

IPCONFIGURE

Fusion Motion Alerter

User Manual

v1.0.1

Getting Started	3
Supported Operating Systems	3
Dependencies	3
Linux Installation	3
Uninstall	4
Service Configuration File	4
Configuring Motion Alerts	6
Save/Revert Changes	6
Recipient Groups	7
Schedules	8
Alerts	9

Getting Started

Supported Operating Systems

The Motion Alerter is currently only supported on Ubuntu 16.04 to 20.04, and RHEL/Centos 7 to 8. Windows support is currently a work in progress.

Dependencies

The Motion Alerter requires **python3** (v3.5 or higher), and **libsqlite3** (compiled with **SQLITE_THREADSAFE=1**).

Linux Installation

NOTE: The Motion Alerter install directory location is specified by the Fusion **fusion.apps.path** property. If this property is not set within the Fusion properties file, it is automatically set to the default Fusion apps path for your platform.

To begin, go into the **motion_alerter** directory extracted from the zip file.

```
[bionic]:~/Downloads
$ ls
motion_alerter  motion_alerter_linux.zip  user_manual.pdf
[bionic]:~/Downloads
$ cd motion_alerter
[bionic]:~/Downloads/motion_alerter
$ ls
installer  service  webservice
```

From the top of the **motion_alerter** directory, go into the **installer** directory and run **install.sh** with root privilege using the required parameters (running **install.sh** without arguments displays a usage message). If **python3** is not installed, the script will install it. The script additionally needs **jq**, and **curl** and will install them if necessary. A compatible **libsqlite3** is installed by default on all supported Linux distributions.

```
[bionic]:~/Downloads/motion_alerter
$ cd installer
[bionic]:~/Downloads/motion_alerter/installer
$ sudo ./install.sh 5001 admin tpain smtp.example.com smtp-user@mg.example.com makeit2ez

Copying app to: /etc/opt/fusion/apps.

Creating uninstaller at /home/orchid/Downloads/motion_alerter.
Copying uninstaller to /etc/opt/fusion/apps/motion_alerter.

Creating Fusion user: motion_alerter.

Installing configuration files.

Installing motion_alerter service.
Created symlink /etc/systemd/system/multi-user.target.wants/motion_alerter.service →
/etc/systemd/system/motion_alerter.service.

Installing civetweb_motion_alerter service.
Created symlink
/etc/systemd/system/multi-user.target.wants/civetweb_motion_alerter.service →
/etc/systemd/system/civetweb_motion_alerter.service.

Restarting Fusion.

motion_alerter has been installed to /etc/opt/fusion/apps/motion_alerter.
[bionic]:~/Downloads/motion_alerter/installer
```

NOTE: Please be aware the install script automatically creates a designated **motion_alerter** Fusion user that will be responsible for interacting with the Motion Alerter service. After install, the Motion Alerter services (motion alerting program and configuration server) will be enabled and running.

```
[bionic]~/Downloads/motion_alerter
$ systemctl status motion_alerter civetweb_motion_alerter
● motion_alerter.service - Motion Alerter
   Loaded: loaded (/etc/systemd/system/motion_alerter.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2020-07-29 10:48:55 EDT; 29min ago
     Main PID: 29750 (python3)
        CGroup: /system.slice/motion_alerter.service
                └─29750 python3
                /etc/opt/fusion/apps/motion_alerter/service/motion_alerter.py

Jul 29 10:48:55 bionic systemd[1]: Started Motion Alerter.

● civetweb_motion_alerter.service - Motion Alerter Configuration Server
   Loaded: loaded (/etc/systemd/system/civetweb_motion_alerter.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2020-07-29 10:48:55 EDT; 29min ago
     Main PID: 29795 (civetweb)
        CGroup: /system.slice/civetweb_motion_alerter.service
                └─29795 /etc/opt/fusion/apps/motion_alerter/webserver/civetweb
                /etc/opt/fusion/apps/motion_alerter/webserver/civetweb.conf

Jul 29 10:48:55 bionic systemd[1]: Started Motion Alerter Configuration Server.
```

