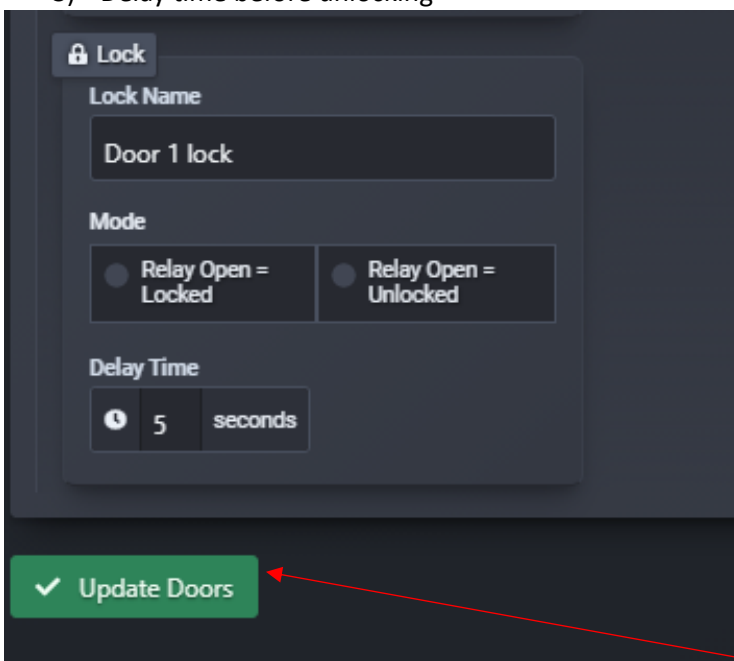
For the Readers, enter the following:

- 1) Reader Name
- 2) Choose the Area this Reader grants access to



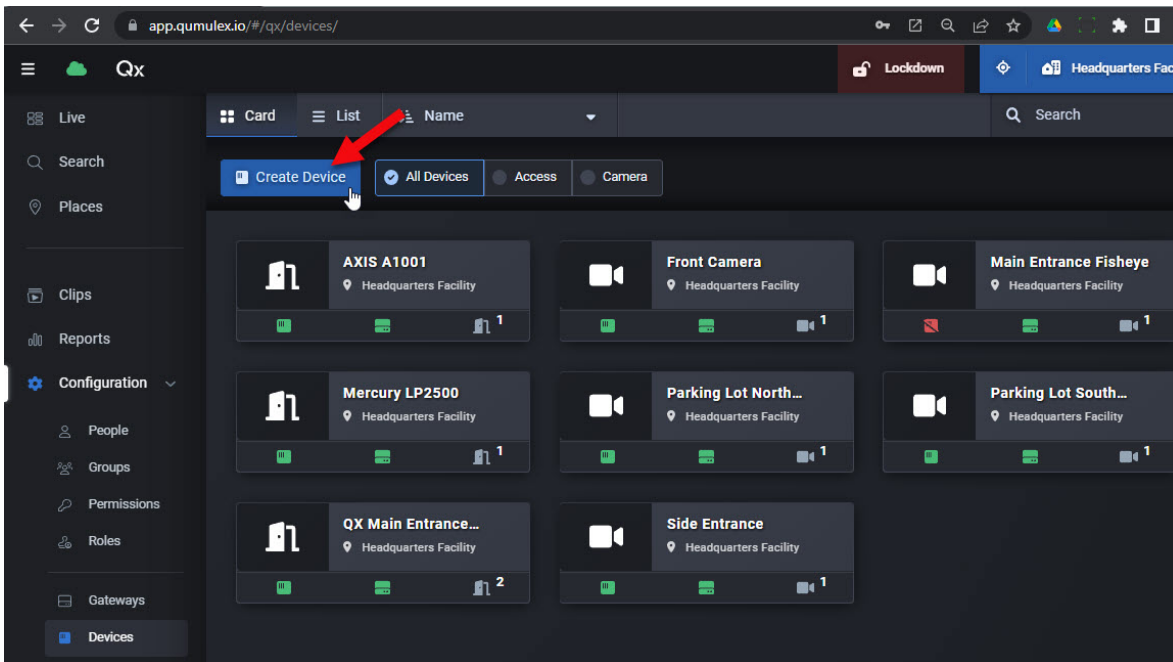
Lastly, enter the following for the Lock:

- 1) Lock Name
- 2) Relay Open = Locked or Unlocked?
- 3) Delay time before unlocking

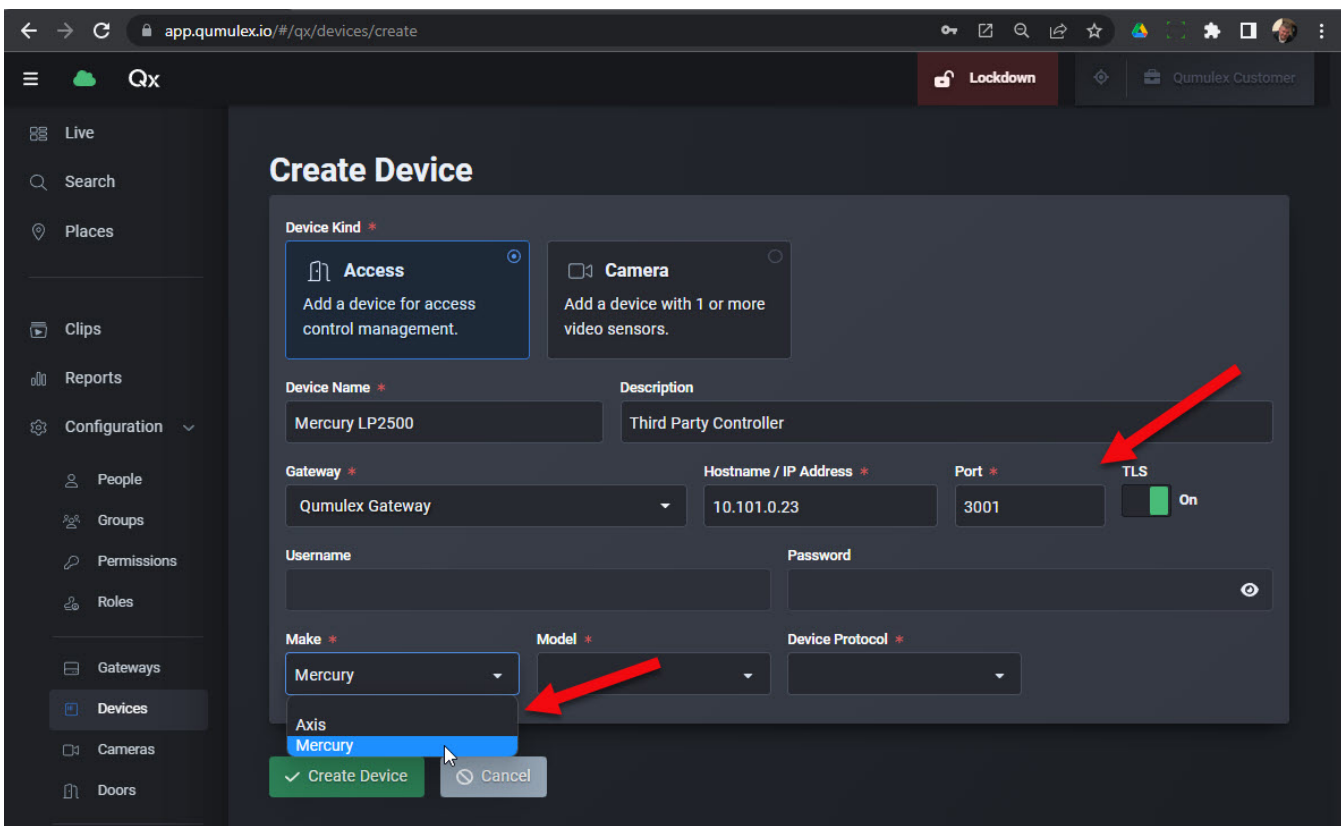


After completing this last field, choose “Update Doors” to complete the installation.

The first step in using Access Control in QxControl is to add a Door Controller. The process to add a Door Controller in QxControl is simple and easy. In this example we will add a Mercury LP-2500 door controller with MR52 and MR50 SIO Modules. To add a new Door Controller, navigate to the “Devices” Page and select “Create Device”



Next, we are presented with the “Create Device” Page. Choose Device Kind “Access” to reveal access control hardware options. You will need the IP Address, login and password, and then choose “Mercury” for the Make.



Next, choose the Model of board. In our example we will add an LP2500.

The screenshot shows the 'Create Device' form in the Qumulex application. The form is titled 'Create Device' and has a sidebar on the left with navigation options: Live, Search, Places, Clips, Reports, Configuration, People, Groups, Permissions, Roles, Gateways, Devices, Cameras, Doors, and Schedules. The 'Devices' option is selected. The form fields are as follows:

- Device Kind:** Two tabs, 'Access' (selected) and 'Camera'.
- Device Name:** Mercury LP2500
- Description:** Third Party Controller
- Gateway:** Qumulex Gateway
- Hostname / IP Address:** 10.101.0.23
- Port:** 3001
- TLS:** On
- Username:** (empty)
- Password:** (empty)
- Make:** Mercury
- Model:** LP2500 (selected from a dropdown menu that also shows LP4502, LP1502, LP1501 Serial Support, and LP1501 Reader Support)
- Device Protocol:** (empty)

A red arrow points to the 'LP2500' option in the 'Model' dropdown menu. At the bottom, there are two buttons: 'Create Device' (green) and 'Cancel' (grey).

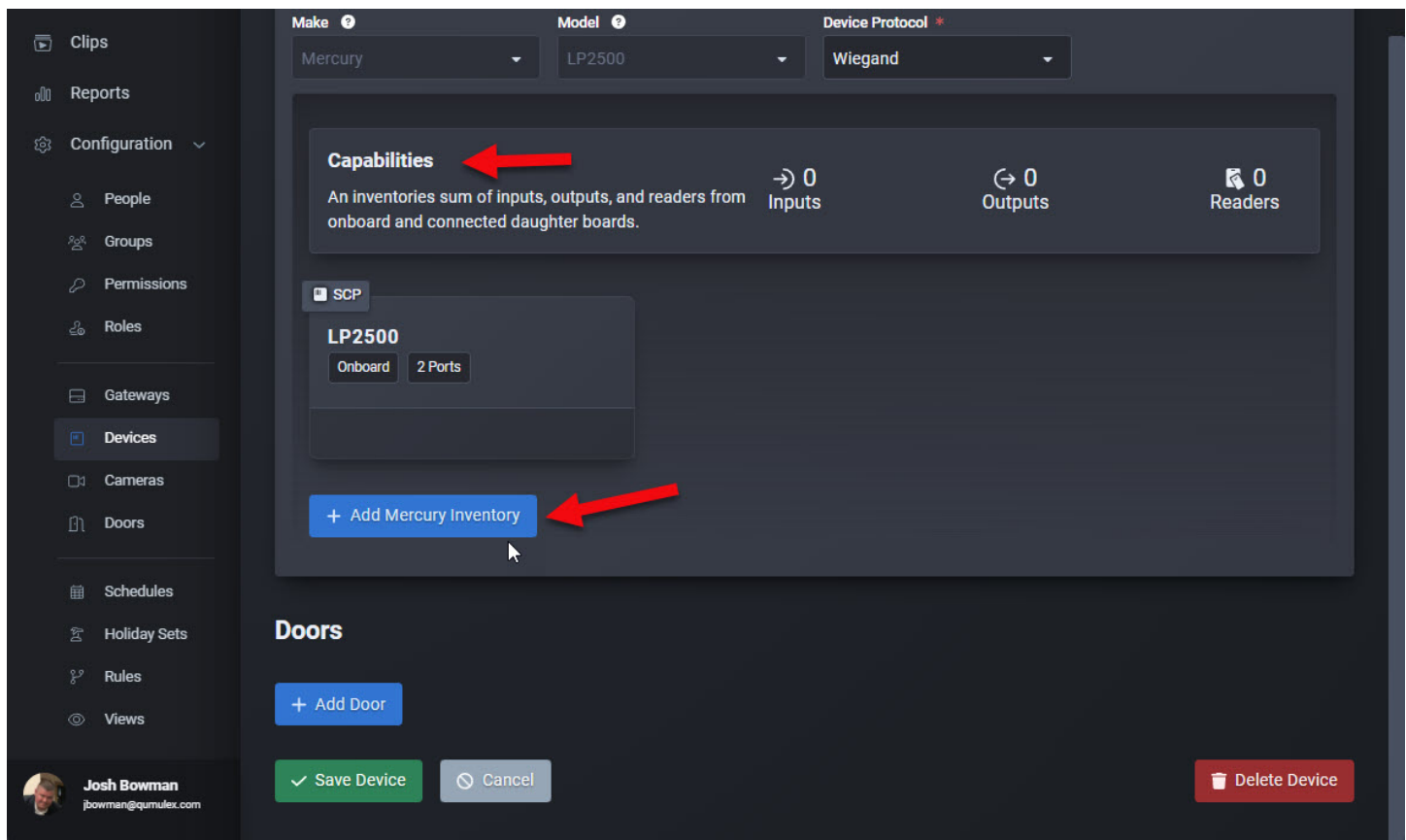
Next, choose the Device Protocol. In our example we will choose Wiegand, then click “Create Device” to save our new controller.

The screenshot shows the 'Create Device' form in the Qumulex application, with the 'Device Protocol' dropdown menu open. The form fields are as follows:

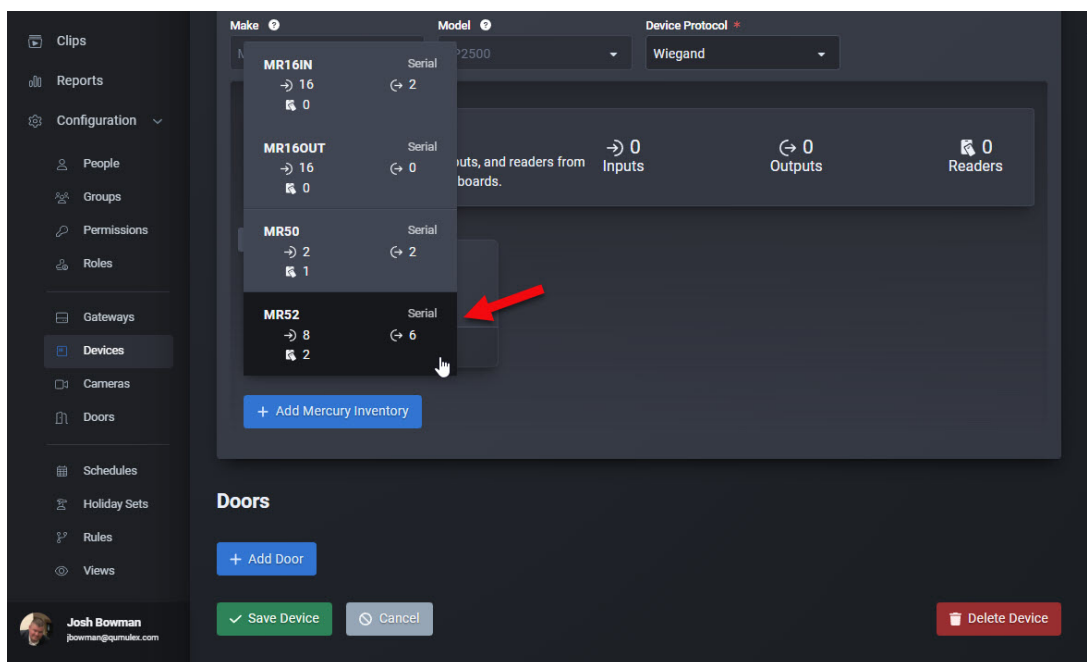
- Device Kind:** Two tabs, 'Access' (selected) and 'Camera'.
- Device Name:** Mercury LP2500
- Description:** Third Party Controller
- Gateway:** Qumulex Gateway
- Hostname / IP Address:** 10.101.0.23
- Port:** 3001
- TLS:** On
- Username:** (empty)
- Password:** (empty)
- Make:** Mercury
- Model:** LP2500
- Device Protocol:** Wiegand (selected from a dropdown menu that also shows OSDP and Wiegand-0)

Two red arrows point to the 'Wiegand' option in the 'Device Protocol' dropdown menu and the 'Create Device' button. At the bottom, there are two buttons: 'Create Device' (green) and 'Cancel' (grey).

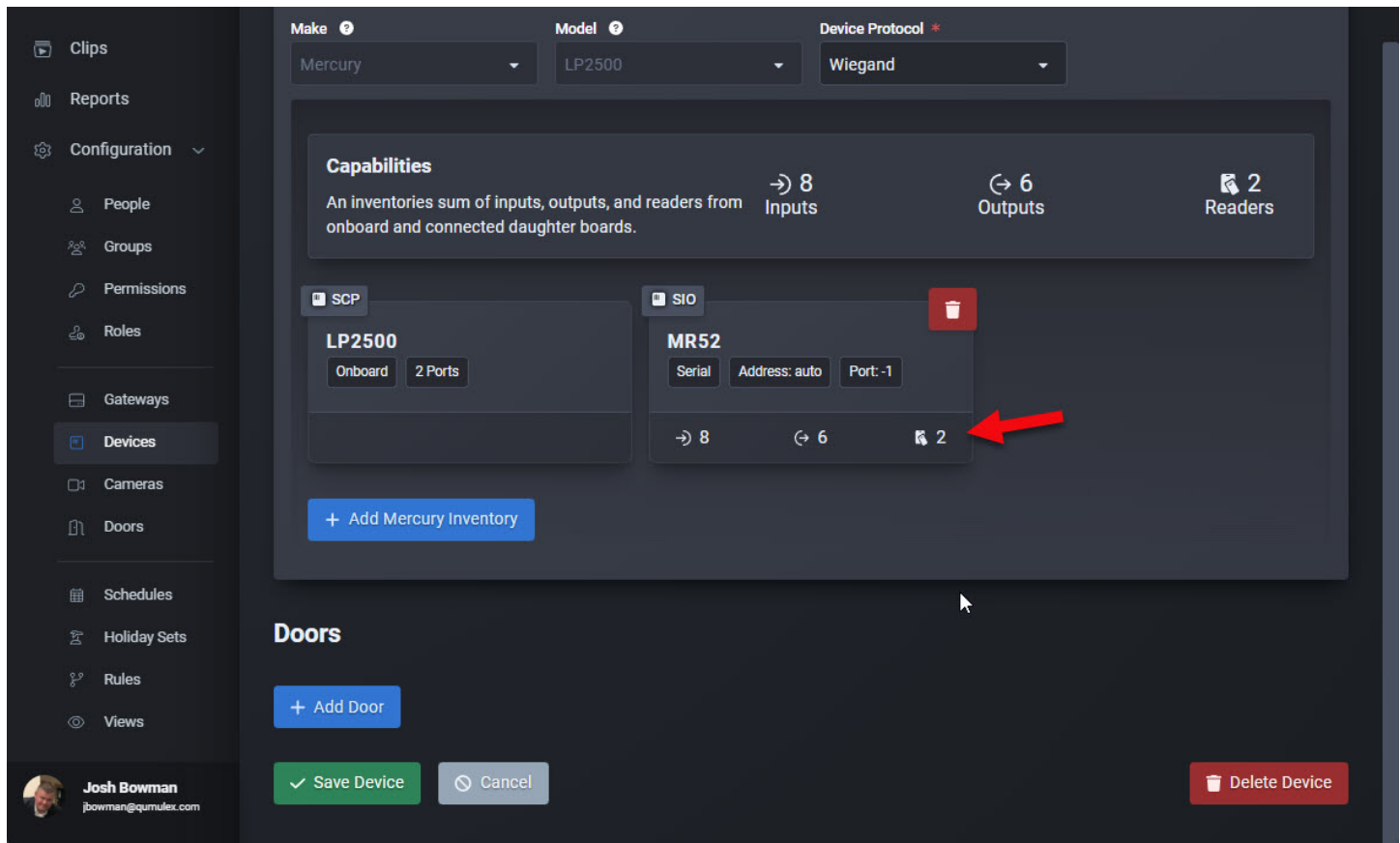
Now that you have created the Device, we can edit and add SIO Modules to it. As you do so, you will see the amount of “Capabilities” increase. To begin, choose “Add Mercury Inventory”



This will show a menu allowing you to choose an SIO module, one at a time. We will start with our MR52.



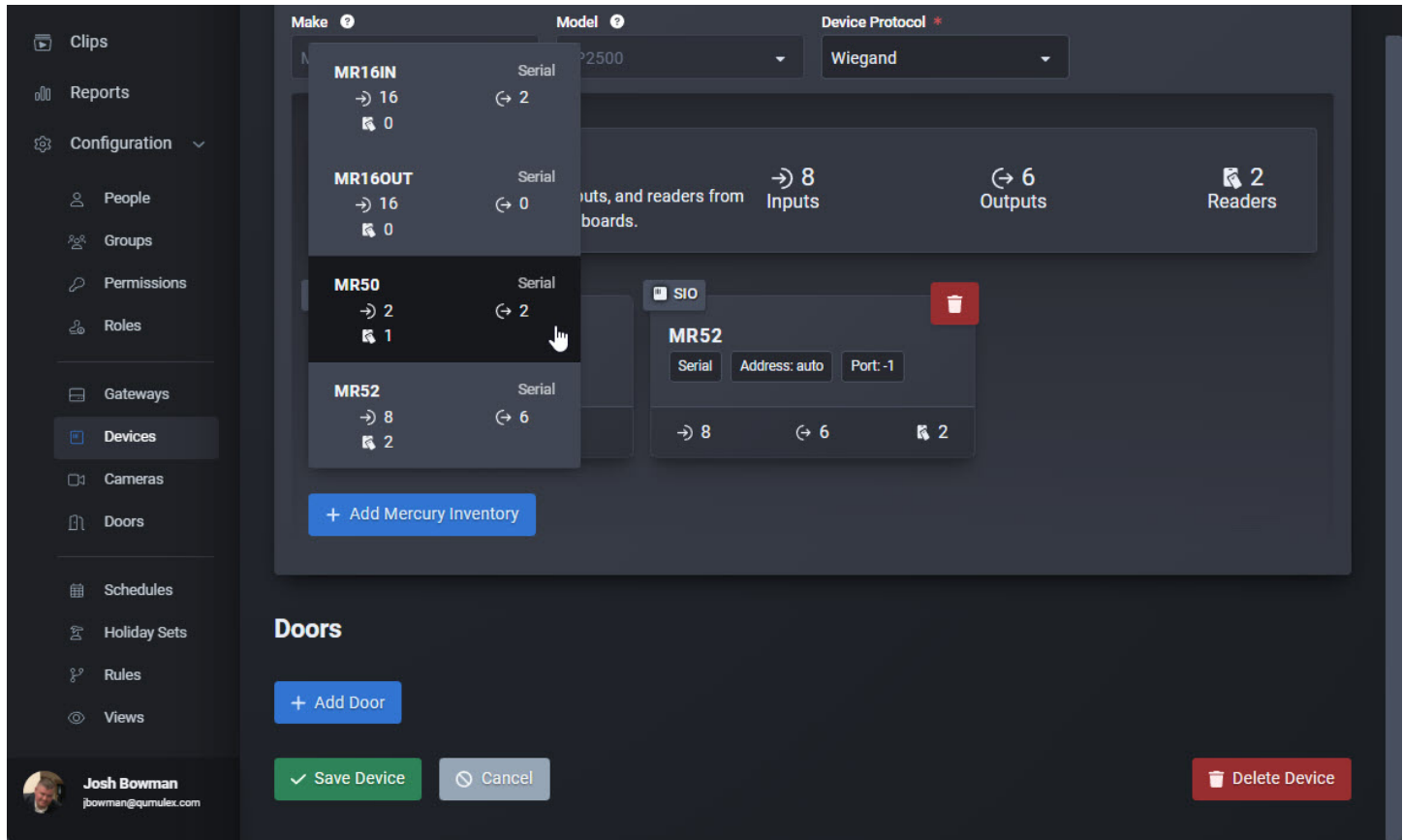
Now we see the MR52 listed, along with the individual capabilities for it. Above, you can see this is also reflected in the total capabilities of the Controller itself.



