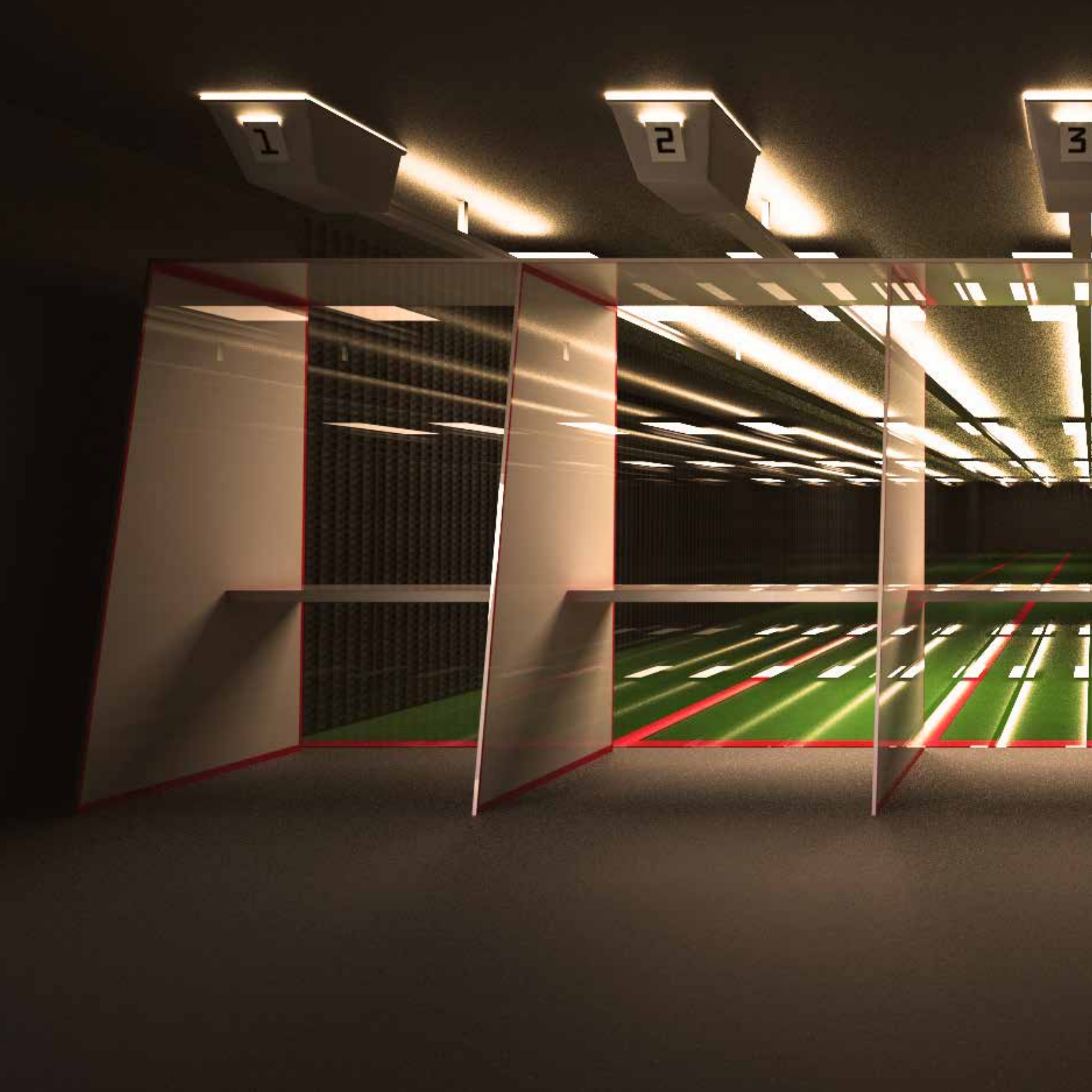




# SMART

SMALL ARMS TRAINER





SMALL ARMS TRAINER

## *ADVANTAGES*

- Compact, portable, rugged and easy-to-install
- Realistic and affordable training
- Live feedback and After Action Review
- Accurate ballistics with wind effects
- Customizable targets and scenarios
- Training scenarios from basic to advanced marksmanship skills
- Visible/invisible laser support
- EBB/GBB Airsoft pistol and gun compatible

