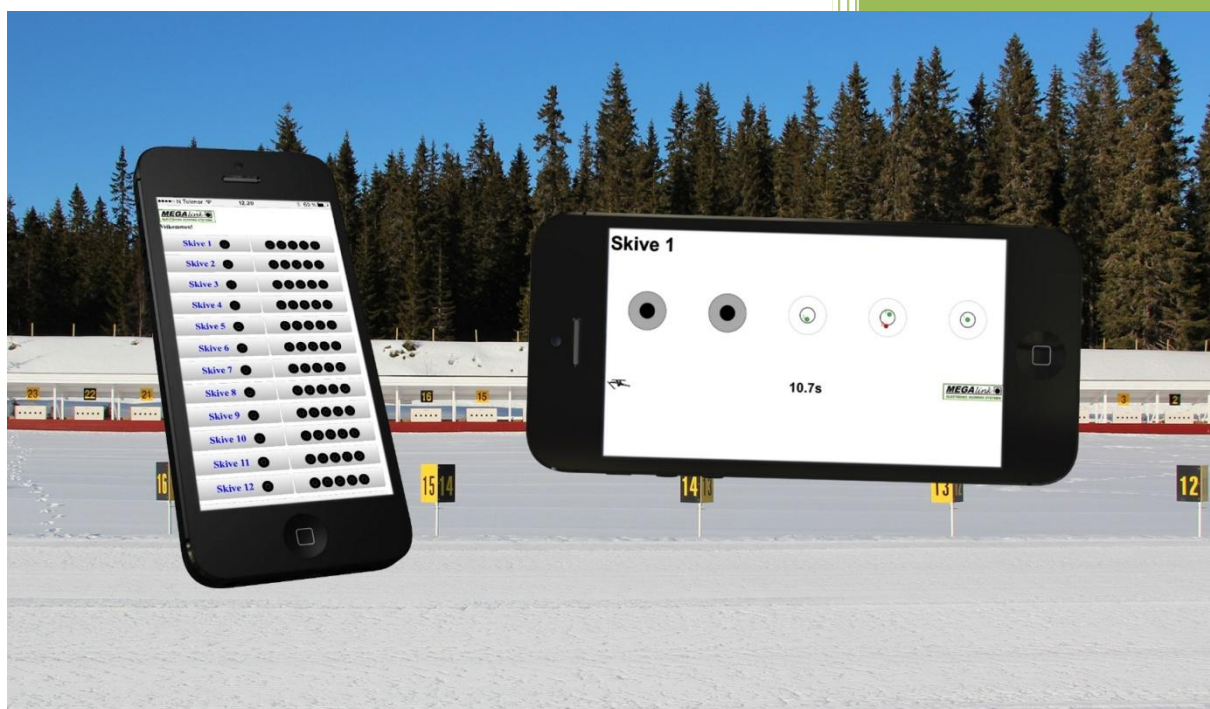


2025

ML2000 Manual Biathlon – Setup WiFi



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ML2000 Manual

Biathlon – Setup WiFi

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1 Generally

This instruction manual describes how to set up and use the biathlon facility with a WiFi solution so that coaches and athletes can see plotting of shots on mobile or tablet.

If necessary, WiFi can be deactivated and the system can be used with monitors as before. Monitors and WiFi cannot be used at the same time during regular training.

Tip: The self-indicators will work even if you have not connected to a phone or tablet.

2 Overview

- Target and monitors are divided into several segments.
- Each segment with five targets and five monitors is connected by fiber cable.
- There is one master monitor per segment.
- From the stand, one pair of fiber cable per segment goes on to one server rack.
- A PC server runs software (MLBia) that controls the targets.
- Another program (MLBiaLive) sends results on to clients (mobiles, tablets) that connect via WiFi.
- WiFi access points are installed on outdoor wall with a clear view of the stand.



Example of rack with USP, Server and fiber adapter. WiFi antenna outdoor.

3 Booting the system

In order for the WiFi system to work, two programs must be started on the PC. *MLBia* and *MLBiaLive*.