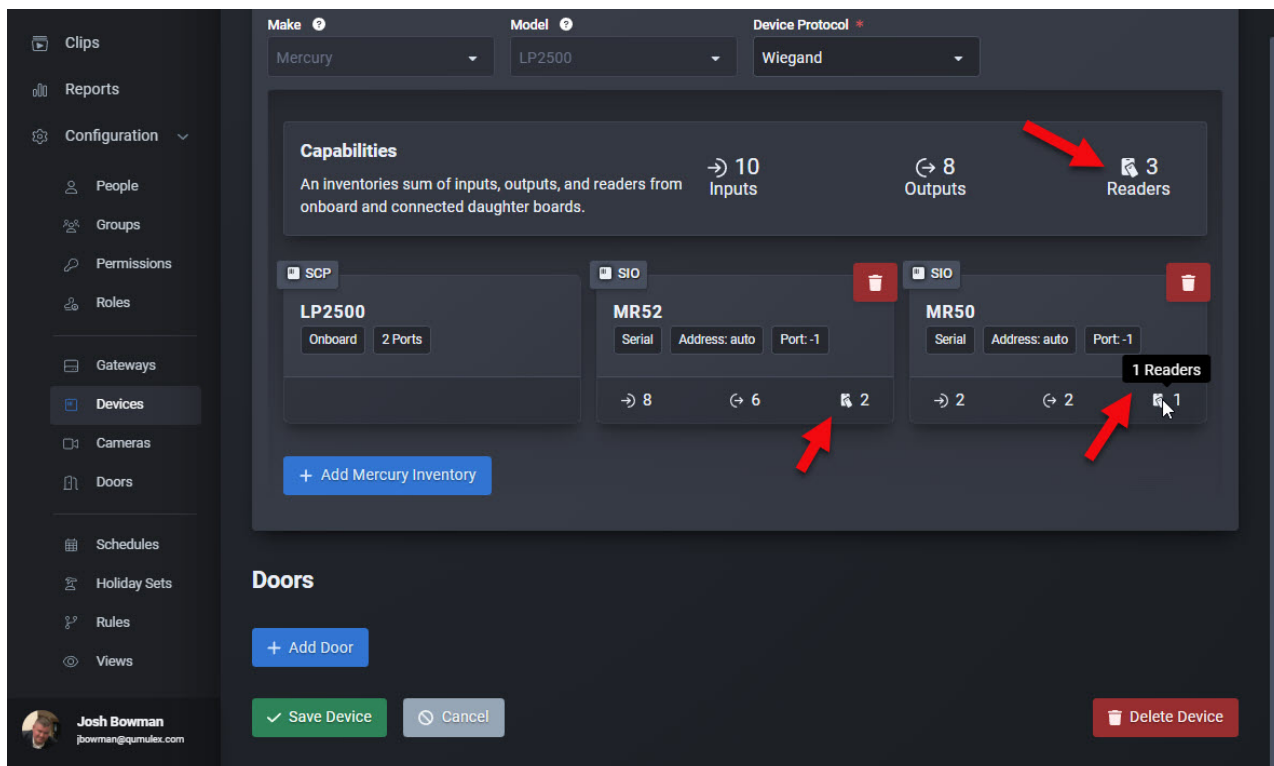
When you hover over each icon, you will also see a tool tip describing what the capability represents.



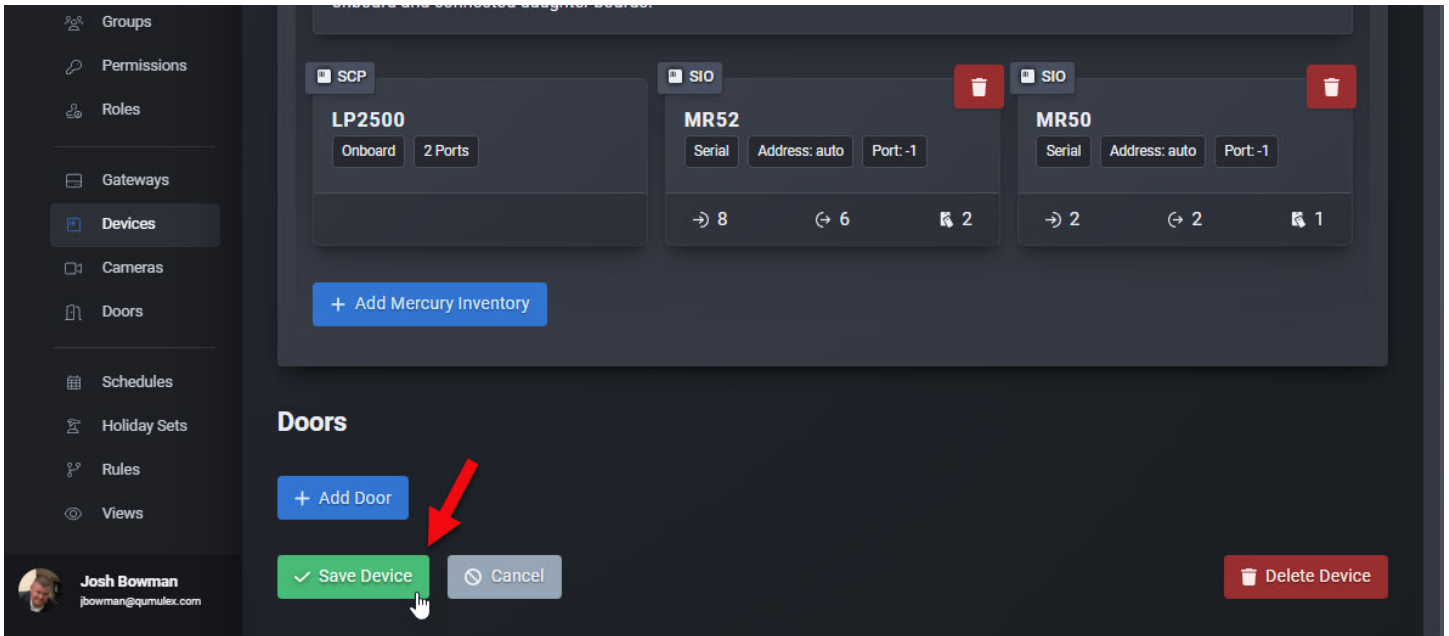
Now in our example, we can return to the “Add Mercury Inventory” field and select our MR50.



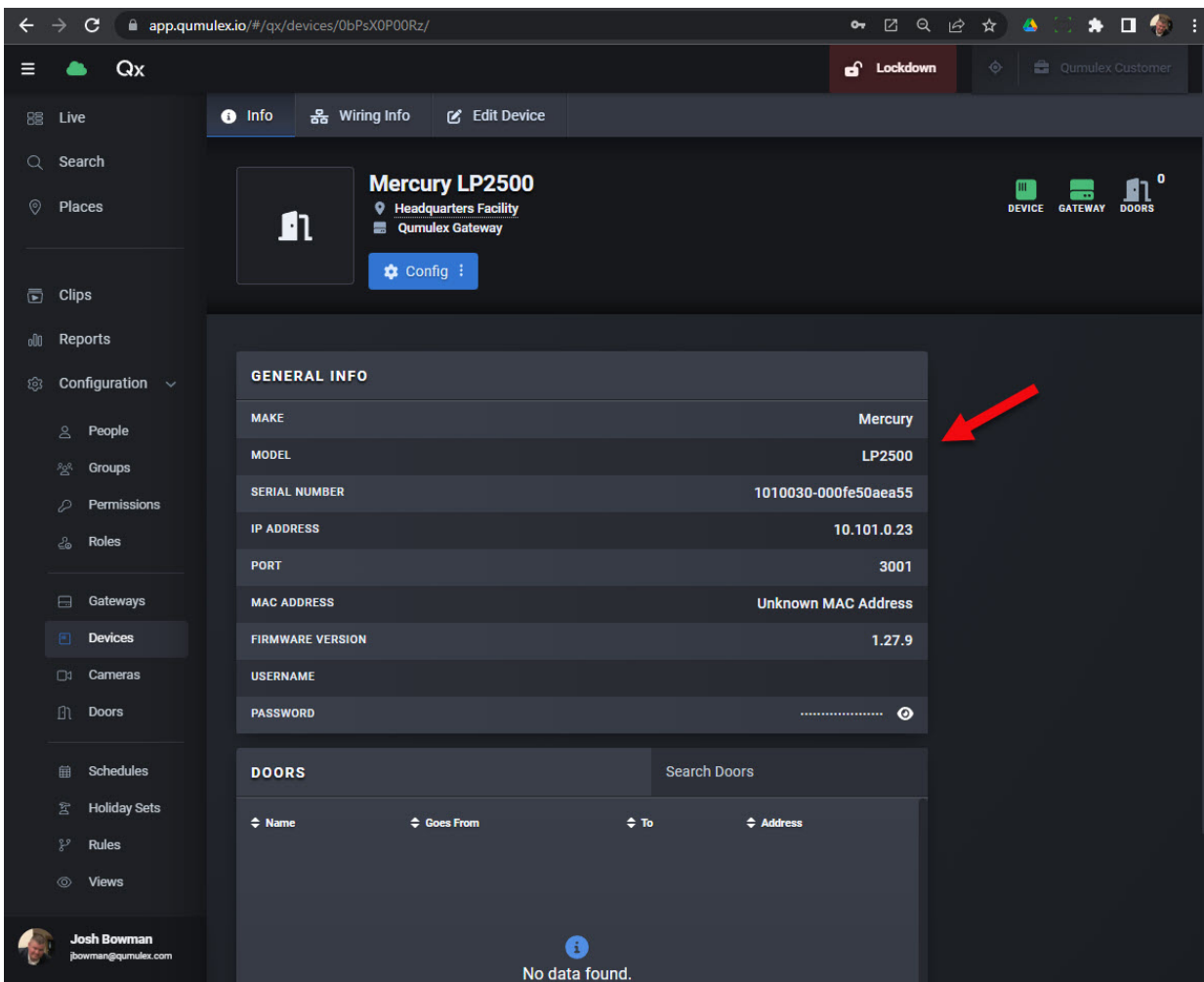
You will now see the Capabilities field reflects the total of all SIO Modules plus the Controller



After adding all your SIO Modules, you must click “Save Device” to complete the operation.



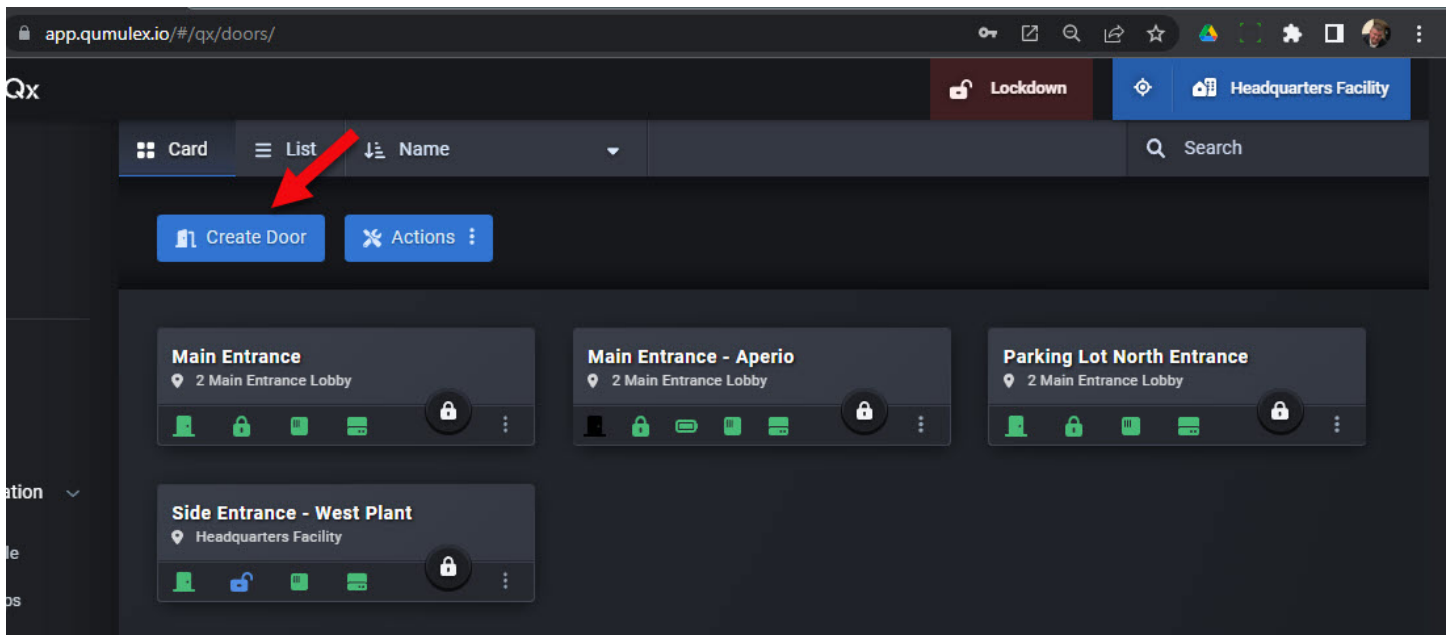
You can now see the Serial number, model, and other info on the Device Info page. You are ready to install doors!



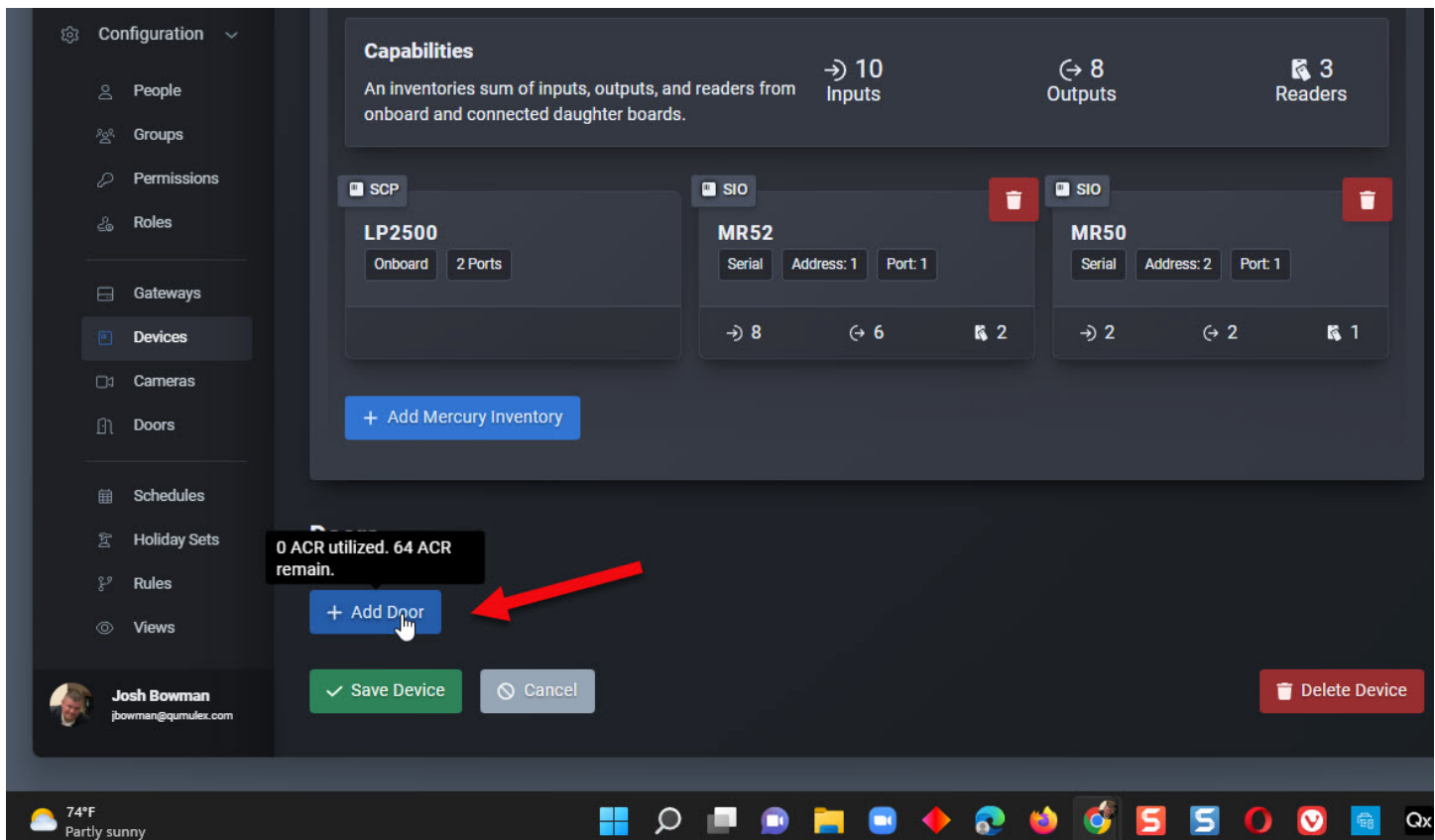


## Adding Mercury Doors

Once you have setup your Mercury Door Controllers and SIO Modules, you can begin creating doors. To get started, select “Create Door” at the top left of the Doors page.

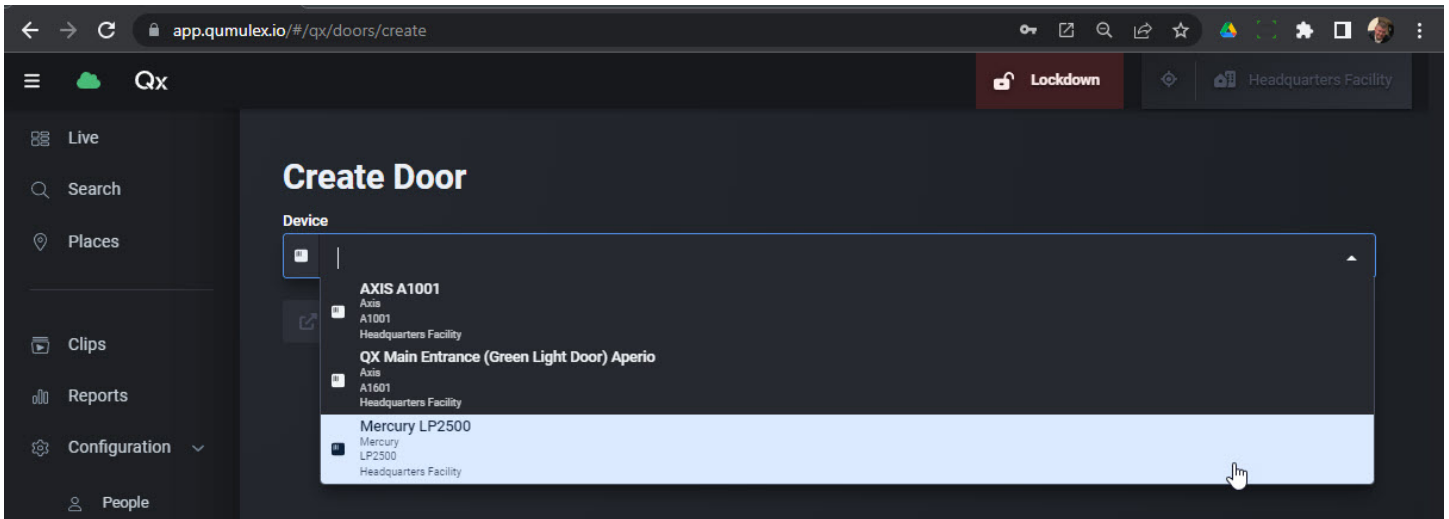


Note: Alternatively, you can also choose from the Edit Devices page:

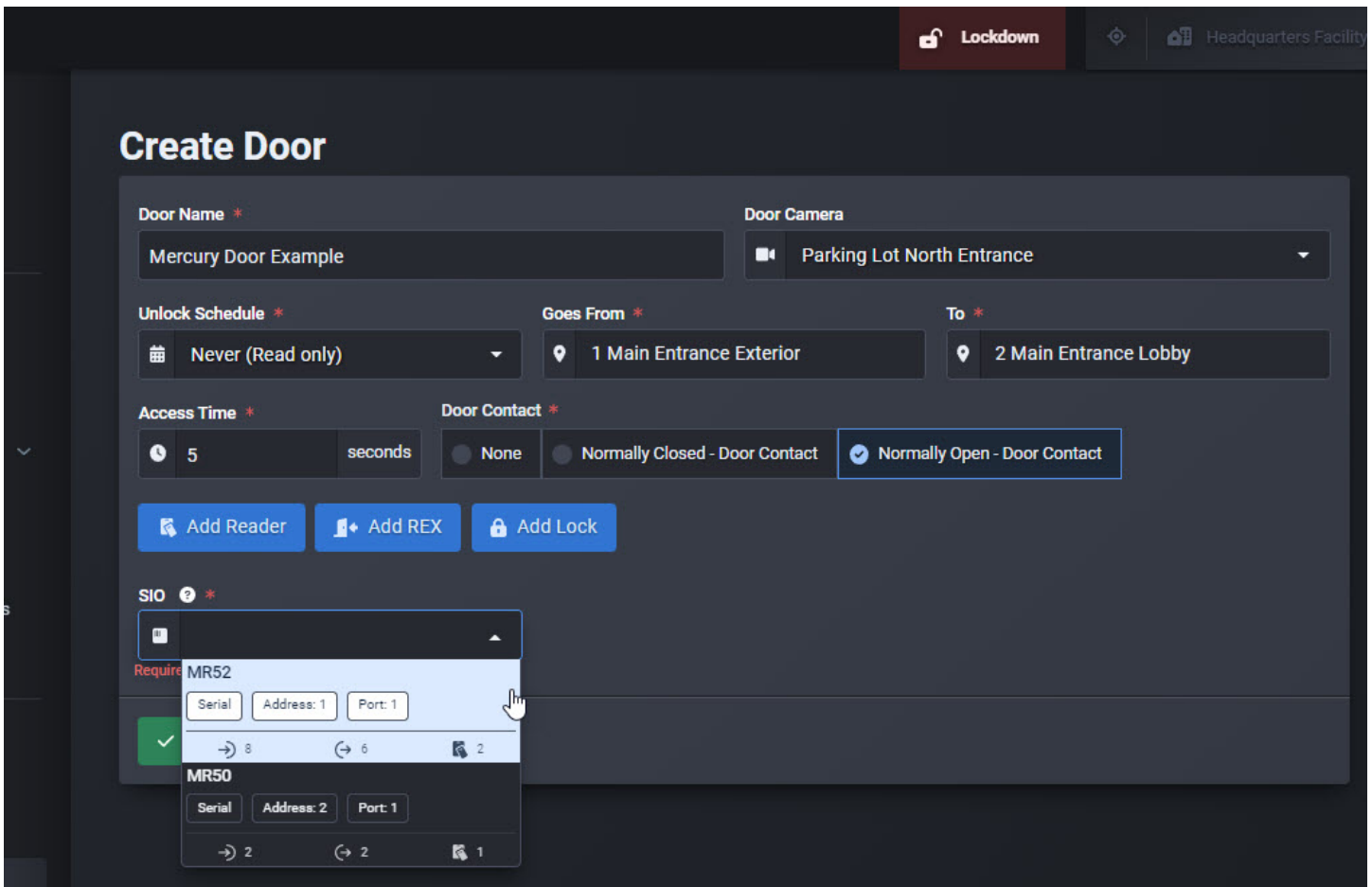




Continuing from the Doors Page, after choosing Create Door you will see available Controllers. We will choose the LP2500 in this example.



