

Range Control Software

User Guide v7



AUTOTARGETS™ RANGE CONTROL Set Up Course of Fire

Facility: 2 Man Deliberate | Course Of Fire: Timed Clearing 01

Add Steps: **START** **TARGET** **TRIGGER** **AGGREGATE** **DELAY** **FINISH**

Courses of Fire

- Create New Course of Fire
- Ext. Breach
- New Course of Fire
- New Course of Fire
- Sequence Clearing 01
- Timed Clearing 01**

Edit Events

The diagram shows a floor plan of a facility with various rooms labeled: Room 2, Room 3, Kitchen, Great Room, Hallway (Full), Hallway, Restroom, and Facility. A sequence of events is plotted on the map, starting with a green play button in Room 2, followed by a blue circle with a '1' in the Kitchen, a red square in the Great Room, and a green play button in the Hallway. Arrows indicate the flow of the sequence between these points.

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Introduction

Thank you for your recent purchase of AutoTargets™. We sincerely appreciate your business and hope it improves your shooting experience as much as it has our own. AutoTargets™ was created to provide a more dynamic training tool that reacts and rewards shooters with motion and audible response while providing post engagement feedback to assist in shooter development. AutoTargets™ have been deployed in every environment and are designed to meet the requirements of professional firearms training programs at every level.

Should you have any questions please feel free to contact AutoTargets™ technical support at support@autotargets.com or for urgent matters call us at **215.948.2422**.

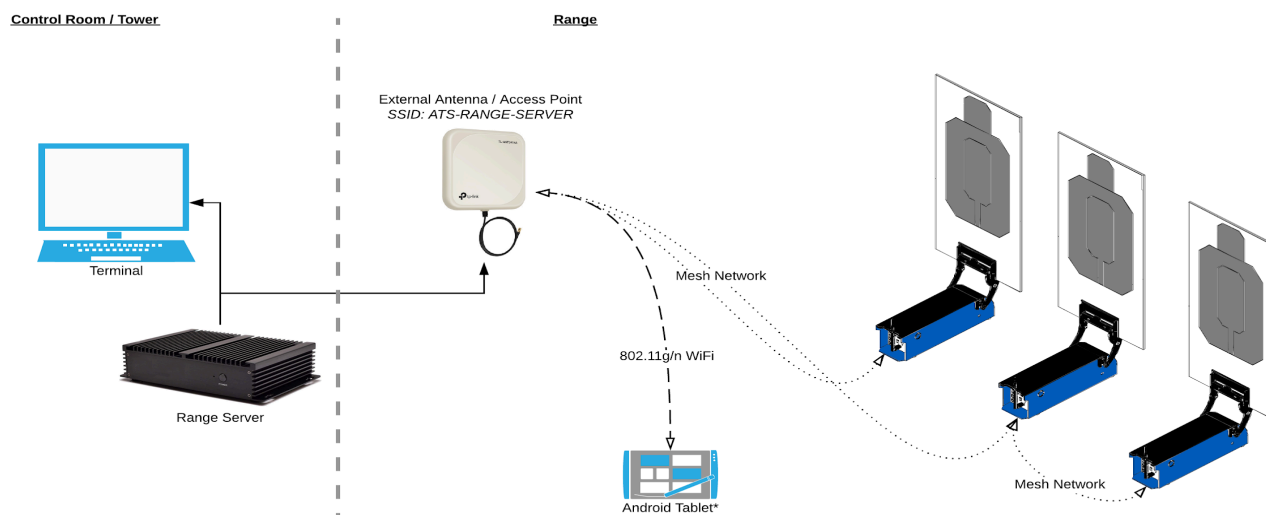
Overview

What does the system do?

- The AutoTargets Range Control software provides full control of all aspects of AutoTargets™ hardware (pop-up targets) through a connected local area network.

Architecture

- The provided AutoTargets™ Range Server connects all AutoTargets™ devices, manages settings, controls and executes courses of fire, and stores all after action data.
- There are multiple configurations of complete systems, each designed to custom range design and use requirements. While the server component is universal, workstations (the screen you use to interface with the server) as well as wireless access points or hardwired terminals, switches or other connection infrastructure may vary. Consult site specific network As-Built's for specific layout configurations.
- Typical system topology in the most simple and standard wireless configuration:



NOTE: Use only 10" + Android tablets. Use only Chrome browser. Connect ONLY to ATS-RANGE-SERVER network. Ignore ATS-LU- networks.

AutoTargets™ Range Server

Range Server Installation

The installation and related hardware varies depending on your requirements. ***Please see installation instructions documents provided separately.***

This guide assumes that your installation is complete and running.

Range Server Software Update

There are two ways to update the software on the AutoTargets Range Control Server. One is by using a pre-configured USB drive, provided by AutoTargets. The other way is to use your own USB drive using an update file that is transmitted to you electronically. Both options are explained below:

Using a Preconfigured USB Provided by AutoTargets

1. Turn on the Range Control Server by pressing the power button. Wait until the unit fully boots.
2. Plug in the USB drive that was provided by AutoTargets.
3. The update will start automatically. When the update is complete, the server will automatically shut down. This should take less than a minute.
4. When the server is fully shut down (all of the lights are off), unplug the USB drive.
5. Turn the server back on. The update is now complete.

Note: The above method is a “one time use” procedure. Once the USB drive has updated the server, it will no longer contain the proper file to do another update. However that file can be added back manually, as well as adding newer files when future updates become available. For this reason, do not lose or discard the USB drive.

Manually Update Using Your Own USB (or for future updates using the AutoTargets provided USB drive)

1. Plug the USB drive into a Windows or Linux computer and navigate to the drive.
2. Make sure the USB drive is formatted in the FAT32 format.
3. Look for a folder in the root of the drive labeled "ats-update" (without quotes). If the folder does not exist, make a new folder with that name.
4. AutoTargets will provide a file named "ats-shoothouse.deb" (without quotes). Place this file into the "ats-update" folder.
5. Now your USB drive is ready to perform the update by following the standard update procedure.
6. Please note, that after a successful update is complete, the file "ats-shoothouse.deb" will be renamed to include the date that the update was performed. For this reason, the file will no longer automatically trigger an update.

Launching the Application [Range Workstation]

The web browser will auto-launch at system startup and load the application.

If for some reason this is not the case, use this shortcut on the main screen:



If for some reason the shortcut is not available, open Chrome or Chromium (Linux) Web Browser and navigate to:

<http://localhost>

Launching the Application [Android Tablet]

While we recommend using a workstation, especially for creating courses of fire, AutoTargets™ Range Control can be accessed by portable devices around your range where WIFI network supports it.

Use the Chrome™ browser for Android on a 10.1" (or larger) tablet. We typically recommend Samsung products.

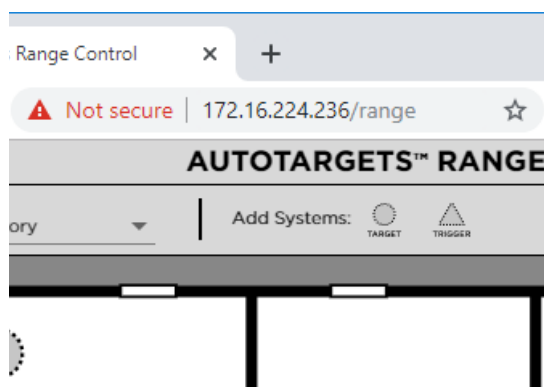
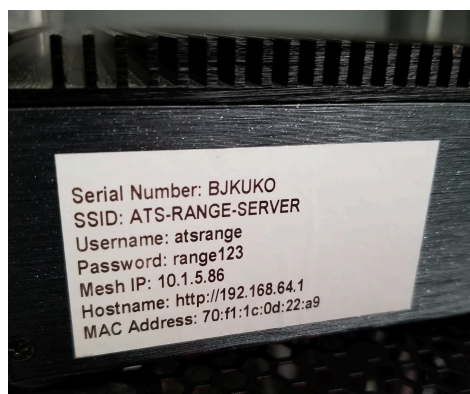
Connect via WiFi™

To access the Range Control application connect your Android™ device to your range's WiFi network. This is NOT traditionally the network that you use to access email, browse the web, or your agency's local intranet.

Typical installations use "**ATS-RANGE-AP**" as an SSID, but your range may be different. Contact your facility IT Administrator if you have specific network questions. Other questions may be answered by contacting AutoTargets™ technical support at support@autotargets.com or for urgent matters call us at **215.948.2422**.

Note: Be sure to avoid WiFi networks published from AutoTargets™ lift units on the range. (These broadcast an SSID in the form of: ATS-LU-AP-XXXXX) and **will not connect to the range server application**.

Launch the Chrome™ browser and navigate to the URL using the 'hostname' address listed on your Range Control Server or as provided in other range setup instructions. This will most likely be provided as a network IP address (10.XX.X.XX or 192.XX.XX.XX) This is typically located on a sticker on the face of the device:

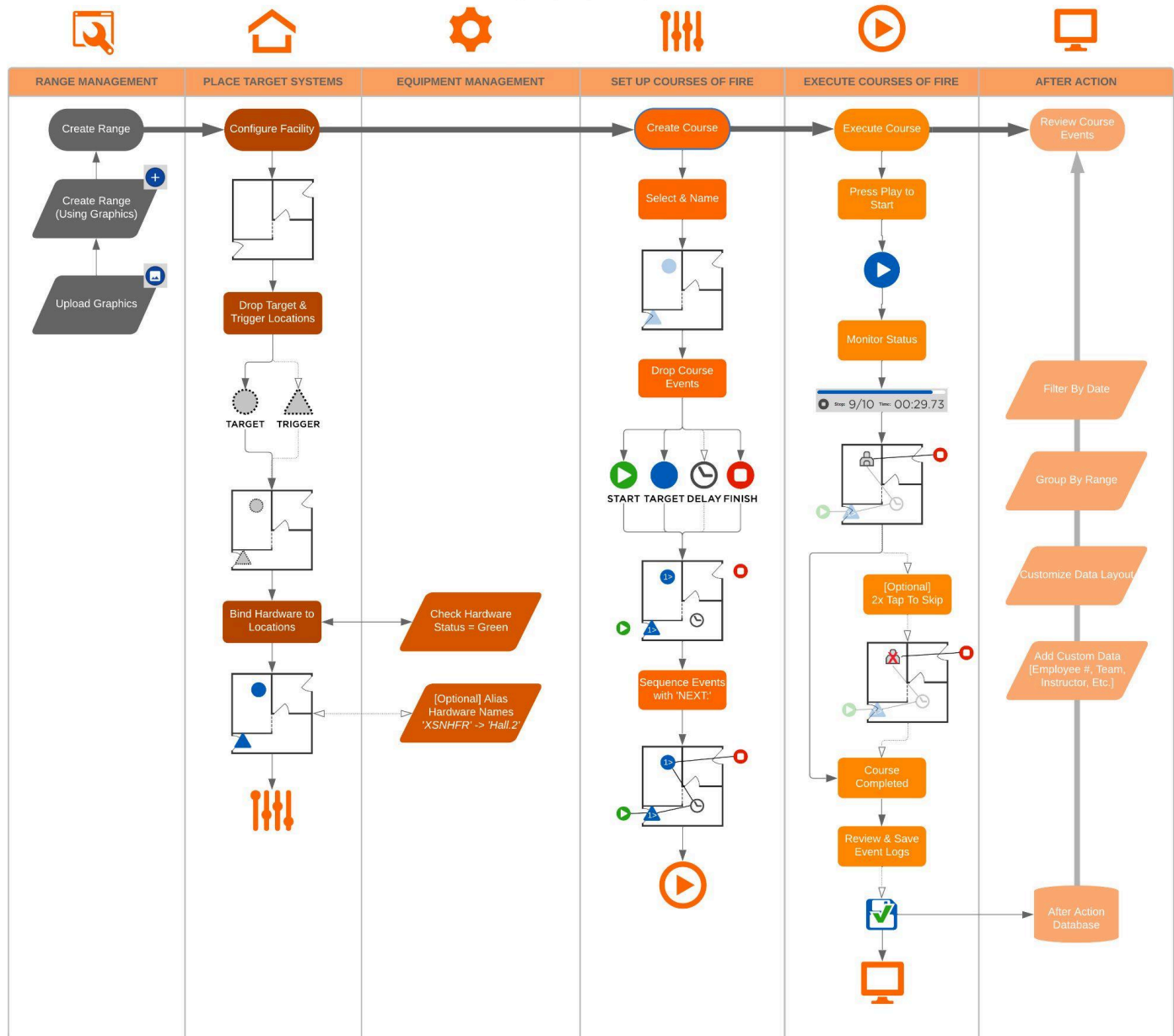


Using AutoTargets™ Range Control

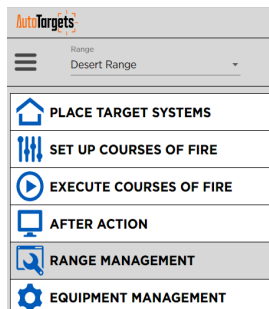


Range Control Workflow v4

AutoTargets™ | Range Control System 2024



Range Management

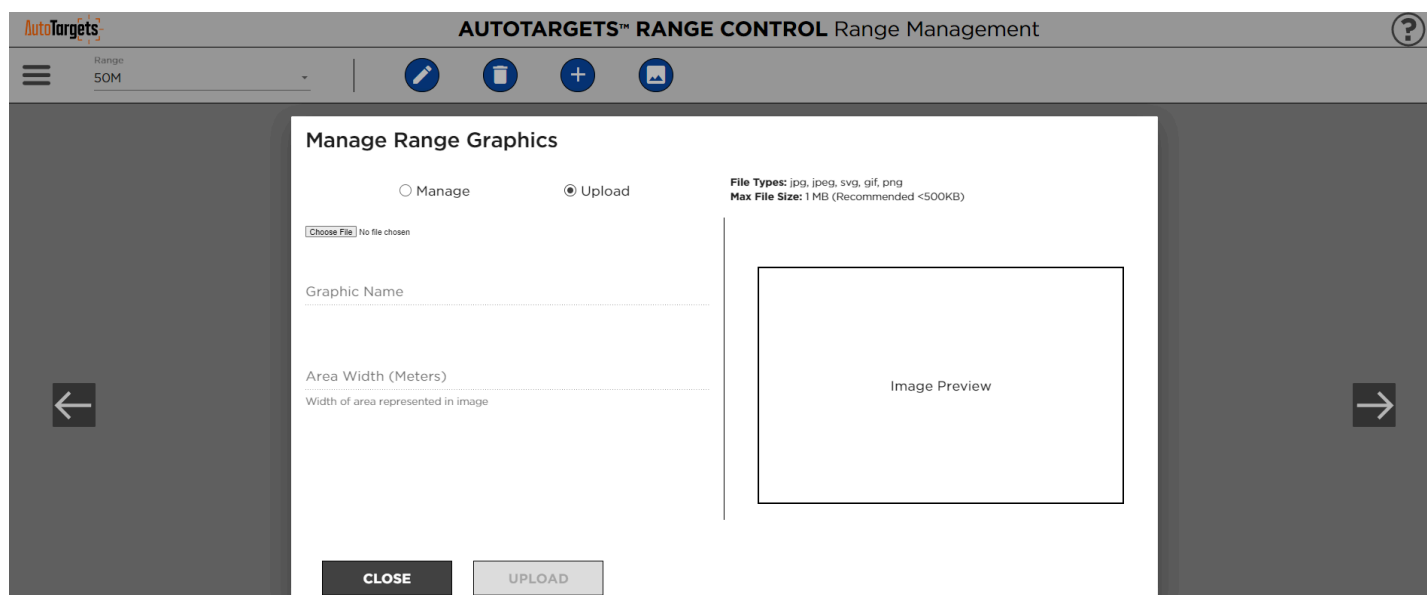


Use the **'Range Management'** screen from the left side menu to create, edit, and delete your ranges. This is typically a one-time setup operation during your AutoTargets™ installation.

AutoTargets allows users to upload custom images from any perspective of their range for a better experience. Consider a satellite image from google maps, a structural layout of a shoot house or the control booth perspective taken from your own cell phone. Later, add targets in the real space that you have created. The process for setting up a new range is as follows:

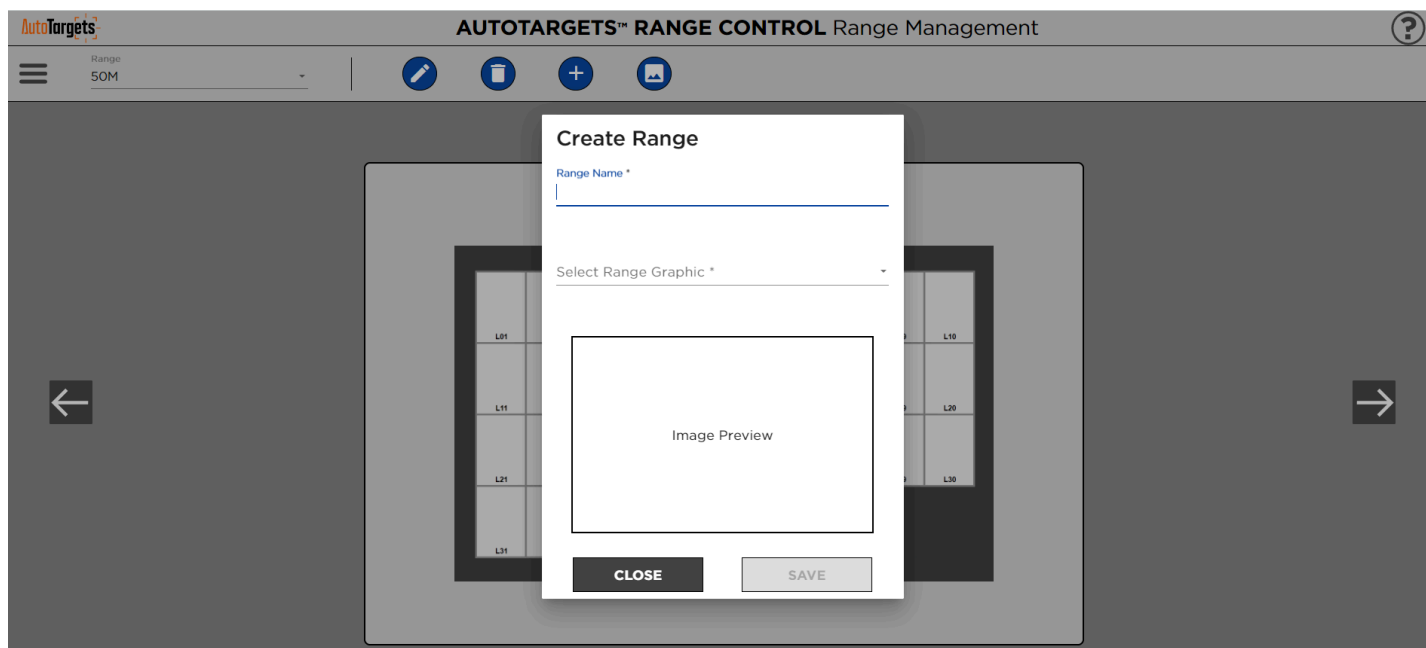
1. Upload Range Graphics and choose a scale
2. Create a Range by associating that graphic to and naming the range.

