







EDITOR'S NOTE

Training to keep your skills sharp is necessary to succeed in any profession. In law enforcement, however, it can mean the difference between life and death. Video-based simulation training has become a key solution for departments to expand the scope of their training without breaking the budget.

In this eBook, you'll learn the three main features to look for in a simulation system, as well as how simulation training can help prepare officers for active shooter response and appropriate use of force. You'll also read how one training officer is working to bring the technology he used to build a successful program at one department to his new agency.

- Nancy Perry, PoliceOne Editor-in-Chief

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ABOUT THE AUTHORS

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ABOUT THE SPONSOR

Laser Shot has led the cutting edge of virtual firearms training systems since 1999 and is the virtual range technology depended upon by the Federal Law Enforcement Training Center (FLETC). This same technology is used by departments and agencies worldwide in the form of Laser Shot's affordable, portable solutions, which feature the fastest setup time, smallest footprint and the largest judgmental scenario library available in the industry at over 900 and counting. Visit Laser Shot online for more information.





3 FEATURES YOU NEED IN A TRAINING SIMULATOR

Look for a system that is portable, easy to use and that provides a realistic experience, including weapons.

By Steve Tracy

Virtual reality training simulators are an excellent means of achieving training goals for police departments. Not every scenario ends with a "shoot" outcome. Scenarios can be resolved by means other than force, and virtual reality scenarios provide an excellent means of testing an officer's ability to use persuasive verbal commands and Crisis Intervention Team techniques.

Branching scenarios – where what's presented next is based on the officer's responses thus far – are what makes simulation training a realistic experience. When an officer gives the command, "Drop the knife!" and anticipates a response, the trainer has the option in real time of making the subject obey the directive or advance on the officer.

With a training simulator like a Laser Shot system, hundreds of scenarios, ranging from domestic calls to suspicious persons to building searches to active shooters, are at your instructors' fingertips.

To get the biggest bang for your buck while spending taxpayer dollars, look for these three features when choosing a training simulator for your department.

1

Small footprint

First, since training space is usually at a premium, a system with a small footprint that can be scaled to fit your department's available space is a definite advantage. While some departments have training rooms where a simulator can be stationed permanently, others may need to repurpose the space for classroom or physical tactics training or other uses.

This is where setup time is a critical feature in portable systems: It's the difference between spending valuable time training versus calibrating the system. Choosing the simulator with the fastest setup time will maximize the training your officers receive.

Your department only needs a room that can be darkened (preferably one without windows) where the computer/projector can be set up to establish a simulation station. Many systems include a screen or screens, but a white wall works just as well for projecting the video images. Systems with almost 360-degree surround screens are also available for full immersion.

Look for a system that is small and rugged so you can set it up for training anytime, anywhere. For example, Laser Shot's SimRange package includes the console (computer/projector), wireless tablet and router, simulated weapons, speakers and a carrying case.

2

Ease of use

The second consideration is ease of use. A system that's a hassle to set up and operate probably won't be used to its full potential. Look for a system that doesn't require a great deal of training or time to get up and running. For example, the SimRange can be set up and ready to use in 10 minutes.

As great as the interaction can be between an officer and the subjects projected on the screen, the ability to identify the strengths and weaknesses that become apparent during the exercise is of the utmost importance. Just going through the scenarios is not enough. A plug-and-play system that requires little to no training for the trainers means they can focus on instruction, feedback and evaluation, as well as after-action advice.

3

Realistic weapons simulation

Inert firearms that fire lasers to track shots (along with every option in the use-of-force continuum, such as electronic control devices, batons, handcuffs and OC spray) should be part of any simulation training system. Skeptics might question whether laser-based training provides enough muscle memory when it comes to weapons, but many simulated weapons provide recoil and lifelike sound effects for a realistic but safe experience.

Consider what kind of weapon simulation best fits your department's needs. For example, Laser Shot offers a variety of simulated firearms, including:

- Sensored: Provide data feedback to instructor for weapon state, aiming data and firing.
- Recoil: Use compressed air to action the bolt.
- Dry-fire: Simulated weapon without action or recoil (laser only).

