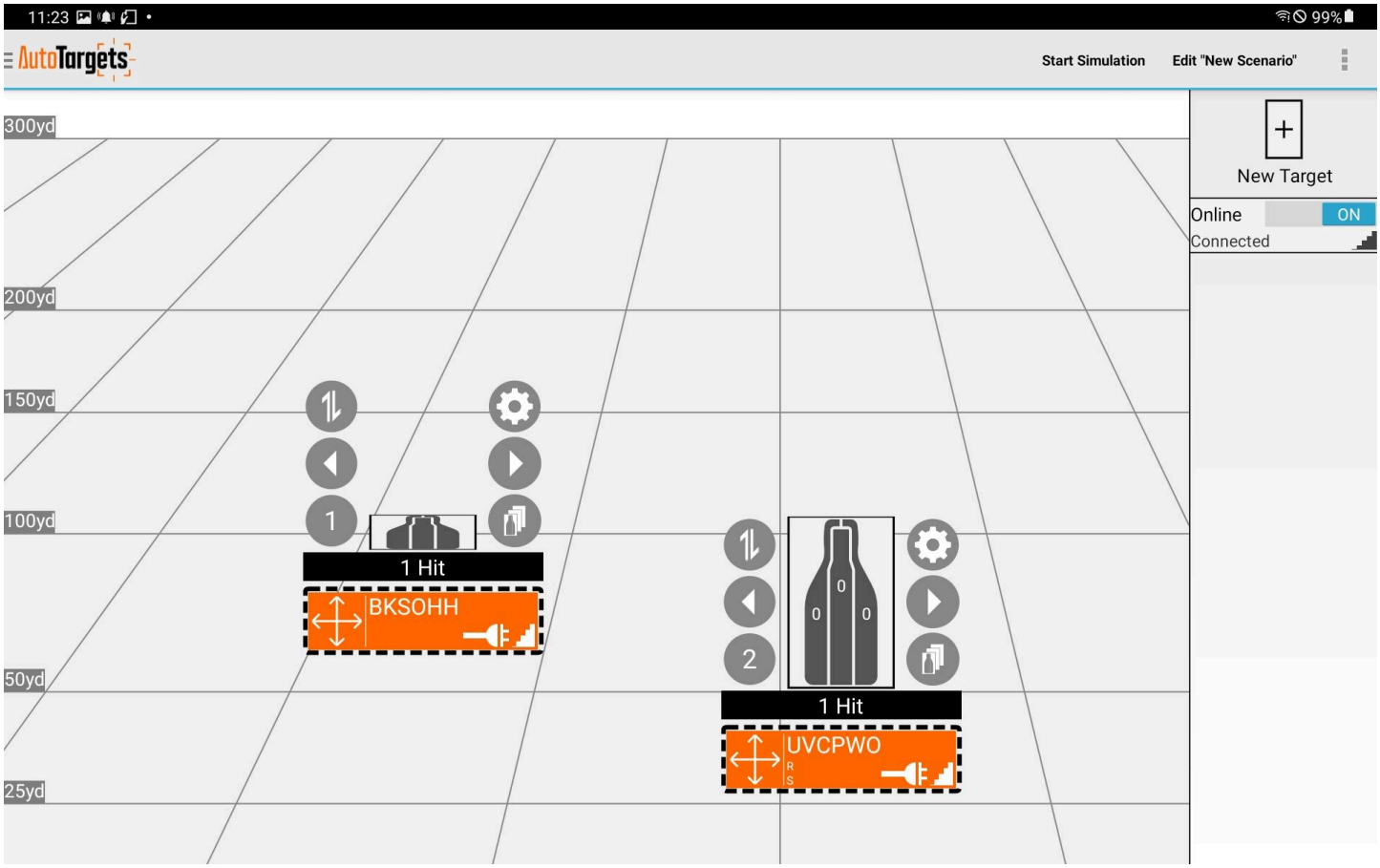
The AutoTargets App
User Guide v34



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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.

This guide will walk you through the AutoTargets™ app in such a way that you get started as quickly as possible but can then read on to master all the options and features available.

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***.

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Before You Start

We Recommend...

- Reading the Product Manuals for each of the AutoTargets™ products in use.
- Reading the AutoTargets™ Portable System Setup Guide.
- Having your Lift Unit or other AutoTargets™ Device powered on and accessible as you work through this guide.

Check Smart Device Compatibility

- Operating System
    - Android 5.0.2 or newer
- Device must have 802.11b/g wireless support
- Recommended Devices:
    - Samsung™ Galaxy Tab A
    - Samsung™ Galaxy Phones
    - Samsung™ "S" Phones
    - Samsung™ Active Products

Pro Tip: Other Apps

Watch out when using your phone! Some apps cause the AutoTargets™ App to run slowly or make multiple 'ping' sounds for a single bullet impact. Close other apps on your device to speed things up!

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Installing The AutoTargets™ App

The AutoTargets™ app is free of charge and available for the following mobile platforms:

Direct Link

Go to www.autotargets.com and click on “App” in the title bar and the AutoTargets App for Android will automatically download to your device. Once downloaded, simply navigate to the download (or appropriate) folder and click the app.

For Android™

Search for “AutoTargets” (no space) in the Google Play Store™ and install the app as you would any other.

Updating The App

We recommend using **automatic updates** for all platforms so you always have the latest app on your device.

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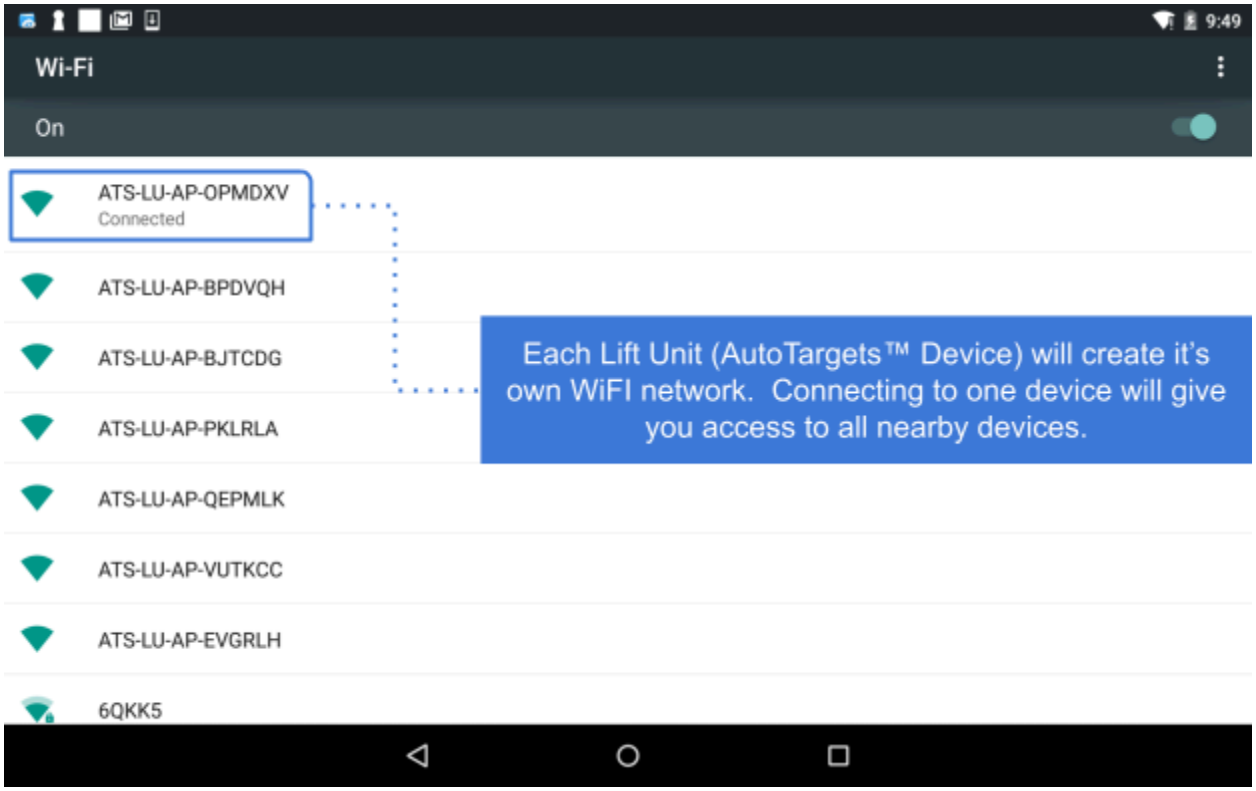
Connecting To an AutoTargets™ Device

Connect via WiFi™

The AutoTargets ™ platform uses standard WiFi to connect your Smart Device to the system.

Launch your WiFi Settings menu and connect to a network that looks like "***ATS-LU-AP-XXXXXX***".

"***XXXXXX***" is the AutoTargets serial code for this device.



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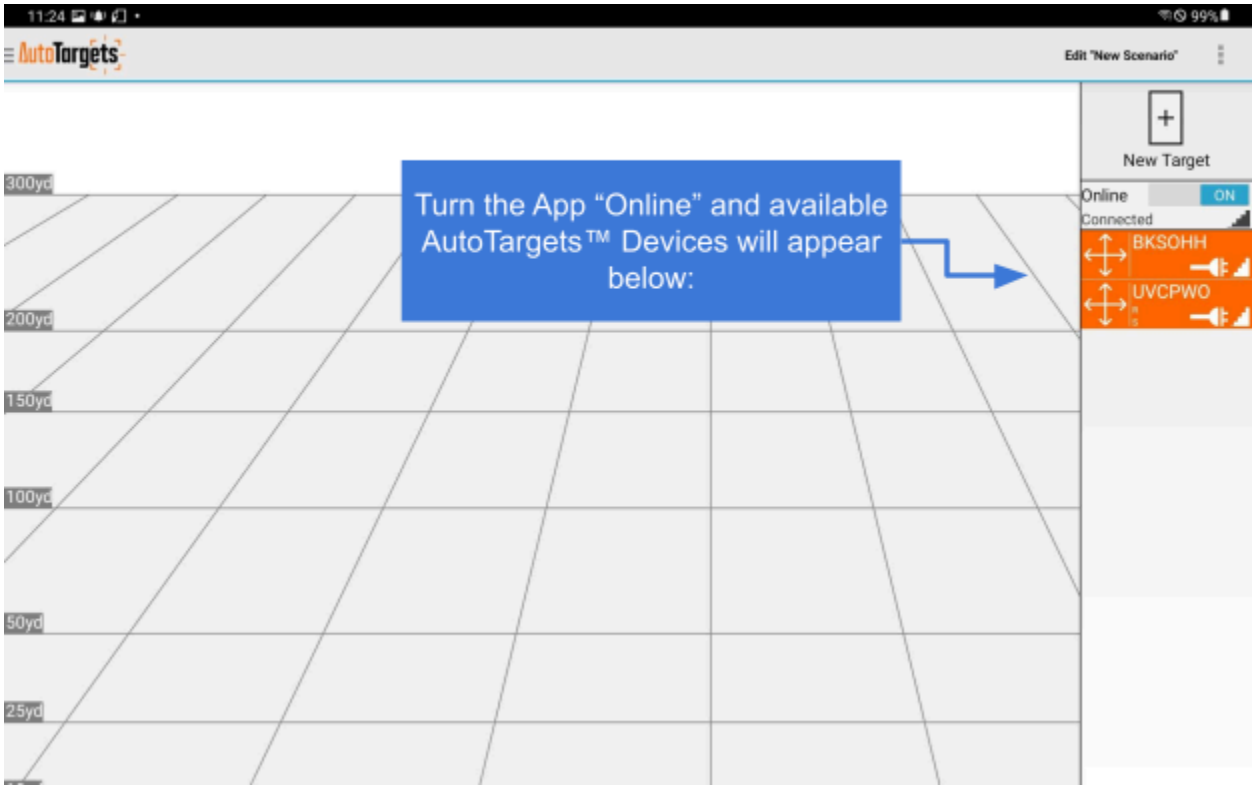
Launch The App & Connect

Find the AutoTargets icon on your Smart Device and launch the app.



Pro Tip: Powering On the Lift Units

When placing Lift Units on a Range, place the lift units in the orientation you'd like them in and do not power them on until they're placed. Once the units are in position, turn the central (middle) lift unit on first. This will allow that unit to act as the server for the target array. For example; if three units are placed - one at 50 yards, one at 100 yards and one at 150 yards, turn on the unit at the 100 yard line first. This will ensure optimal connectivity between units across the range.

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Pro Tip: Which Unit To Connect To

Always connect to the AutoTargets ™ device that is physically **closest to the line of fire**. This will offer the fastest connection possible for real time feedback. Use the Signal Strength Bars, the more bars the better your user experience.

Pro Tip: Polarized Sunglasses

Smartphone and Tablet screens are polarized vertically. This means that when you wear polarized sunglasses and look at the AutoTargets™ App your sunglasses will make the screen look dim. If you're having trouble seeing the app outdoors, take off your sunglasses or flip the tablet upright to see if that's the issue. Otherwise, boost the screen brightness.

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Quick Start (Basic Scenario Setup)

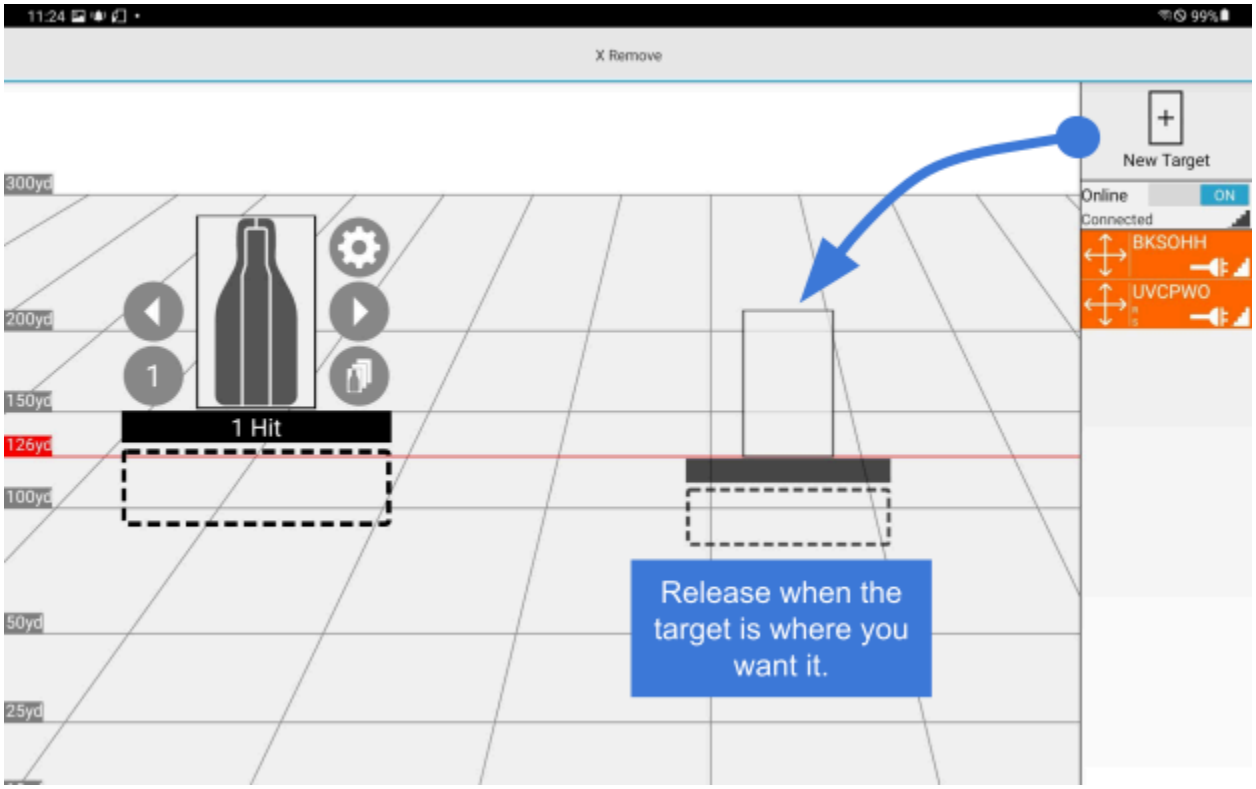
The fastest way to start shooting is "Manual Mode".

Manual mode requires a second person to manually activate the target presentations:

1) Shooter
2) AutoTargets™ App Operator

The Field of Fire

Using the "New Target" widget, press and drag targets out onto the field. Ideally the screen should roughly match the course of fire when complete.



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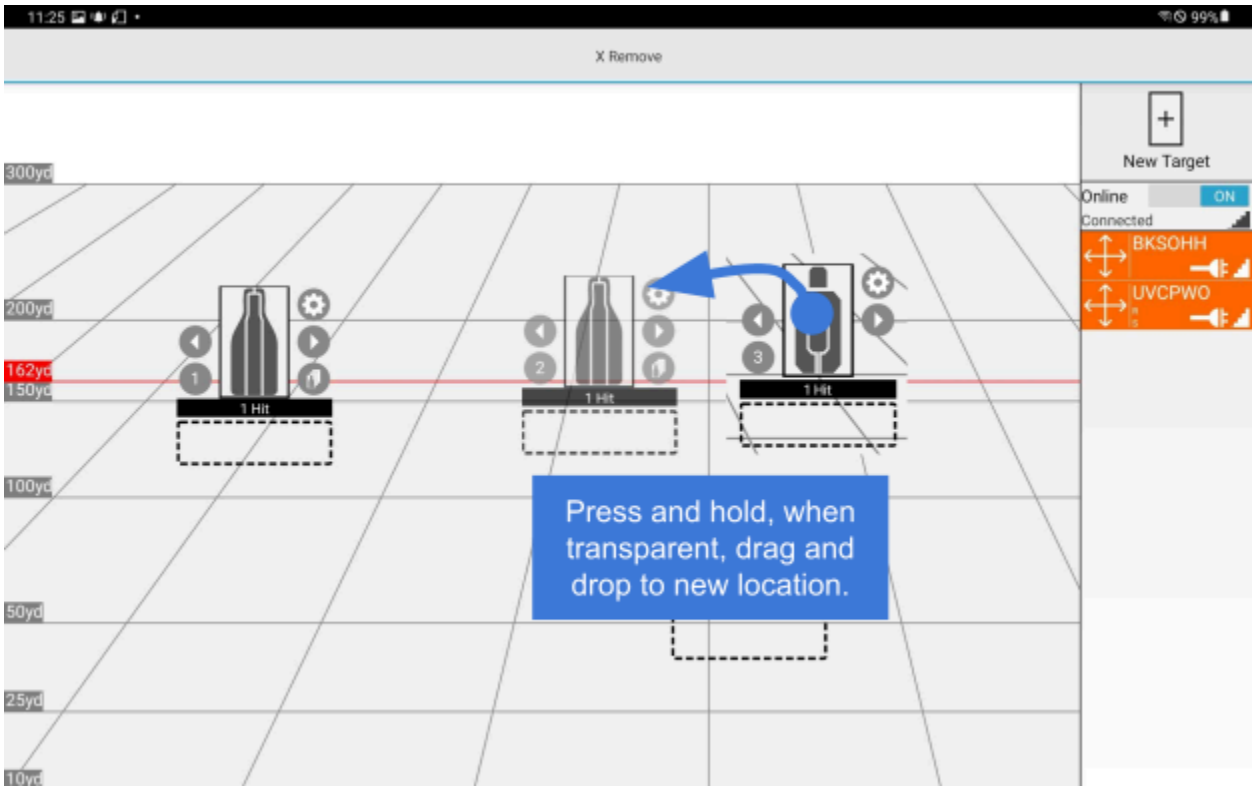
Press and hold targets to move after initial placement. The field will automatically resize as you add more targets.