Upload Graphics



1. Click Images Modal (screen)
2. Select "Upload"
3. Note that Range Graphics must be of type .jpg, .jpeg, .svg, or .gif and **less than 1Mb in file size**.
4. Choose the file to upload.
5. Name this graphic, you'll select it later using this name.
6. Choose Area Width in meters (this is your scaling factor, to determine how large to display targets on the screen). If targets are too small or too large in "Place Target Systems", change this scaling factor.
7. Upload!
8. Confirmation of upload success or failure.

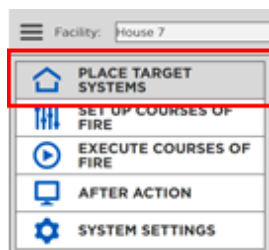
Create Range



1. Add Range by selecting button with “+” symbol
2. Name Your Range
3. Select Your Graphic
4. Save

Now your new range can be selected in the “Facility” drop down throughout the application:

Place Target Systems



Use the **'Place Target Systems'** screen in the top left menu to map the physical range setup in software. In this step you will place targets in real space over your range image.

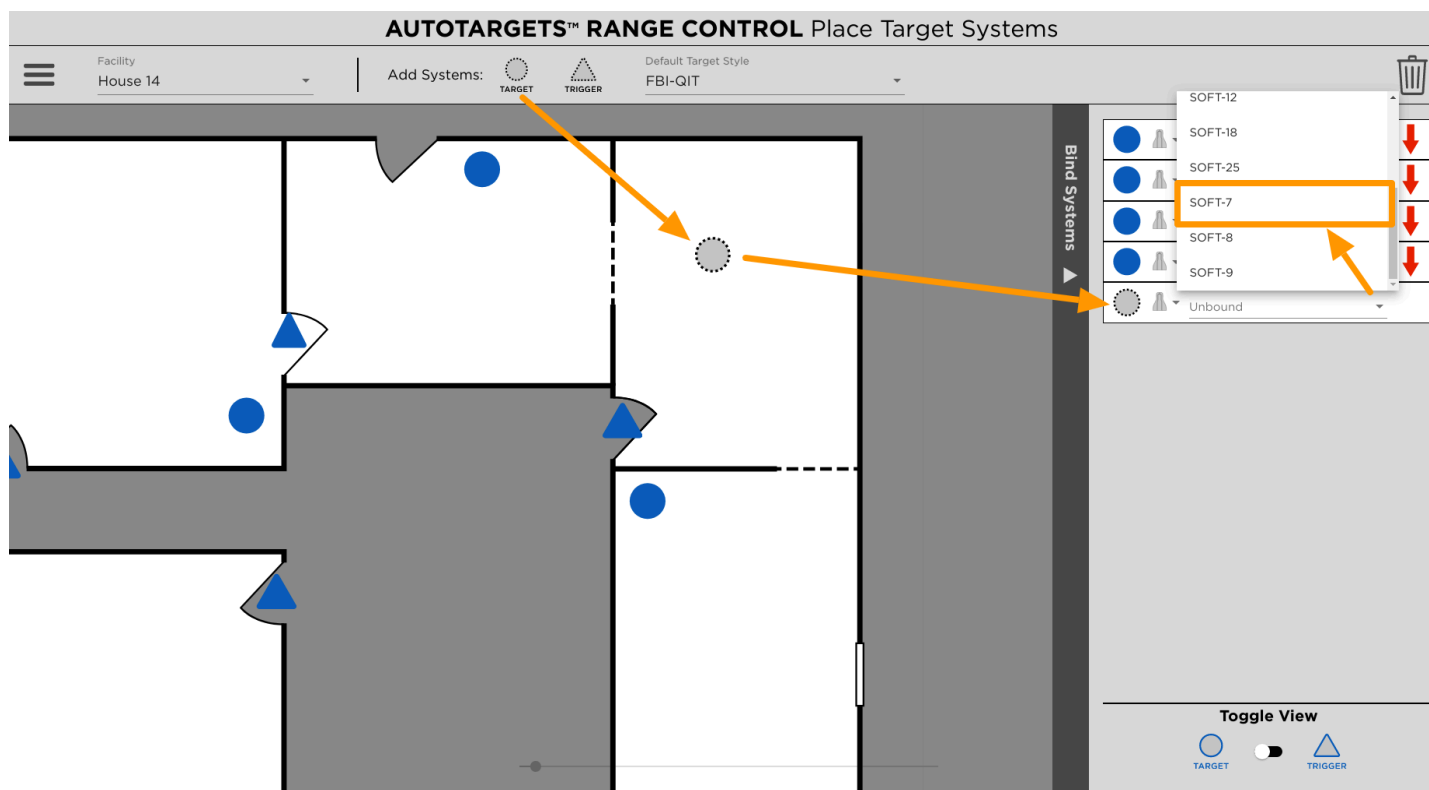
- Drag and drop target and trigger placeholders on the range.
- Bind (associate) physical hardware to these placeholders.

Icon Key

Icon	Name	Description
 TARGET	Target Placeholder [Tool Bar]	Drag and drop this icon on the range. It represents a place where a target is in real space or on the range map.
 TRIGGER	Trigger Placeholder [Tool Bar]	Drag and drop this icon on the range. It represents a place where a trigger is in real space or on the range map.
	Target / Trigger Placeholder [Range View]	A marker on the range view indicating hardware placement.
	Bound Target / Trigger [Range View]	The placeholder has been bound (associated) with hardware and the unit is powered on and available to be used.
	Selected Target / Trigger [Range View]	The currently selected node on the range - shown in the "Right Sidebar" of the application.
	Bound Hardware Offline [Range View]	The placeholder has been bound (associated) with hardware, but the hardware is offline and not available.
	Presented Target [Range View]	This target is presented.
	Main Menu [Tool Bar]	Navigate around to the major parts of the application.
	Trash Can [Tool Bar]	Drag anything here you want to delete. Be careful, you can't undo it.
	Target Position [Right Sidebar]	Shows the current position of the target (up/down). Click to toggle. Useful to identify targets when trying to set up a range.

Steps

1. Drag a target or trigger placeholder from the top menu and drop it onto the range in the location that best represents the physical target on the range. This will help you reference the location later
2. Open the “Bind Systems” sidebar, or click the target/trigger to automatically open the sidebar
3. Locate the newly created target/trigger placeholder
4. Click on the binding dropdown and choose which of the available physical devices you would like to associate with the target/trigger
 - 4.1. Be mindful of the aliases that may have been created for the target to help identify its location on the range. Bind targets to the appropriate locations on the range.

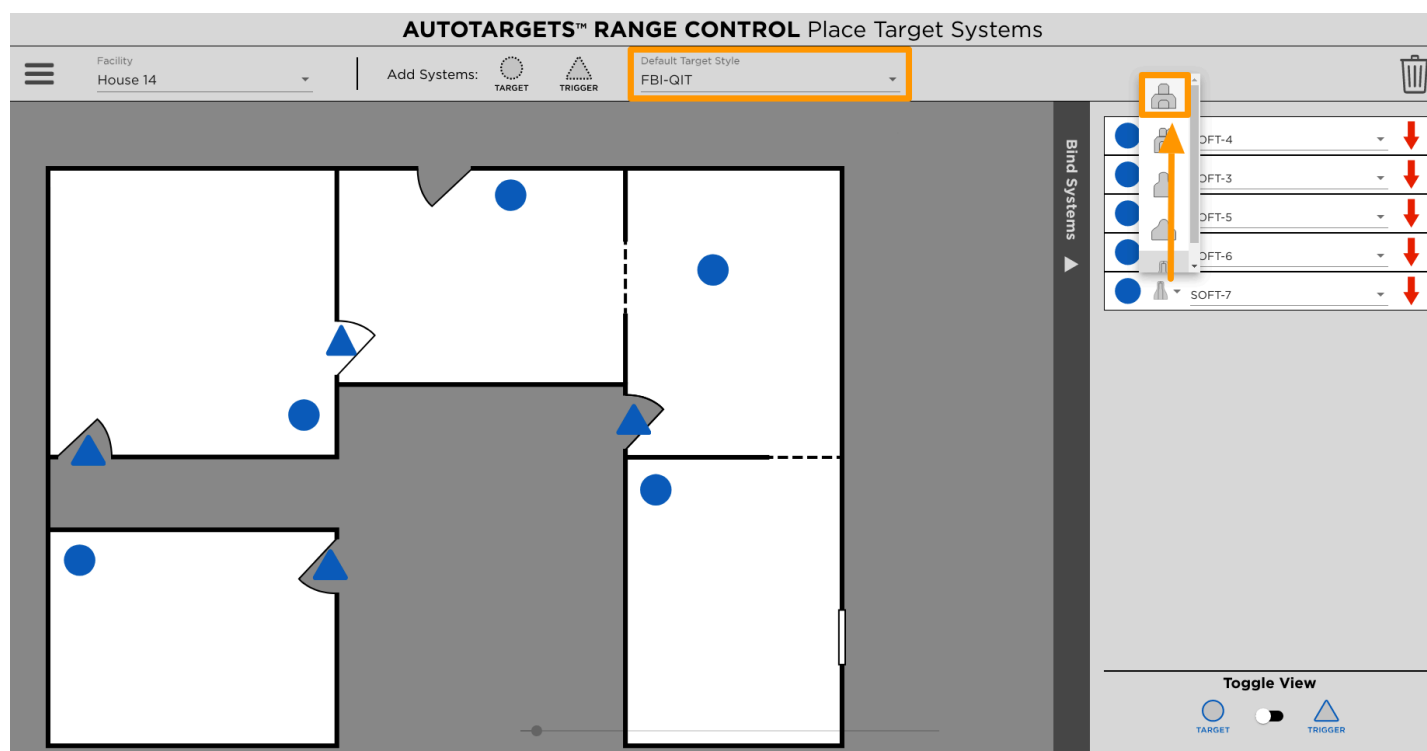


Target Style

Depending on your range and hardware, you may be using targets that do not resemble the default displayed targets in the application. In this case, you will want to change the hardware's associated target style by following these steps:

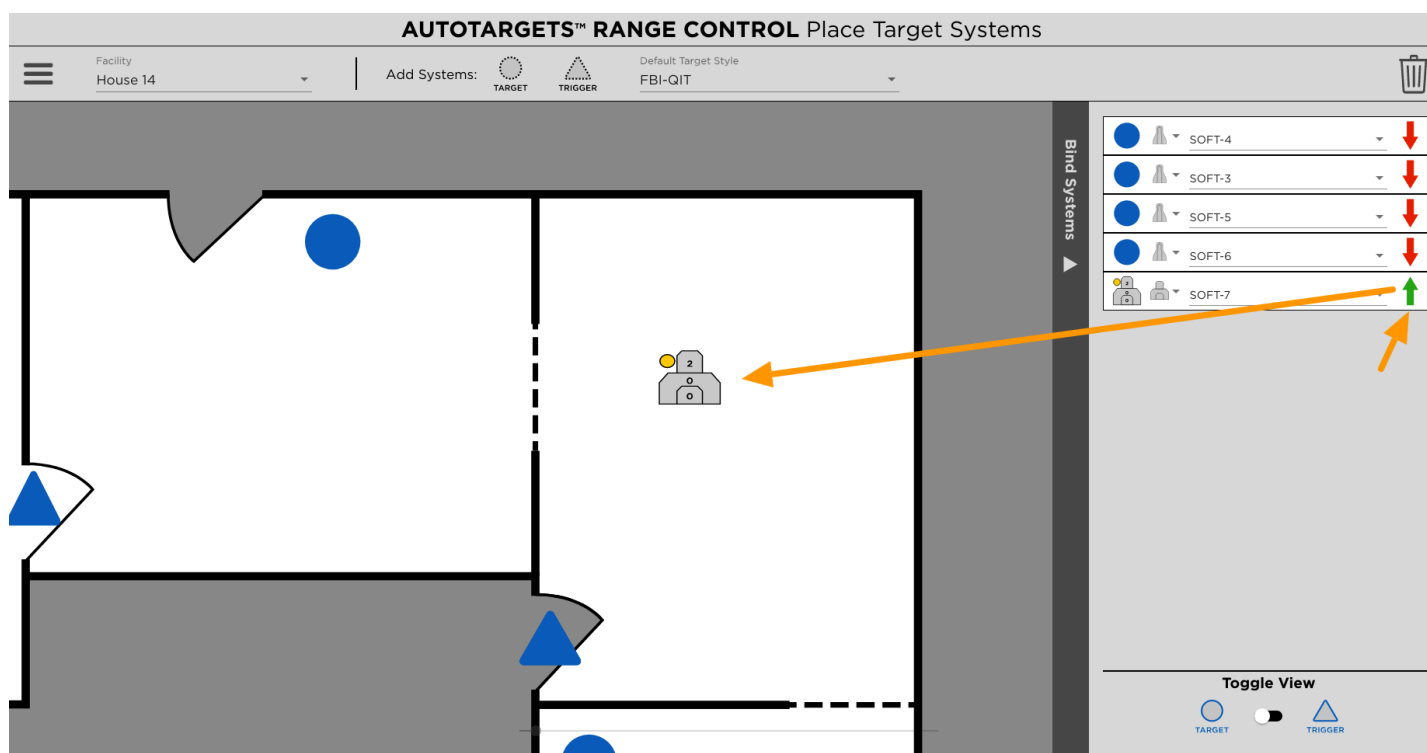
1. Locate the unit on the “**Bind Systems**” sidebar
2. Find the column labeled “target style” and click on the target style dropdown for each of the targets on the range. Note the default and make any changes as necessary
3. Choose which of the provided target styles matches the target you are using

Additionally, you can use the Default Target Style dropdown (located on the top menu) to control what the target style will be set to for all newly created targets.

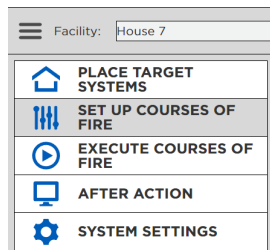


Up/Down Toggle

When a unit is online and bound to a target, an up or down arrow will appear next to that unit in the “Bind Systems” sidebar. This arrow indicates the current position of the target - an upward arrow indicates that the target is currently presented and vice versa. This indicator also functions as a button which, when clicked, will toggle the target up and down.



Set Up Courses of Fire



Use the 'Set Up Courses of Fire' interface to build courses of fire.

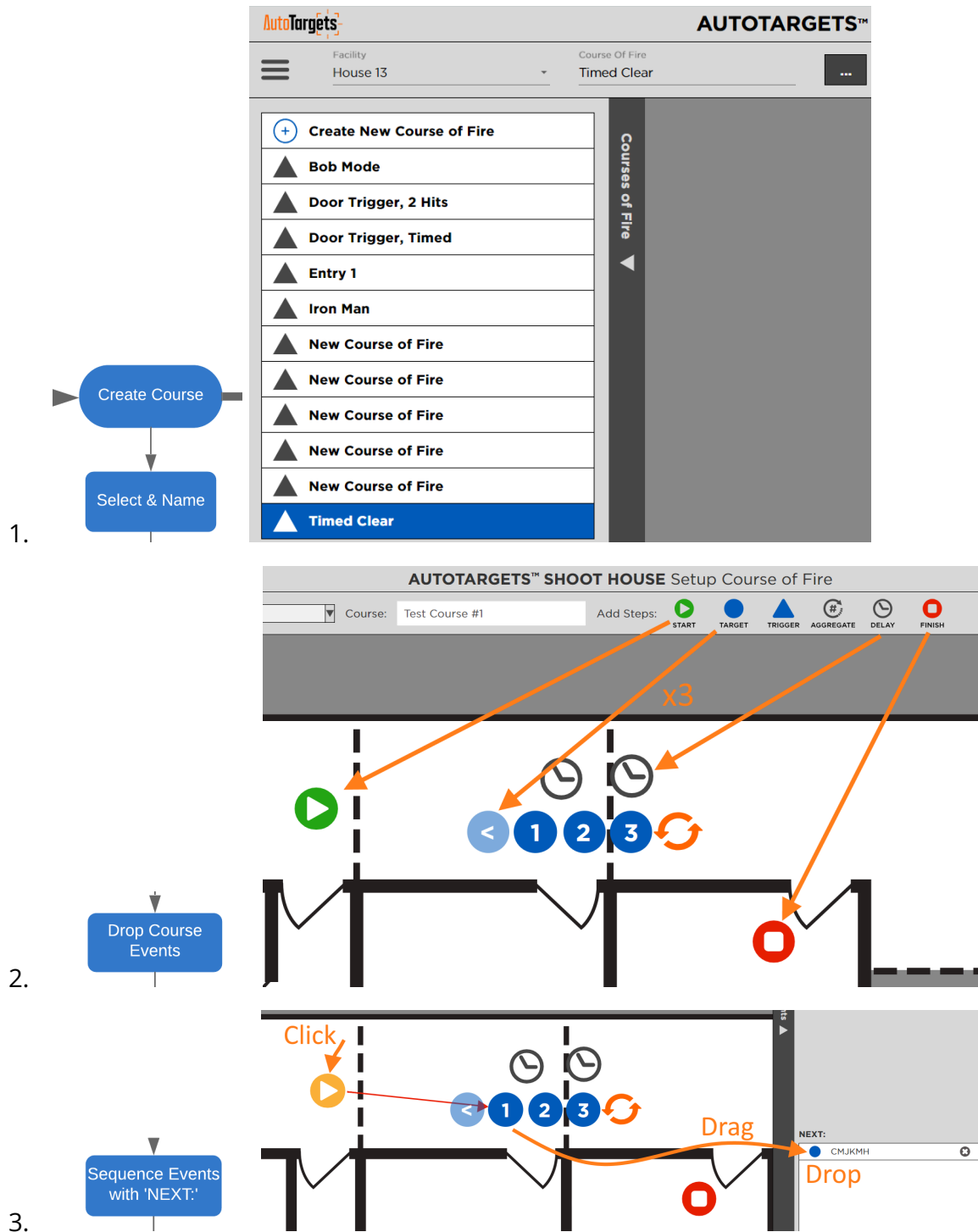
Icon Key

Icon	Name	Description
	Transparent Icons [Range View]	Hardware (targets or triggers) that are available but not yet used in the selected Course of Fire. Placeholders, bound targets/triggers, and bound but offline targets/triggers all start as transparent until you add course of fire events.
	Target w/ 3 Presentations [Range View, Collapsed]	An unexpanded stack of 3 target presentations.
	Target w/ 3 Presentations [Range View, Expanded]	An expanded stack of 3 target presentations. Expanded to access each presentation. Drag and drop new presentations on the placeholder ('<'). Click the placeholder to collapse.
	Black Arrows [Range View]	Show a NEXT relationship.
	Red Arrows [Range View]	Point to what is NEXT from the currently selected (yellow) event.

