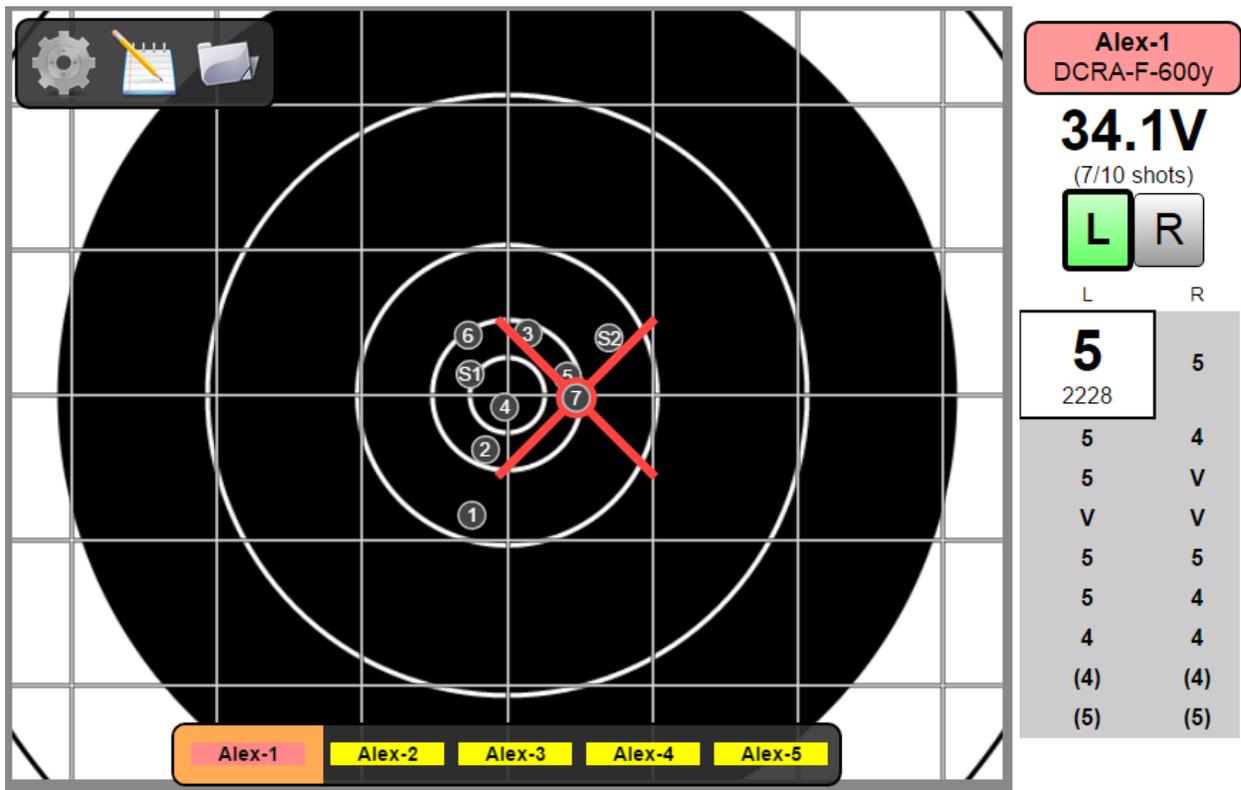


Silver Mountain Targets V2 Software Reference Guide

July 22, 2015



1. Setting up new targets for the first time

If this is the first time using the e-targets on a target frame, you will need to create and set up target frames in the system.

Log in as admin (the password is "becareful").