You will then provide a name, choose a camera to associate with, Schedule, From & To Areas, Access Time, Door Contact and then what SIO you would like to assign the door to. Click on “Create Door” to save the new door and continue the process.



Now that the Door has been created, you can use the edit field to add more Door components. Click on the blue buttons to add Readers, Rex and Locks. Has the button turned Gray? That means you have added the maximum number of that component already, such as Locks in this example.

Lockdown

Qumulex Customer

Access Time \* 5 seconds

Door Contact \* None Normally Closed - Door Contact Normally Open - Door Contact

Add Reader Add REX Add Lock

Reader

Reader Name \*

Grants Access To \*

1 Main Entrance Exterior 2 Main Entrance Lobby

Default State \*

Normally Closed Normally Open

PIR Bypass Off

REX

REX/PIR Name \*

Grants Access To \*

1 Main Entrance Exterior 2 Main Entrance Lobby

Default State \*

Normally Closed Normally Open

PIR Bypass Off

Lock

Lock Name \*

Type \*

Relay

Mode \*

Relay Open = Locked Relay Open = Unlocked

Delay Time \*

0 seconds

SIO

Once you have finished adding your Door components, choose “Close” to return to the Menu

The screenshot displays the Qumulex configuration interface for a door system. The interface is dark-themed and includes a sidebar on the left with navigation buttons: "Close" (highlighted with a red arrow), "Prev", and "Next". The main area is divided into sections for configuring different door components.

**Top Bar:** Includes a "Lockdown" button, a "Qumulex Customer" dropdown, and a "5 seconds" timer.

**Reader Configuration:**

- Reader Name:** South Lot Exterior Reader
- Grants Access To:** 1 Main Entrance Exterior (selected), 2 Main Entrance Lobby (selected)
- Default State:** Normally Closed (selected), Normally Open (selected)
- PIR Bypass:** Off

**REX Configuration:**

- REX/PIR Name:** South Lot REX
- Grants Access To:** 1 Main Entrance Exterior (selected), 2 Main Entrance Lobby (selected)
- Default State:** Normally Closed (selected), Normally Open (selected)
- PIR Bypass:** Off

**Lock Configuration:**

- Lock Name:** South Lot Lock
- Type:** Relay (selected)
- Mode:** Relay Open = Locked (selected), Relay Open = Unlocked (selected)
- Delay Time:** 0 seconds

**Bottom Bar:** Includes a "SIO" dropdown menu with "MP52" selected.

Now choose “Save Device” to save the new door.

**Info** **Wiring Info** **Edit Device**

**Make** **Model** **Device Protocol \***

Mercury LP2500 Wiegand

**Capabilities**

An inventories sum of inputs, outputs, and readers from onboard and connected daughter boards. → 10 Inputs

**SCP**

**LP2500**

Onboard 2 Ports

**SIO**

**MR52**

Serial Address: 1 Port: 1

→ 8 ↔ 6 ↺ 2

+ Add Mercury Inventory

**Doors**

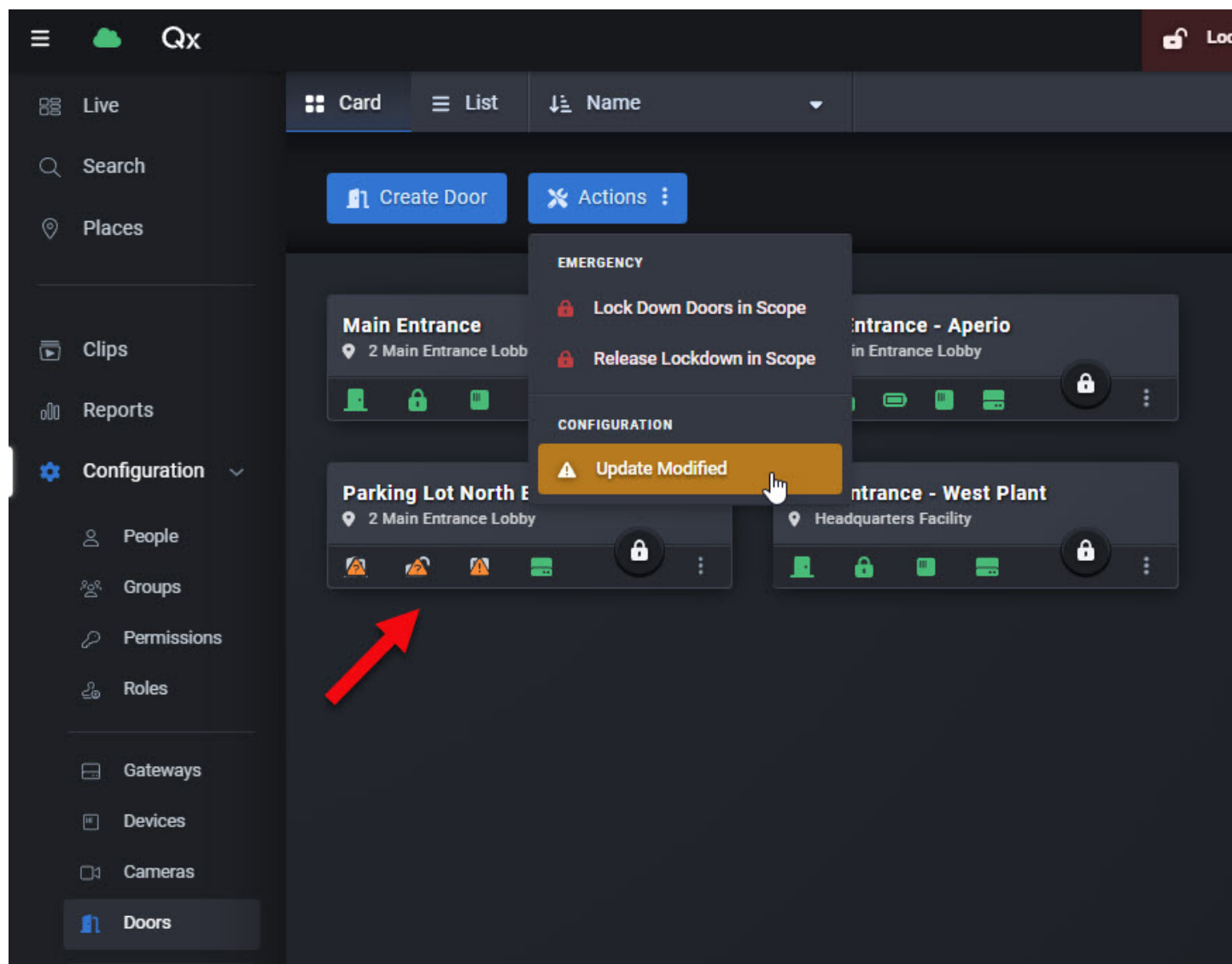
**Parking Lot North Entrance**

1 1 1

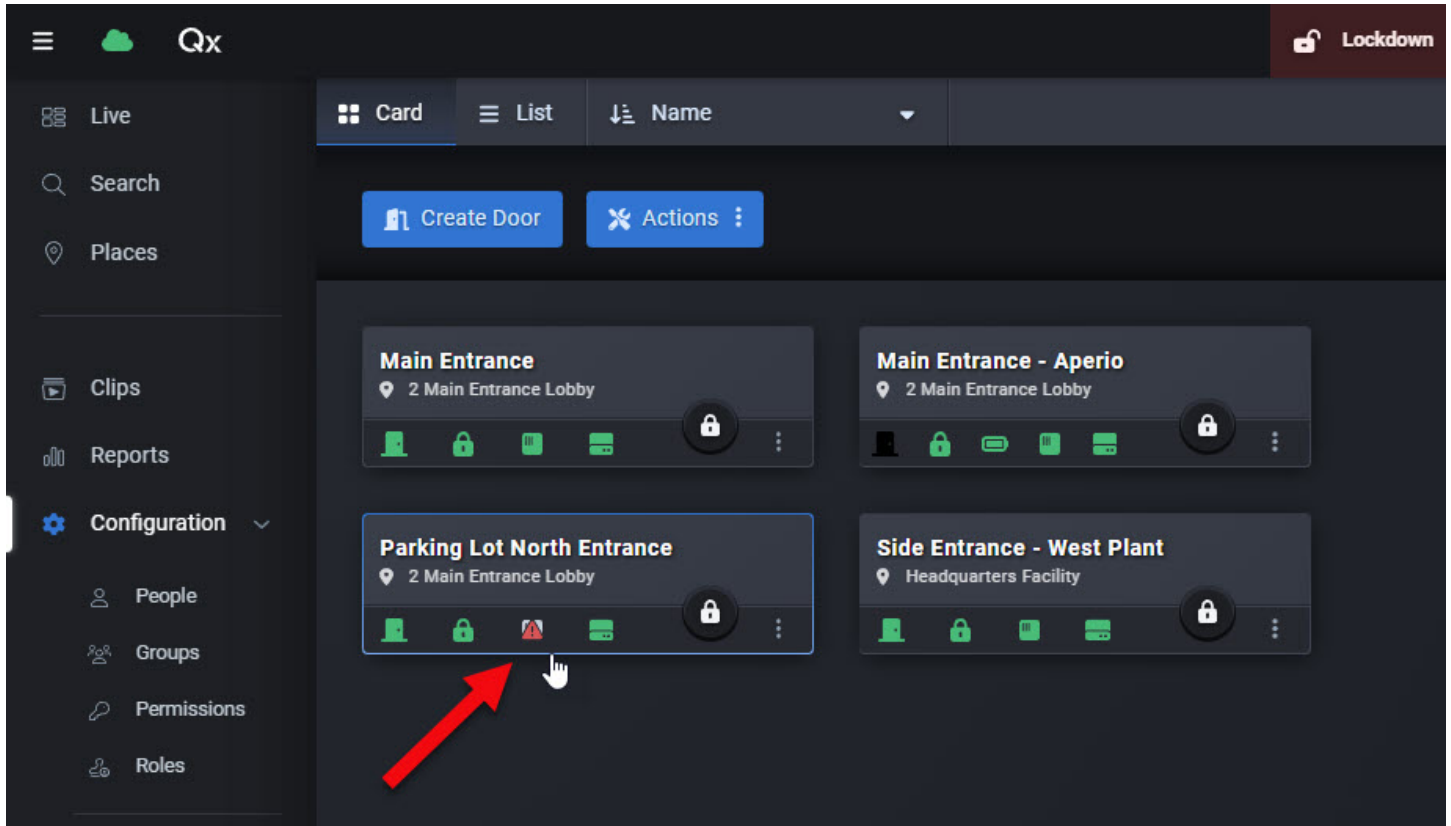
+ Add Door

✓ Save Device Cancel

After creating and saving the new door, you will likely see icons indicating that you need to push an update to the Controller to share these changes with it. In the Actions Menu, you can push an update to all modified controllers at once:



Another item to make note of is the delay in completing the update. In most cases this will be instantaneous. However, there may be times that the update may take a minute or two. After completing the update our status icons are green, but the panel button is red. This will typically mean that changes were accepted but the Controller is completing the process. If you see this, wait a few minutes and it will most likely return to a green status.



Now before adding any other doors, you can hover over the button and see a tool tip describing how many resources you have already used, and how many more the Controller can provide.

NOTE: This tool tip is based on the total potential of the Controller assuming maximum SIOs have been installed. This does not reflect your current configuration.

The screenshot displays the Qumulex configuration interface. On the left is a sidebar with navigation options: Clips, Reports, Configuration (expanded), People, Groups, Permissions, Roles, Gateways, **Devices**, Cameras, Doors, Schedules, Holiday Sets, Rules, and Views. The main content area is divided into two sections. The top section, titled 'Capabilities', shows a summary of resources: 10 Inputs, 8 Outputs, and 3 Readers. Below this, there are three device cards: an SCP card for 'LP2500' (Onboard, 2 Ports) and two SIO cards for 'MR52' and 'MR50'. The MR52 card shows 8 Inputs, 6 Outputs, and 2 Readers. The MR50 card shows 2 Inputs, 2 Outputs, and 1 Reader. A blue button '+ Add Mercury Inventory' is located below the SCP card. The bottom section, titled 'Doors', shows a modal for 'Parking Lot North Entrance'. A tooltip is visible over the '+ Add Door' button, stating '2 ACR utilized. 62 ACR remain.' A red arrow points to this button. At the bottom of the modal are three buttons: 'Save Device' (green), 'Cancel' (grey), and 'Delete Device' (red). The user's profile 'Josh Bowman' is visible in the bottom left corner.

Lastly, if you visit the Door Controller Info Page, the Wiring Info Tab is subtle but offers some valuable insights.

Each door component is listed individually and shows what SIO Module it is wired to. In this case, you see all three components are for the Parking Lot North Entrance Door and are connected to the MR52 used in our example.

The screenshot shows the Qumulex app interface. The top navigation bar includes 'Live', 'Search', 'Places', 'Clips', 'Reports', and 'Configuration'. The 'Wiring Info' tab is selected, displaying the 'Mercury LP2500' device details. Below the device name, there is a 'Config' button. The 'DEVICE WIRING INFO' table lists the following components:

Inventory Name	Inventory Address	Door	Component	Ref
MR52	1	Parking Lot North Entrance	South Lot Lock	LK0-1-1
MR52	1	Parking Lot North Entrance	South Lot REX	RX0-1-1
MR52	1	Parking Lot North Entrance	South Lot Exterior Reader	RD0-1-1

In the Ref column you will also see valuable information. LK0-1-1, RX0-1-1, RD0-1-1

LK = Lock , RX = REX, RD = Reader

The first digit is the index of the reader/input/output for service to indicate which point is used

The second digit is the data port for the connection

The third digit is the driverID for the connection.

NOTE: the index is auto generated for the next available resource. port and driverID is from the sio inventory for the selected device.

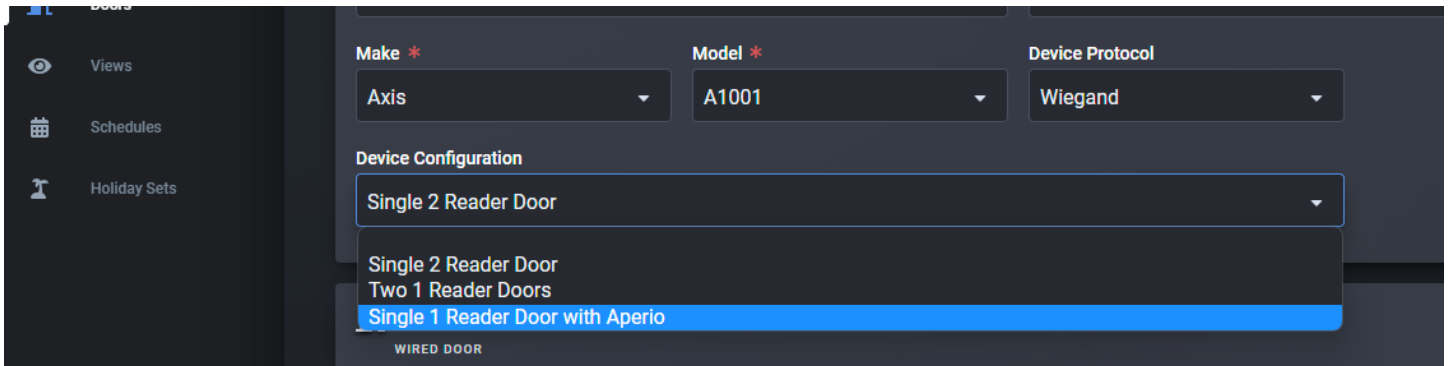
This means that as you add doors and door components, you can choose what Controller/SIO Module to install to, but QxControl will auto-assign the inputs and outputs. The door contact takes the first available input on the SIO, then REX1, then REX2. The lock takes the first available output on the SIO.

This field is used as a guide to help you understand where your door components are wired to on the module.



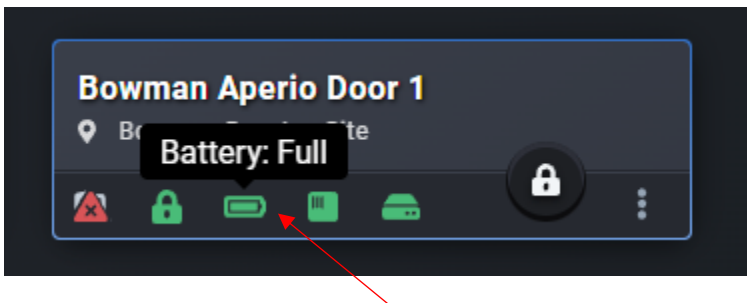
Adding an Aperio door is very simple to do. You will follow the standard procedure for adding a new door from the previous section. It is important to choose the “Aperio” option for Device Configuration when setting up the Door Controller. **NOTE: Currently you can only use Aperio in QxControl via an Axis Controller using the serial hub.**

When you reach the “Device Configuration” field, simply choose “Single 1 Reader Door with Aperio” from the drop-down menu.

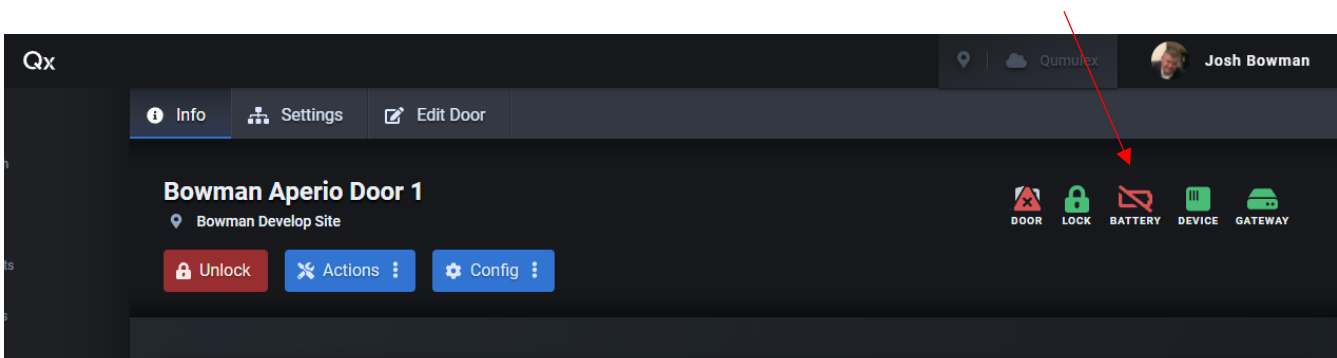


Operating an Aperio door is very similar to operating any other door type in QxControl. The primary difference is that you will also see a battery status for the wireless Aperio hardware.

You can see this status on a Door Card on the Doors Page, or on a Widget on the live Page:

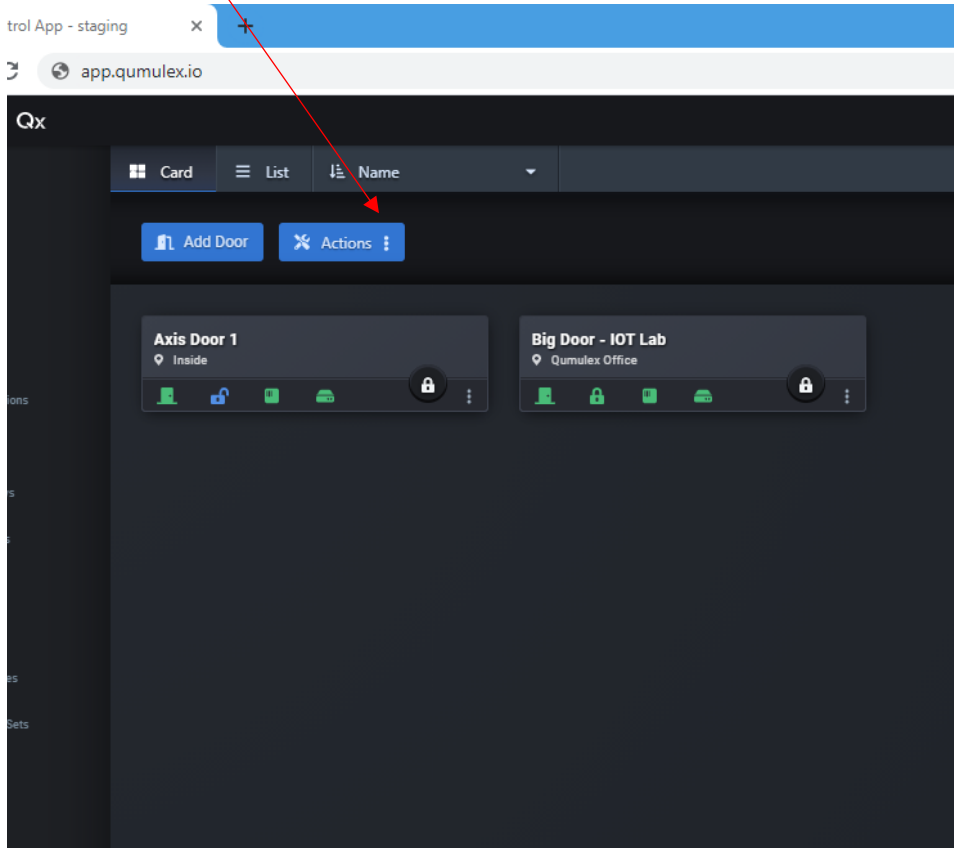


You can also see this on the Door Info Page. In the example above, the battery icon is green to indicate the battery is full or in good health. The example below shows a battery that is exhausted, and needs replaced.