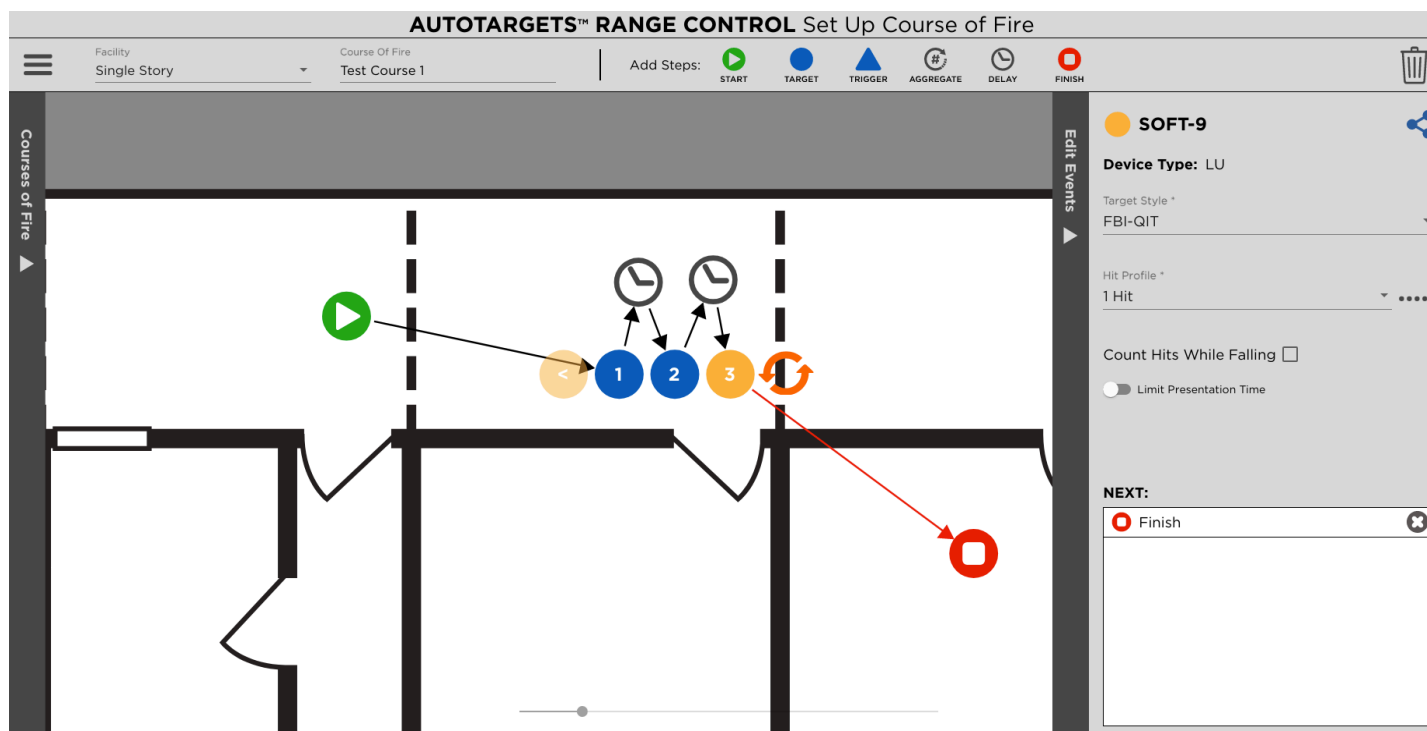
	Selected Event [Range View]	Selected events are highlighted yellow.
	Target Presentation Event [Tool Bar]	Drag and drop this icon on top of a transparent target. This adds a single presentation to the course of fire.
	Trigger Event [Tool Bar]	Drag and drop this icon on top of a transparent trigger. This adds a single trigger event to the course of fire. Trigger events cause the Course of Fire to wait for the trigger to be activated. Typically used to make targets present based on a shooter moving to a certain position (e.g. door switch).
	Start Event [Tool Bar]	Required for a Course of Fire to run. Can have any number of Start Events. All events pointed to from and Start Event start immediately when the course beings.
	Finish Event [Tool Bar]	Required for a Course of Fire to run. Can have any number of Finish Events. The first Finish Event reached ends the course of fire.
	Delay Event [Tool Bar]	Wait for X seconds before continuing the course.
	Aggregator Event [Tool Bar]	Like a valve, halts the course until a certain number of events pointing to it complete. Used to create AND / OR logic in the course. Point 3 target presentations to an Aggregator set to 3; the course of fire waits until all three are completed before proceeding to the next step.
	Presented Target [Range View]	This target is presented.
	Main Menu [Tool Bar]	Navigate around to the major parts of the application.
	Trash Can [Tool Bar]	Drag anything here you want to delete. Be careful, you can't undo it.

	Rotate Expanded Events [Right Sidebar]	Rotates expanded target or trigger event arrays 90 degrees so it's easier to edit events in tight groups.
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Create Course of Fire

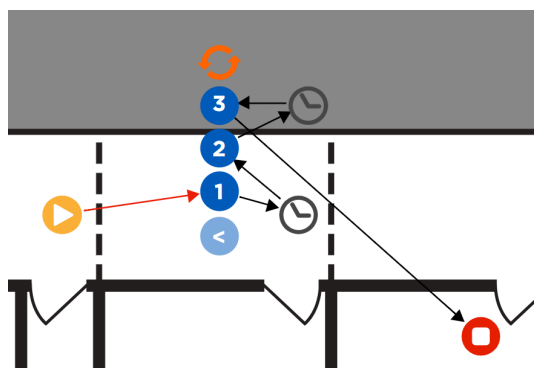


4. All events in the course of fire properly sequenced:

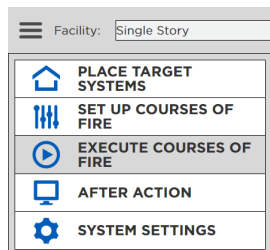


5. Set Event parameters using the Right Sidebar. See **“Course of Fire Event Types”** section in this document for details.

Pro Tip: Rotate expanded Course Events if needed using the orange rotate arrows:



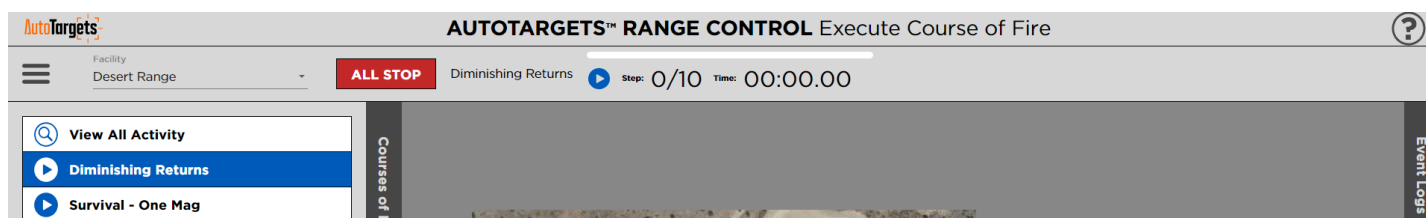
Execute Courses of Fire



Use the 'Execute Courses of Fire' screen to start, stop, and view running courses of fire.

View Event Logs and save data for later use in the After Action module.

Interface Features



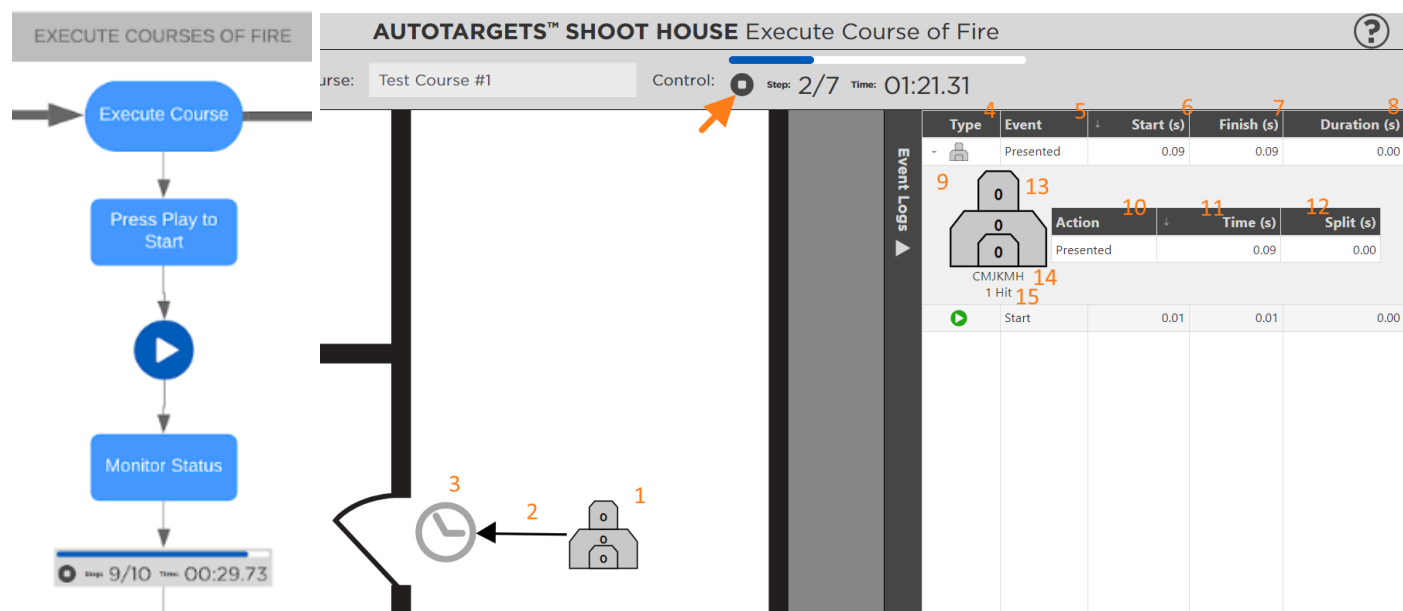
- 1) "View All Activity" - Shows all active events from all courses of fire running on the selected Facility.
- 2) "Course of Fire" - A specific course of fire. Selecting loads the course into the main view.
- 3) "Play/Stop Shortcut" - Start/Stop a Course of Fire without loading it. Useful when starting or stopping multiple courses of fire quickly. Typically used from "View All Activity" screen.
- 4) "Play/Stop" - Start/Stop the selected Course of Fire.
- 5) "Progress Ratio" - # of # events completed for the running Course of Fire.
- 6) "Course Timer" - The run time of the Course of Fire.
- 7) "Progress Bar" - Visual representation of #5 above.
- 8) "Event Logs" - Running list of every event in the last run of a given course.
- 9) "Range View" - Shows the selected course details. Courses are not editable from this screen.

NOTE: At any time the  button to immediately ends all courses of fire and lowers the targets.

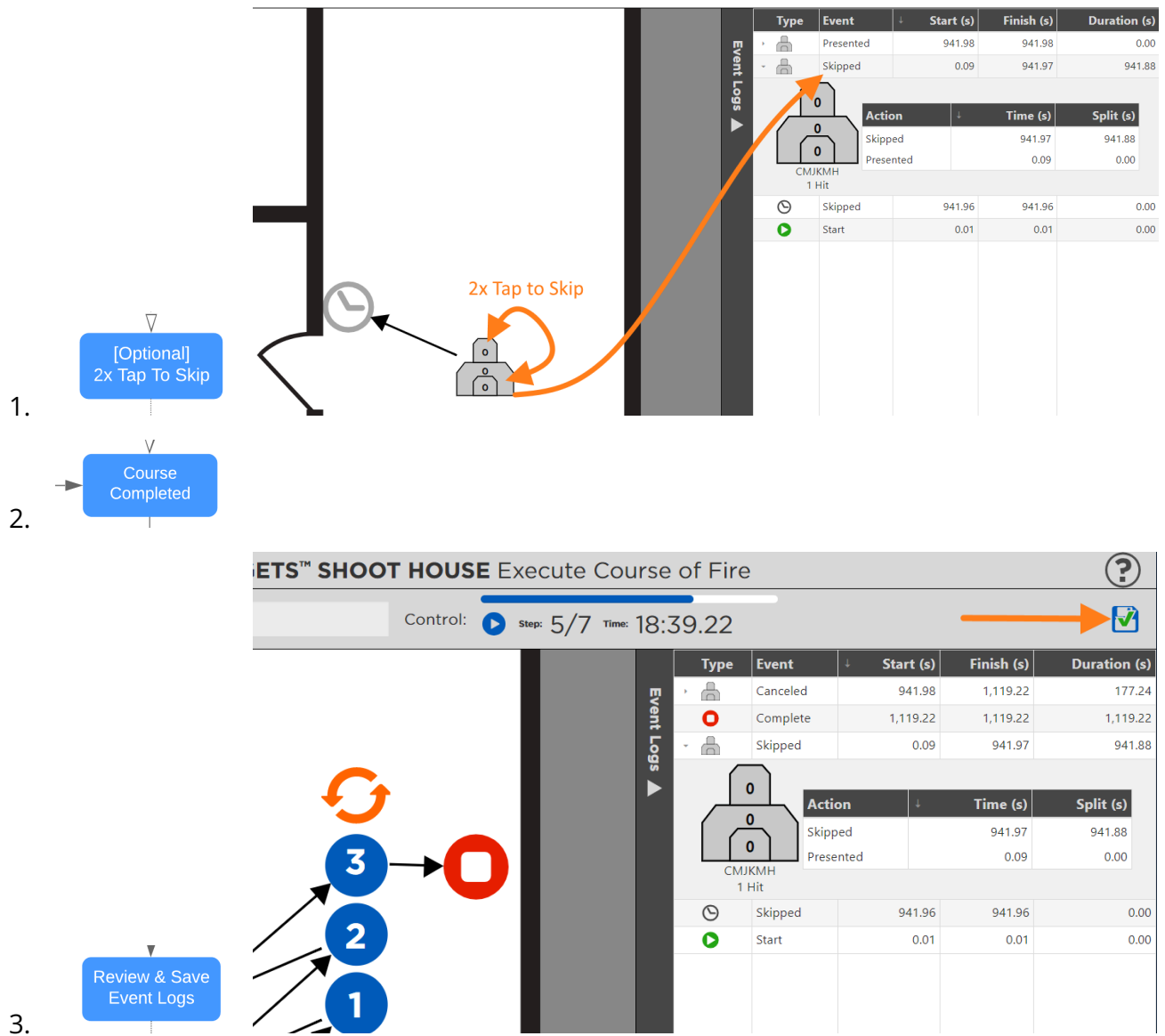
Icon Key

See "**Set Up Course of Fire**" Icons.

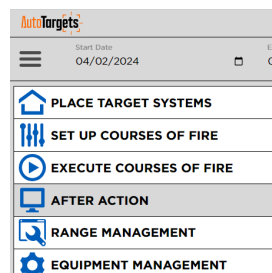
Execute Course of Fire Steps



- 1) Target presentation begins. Only active Course of Fire Events are shown. Targets shown with Hit Counts displayed per zone.
- 2) Only arrows from Active Events are shown to simplify display.
- 3) Only Events "up Next" are shown to simplify display.
- 4) Event Logs - **'Type'** - The type of Event being logged. (Note carrot on left to expand rows)
- 5) Event Logs - **'Event'** - What happened?
- 6) Event Logs - **'Start'** - When did it start happening?
- 7) Event Logs - **'Finish'** - When did it stop happening?
- 8) Event Logs - **'Duration'** - (Finish - Start)
- 9) Event Logs - **Target Event Group**
- 10) Event Logs - Target Event Group - **'Action'** - What happened to the target?
- 11) Event Logs - Target Event Group - **'Time'** - When did it happen?
- 12) Event Logs - Target Event Group - **'Split'** - Split time (time since last event on this target).
- 13) Event Logs - Target Event Group - **Target Icon w/ Counts**
- 14) Event Logs - Target Event Group - **Target Serial or Alias**
- 15) Event Logs - Target Event Group - **Hit Profile** for this event



After Action



Use the 'After Action' interface to review the data from any previously run courses of fire. In some applications, completed courses must be manually saved upon completion of the course of fire in order to populate in the AAR. This is an option that can be enabled in the setup process.

All columns are sortable by clicking in the column header.

Features

The screenshot shows the AUTOTARGETS™ RANGE CONTROL After Action Review interface. It includes a header with the title and a sidebar with navigation options. The main area displays a table of data for a specific course of fire. Numbered callouts highlight the following features:

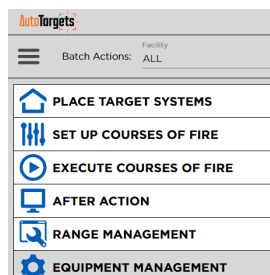
- 1: Start Date filter (02/21/2024)
- 2: End Date filter (02/21/2024)
- 3: Refresh button
- 4: Grouping bar (User Data)
- 5: Column header (Start Time)
- 6: Column header (Duration (s))
- 7: Column header (Total Points)
- 8: Search bar
- 9: Filter icon
- 10: Search results
- 11: Event Logs sidebar
- 12: Column Chooser dialog
- 13: Course Of Fire Name filter (Bill 101 - 1T 5H)

	Name	Lane	Total Points	Grade	Start Time	Duration (s)	Threat Time (s)	Average Threat Time (s)	Targets Presented	Targets C
Range Name: 10 Lane (14 Courses of Fire)										
Course Of Fire Name: Bill 101 - 1T 5H (14 Courses of Fire)										
	USER-07	LANE-07	0	INCOMPLETE	02/21/2024 13:19	1.70	1.69	1.69	1	
	USER-06	LANE-06	0	INCOMPLETE	02/21/2024 13:19	1.70	1.70	1.70		
	USER-05	LANE-05	0	INCOMPLETE	02/21/2024 13:19	1.71	1.70	1.70		
	USER-04	LANE-04	0	INCOMPLETE	02/21/2024 13:19	1.71	1.70	1.70		
	USER-03	LANE-03	0	INCOMPLETE	02/21/2024 13:19	1.71	1.70	1.70		
	USER-02	LANE-02	0	INCOMPLETE	02/21/2024 13:19	1.72	1.70	1.70	1	
	USER-01	LANE-01	0	INCOMPLETE	02/21/2024 13:19	1.73	1.70	1.70	1	
	USER-05	LANE-05	0	INCOMPLETE	02/21/2024 12:36	24.56	24.56	24.56	1	
	USER-01	LANE-01	0	INCOMPLETE	02/21/2024 12:36	25.06	25.06	25.06	1	
	USER-04	LANE-04	0	INCOMPLETE	02/21/2024 12:36	26.09	26.09	26.09	1	
	USER-07	LANE-07	0	INCOMPLETE	02/21/2024 12:36	30.00	30.00	30.00	1	

- 1) Date Filter - **'Start Date'** - Load only data after this date.
- 2) Date Filter - **'End Date'** - Load only data before this date.
- 3) Date Filter - **Refresh Button** - Reload data after changing Start/End dates.
- 4) **Grouping Bar** - Drag column headers here to group by that data. Ex: Group by 'Name' to see all data for a given shooter.

-
- 5) **Column Headers** - Drag column headers to re-order, group, or hide.
 - 6) **Sort Arrow** - Click column headers to sort, click again to reverse sort order. This arrow indicates sorting is happening.
 - 7) **User Data** - The AutoTargets™ Range Control System can be configured with custom fields. These fields are created during installation and are tailored to each customer. Use these fields to add your own data to the After Action like shooter / instructor / event / weapon system. Other user data might also include meta-data like specific user IDs that are sortable to track individual progress or event completion. User data fields are editable in the event that a user was signed in as a guest and training staff would like to connect that user to their unique ID.
 - 8) **Spreadsheet Export** - Tap to download the current AAR view as spreadsheet.
 - 9) **Column Chooser Button** - Opens column chooser.
 - 10) **Search** - Grid text search. Useful to find a specific course of fire, or names within the long list of data.
 - 11) **Event Logs** - Shows the Event Log from the selected Course of Fire. Expand this sidebar and click through different records in the main grid.
 - 12) **Column Chooser** - Drag columns here to hide. Drag columns from here to the grid to show.
 - 13) Edit Controls
 - a) **Edit Record Button** - Tap to edit User Data. Enter user data. Tap this again to save changes.
 - b) **Delete Button** - PERMANENTLY deletes the course of fire execution record.
 - 14) **Group Row** - Expands and collapses this group of records.
 - 15) **Column Search** - Search & filter just this column.
-

Equipment Management



Use the “Equipment Management” interface to manage hardware, update firmware, view hardware status, etc...