Uninstall

Within the **motion_alerter** install directory (within the directory specified by the **fusion.apps.path** property), run **uninstall.sh** with root privilege using the required parameters (running **uninstall.sh** without arguments displays a usage message).

```
[bionic]:/etc/opt/fusion/apps/motion_alerter
$ sudo ./uninstall.sh admin tpain
Removed symlink /etc/systemd/system/multi-user.target.wants/motion_alerter.service.
Removed symlink
/etc/systemd/system/multi-user.target.wants/civetweb_motion_alerter.service.
```

Service Configuration File

Within the **motion_alerter** install directory (within the directory specified by the **fusion.apps.path** property), there is a configuration file, **config.ini** (symlinked to service/config.ini), for specifying user specific configuration options with the Motion Alerter service:

```
[bionic]:/etc/opt/fusion/apps/motion_alerter
$ ls
conf  config.ini  service  uninstall.sh  webserver
```

Each section within **config.ini** is documented with brief descriptions for every available option.

After install, each option will be set with values specified during install (e.g. Fusion and SMTP credentials), or some default values.

Keep in mind that most options should not require changes from their initial values, but a user should at least be aware of the following options:

Orchid polling

- **interval_sec** - Interval (in seconds) at which the motion alerter service checks for motion events.
 - Defaults to 60 seconds.

Motion sensitivity

- **min_motion_sec** - Minimum duration (in seconds) of motion required to be alerted on.
 - Defaults to 5 seconds.

Video export information

- **max_export_sec** - Max duration (in seconds) that can be exported for a video attachment used in email alerts.
 - Defaults to 30 seconds.
 - Be sensible with this value. Keep in mind that SMTP servers can set limits for how big attachments can get (usually around 25 MB). Larger exports also take longer to email.

SMTP information

- **email_deadband_sec** - Specify the length of time (in seconds) that subsequent email alerts, per camera, are suppressed.
 - Defaults to 900 seconds.
 - To disable this option, set **email_deadband_sec** to 0.
- **connect_timeout_sec** - Timeout (in seconds) for connecting to specified SMTP server address.
 - Defaults to 60 seconds.

Logging information

- **path** - Sets where the main service log file is written to. This value must be an absolute path.
 - Note that if log rotation is enabled, backup files will be written to this same directory, so it is recommended to set this path within a designated "logs" directory (if the main log file parent directories do not exist, they will be created on service startup).
- **level** - The logging level.
 - Defaults to info.
 - Valid levels in order of ascending severity:
 1. debug
 2. info (recommended)
 3. warning
 4. error
- **max_size_mb** - (Log rotation) Log size (in MB) at which a new log file is rotated in.
 - Defaults to 128 MB.
 - To disable log rotation set **max_size_mb** and **backup_count** to 0.
- **backup_count** (Log rotation) Number of log backups to retain.
 - Defaults to 10.
 - Each backup is named (for example) motion_alerter.log.1, motion_alerter.log.2, ..., motion_alert.log.<backup count>, where log.1 is always the most recent backup. The logs are renamed accordingly when a new log is rotated in.