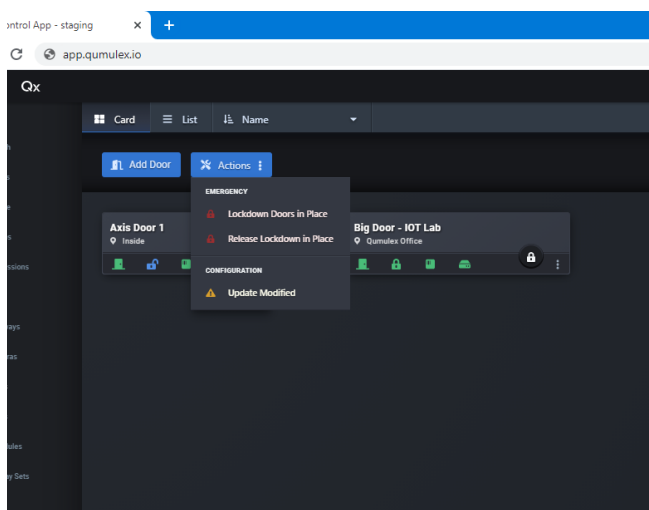


## Operating Doors from Doors Main Page

Once Doors have been added to QxControl, you can now manage and operate them. The first area available to you is the Doors Page. There are two options on this page. The first is “Add Door” described in the previous section. The Next is the “Actions” button.

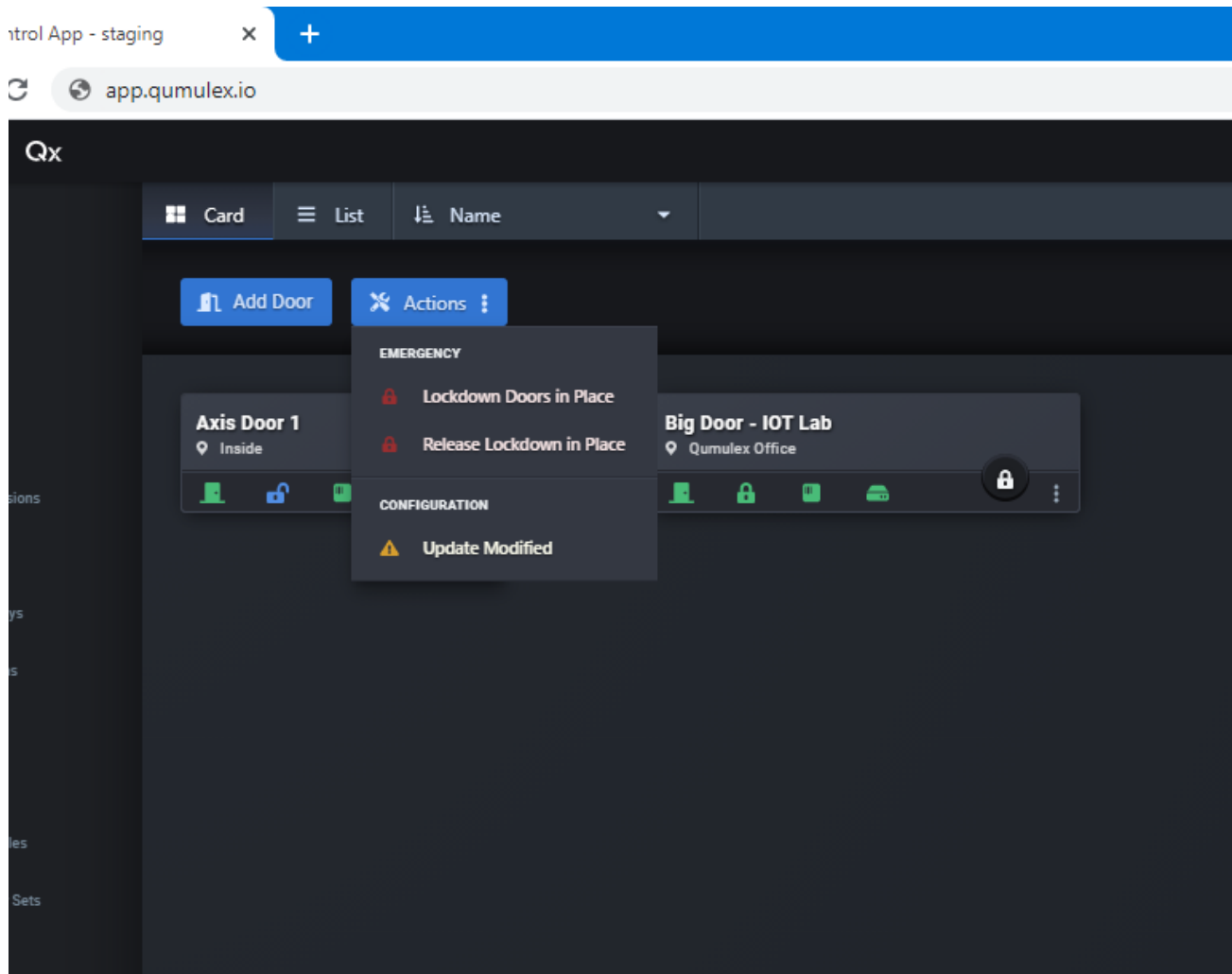


The actions available here are different than operating a Door in Live View or from within a Door itself because ***actions used in this menu will apply to all Doors.***



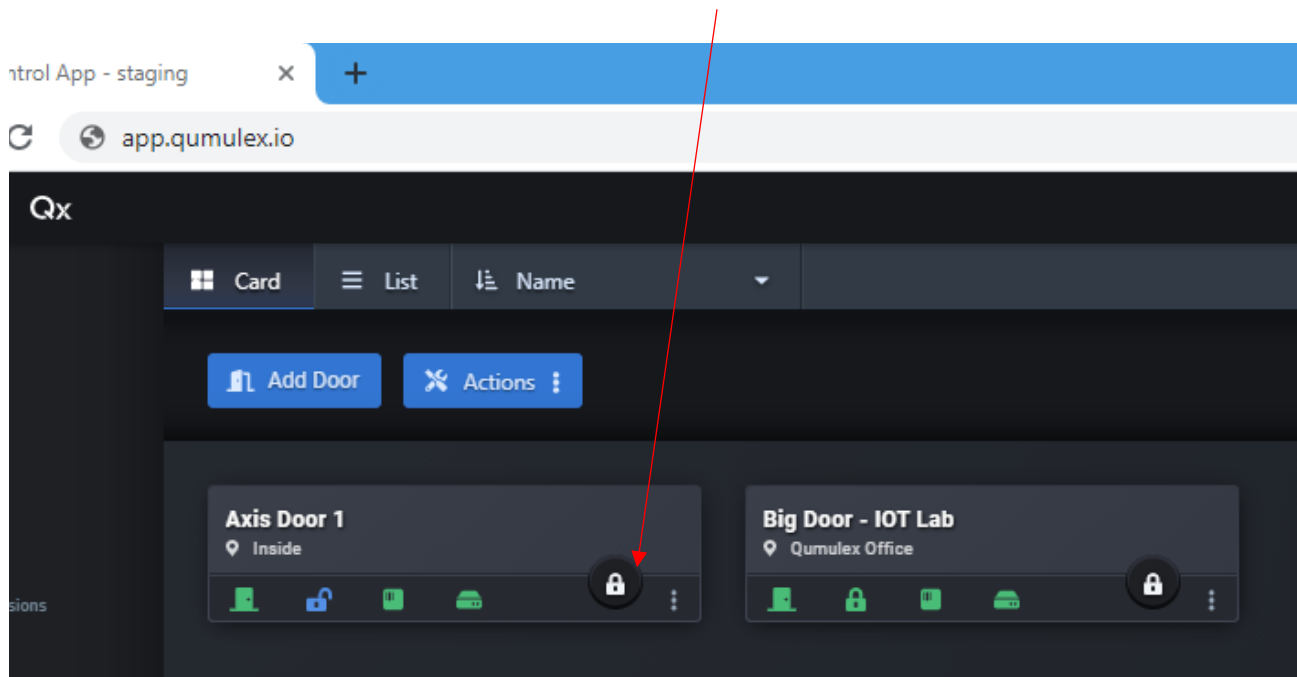
Using the Actions Button from the main Doors page, will allow you to:

- Lockdown all Doors at the current Scope
- Release all Doors from a Lockdown
- Update all Door Controllers at once

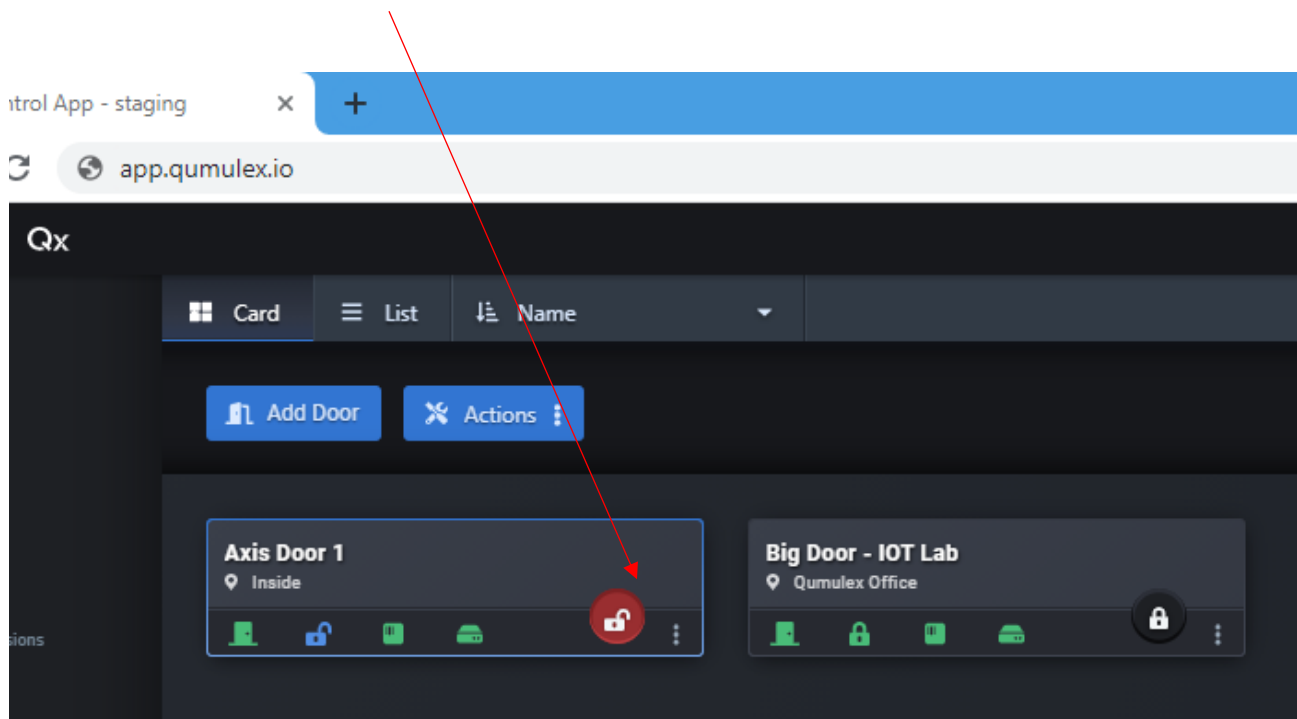


Next, from the main Doors page we can also operate the Doors individually.

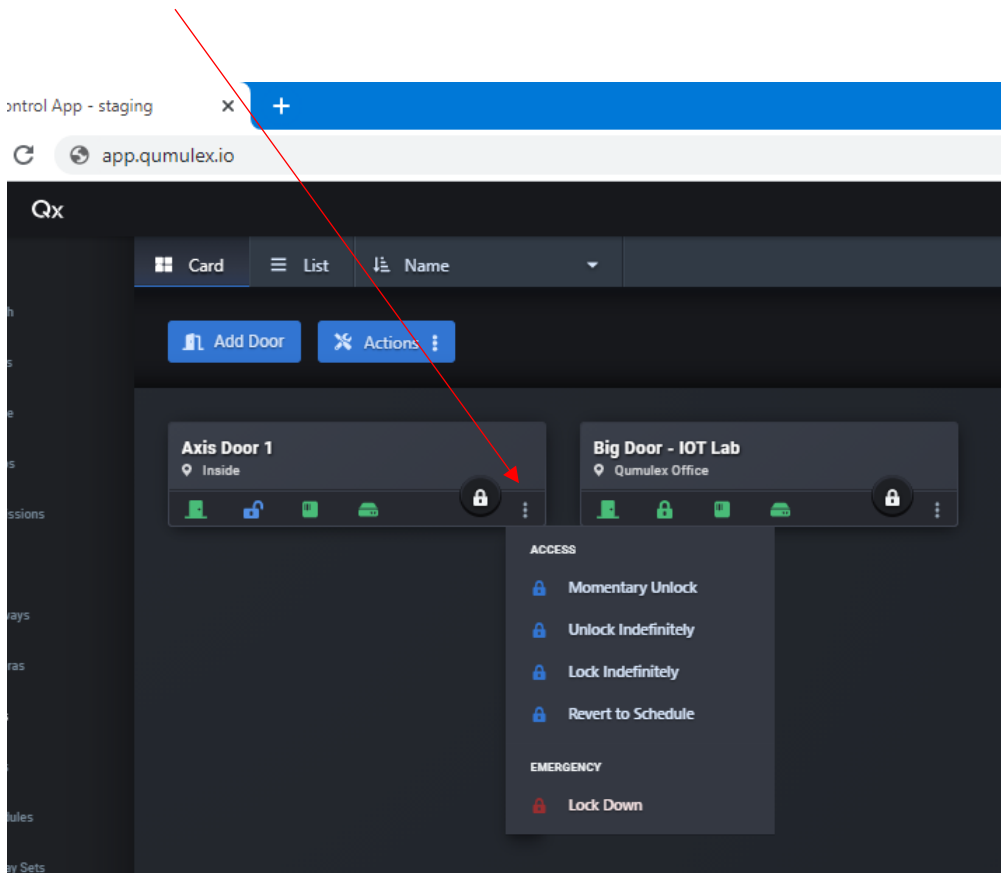
To pulse unlock, click on the padlock button of the Door you want to unlock.



You will see the status change to unlocked, and then will revert after the unlock time has been fulfilled.

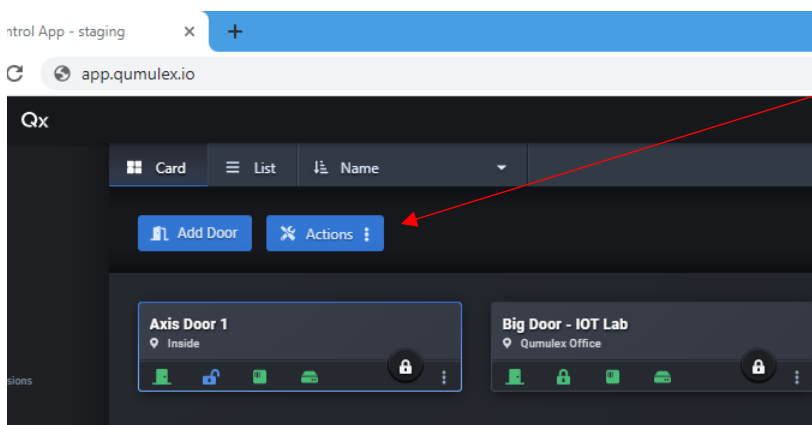


Choose the 3-dot menu in the lower right hand of the Door Card to show additional operations.



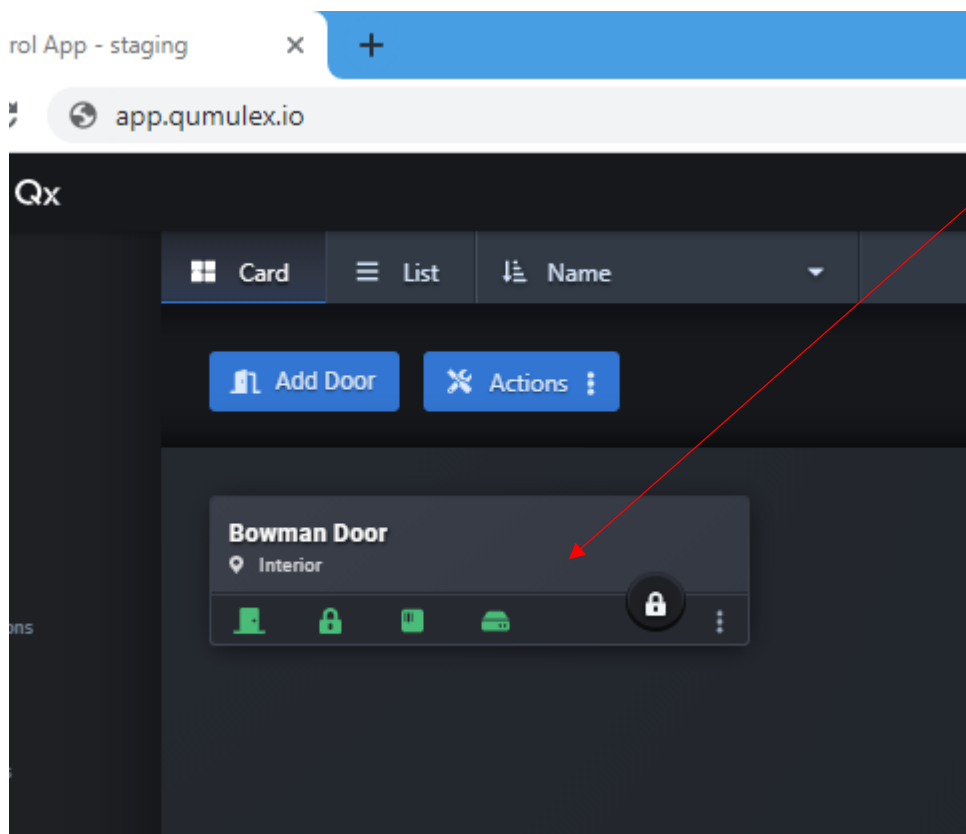
- Momentary Unlock – Pulse unlock the Door
- Unlock Indefinitely – Unlock the Door continuously and ignore the assigned Schedule
- Lock Indefinitely – Lock the Door continuously and ignore the assigned Schedule
- Revert to Schedule – Reverse the action of Lock/Unlock Indefinitely, and Lockdown actions and return to the assigned Schedule.
- Emergency: Lockdown – Lockdown of this Door only, will not allow credential holder access below Admin level.

*Reminder: Lockdown and other actions taken from a Door Card only apply to that specific Door and will not create this action for any other Doors. Emergency Lockdown for an entire site MUST be taken from the top level “Actions” button.*

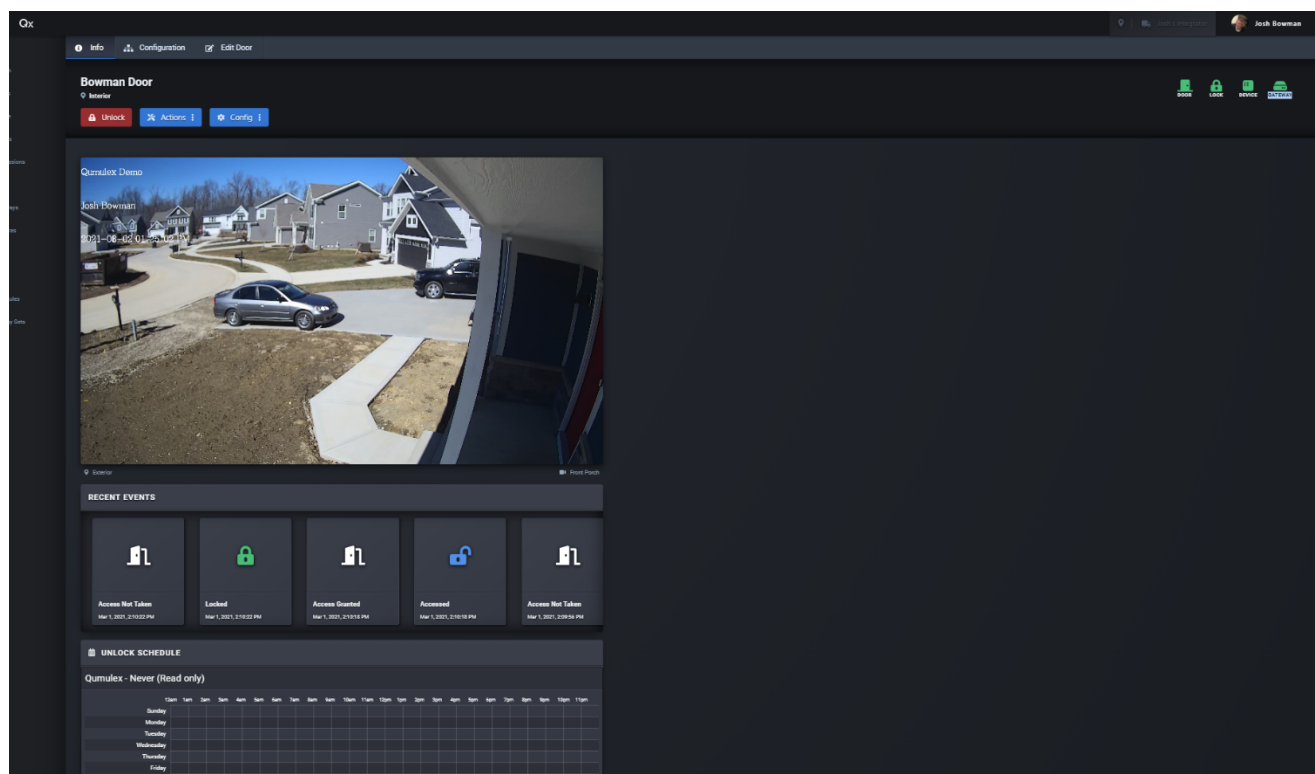


## Operating Doors from an Individual Door Page

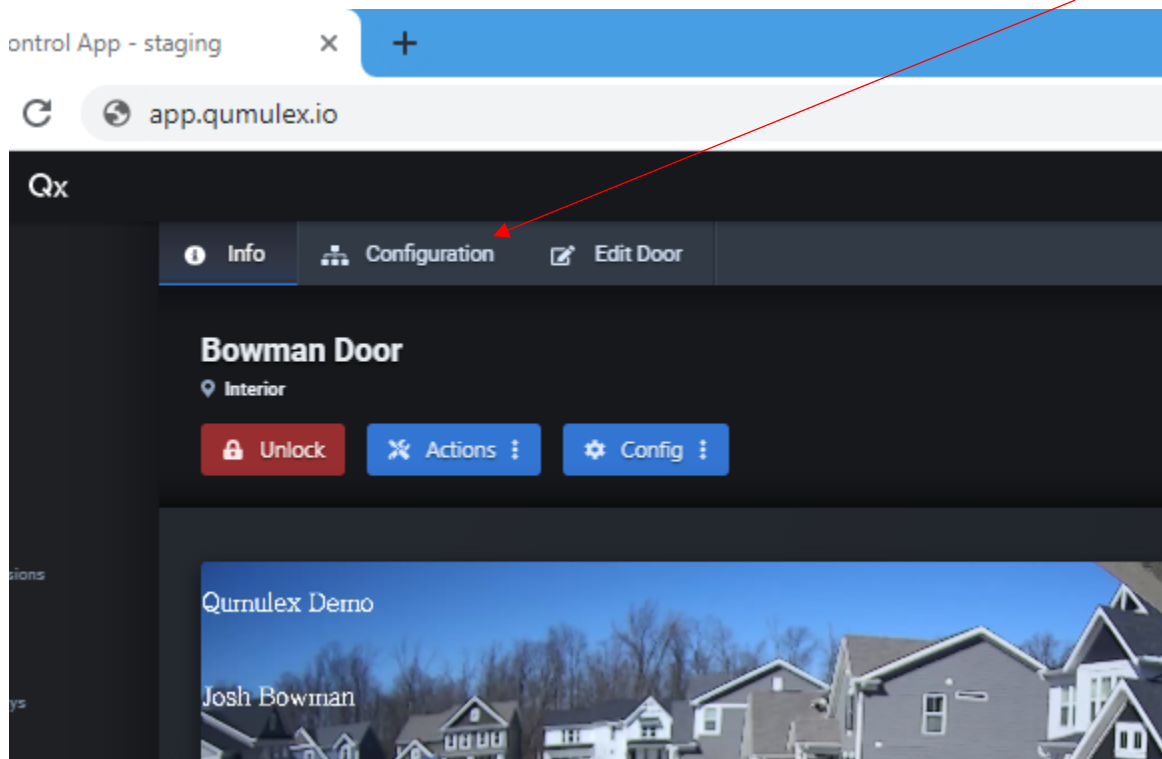
To operate a door from its own Door page, click on the Door Card for the Door you want to Operate.