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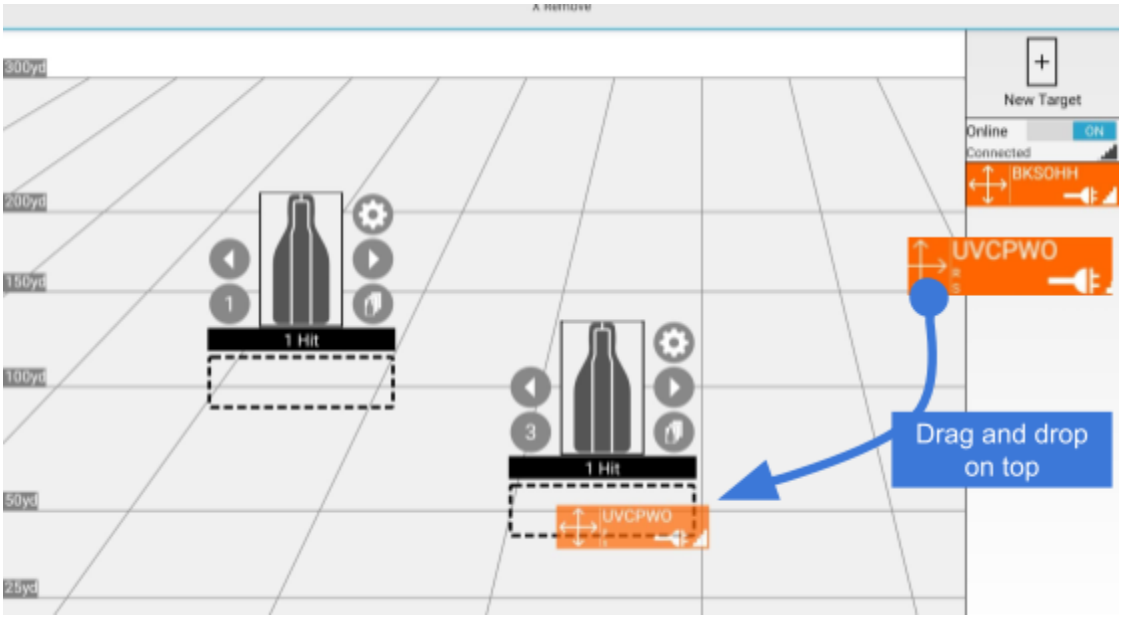
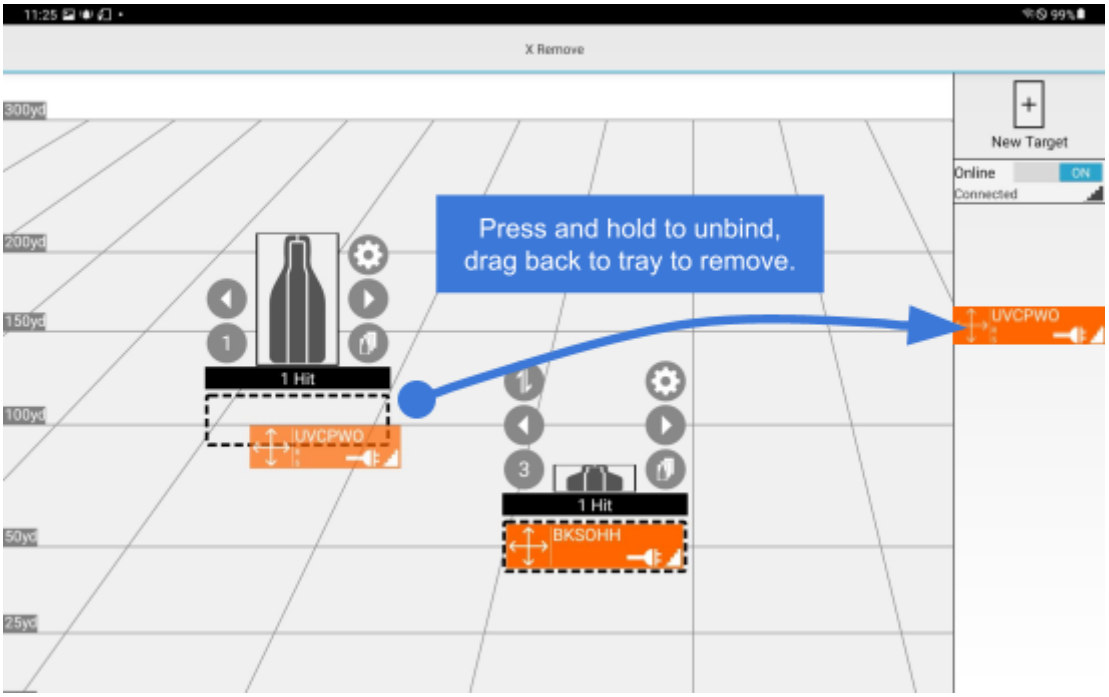
Binding Lift Units

Binding tells the app which AutoTargets ™ Devices belong to which Targets on the field.





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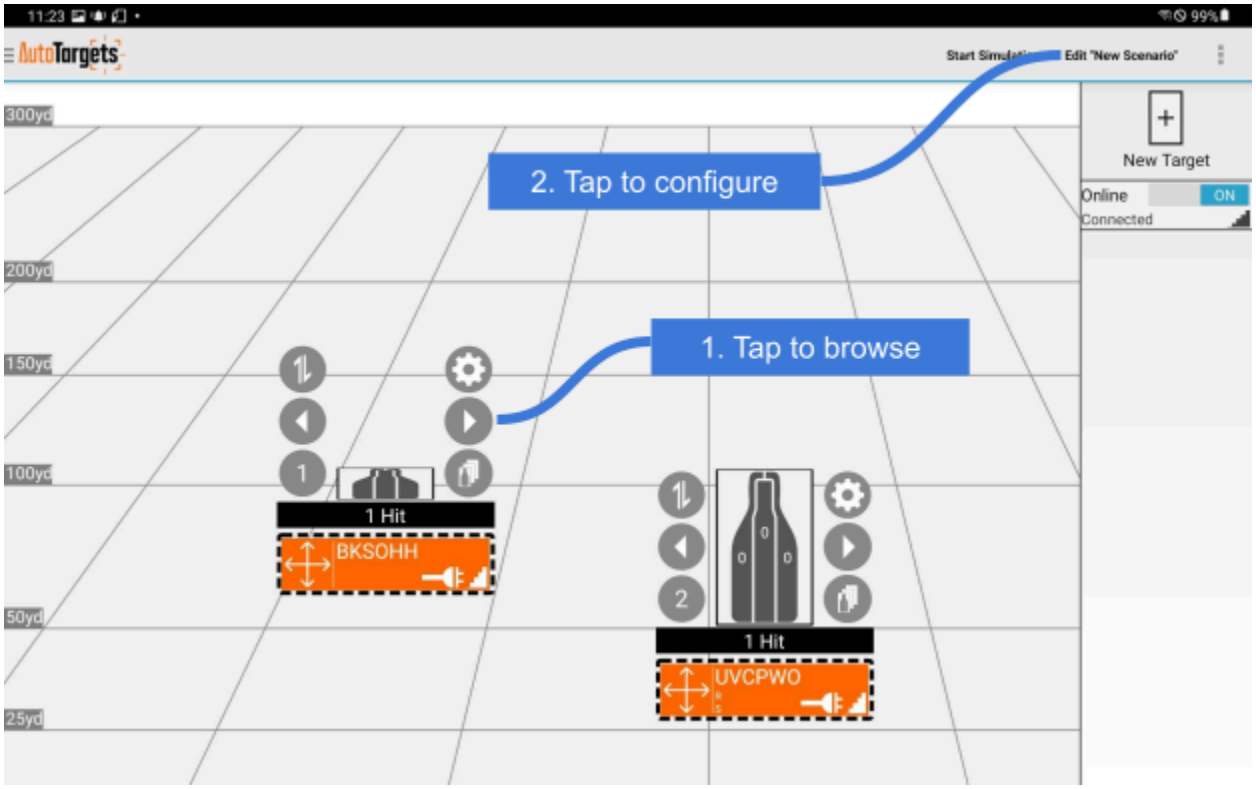
A Basic Scenario

1) Use the **Left and Right arrows** to choose your "Hit Profile" for each Target. The "Hit Profile" will determine what needs to happen for the target to fall.

   Let's start by setting both targets to "2 Hits". See the **Hit Requirements** section of this document for details on all options.



2) Tap to configure your "Scenario" and choose "Manual Mode". This mode requires the least amount of configuration and allows an instructor to choose when targets appear and disappear during the course of fire.

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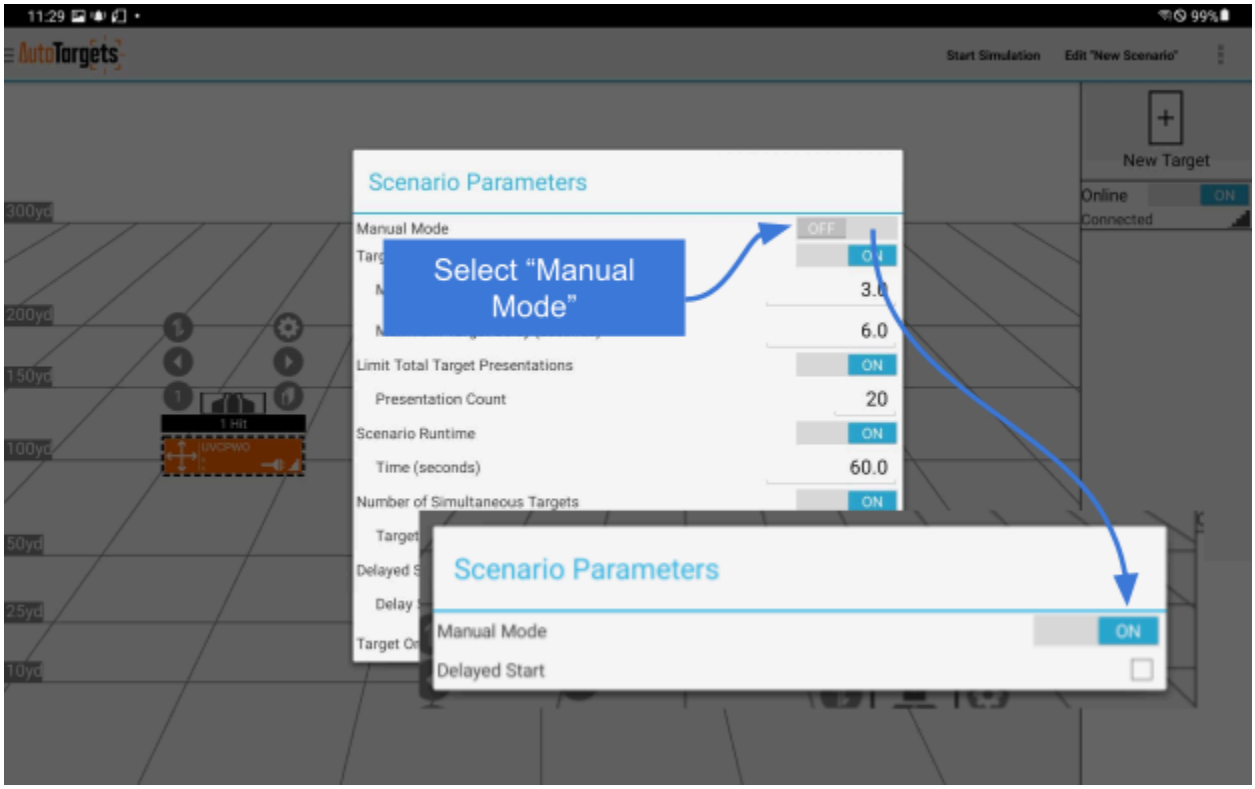

Start Simulation

Tap to begin the course of fire. You'll hear a buzzer sound.

Pro Tip: App Buzzer Is Too Quiet!

Many tablets don't offer enough volume for shooting environments. If you're having trouble hearing the buzzer think about using active ear protection with an audio input jack or a portable speaker. Keep in mind that BlueTooth™ is a great option but may introduce delay. BlueTooth™ performance is improved in v20 of AutoTargets™ for Android™ but hard-wired audio is always best.

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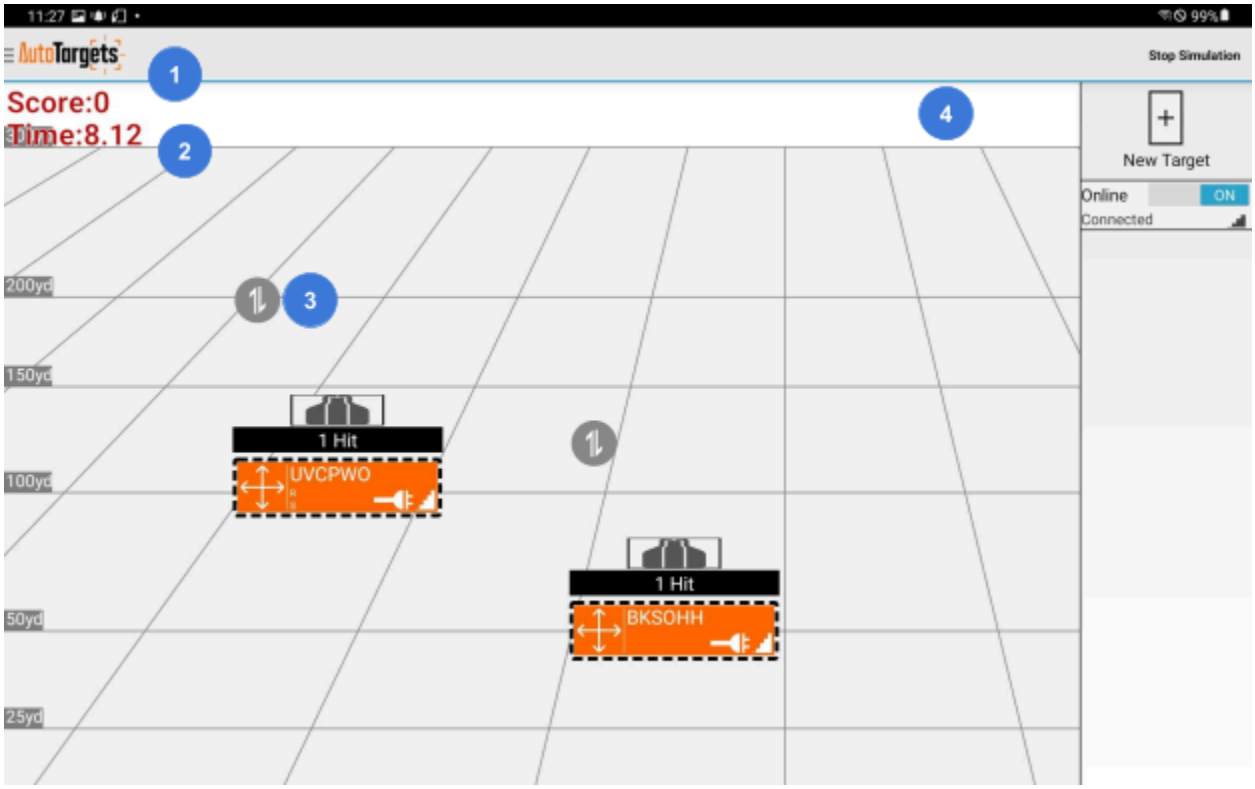
After the Buzzer

Once the buzzer sounds the course of fire beings. Note the:

1. Total Points Achieved
2. Running Clock
3. Target UP/DOWN Control *(when using Manual mode)*
4. Stats Summary *(appears after the first target presentation completes)*



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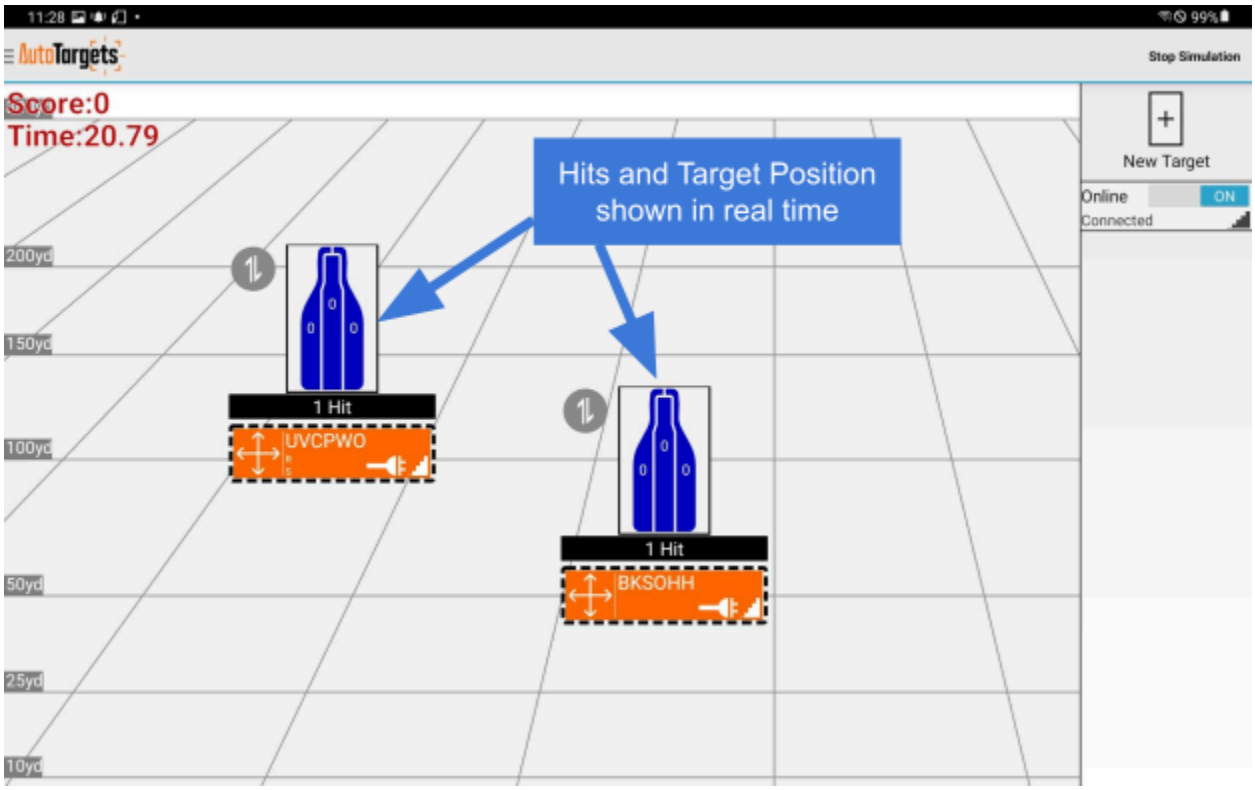
Manual Mode Operation

The AutoTargets ™ app operator can now press the UP/DOWN controls for any targets on the field at any time.

