Application Note: Using a Smartphone or Tablet

SUMMARY

This application note describes the procedure to download the Smartphone or Tablet app and use it with the FreeETarget

REQUIRED

- Android Smartphone or Tablet
- freeETarget client for Smartphone or Tablet

INTRODUCTION

FreeETarget is now available for operation on an Android Smartphone or Tablet. The application software is not available on the Google Play store, but is a module that is downloaded from the FreeETarget site and manually loaded onto the Smartphone. Once loaded, it can be launched and used much the same as the current PC Client software. # FreeTarget App - Electronic Target System

Features

- Supports both Air Pistol and Air Rifle disciplines
- Match and Practice modes available
- Adjustable timer functionality
- Real-time shot detection and scoring
- Group analysis and session review
- Customizable zoom levels
- Hardware settings configuration

PREPARATION

1) From your Smartphone or tablet, visit the website free-e-target.com/downloads
2) Look for the Smartphone and Tablet Client section.
3) Download the .apk file onto your device

Download the file, unzip it, and follow the instructions

Android Freetarget V1.0.apk [Download]

4) Go to your downloads folder and click on the FreeTarget xxx .apk to install it into your phone.
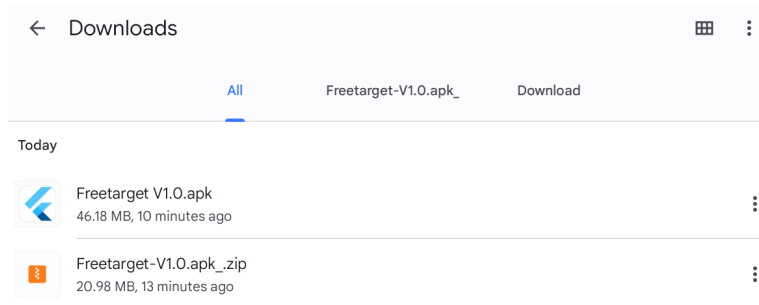
STARTING THE APP

1. Determine what WiFi network the target is on.
    a. If using the default, make sure your tablet is using FET-<name> as it's SSID
    b. If the target is on the home network, make sure that the tablet and target are on the same SSID
        i. To use the home network follow the instructions in the FreeETarget service manual to set the SSID and password in the target.
        ii. Reset the target and record the IP address that appears in the starting dialog, look for "WiFi_IP_ADDRESS": aaa.bbb.ccc.ddd. Record this number for later
2. Power on the ETS first and wait for it to initialize
3. Open the perfectshot app
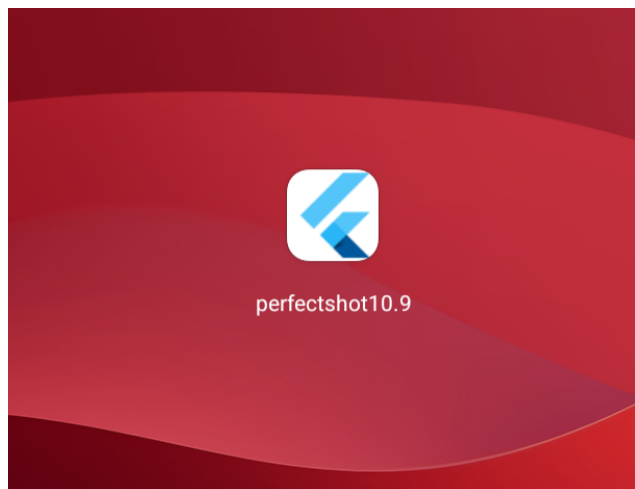
5) The app will show the current settings
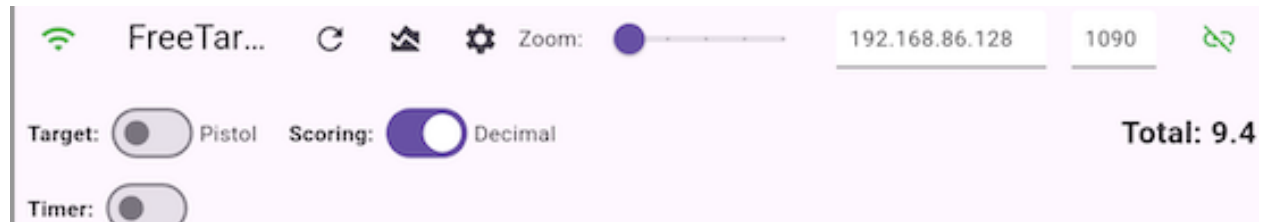
     a) If using the default FET-name network, the IP address will be 192.168.10.9. This should be set by default

     b) If using the home network, replace the IP address with the one found in step 1-b-ii above

6) Press the connect button in the app. Green eye, upper right
7) Verify that the status at the bottom reports Status: Connected

Note:

- The app is currently not fully responsive to different screen sizes
- This specific connection sequence has been found to be most reliable for establishing connection
- Wait for each step to complete before moving to the next one