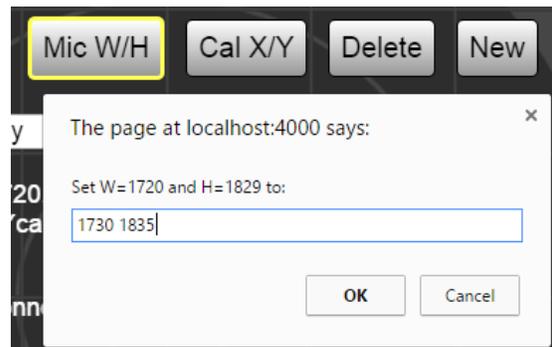
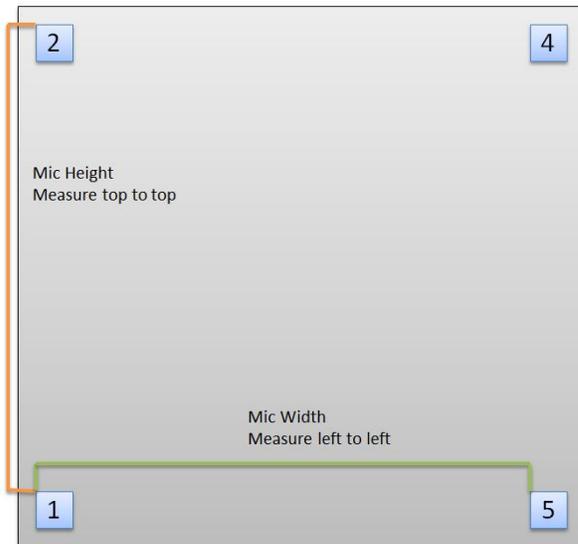


Press "New" to create a new frame at the end of the list and select it.



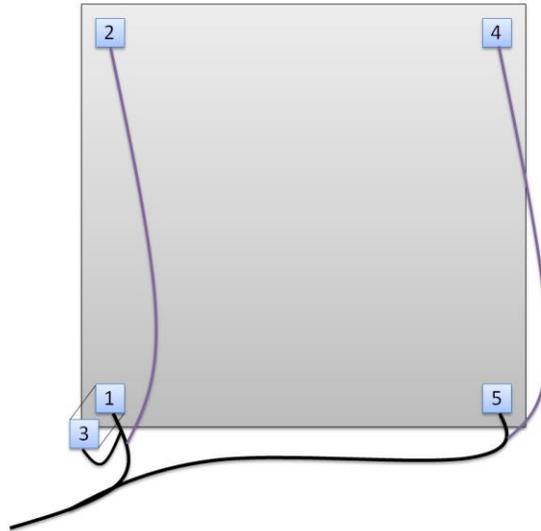
Press "Rename" to define a new name for the target frame.

Measure the microphone placements on the target frame. Press "Mic W/H" and enter the measurements in millimeters.



2. Installing the system on a target frame

With a cabling harness, wiring the microphones is intuitive. Leave the connectors attached at the box end and connect the microphones as shown in the diagram. The microphones are interchangeable however the pair assembly must be the lower left corner.

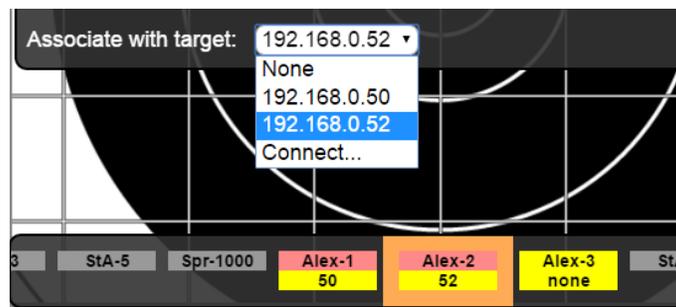


- Connect the radio and place it above grade.
- Position the temperature sensor outside of the box.
- Move the cables towards the front of the box and lightly close the lid, making sure not to pinch any cables.
- Turn the power switch ON.

Each yellow box is identified by the last digits of the IP address (ie. 54, 72, 83, etc.). It needs to be associated to the target frame it is installed on.



- Log in as admin (the password is “becareful”).
- Select and “Enable” (if necessary) each frame you are using.
- Use the “Associate with target” dropdown list to select or enter the yellowbox installed on this frame.