The company also offers recoil conversion kits and laser modules to transform your own weapons into simulated recoil or dry-fire weapons.

Virtual reality scenario training offers a safe and scalable option for police departments to make sure their officers are prepared to handle life-or-death incidents in the real world. Choose a system that is durable, fits your available space, allows quick setup and easy use, and provides realistic weapons handling to take full advantage of this technology.



Branching scenarios offer an effective and economical means to prepare police officers for the rapid decision-making required to save lives and achieve a quick resolution.

By Steve Tracy

Law enforcement agencies today face great pressure to fully and continually train officers in a wide variety of responses, from computerized incident reports to sexual harassment training to Crisis Intervention Team training.

Perhaps most important is training to respond to an active shooter situation, where many lives are at stake and each second is critical.

The evolution of active shooter response

Since the Columbine shooting in 1999, the role of the patrol officer has changed dramatically. Rapid response training, in which patrol officers are trained to enter a building and confront the shooter, began just months later. Officers were taught to enter in pairs or diamond formation small groups and take the fight to the offender.

The rapid response approach took hold nationwide and transformed law enforcement's reaction to an active shooter incident from waiting for SWAT arrival to making quick entry to eliminate the threat as soon as possible.

Today's active shooter training emphasizes the necessity to engage the shooter as swiftly as possible, even if only a single officer is on scene. The public's expectation of quick confrontation and the fallout if it does not happen is evidenced by the aftermath of the 2018 Parkland school shooting, where the response was widely criticized as too little too late, and the local sheriff was suspended by the governor after parents accused him of failing to prevent the tragedy.

The goals of active shooter training

The key objectives of any activity-based training program are to induce a stress response, test the officer's decision-making and build officer confidence. Using a virtual reality training system with scenario-based simulations can help achieve all these goals.

For example, Laser Shot offers a library of more than 900 branching scenarios in its Judgmental Training Software to train officers for rapid decision-making in a wide variety of situations. Custom scenarios can also be filmed in public places within a department's jurisdiction, such as local schools or government buildings, providing ultimate realism based on worst-case scenarios that officers may encounter in the future.

Branching scenarios – meaning the outcome of the exercise changes based on the choices made by the instructor in response to the officer's actions – immerse officers in realistic portrayals of incidents lifted from recent headlines and FBI statistics. Each situation can be caused to branch in a multitude of options, allowing for an exponential number of variations.





Inducing a stress response

Active shooter training through virtual reality is able to induce psychological stress that is not usually available with other standard methods of training. Screaming and panicked victims and bystanders are real considerations that police officers deal with in genuine incidents. Explosions and gunfire are made more realistic with sound and special effects.

Faced with professionally written, acted and filmed scenarios that change according to how the officers react to the on-screen events, officers find themselves reacting as they would in real-life encounters – with raised voices, faster heartbeats, sweat and tunnel vision.

Many officers who have participated in virtual reality training and then faced a similar real-world incident have said that the experience felt just like the training.

Testing decision-making with varied scenarios

Virtual reality allows for training in multiple settings and situations, and the branching scenarios play out in reaction to officers' actions. Officers can respond to a school shooting or an office building attack in a safe training environment while still being confronted with victims, employees, bystanders and witnesses fleeing the building as they rush to make entry.

Running toward the sound of gunfire, bypassing the injured to address an active shooter and engaging the shooter are all decisions made by a trainee officer. An instructor can respond to each decision by choosing different branches of the video presentation in order to make the training unpredictable and as close to the real thing as possible.

Building officer confidence

The chief goal of any training program is to build the trainee's confidence in his or her skills, and that confidence is especially important when training to prevent a potential mass casualty incident. The realism and instant feedback available with simulation training that gives officers faith that they can handle a seriously dangerous response.

More bang for your buck

A police department would be hard-pressed to achieve the level of training that can be achieved with a simulator. The ability to organize together enough people and equipment to simulate a realistic active shooter incident at a real-world location would be an enormous task at an extraordinary cost.