Pop a target up and…

1) The target can be shot down by completing it's hit requirements (counts in favor of the shooter)
2) The target can be put down by the operator (counts against the shooter)
3) The target can 'time out' if the presentation time limit is reached (Note: not configured for the "Quick Start Scenario", see the **Target Profiles** section of this guide.)



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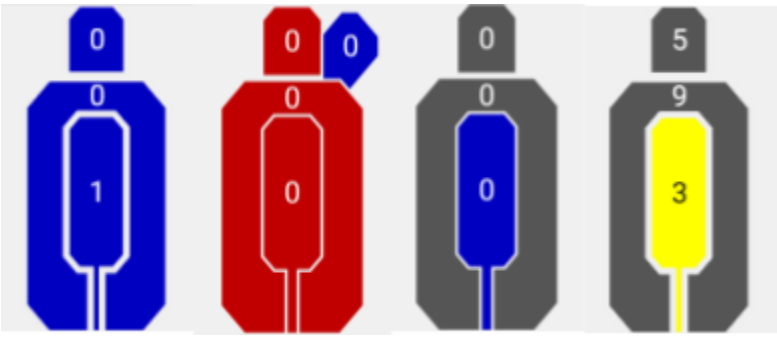
Pro Tip: Zone Colors

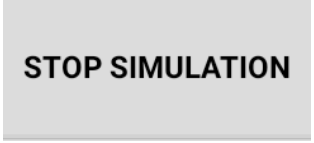
Target Zones can be four colors:

- Blue - Hits in this zone will PING and count towards the Hit Profile. These are "Good Hits"
- Red - Hits in this zone will PING but are "Bad Hits" and count against the shooter
- Grey - Hits in this zone do NOT PING and are "Neutral Hits" that do not help to complete the "Hit Profile"
- Yellow - Solid yellow zones indicate damage to the target and will not work properly - see the AutoTargets™ Troubleshooting Guide at http://www.autotargets.com



Cease Fire

When the app operator has completed the course of fire, he/she should press:



After Action Review

AutoTargets™ provides invaluable data on your shooting performance. When the simulation is stopped the app displays the final score, target summary stats and time from buzzer.

Press SIMULATION LOG to see full details:

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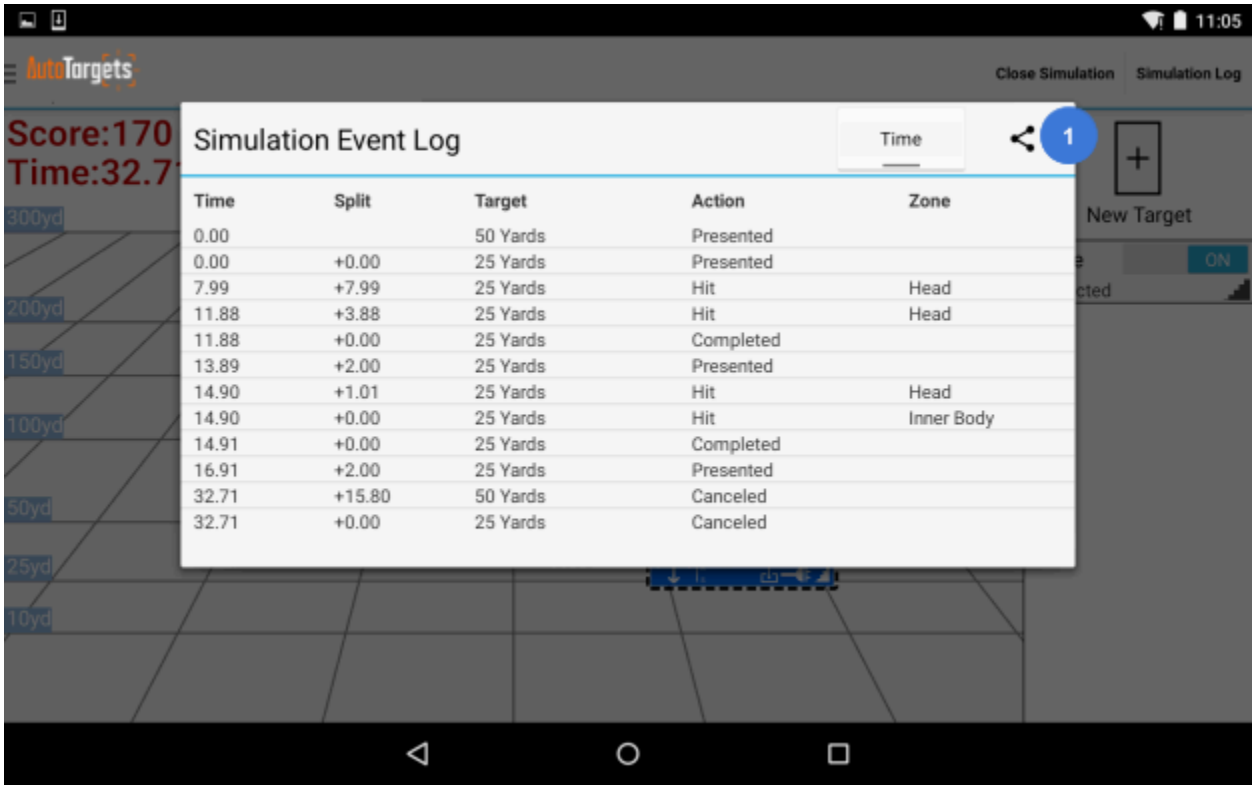

See the **Simulation Event Log** section of this guide for full details.

Use the share button (1) to export your data as a spreadsheet and store or share.

Pro Tip: Sharing Logs Without Cell Service

The easiest way to offload your Simulation Log data is to email it with the shooter's name. Since you're connected to the AutoTargets™ system when in use, your emails will be saved and dispatched automatically by your email client when you reconnect to cellular service or internet connected WiFi™.

Pro Tip: Using Target Aliases

AutoTargets™ Devices ship from the factory named with their 6 character serial codes (like "ABCDEF"). This name also appears in the Scenario Log but makes the log difficult to decode. In this example we use "25 Yard" and "50 Yard" aliases so we can easily identify which target is which. See the **Device Administration** section to see how to do this.

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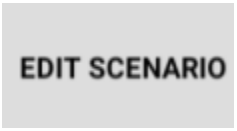
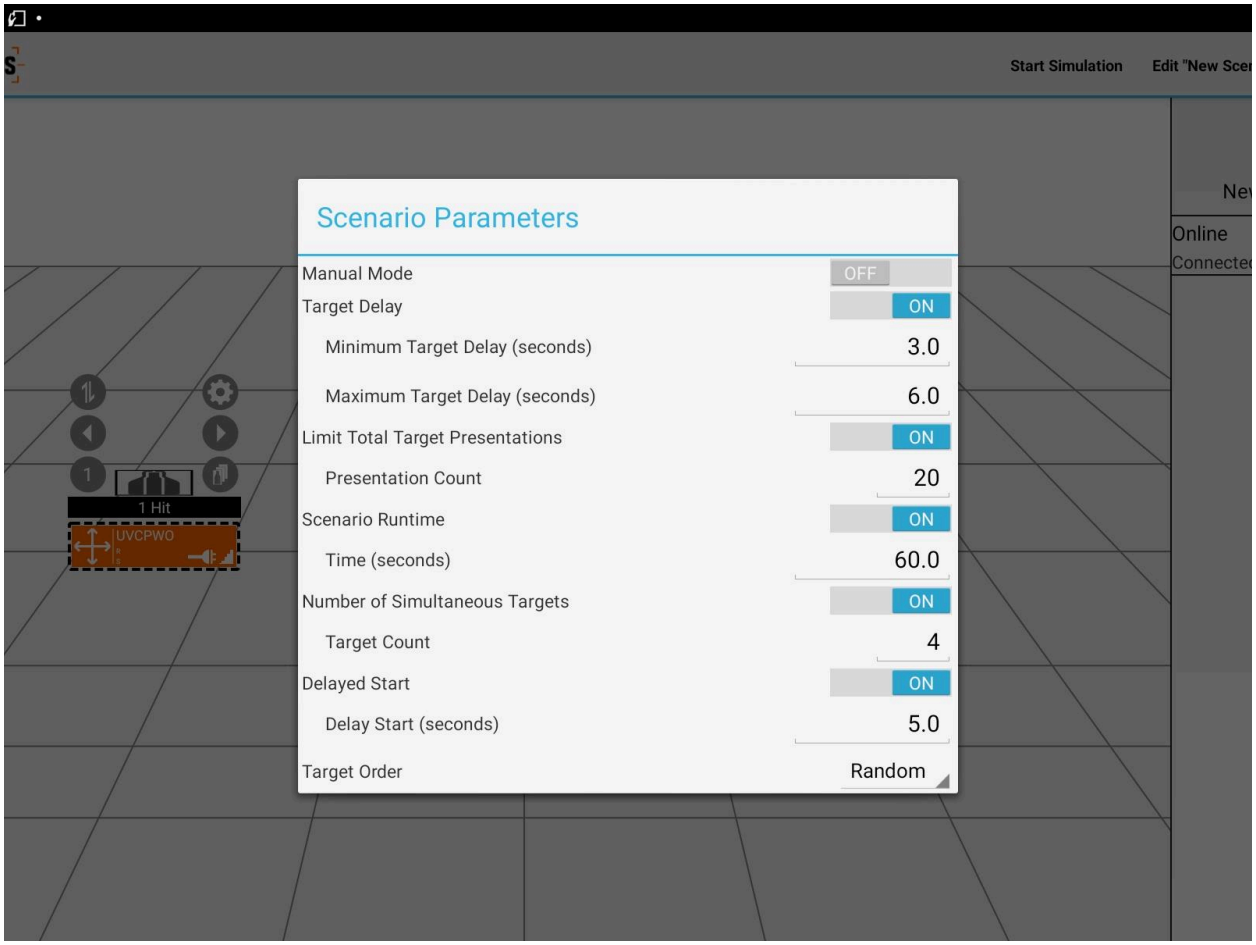
Advanced Scenarios (Algorithmic CoF)

Now that you have experience in the previous sections using a Manual Scenario, the next step is to use the software to control the course of fire.



Tap the button in the top right of the app.

Edit Scenario Menu



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Parameter	Usage
Manual Mode	Target Profiles are used, but the course of fire determined by the user during Scenario execution. See “Quick Start” section above.
Minimum Target Delay (seconds)	The shortest time desired between target presentations.
Maximum Target Delay (seconds)	The longest time desired between target presentations. ***Note:*** *Set Max and Min to the same number to have a predictable delay. Set to different numbers to have a random delay.*
Limit Total Target Presentations	End the scenario based on the number of targets presented.
→ **Presentation Count**	How many target presentations before automatically ending the scenario. ***Example:*** *Set to 3 if using 3 AutoTargets™ Lift Units and each to present once. Set to 6 if using 3 Lift Units and each to present twice.*
Scenario Runtime	End the scenario based on time.
→ **Time (seconds)**	How long the scenario will run.
Number of Simultaneous Targets	Restrict the number of targets that are presented simultaneously. When not set, all targets will be presented simultaneously (subject to External Triggers).
→ **Target Count**	The number of targets to present simultaneously.
Target Order	Specify the target ordering behavior for the system. - **Ordered**: System will follow the target order as it appears on each target profile - **Random**: Allow the system to randomly select targets to present - **Shuffle**: A cross between "Ordered" and "Random”. Scenarios set to "Shuffle" will let the system choose a random target

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	presentation order which, after all targets have been completed, restarts from the beginning of the order ***Note:*** *"Random" target order is truly random, the same target could present 4 times in a row.*
Delayed Start	Delay Scenario start by X seconds. Specify the number of seconds.

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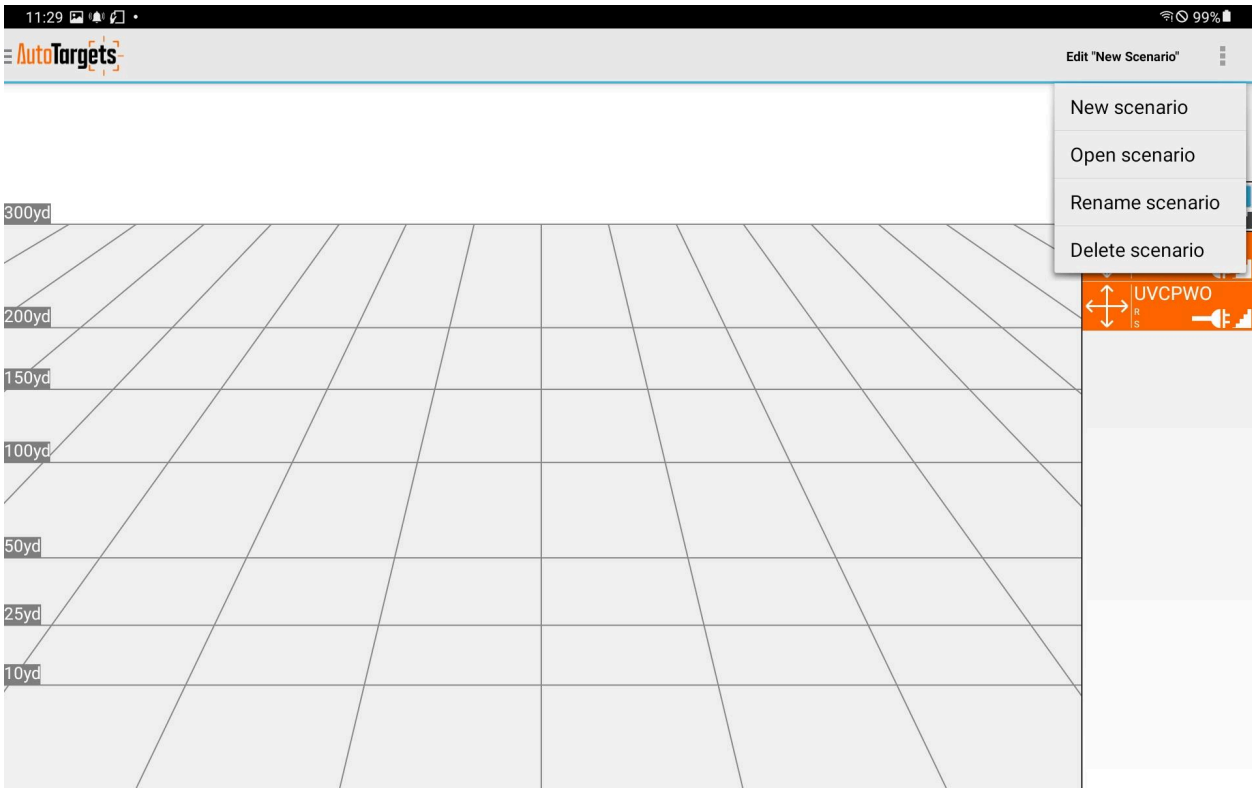
Working with Scenarios

If the user hasn't created any custom scenarios then, by default, when the AutoTargets™ application is opened it will load a blank scenario titled "New Scenario". Using the edit menu described above, you can customize this scenario as you wish. However, if you have more than one scenario that you wish to quickly swap between, then you will need to open a new scenario to configure each one.

To access the Scenario Configuration menu, select the icon from the top right corner. This will open the drop down menu shown below:



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Creating New Scenarios

To open a new scenario, select the “New Scenario” options from the drop down menu. This will create a new scenario and give it a default name. Your previous scenarios haven’t been deleted, they have been saved and are accessible via “Open Scenario”

Opening Scenarios

Every time a new scenario is created, the old one is saved on your Smart Device. To switch between scenarios, select “Open Scenario” and a list of scenarios will be displayed.

Renaming Scenarios

To change the default name given to your scenario, select “Rename Scenario”. This change will be reflected on the Edit Scenario button and in the “Open Scenario” screen.

Deleting Scenarios

To delete a scenario, select “Delete Scenario” from the menu. **This will delete the scenario that is currently open**, so make sure the scenario you intend to delete is the one that is currently active.

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Sample Scenarios

The following scenarios are a starting point from which you can develop and customize your own course of fire.

"Speed Shoot"

Objective: This Scenario starts with all targets presenting simultaneously. Complete all targets in the shortest amount of time. Scenario ends when all target hit requirements are met.

Scenario Parameter	Value
Manual Mode	OFF
Minimum Target Delay (seconds)	0
Maximum Target Delay (seconds)	0
Limit Total Target Presentations	ON
→ Presentation Count	<# of Targets in use>
Scenario Runtime	OFF
Number of Simultaneous Targets	OFF
Target Order	Ordered
Delayed Start	User's Preference

Pro Tip: Target Starting Position

When running an "All Up" or "Speed Shoot" style scenario, try putting the targets in the "UP" position BEFORE starting the simulation. For speed shoots this eliminates the time required for targets to lift and can be a better representation of a shooter's overall time and ability. Targets that are already UP will stay UP based on these Scenario settings.

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"Beat the Clock"

Objective: See how many targets you can drop in a fixed amount of time. Sample settings allows 30 seconds of engagement with one target presented at a time. Reduce time and increase simultaneous targets to increase difficulty.

Scenario Parameter	Value
Manual Mode	OFF
Minimum Target Delay (seconds)	0
Maximum Target Delay (seconds)	0
Limit Total Target Presentations	OFF
Scenario Runtime	ON
→ Time (seconds)	30
Number of Simultaneous Targets	1
Target Order	User's Preference
Delayed Start	User's Preference

"Random Assault"

Objective: Some users call this "Whack-A-Mole". Random targets present at random times. Change Min/Max Delay values to add some variety and avoid a predictable cadence.

This scenario is best when shot from a single firing position/line so all targets can be visible.