## ***HARDWARE COMPONENTS***

- 3 meter wide projection screen
- Ruggedized 7U rack
- Laser detection camera
- Portable simulation computer
- Stereo speaker
- 1920 x 1080 projector
- Miscellaneous cables/connectors



## ***SOFTWARE CAPABILITY***

AUTOMATIC CALIBRATION

TRAINEE MANAGEMENT

TARGET MANAGEMENT

WEAPON MANAGEMENT

VIDEO CONTENT MANAGEMENT

SCENARIO MANAGEMENT

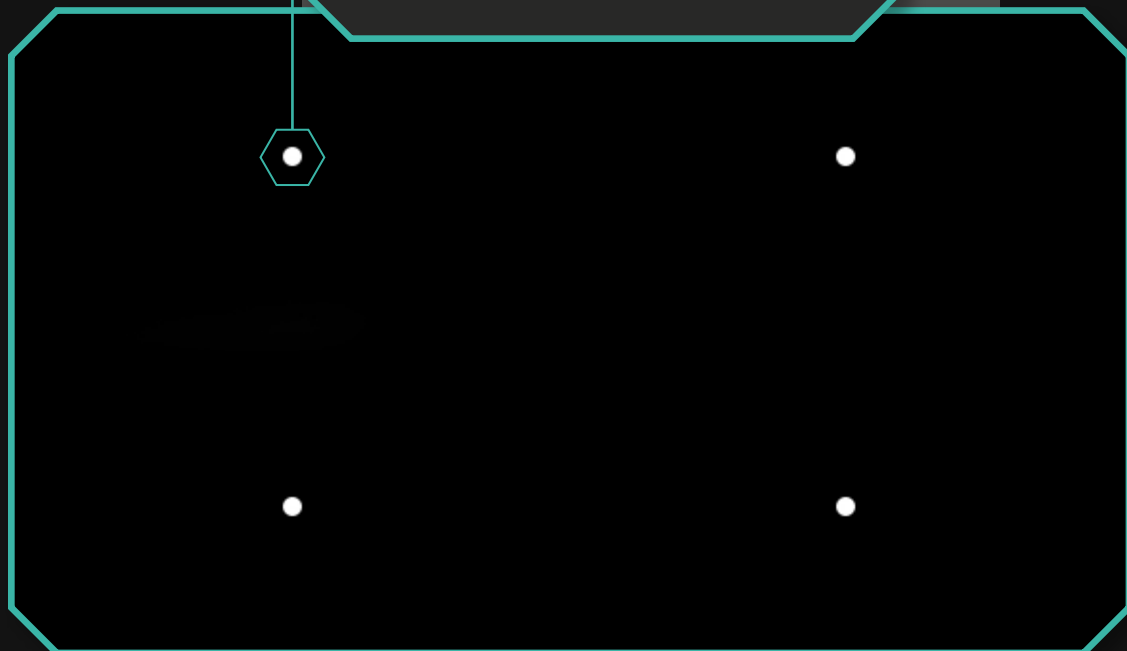
DEBRIEFING AND ANALYSIS



## ***AUTOMATIC CALIBRATION***

System automatically detects and calculates the screen to tracker coordinates and calibrates itself in a few second with just one click

Calibration points are detected automatically



# TRAINEE MANAGEMENT

## TRAINEE MANAGEMENT

Back

Candef Ailıldız



Beha Börü



Kamil Veriştirici



Engin Güllü



Kurtuluş Köleniş



Profile Photo



Import Photo

ID	z
Registry ID	123456789
Name	Beha
Surname	Börü
Unit	1234567 +
Subunit	1234567 +

New Trainee

Delete

Adding/Removing/Editing trainee records which will be associated with each scenario run in order to be used for evaluating the personal training achievements.

Customizable unit and subunit based categorization providing trainee groups from troops to classmates.