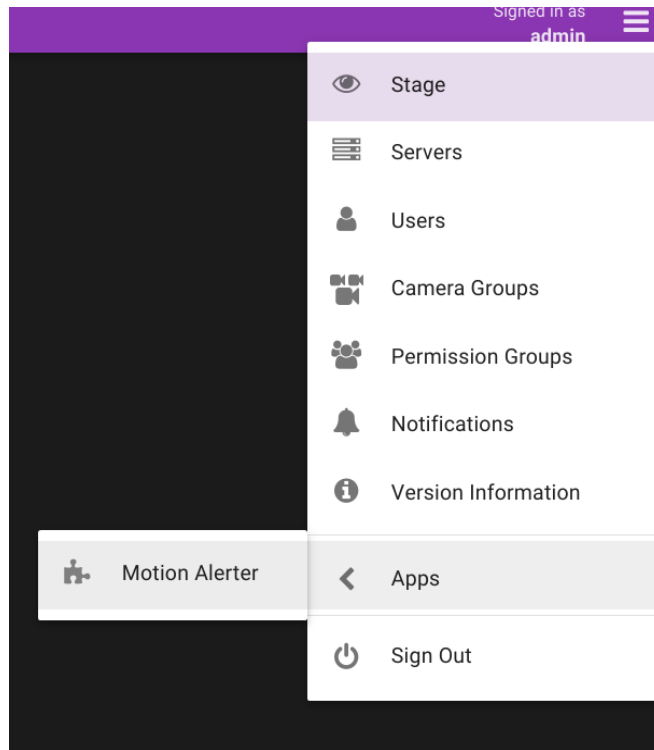
HTTP/HTTPS requests

- **timeout_sec** - Timeout (in seconds) for HTTP/HTTPS requests.
 - Defaults to 180 seconds.

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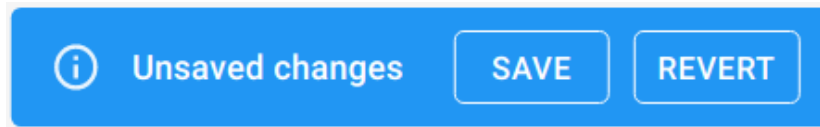
Configuring Motion Alerts

Go to the Motion Alerter app page within Fusion.

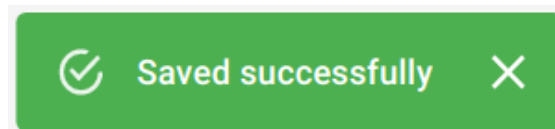


Save/Revert Changes

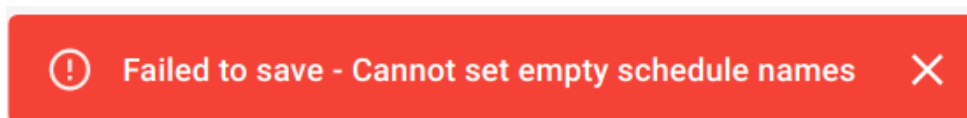
Any changes made to your configuration will display a **SAVE/REVERT** box.



If **REVERT** is selected, all pending changes are reverted back. If **SAVE** is selected, a green box will appear indicating changes were successfully applied.

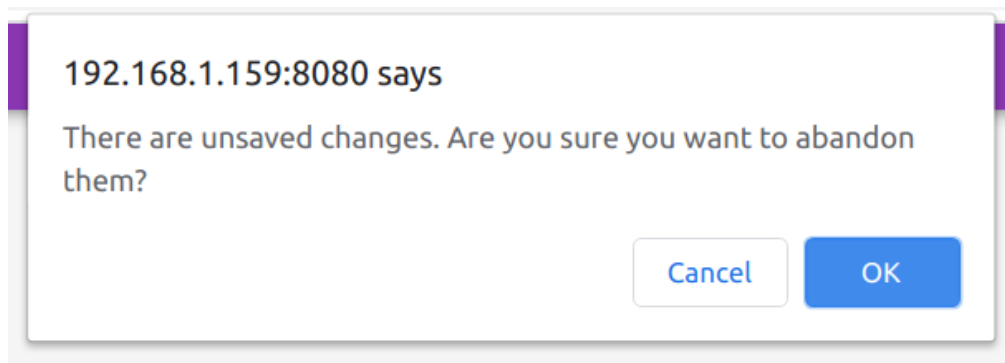


But if any errors occur while trying to save, a red box will appear with a brief error message.



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If **SAVE** or **REVERT** is not selected and you try going to a different configuration tab with pending changes, a warning box will appear.