Scenario Parameter	Value
Manual Mode	OFF
Minimum Target Delay (seconds)	0
Maximum Target Delay (seconds)	0
Limit Total Target Presentations	<2-5 times the number of targets used> OR <OFF for an unlimited run>
Scenario Runtime	OFF
Number of Simultaneous Targets	1 (increase to increase difficulty)

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Target Order	Random
Delayed Start	User's Preference

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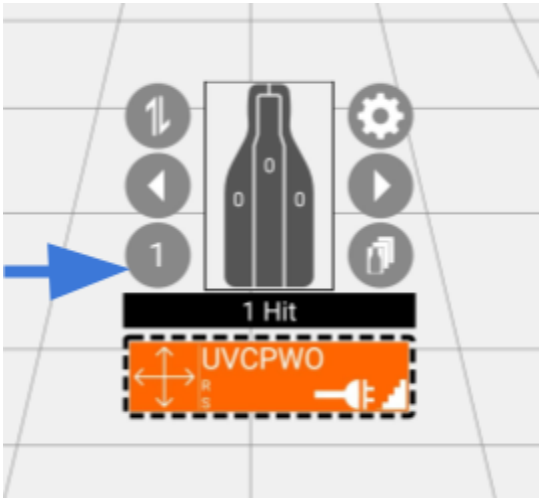
"Sequenced Run-n-Gun"

Objective: Move through targets, two at a time, in a predictable order. Increase Min/Max Target Delay to add more time to transition between targets.

Scenario Parameter	Value
Manual Mode	OFF
Minimum Target Delay (seconds)	0
Maximum Target Delay (seconds)	0
Limit Total Target Presentations	<# of Targets in use>
Scenario Runtime	OFF
Number of Simultaneous Targets	2
Target Order	Random
Delayed Start	User's Preference



Tap the Order Numbers on each target to set the Order. Targets with the same Order.

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External Triggers

“Manual Mode” is useful for a course of fire where the position of the shooter changes often; however External Triggers can be used to fully automate a course of fire.

The system can be configured to use External Triggers like **Motion Sensors**, **Trip Wires**, **Door Switches**, etc. to cause the scenario to progress as a shooter moves through a course of fire. This is particularly useful in CQC / Match House environments as the course of fire can progress as quickly or slowly as the training requires.

Please see the ***Target Profiles*** section below for software setup.

Please see the ***External Triggers Technical Application Guide*** for full details.

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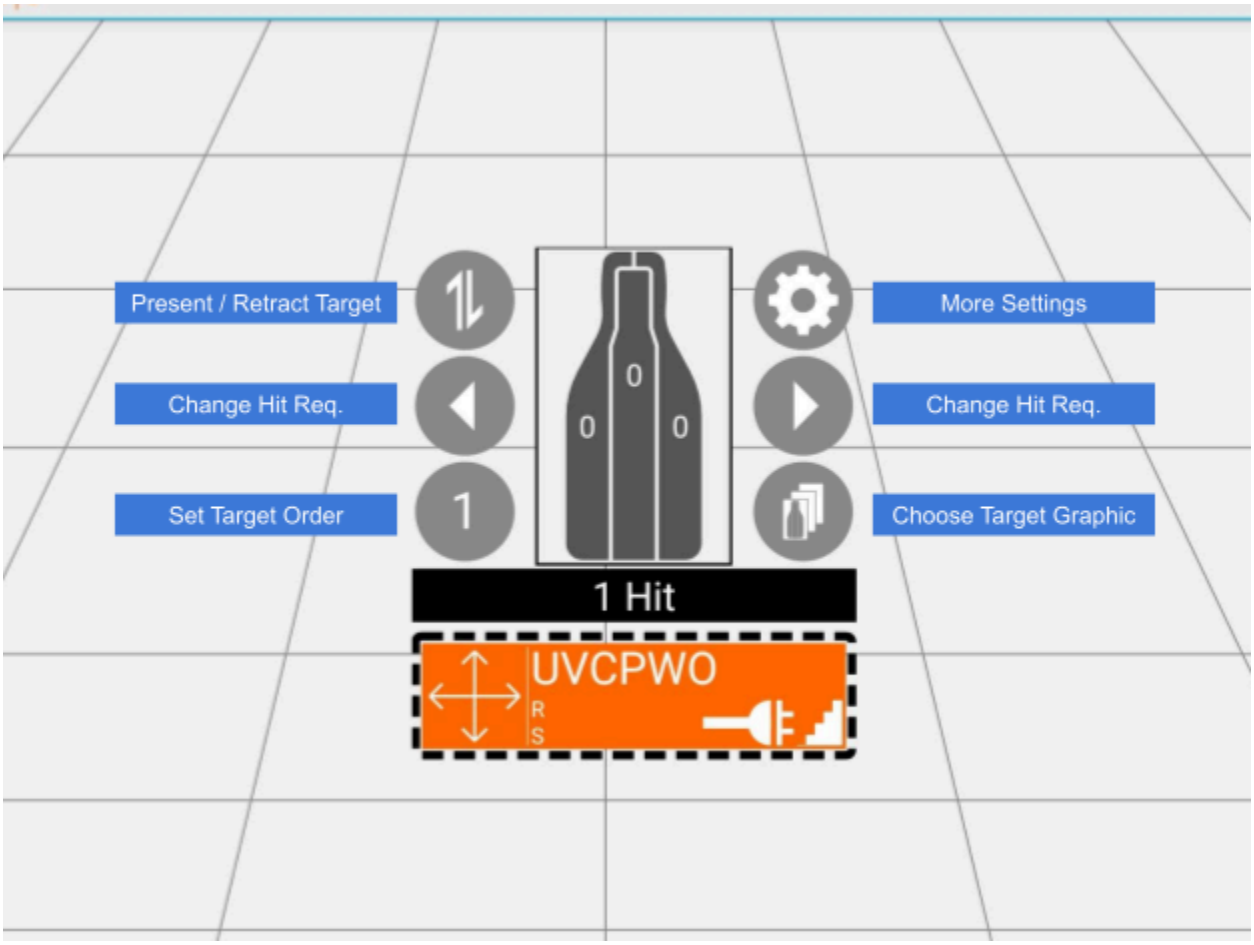
Target Profiles

Target profiles control how a target behaves once presented during a course of fire.



Present / Retract Target - Allows the user to manually put targets UP/DOWN either during a “Manual Mode” Simulation or during system setup (locating targets down range, adjusting air pressure, etc…).

Change Hit Req. - Allows the user to set each target’s Hit Requirements from the list.

Set Target Order - Allows the user to set the presentation order for each target. If the “Target Order” scenario parameter is set to “Random” or “Shuffle”, this value is overridden.

Choose Target Graphic - Allows the user to select the graphic of the target. The list of selectable target graphics is filtered based on the target technology type of the bound Lift Unit.

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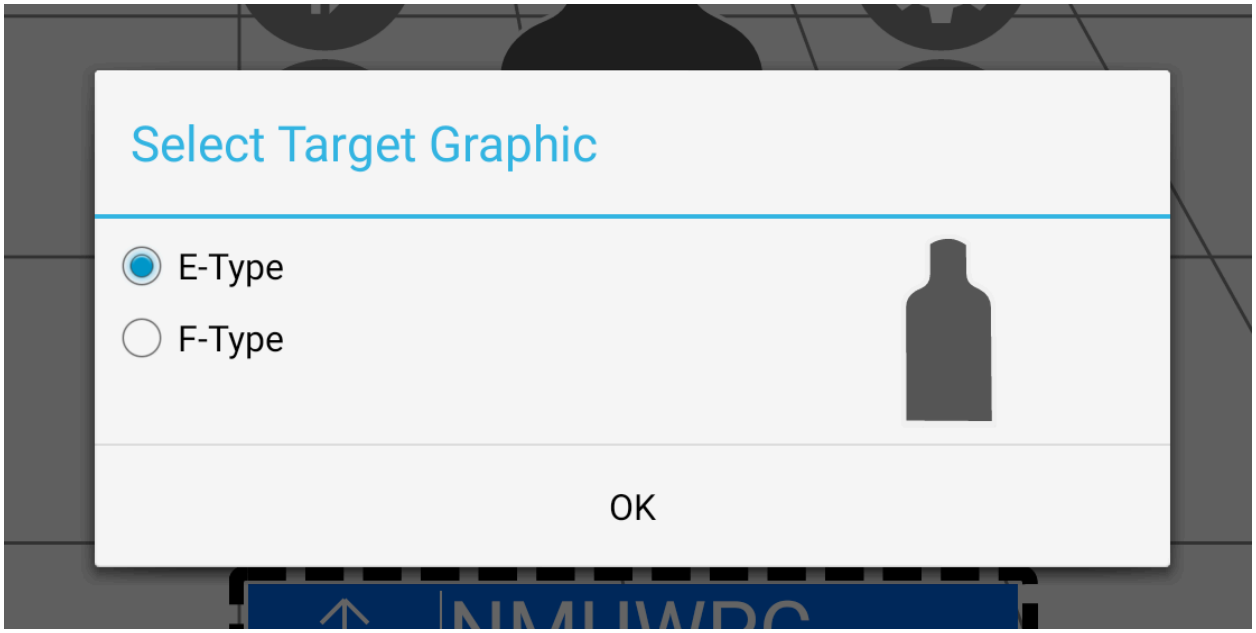
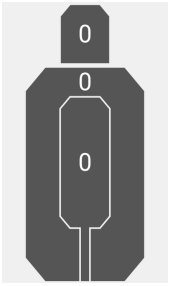
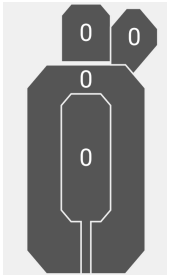


The list of available target graphics and their required target technology type are:

Name	Graphic	Lift Unit Target Technology Type
Silhouette Three Zones		HitSync Legacy
Dual Silhouette Four Zones		HitSync Legacy

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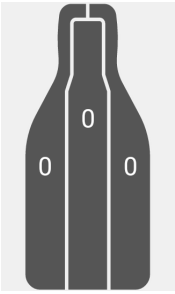
FBI-QIT		HitSync
E-Type		E-Type
F-Type		E-Type

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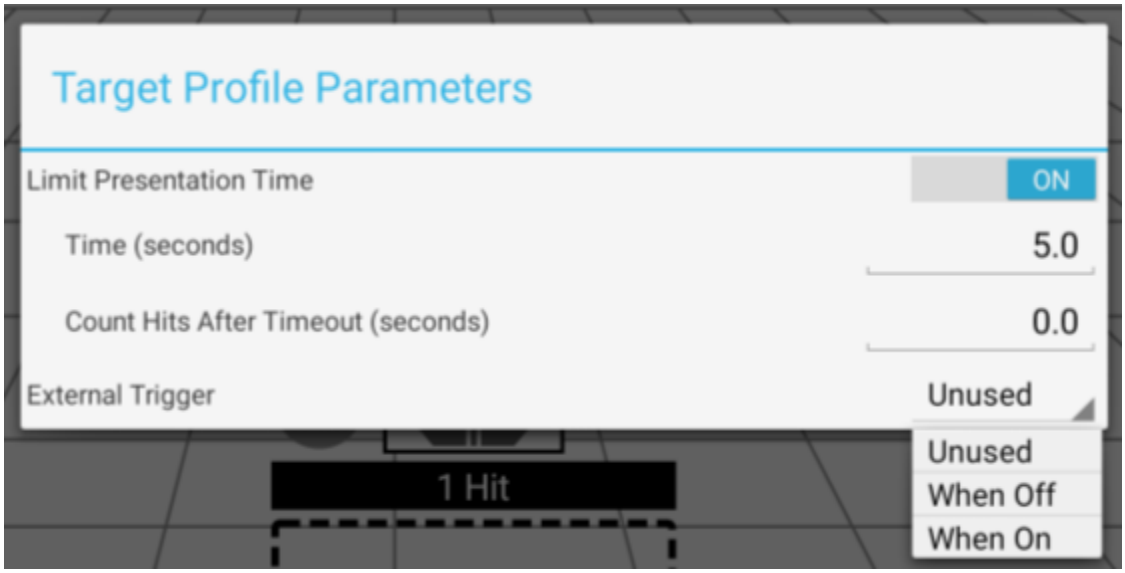
More Settings:



Parameter	Usage
Limit Presentation Time	Sets target exposure time. If Hit Requirements not completed before this time, the target will fall with a status of "Timed Out".
→ **Time (seconds)**	The target exposure time.
→ **Count Hits After Timeout (seconds)**	When a target "times out" hits are ignored while the target falls. This settings gives a grace period where hits are counted during a fall. ***Usage Note:*** *When using a very fast exposure time (e.g. 0.5s) the target can start to fall before it is fully presented. This is particularly useful with Side-Lifters in bladed configuration. With a short timeout you can set a target to peek out from an obstacle only a few inches and immediately retract. The exposure time determines how much of the target presents.*
External Trigger	**Unused** - Presence of trigger is ignored. **When Off** - Target presents when trigger circuit is OPEN. **When On** - Target presents when trigger circuit is CLOSED.

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Hit Requirements

Hit Requirements determine the effect of hits on a given target.

Target Style	Hit Requirement	Description
Silhouette Three Zones	**1 Hit** **2 Hits** **3 Hits** **4 Hits** **5 Hits** **8 Hits** **12 Hits** **18 Hits**	Target requires X number of hits in any zone to be completed successfully.
Silhouette Three Zones	**20 Pts. [50/20/10]** **30 Pts. [50/20/10]** **50 Pts. [50/20/10]** **70 Pts. [50/20/10]** **100 Pts. [50/20/10]** **150 Pts. [50/20/10]**	Target requires stated number of points to be completed successfully. **Points:** [50/20/10] = [Head/Center Mass/Torso] **Example:** 30 Pts. could be... 1 head shot 2 center mass 1 center mass & 1 torso 3 torso Points scored above and beyond requirements are added to the users score. ***Tip:*** *You can cheat by landing a center mass shot first and then a headshot to achieve 70 points on a 30 point drill.*
Silhouette Three Zones	**Failure to Stop 2T/1H**	Target requires two “torso” shots and one headshot to complete. Center mass and torso region shots are counted.
Silhouette Three Zones	**Failure to Stop 2CM/1H**	Target requires two center mass shots and one headshot to complete. Torso region shots are ignored.
Silhouette Three Zones	**1 Headshot** **2 Headshots** **3 Headshots** **5 Headshots**	Target requires X number of headshots to be complete successfully.

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Silhouette Three Zones	**100 Points [50/-50/-50]**	"The headshot challenge" - Two 50 pt headshots to complete. All other hits subtract 50 pts.
Silhouette Three Zones	**Unlimited Hits**	Use this to see how many hits you can get on target in a fixed amount of exposure time.
Silhouette Three Zones	**1 CM** **2 CM**	X hits, center mass.
Silhouette Three Zones	**1-3 Hits** **1-5 Hits**	Target requires a random number of hits in any zone to be completed successfully. For each presentation, the number of required hits will be between the specified minimum and maximum values.
Dual Silhouette Four Zones	**Hostage Taker**	For use with AutoTargets™ Hostage Targets [T002]. Hostage Taker = +75 Points All Other Zones = -200 Points
FBI-QIT	**1 Hit** **2 Hits** **3 Hits** **4 Hits** **5 Hits**	Target requires X number of hits in any zone to be completed successfully.
FBI-QIT	**1-3 Hits** **1-5 Hits**	Target requires a random number of hits in any zone to be completed successfully. For each presentation, the number of required hits will be between the specified minimum and maximum values.
FBI-QIT	**1 CM** **2 CM**	X hits, center mass.
FBI-QIT	**20 Pts. [20/10]** **30 Pts. [20/10]** **50 Pts. [20/10]**	Target requires stated number of points to be completed successfully. **Points:** [20/10] = [Center/Left or Right] Points scored above and beyond requirements are added to the users score.

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E-Type	**1 Hit** **2 Hits** **3 Hits** **4 Hits** **5 Hits**	Target requires X number of hits in any zone to be completed successfully.
E-Type	**1-3 Hits** **1-5 Hits**	Target requires a random number of hits in any zone to be completed successfully. For each presentation, the number of required hits will be between the specified minimum and maximum values.
F-Type	**1 Hit** **2 Hits** **3 Hits** **4 Hits** **5 Hits**	Target requires X number of hits in any zone to be completed successfully.
F-Type	**1-3 Hits** **1-5 Hits**	Target requires a random number of hits in any zone to be completed successfully. For each presentation, the number of required hits will be between the specified minimum and maximum values.

Please feel free to contact AutoTargets™ to request new Hit Profiles be added to our development backlog at support@autotargets.com.

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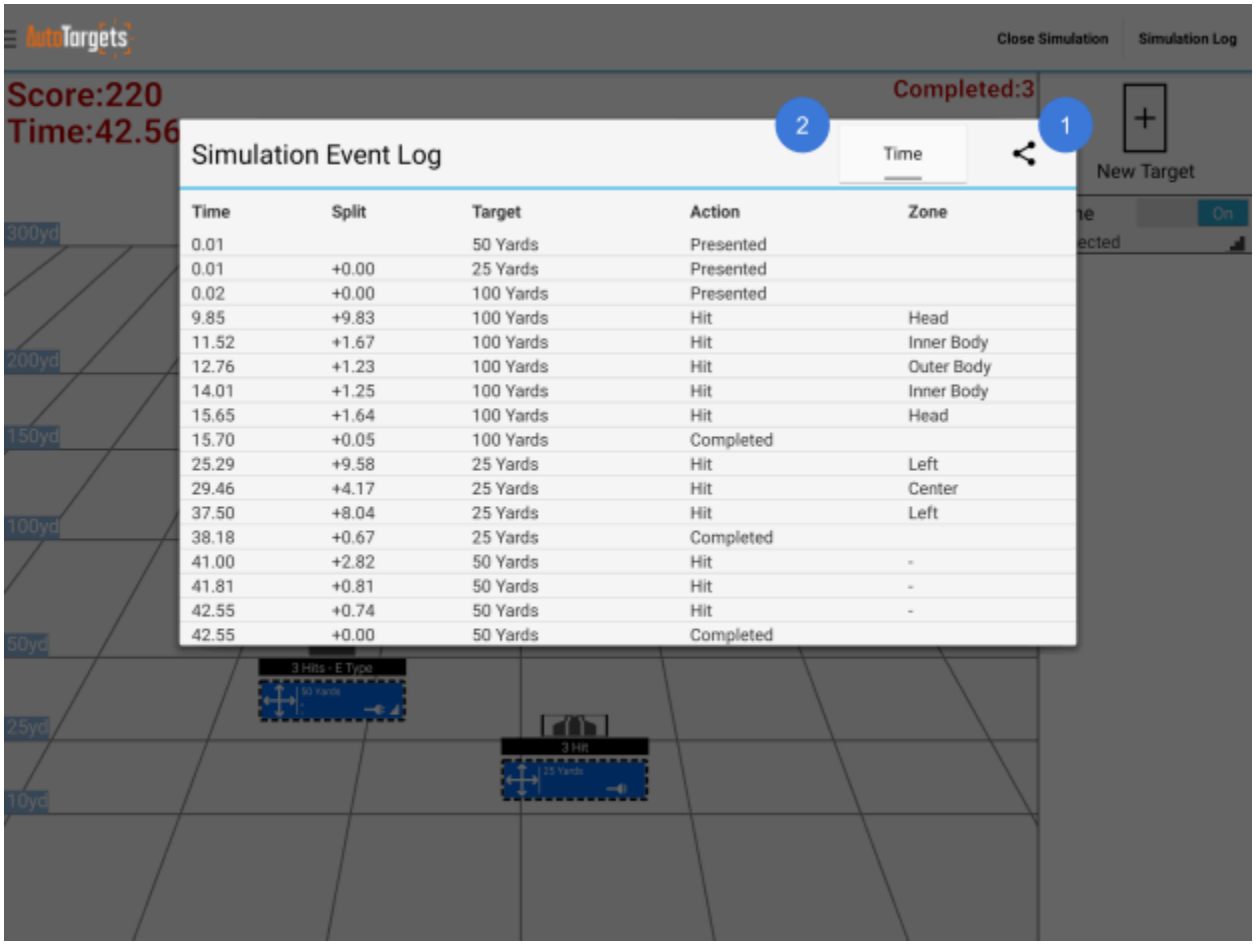
Simulation Event Log

The Simulation Event Log contains the true value of using AutoTargets™ - reliable, repeatable performance data.