# TARGET MANAGEMENT

## TARGET MANAGEMENT

FixedRing

FlexibleRing

HeadTorsoType2

HeadTorsoType1

Enemy00

Silhouette

Hostage

New Target Delete

Target Name	Hostage
Width	100
Height	100
Import Image	
Shape Type	Circle
Score Point	Point
Layer Index	Index
Friendly	<input type="checkbox"/>
Add Shape	

Layer Index: 4  
Friendly  Remove

Shape Type: Polygon  
Score Point: 4

Layer Index: 5  
Friendly  Remove

Shape Type: Polygon  
Score Point: 4

Layer Index: 6  
Friendly  Remove

Shape Type: Polygon  
Score Point: 10

Score Point: 10  
Layer Index: 7  
Offset: X [0] Y [0]  
Friendly



Back

Expandable targeting contents for any specific needs compatible with commonly used image formats

# TARGET MANAGEMENT

## TARGET MANAGEMENT

**FixedRing**  **FlexibleRing**  **HeadTorsoType2**  **HeadTorsoType1**  **Enemy00**  **SifFrame**  **Hostage**

**Target Name:** FixedRing  
**Width:** 100  
**Height:** 100

**Shape Type:** Circle  
**Score Point:** Point  
**Layer Index:** Index  
**Friendly:**

**Shape Type: Capsule**  
**Score Point 1:**  
**Layer Index 1:**  
**Friendly:**

**Shape Type: Capsule**  
**Score Point 2:**  
**Layer Index 2:**  
**Friendly:**

**Shape Type: Capsule**  
**Score Point 3:**  
**Layer Index 3:**  
**Friendly:**

**100 CM** **100 CM**

**Direction:** Vertical  
**Size:** X: 100 Y: 100  
**Distance Center:** X: 0 Y: 0  
**Segments:**   
**Score Point:**  
**Layer Index:** 1  
**Friendly:**

Adaptable hit areas in any shape and scoring points with friendly-foe distinction

# WEAPON MANAGEMENT

## WEAPON MANAGEMENT

[Back](#)

HK G-9

MPT-76

HK-33

Glock 17

Sig Sauer 320

Searsmeiz King 200

[New Weapon](#)[Delete](#)

Name

HK G-9

Choose Weapon Type

Pistol

Magazine Capacity

15

Muzzle Velocity

300

Ballistic Coefficient

0.1

[Zeroing](#)

Expandable weapon list with pistol & rifle distinction.

Customization for modelling purposes with magazine capacity, muzzle velocity and ballistic coefficient in order to simulate the ballistic shots.

# VIDEO CONTENT MANAGEMENT

## Video Management

The screenshot displays a video management interface with the following components:

- Left Panel:** A vertical list of video assets, including 'Video1', 'VideoCircle', 'VideoStar', and various scene plans (e.g., 'Sahne-1-Intro', 'Sahne-1-Plan-1', 'Sahne-2-Intro', 'Sahne-2-Plan-1', 'Sahne-3-Intro', 'Sahne-3-Plan-1', 'Sahne-3-Plan-3', 'Sahne-4-Intro', 'Sahne-4-Plan-1', 'Sahne-4-Plan-4', 'Sahne-4-Plan-5'). Each item has a plus icon for expansion. At the bottom are 'New Video' and 'Delete' buttons.
- Top Center Panel:** Metadata fields for the selected video: 'Video Name' (Sahne-3-Plan-1), 'Related Video' (Empty), 'Shape Type' (Circle), 'Score Point' (Point), 'Layer Index' (None), 'Action Video' (Empty), 'Duration' (Second), and 'Friendly' (checkbox). A 'Add Shape' button is present.
- Right Panel:** A video player showing a warehouse scene with a person circled in green. Below the player is a configuration panel for the hit area, including 'Direction' (Circle), 'Size' (X: 163000, Y: 370000), 'Distance Center' (X: 343500, Y: 244750), 'Segments' (slider), 'Score Point' (None), 'Layer Index' (1), 'Friendly' (checkbox), 'Duration' (slider), and 'Action Video' (Sahne-3-Plan-2-1). To the right of this panel is an 'Action Videos' list with items like 'bahawmiv', 'sahne 2-plan 3-oldun.mp4', 'sahne 2-plan2-hedef', 'sahne 3-plan-2-1gc uunlur.mp4', and 'sahne 6-plan 2-feronist', each with a plus icon. 'Used Video' and 'Delete' buttons are at the bottom right.
- Bottom Center Panel:** A list of properties for the hit area: 'Shape Type: Circle', 'Score Point: None', 'Layer Index: 1', 'Friendly', 'Action Video: sahne 3-plan-2-1gc', and 'Duration: 1'.