Near the bottom, you will see each enabled frame and the yellowbox it is associated to.

- Green: connected and working.
- Red: associated, but the server has no connection to the yellowbox.
- Yellow: not associated yet.

3. Calibration

Calibration for each frame sets the position of the aiming point relative to the microphones. Targets do not need to be recalibrated before every match.

Before calibrating, ensure:

- The target frames are vertical and rigidly secured in the position they will be when shooting.
- Each target has a paper target with no holes.
- Each target is connected and working (appears green at the bottom of the display).

Fire at least one shot near the center of each target. Confirm on the display that the shots are arriving on the correct target. One shot near the center or three shots scattered around each target is best. You can fire as many shots as you want.



- Log in as admin (the password is "becareful").
- Select a recent shot and check that all mics (12345) are indicated.
- Press +1 / -1 to set the temperature calibration within 2 - 3 degrees on each target.
- For each shot identified on the paper, press "Measure" and enter the actual position in millimeters. Make sure the sign is correct (positive is RIGHT and UP, negative is LEFT and DOWN).

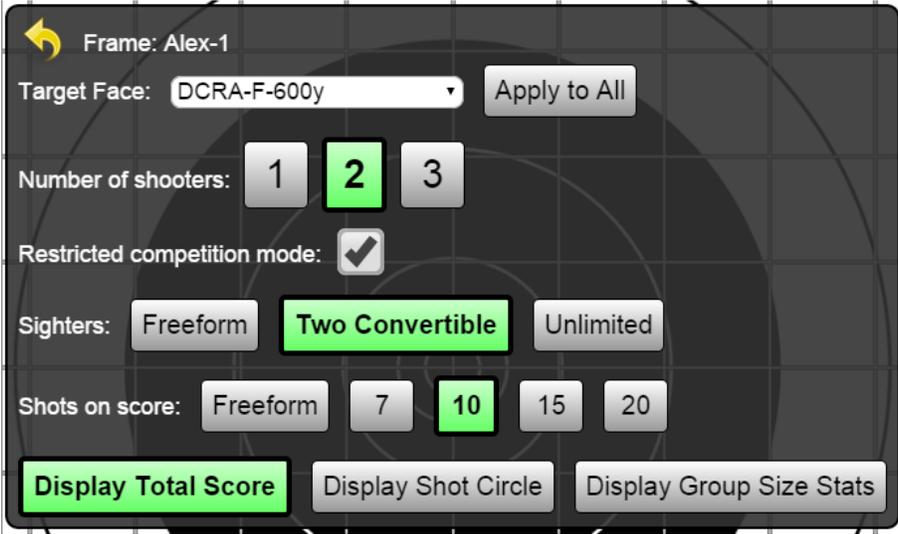
Each measured shot will appear highlighted yellow in the list and on the target display. If you see long yellow lines on each shot then double-check that the shots are measured correctly.

#	fps	score
14	2227	5
8:12:26 AM (52m 7s ago)		
x,y = 76, -3		
<input type="button" value="Measure"/>		
21 C	<input type="button" value="+1"/>	<input type="button" value="-1"/>
mics: 12345		
13	2847	5
12	2932	5
11	2650	4
10	2093	5
9	2781	V
8	2604	V

#	fps	score
14	2227	5
13	2847	5
12	2932	5
11	2650	4
8:12:25 AM (55m 34s ago)		
x,y = -105, 24		
mx,my = -100, 30		
<input type="button" value="Cancel"/>		

4. Match configuration

The range officer / match director can use the target configuration panel to set the mode of shooting prior to each relay.