Time View

The default view displays events based on when they occur during the scenario. This view is best used when a single shooter engages with multiple targets. It shows splits across targets and when any target in the scenario is presented or completed.



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Feature	Description
Time	The timestamp for each event, in order it occurred during the Simulation.
Split	The time between this event and the previous event.
Target	The Target (or other AutoTargets™ Device) this event applies to.
Action	**Presented** - Target presented. **Hit** - Hit occurred. **Completed** -Hit requirements met. **Timed Out** - The Target Profile's Presentation Time Limit was reached before the Hit Requirements were met. **Canceled** - The user canceled the presentation (Manual Mode).
Zone	Corresponds to the zones of the AutoTargets™ standard targets. HitSync Legacy Targets: **Head, Inner Body (Center Mass), Outer Body, Hostage Taker** For HitSync Targets: **Left, Right, Center** For E-Type Targets: N/A
(1) Share Button	Use this button to export this log as a spreadsheet and save or send.
(2) Time/Target View Toggle	Use this button to switch between Scenario Log views.

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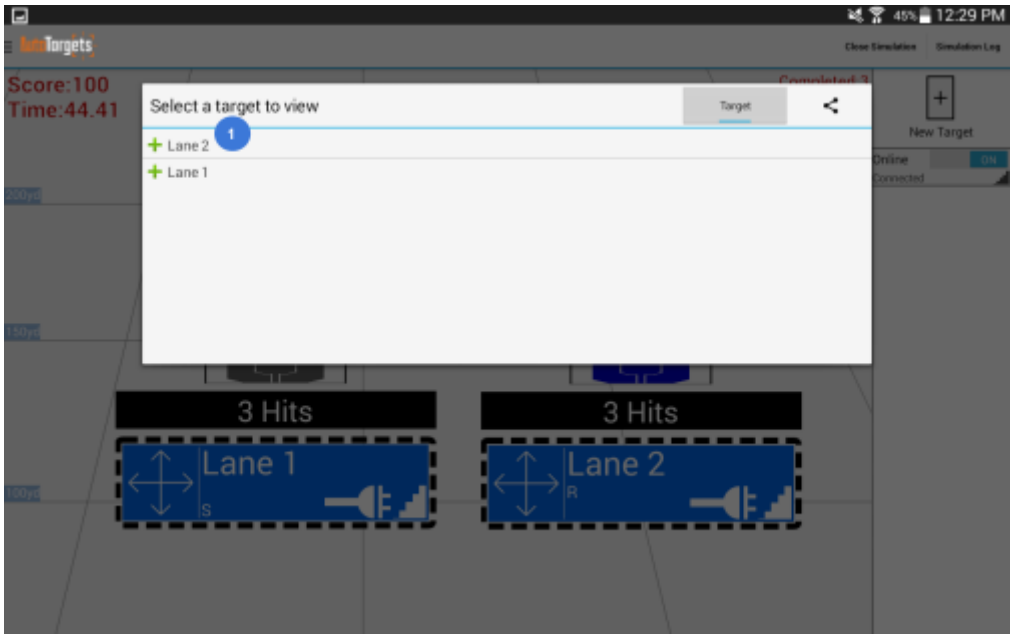
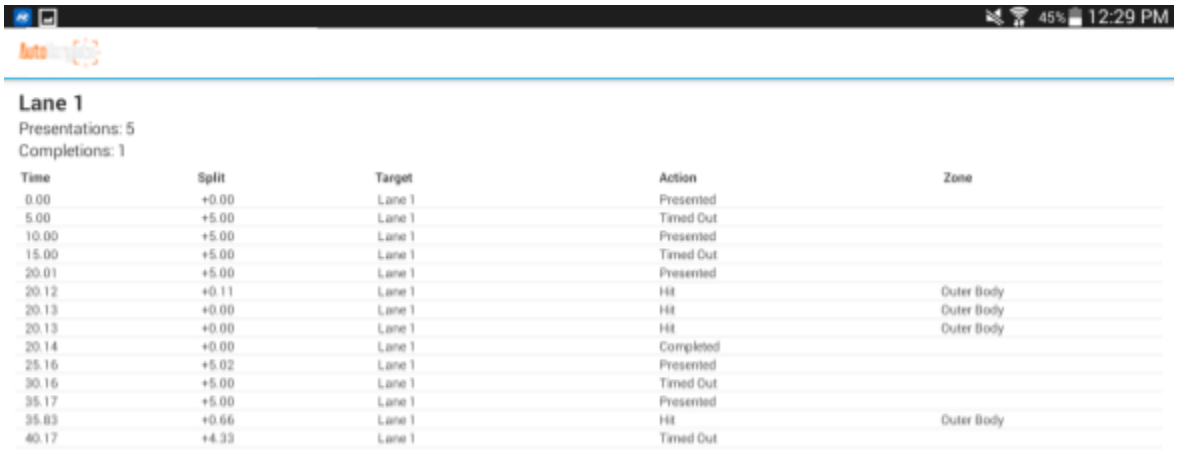
Target View

Tapping the Time/Target button Toggles between Target View and Time view.

This view is best used when multiple shooters engage a single target. This is typically used when a trainer/RSO is running a multi-student class.



Each target is listed by Name (Alias). Tap a row to drill down into the detailed results:



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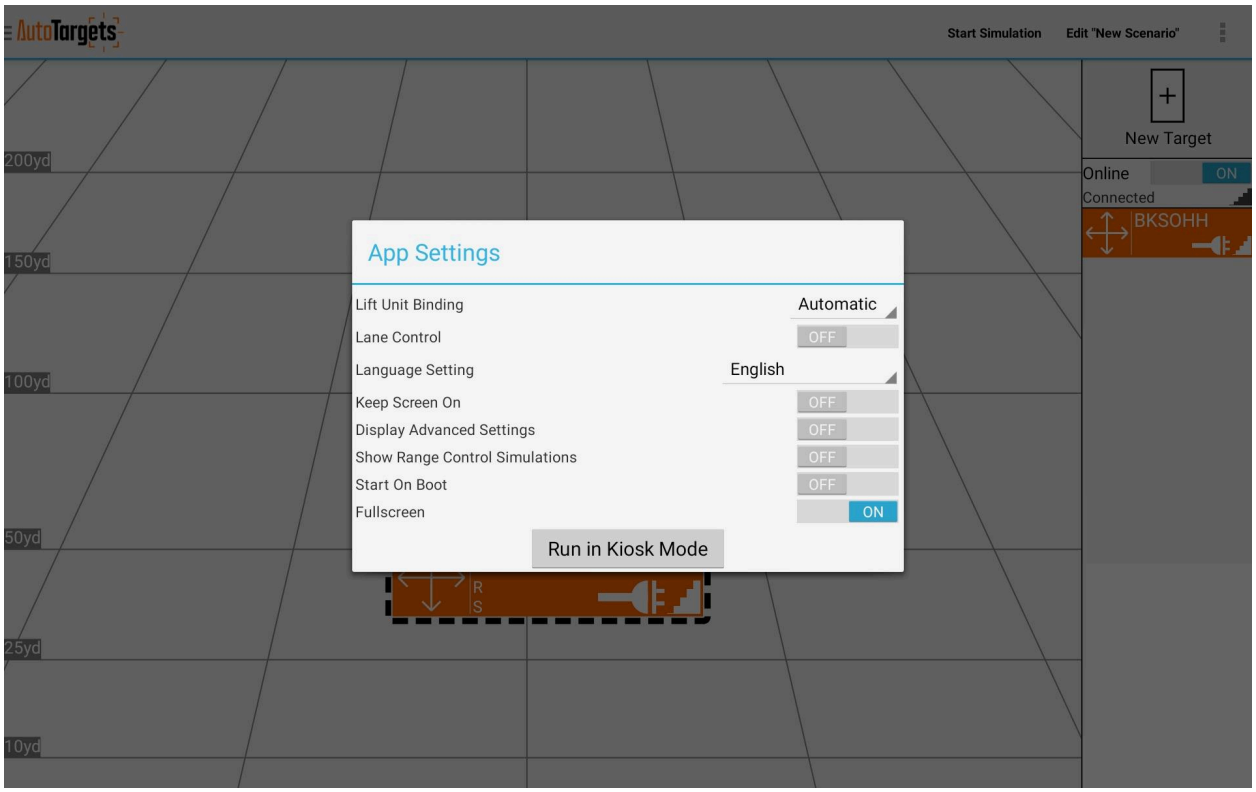
App Settings

To open the App Settings menu, first open the application's drawer menu by selecting the icon at the top left of the screen. Next, with the drawer menu expanded select "App Settings.." to display the dialog.



The settings contained the App Settings menu are:

Lift Unit Binding	Setting which controls the manner in which the app discovers lift units. There are 4 options: Address, and Automatic, Group, Server. By default, the app uses Address binding. However, if you plan to connect your tablet a wireless network change binding to Automatic. (See "**Connecting to Wireless Infrastructure**" section of this document) **Default**: Address (192.168.64.1) "Server" binding is new for release 21.16.28.p16 and allows connectivity to an AutoTarets™ Range Control server by IPv4 address. Using "Server" binding allows access to the "Range Control" menu item and offers automatic app updates from the server if available. (See "**Lane Control**" and "**Range**

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	Server Integration" sections of this document).
Lane Control	Enables a "single-target" mode suitable for use in a one-shooter-one-target or "lane" based environment. Tablet user is able to independently control his/her own target without interfering with other "Lane Control" users on the same network. Specify the SERIAL of the unit you wish to control.
Language	Changes the displayed language of the app. Currently supports English, Mandarin, and German.
Keep Screen On	Setting which prevents the screen on your Smart Device from going to sleep. This setting is useful if you need the screen to stay awake during simulations but you don't want to change your device's screen timeout setting. **Default**: Off
Display Advanced Settings	Allows access to advanced device settings. Don't change these unless you really know what you're doing.
Show Range Control Simulations	When using the tablet in conjunction with a Range Control Server, this settings allows you to view or ignore simulations initiated by the Range Control application.
Start On Boot	Automatically launch the AutoTargets™ app at boot.
Fullscreen	Hide the notifications bar and display the app full screen if possible.

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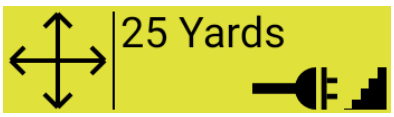
Device Administration

Device Bar

Each connected AutoTargets™ Device is represented by a colored bar in the app. Each color has a unique meaning:

Blue		Lift Unit is connected to server and functioning normally
Gray		Lift Unit is online but currently not connected to the server
Red		Lift Unit has experienced an error communicating with a connected peripheral device, or the peripheral device is currently busy. Please see the ***Admin Screen*** section for information on peripheral devices.
Orange		Lift Unit firmware is out of date and should be updated. Please see the ***Firmware Update*** section for information on how to update your Lift Unit.
Yellow		Lift Unit's target technology type is not compatible with its technology identity Please see the ***Admin Screen*** section for information on Target Technology Type and Technology Identity.

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The device's bar also has a number of functions:

	**Handle** - Use this to drag and drop the Device Bar
	**Alias** - The Alias of this device
	**Server Marker** - This device is currently the Server
	**Relay Marker** - Your phone/tablet is connected to this Device via WiFi™
	**Signal Bars** - Just like your phone, 0 is bad, 5 is good
	**Power**- Shows plug when on Aux Power, otherwise shows battery level
	**Update** - This device would benefit from a firmware update via the app
	**Peripheral Update Percentage** - Completion percentage of an ongoing peripheral device update

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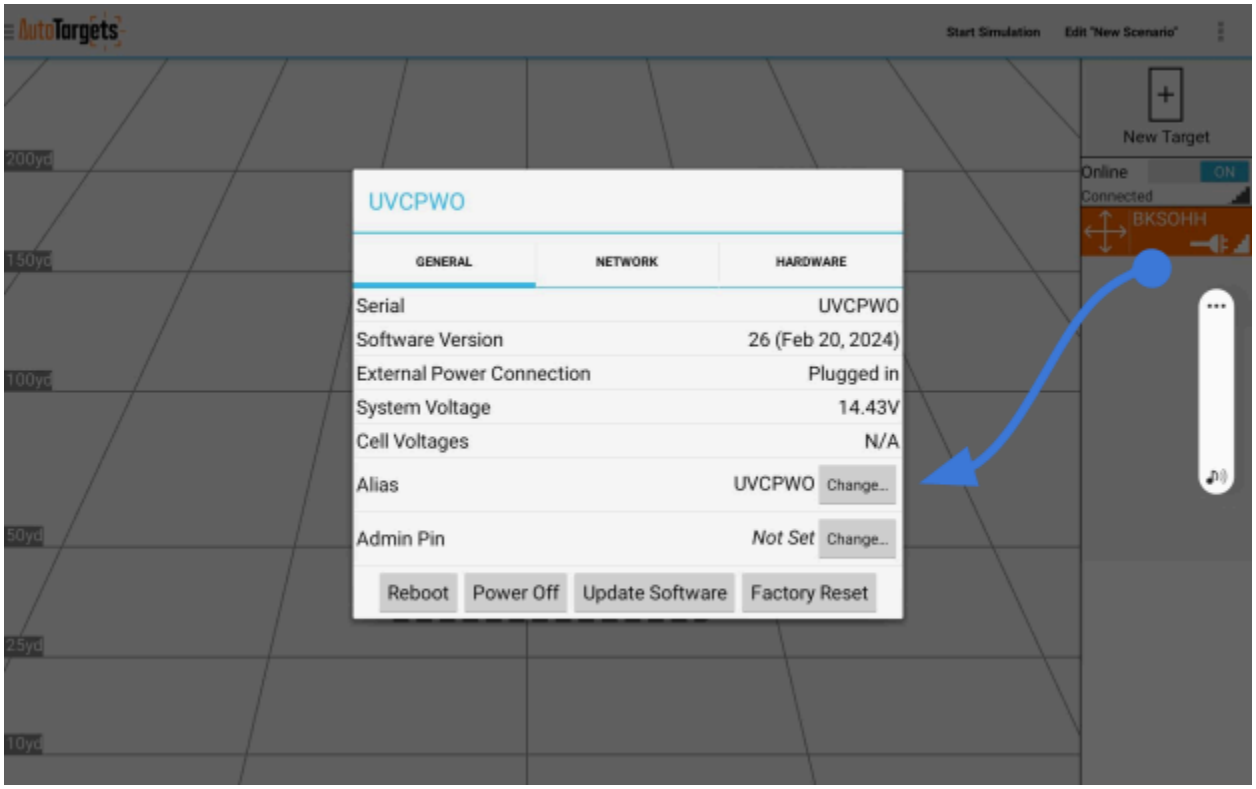
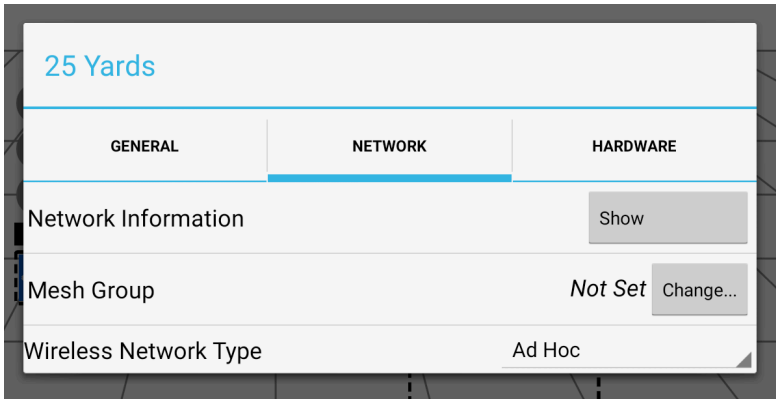
Admin Screen

Tap the ***center*** of a Blue (or Orange) AutoTargets™ device to launch the “Admin Screen".