3.1 MLBia

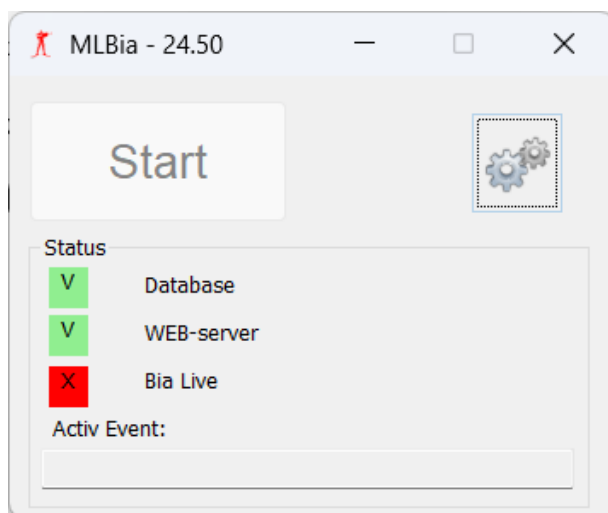
This is our standard program for running competitions and training at biathlon facilities.

MLBia controls all communication with the targets. (And start number registration and coach monitors during competitions).

The shortcut to launching the program is located on the desktop of your PC.

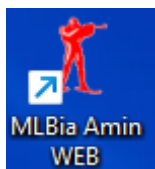


Very little can be done in the program itself:



After pressing start, it start up the database, web server (for administration) and live. Green and red indicate whether the three processes have been started or not.

To manage the system, you must log in to the web server. This is done in the browser on your PC. There is also a shortcut to this on the desktop:



Optionally, launch your browser (Google Chrome) and go to <http://localhost:8081/adm> address

3.1.1 Check that there is communication with the targets

Go to the **Status tab**. Check that there is contact with all targets.

3.1.2 Starting a new event

To be able to use the discs, an event must be active. Select the **Competition admin tab** and press the button **Start WiFi Training**. Then confirm with the **Start Now** button.

The targets will now be in shooting mode with no self indicators enabled.

Start and stop events ▲

Current event: No event active

What do you want to do?

Create new event

Start training

Start WiFi practice

Load saved event

Under **Automatic reset (timeout)** further down the page, you can change the number of seconds before the dial resets itself.

3.1.3 Change position (mode)

Go to the **Overview tab**. In the box marked **Change position**, you can switch between zeroing, prone or standing.

NB: Target position can also be changed from WiFi client if you log in as admin.

Current event: WiFi Practice, WiFi Practice (ID: 6)

Lane	StartNr	State	Mode
1		Free	🎯 Sighter
2		Free	🎯 Sighter
3		Free	🎯 Sighter
4		Free	🎯 Sighter
5		Free	🎯 Sighter
6		Free	🎯 Sighter

Change mode ▾

From lane:

1 ▾

To lane:

10 ▾

Select all

🎯 Sighter

🏃 Prone

🚶 Stand

☒ All

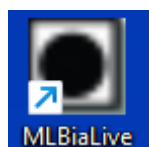
☐ Even

☐ Odd

Tip: Click on the mode column in the table to select a lane

3.2 MLBiaLive

This is the application that sends results out to WiFi clients. A separate shortcut is located on the desktop:



The program will automatically search for MLBia server.

3.2.1 Access from mobile/tablet

When MLBiaLive is running and has contact with MLBia, you can use the IP address to connect and get directions via WiFi.

Please note that the address at the top of the program only applies to local logins. The IP address is different when connecting via the WiFi modem.

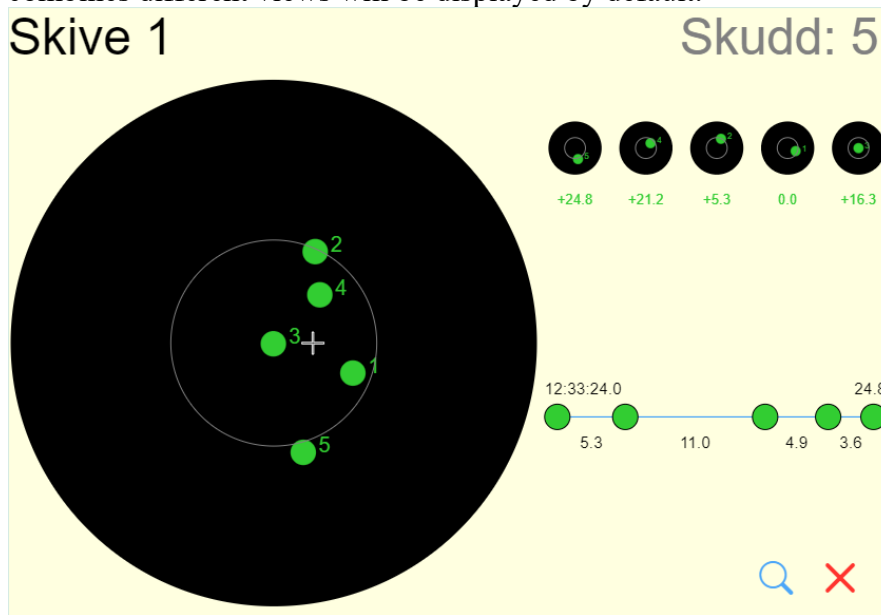
3.2.2 Configuration

The following can be changed in setup. This will apply to everyone who is connected.