Features

AUTOTARGETS™ RANGE CONTROL Equipment Management									
Batch Actions: ALL		ALL OFF		UPDATE ALL					
Status	Peripheral Status	Power Status	Serial	Alias	Bound Range(s)	Software Version	Mode	State	Action
●	●	N/A	SOFT-11	300m TGT1	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-12	B1B	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-13	B1C	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-18	B3B	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-3	QT03	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-32		Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-16	B2C	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-17	B3A	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-19	B3C	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-20	R1A	Range 37	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-35		House 13	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-21	R1B	House 13	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-1	QT01	House 13	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-42		2 Man Deliberate	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT
●	●	N/A	SOFT-44		2 Man Deliberate	24 -SNAPSHOT - Thu, 06 Jan 2022 16:58:36 GMT	Target	Idle	REBOOT

NOTE: Where multiple ranges are hosted on a single Range Control Server, an additional “Facility” selection drop down menu will be enabled next to “Batch Actions” to allow specific control of individual range facilities.

- 1) **Batch Actions - ALL OFF** - Send command to all units (except for RANGE-SERVER) to power down.
- 2) **Batch Actions - UPDATE** - Send update package (#3 above) to all units (except for RANGE-SERVER).

3) Update Package

- a) Hover over this icon to see the version of the update package (pc only).
- b) Green - Update package available.
- c) Red - No update package available.

4) Status

- a) Green - Online
- b) Grey - Bound but offline

5) Peripheral Status

- a) Green - Ready
- b) Red - Error (additional information will be displayed if available)
- c) Yellow - Target Technology is set to E-Type, and no MTTS is detected

6) **Serial** - The serial # of the hardware. This is a unique identifier

7) **Alias** - The alias of the hardware (see Admin -> Right Sidebar to set Alias)

8) **Bound Range(s)** - The list of ranges to which this hardware is bound (binding done in "Place Target Systems" screen)

9) **Software Version** - Version name

- a) Green - Version is up to date relative to the update package installed on the system
- b) Red - Version is out of date and should be updated

10) **Mode** - The type of the hardware (Target or Active Server)

11) **State** - The current state of the hardware (Idle, Reboot, PowerOff, Updating)

12) **Action** - Issues the following command to the hardware

- a) **REBOOT** - Reboot the hardware.
- b) **SHUTDOWN** - Shut down the hardware (portable units require a physical power button press to turn back on)
- c) **UPDATE** - Push firmware update to the hardware (will auto-reboot)

13) **Admin Settings** Right Sidebar:

Admin ▼

REDPPU 1

Total Voltage 2
0

Alias 3
Alias

Target Fall Time (s) * 4
2

Invert Target Position * 5
NO

Solenoid Lift Duration (s) * 6
2

Solenoid Fall Duration (s) * 7
5

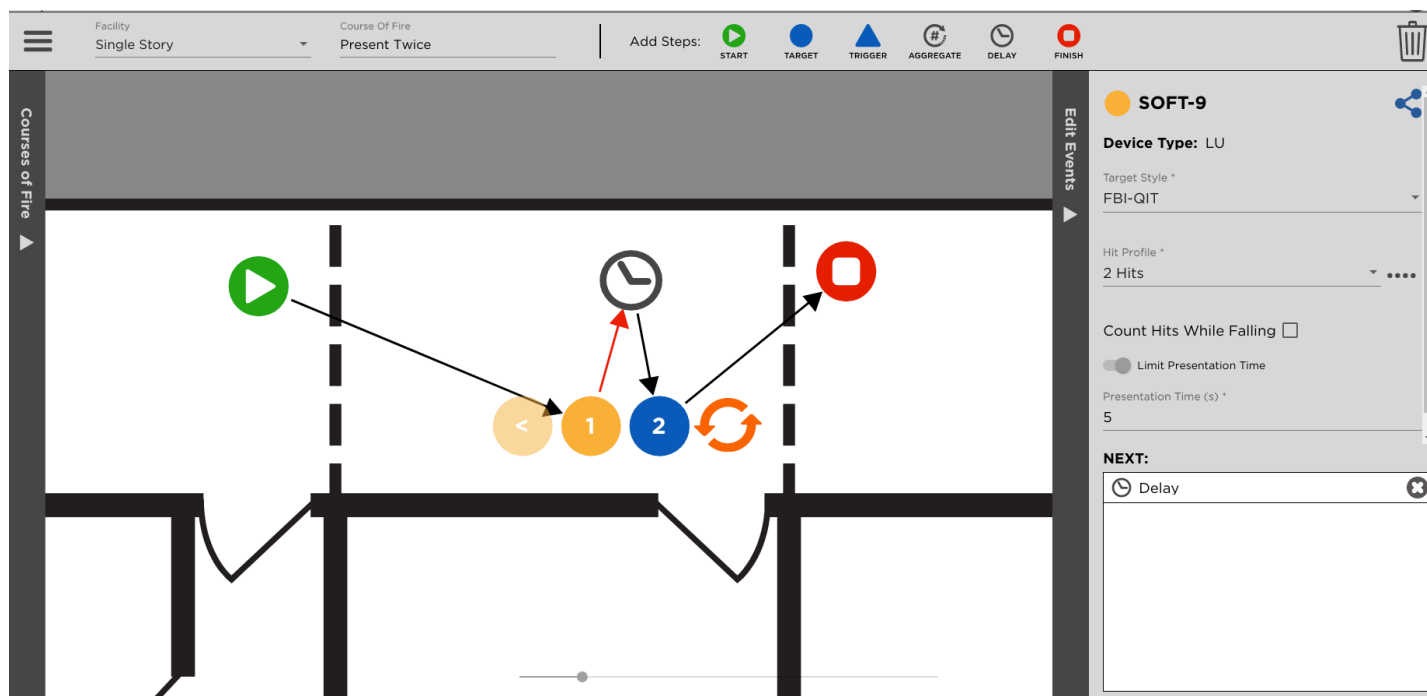
Target Technology Type * 8
E-Type/F-Type

Sensitivity * 9
25

- 1) Unit Serial #
- 2) Current Operating Voltage
- 3) User-set nickname or position on range
- 4) The amount of time the system believes the target takes to fall.
NOTE: Setting this to 0 will cause the target to not fall under certain circumstances.
- 5) Swaps UP and DOWN position. Use this to change swing-ups to pop-outs.
- 6) Allows a technician to optimize battery life for certain products by adjusting the power pulse to the solenoid. **For standard units shipped after 2018 we recommend setting both Lift and Fall to 0.25.**
- 7) Same as (6) but opposite direction. **For standard units shipped after 2018 we recommend setting both Lift and Fall to 0.25.**
- 8) Prepares a unit to be used with the specified target technology
- 9) Changes sensitivity of E-Type, default is 25 **NOTE: only visible/applicable when Target Technology Type is set to E-Type/F-Type**

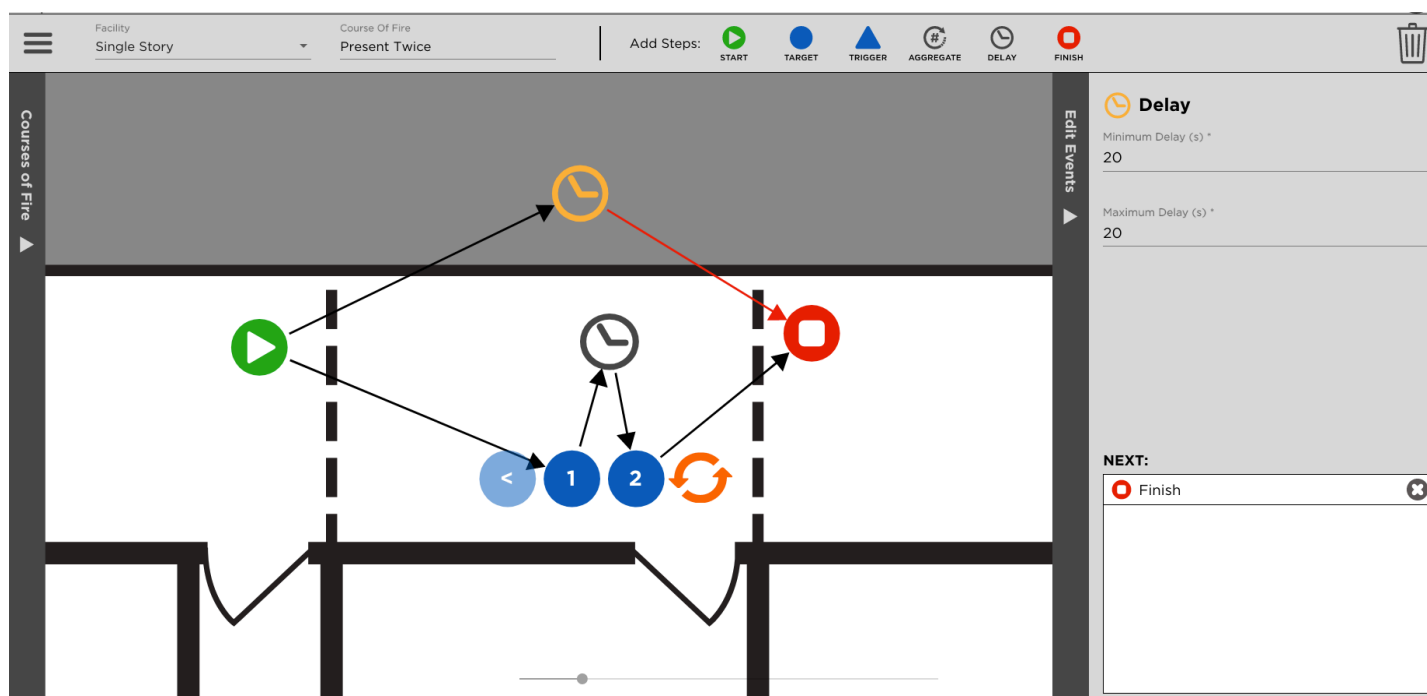
Sample Courses of Fire

Double Presentation w/ Delay



1. Target presents immediately at start of CoF
2. 2 Hits or 5s to drop
3. Wait 5 seconds
4. Target presents again
5. 1 Hit to drop
6. Finish

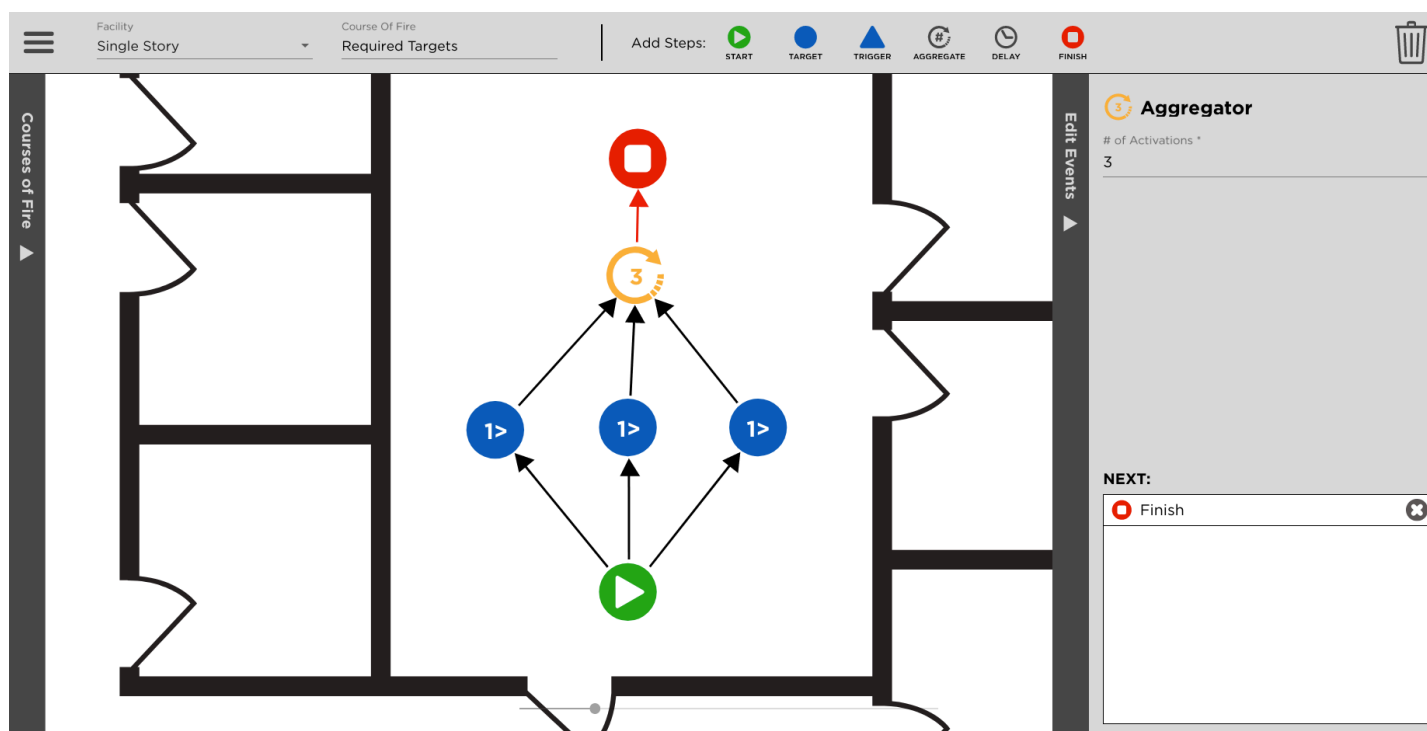
Adding Course Timeout



Connect "Start -> Delay -> Finish" to end the course of fire after a fixed period of time. This creates a time limit requirement to execute the course of fire.

This course could be used in a qualification drill. A certain number of hits must be achieved prior to time expiring.

Using an Aggregator

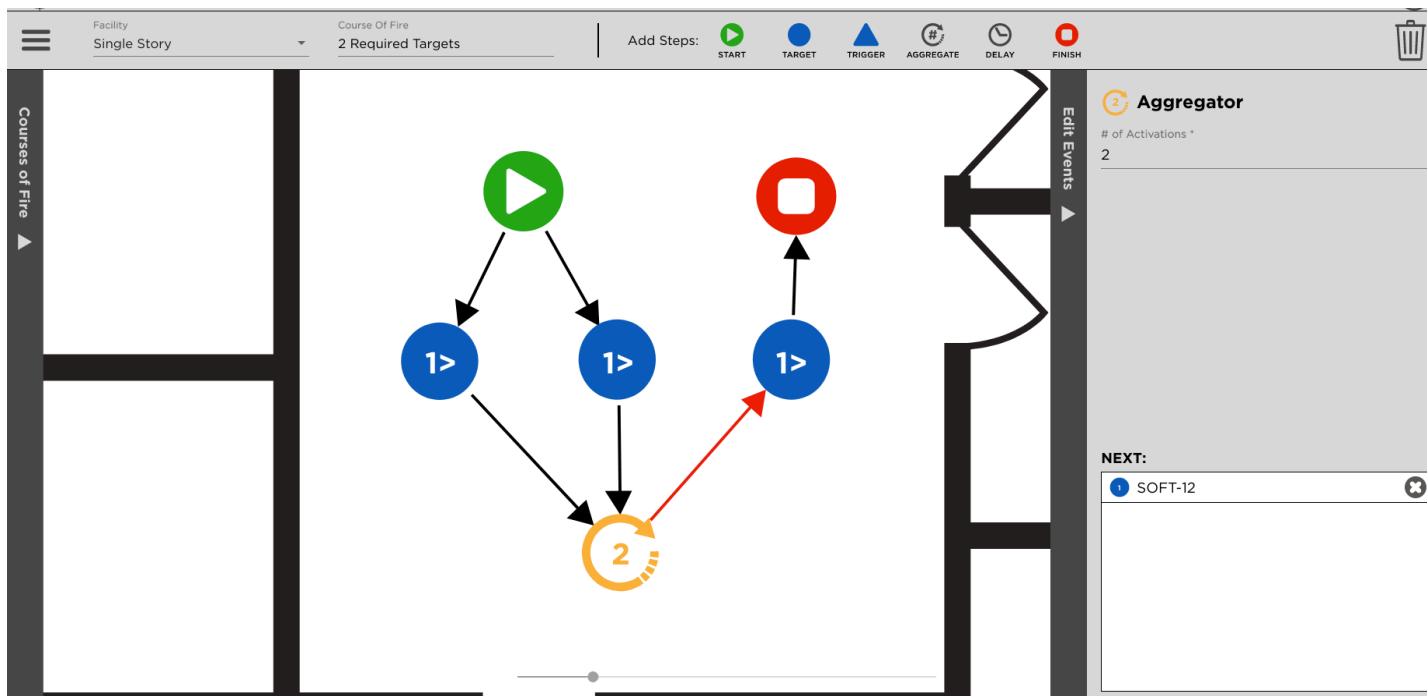


Use an aggregator as a gatekeeper to halt the course until X number of incoming events have been completed. In this case, shoot down any two targets to complete the course of fire.

Set **[# of Activations]** to 3 to require all 3 targets to be completed before proceeding. When connecting multiple training environments or target engagement areas, this ensures that all threats in an area are resolved prior to advancing the course of fire to another engagement area.