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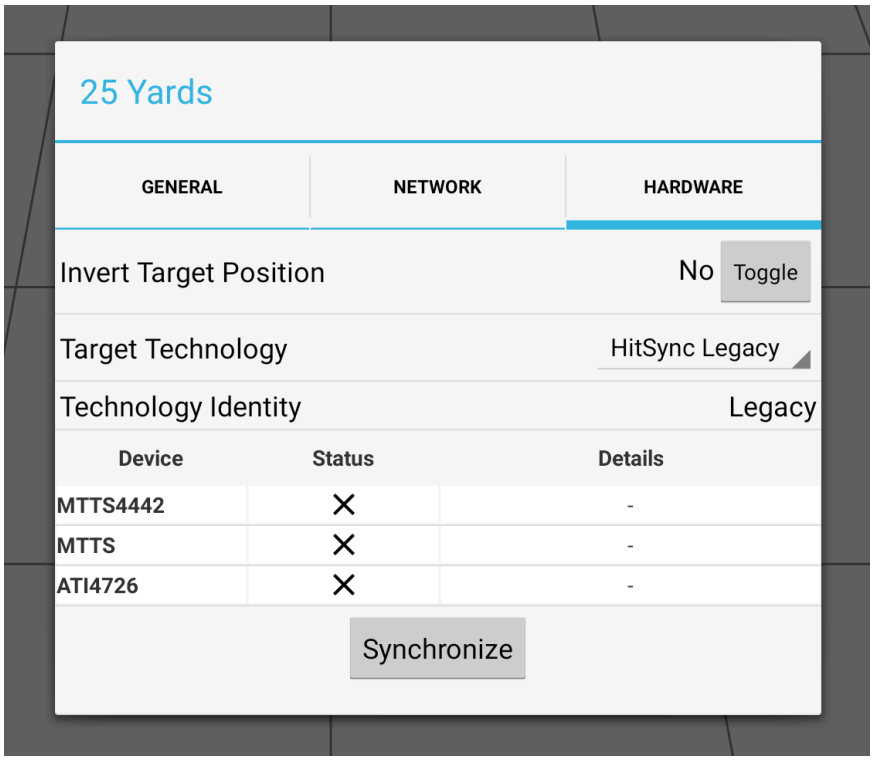
STANDARD Hardware Settings:



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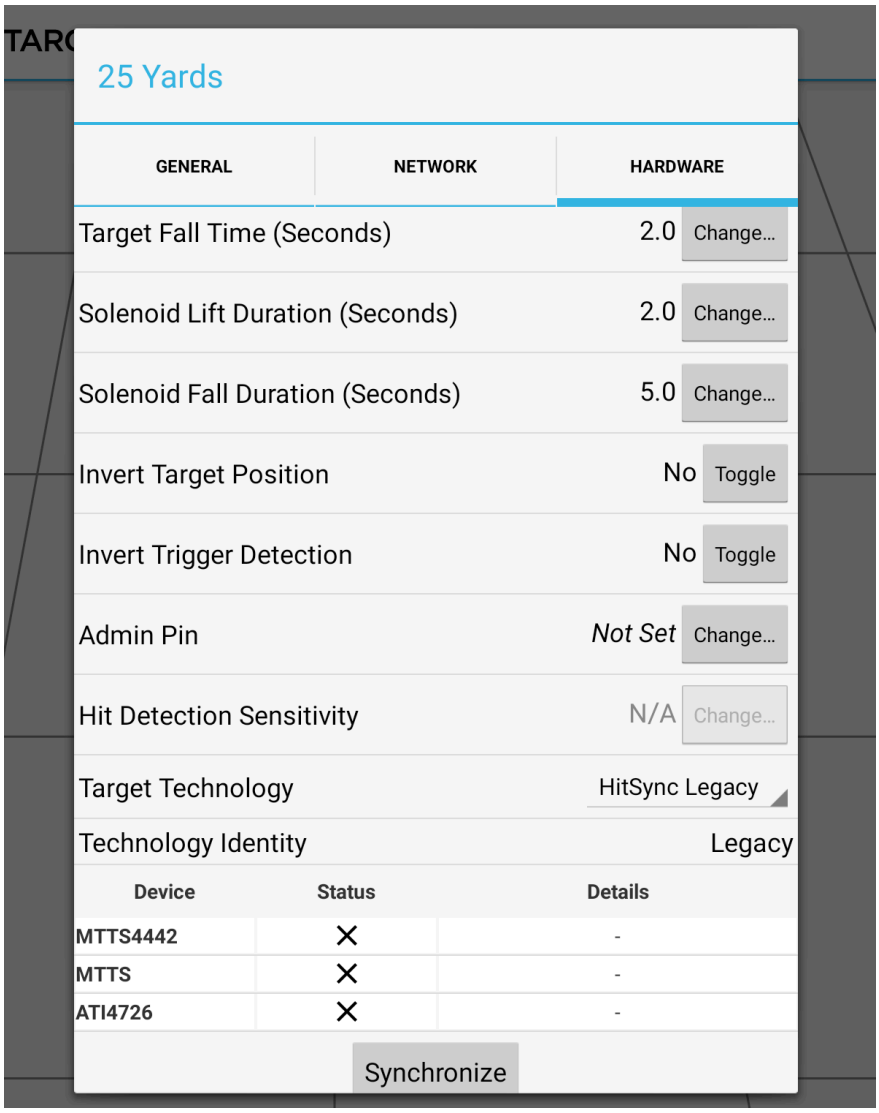
ADVANCED Hardware Settings:



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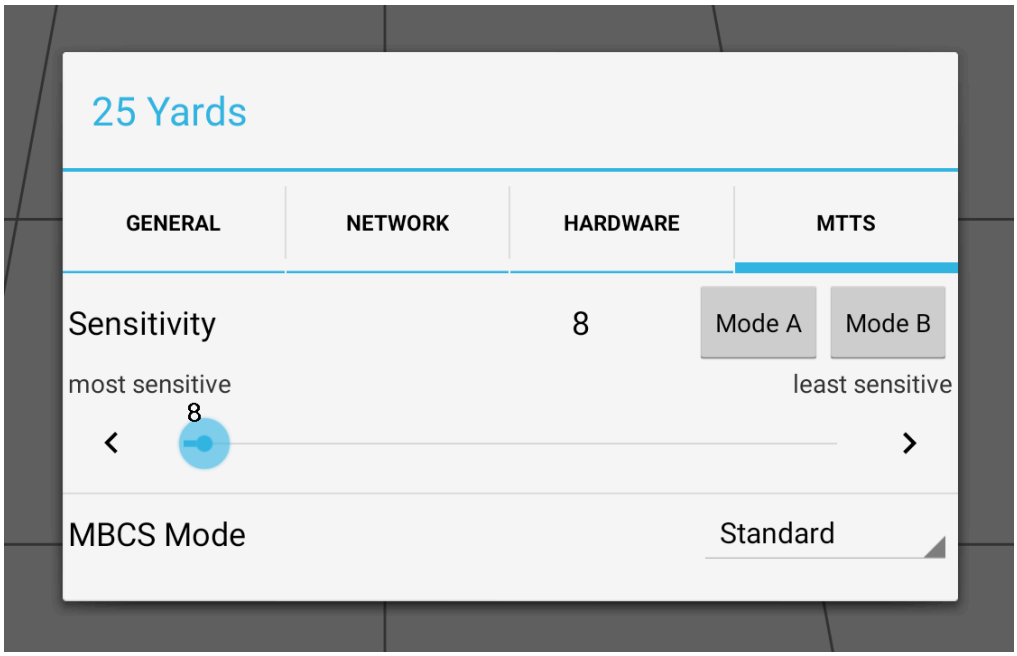
MTTS Settings:

NOTE: This tab will only appear if MTTS upgrade is installed, and Target Technology is set to E-Type.



Item	Tab	Description
Serial	General	Six letter unique designation for this AutoTargets™ device.
Software version	General	The firmware version currently installed on this AutoTargets™ device.
External power connection	General	"Plugged in" or "Unplugged" based on use of Aux Power jack on unit.
System voltage	General	Overall system voltage from battery or Aux Power.
Cell voltages	General	Lithium based cell chemistry ONLY. Will display individual cell voltages for 2, 3 and 4 cell Lithium Ion/Polymer cells in use. Or "N/A" if using Aux Power.
Alias	General	Renames the AutoTargets™ device for ease of recognition. Ex) "Lane 1", "400m", etc.
Target Fall Time (seconds)	Hardware - Advanced	Time allowed (by system logic) for a target to fall before it's eligible to be presented again. Ensures target falls fully before presenting

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		again. Newer generations of AutoTargets™ Lift Units are mechanically faster and can be run with a setting as low as 0.8s. Older AutoTargets™ Lift Units may experience longer fall times under windy conditions. **Default:** 2s
Invert Target Position	Hardware	Setting for "Side Lifters" and "PSTs" to swap the presented/retracted positions from software. This replaces the need to swap the wires on the solenoid inside a Lift Unit. **Default:** No
Invert Trigger Detection	Hardware - Advanced	Setting swaps hardware trigger detection behavior. **Default:** No
Admin Pin	Hardware - Advanced	Allows the assignment of a pin code to lock this admin screen. This setting can prevent others from modifying the settings of your AutoTargets™ devices.
Solenoid Lift Duration (Seconds)	Hardware - Advanced	The amount of time the solenoid valve is ON when changing target position. Can be reduced to 0.2 seconds to improve battery life on any units using double-acting pneumatics. **Special cases:** 0s is infinite (always on when in this position). Used for non-latching solenoid configurations. **Default:** 2.0s
Solenoid Fall Duration (Seconds)	Hardware - Advanced	The amount of time the solenoid valve is ON when changing target position. Can be reduced to 0.2 seconds to improve battery life on any units using double-acting pneumatics.

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		Special cases: 0s is infinite (always on when in this position). Used for non-latching solenoid configurations. **Default:** 5.0s
Hit Detection Sensitivity	Hardware - Advanced	Do not change. Only available on certain hardware revisions. If value is shown as "N/A" and button is disabled, the hardware does not support this setting. If value is displayed and button is not disabled, the hardware does support this setting. **Default:** 1698
Network Information	Network	Displays a dialog box with real-time network information for the unit. This is useful for troubleshooting networking problems.
Mesh Group	Network	Setting allows user to group targets into clusters. Standard behavior is for all AutoTargets™ devices to connect to all other devices within range. By setting the Mesh Group on a device to a new value (any value) that device will not connect to any other device. By setting the Mesh Group on a second device to the same value, devices will connect to each other. In example above, any devices on mesh "aqua net" will see each other. Devices with the standard Mesh Group will not be seen. **NOTE:** Be sure to consider which unit your Smart Device is connected to. This will determine which Mesh Group you see in the app. **Default:** <not set> ***NOTE:*** *Units will need to be rebooted or powered off for this change to take effect.*

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Wireless Network Type	Network	Controls whether a unit should broadcast its own access point for the user to connect to (Ad Hoc mode), or if the unit should connect to an existing wireless network infrastructure (Wireless Client mode). See "**Connecting to Wireless Infrastructure**" section of this document for more information. **Default:** Ad Hoc ***NOTE:*** *Units will need to be rebooted or powered off for this change to take effect.*
Reboot	General	Issues a reboot command to this device. It will drop off the network and reconnect.
Power Off	General	Issues a power off command to this unit. It will shut down and a power button press will be required to power on.
Update Software	General	Push the current version of software on this Smart Device to this AutoTargets™ device. See "**Firmware Update**" section of this document for more information.
Factory Reset	General	Perform a factory reset. Clears all settings and restores to default. See "**Factory Reset**" section of this document for more information.
Target Technology	Hardware	Select the desired type of hit sensing technology. Options include **HitSync Legacy**, **HitSync**, and **E-Type**. Make sure you have selected the appropriate technology for the target that's installed in the Lift Unit. **NOTE:** Standard Lift Units do not support E-Type targets unless equipped with an MTTS (Multi Target Technology System) upgrade. Contact Action Target for information on purchasing this upgrade.
Technology Identity	Hardware	Indicates the generation of the Lift Unit's electronics, and whether an MTTS (Multi Target Technology System) upgrade is installed. This is for informational purposes and is not

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		selectable by the user.
Peripheral Device Table	Hardware	Indicates the status of various components installed in the Lift Unit. This is for informational purposes and is not selectable by the user.
Synchronize Button	Hardware	Manually re-synchronizes connection and settings to MTTS upgrade (if equipped) and other installed components. **NOTE:** This is not required for normal operation. However it is recommended to synchronize whenever you change **Target Technology** type, or as a troubleshooting step if you are having issues with the operation of the MTTS upgrade.
Sensitivity	MTTS	Select the level of sensitivity for use with E-Type or F-Type targets. Lower numbers are more sensitive than higher numbers. **Mode A** preset is 25 which is the recommended setting for most standard calibers. **Mode B** preset is 8, is “extra sensitive” and is the lowest recommended setting for E-Type and F-Type targets. Any lower will likely cause “false hits” during lifting. Additionally, the user can manually select any setting from 1 to 50. If **ADVANCED SETTINGS** is turned on, the user can set the sensitivity up to 255.

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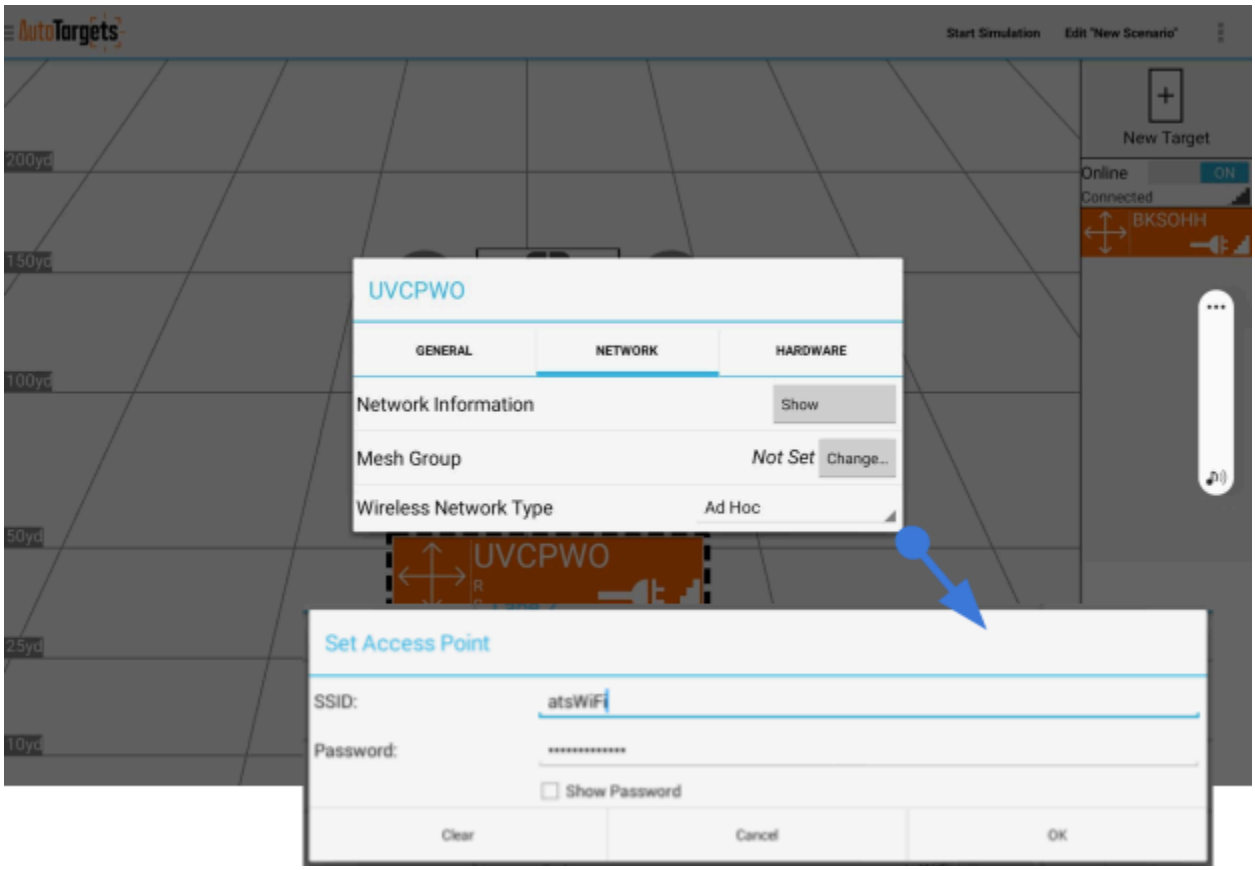
Connecting to Wireless Infrastructure

AutoTargets™ Devices with v12 firmware or later have the ability to connect to a local wireless network, given that one is within range.

Configuring A Device

To connect an AutoTargets™ Device to your local wireless network:

- Open the admin screen by selecting a unit from the side tray
- Navigate to the Network tab
- Change the unit's Wireless Network Type from "Ad Hoc" to "Wireless Client (WPA2)".
- Enter the SSID (network name) and password for your local network. **Note:** *the SSID and password information are case sensitive.*
- **Reboot the unit to make this change take effect.**



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If the device connects successfully after reboot the settings are saved. If it fails to connect after a few attempts, it will reboot and discard the new changes. This allows you to try again, if you entered an invalid SSID or password.

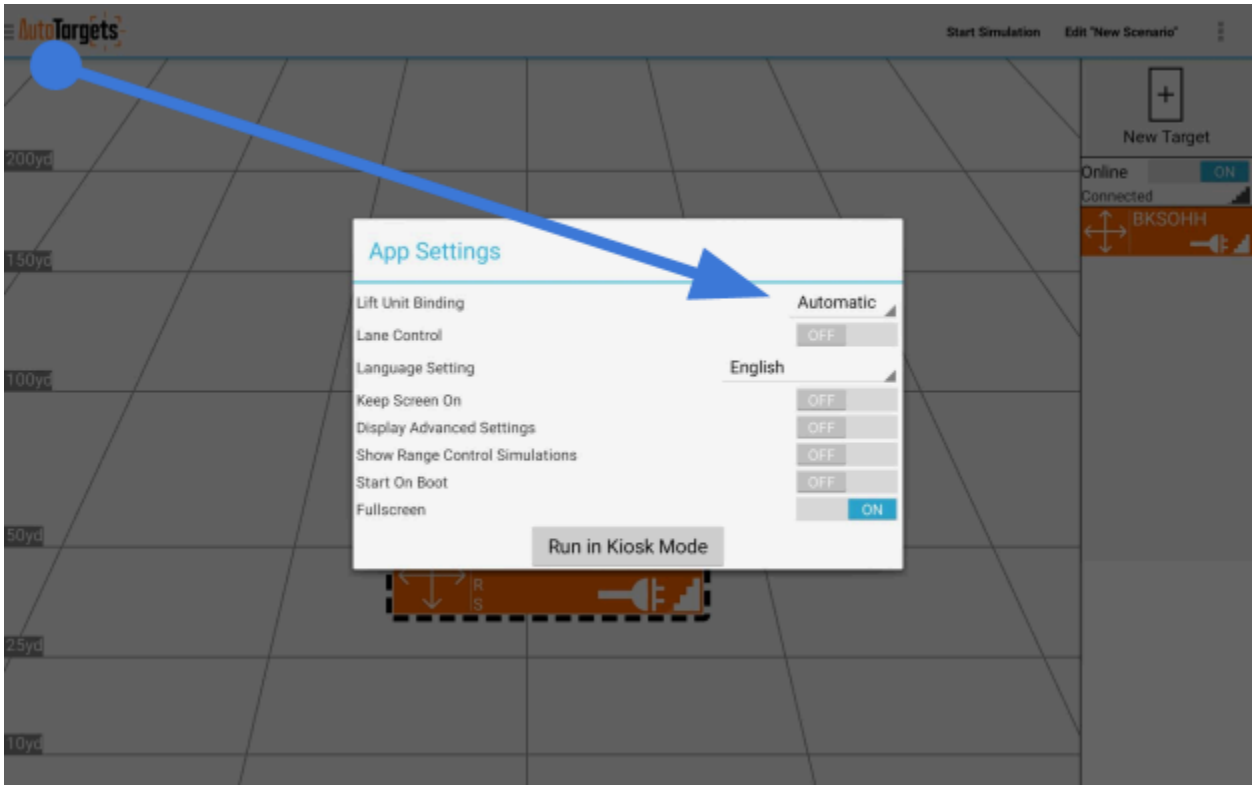
Pro Tip: Did the WiFi settings work?

You can use your tablet's WiFi menu to search for wireless networks, if the AutoTargets™ Device successfully connected to your local wireless network, it will no longer broadcast its own network. If the settings fails, you'll continue to see a network with your device's serial in the SSID (network name).

Configuring A Tablet

IMPORTANT: In order for your tablet to find this unit on the local network, you'll need to change the Lift Unit Binding type to "Automatic" in the App Settings menu (found in the upper left corner of the app).