Recipient Groups

Go to the **RECIPIENTS** tab. Initially there will be no configured recipients. Click on plus symbol to create a new recipient group.

Motion Alerter

ALERTS SCHEDULES **RECIPIENTS**

Recipient Group Name

Email Addresses ✕

Comma separated list of email addresses

+

Enter the information for the recipient group, making sure to comma separate emails. Make note that all recipient group names must be unique, and no recipient group names can be left empty.

Once finished, save your recipient groups.

The screenshot shows the Orchid Fusion web interface. The top navigation bar is purple with the "Orchid Fusion" logo and "Signed in as admin" on the right. A left sidebar contains a menu with items: SERVERS, USERS, CAMERA GROUPS, PERMISSION GROUPS, NOTIFICATIONS, VERSION INFORMATION, and MOTION ALERTER (highlighted). The main content area is titled "Motion Alerter" and has three tabs: ALERTS, SCHEDULES, and RECIPIENTS (active). Under the RECIPIENTS tab, there are two recipient groups. The first is "Security" with email addresses "J.Smith@security-dept.org, A.Watkins@security-dept.org, J.Malbury@security-dept.org". The second is "Warehouse foreman" with email address "H.Tillman@warehouse-dept.org". A green notification box at the bottom center says "Saved successfully".

NOTE: Please keep in mind that email addresses entered are not validated by this service.

Schedules

Go to the **SCHEDULES** tab. Initially there will be nothing configured except a default start-stop interval. Click on the plus symbol to create a new schedule.

The screenshot shows the 'Motion Alerter' interface with the 'SCHEDULES' tab selected. At the top, there are three tabs: 'ALERTS', 'SCHEDULES', and 'RECIPIENTS'. Below the tabs, there is a form for creating a new schedule. The form includes a 'Schedule Name' input field, a row of seven buttons for days of the week (S, M, T, W, R, F, S), and two time selection boxes labeled 'Start' and 'Stop'. The 'Start' box is set to '12:00 AM' and the 'Stop' box is set to '11:59 PM'. There are clock icons next to the time boxes. A blue 'X' icon is in the top right corner of the form, and a blue '+' icon is in the bottom right corner.

To select on the days of week you would like to monitor for motion events, simply click on that day. Schedule names must be unique, and no schedule names can be left empty.

The screenshot shows the 'Motion Alerter' interface with the 'SCHEDULES' tab selected. The 'Schedule Name' field now contains the text 'weekends'. The day selection buttons are now: S (selected), M, T, W, R, F, S (selected). The 'Start' and 'Stop' time boxes remain '12:00 AM' and '11:59 PM' respectively. The '+' icon is still present in the bottom right corner.

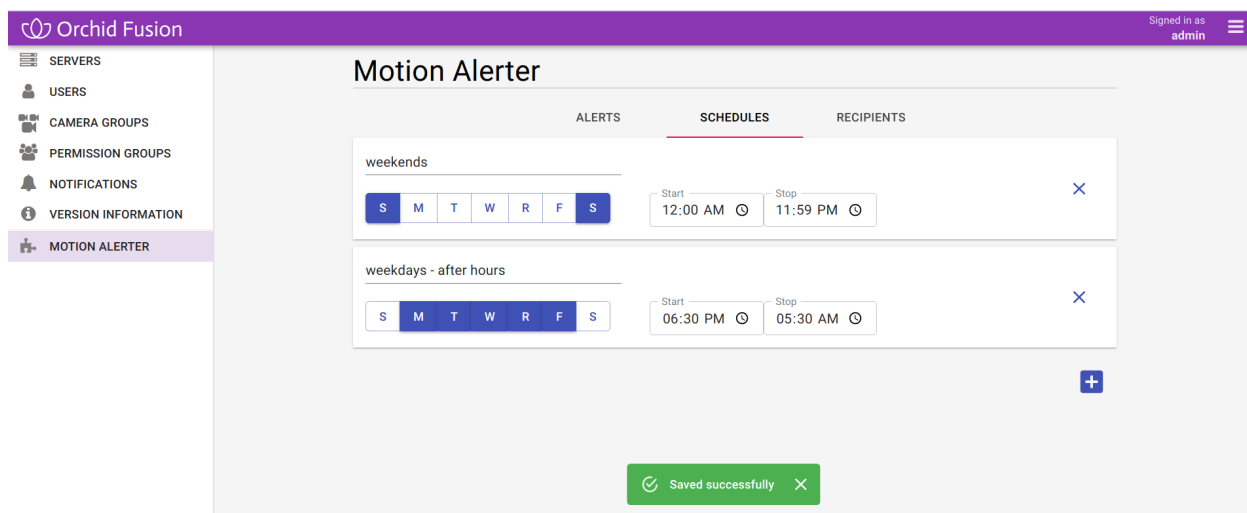
To set start and stop times, either enter the values manually (e.g. click in the start box, enter the hours, minutes, AM/PM), or click the clock icon and scroll through your selections.