This will reveal the individual Door page.

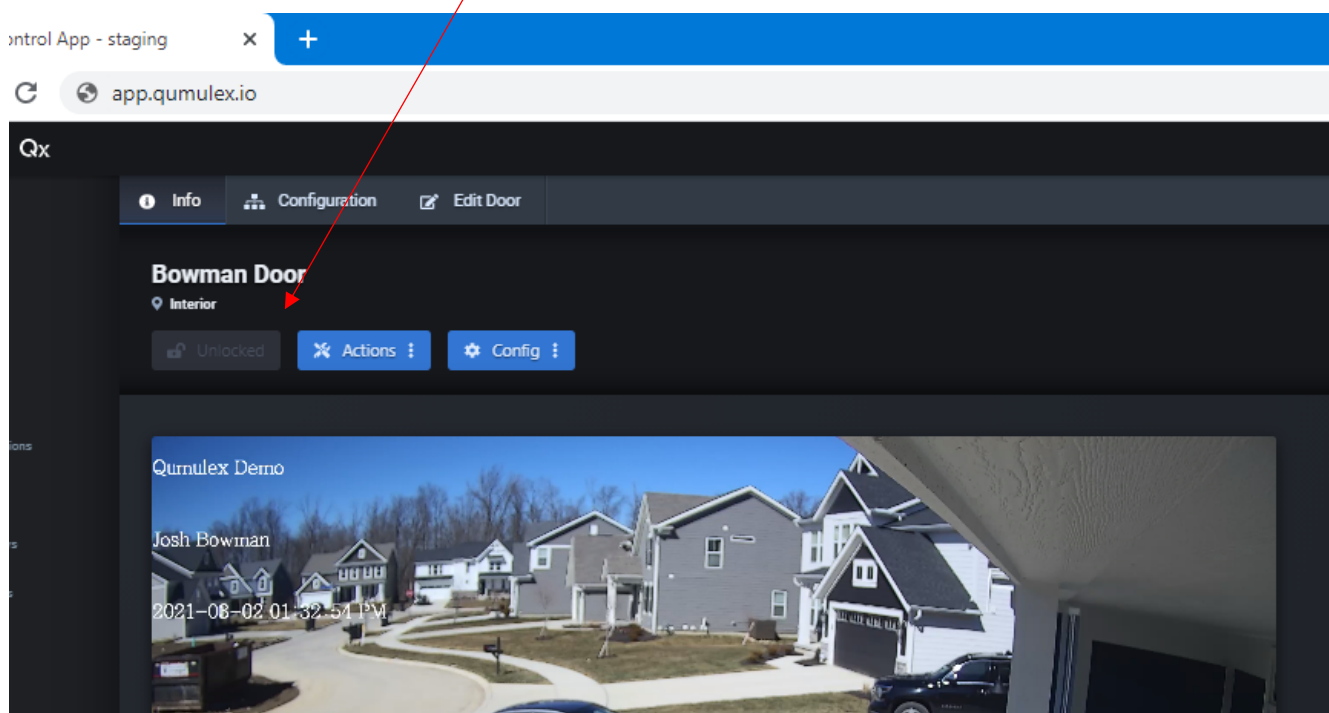


Starting at the top menu, you have three pages to choose from: Info, Configuration and Edit Door.

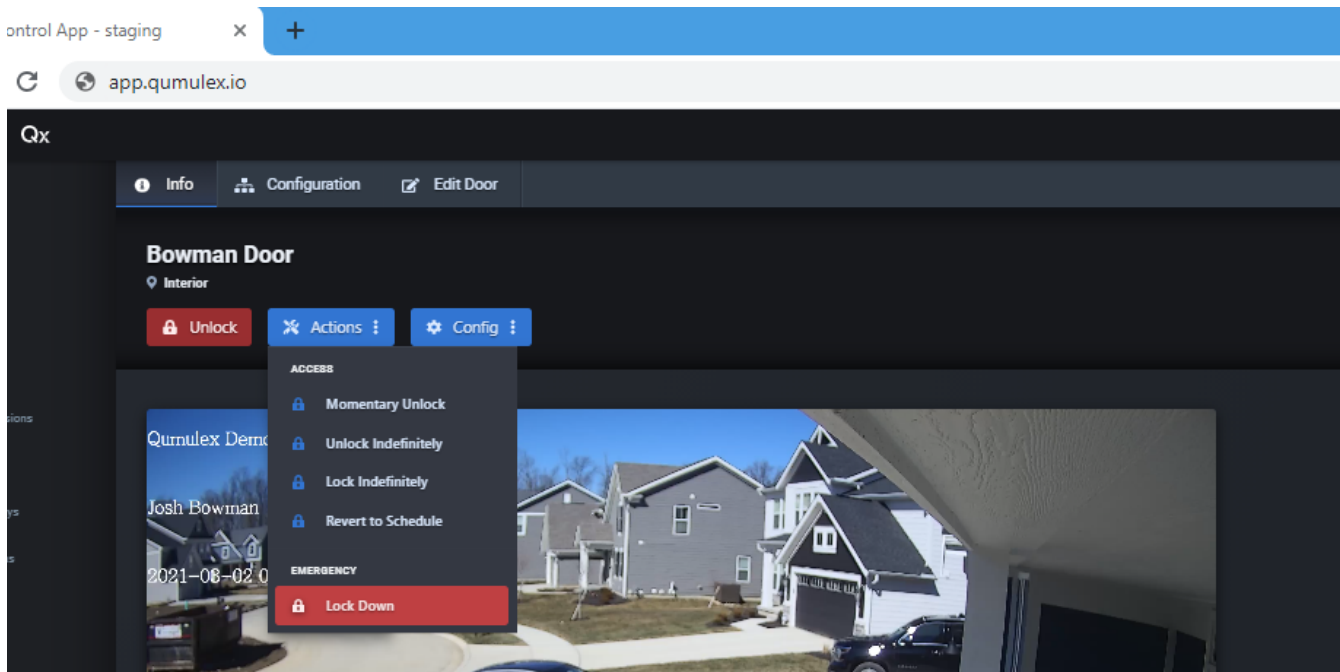


The Info page provides detailed information on Events, Schedules, allows Door actions to be taken and allows you to view the associated Camera while operating the Door.

Press the “Unlock” button to pulse unlock the Door. You will see the status change to “Unlocked” then revert back.



Choose “Actions” to reveal the other available Door actions.



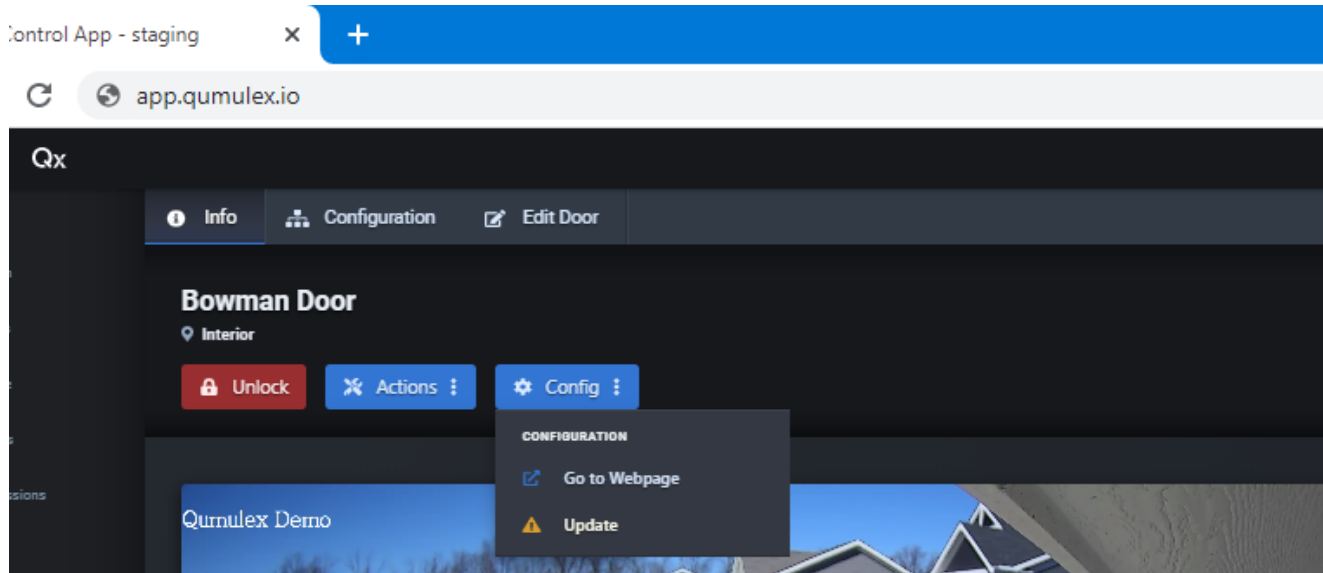
The available actions are the same as when operating an individual Door on the main Doors page.

- Momentary Unlock – Pulse unlock the Door
- Unlock Indefinitely – Unlock the Door continuously and ignore the assigned Schedule
- Lock Indefinitely – Lock the Door continuously and ignore the assigned Schedule
- Revert to Schedule – Reverse the action of Lock/Unlock Indefinitely, and Lockdown actions and return to the assigned Schedule.
- Emergency: Lockdown – Lockdown of this Door only, will not allow the door to be accessed from the locked side.

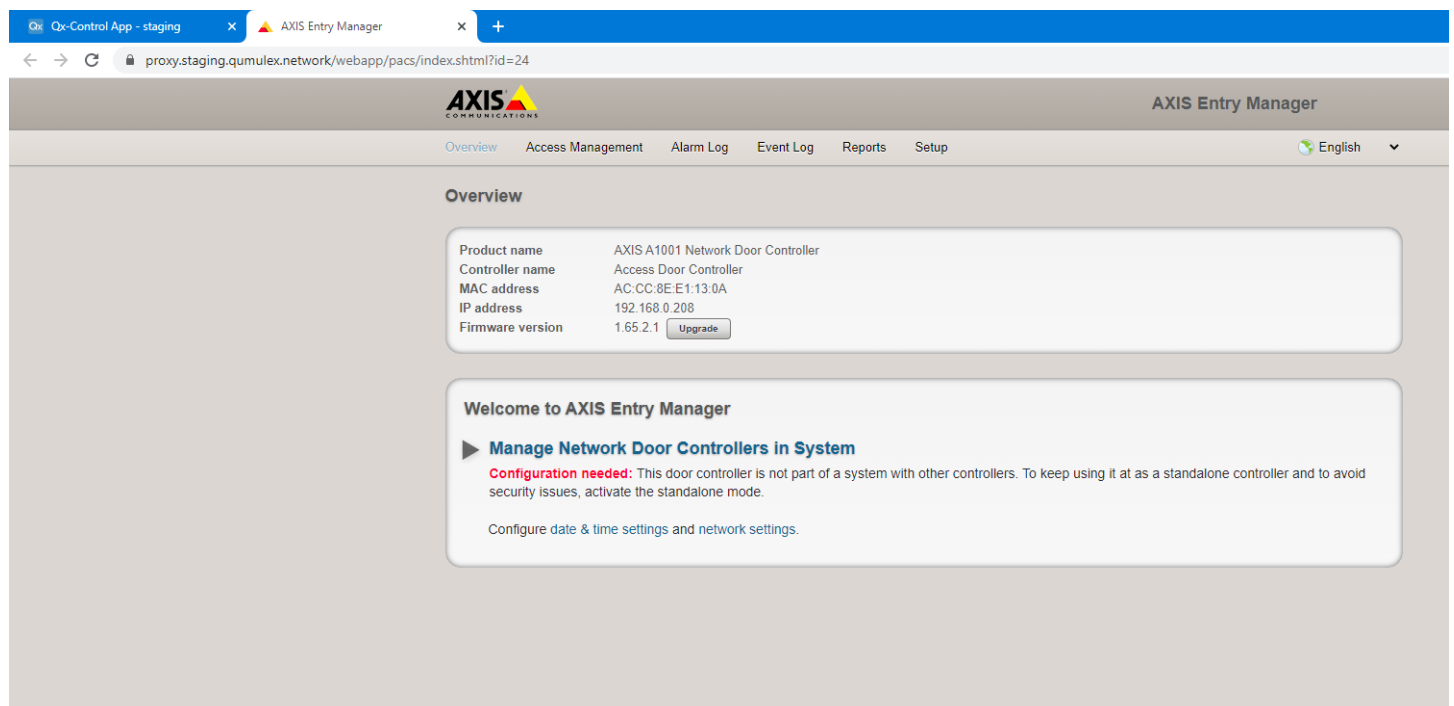
*Reminder: Lockdown and other actions taken from a Door page only apply to that specific Door and will not create this action for any other Doors.*



Choosing “Config” offers two options:



- 1) Go To Webpage – Similar to the FAB action for Cameras and Gateways, this will take you to the device webpage of the Door Controller (image below)
- 2) Update – Push an update to the Door Controller after modifying settings

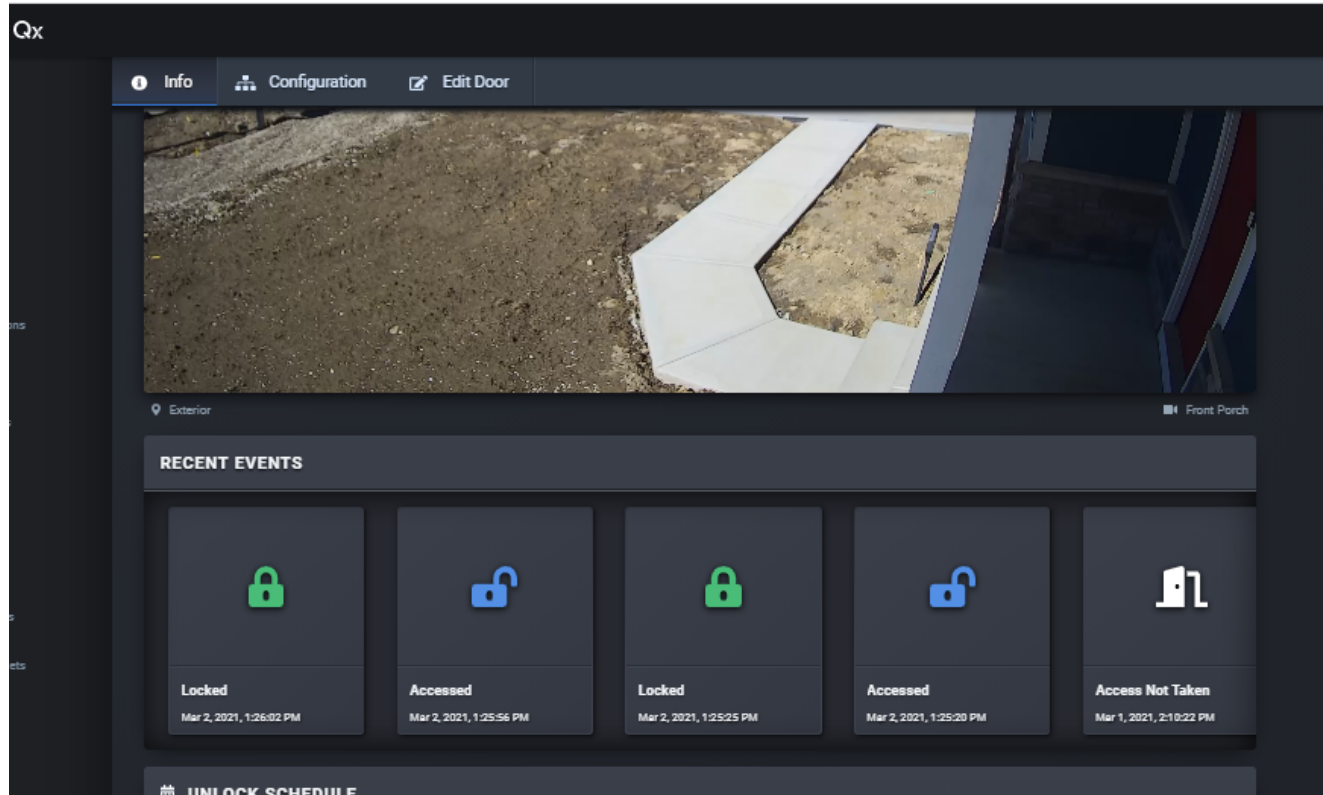


Below the Action Buttons is a live view of the associated camera, and the Recent Events feed.

The screenshot displays the Qumulex web application interface. At the top, the browser address bar shows the URL `app.qumulex.io/#/qx/doors/613756944754149136/`. The interface includes a sidebar on the left with navigation options: Live, Search, Places, Clips, Reports, Configuration (with a dropdown arrow), People, Groups, Permissions, Roles, Gateways, Cameras, Doors (highlighted), Schedules, Holiday Sets, Rules, and Views. A red arrow points from the 'Search' option in the sidebar to the 'Search' button in the top navigation bar. The top navigation bar also contains a 'Lockdown' button and a 'Qumulex Customer' dropdown. Below the sidebar, there are tabs for 'Info', 'Settings', and 'Edit Door'. Under the 'Info' tab, there are three buttons: 'Unlock' (red), 'Actions' (blue), and 'Config' (blue). The main content area features a large live video feed of a warehouse interior with a door. Below the video feed, there is a 'RECENT EVENTS' section with two event cards, each showing a lock icon (one green, one red). The bottom left corner of the interface shows a user profile for 'Josh Bowman' with the email 'jbowman@qumulex.com'.

Note: This presents a live view only of the associated Camera to allow a view of the Door prior to unlocking or taking actions. To see recorded video of Door Events, use the Search page.

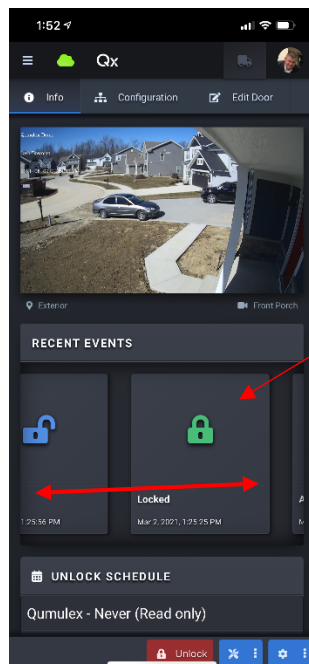
Recent Events will display Door Events such as Access Granted, Access Denied, Door Status and shows what credential holder is associated with the Event.