Expandable video content for any specific needs compatible with commonly used video formats Adaptable hit areas in any shape with friendly/foe distinction

**SCENARIO MANAGEMENT**

Editable scenario content in a range of trainees, targets, duration, weapons, environmental conditions, ballistics and success criterias



# SCENARIO MANAGEMENT

The screenshot displays the Scenario Management software interface. On the left, a vertical menu lists scenario types: FIXED TARGET, MOVING TARGET, SNAP TARGET, RAPID THINKING, SHOOTING TREE, and RUNNING MAN. The main area shows a 3D training scenario titled "Basic Fixed-target marksmanship training scenario. Shooters". Below the scenario preview, there are controls for "New", "Save", "Save As", "Load", and "Delete". The "Scenario Name" is set to "Tamer's Role". The "Number of Shooters" is set to 2, with two shooter avatars visible. The "Choose Target" dropdown is set to "Head/Neck". The "Target Range" is 500, "Choose Weapon" is "M4", "Ammo Count" is 200, "Time Limit" is 60, and "Shooter Position" is "Standing". The "Environmental Conditions" section includes "Choose Env" (set to "Sun"), "Weather Con." (set to "Sun"), and "Light Intensity" (set to 100). A "Trainee Selection" pop-up is open, showing a list of trainees: "No Selection", "Candaş Alyıldız", "Beha Börü", and "Kamil Yetiştirici". The "Candaş Alyıldız" option is selected. The "Success Criteria" section is also visible on the right. A "Start Exercise" button is at the bottom right. The SDT logo (SPACE & DEFENCE TECHNOLOGIES) and a "Back" button are at the bottom left.

## Trainee Selection

Trainee selection from trainee management database

# SCENARIO MANAGEMENT

The screenshot displays the Scenario Management interface. On the left is a sidebar with scenario categories: FIXED TARGET, MOVING TARGET, SNAP TARGET, RAPID THINKING, SHOOTING TREE, and RUNNING MAN. The main area shows a 3D view of a training range with two targets. Below the view is a description: "Basic Fixed-target marksmanship training scenario. Shooters aims Fixed targets at a defined range." A control panel includes buttons for New, Save, Save As, Load, and Delete. The Scenario Name is "Emergency Response". The Number of Shooters is set to 2, with avatars for "Head Torso" and "Head Torso". The Choose Target dropdown is open, listing options: FixedRing (checked), FlexibleRing, HeadTorsoType2, HeadTorsoType1, Enemy00, Sifirlama, and Hostage. Environmental Conditions include Choose Env, Weather Con, and Light Intensity. Other settings include Target Range, Choose Weapon, Ammo Count (20), Time Limit (60), and Shooter Position (Standing). A "Back" button is at the bottom left. The SDT logo (SPACE & DEFENCE TECHNOLOGIES) is also visible.

## Target Selection

Target selection from target management database

# SCENARIO MANAGEMENT

10 meters

50 meters

## Target Range

Target range selection 10 meters to 200 meters

The image displays the SDT (Shooting Drills Trainer) software interface. On the left, a vertical menu lists target types: FIXED TARGET, MOVING TARGET, SNAP TARGET, RANDO THINGS, SHOOTING TREE, and RUNNING MAN. The main window shows a 3D training scenario with two targets on a field. Below the 3D view, there are controls for Scenario Name, Number of Shooters, and various parameters like Environmental Conditions, Ballistic Parameters, and Success Criteria. A callout box highlights a dropdown menu for target range selection, showing options from 10 m to 500 m, with 50 m selected. Another callout box highlights the '10 meters' option in the scenario management interface.