NOTE: *Certain installations require Lift Unit Binding types of Address, Group or Server and will be configured as such from the factory.*



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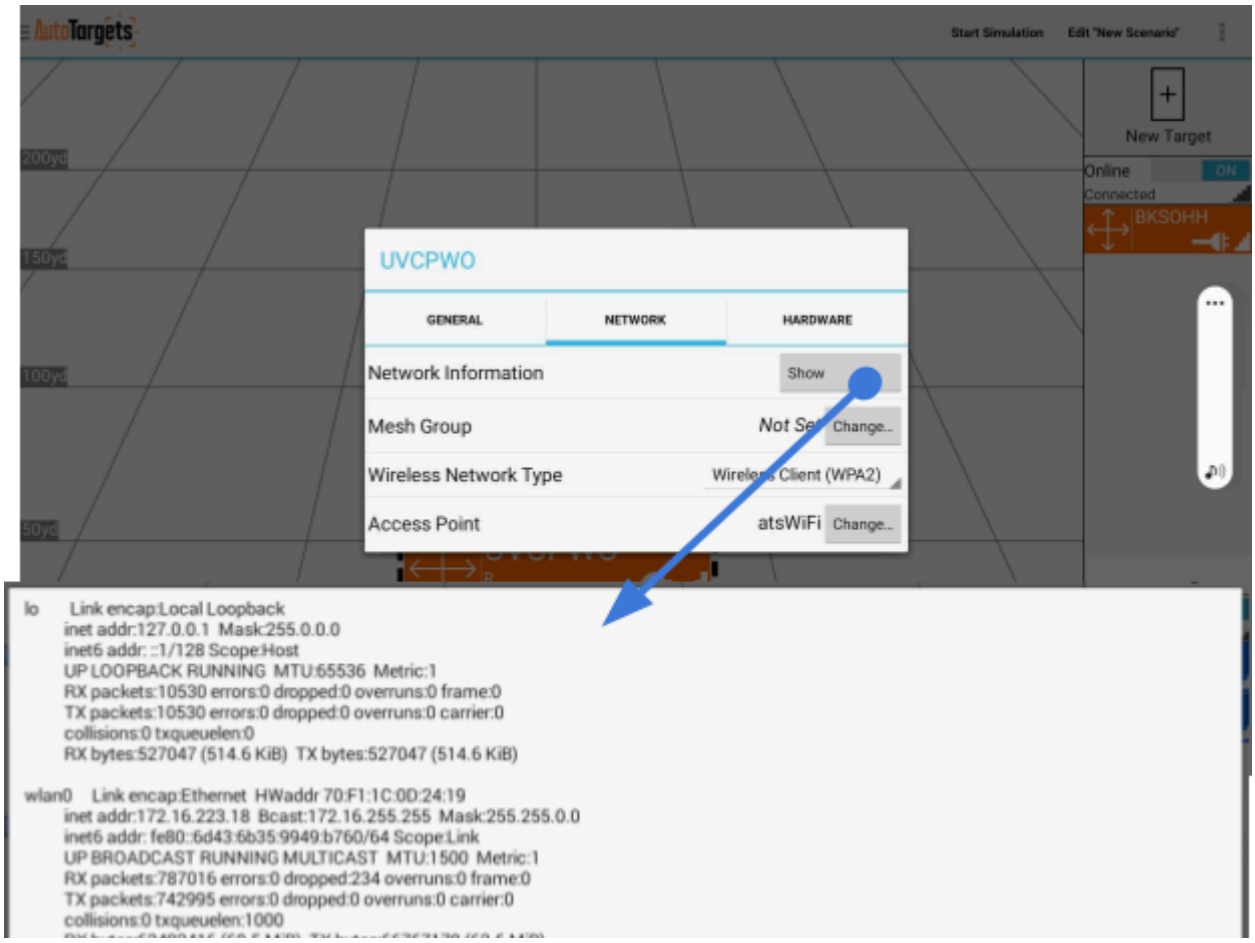
If you're feeling especially nerdy...

Tapping the "Show Networking Information" button will pull detailed network information from the device. This can be useful for AutoTargets™ install teams.



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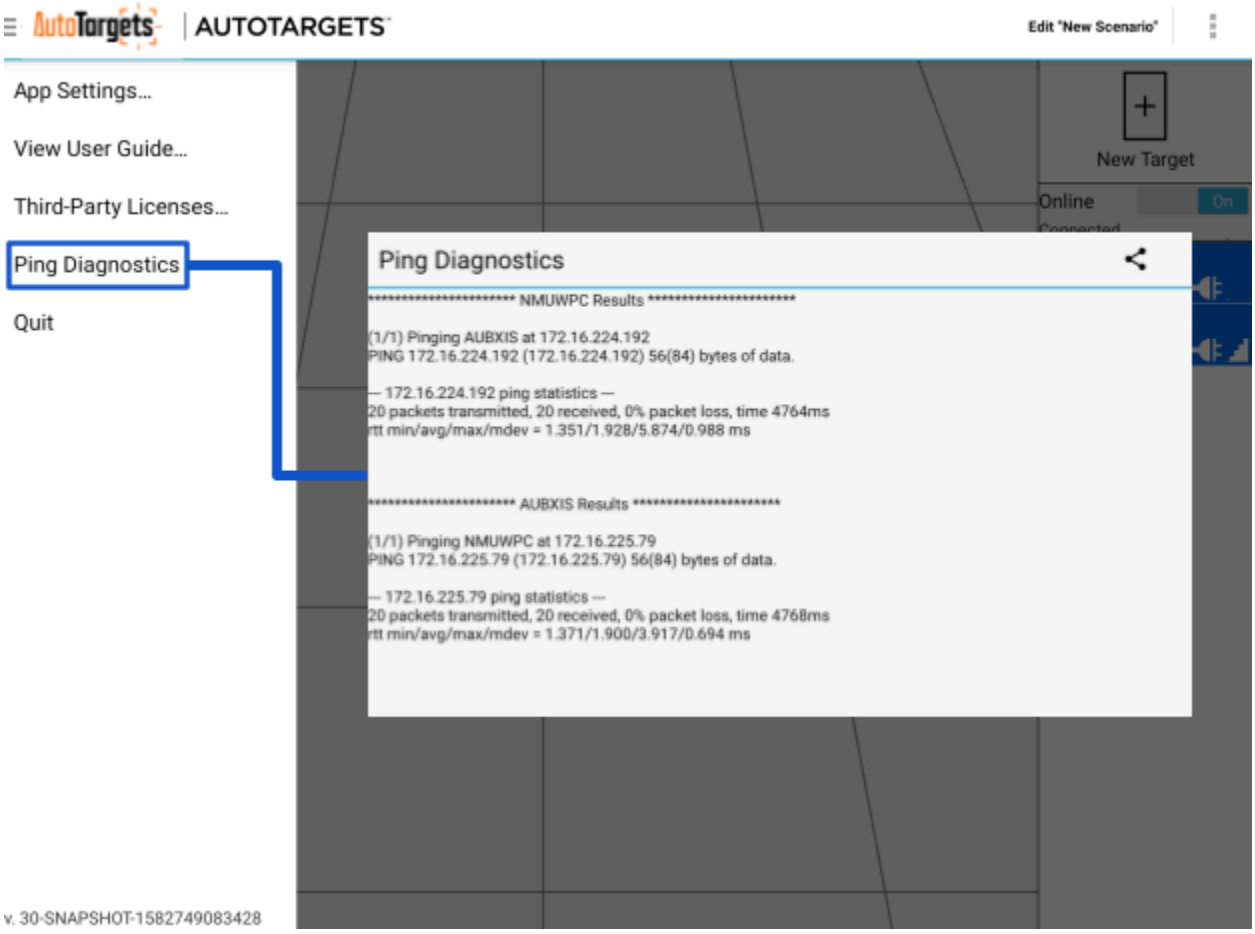
Network Performance Diagnostics

The **Ping Diagnostics** utility can be used to measure network performance of the entire AutoTargets system. To run the utility, turn on **Display Advanced Settings** in **App Settings**, and then select **Ping Diagnostics** in the main menu. The utility will begin running automatically. The duration of the test will depend on how many units are running. When the test is finished, you can share the results with an AutoTargets expert by clicking the share icon and emailing to support@autotargets.com.

Note: This test will only work for Lift Units with firmware version 17 or newer.



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Firmware Update

All AutoTargets™ Devices can be updated directly from the AutoTargets™ mobile application.

When the AutoTargets™ app automatically updates on your Smart Device (from iTunes™ or the Android™ Play Store), it may contain a new firmware update for your AutoTargets™ hardware.

Devices that are orange and display this icon  require an update.

The device with serial *ALAKTN* requires an update, the device with serial *NMUWPC* does not.

Update Steps

- **Before you start:** Make sure you have the latest app installed on your smart device
- **Step 1:** Power up one lift unit (if you have more than one, just turn on one please)
- **Step 2:** Connect to the unit via the app as shown above
- **Step 3:** You'll see one lift unit, it may have the new 'Update Available Indicator' shown above.
- **Step 4:** Tap the name of the Lift Unit and the Admin screen appears.
- **Step 5:** Keeping the tablet near the Lift Unit, tap 'Update software' and give it a few seconds. Should take less than 30, may take up to 60. It will restart after the update so you will lose connection.
- **Step 6:** Give it a second to come back online. If after a minute or two it does not appear in the app automatically, toggle the Online/Offline button to prompt the app to try to connect again. If it still does not connect, be sure your smart device did not automatically reconnect to your normal home WiFi. If it has, please reconnect to the access point provided by the Lift Unit. The lift unit will reappear and the 'Update Available' icon will no longer be present.

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Factory Reset

To restore all settings to default, use the factory reset option in the **Admin Screen**.

If an AutoTargets™ Device is pin protected or you're unable to access the Admin Screen for some other reason - use the following procedure to reset the device:

- With the AutoTargets™ Device powered ON…
- Remove the WiFi™ adapter and wait for the ERROR light to turn solid red.
- Tap the Power Button three times quickly. *(Holding the power button too long will cause the device to power off)*
- The "BOOT" and "ERROR" lights should start flashing to indicate that the reset procedure was successful.
- Press and hold the Power Button to turn off the device
- Insert the WiFi™ adapter and power up. All settings will be restored to factory defaults.

PLEASE NOTE: On later versions of the AutoTargets™ lift units you may need to disconnect the WiFi module INSIDE the unit. If your unit is enclosed or other unaccessible, please contact AutoTargets™ support at support@autotargets.com.

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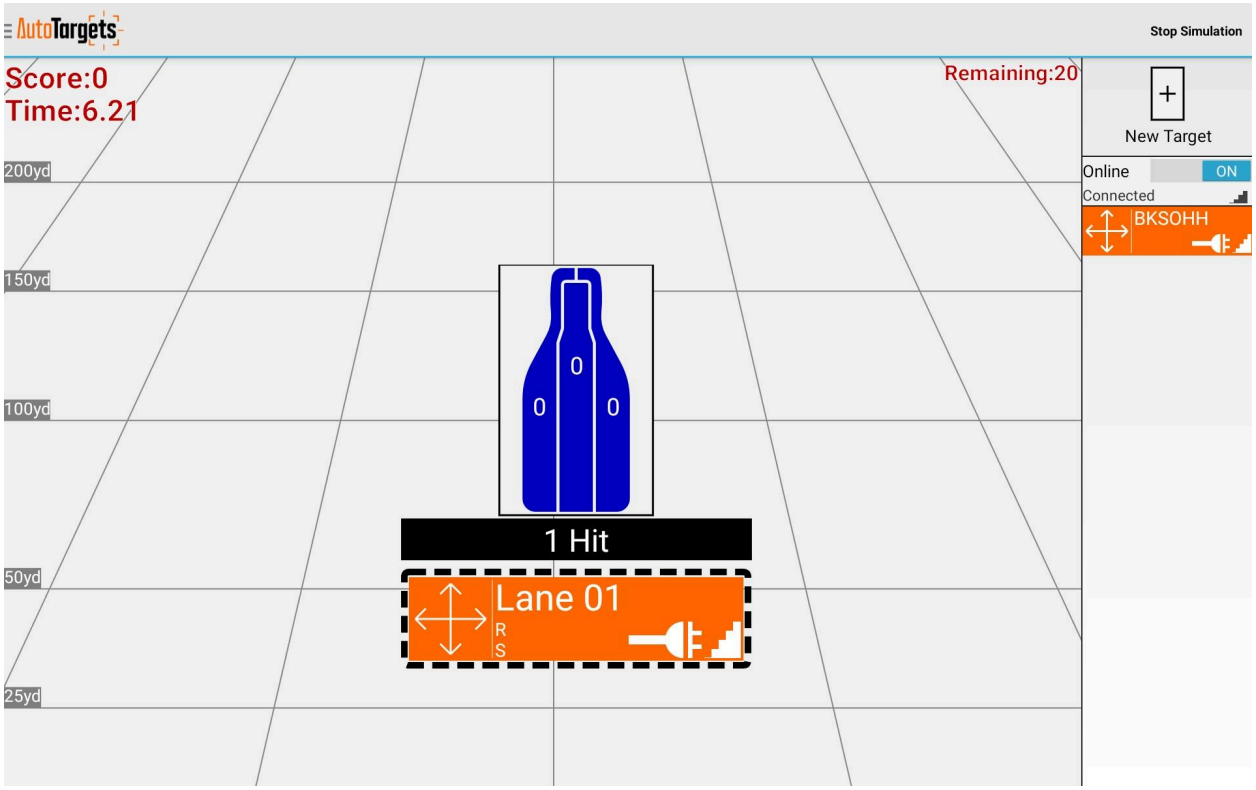
Lane Control Mode

If your AutoTargets™ system includes lane control hardware (tablets mounted in shooting bays or lanes, typically at an indoor range) this information applies to you. Otherwise, you can likely ignore this section of the user guide.



Lane control mode is an application mode that is optimized for a one-target-one-shooter or “lane” based range installation. It allows many shooters to each independently operate a single target.

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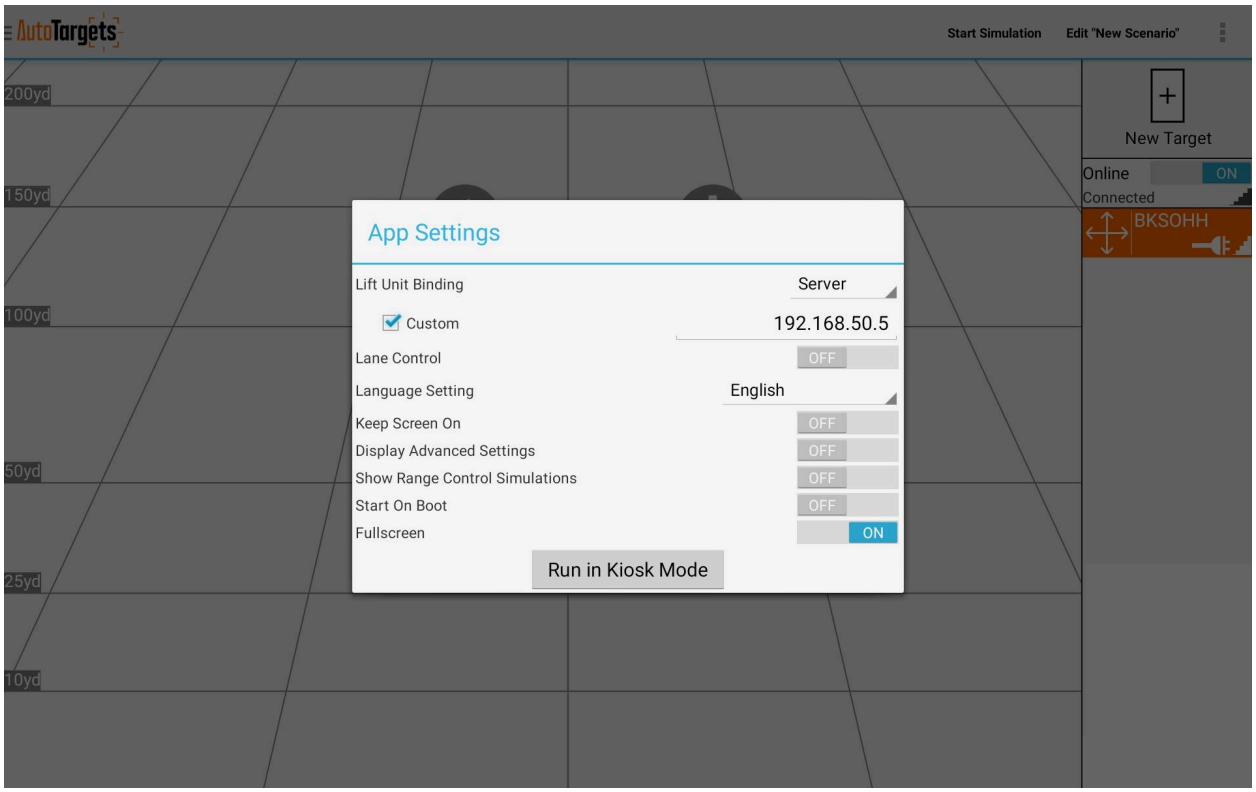
Configuration

Although it is not required, Lane Control is typically used in conjunction with a Range Server.

Under App Settings, select “Lane Control” and specify a AutoTargets™ device SERIAL. (see “**App Settings**” section of this guide for additional information).