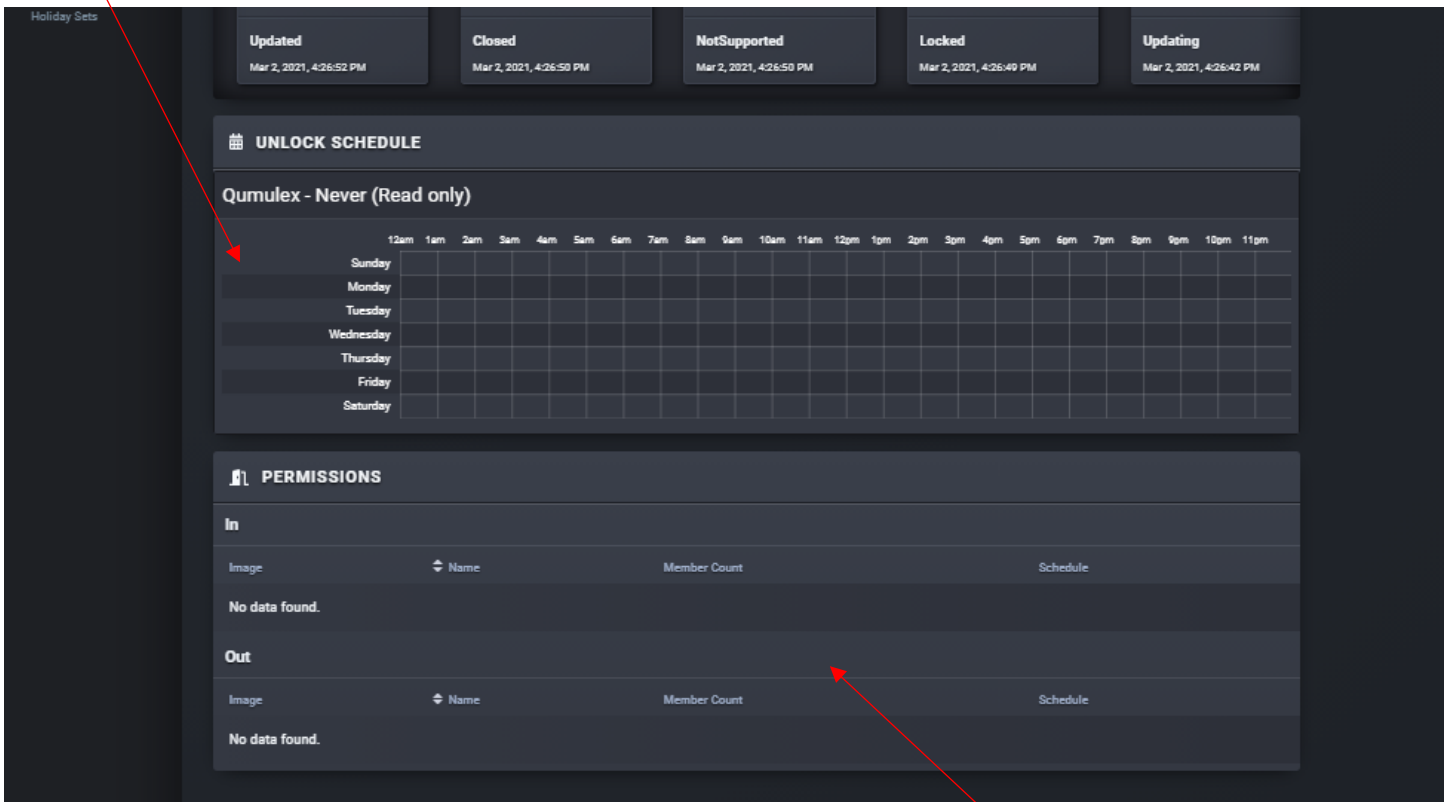
Newer Events

Older Events

To view these Events, grab with your mouse cursor and scroll left or right to move forward and backward through the timeline. This also makes viewing Events from a Mobile Device extremely easy:

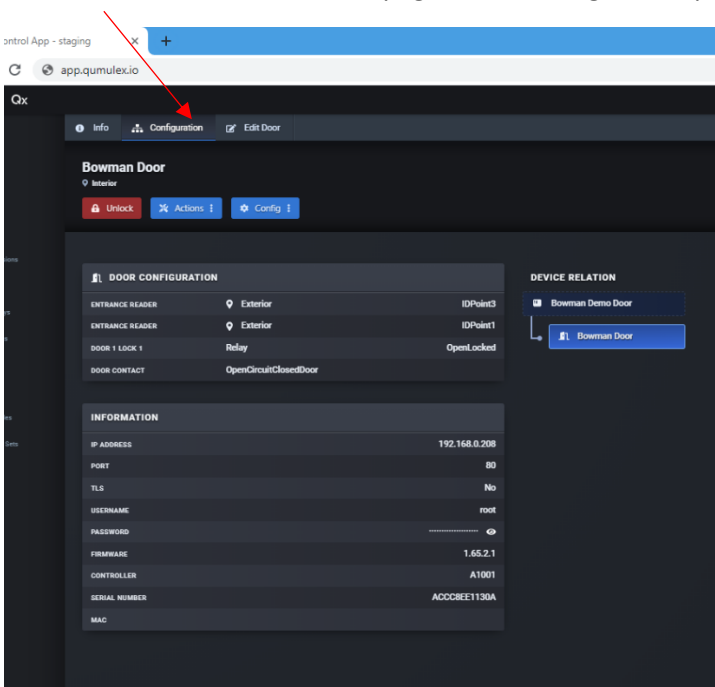


Below the Recent Events, the assigned Door Schedule is displayed.



Also displayed will be any Permissions that are assigned to the same Scope as this Door.

The next tab over from the Info page, is the Configuration page.



The Configuration page shows information related to the Door(s) and the Door Controller.

Qx

Info Configuration Edit Door

### Bowman Door

Interior

Unlock Actions Config

#### DOOR CONFIGURATION

ENTRANCE READER	Exterior	IDPoint3
ENTRANCE READER	Exterior	IDPoint1
DOOR 1 LOCK 1	Relay	OpenLocked
DOOR CONTACT	OpenCircuitClosedDoor	

#### DEVICE RELATION

Bowman Demo Door

Bowman Door

#### INFORMATION

IP ADDRESS	192.168.0.208
PORT	80
TLS	No
USERNAME	root
PASSWORD	*****
FIRMWARE	1.65.2.1
CONTROLLER	A1001
SERIAL NUMBER	ACCC8EE1130A
MAC	

This page is an excellent reference to find information such as the Door Controller IP Address, Model Number and Serial Number. You can also view how many Readers are assigned to the Door, Locks and other related info.

The last tab is the “Edit Door” Page. This allows you to change any of the initial settings you configured when first adding the Door to QxControl.

control App - staging x +

app.qumulex.io

Qx

Info Configuration **Edit Door**

**Bowman Door**  
Interior

Cancel Edit Manage Device

Door Name: Bowman Door Door Camera: Front Porch

Unlock Schedule: Never (Read only) Goes From: Exterior To: Interior

Access Time: 3 seconds Door Contact: ☐ None ☐ Open Circuit - Open Door ☒ Open Circuit - Closed Door

**REX**  
 REX/PIR Name: Exit REX  
 Grants Access To: ☒ Exterior ☐ Interior  
 Default State: ☒ Normally Closed ☐ Normally Open  
 PIR Bypass: ☐ Off

**Reader**  
 Reader Name: Entrance Reader  
 Grants Access To: ☐ Exterior ☒ Interior

**Reader**  
 Reader Name: Entrance Reader  
 Grants Access To: ☐ Exterior ☒ Interior

**Lock**  
 Lock Name: Door 1 lock 1  
 Type: ☐ 12v ☒ Relay  
 Mode: ☒ Relay Open = Locked ☐ Relay Open = Unlocked  
 Delay Time: 5 seconds

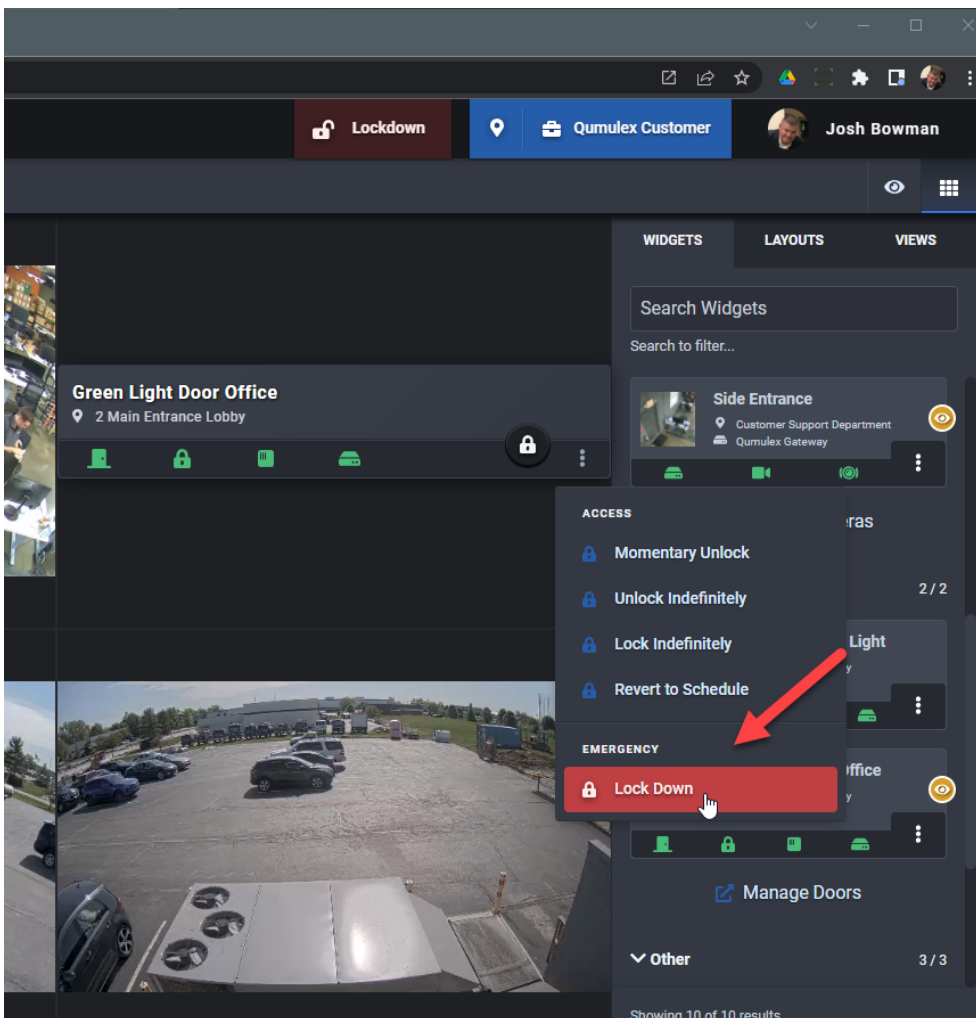
Update Door Delete Door

## Using Lockdown in QxControl

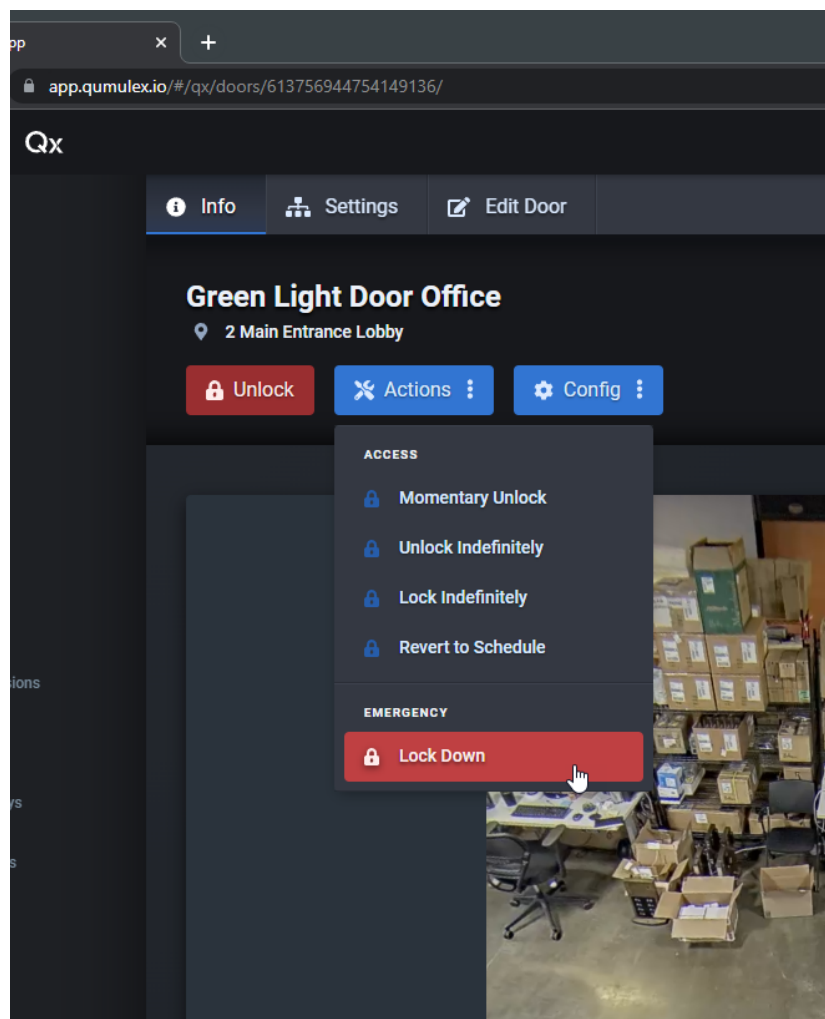
QxControl offers four locations in the app that allow you to initiate a Lockdown condition. A Lockdown condition is where all doors are inaccessible from the locked side, even with an access credential.

### Single-Door Lockdowns

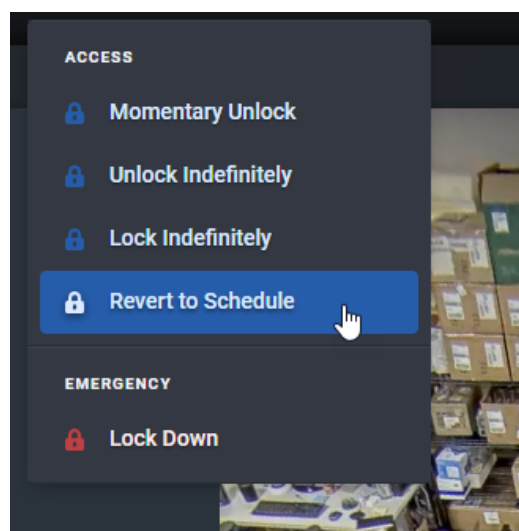
The first place you can initiate a Lockdown, is in the 3Dot Menu of a Door Widget in Live. Initiating a Lockdown from this menu **ONLY** initiates a Lockdown of this individual door.



You can also initiate a single-door Lockdown from the Actions Menu of a Door Info Page:



For both single-door Lockdown conditions, you will choose the option “Revert to Schedule” to remove the Lockdown condition from the same menu used to initiate it:



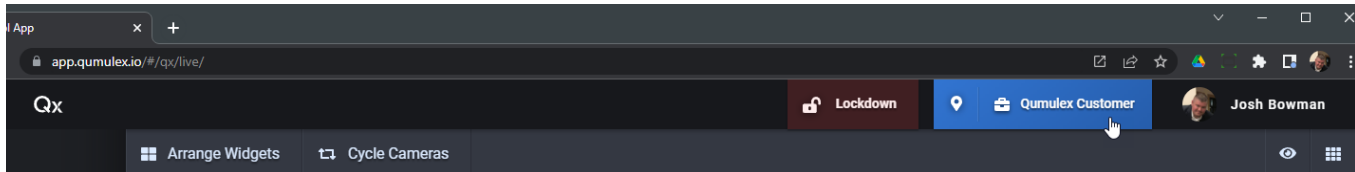


## Scope-Level Lockdowns

The next form of Lockdown is a “Scope-Level” Lockdown, meaning you will Lockdown all doors within your current scope.

The fastest way to initiate a Lockdown of all doors in a Scope (such as an entire building, or campus) is to:

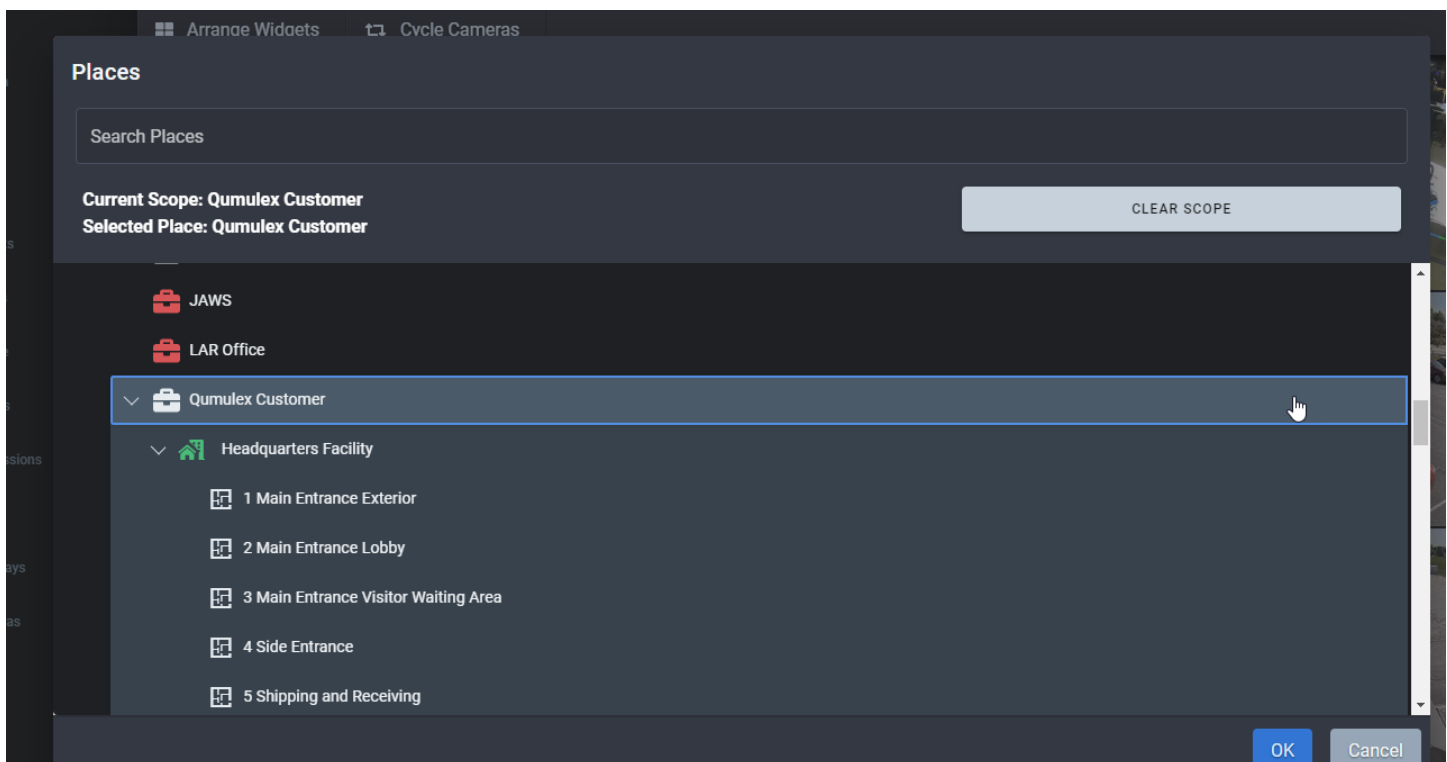
- (1) Use the Scope Selector, found at the top of every page in QxControl, and ensure your entire Scope is selected:



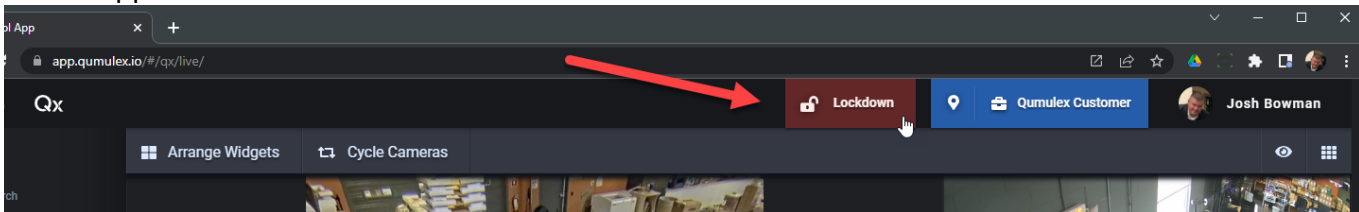
- (2) You can see in this example, the site that we want to Lockdown is Qumulex Customer, and this site is already the current scope.

If you are viewing multiple sites, you would want to set the scope to the correct individual site and ensure that you do not Lockdown more sites than necessary.

For example, if you have a site in Columbus that is experiencing an emergency, you do not necessarily need to Lockdown your sites in Cincinnati and Cleveland.



- (3) After verifying and selecting the desired Scope, you can choose the “Lockdown” button just to the left of the Scope button. Just like the Scope button, the Lockdown button is available on all pages of the app.

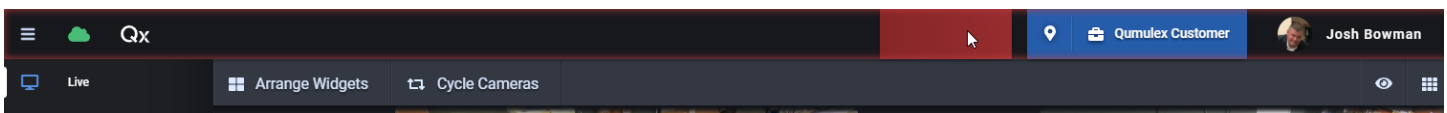


Note: If you are set to an **Integrator Level Scope**, the Lockdown button will be unavailable. This prevents an accidental Lockdown of all customers assigned to an Integrator.