The screenshot shows the 'Motion Alerter' interface with the 'SCHEDULES' tab selected. The 'Schedule Name' field contains 'weekends'. The day selection buttons are S (selected), M, T, W, R, F, S (selected). The 'Start' box is '01:00 PM'. The 'Stop' box is '12:59 PM'. A dropdown menu is open for the 'Stop' time, showing '12', '59', and 'PM' in blue boxes. Below these, '01', '00', and 'AM' are shown in a lighter blue box. The '+' icon is still present in the bottom right corner.

For start and stop time intervals, you can set regular hours (e.g. 10:00AM to 6:30PM), as well as overnight hours (e.g. 10:00PM to 6:30AM).

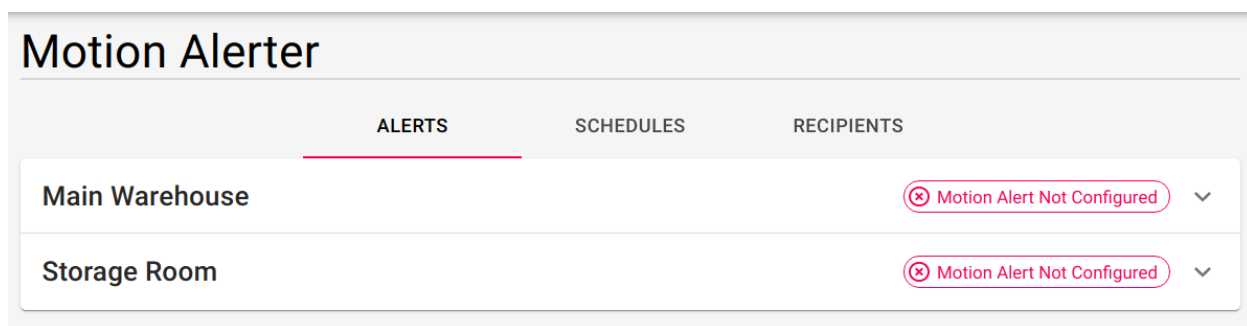
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Once finished, save your schedules.