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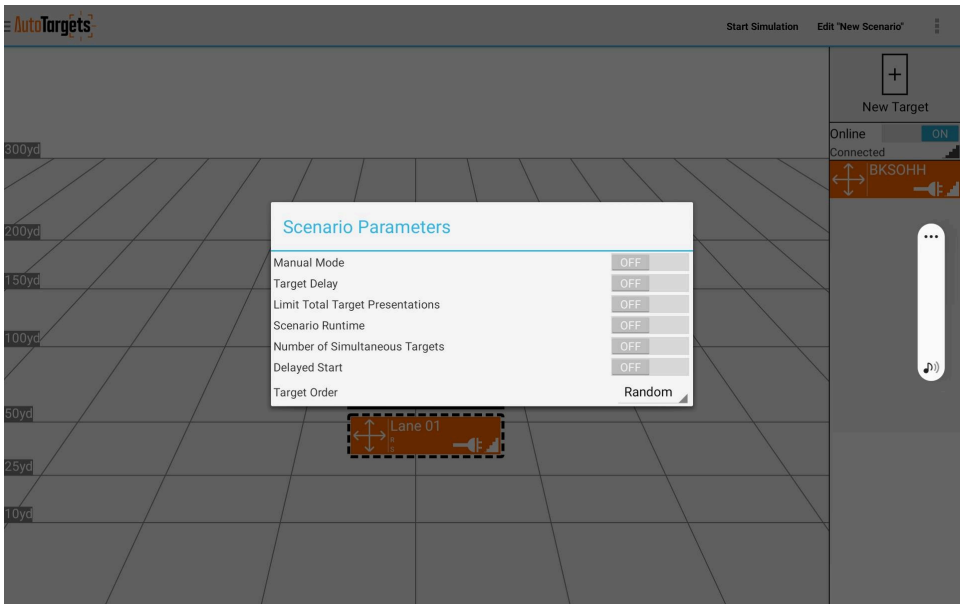
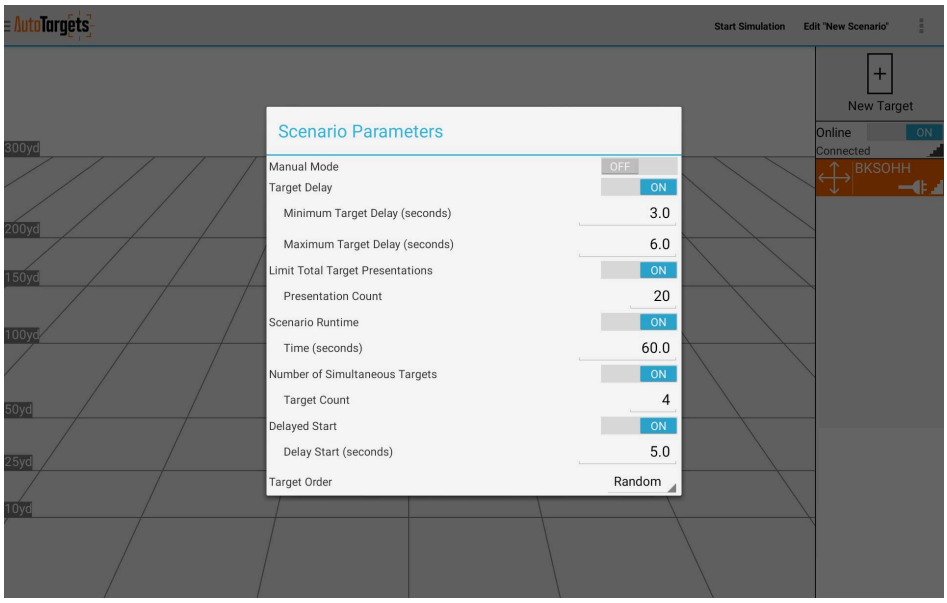
Usage

The Lane Control mode operates exactly the same as standard AutoTargets, with a few exceptions:

1) Only a single target is shown
2) The app is always “online” and your target is always bound
3) Scenario settings that require more than one target are hidden
4) Device Administration is not accessible





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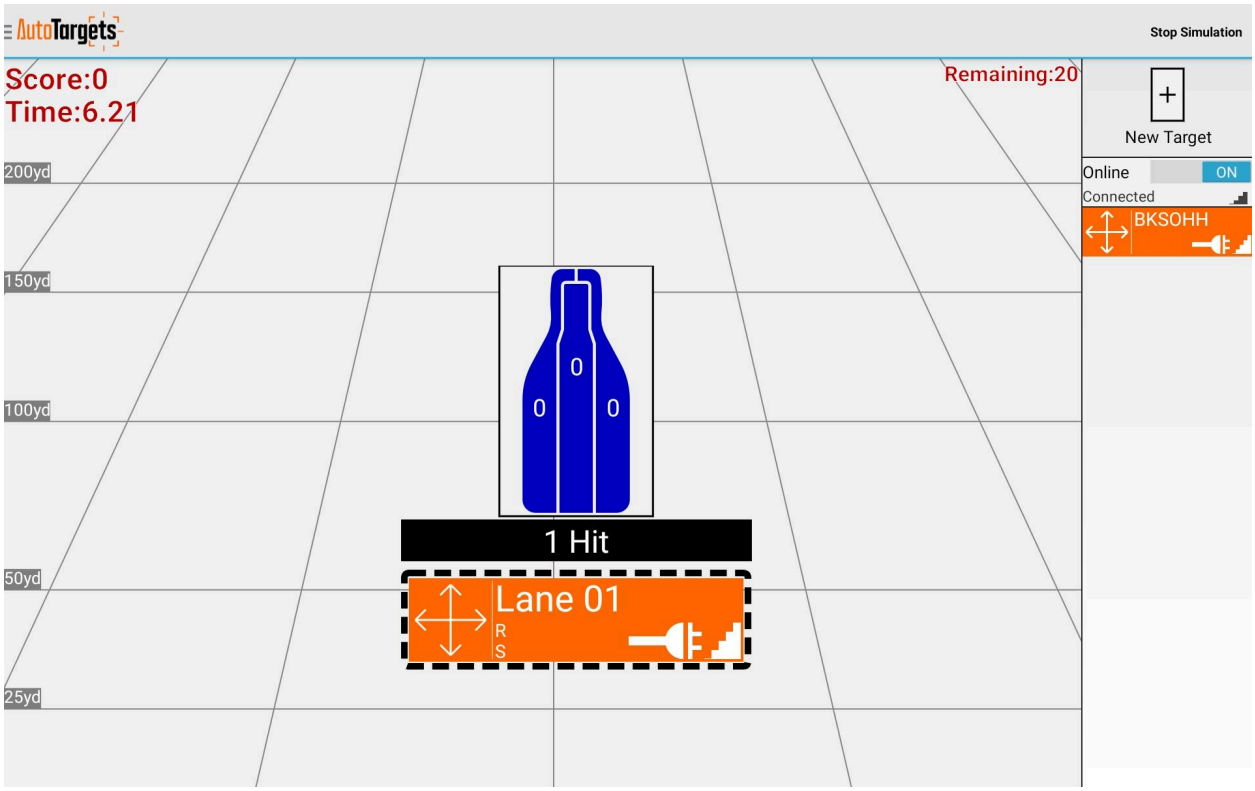

Save, run, and view the simulation log just as you would a multi-unit scenario.

Optimize courses of fire for single target drills such as:

- Draw speed (start with target presented, use delayed start)
- Reload drills (single presentation, two round to drop, reload between rounds 1 & 2)
- Reaction speed drills (unsure when the target will present)
    - Minimum Target Delay = 1s
    - Maximum Target Delay = 15s

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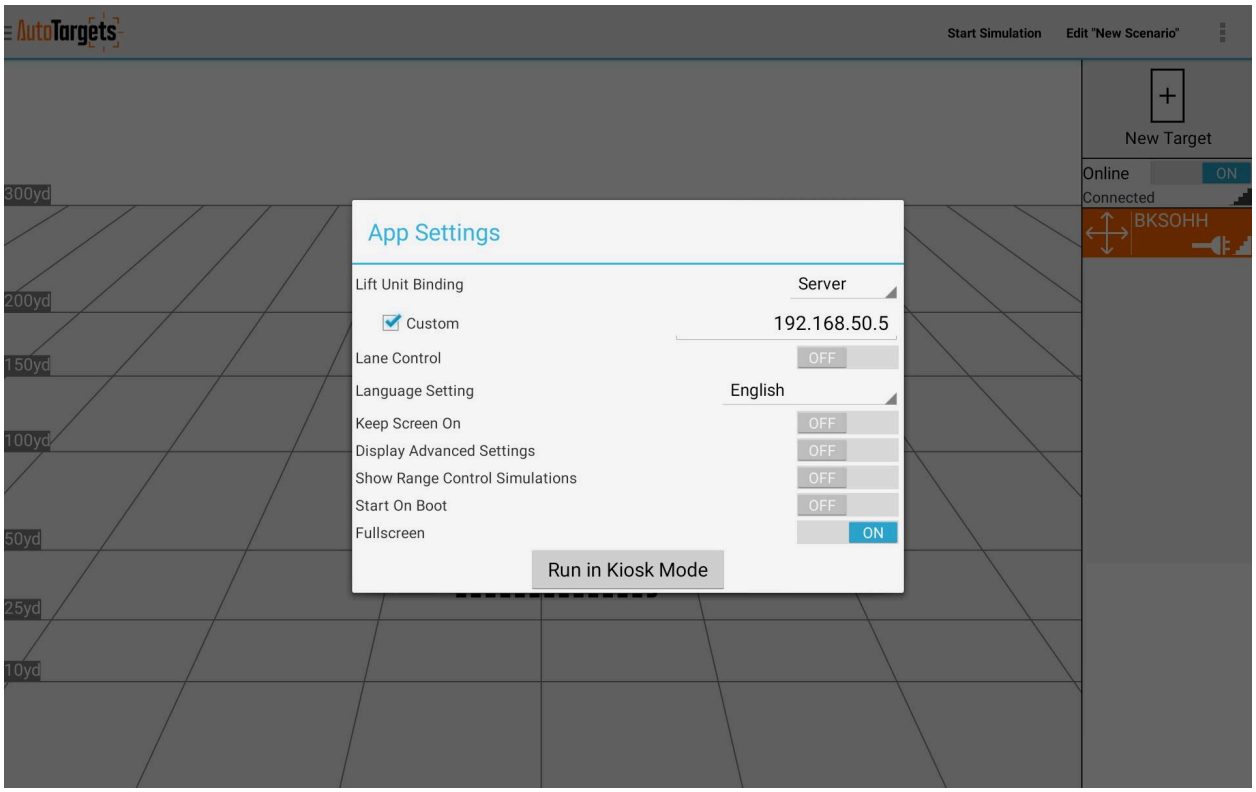
Range Control Server Integration

If your AutoTargets™ range includes Android tablets as well as a Range Control Server, you can access your Range Server from the Android tablets as follows:

Configuration



In “App Settings” specify “Lift Unit Binding = Server” and enter your server’s IP address (provided with installation documents).

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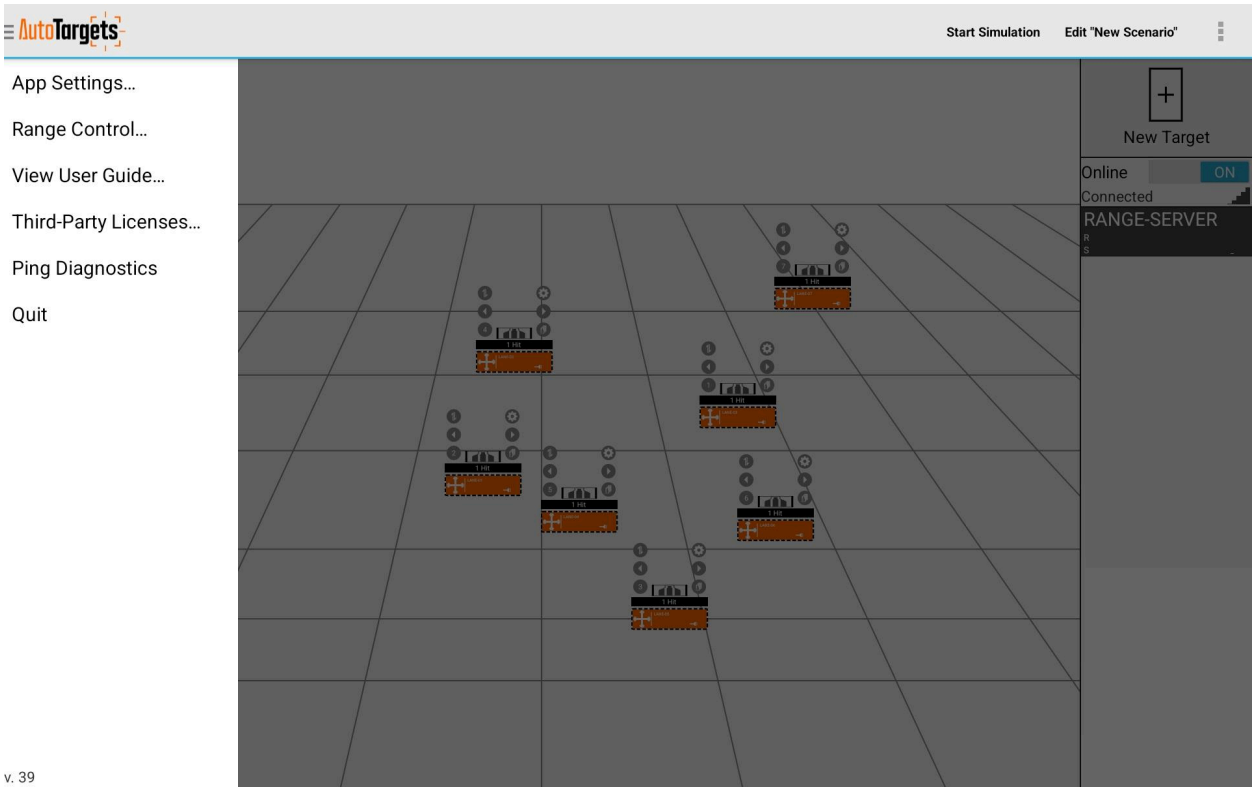
Usage

The “Range Control” menu item now appears. Tap to launch.



Now use the AutoTargets™ Range Control system as normal. See **AutoTargets™ Range Control User Guide** for details.

Typically the Android integration is used for Equipment Management operations. The user can:

- Power hardwired (PoE) AutoTargets™ devices ON and OFF in batches and individually (OFF only).
- Update device firmware*

NOTE: “UPDATE ALL” does NOT update a Range Server - Range Servers must be individually selected and updated using the “Update” button in its respective row.

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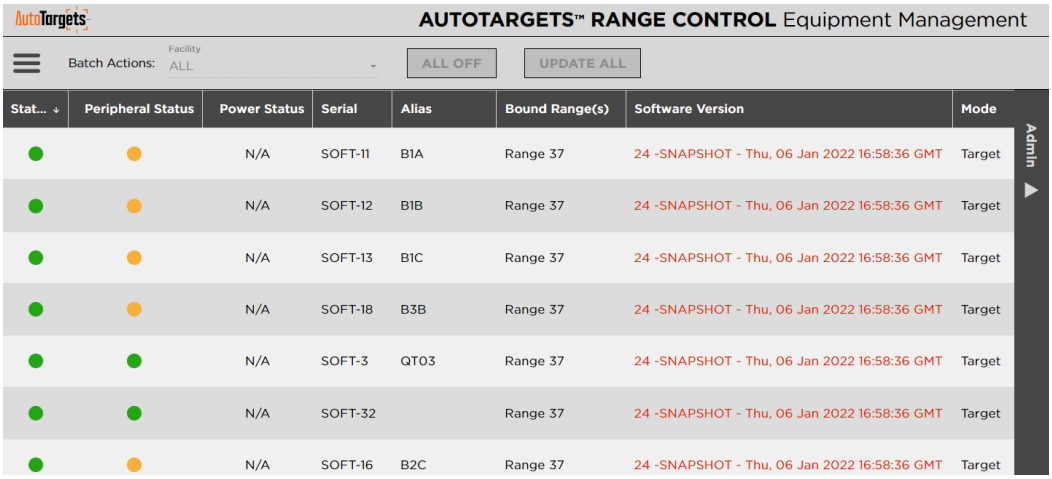
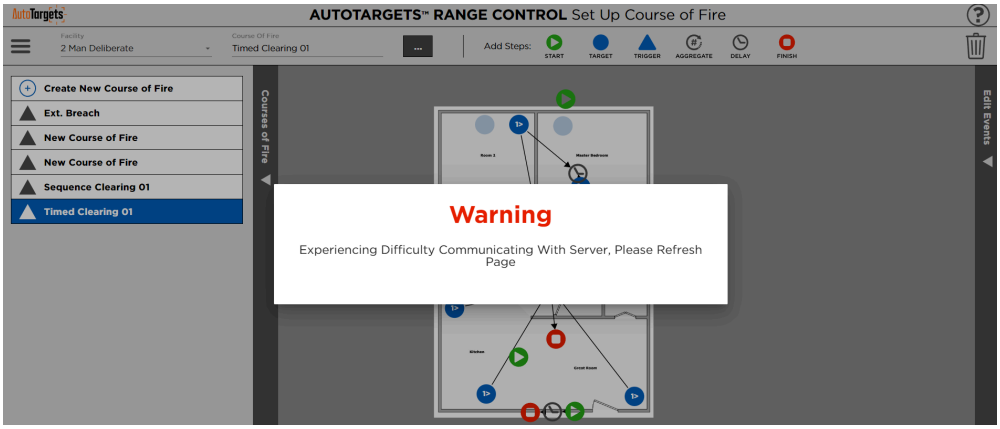


If your Android devices disconnects from WiFi (which may happen each time it is idle, locked, or sleeping), you will see a WARNING message indicating that it is unable to connect to the server. ***Simply Refresh the page using the menu in the top right:***



Automatic App Updates

For some installations (depending on Android version) the system supports automatic App updates from the Range Server.

If your device is supported, it will update at application start when a new app version is found on the Range Server.

This helps range staff efficiently update many tablets (such as is the case with Lane Control Interfaces) and ensures none are missed. ***This update is initiated by first updating your Range Control Server.*** See **AutoTargets™ Range Control User Guide** for details.

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Release Notes

26.20.33.p20

AutoTargets™ for Android

- Added random hit profiles for E-Type and F-Type target styles (1-3 hits, 1-5 hits)

25.20.32.p20

AutoTargets™ for Android

- Added Shuffle Mode: A cross between "Ordered" and "Random" scenarios. Scenarios set to "Shuffle" will let the system choose a random target presentation order which, after all targets have been completed, restarts from the beginning of the order

24.19.31.p19

AutoTargets™ for Android

- Improved formatting of Lift Unit admin screen
- Fix bug where Lift Units disappeared from side tray
- Fix bug where Lift Unit admin screen cannot be opened
- Changed zone hit sounds for FBI-QIT targets
- Changed the names of E-Type and F-Type hit profiles

23.18.30.p18

AutoTargets™ for Android

- Added support for new target styles, including FBI-QIT
- Added support for MTTS (Multi Target Technology System)
- Improved target graphics for E-Type and F-Type targets
- Added button for choosing target styles
- Added coloring schema for Lift Units based on status and software version
    - Orange - Lift Unit update available
    - Red - Peripheral Error / Updating

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    - Yellow - Incompatible Target Technology
- Added calibration guide for legacy Lift Units
- Minor bug fixes

21.16.28.p16

AutoTargets™ for Android

- Substantial performance improvements, allows for using more simultaneous smart devices
- New Random Hit Profiles (1-3 hits, 1-5 hits)
- E-Type Product Beta Testing
    - New Hit Profiles and target artwork for E-Type and F-Type targets
- Clean Up of Admin Settings tabs to improve user experience. Moved many settings into "Advanced Settings" option.
- New App Settings, features and modes:
    - Local Control Mode
    - Range Control Server Integration (for equipment management and dual-use)
    - Keep Screen On
    - Start On Boot
- Fixed occasional excessive hit noises
- Added "Quit" button to main menu
- Dragging and dropping device bars on the field auto-generates a target

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AutoTargets™ for iOS

iOS will no longer be supported due to Apple's application policies. The AutoTargets app is only available on Android devices.

AutoTargets™ Device Firmware (Lift Unit)

- Significant network communication performance improvements
- Significant stability improvements
- Enhanced Hardware & Architecture Support
    - New Lift Unit hardware revisions now support
    - E-Type Hardware Support
    - Dedicated Server mode for Linux server deployment

AutoTargets™ Range Control

- Full UI standardization
- Overhaul of "After Action" feature set
- "Range Management" features
    - Create your own ranges
    - Scale ranges based on image resolution and physical range size
    - Upload range graphics
- Improved robustness of PoE device handling subsystems
- Improved Course of Fire log performance for large courses of fire
- Added app .apk file hosting for automatic update of Android client devices (Lane Controls, etc)

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