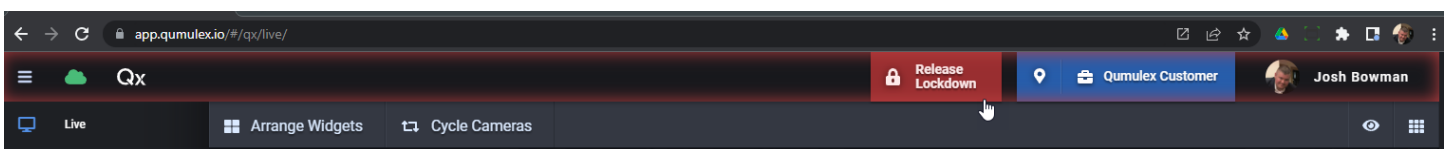
- (4) The Lockdown button must be pressed THREE times to initiate the Lockdown condition. There is a counter in the button itself that will appear:



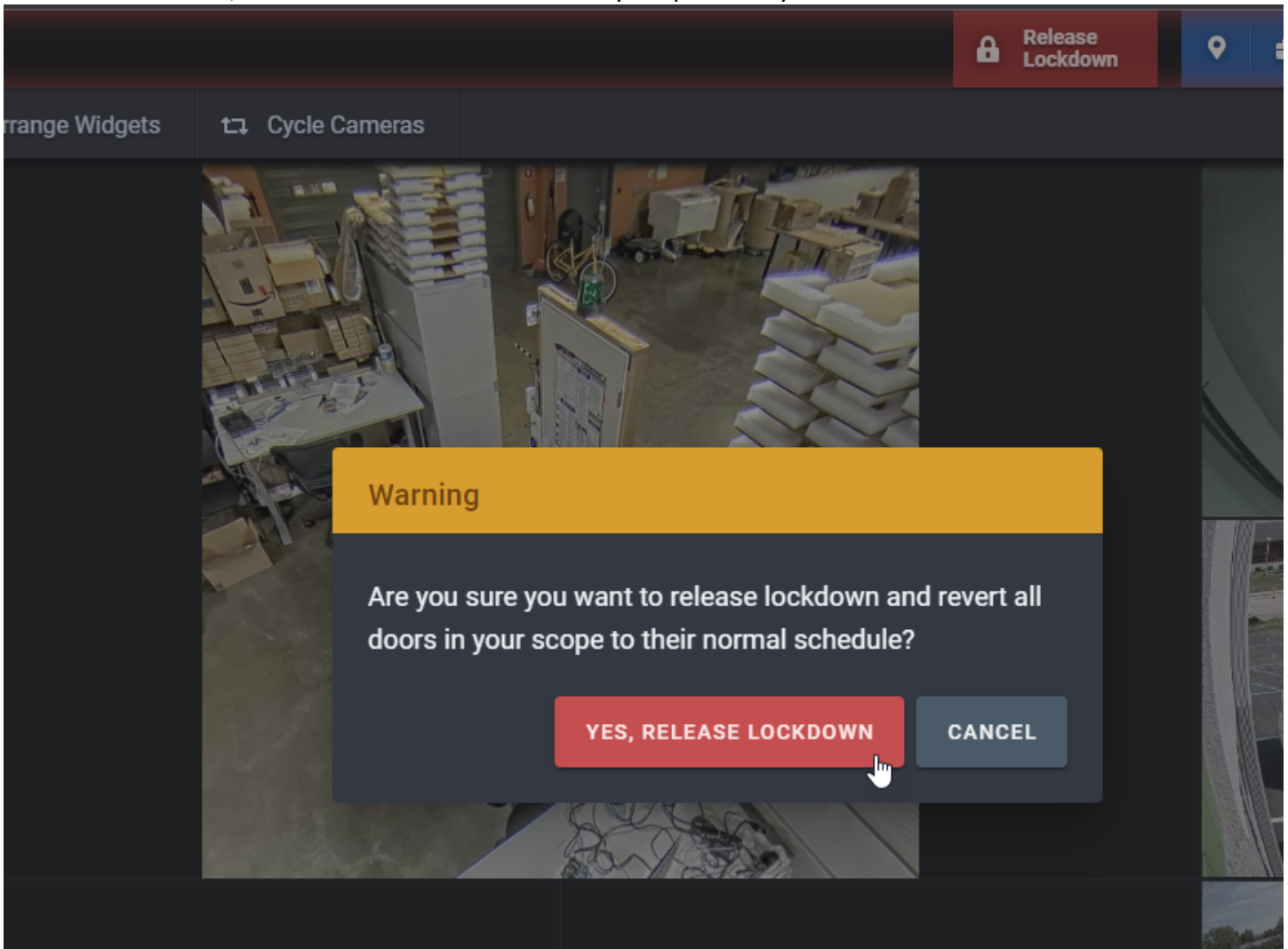
- (5) After the third click the Lockdown will initiate and you will see the button disabled temporarily to avoid accidentally removing the Lockdown. You will also see a red glowing indicator at the top of every page in the App to show that you are in a Lockdown condition:



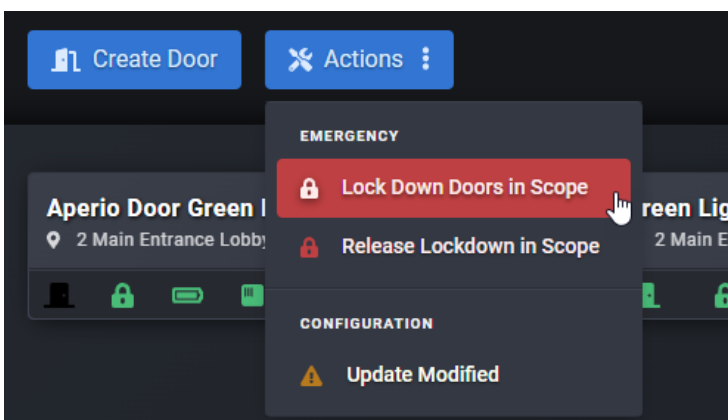
- (6) To remove the Lockdown condition, simply click the Lockdown button three times:



- (7) This will present you with a warning message to ensure that you intend to remove the Lockdown. Choose “Yes, Release Lockdown” to return to your previously scheduled condition:



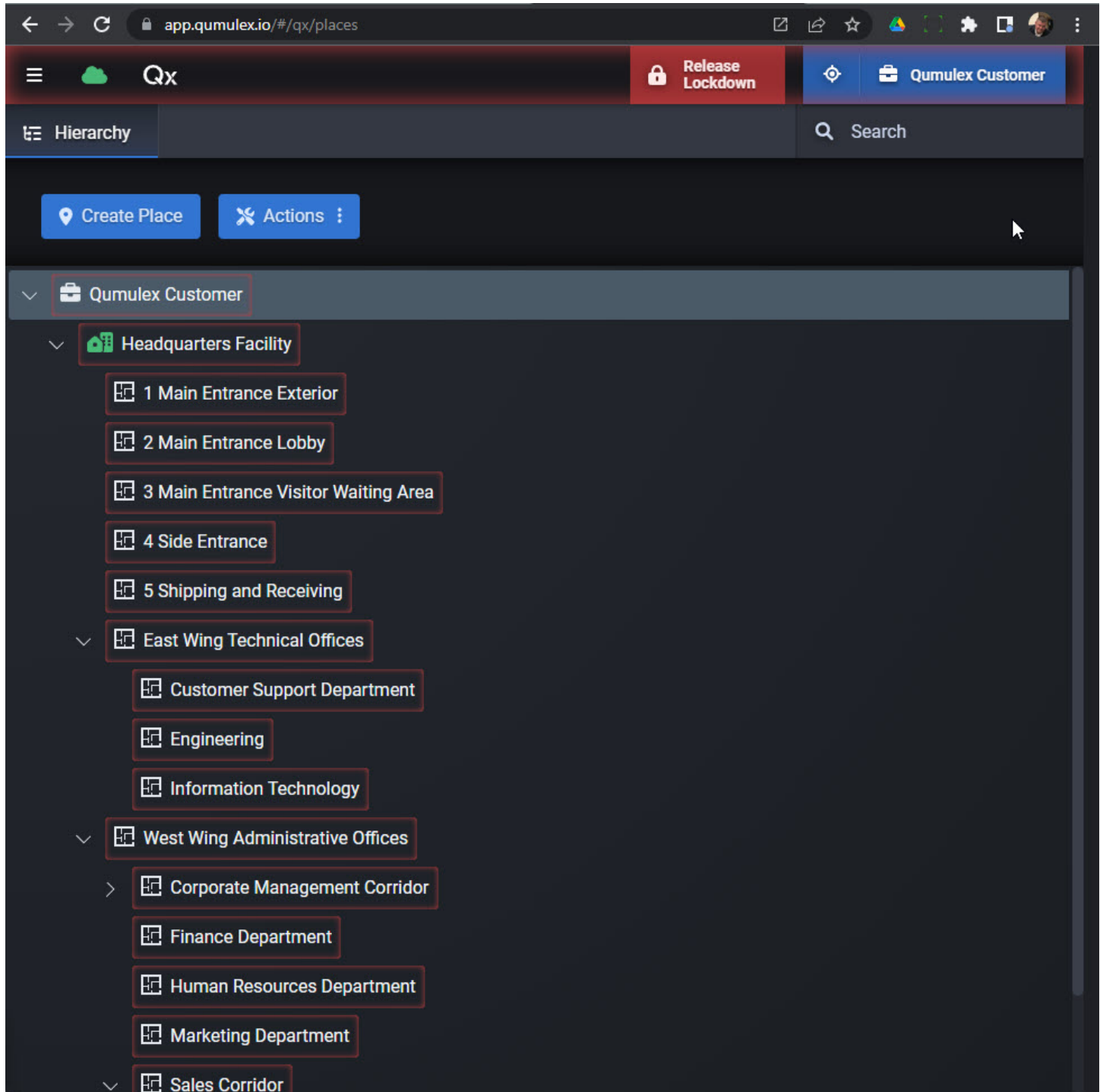
The fourth and final place in QxControl where you can initiate a Lockdown is on the Doors Page. From the Actions Menu, choose “Lockdown all Doors in Scope” to initiate and “Release Lockdown in Scope” to remove it:



*Lockdowns: Places Page*

You will see an indicator in the Places Tree when a lockdown has been enabled when using both single door and scope level lockdowns. Affected Areas will be shaded in red.

This is to provide context on what areas are locked down and is another way to draw attention to the lockdown condition. In the case of a QxControl account where a School District or Municipality is the customer, they can more easily see what sites are affected, as an example:



*Retention of Access Control Activity*

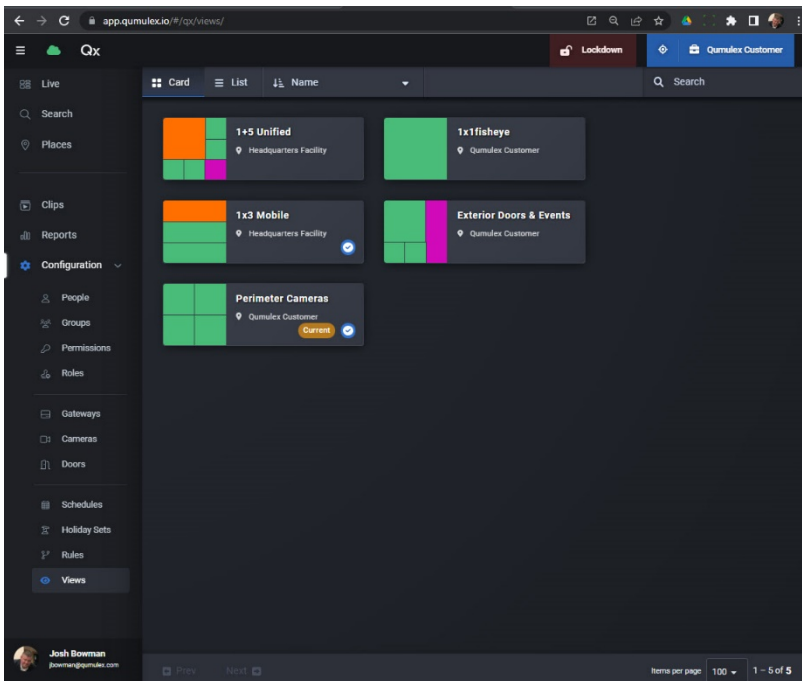
All door activity, such as cardholder events or when a door has been accessed, will be retained in QxControl for a period of 6 months. This means that you can run a report on activity that has occurred up to 6 months from the date that you search or run a report.

It should be noted that the availability of any associated video will be limited to the standard retention for that video. For example, if I have a 30-day subscription for my cameras and I search a door event from 3 months ago, the door event will still be present but will be displayed with “no video”.

If you wish to retain video for a longer period of time, simply refer to the Clips page on how to export to the clips page and set your retention option to the desired length of time or set to not expire.

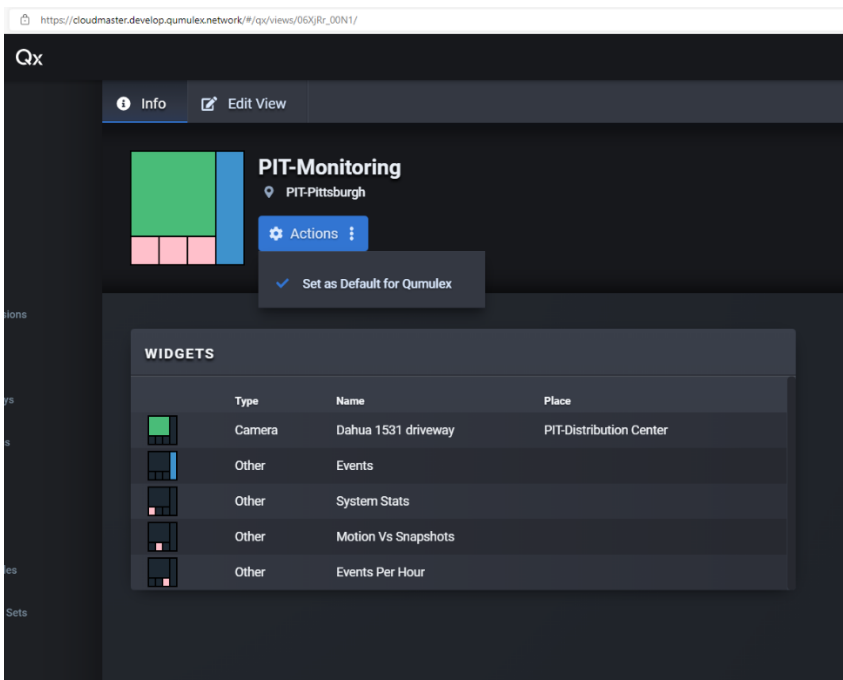
## Views

The Views page allows you to manage and edit Views that are created in the Live page.



Views page

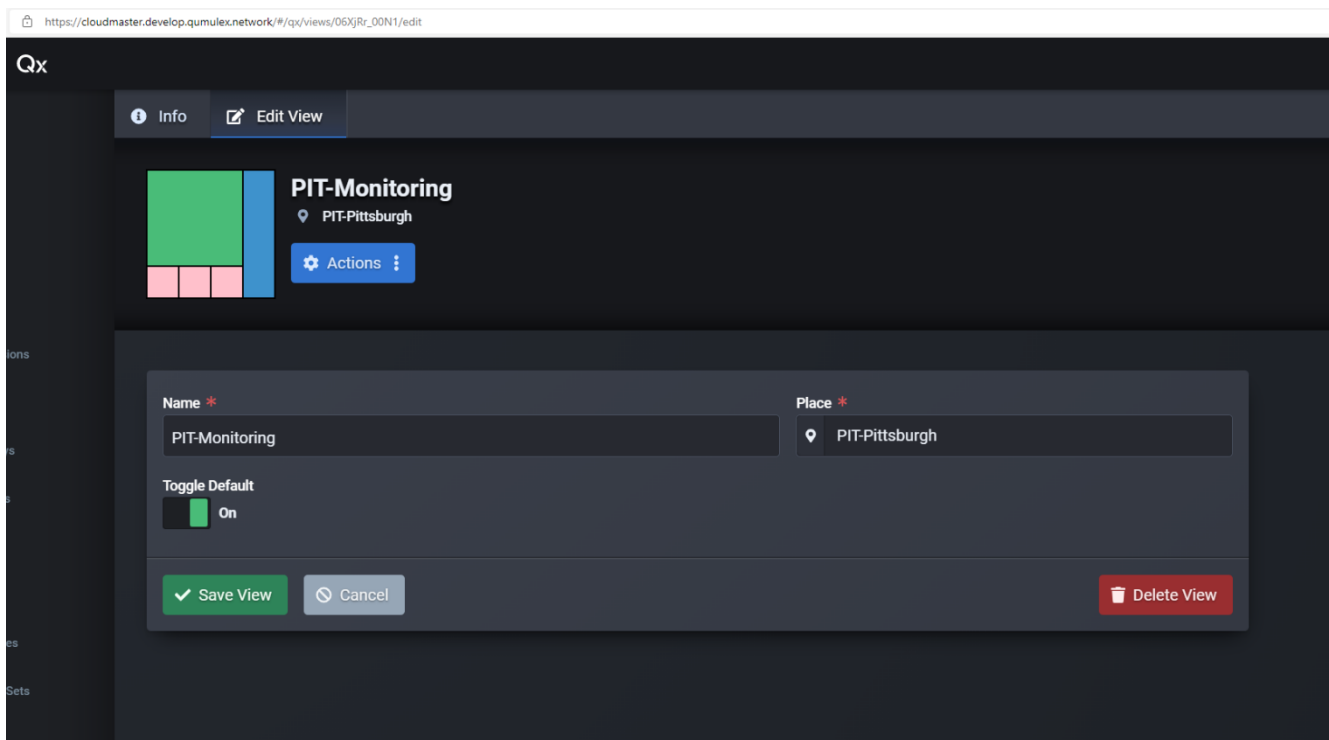
Click on any of the Views to see the Views Info Page. Here you can set the View as Default and you can also see what Widgets are included in the View.



From the “Edit View” page you can:

- Edit the name of the View
- Assign the Place (Scope) of the View

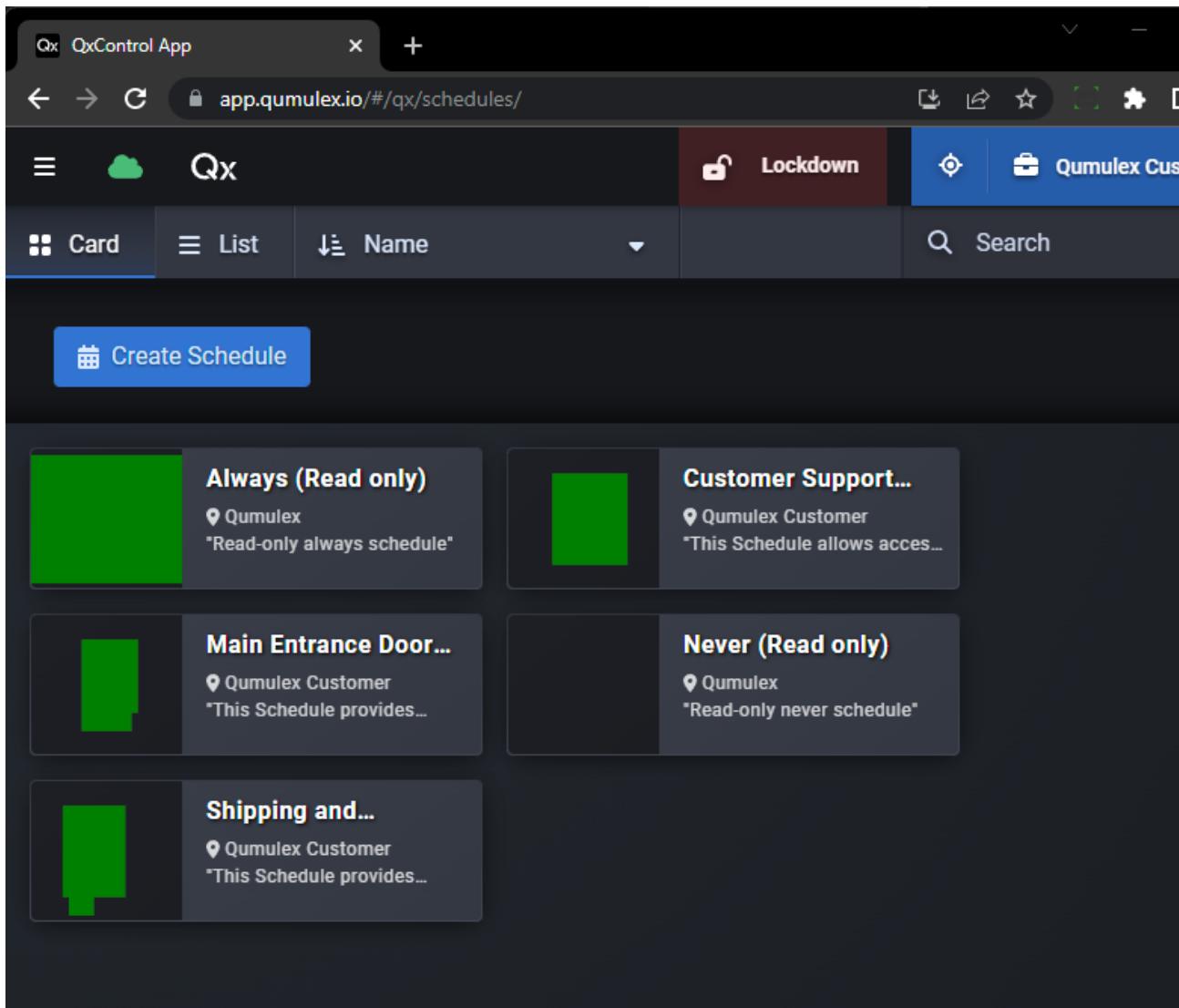
- Toggle On/Off allowing the View to be set as Default
- Delete View



To confirm all changes, choose “Save View”.

## Schedules

Schedules can be used in several areas such as the unlock schedule for a door, the access schedule for a group of people in a permission, camera recording schedules and the rules engine.



Schedules page

There are two default schedules that are read-only. Always and Never. As their names imply, always means active 24x7 and never means never active.

A common simple access control setup is to give the door a never schedule and cardholders a permission with the always schedule. This would mean that the doors are always locked (Never Unlocked), but the cardholders always have access to unlock the doors with their credentials.

In addition to these two schedules any number of custom schedules can be created.

To create a new schedule, choose “Create Schedule”, give the schedule a name, description (Optional) and place , then one or more segments for each day of the week as needed.



# Create Schedule

Name \*

User Manual Example

Description

User Manual Instructions

Place \*

📍 Search Places

Qumulex Customer

>

Headquarters Facility

New York Facility

Orlando Facility

Phoenix Facility

Portland Facility

12am 4am 8am 12pm 4pm

Sunday

Monday

Tuesday

Wednesd...

Thursday

Friday

Saturday

START 12:00 AM

STOP 12:00 AM

Remove Block(s)

📅 Manage Holiday Sets

✓ Create Schedule

⌛ Cancel

To create a segment, first choose your desired start time and click inside the cell. You will also notice that the cursor will change and show that you can drag the cell to a new time with your cursor. The time displayed in Start & Stop will change as you move it around. You can also manually enter a start time in the "Start" box.

User Manual Example

User Manual Instructions

12am 4am 8am 12pm 4pm 8pm

Sunday

Monday

Tuesday

**Important!!!:** Each block represents an individual segment and Mercury based panels limit to 12 segments per schedule. Do not fill in one block at a time for a segment. Enter the start/end time or drag for one continuous segment.

After choosing your Start time, you now choose an End time to complete the segment. The easiest way to enter a time manually is to first highlight what you wish to change with your cursor. Then, you can type in a numeric value or select AM/PM. You also should highlight the value to use the up and down arrows to change the value.

## Create Schedule

Name \*

User Manual Example

Description

User Manual Instructions

Place \*

	12am	4am	8am	12pm	4pm	8pm
Sunday						
Monday						
Tuesday						
Wednesd...						
Thursday						
Friday						
Saturday						

START

7:57

AM

PM

STOP

5:00

AM

PM

Manage Holiday Sets

Create Schedule

Cancel

You will see the segment appear as a green shaded area that will display the time for that day based upon the Start & End times entered.

While still highlighted, you will also the option to “Remove Blocks” if you wish to delete the segment you have created.

Continue this process to create more segments for your schedule as desire, then choose “Create Schedule” to save your new schedule.

**Important!!!:** Each block represents an individual segment and Mercury based panels limit to 12 segments per schedule. Do not fill in one block at a time for a segment. Enter the start/end time or drag for one continuous segment.

Once created, you will then see the newly created schedule's Info Page, which will display the schedule segments you have created.

The screenshot shows the 'Info' page for a schedule named 'User Manual Example' under the 'Qumulex Customer' account. The page features a header with navigation icons and a 'Lockdown' button. Below the header, there are tabs for 'Info' and 'Edit Schedule'. The main content area displays a calendar grid for the week of Sunday to Saturday. The grid shows a green highlighted segment from 8am to 4pm on Monday through Friday. Below the calendar, there is a section titled 'CAMERAS' with a 'Search Cameras' button.

	12am	2am	4am	6am	8am	10am	12pm	2pm	4pm	6pm	8pm	10pm
Sun...												
Mon...												
Tue...												
Wed...												
Thu...												
Fri...												
Sat...												

You will also scroll down and be able to see any resources that are using the schedule. The available resources are Cameras, Doors, Permissions and Rules. You can click on the resource to view it.