# SCENARIO MANAGEMENT

The screenshot displays the Scenario Management interface. On the left, a vertical menu lists target types: FIXED TARGET, MOVING TARGET, SNAP TARGET, RAPID THINKING, SHOOTING TREE, and RUNNING MAN. Below this menu is the SDT logo (SPACE & DEFENCE TECHNOLOGIES) and a 'Back' button. The main area features a 3D rendering of a training range with two targets. Below the rendering, a text description reads: 'Basic fixed-target marksmanship training scenario. Shooters aims fixed targets at a defined range.' A toolbar contains buttons for 'New', 'Save', 'Save As', 'Load', and 'Delete'. The configuration panel includes a 'Scenario Name' field (set to 'Saharya Range'), a 'Number of Shooters' dropdown (set to '2'), and two shooter avatars. The 'Choose Weapon' dropdown is open, showing a list of weapons: HK G-3 (selected), MPT-76, HK-33, Glock 17, Sig Sauer 320, Sarsilmaz Kiling, and TEST. Other sections include 'Environmental Conditions' (Choose Air, Weather Con, Light Intensity), 'Ballistic Parameters' (Wind direction, Wind Speed, Temperature, Humidity, Grn. Deviation, Headwind), and 'Success Criteria' (Add Criteria, Success Rate, Time Limit, Max Hit Distance). A 'Start Exercise' button is located at the bottom right.

A circular callout highlights the 'Choose Weapon' dropdown menu. The menu is open, showing a list of weapons with checkmarks next to the selected options. The list includes: HK G-3 (checked), MPT-76, HK-33, Glock 17, Sig Sauer 320, Sarsilmaz Kiling, and TEST. Below the list is a 'Standing' option with a downward arrow.

**Weapon Selection**

Weapon selection from weapon management database

# SCENARIO MANAGEMENT

day light

SDT  
SPACE & DEFENCE TECHNOLOGIES

low light

**Environmental Conditions**

- Choose Env.: outdoor
- Weather Con.: Sunny
- Light Intensity: [Slider]

**Target Movement**

- Speed: [Slider]
- Appearance Time: [Slider]
- Duration Time: [Slider]

## Environmental Conditions

- Environment selection (Indoor/Outdoor)
- Weather conditions (Sunny/Rainy/Foggy)
- Configurable lighting conditions

# SCENARIO MANAGEMENT

## Ballistic Parameters

Wind Direction 90

Wind Speed 15

Temperature 20

Altitude 0

Atm. Pressure 1

Humidity 40



## Ballistic settings

Editable ballistic parameters (according to scenario type)

- Wind Direction
- Wind Speed
- Temperature
- Altitude
- Atmospheric pressure
- Humidity

# SCENARIO MANAGEMENT

The screenshot displays the Scenario Management interface. On the left, a vertical menu lists scenario types: FIXED TARGET, MOVING TARGET, SNAP TARGET, RAPID THINKING, SHOOTING TREE, and RUNNING MAN. The main area shows a 3D rendering of a training range with two targets. Below the rendering, there is a description: "Basic Fixed-target marksmanship training scenario. Shooters aims fixed targets at a defined range." A toolbar includes buttons for New, Save, Save As, Load, and Delete. The configuration section includes fields for Scenario Name (set to "Benings Ape"), Number of Shooters (set to 2), and a "Choose Target" dropdown (set to "Standing"). Environmental conditions are adjustable, including "Choose Wpn.", "Weather Con.", and "Light Intensity". A "Ballistic" section is also visible. A "Success Criteria" panel is highlighted in a circular callout, showing a list of criteria: "Choose Criteria" (checked), "#Rounds/Hit", "Total Point", "Max Hit Diameter", and "Max Accomplish Time". The "Max Hit Diameter" is currently set to 30. The SDT (SPACE & DEFENCE TECHNOLOGIES) logo and a "Back" button are located at the bottom left of the interface.

## Success criteria

Defining success criterias in order to evaluate mission accomplishment for each trainee

- # Rounds/Hit
- Total Point
- Max Hit Diameter
- Max Accomplish Time
- Friendly Fire
- Reaction Time

# SCENARIO MANAGEMENT

The screenshot displays the SDT Scenario Management interface. On the left, a vertical menu lists scenario types: FIXED TARGET, MOVING TARGET, SNAP TARGET, RAPID THINKING, SHOOTING TREE, and RUNNING MAN. The main area shows a 3D rendering of a training scenario with two targets in a field. Below the rendering, there are buttons for 'New', 'Save', 'Save As', 'Load', and 'Delete'. A 'Scenario Name' field contains 'Sahyog Raj'. A 'Number of Shooters' dropdown is set to '2', with two shooter avatars shown. Below this are sections for 'Choose Target', 'Environmental Conditions' (with sub-sections for 'Choose W...', 'Weather Con...', and 'Light en...'), 'Ballistic Parameters' (with 'Wind direction' and 'Wind Speed'), and 'Success Criteria' (with 'Add Criteria').