Display layout:

- **Do not show timeline** - Timeline is not displayed on client. Enable if you find this useful.
- **Don't Show Time for Shots** – Turn on or off whether the time of each shot should be displayed. The time is counted from the first shot.

- **Set composite target image as display default** – By selecting this, the image that combines different views will be displayed by default.



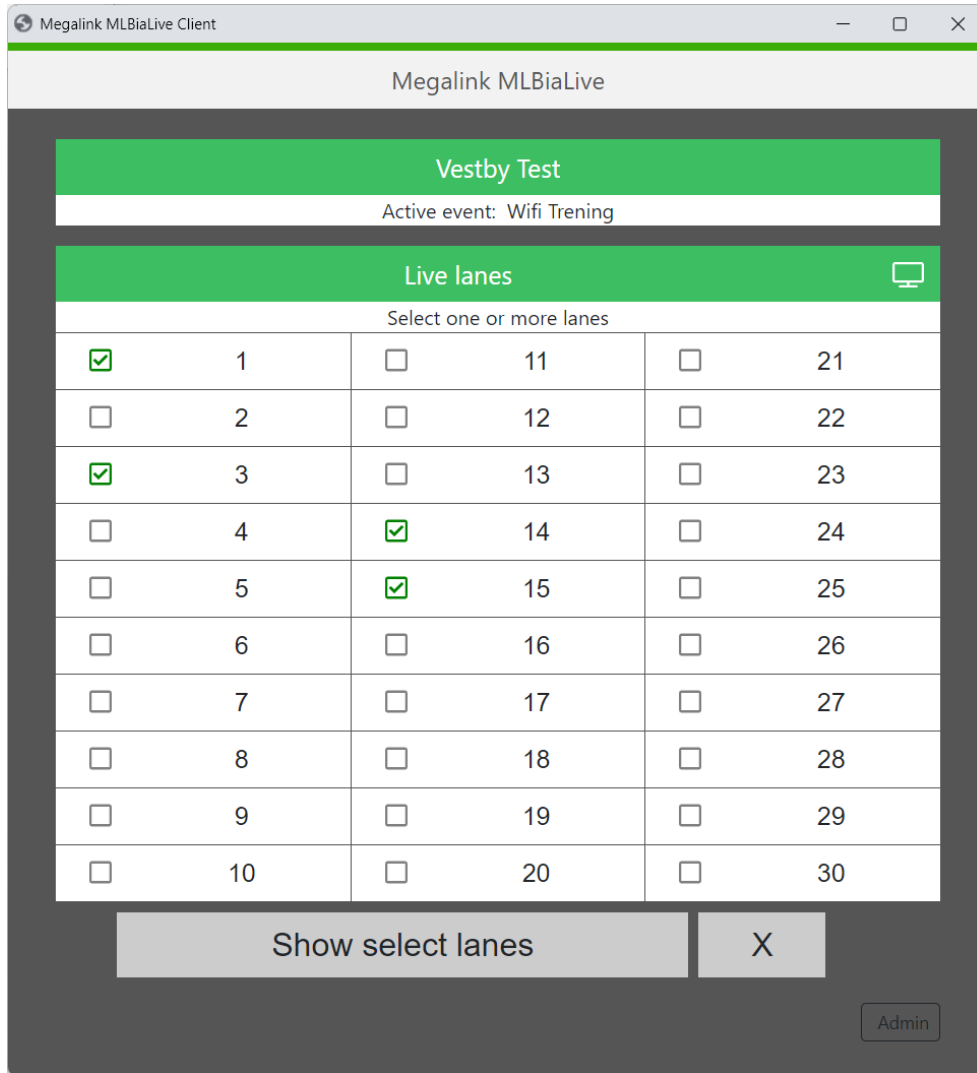
3.2.2.1 Advanced Setup

When using only one MLBia server, such as in WiFi systems, make sure that the option for *Multiple servers available* is **not** checked.

4 Web client

4.1 For users

Users must connect to the correct WiFi to get directions. Connect to WiFi with the name "Bia" and go to the IP address that is set up as a gateway in the WiFi access point (For example <http://10.14.1.1>). This can be done by scanning QR codes received on delivery.