Simulation training offers a much more efficient way to conduct active shooter training. The system can be used during any shift, and officers can attend the training in place of their regular duty time if staffing allows. Individual officers can go through numerous scenarios (school, office, warehouse, etc.) in a relatively short amount of time.

To keep it fresh, software updates with new scenarios will continue to make the training unpredictable – just like a real shooter – even after an entire department's staff has gone through the training several times.

Virtual reality simulation training using branching scenarios offers an effective and economical means to prepare police officers for an active shooter, especially the rapid decision-making required to save lives and achieve a quick resolution.





Training to reduce use of force through simulation

Scenario-based training provides an active learning process to help officers know when it is necessary to use force in the field.

By Steve Tracy

Use of force is often debated, but it remains a necessary option for officers. The public requires trust in their protectors and demands that the police use only the force necessary to make an arrest or stop a deadly assailant. Consistent training is needed to make sure officers understand when and how to apply the use of force.

Training to reduce the use of force is difficult to teach in a classroom or roll call environment. The idea of proper use of force can be taught in a teacher/student setting and a written test can be given, but receiving a 100 percent score on a written test is not a true measure or indicator of an officer's future performance in the field.



Testing decision-making with simulation training

It's one thing to pass a written test and another to make the right choices under stress in a reality-based scenario. Simulation training offers a realistic experience to test each officer's ability to make use of classroom training as he or she makes decisions in the moment. Simulation training requires officers to demonstrate what they know in action. Participants often exhibit physical stressors during the training, which makes it a realistic and valuable teaching tool.

Judgmental training software that provides a variety of scenarios with different outcomes can be tailored to the officer's actions to keep things unpredictable, just as they are in the field. An instructor observing an officer's verbal commands and physical interaction (such as movement, hand gestures and presentation of weapons) can choose different branches of the scenario to test the trainee's responses.

For example, if an officer asks a subject to take his hands out of his pockets, the instructor can respond by pressing a command key to cause the subject on the screen to remove his hands from his pockets.

Other options may include having the subject withdraw a knife or a gun from his pocket, or an ordinary item like a cellphone or a pack of cigarettes.

How the trainee responds will help identify if further training is necessary or if the officer is equipped to handle calls in a manner that ensures his or her own safety and the safety of others. Simulation allows mistakes to be made during training instead of in the field, helping officers to only use force when necessary and lawful.

Teaching command presence

While virtual reality training may be thought of as simply shoot/don't shoot, it is much more than a Hogan's Alley video game. Officers immersed in the training scenario can have access to an impact weapon, handcuffs, OC spray, an electronic control device or a firearm (pistol, rifle or shotgun). All of these tools mimic what the officer carries every day, and how he or she chooses to use any of them is a critical part of the training.



However, the most powerful item in an officer's toolbox is his or her voice. Appropriate verbal commands can often de-escalate situations, and virtual reality training can remind officers that their verbal direction works. For example, the instructor may choose to have a virtual subject comply with an officer's order to drop a gun or knife if the instructor feels that the trainee has demonstrated significant command presence.

Research by the Federal Law Enforcement Training Centers found that an individual officer who demonstrates command presence is likely to have a 99 percent success rate handling incidents. Virtual reality video instruction is an excellent tool for teaching command presence, says Dr. Terry Wollert, who holds a certification from the Force Science Institute in the analysis of use-of-force incidents and works with Laser Shot to develop its interactive simulation scenarios.

"A lack of command presence will result in a 99 percent failure rate," said Wollert. "Officers who speak with a strong, authoritative tone and have knowledge of the law exhibit command presence."

Simulation training enables the evaluation of command presence with a consistent set of stimuli. Instructors should strive to be as objective as possible in this evaluation and look for a lack of authoritative tone, along with a degree of hesitation and poor non-verbal body cues as signs that officers are questioning themselves, he adds.