**SDT**  
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Back

Choose Target

Target Range 10 m

Choose Weapon HK G-3

Ammo Count 20

Time Limit 60

Shooter Position St...

## Miscellaneous settings

- Ammo count constraint (Limits maximum shot fired )
- Time limit constraint (Limits mission accomplishment time)
- Shooter position (according to scenario type)
- Target movement (according to scenario type)

## DEBRIEFING & ANALYSIS

### DEBRIEFING & ANALYSIS

Back

Listing Criteria

Scenario based listing

Scenario Name	Type	Record Date
Indoor	3D TACTICAL INDOOR	12/6/2018 9:27:35 AM
Indoor	3D TACTICAL INDOOR	12/6/2018 9:34:42 AM
Indoor	3D TACTICAL INDOOR	12/6/2018 9:34:25 AM
Indoor	3D TACTICAL INDOOR	11/29/2018 5:46:34 PM

Select Record

Delete

- Lists all scenario runs with various filtering options
- Calculates trainee rankings from over all to groups

**DEBRIEFING & ANALYSIS**

## DEBRIEFING &amp; ANALYSIS

Back



Candey Ayıldız

Beha Boru

Kamil Yigitcici

Print

- Lists all attended scenarios for each trainee
- Lists each trainee accomplishment status with visual aids and success criteria pass/failed results

# ***BUILT-IN TRAINING CONTENT***

## BASIC TO ADVANCED MARKSMANSHIP

FIXED, MOVING, SNAP TARGETS

SHOOTING TREE, RAPID THINKING

TARGET CLASSIFICATION AND PRIORITIZATION

RUNNING MAN

## TACTICAL TRAINING

3D GRAPHICS

VIDEO BASED





# FIXED TARGETS TRAINING



Basic marksmanship training in order to train in aiming, triggering and breath holding

Ballistic shots according to the environmental conditions and weapon characteristics

Allows up to 5 trainees at the same time

## MOVING TARGETS TRAINING



Aims to improve basic skills with moving targets

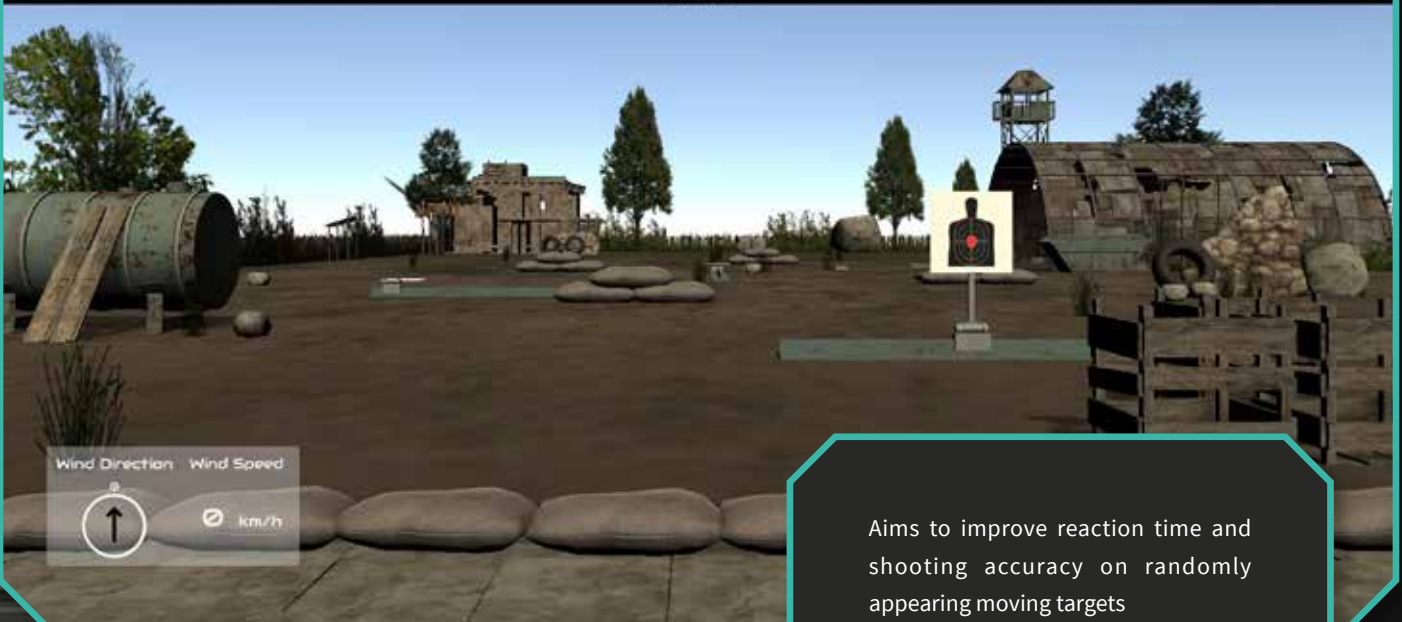
Moving targets configurable in up/down directions with various speeds