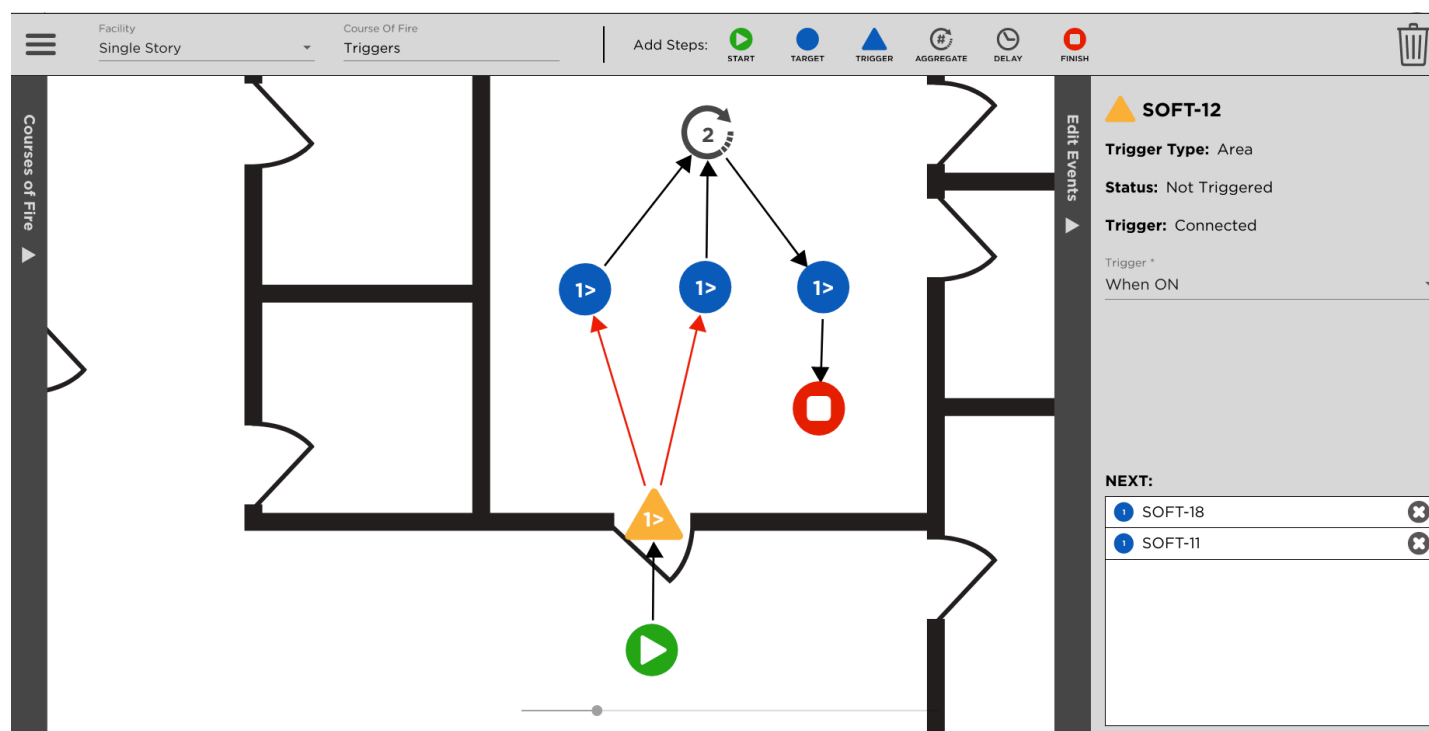
NOTE: Setting **[# of Activations]** higher than the total number of incoming events (4+ in the example above) the course will stall at this point until stopped by the user.

Using an Aggregator Example 2



Both target events must be completed prior to the third target presenting.

Using Triggers



Like Aggregators, Triggers are used to control the flow of a Course of Fire. Triggers are external components that may or may not be installed in your facility.

Starting this course activates the trigger. The course will wait at the trigger until it is activated (contact closure on the External Trigger port of AutoTargets™ Lift Units).

Once activated, the trigger prompts the top two targets to present.

If [Trigger: **When ON**] were set to [Trigger: **When OFF**], the course would wait for the External Trigger port contact to open.

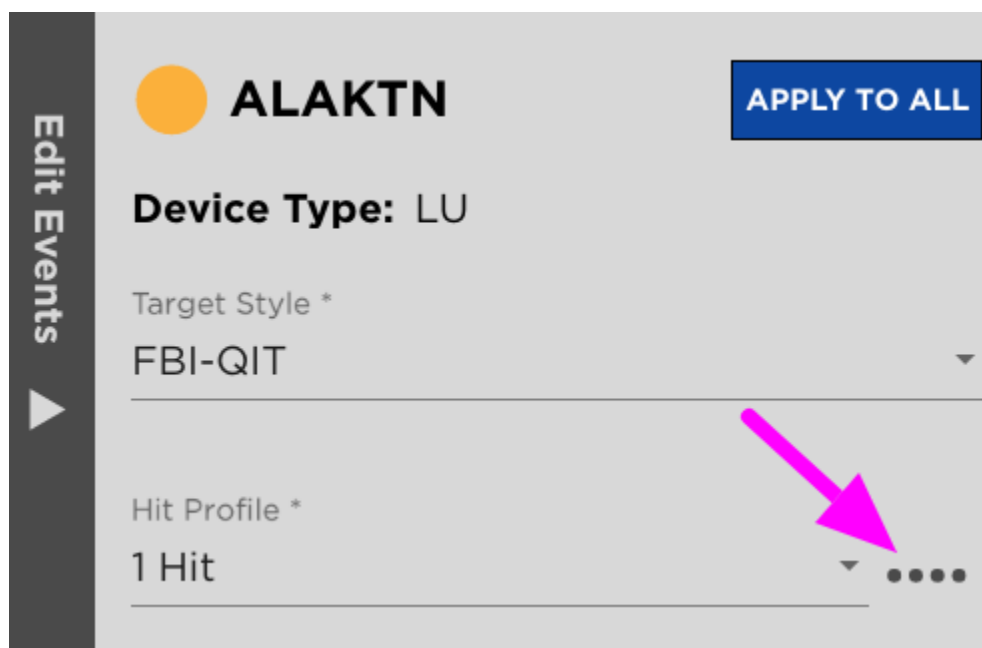
For additional information on triggers please contact AutoTargets™ support for documentation - 215.948.2422 or support@autotargets.com.

Target Profile Editor

This tool is used to create custom hit profiles.

When building a course of fire, there are a number of target profiles to select from which will determine the amount of hits (and in which zones) are required to drop the target. These standard target profiles are selected from a drop-down menu in the [Edit Events] side bar of each target presentation.

If a custom target profile is desired, it can be created by clicking the [...] button as shown below:



This will open the Target Profile Editor, as shown below. The orange numbers in each field correspond to the numbered step in the following instructions:

Create New Target Profile

Profile Name: 3

Completion Type: **Any Zone** 4

Target Style: **FBI-QIT** 5

Zone Diagram: 6

	Zone Style 7	Extension 8	Extends Zone 9	Min Hits 10	Max Hits 11	Points 12
Zone 1	Active	☐	N/A	1	1	10
Zone 2	Active	☐	N/A	1	1	20
Zone 3	Active	☐	N/A	1	1	10

SAVE **CANCEL**

Creating a new Target Profile:

- 1) Click **[Create New Target Profile]**.
- 2) This is the list of available target profiles.
 - a) Currently selected profile will be in blue.
 - b) Profiles with a padlock icon cannot be edited or deleted.
- 3) Name the target profile by typing in a unique name in the **[Name]** field.
- 4) Select a **[Completion Type]**.
 - a) [None] will make the target never drop. This is equivalent to unlimited hits.
 - b) [Any Zone] will make the target drop after any single zone is completed (as set in the table). Each zone can have a different hit requirement.
 - c) [All Zones] will make the target drop after every zone is completed (as set in the table). Completing a single zone will NOT make the target drop.
 - d) [Points] will make the target drop after a given number of points are accumulated. Points can be accumulated from any zone. Each zone can be set to a specific number of points, and a total amount of points can be set. If the completion type is set to [Points], a new field will appear in the upper right corner to set the total amount of points required to drop the target.

-
- 5) Select a **[Target Style]**.
 - a) This should match the physical target that is being used.
 - 6) Use the **[Target Legend]** as reference to determine the number of each zone as it appears on the physical target. Z1 is Zone 1, Z2 is Zone 2, and Z3 is Zone 3.
 - 7) Select the **[Zone Style]** for each zone.
 - a) [Inactive] means that no hits in this zone will be counted.
 - b) [Active] means that all hits in this zone will be counted.
 - c) [Fail] means that any hit in this zone will immediately drop the target, and will be considered a fail in the After Action Review. This is useful for “no-shoot” targets.
 - 8) Select the **[Extension]** checkbox if you desire to combine that zone with the previous zone in order to be treated as a single zone.
 - 9) If the [Extension] checkbox is selected, the **[Extends Zone]** column will state which zone is being extended. Otherwise it will read “N/A”.
 - 10) **[Min Hits]** determines the minimum amount of hits required to complete a given zone. If this number is different from [Max Hits], the software will choose a random number of hits between those values for each presentation. For a fixed (non-random) number of hits, set [Min Hits] and [Max Hits] to the same value.
 - 11) **[Max Hits]** determines the maximum amount of hits required to complete a given zone. If this number is different from [Min Hits], the software will choose a random number of hits between those values for each presentation. For a fixed (non-random) number of hits, set [Min Hits] and [Max Hits] to the same value.
 - 12) Select the number of **[Points]** for each zone. This setting is used for two purposes:
 - a) If [Completion Type] is set to [Points], use the [Points Column] to determine how many points will be accumulated for each hit on each zone.
 - b) Use a custom points per zone scoring system. Assign specific point values to each zone on the target.
 - 13) Click **[Save]** to add the current target profile to the list, or to overwrite an existing profile.
 - 14) Click **[Cancel]** to discard any changes that were made since the last save.
-

Icon Key for Target Profiles

<u>Icon</u>	<u>Name</u>	<u>Description</u>
 1 Hit	Factory Default Profile	Provided with the system and cannot be changed.
 Custom Profile	User Created Profile	Can be added, removed, modified freely.

Course of Fire Event Types

Target Presentation Event

Edit Events

1  **ALAKTN** 2 **APPLY TO ALL** 3

Device Type: LU 4

Target Style * 5
FBI-QIT

Hit Profile * 6
1 Hit 7

Count Hits While Falling ☐ 8

☒ Limit Presentation Time 9

Presentation Time (s) * 10
2

NEXT: 11

Drag your next process(es) here

- 1) Event Type Indicator Icon
- 2) Serial (or Alias if set) of this AutoTargets™ device
- 3) Apply this target profile to all target events in this Course of Fire
- 4) Device Type: Lift Unit
- 5) Filter Hit Profiles by selecting Target Style
- 6) Set Hit Requirements for this target presentation
- 7) Create a custom Target Profile
- 8) If enabled, hits to the target while it is in the process of falling will still count. Disabled by default.
- 9) If enabled, the target presentation will time out and fall after a set number of seconds. Disabled by default.
- 10) Set how long (in seconds) this target presents for. 0 is infinite. **Note: only available if "Limit Presentation Time" is enabled**
- 11) Drag and drop events you want to happen after this one here.

Trigger Event

Edit Events ▼

1 **SOFT-28** **2**

Trigger Type: Area **3**

Status: Not Triggered **4**

Trigger: Connected **5**

Trigger

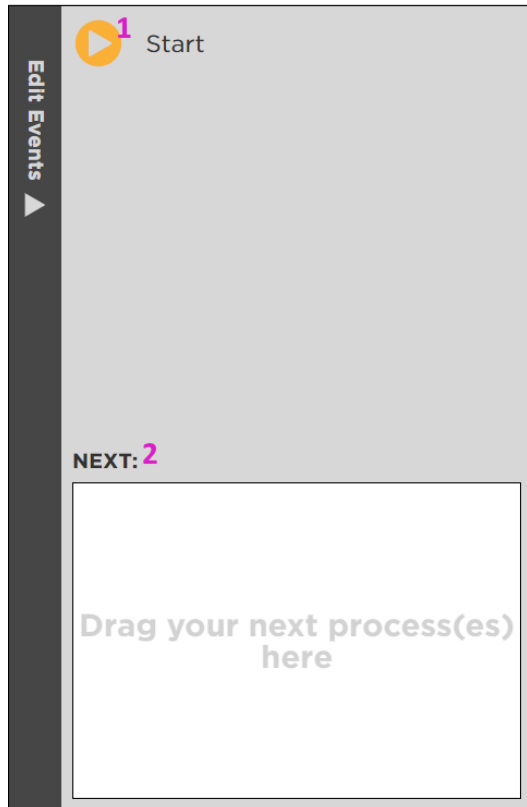
When ON **6**

NEXT: 7

Drag your next process(es) here

- 1) Event Type Indicator Icon
- 2) Serial (or Alias if set) for this AutoTargets™ device
- 3) Trigger Type - Not yet configurable, applicable in future software releases.
- 4) The real-time status of the trigger
 - a) Not Triggered
 - b) Triggered
- 5) Is the trigger plugged in? (real time)
 - a) Connected
 - b) Not Connected
- 6) What trigger state completes this event?
 - a) When ON
 - b) When OFF
- 7) Drop events you want to happen after this one here.

Start Event

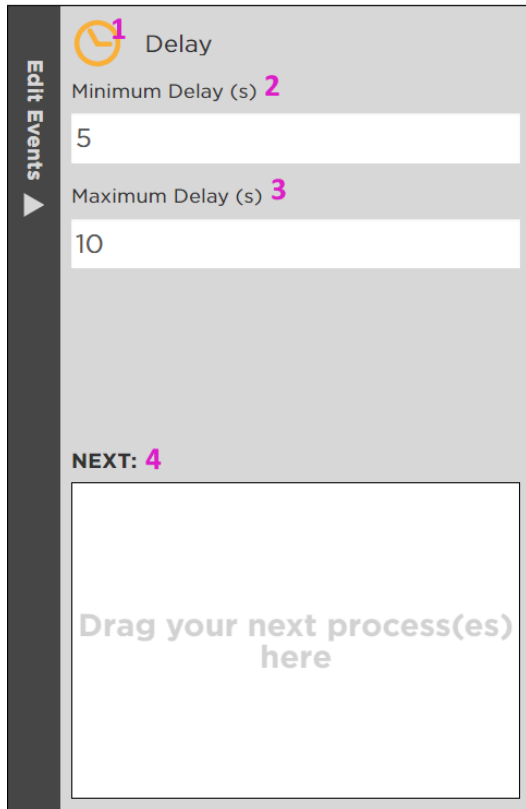


- 1) Event Type Indicator Icon
- 2) Drop events you want to happen after this one here.

Finish Event

Not selectable. No Right Sidebar.

Delay Event



1 Delay

Minimum Delay (s) 2

5

Maximum Delay (s) 3

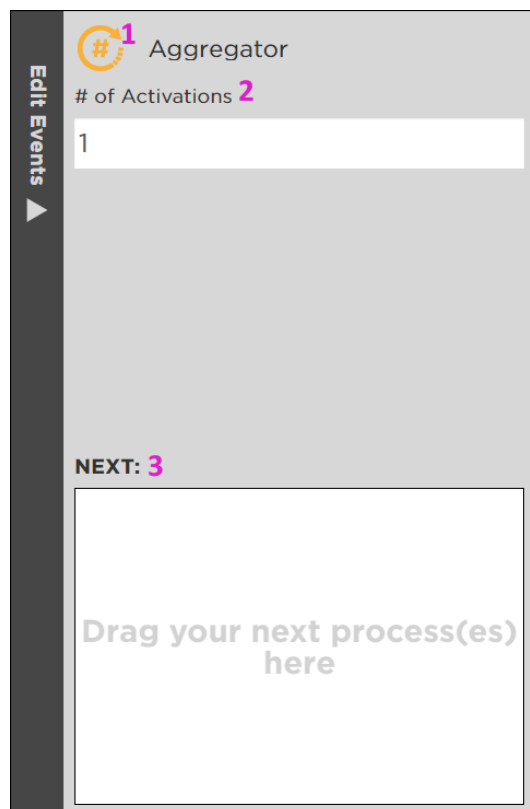
10

NEXT: 4

Drag your next process(es) here

- 1) Event Type Indicator Icon
- 2) Minimum Delay (s) - The minimum amount of time to delay.
- 3) Maximum Delay (s) - The maximum amount of time to delay. ***Set same as min for fixed duration delay, otherwise random delay selected between min & max.***
- 4) Drop events you want to happen after this one here.

Aggregator Event



The screenshot shows the 'Edit Events' sidebar on the left with a downward arrow. The main area is titled 'Aggregator' with a yellow circular icon containing a hash symbol and the number 1. Below the title is the label '# of Activations' with a pink number 2, followed by a text input field containing the number 1. At the bottom, there is a section labeled 'NEXT: 3' with a pink number 3, containing a large white box with the text 'Drag your next process(es) here'.

- 1) Event Type Indicator Icon
- 2) The number of events pointing directly to the Aggregator that must complete before the course continues.
- 3) Drop events you want to happen after this one here.

Integrating Cameras with AutoTargets as Triggers

Your AutoTargets system is capable of connecting to Visualint cameras (or any other camera with an alarm relay output) for the purpose of making the targets react to the presence of the shooter. In this setup, a camera is used as a trigger to pause or advance a course of fire. There are three steps to this process:

1. Physically connecting the camera to an AutoTargets Lift Unit through the camera output to the Lift Unit Trigger Port.
2. Setting up the motion sensing parameters in the camera's firmware.
3. Enabling the camera as a "trigger" in the AutoTargets Range Control Software.

Connecting The Camera

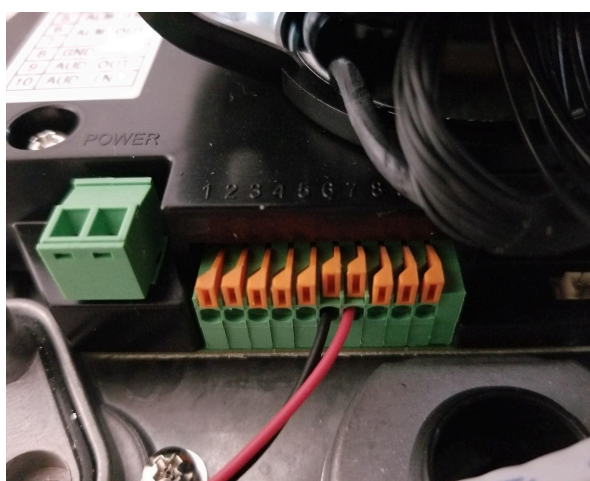
Connect Trigger Cable to Camera

Use only an official trigger cable obtained from AutoTargets.

For Visualint cameras, connect the two trigger wires to pins 6 & 7 of the camera. Polarity does not matter.

For other cameras, refer to the user manual of the camera, and connect the trigger cable to any available relay output.

IMPORTANT: The relay output must not supply any voltage. Only dry contacts may be used to avoid damage to the AutoTargets Lift Unit.



Connect Trigger Cable to Lift Unit

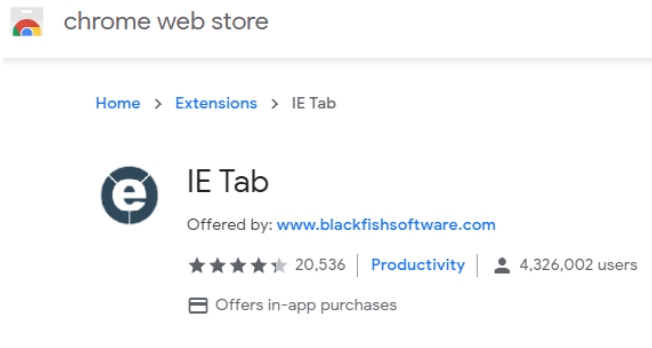
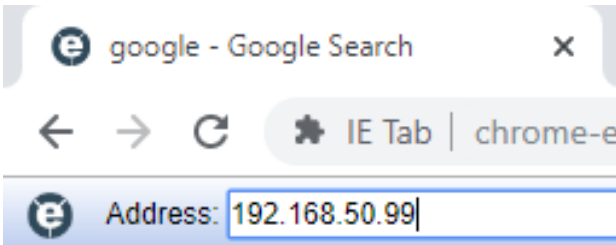
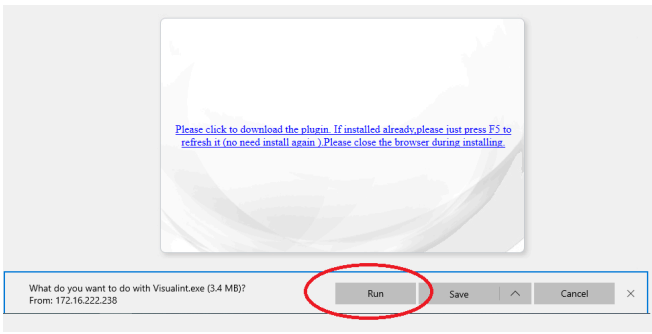
Plug the trigger cable into the trigger port of any lift unit.