Simulation scenarios also provide a good opportunity to teach situational commands. For example, officers can be educated that the command "Take your hands out of your pockets" may give a suspect the opportunity to retrieve a weapon and cause on officer to shoot. But the command to "Turn around and face away from me," followed by further instruction to "Slowly show me each of your empty hands, one at time" keeps the officer in charge.

If a suspect quickly takes his hands out of his pockets (whether armed or unarmed) in this scenario, the suspect is still violating the officer's command, and further action – potentially including force – is needed.



Providing consistent training and evaluation

Simulation training also provides a more consistent experience, Wollert says, because any sense of competition between instructor and trainee is removed. Although there is still an element of judgment in choosing how the scenarios play out, having an established library of outcomes allows instructors to know exactly what can happen in each episode and repeat as needed. This helps instructors evaluate specific skills as objectively as possible for each trainee.

Instructors can help identify officers' strengths and weaknesses via playback of the finished scenario, showing where officers' bullets struck or missed. Asking officers after each scenario, "What did you do and why did you do it?" provides practice that aids officers in writing good reports in the field.

Another advantage of simulation training is the ability to replay a real-life situation after the fact. After-action analysis helps officers understand how

and why they make decisions in the moment, and if necessary, change tactics for a better outcome.

Learning by doing

One of the best ways to learn is by doing. Having officers performing the actual task and providing instant after-action feedback is a key training strategy to help officers know when their response to resistance meets a proper level where force becomes necessary. When officers encounter calls that require quick decision-making regarding use of force, they should have a "been there, done that" confidence that they have the tools to handle the situation.

Classroom instruction only goes so far. Scenario-based virtual reality training provides an active learning process where officers can get instant feedback on how they handle the most volatile types of encounters they are likely to face. This "learning by doing" approach helps build confidence to help officers to make the right decision regarding the use of force in response to resistance.





ONE OFFICER'S STORY

Capt. Michael Curry appreciates the realism, flexibility and cost savings offered by Laser Shot's training simulator.

By Rachel Zoch

Capt. Michael Curry discovered simulation training almost by accident. As a training officer with a suburban department in the Houston area, he found that the agency had purchased the Laser Shot training platform but wasn't making full use of it.

Curry started exploring what Laser Shot had to offer, first by using the platform to boost marksmanship. He worked with the department's firearms instructors to create a laser-based course to help officers struggling with their shooting qualification by providing training in a dry-fire environment at the station.

This effort yielded positive results right away, from greater control and customization of the training program to cost savings from reduced range fees and officer overtime.

"No. 1, the cost-benefit analysis for using laser-based training versus live was the biggest issue," said Curry. "I could get more bang for my buck using the laser-based program."

Improving training without increasing costs

Because the department didn't need to worry about scheduling, overtime, travel to the range or ammunition expenses, officers were able to get as much training as they needed to boost their skills.

"We had very good success with this technique because it allowed us to get numerous numbers of rips and rounds down range in a very short period, without having to do all the scheduling," he added. "We were able to actually train officers on shift so they didn't need to be paid overtime."

In addition to improving officer performance and reducing expenses, using in-house simulation training also enabled the department to keep officers at the station so they could respond quickly when needed.

"We were able to actually practice in the building," Curry said, "so if something did happen, we would just put the toys down, pick up our real guns and then respond accordingly."

The small footprint and mobility of the Laser Shot system provided a great deal of flexibility for the department.

"It allows you to create a training environment just about anywhere," Curry said. "You can pick it up, put it in a case with all of the tools, take it anywhere and set it up."

Creating custom scenarios to train for local issues

Once he saw the positive impacts of simulation training, Curry began to expand the program, including working with Laser Shot to develop custom scenarios to train for specific local issues.

"We used every bit of the training apparatus. We used the judgmental scenarios. We used the games and the core skills drills to work on handling and marksmanship," he said. "Just about everything they had to offer, I found a way to use it."

Laser Shot collaborated with Curry and his team to create custom local scenarios, based on the agency's specific needs and goals, with the department's officers acting as role players. Being able to customize the scenarios is a key benefit, Curry says, and he appreciates that the company was willing to work with him to develop the custom scenarios when he didn't see what he wanted in their existing catalog.