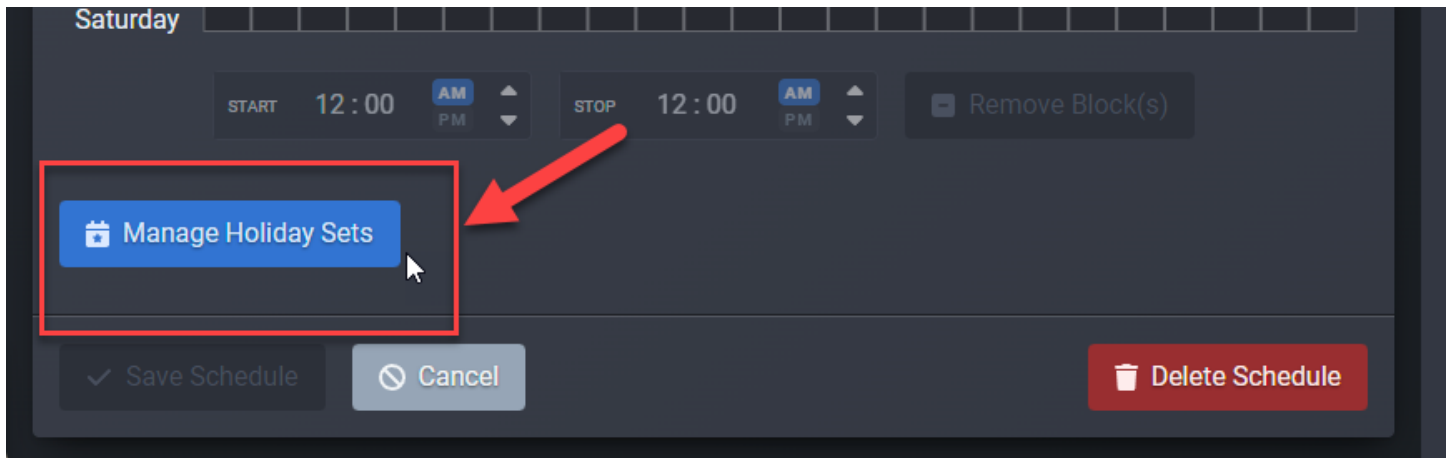
The screenshot shows the 'DOORS' section of the Qumulex interface. It includes a 'Search Doors' button and a table listing door resources. A red arrow points to the 'Goes From' column, specifically to the value '1 Main Entrance Exterior'.

Name	Goes From	To	Address
Parking Lot North Entrance	1 Main Entrance Exterior	2 Main Entrance Lobby	10.101.0.23

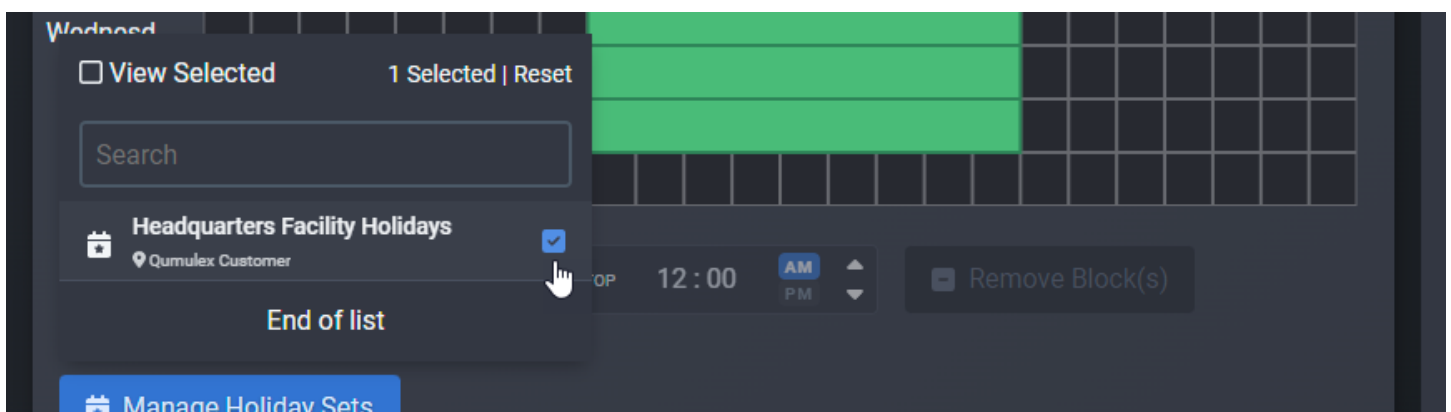
The last component to a Schedule is to apply and manage a Holiday Set, if desired. Holiday Sets are exceptions to a schedule for Holidays or other scheduled occurrences. Use the Holiday Sets page to create your Holiday Sets, which is covered in the next chapter. In this chapter we will cover how to apply and manage a Holiday Set within a Schedule.

**Important!!!:** (1) Holiday Sets will automatically be applied to all doors on a controller. (2) Holiday Sets will fail to work if multiple Holiday Sets are used that will overlap. Be sure that Holiday Sets do not overlap.

The first step is to click on “Manage Holiday Sets”.



Then, choose from the available Holiday Sets



After selecting the Holiday Set, you will now see a new set of blocks to create a segment. This is used to determine the hours that apply to the Holiday Set.

Use the same procedure that was utilized to create the Schedule segments

The screenshot shows the 'Manage Holiday Sets' interface. At the top, there are 'START' and 'STOP' time selectors. The 'START' is set to 7:57 AM and the 'STOP' is set to 5:00 PM. Below this is a blue button labeled 'Manage Holiday Sets'. The main area displays a timeline with markers at 12am, 4am, 8am, 12pm, 4pm, and 8pm. A green bar represents a holiday block from 4:00 AM to 12:00 PM. Below the timeline, there are 'START' and 'STOP' time selectors for the selected block, both set to 4:00 AM and 12:00 PM respectively. To the right of these are two red buttons: 'Remove Block' and 'Remove Set'. At the bottom, there are three buttons: a green 'Save Schedule' button with a checkmark, a grey 'Cancel' button, and a red 'Delete Schedule' button with a trash icon.

You can add multiple Holiday Sets to a schedule, and this is very helpful to manage the schedule variations you may need for your operation. For example, here we have applied two schedules: Headquarters Facility Holidays and Inventory Count.

The screenshot shows the 'Manage Holiday Sets' interface with two holiday blocks. The top block is for 'Headqua...' (Headquarters Facility) and the bottom block is for 'Inventory...'. Both blocks have a 'START' time of 12:00 AM and a 'STOP' time of 12:00 PM. The 'Inventory...' block has a green bar representing the holiday period from 12:00 AM to 12:00 PM. The interface includes a 'Manage Holiday Sets' button at the top, a timeline with markers at 12am, 4am, 8am, 12pm, 4pm, and 8pm, and 'START' and 'STOP' time selectors for each block. To the right of the time selectors are 'Remove Block' and 'Remove Set' buttons. At the bottom, there are three buttons: a green 'Save Schedule' button with a checkmark, a grey 'Cancel' button, and a red 'Delete Schedule' button with a trash icon.

In this example, for any Holiday the facility is closed, and the doors are scheduled to be locked for the entire day.

For Inventory Count, the facility is open from 8:00AM to 8:00PM to facilitate the monthly inventory count.

You can see in the Holiday set itself, these counts are done on one Sunday per month:

**Inventory Count**  
 Qumulex Customer  
 Holiday Set for Inventory Counting

February 2023							March 2023						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4				1	2	3	4
5	6	7	8	9	10	11	5	6	7	8	9	10	11
12	13	14	15	16	17	18	12	13	14	15	16	17	18
19	20	21	22	23	24	25	19	20	21	22	23	24	25
26	27	28					26	27	28	29	30	31	

April 2023							May 2023						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1		1	2	3	4	5	6
2	3	4	5	6	7	8	7	8	9	10	11	12	13
9	10	11	12	13	14	15	14	15	16	17	18	19	20
16	17	18	19	20	21	22	21	22	23	24	25	26	27
23	24	25	26	27	28	29	28	29	30	31			

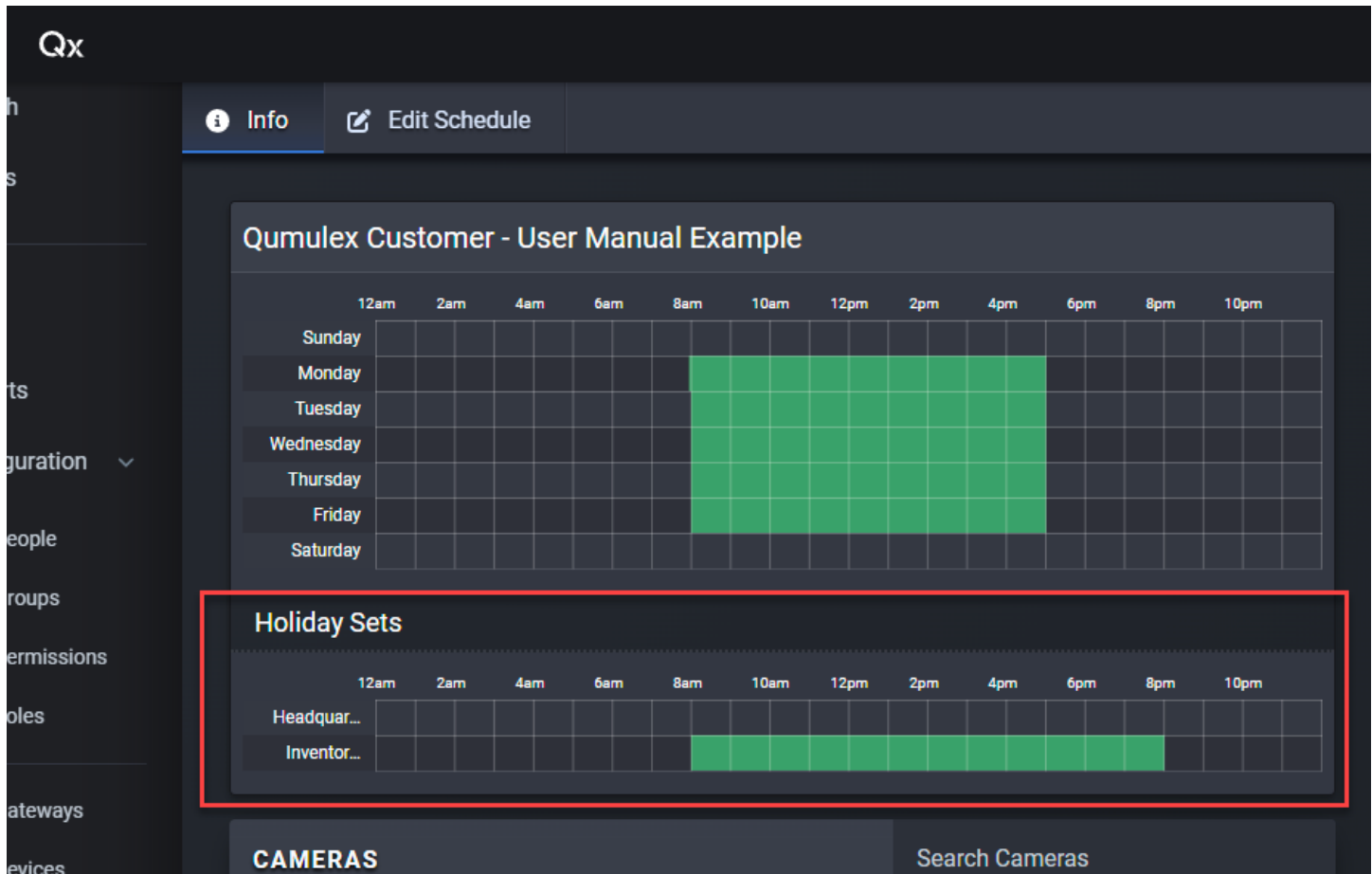
**List View**

- February 12
- March 12
- April 16
- May 21
- June 18
- July 16
- October 22

By creating multiple Holiday Sets, you can manage and prepare in advance for many variations to your everyday door schedule.

**Important!!!:** (1) Holiday Sets will automatically be applied to all doors on a controller. (2) Holiday Sets will fail to work if multiple Holiday Sets are used that will overlap. Be sure that Holiday Sets do not overlap.

Lastly, you can view the Schedule's Info Page to see what Holiday Sets are applied to a Schedule



Just like all other resources, you can click on each Holiday Set displayed to view or edit.

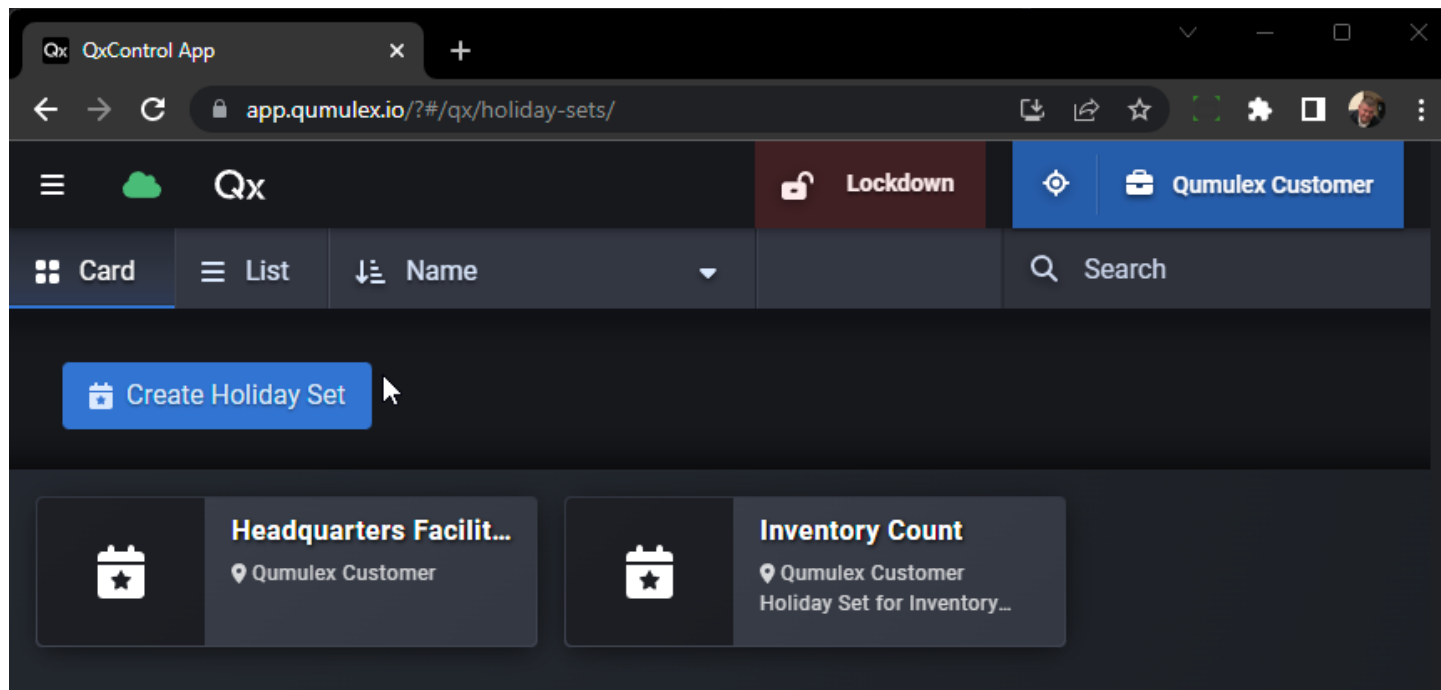
**Important!!!:** (1) Holiday Sets will automatically be applied to all doors on a controller. (2) Holiday Sets will fail to work if multiple Holiday Sets are used that will overlap. Be sure that Holiday Sets do not overlap.

**Important!!!:** (1) When applying a door schedule that is not a 'Never' Door schedule and you have a schedule that sets a time to be unlocked (Example: 9-5 M-F unlocked), there must be an additional permission added to the door using the "Always" schedule.

Failure to do this will result in the system not honoring the unlock schedule.

## Holiday Sets

A holiday set is a collection of dates. Holiday sets are used to tell a Door Controller, rule or anything else that uses a schedule when to override the schedule, and what to do instead. When a holiday set is attached to a schedule, you can edit what hours to apply to the Holiday Set.



To create a holiday set, choose “Create Holiday Set”.

### Create Holiday Set

**Name \***  
User Manual Example

**Description**  
Example Created For The User Manual

**Place \***  
Qumulex Customer

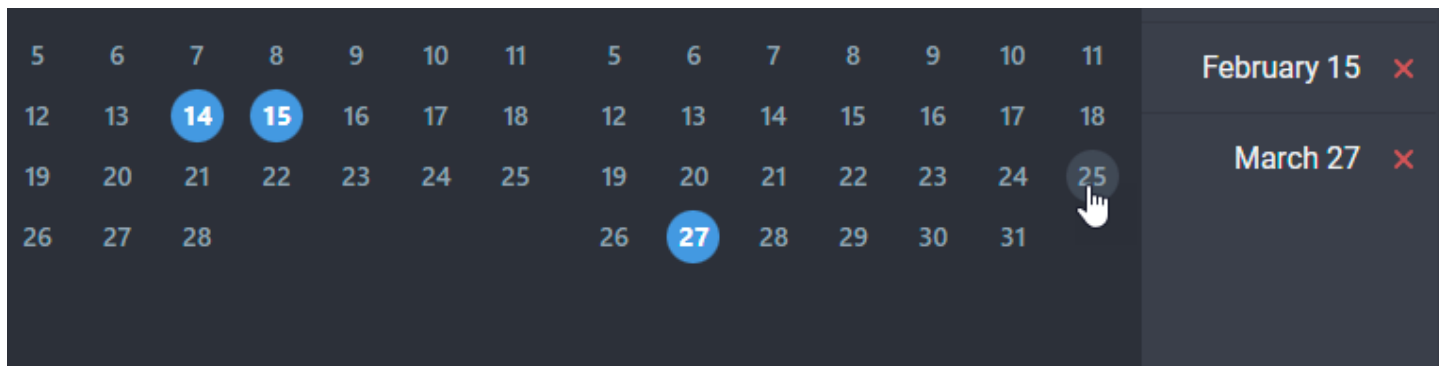
February 2023							March 2023						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4			1	2	3	4	
5	6	7	8	9	10	11	5	6	7	8	9	10	11
12	13	14	15	16	17	18	12	13	14	15	16	17	18
19	20	21	22	23	24	25	19	20	21	22	23	24	25
26	27	28					26	27	28	29	30	31	

**List View**

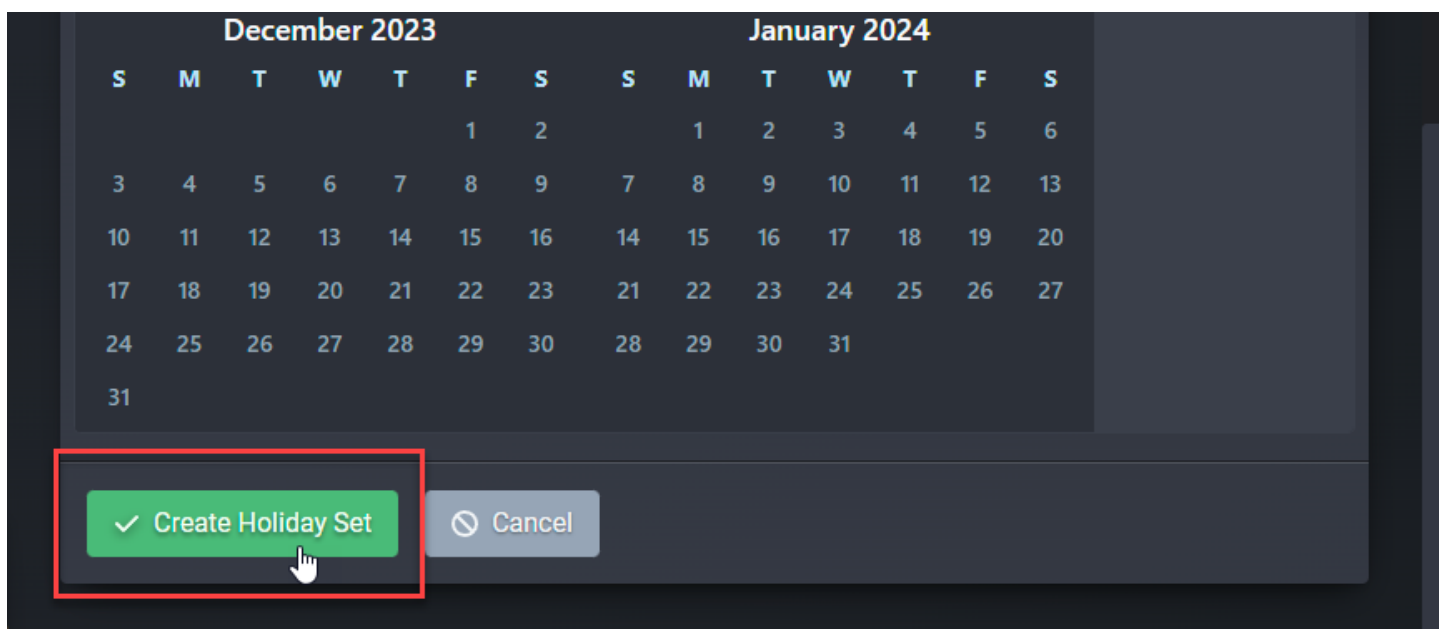
- February 14 ✕
- February 15 ✕
- March 27 ✕



You will then provide a Name, Description (Optional) and Place for the Holiday Set. Then click on each day you want to include in the Holiday Set. The selected dates will be displayed in the far right column.



Then choose “Create Holiday Set” once you are satisfied that all dates have been selected.



**Important!!!:** (1) Holiday Sets will automatically be applied to all doors on a controller. (2) Holiday Sets will fail to work if multiple Holiday Sets are used that will overlap. Be sure that Holiday Sets do not overlap.

After your new Holiday Set has been created, it will be displayed on the Holiday Set's Info page and you can scroll up and down to view the selected dates using the scroll bar.

**User Manual Example**  
 Qumulex Customer  
 Example Created For The User Manual

February 2023							March 2023						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4				1	2	3	4
5	6	7	8	9	10	11	5	6	7	8	9	10	11
12	13	14	15	16	17	18	12	13	14	15	16	17	18
19	20	21	22	23	24	25	19	20	21	22	23	24	25
26	27	28					26	27	28	29	30	31	

**List View**

- February 14
- February 15
- March 27

You can also scroll down and view what Schedules are using the Holiday Set. As always, you can click on the Schedule to view or edit it.

**SCHEDULES** Search Schedules

Name	Place	Description
User Manual Example	Qumulex Customer	User Manual Instructions

1 Results  
 Page 1 of 1

Prev Next

## Appendix

Links to more information about the Axis Door Controllers

### **A1001**

<https://www.axis.com/en-us/products/axis-a1001>

<https://www.youtube.com/watch?v=AlIB3IFdeLc>

### **A1601**

<https://www.axis.com/en-us/products/axis-a1601>

Links to more information about Qumulex

<https://www.qumulex.com/>

<https://www.youtube.com/channel/UC0wnbvAnAJNRoySH15FnPpg>