Any camera can be connected to any lift unit (not just the lift unit you want to control). The Range Control software will allow any camera to control any unit or even multiple units at a time.



Configuring the Camera

This section is for Visualint cameras only. For other cameras, refer to the manufacturer's instructions.

Install "IE Tab" Plugin to Google Chrome This is necessary as the Visualint cameras are not compatible with Google Chrome.	
Browse to the IP Address of the Camera Type the IP address into the address bar of IE tab, NOT the address bar of Google Chrome. Contact your IP administrator to obtain the IP address.	
Install the Visualint Plugin Follow the prompts to allow the plugin to install, then refresh the page.	

Log into the Camera

Enter the correct username and password. For Visualint cameras the default username and password are both "admin"

Default Port number is 3000

User Name: admin

Password: •••••

Port: 3000

Login

Create Rule for Tripwire

Click on **Configuration > VCA > Create Rule**. You will see the following page:

Visualint VIM-4350

Live View Playback Log Configuration

Audio Video Set
Camera Set
VCA
Alarm Info
Create Rule
VCA Schedule
Advanced
OSD
Storage Management
Network Management
User Management
Alarm Management
Advance Set

Create Rule

Please active VCA and Rule ID first!

VCA: Enable

Enable Arithmetic: ☒ Behavior Analysis

☐ Video Detection ☐ Audio Detection

Save

Arithmetic: Behavior Analysis

Rule ID: 1 ☒ valid

Rule Name:

Event Set: Perimeter

Detect Mode: Intrusion

Invasion Time(s): 1

Alarm Color: Red

No Alarm Color: Green

Min. Percentage: 0

Max. Percentage: 100

☒ Show Alarm Count
☒ Show Alarm Rule
☒ Display Target

Save Next

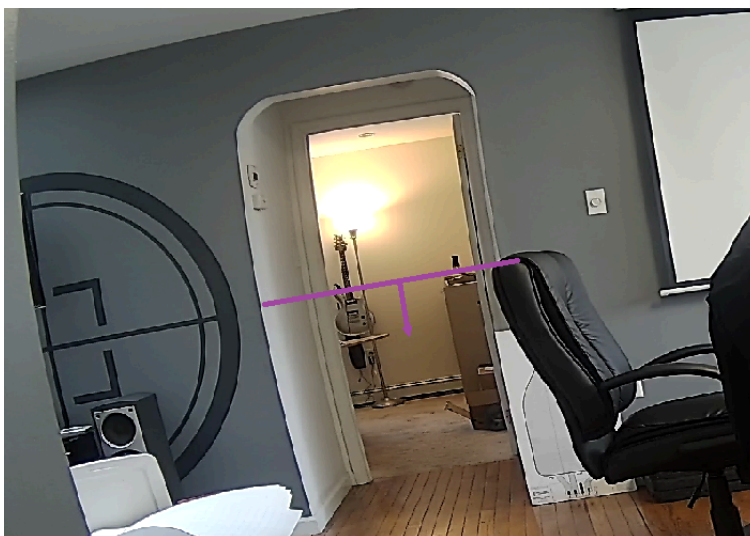
*****NOTE THAT THE MOTION SENSING WILL NOT WORK WHILE YOU ARE IN THIS PAGE!!!** To test your parameters, you must exit this page and go back to **Live View**.

Use the following parameters as a starting point:

The image shows a configuration window for a Video Content Analysis (VCA) system. The settings are as follows:

- VCA:** Enable (dropdown menu)
- Enable Arithmetic:** ☒ Behavior Analysis
- Video Detection:** ☐
- Audio Detection:** ☐
- Save:** (button)
- Arithmetic:** Behavior Analysis (dropdown menu)
- Rule ID:** 1 (dropdown menu)
- Valid:** ☒
- Rule Name:** (empty text field)
- Rule Clear:** (button)
- Event Set:** Tripwire (dropdown menu)
- Alarm Color:** Red (dropdown menu)
- No Alarm Color:** Green (dropdown menu)
- Min. Percentage:** 2 (slider bar)
- Max. Percentage:** 98 (slider bar)
- Show Alarm Count:** ☒
- Show Alarm Rule:** ☒
- Two-way Alarm:** ☒
- Display Target:** ☒

Click **Start to Draw** below the image preview area and draw the tripwire where desired. Single click for the start point, and double click for the end point. Then click **Stop Drawing**. NOTE: To make the tripwire trip sooner, draw the line offset from (before) the desired tripping point. For example, a tripwire for a door can be drawn halfway up the door, rather than on the floor. Here is an example of an effective tripwire:



Click **Save**, then test the settings in the **Live View** page and adjust settings as necessary. Once the settings are working as desired you can (optionally) turn off the settings **Show Alarm Count**, **Show Alarm Rule**, and **Display Target**. This will remove those indicators from the live stream of the camera.

The **Two-way Alarm** setting determines if the tripwire will trip from traffic in both directions or just one direction. If this is disabled, the tripwire will only trip for traffic in the direction of the arrow drawn on the tripwire. To reverse the direction of the arrow, simply draw the tripwire in the reverse direction.

Click on **Configuration > Alarm Management > Alarm Output** to set the output port. Use the following settings and then click **Save**:

Alarm Output

Output Port	1	▼
Mode Set	ON	▼
Delay Time(s)	1	▼

Save

Note that the **Delay Time(s)** setting controls how long the alarm relay will stay closed for after activating, it does NOT add a delay between the alarm tripping and the relay closing.

Create Rule for Intrusion Detection Alarm

!!!IMPORTANT!!! When using the **Intrusion Detection** setting, there will be a minimum delay of 1 second before the alarm trips. For this reason, we recommend using the **Tripwire** setting whenever possible.

Click on **Configuration > VCA > Create Rule**.

Use the following parameters as a starting point:

Please active VCA and Rule ID first!

VCA Enable

Enable Arithmetic ☒ Behavior Analysis

☐ Video Detection ☐ Audio Detection

Save

Arithmetic Behavior Analysis

Rule ID 1 ☒ Valid

Rule Name Rule Clear

Event Set Perimeter

Detect Mode Intrusion

Invasion Time(s) 1

Alarm Color Red

No Alarm Color Green

Min. Percentage 0

Max. Percentage 100

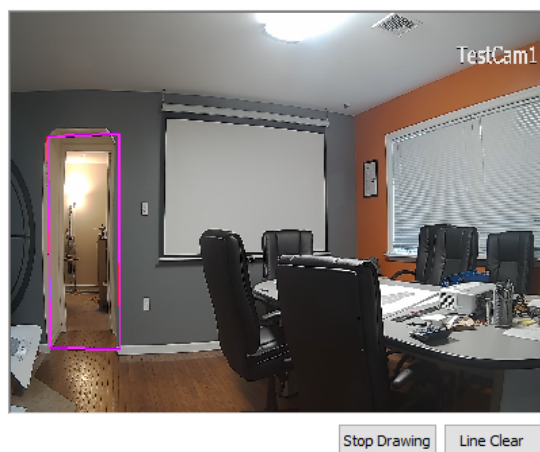
☒ Show Alarm Count

☒ Show Alarm Rule

☒ Display Target

Click **Start to Draw** underneath the image preview area. Click once for each corner of the desired active area (do not click and drag), and double click at the end to close the shape.

NOTE: Do not make the active area too small. When the camera detects the presence of a person, the entire person must be inside the specified area, not just a portion of that person. For the best reliability, the selected area should either be a doorway or simply the entire image.



Click the **Save** button and then on **Live View** to test the configuration.

Click on **Configuration > Alarm Management > Alarm Output** to set the output port. Use the following settings and then click **Save**:

Alarm Output

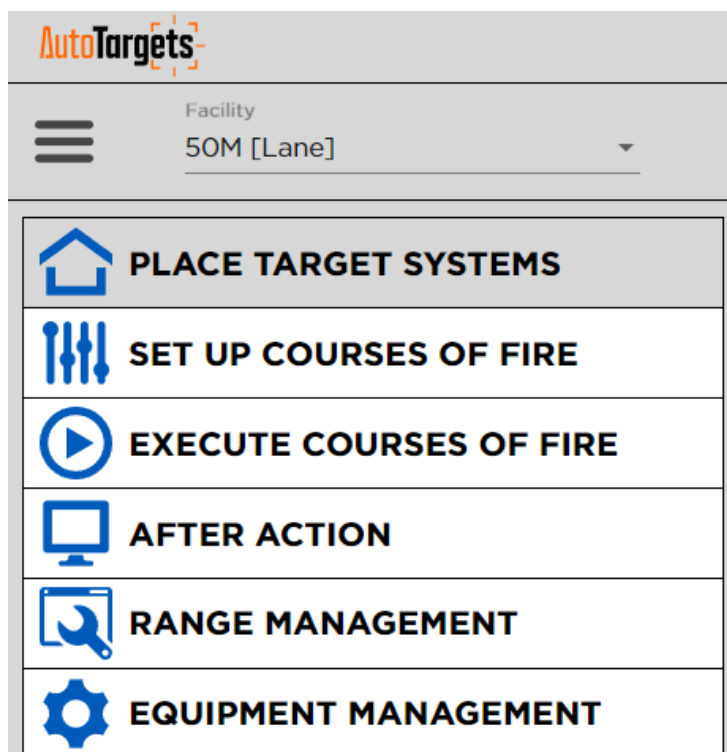
Output Port	1	▼
Mode Set	ON	▼
Delay Time(s)	1	▼
Save		

Note that the **Delay Time(s)** setting controls how long the alarm relay will stay closed for after activating, it does NOT add a delay between the alarm tripping and the relay closing.

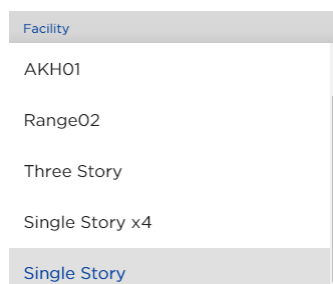
As an alternative to tripwires and intrusion detection, you can set alarms for **double tripwire**, **object abandoned**, **missing object**, or **loitering**. These settings are selected in the **Create Rule** page and you will have to experiment with the settings to achieve the desired behavior.

Bind Triggers in Range Control

In the AutoTargets Range Control software, navigate to **Place Target Systems**.



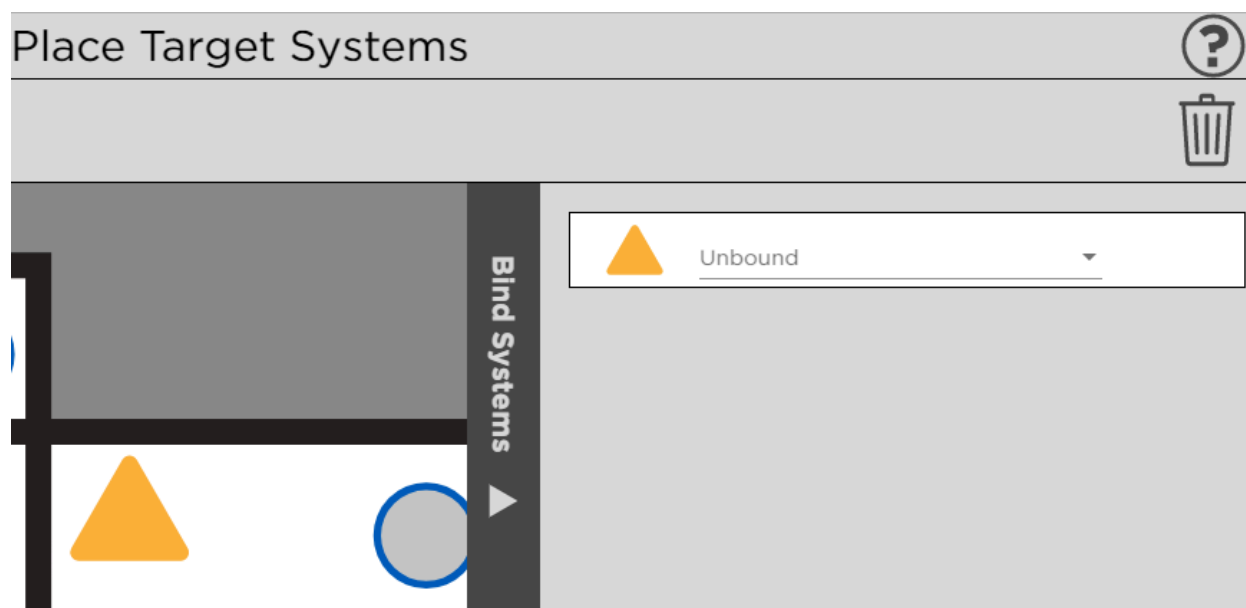
Select the appropriate facility in the **Facility** dropdown menu.



Drag a trigger icon onto the screen, in an area that is associated with the camera and/or active trigger area.



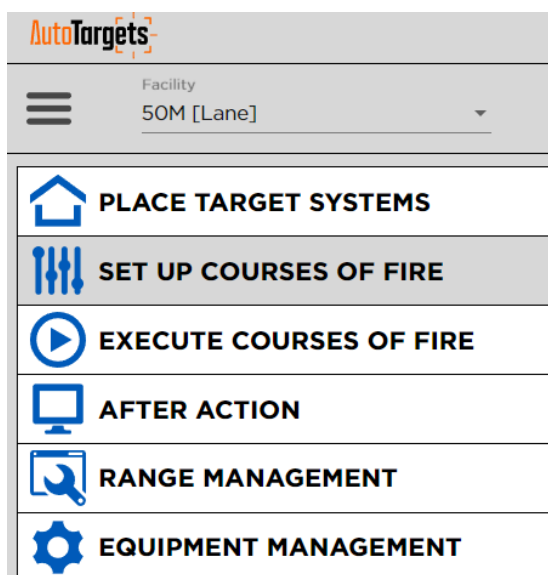
Click the trigger icon that you just dragged onto the screen, and it will open up a sidebar where you can bind it to a lift unit.



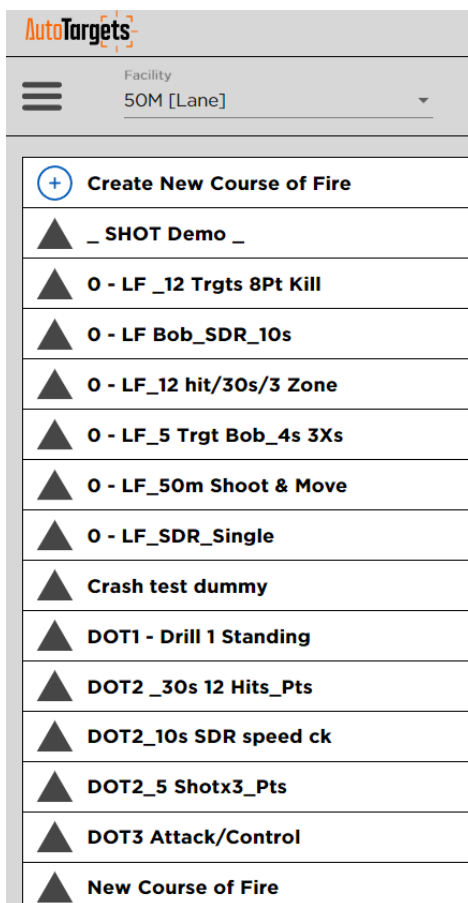
Click the dropdown menu in the sidebar to select which lift unit the camera is plugged into. The camera trigger is now ready to be used in a course of fire.

Using the Camera in a Course of Fire

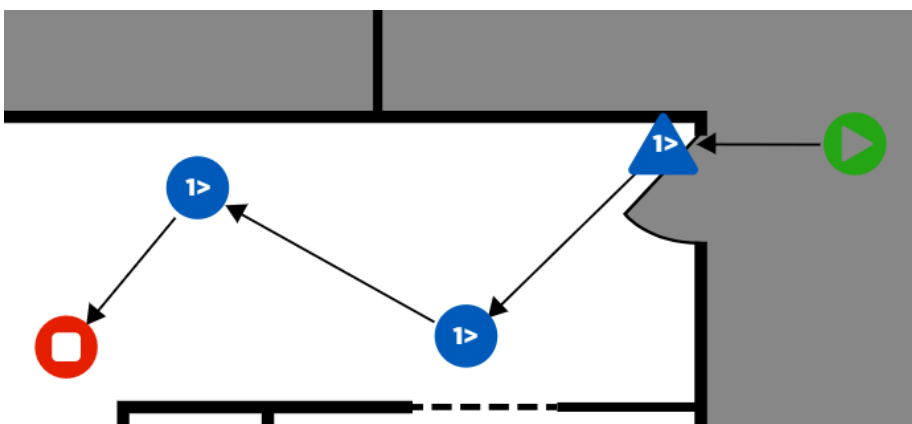
In the AutoTargets Range Control Software, navigate to the **Set up Courses of Fire** Page.



Click **Create New Course of Fire** or select an existing course of fire that you want to use the camera trigger in.



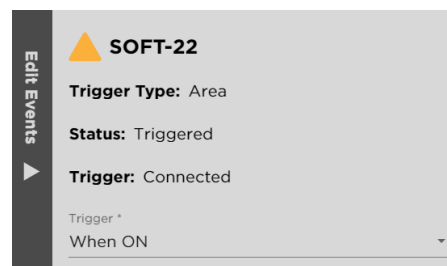
Build your course of fire just as you would normally, but add triggers as needed by dragging the **trigger** icon onto the screen on top of an available trigger. By placing the trigger in front of a target(s), the course of fire will pause at the trigger and wait for the motion alarm of the camera to trip. Here is a simple



Example:

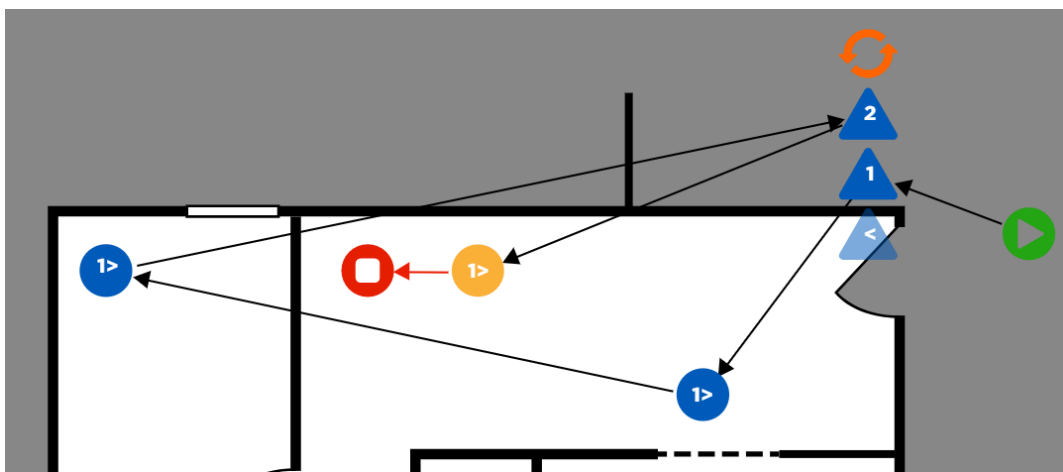
In this example, when you start the course of fire, nothing will happen until motion is detected by the camera. As soon as motion is detected, the first target will pop up, and then the course of fire will continue as normal.