"We had a good working relationship, and they were able to make those scenarios come to life for us," Curry said. "They were always open to suggestions and feedback."

Bringing simulation training to a new agency

Based on those experiences, Curry says it only made sense to bring Laser Shot's training technology to his current agency, which serves a rural college campus about 45 miles north of Houston. He joined in the agency in late 2017 and hopes to have the system in place by June 2019.

To get ready for the simulator's rollout, Curry is developing a three-stage process for all the

department's officers that includes moving drills and advanced weapon handling drills in both the dry-fire laser environment and live-fire drills.

"The goal is to use the Laser Shot training to get all our officers to an 80 or 90 percent threshold for marksmanship qualification and to maintain that into perpetuity," he said. "It's to get everybody comfortable doing what they need to do so that they are as accurate as they possibly can be when handling their firearms."

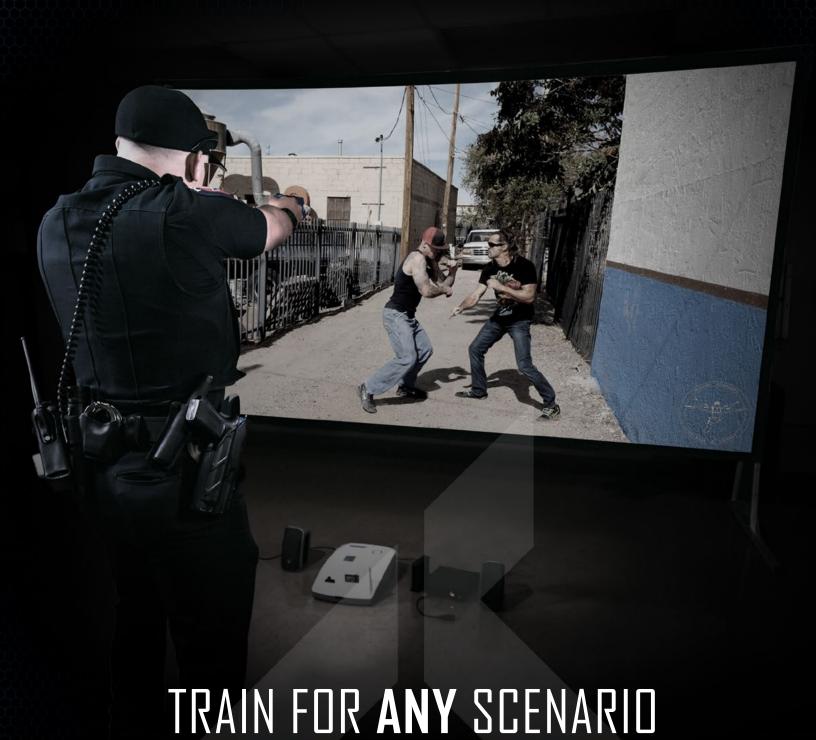
He also envisions using the judgmental branching video scenarios for decision-making training and evaluation.

"I've put a sergeant into the environment, had them respond to whatever shows up on the screen in front of them, and then begin to walk through the incident command portion of the event," said Curry. "So after all of the shooting is done – if shooting was even necessary – now let's begin to discuss and evaluate the thought process on what needs to happen next."

A key benefit of the judgmental branching scenarios, he says, is the opportunity to understand what the officer is thinking about and help him or her navigate possible responses. The instructor is then able to evaluate the trainee's thought process as well as his or her performance in the exercise.

Curry also appreciates the realism provided by the Laser Shot simulator because he says it helps officers experience life-or-death situations in a controlled training environment.

"As a police trainer, I should be able to recreate the adrenaline, the feeling, the rush, the fear, in a scenario-based environment that causes you to think so you have the tools to operate in the realworld environment," he said. "I call it putting these tools into the mental Rolodex of the officer. You should have made whatever mistakes you're going to make in training and talk them through so you have the tools in your mental Rolodex to respond appropriately."



LASER SHOT SIMULATIONS