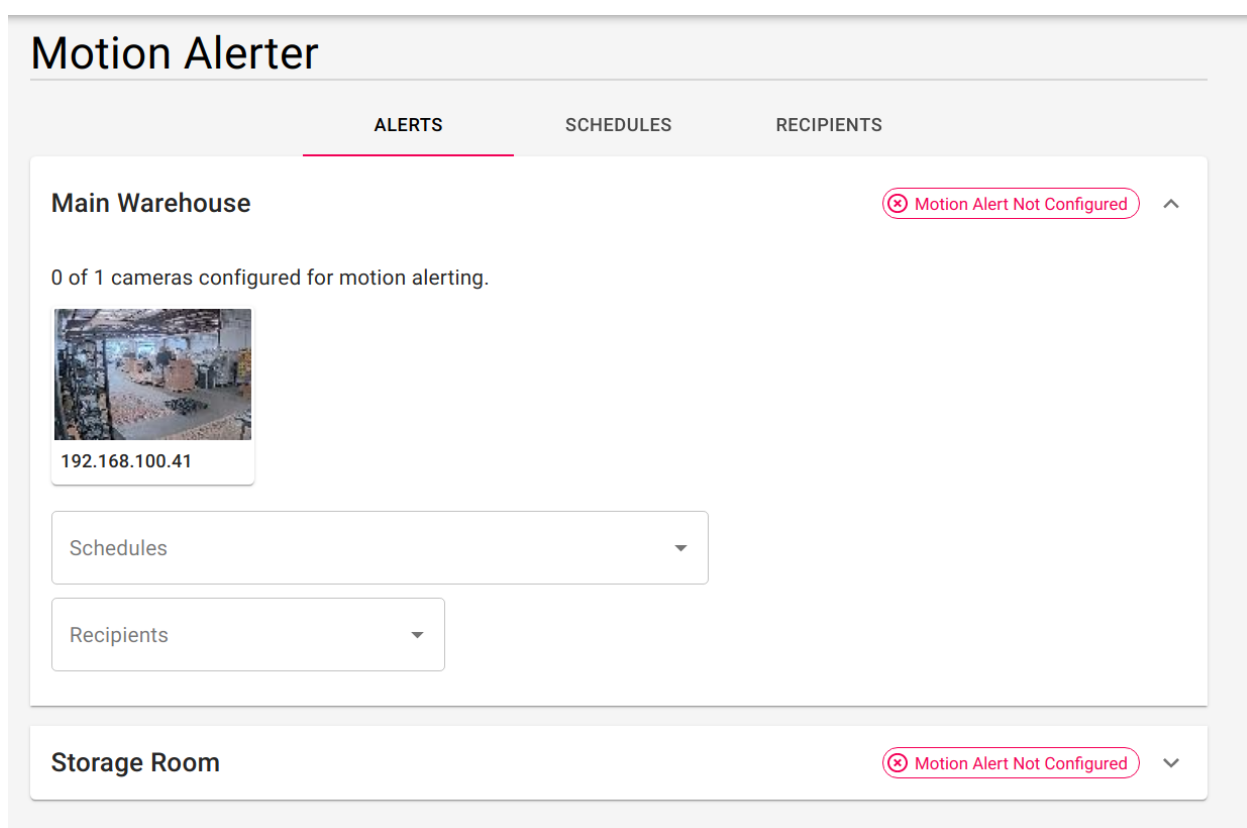


Alerts

Go to the **ALERTS** tab. Initially all the Orchid servers registered with Fusion will show up on the page indicating they are not configured for motion alerts.



To configure an Orchid, click its tab, which will cause a window to drop down.



Now select the cameras you need to be alerted on, the polling schedules, and the recipient group that will receive the alerts.

Once finished, save your alert to mark it as configured.

The screenshot displays the 'Motion Alerter' configuration page in the Orchid Fusion interface. The page is divided into three tabs: 'ALERTS', 'SCHEDULES', and 'RECIPIENTS', with 'ALERTS' currently selected. On the left, a navigation menu lists various system components, with 'MOTION ALERTER' highlighted. The main content area shows two alert configurations:

- Main Warehouse:** This alert is marked as 'Motion Alert Configured' (indicated by a blue checkmark icon). It shows '1 of 1 cameras configured for motion alerting.' Below this, there is a camera thumbnail and the IP address '192.168.100.41'. The 'Schedules' section includes two active options: 'weekends' and 'weekdays - after hours'. The 'Recipients' section has 'Security' selected.
- Storage Room:** This alert is marked as 'Motion Alert Not Configured' (indicated by a red X icon).

At the bottom center of the page, a green notification box states 'Saved successfully'.

NOTE: Orchid servers can have multiple different schedules configured, but only one recipient group can be selected per Orchid.