PRO TIP: In this view, you can also verify functionality of the trigger. You can click on the trigger instance on the screen and look in the **Edit Events** sidebar to view the trigger status in real time. It should toggle back and forth between **triggered** and **not triggered** as the subject walks in and out of the camera view:



Multiple Trigger Instances

Just like a target can be presented more than once, a single trigger can be used multiple times in a course of fire as well. Here is an example:



In this example, when you start the course of fire, nothing will happen until motion is detected by the camera. As soon as motion is detected, the first target will pop up. When the first target is shot down, it will trigger a target in the next room to pop up. When the shooter shoots down the second target and then moves back into the first room, the camera will detect motion and cause the third target to pop up.

E-Type Targets with AutoTargets™ Range Control

AutoTargets Lift Units may be equipped with optional upgrades to function with standard military plastic E-Type Silhouette targets. If your Lift Units do not have this upgrade, this section does not apply to you. Contact your Action Target sales representative for information about upgrading your Lift Units to work with Plastic E-Type Silhouettes.

Process for Configuring E-Types in Software

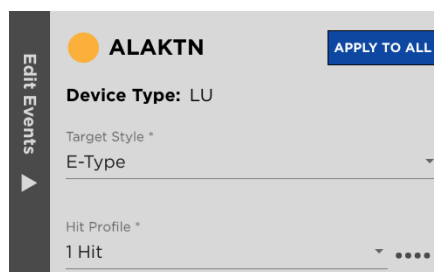
Once the E-Type upgrades are installed on the Lift Unit(s), there are a few additional steps that must be completed before your hardware is ready to use:

1. Navigate to the **Equipment Management** interface
2. Select the unit you intend to configure, this will open the unit's admin settings in the sidebar
3. In the Admin sidebar, select the **Target Technology Type** dropdown and choose **E-Type/F-Type**
4. Upon changing the Target Technology Type, a new settings field will appear for **Sensitivity**. It is recommended that sensitivity be set to 25 for most calibers, but lower numbers can be used to make the system more sensitive. (sensitivity range is 1-50)
5. Repeat steps 2-4 for each Lift Unit that will be used with E-Type targets.



If you have already built courses of fire which utilize Hit-Sync™ targets and you desire to run these same courses of fire using E-Type targets, you must change the **Target Style** to E-Type or F-Type for every single presentation of each course of fire. Follow these steps to edit those courses of fire:

1. Navigate to the **Place Target Systems** interface and change the target style for each E-Type equipped Lift Unit (refer to “**Place Target Systems**” section of this manual for instructions on binding unit and changing target style)
2. Navigate to the **Set Up Courses of Fire** interface and for each course of fire you want to use with E-Types, do one of the following:
 - a. **Option #1 Use “Apply to All” Button** - Use this option if all target events in a given course of fire use the same hit profile
 - i. Select any target presentation in the course of fire and do the following:
 1. Select the target presentation, this will open it in the **Edit Event** sidebar
 2. Change Target Style to E-Type or F-Type, depending on your target
 3. Select the desired hit profile
 - ii. With the target presentation configured, select the “Apply to All” button to push the configuration out to all other target presentations in the course of fire



- b. **Option #2 Manually Edit Course of Fire** - Use this option if the course of fire utilizes various different hit profiles (as opposed to running the same hit profile on all targets)
 - i. For each of the target presentations associated with the E-Type or F-Type target, do the following:
 1. Select the target presentation, this will open it in the **Edit Event** sidebar
 2. Change Target Style to E-Type or F-Type, depending on your target
 3. Select the desired hit profile
 - ii. Repeat for every E-Type or F-Type target

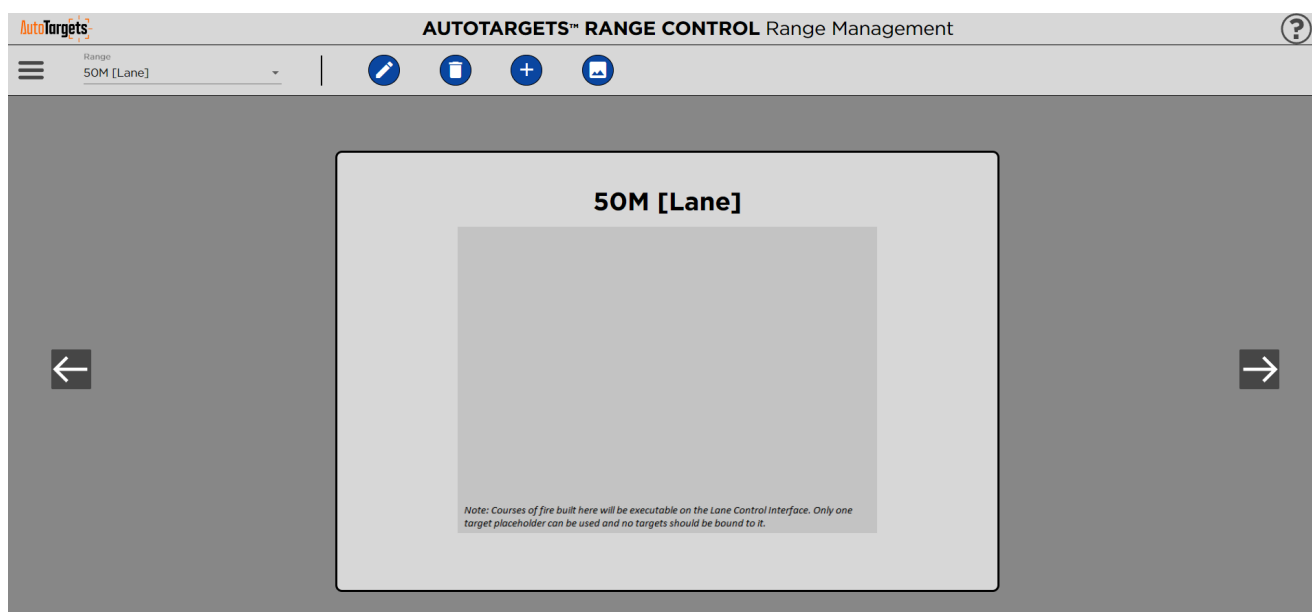
Lane Control Interface

The Lane Control Interface (LCI) is an expansion module for the Range Control Software which enables users to train multiple shooters on multiple firing positions similar to a traditional line of fire training environment. This control feature is site specific, and may not be included in every deployment of AutoTargets products or Range Control Software. With this module enabled, each lane or firing position becomes its own micro-range with the ability to select individual courses of fire, assign the lane to specific shooters, and aggregate results in AAR specific to that shooter. For specific instructions for setting up a tablet for LCI, see the “LANE CONTROL TABLET USE AND SETUP GUIDE” provided as a supplemental document.

Range Master

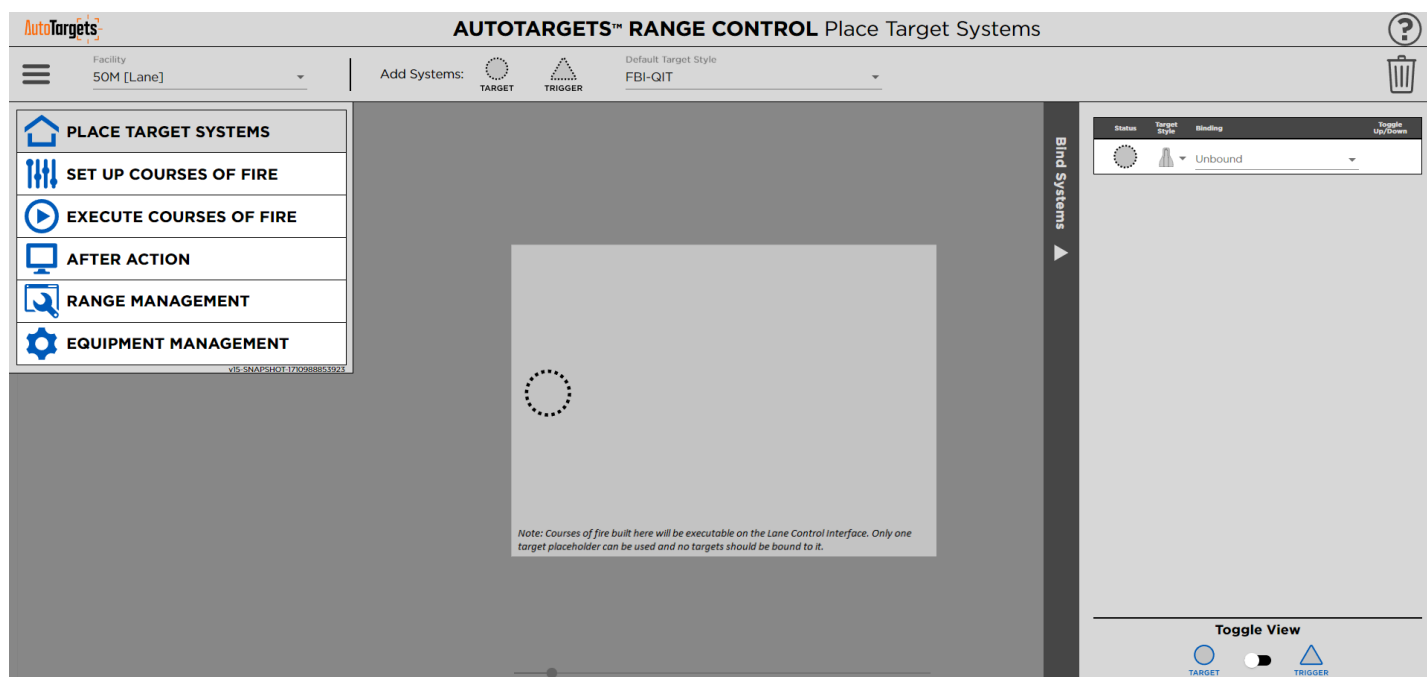
Range Setup

The range layout for Lane Control will be configured during your site’s installation by an AutoTargets implementation technician. In the “Range Management” menu, the name of the range will be followed by “[LANE]” indicating that this is the “facility” for creating courses of fire for lane control.



Note: The [LANE] facility must be associated with a standard facility/range. E.g. 50M, 50M [LANE].

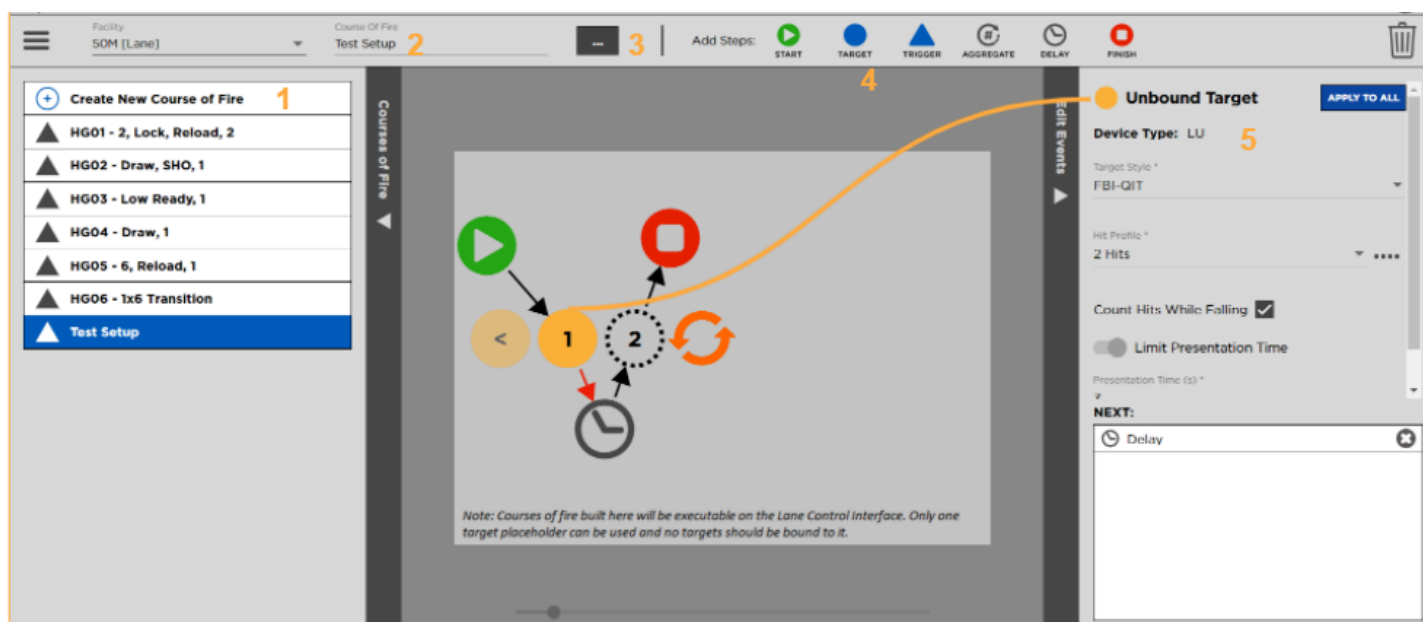
Place Target Systems



Notice that in "Place Target Systems" **special rules apply** specific to "LANE CONTROL". Only ONE target placeholder should be added and a no physical target should be bound to this location. This allows any target position to be bound through the individual tablet for the lane that it is controlling. Default target type can be set in this menu.

Create Courses of Fire

Courses of Fire are created in the same way as described earlier in this document. See *"Using AutoTargets Range Control Software">Create Courses of Fire*. Notice that course creation takes place without a bound target. Multiple target presentations and delays can be added by dragging additional targets or delays into the course area. Name the course of fire and add a description to show up on the LANE CONTROL tablets at individual firing positions. **NOTE: Only UNBOUND targets are used in LANE CONTROL.**

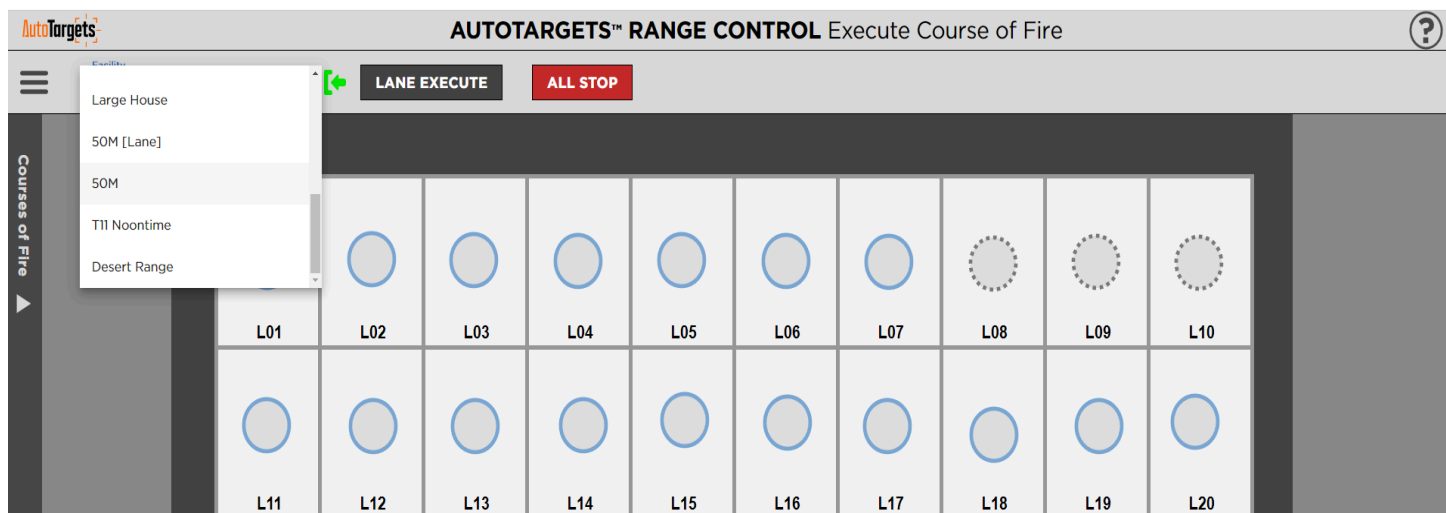


- 1) Select "Create New Course of Fire"
- 2) Edit the name of the course of fire as you would like it presented to the shooter
- 3) Write a description for the course of fire that is a clear procedure for the course
- 4) Follow the course-creation procedure as previously outlined.
 - a) Remember that courses must have a "START", a target icon with hit requirements, and a "STOP".
- 5) Edit Events. Indicate target type, determine hits required to drop the target and adjust target presentation time. In the **NEXT** box, drag and drop the next step in the course of fire.

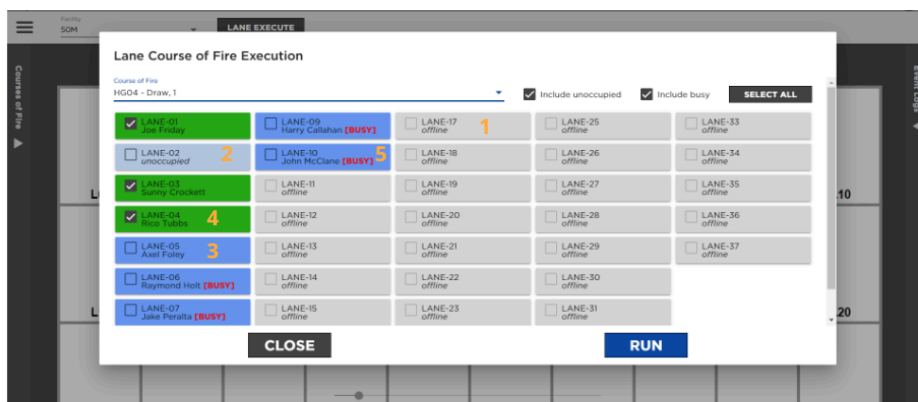
Courses created in [LANE] will automatically populate on individual lane tablets on the range.