USING THE APP

Basic Controls

- Use the toggle switch to select between Air Pistol and Air Rifle
- Adjust zoom levels using the slider in the top bar
- Timer can be customized for different match requirements
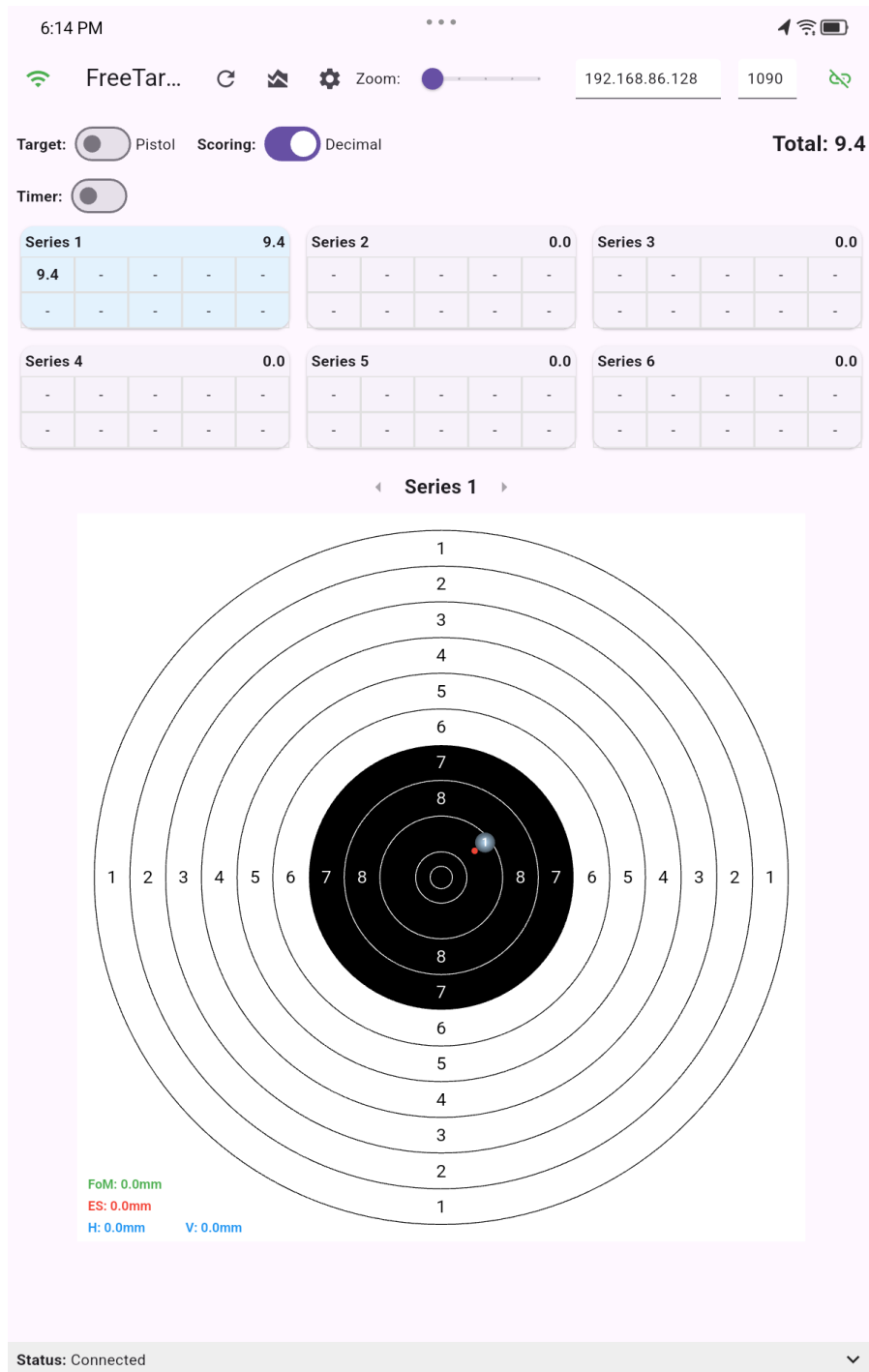
Session Review

1. Complete your shooting session
2. Review your shots and scores
3. Take screenshots to save your session results
4. Use the group analysis toggle to view shot grouping statistics

Hardware Settings (⚠️ Under Development)

Note: The following features are present in the interface but have not been fully tested:

- LED brightness adjustment
- Paper feed settings
- Motor type selection (DC/Stepper)

TROUBLESHOOTING

Cannot Connect to ETS?

Is ETS powered on?

        NO → Power on ETS and wait for initialization

        YES → Are the target and Smartphone on same WiFi?

                NO → Connect both devices to same network

                YES → Is the IP address correct or as recorded above?

                        NO → Enter correct IP

                        YES → Is the port number correct?

                                NO → Enter correct port

                                YES → Still not connecting? Try these steps in order:

1. Close app completely
2. Turn off WiFi on phone
3. Wait 10 seconds
4. Turn on WiFi
5. Reconnect to network
6. Reopen app
7. Try connecting

Still not working?
    Check if ETS is responding to ping
    Verify no firewall blocking

Connection Drops During Use?

1. Leave app open
2. Toggle WiFi off/on
3. Wait for reconnection
If not reconnecting:
    1. Close app
    2. Follow "Cannot Connect" steps above

Missing Shots?

Is it happening when status shows "Keep alive"?

        YES → Normal behavior, continue shooting

        NO → Check ETS connection stability

                How frequent?

                1-2 per 50 shots → Normal behavior

                More frequent → Check ETS settings

BEST PRACTICES

1. Always power on ETS before attempting to connect
2. Ensure stable WiFi connection
3. Monitor the status messages at the bottom of the screen
4. Save screenshots of important sessions
5. Check connection status before starting a match

KNOWN ISSUES

1. Connection may fail if app is opened before ETS is fully initialized
2. Occasional connection drops may require WiFi reconnection
3. Some shots might be missed during keepalive commands
4. Initial connection might require multiple attempts
5. App is not yet responsive to different screen sizes - may appear differently on various devices
6. UI elements might be misaligned or cut off on some screen sizes
7. Some interface elements might be difficult to access on smaller screens