The image shows a target configuration panel for a frame named "Alex-1". The panel is set against a background of a target face. The configuration options are as follows:

- Target Face:** A dropdown menu is set to "DCRA-F-600y". To its right is an "Apply to All" button.
- Number of shooters:** Three buttons labeled "1", "2", and "3". The "2" button is highlighted in green.
- Restricted competition mode:** A checkbox is checked.
- Sighters:** Three buttons labeled "Freeform", "Two Convertible", and "Unlimited". The "Two Convertible" button is highlighted in green.
- Shots on score:** Five buttons labeled "Freeform", "7", "10", "15", and "20". The "10" button is highlighted in green.
- Display options:** Three buttons at the bottom: "Display Total Score" (highlighted in green), "Display Shot Circle", and "Display Group Size Stats".

Select each frame and set the options:

- Target face: the target and distance that will be fired.
 - "Apply to All" to apply the target face on this frame to all other enabled frames.
- Number of shooters: each shooter's shots will be recorded separately.
- Restricted competition mode: cannot move shots or save strings without the admin password.
- Sighters: whether the first shots for each shooter are counted towards score.
 - "Two convertible" provides a "Convert" button for each sighter.
 - "Unlimited" provides a "Go for record" button.
- Shots on score: Number of shots expected for each shooter.
- Display total score: For the current shooter, show the score and number of shots so far.

For the simplest unrestricted mode, set 1 shooter, "Freeform", and disable restricted mode.

5. Shooting



Select your target.

Alex-1
DCRA-F-600y

0.0V

(0/10 shots)



Select your shooting position.

L	M	R
		4 1539
4	V	4
(5)	(4)	(5)
(5)	(5)	(V)

Make sure your shots appear in your column.

Convert		
L	M	R
		(5) 2428
(4)	(V)	(5)

Press "Convert" to convert your sighters.

46.1V

FINAL



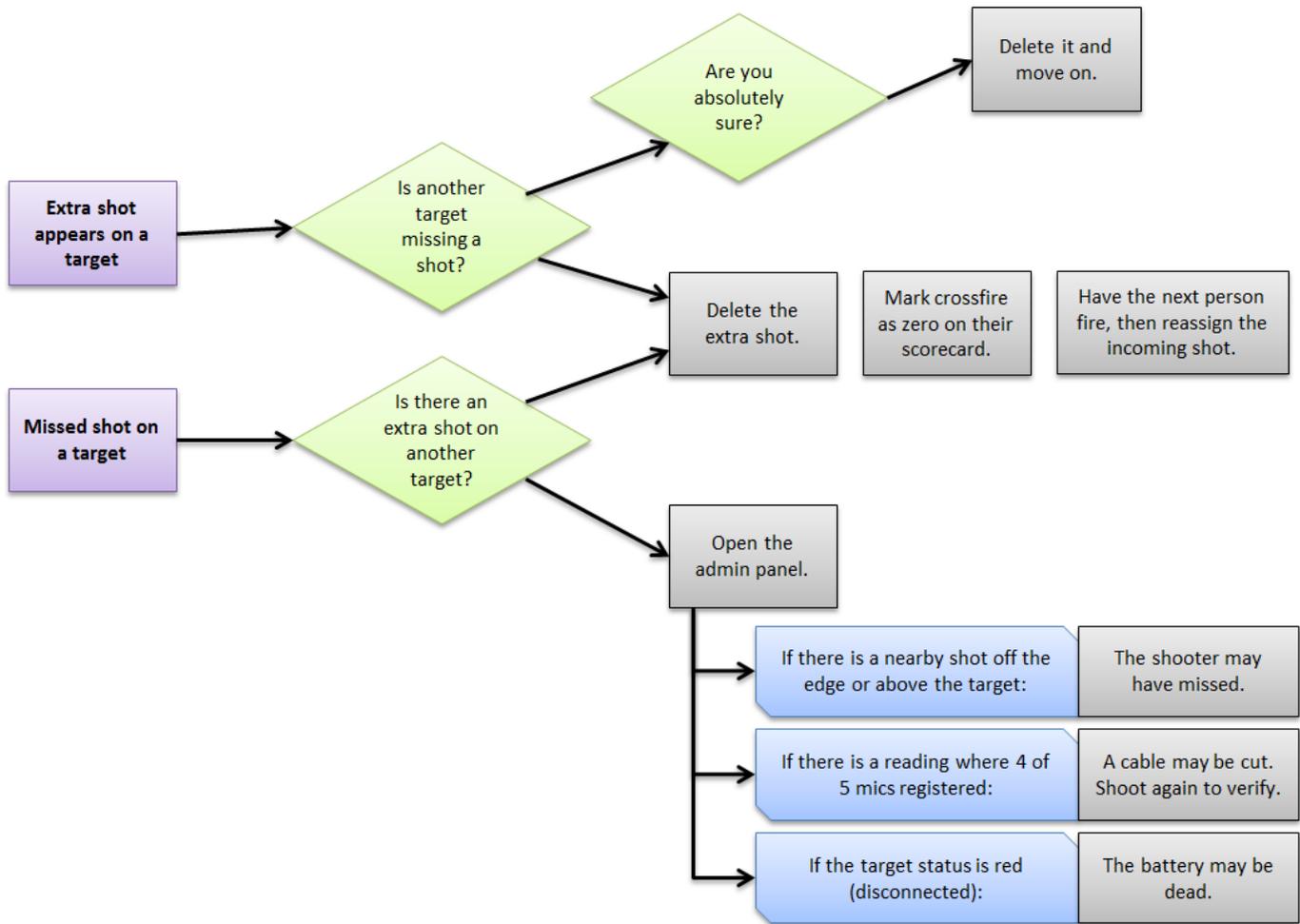
Verify your score against your scorecard.