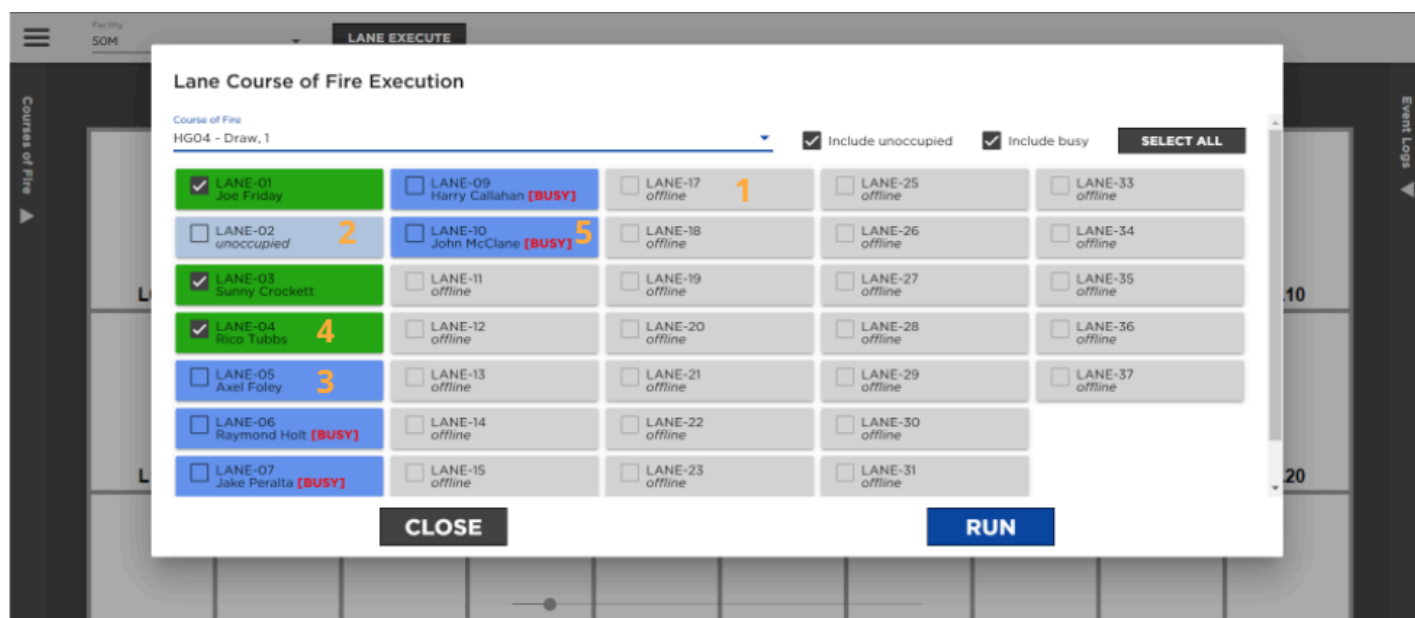
Execute Courses of Fire

From the main menu in the top left corner of any screen, select “Execute Course of Fire”. From the “Facility” tab, select an appropriate shooting range that has been enabled for Lane Control. For facilities that have Lane Control enabled, a new button “LANE EXECUTE” will appear.



Select the “Lane Execute” button and a new tab will open. This tab allows instructors to control and initiate specific courses of fire to individuals or groups of lanes. For example: Lanes 1-5 will run Drill #2, and lanes 6-7 will be unoccupied, and lanes 8-12 will run Drill #3. Also, shortcut selection buttons for “ALL EVEN” and “ALL ODD” targets as well as “DESELECT ALL” have been added for convenience.





This tab also shows the status of each lane on the range. Here are the possible statuses for the lanes defined:

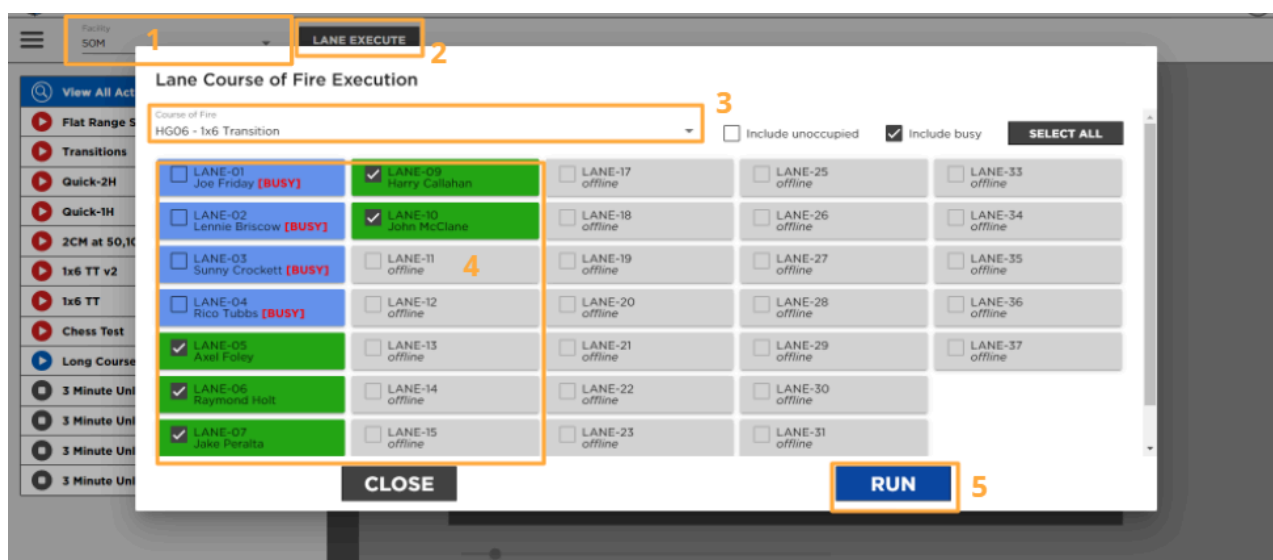
1. **Offline** - This gray color signifies that the lane is either not powered on, not connected in the network, or a lift unit has not been paired or “bound” to the target location.
2. **Unoccupied** - This light blue color indicates that a lift unit is bound and the position is online, but there is no user logged in to that lane position on an LCI tablet. Unoccupied targets can be selected and run courses of fire, but COF data will not be saved for a specific shooter or “USER”.
3. **Occupied** - This dark blue color is accompanied by the user’s name. It indicates that a user is logged in to an LCI tablet and is ready to run courses of fire.
4. **Selected** - Selected lanes turn green and a checkmark appears next to the lane number indicating that these lanes are ready to run a course of fire. Click and hold down the mouse button and drag to select or deselect multiple lanes or use the “Select All” button. After choosing a COF from the drop down and selecting lanes to participate, a “RUN” button will appear. Clicking “RUN” will immediately start the course of fire on the selected lanes.
5. **Busy** - Once a COF is running on a lane, a red “BUSY” indicator will appear next to the lane button indicating that the position is already running a COF command. Once the COF completes, the “BUSY” marker is automatically removed.

Procedure for Executing Lane Courses of Fire from Range Control

1. Select a Lane Control enabled range from the "Facility" drop down.

NOTE: This is NOT the facility with "[LANE]" in the name, but rather the facility of the same name with "[LANE]" omitted.

2. The "Lane Execute" button will appear, indicating that an enabled range has been selected.
3. Click "Lane Execute". A new window will appear. Select the desired course of fire from the drop down menu. Only courses of fire that have been created in the "[LANE]" specific range will populate in this drop down. These are the same courses of fire that are available to the individual lane tablets.
4. Select the users or lanes that will participate in the exercise.
5. Click the "RUN" button to immediately begin the course of fire on the selected lanes.
6. If you wish to run multiple courses of fire on different lanes simultaneously, select the desired lanes and course of fire then select run. This will close the Lane Execute window. You must again repeat steps 3 through 5 for the other course(s) of fire and desired lanes, each time for each different course of fire. ONLY ONE COURSE OF FIRE CAN BE PAIRED WITH LANES IN THE WINDOW AT A TIME.
7. Once the course is running, the "ALL STOP" button is available to immediately end all courses of fire and drop all of the targets.



Lane Control Interface Tablet [Individual Lane Control]

The Android tablets allocated for use on LANE CONTROL ranges are designed for individual users. They can be paired with any target position on the range, and can easily be switched or reassigned to another position. They allow for one user at a time to log in, execute lane-specific courses of fire and provide a live view of the target down range when cameras are installed.

The LCI interface integrates cameras down range which are paired to specific target positions on the range. This pairing has been configured during your site's installation by an AutoTargets implementation technician. Contact your facility IT Administrator if you have specific network questions. Other questions may be answered by contacting AutoTargets™ technical support at support@autotargets.com or for urgent matters call us at **215.948.2422**.

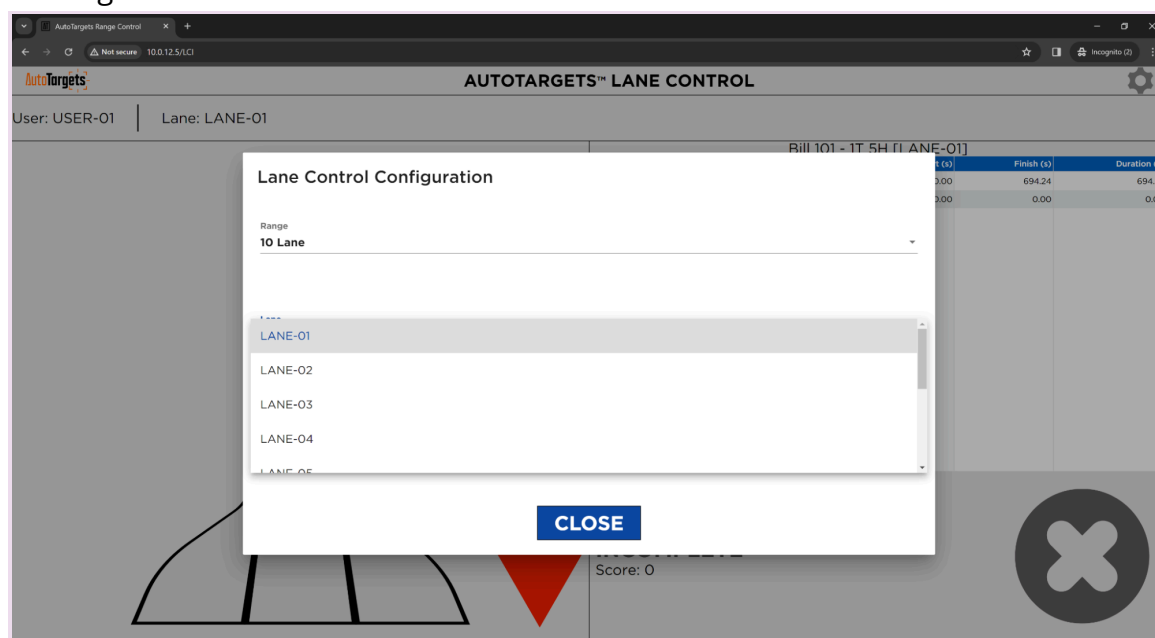
Further enhanced features allow users to zoom in to areas of the target to inspect more clearly target hit groups and for tracking and zeroing. This system requires that the complete range and its control software are fully booted up and running, as well as a full-functioning target line with targets installed down range.



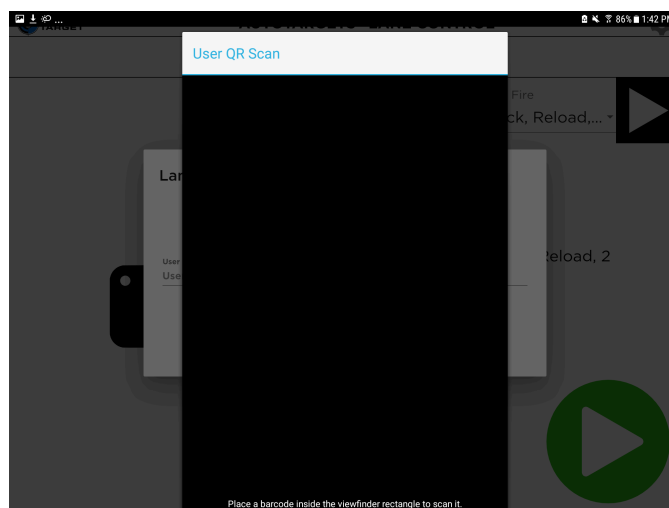
LCI Tablet Assignment

Use the following steps to enable a user on a preconfigured tablet on the range:

1. Select a tablet that has been configured for use on the range. Note that tablets may be numbered, but are not necessarily lane specific.
2. Power the tablet on and search for the appropriate range WIFI network. Only a specific network will allow users to connect to the range control software.
3. Once connected, load the "AUTOTARGETS" app from the main screen. It has an Icon labeled "AT".
4. The Lane Control software will load and request user inputs. Select the Range that you will be using by tapping the drop down. Similarly, select the lane that will be used as assigned by range training staff.

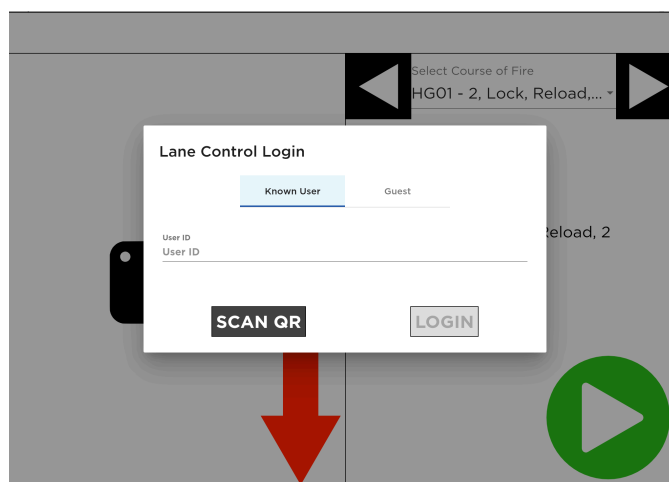


5. A QR code scanner will appear on the screen. Use the camera on the tablet to scan a unique user QR code, provided by range control staff. This will assign specific user credentials to the lane and range that has been selected.

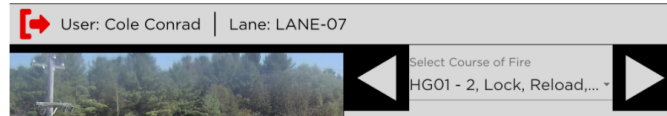


NOTE: Follow these same steps again if a user is changing to a different lane for any reason.

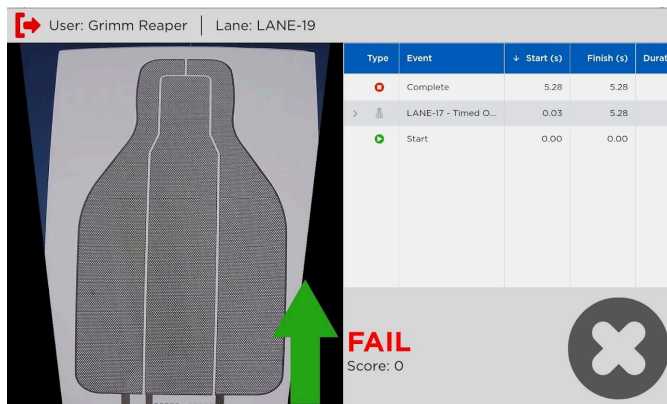
6. If a unique QR code has not been provided, then a range control provided USER ID can be manually input using the on-screen keyboard. Select "Known User" and tap "User ID" to input that ID. Only select "GUEST" if directed to do so by range training staff. Selecting "guest" will allow a user to input a name but it will not connect the training results to any long-term record for that shooter.



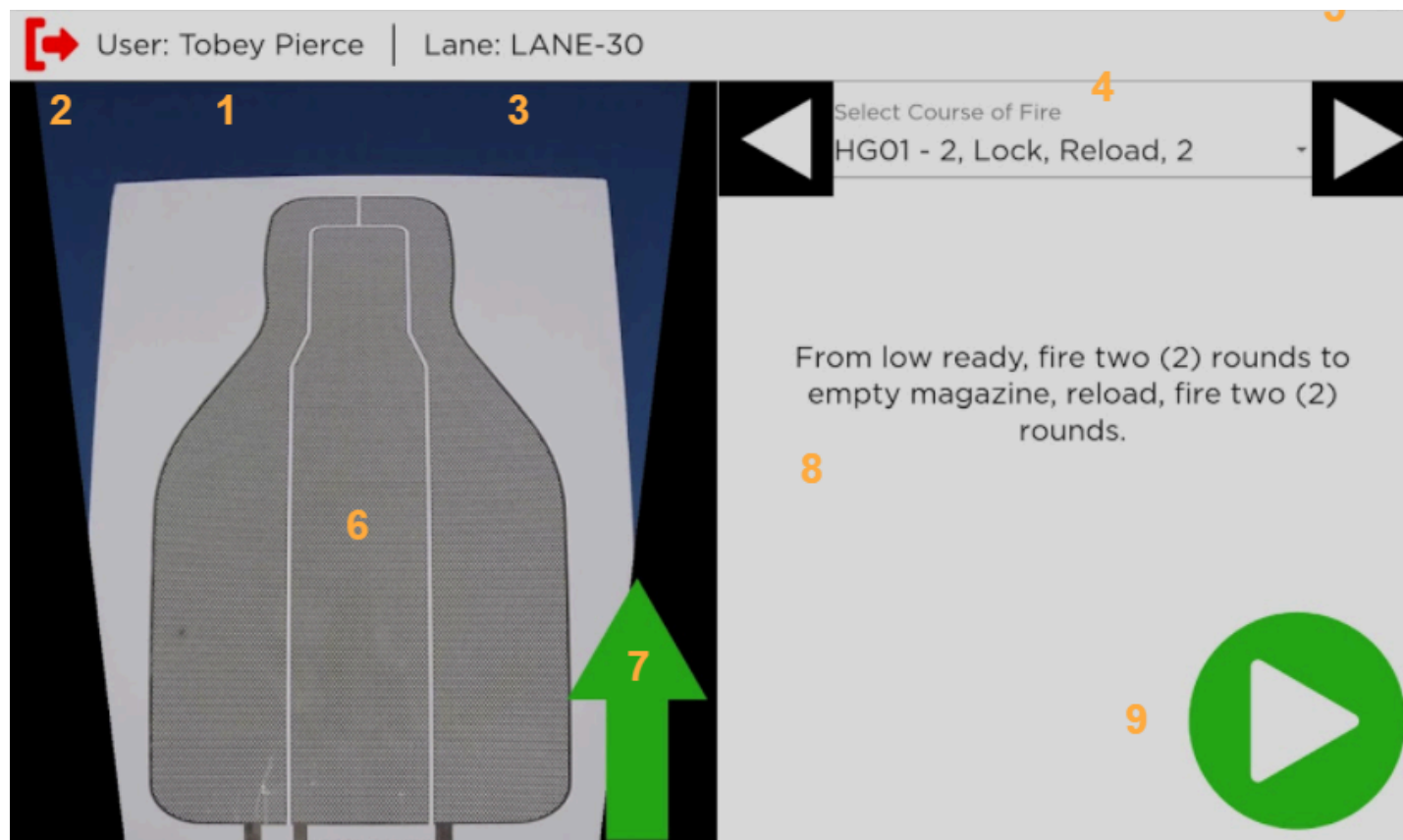
7. Once logged in, the user name will appear at the top of the screen along with the assigned lane position. If an error has been made, select the red arrow icon next to the user name to re-input user data. To switch lanes, select the gear icon in the top right screen.



8. Once the course has begun, the description will disappear and live tracking will appear on the screen indicating the time in the course and any hits on the target.
9. Pass/Fail will be indicated at the bottom of the screen as the course is completed. If enabled, a SAVE icon will appear in the top right corner to add the results to the AAR.



LCI Tablet Layout Quick Reference



- 1) Logged in user name. AAR results will be shown connected to THIS user.
- 2) Touch the red icon to change users on the lane.
- 3) Indicates the current paired lane for this tablet.
- 4) Course of fire name. Tap the name to open a drop down menu to select from available courses, or use the LEFT/RIGHT arrows to cycle through the list.
- 5) Gear Icon is used to change the lane assignment pairing for the tablet.
- 6) Live camera view at the target position. This multi-touch window has zoom in/out functionality using two fingers on the image. The Hi-Res image can show individual shots and groups.
- 7) Target position indicator and toggle. Tap this arrow to raise or lower the target independent of any course of fire.
- 8) Course of fire description explains procedures specific to the selected COF.
- 9) Play/Stop button controls initiation of the course of fire.