Moving targets with configurable appearing/disappearing behavior with various durations

Allows up to 5 trainees at the same

BUILT-IN TRAINING CONTENT

## ***SNAP TARGETS TRAINING***



Aims to improve reaction time and shooting accuracy on randomly appearing moving targets

Moving targets configurable in various directions, speeds and durations

Ballistic shots according to the environmental conditions and weapon characteristics

One trainee at a time

# RAPID THINKING TRAINING

HIT: 10  
MISS: 10  
FIRE: 10

SCORE: 0

36

Candağ Alyıldız

HIT: 12  
MISS: 10  
FIRE: 12

SCORE: 1

34

Beha Börü

HIT: 10  
MISS: 10  
FIRE: 10

SCORE: 0

36

Kamil Yetiştirici

1

2

3

4

5

3	13	4	18	29	19
22	15	30	1	16	28
21	5	27	12	7	8
26	23	10	11	17	31
33	9	6	25	34	24
2	36	20	32	14	35

35	19	6	18	1	24
29	33	28	3	16	30
31	10	7	4	23	12
11	9	2	36	8	34
25	17	20	14	27	26
32	5	22	13	21	15

12	4	2	31	21	7
23	10	22	14	32	1
28	5	24	36	6	15
26	3	19	35	8	18
16	25	17	11	9	13
33	34	20	30	29	27