If a shot doesn't appear, an extra shot appears, or anything else goes wrong,
CALL THE RANGE OFFICER.

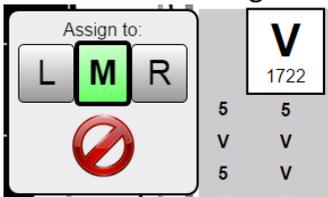
6. Handling crossfires, missed shots, and extra shots

The target system will very rarely miss or detect extra shots for an inherent technical reason. Most of the time, this happens as a result of a crossfire, incorrect scope setting, shooting cables, or dead batteries.

To issues with the target system are handled quickly and fairly on the firing line, enable restricted competition mode and have the range officer or administrator immediately identify and resolve issues using the following process:



Shots can be reassigned to another shooter or deleted by selecting the shot and using the pop-up:

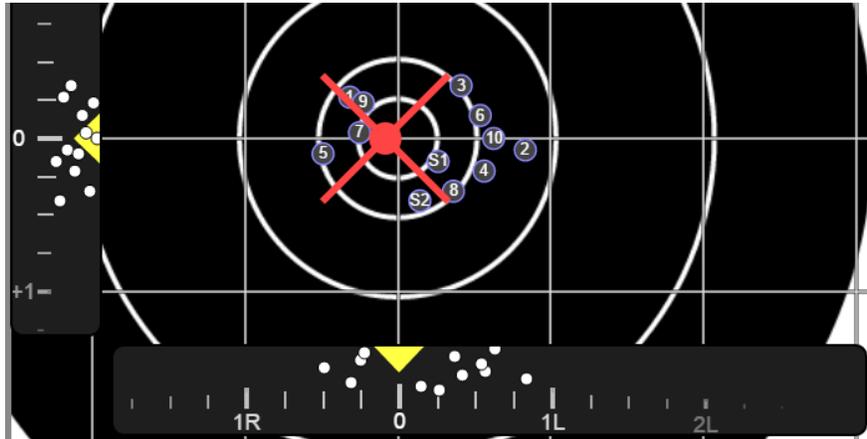


Check the velocities and other shots in the string to help figure out where a mystery shot came from.

7. Using the built-in plot-o-matic mode

“Plot mode” provides the same functionality as a mechanical plot-o-matic with the added convenience of marking each shot for you.

This is a memory aid useful for visualizing your group and recording scope settings for each shot. It will not tell you what to set your scope to, calculate your group center, or predict the wind.



The size of your group is the dispersion of your shots had you not touched your scope settings for the entire string. This is very useful for understanding the precision of your aim, your rifle, and the wind effects.

As with a mechanical plot-o-matic, moving the sliders will move your group around and show you where your shots would have landed had you fired with this setting for all shots. This may help you visually determine which setting is optimal for the next shot.

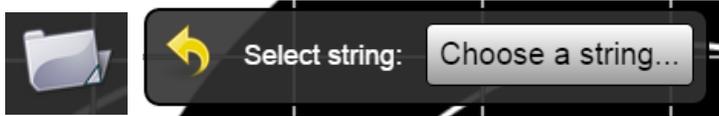
The white dots on the sliders mimic the functionality of graphing. Each dot represents where a shot landed relative to your scope setting on the elevation and windage axes separately. Equivalently, this shows you what scope setting would have landed this shot in the center.

To use plot mode:

- Using the sliders, set the scope elevation and windage to match what you have on your scope BEFORE firing each shot.
- As you adjust your scope, adjust the plot immediately to help keep them synchronized.
- If you fire a shot with different settings than recorded, select the shot in the list and adjust it with the pop-up.

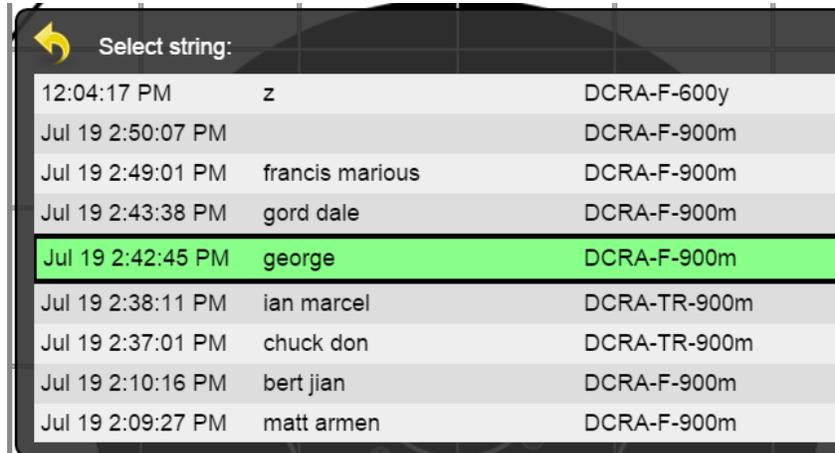
8. Reviewing saved strings

Saved strings maintain a record of the shot positions and velocities for all shooters. If plot mode was used, the data associated to plotting is saved as well.



Click the folder icon:

Select a string from the table, identified by date, time, target face, and the name it was saved as.



Time	Shooter Name	Target Face
12:04:17 PM	z	DCRA-F-600y
Jul 19 2:50:07 PM		DCRA-F-900m
Jul 19 2:49:01 PM	francis marious	DCRA-F-900m
Jul 19 2:43:38 PM	gord dale	DCRA-F-900m
Jul 19 2:42:45 PM	george	DCRA-F-900m
Jul 19 2:38:11 PM	ian marcel	DCRA-TR-900m
Jul 19 2:37:01 PM	chuck don	DCRA-TR-900m
Jul 19 2:10:16 PM	bert jian	DCRA-F-900m
Jul 19 2:09:27 PM	matt armen	DCRA-F-900m

To save a screenshot of your shots, use the function on your tablet or phone which will do this. On an Apple device, press the Home and Power buttons briefly at the same time.

You may also export a report which will produce a CSV file containing multiple selected strings.

- Open a saved string
- Select a shooter position to view only that's shooter shots.
- Click "Add to Report". Repeat until all strings desired in the report have been added.
- Click "Download Report" to download the file.