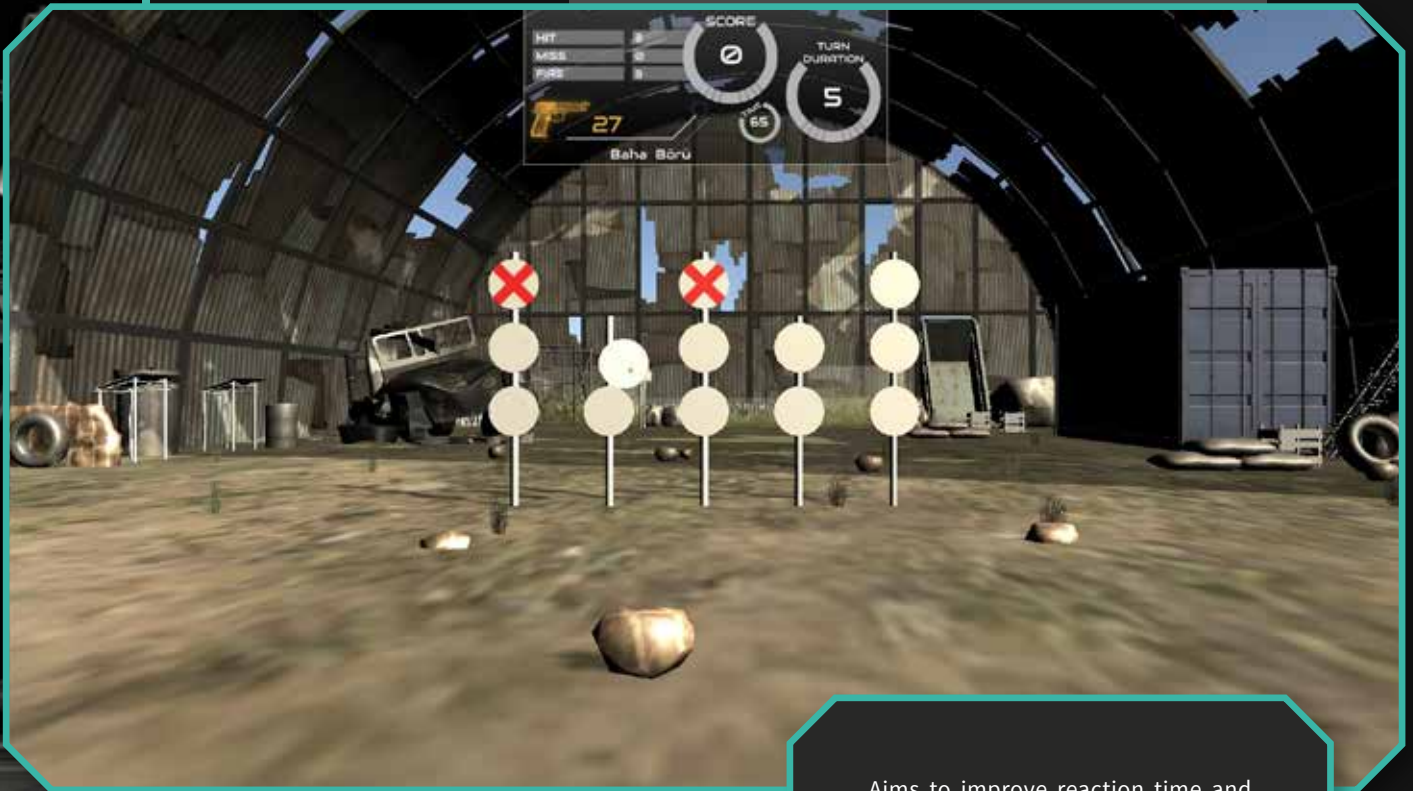
Tracker calibration is missing. Calibrate tracker in order to continue training.

Aims to improve instant memory, reaction time and shooting accuracy regarding the target ordering

Target ordering according to arithmetical operations (target numbering increasing by 1, 2, 3 etc.)

One trainee at a time

## ***SHOOTING TREE TRAINING***



Aims to improve reaction time and shooting accuracy regarding the target classification in limited time periods

Randomly changing targets at each period with shoot/don't shoot distinction

One trainee at a time

BUILT-IN TRAINING CONTENT

## ***RUNNING MAN TRAINING***



Aims to improve interception shooting on running human targets

Targets with configurable directions and speeds

Ballistic shots according to the environmental conditions and weapon characteristics

One trainee at a time

BUILT-IN TRAINING CONTENT

# 3D GRAPHICS TACTICAL TRAINING



3D graphics targets with player controllable functionality or configurable rule based AI capability

Configurable targets with friendly/foe distinction and editable paths on tactical environment provides nonfixed-fictions in scenario planning

BUILT-IN TRAINING CONTENT

## **3D GRAPHICS TACTICAL TRAINING**



Simulates tactical operations in different environmental conditions (urban, indoor, rural sites)

One trainee at a time





BUILT-IN TRAINING CONTENT

## VIDEO BASED TACTICAL TRAINING

Video Training

SDT  
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Choose Video Add

Name: Scene-B-Plan X Duration: 4 Repeat Count: 2

Name: Scene-B-Intro X Duration: 8 Repeat Count: 1

Name: Scene-B-Plan X Duration: 8 Repeat Count: 2

Environmental Conditions

Weather: Sun Light Intensity: [Slider]

Success Criteria

Number of Shooters: 1

Start Exercise

Aims to simulate realistic tactical operations constructed with built-in or your own video records

Targets with friendly/foe assignments

BUILT-IN TRAINING CONTENT

## ***VIDEO BASED TACTICAL TRAINING***



Configurable video flow with optional repetitions provides nonfixed-fictions in scenario planning

One trainee at a time



# SMART



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