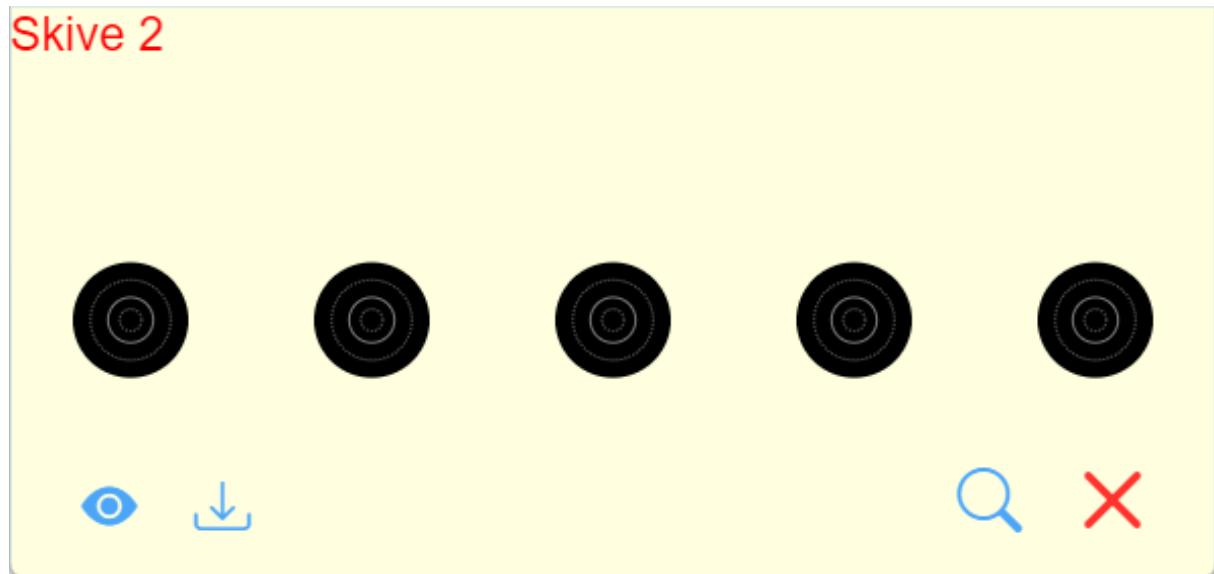
Vestby Test					
Active event: Wifi Trening					
Live lanes 					
Select one or more lanes					
☒	1	☐	11	☐	21
☐	2	☐	12	☐	22
☒	3	☐	13	☐	23
☐	4	☒	14	☐	24
☐	5	☒	15	☐	25
☐	6	☐	16	☐	26
☐	7	☐	17	☐	27
☐	8	☐	18	☐	28
☐	9	☐	19	☐	29
☐	10	☐	20	☐	30

Show select lanes X Admin

By pressing directly on a number, you enter the disc you want to look at. By ticking several boxes, you can see several slices at once.



By pressing the  button, you get all the slices at once. Designed for big-screen viewing.



By tapping on the screen, a small menu with the following options will appear.

-  Change position during training (zeroing, prone, stand) (**NB:** This option must be activated via the admin interface on the server)
-  Change the target number
-  Follow one specific person instead of one target (competition)
-  Download Screenshot
-  Tap this to switch between different zoom levels.
-  Return to main image.

4.2 Admin panel

By pressing the small button labeled **Admin** in the bottom right corner, you can log in and get more options.

Password = 12345678. This can be changed via setup on the admin interface on the server.



4.2.1 Change the position of targets

Select the **Position** tab to easily change the position of one or more slices. Press the buttons marked *Practice*, *Prone* and *Stand* for each individual target.

At the bottom are shortcuts with the most commonly used layouts. For example, *All Stand* or *Half Prone – Stand*.

Administrasjon [X]

Posisjon Skivestatus

Skive	Posisjon
1	Innskyting Ligg Stå
2	Innskyting Ligg Stå
3	Innskyting Ligg Stå
4	Innskyting Ligg Stå
5	Innskyting Ligg Stå
6	Innskyting Ligg Stå
7	Innskyting Ligg Stå
8	Innskyting Ligg Stå
9	Innskyting Ligg Stå
10	Innskyting Ligg Stå

Snarveier

Alle Ligg Alle Stå Halvparten Ligg - Stå

Halvparten Stå - Ligg Annenhver Ligg - Stå

Versjon: 21.41 Logg ut

4.2.2 Checking the status of discs

By selecting the tab **Disc status**, you can easily see that there is contact with all discs. Here you can read voltage, temperature up and down, as well as shot counter and error counter.

5 How to run the system with monitors on stand

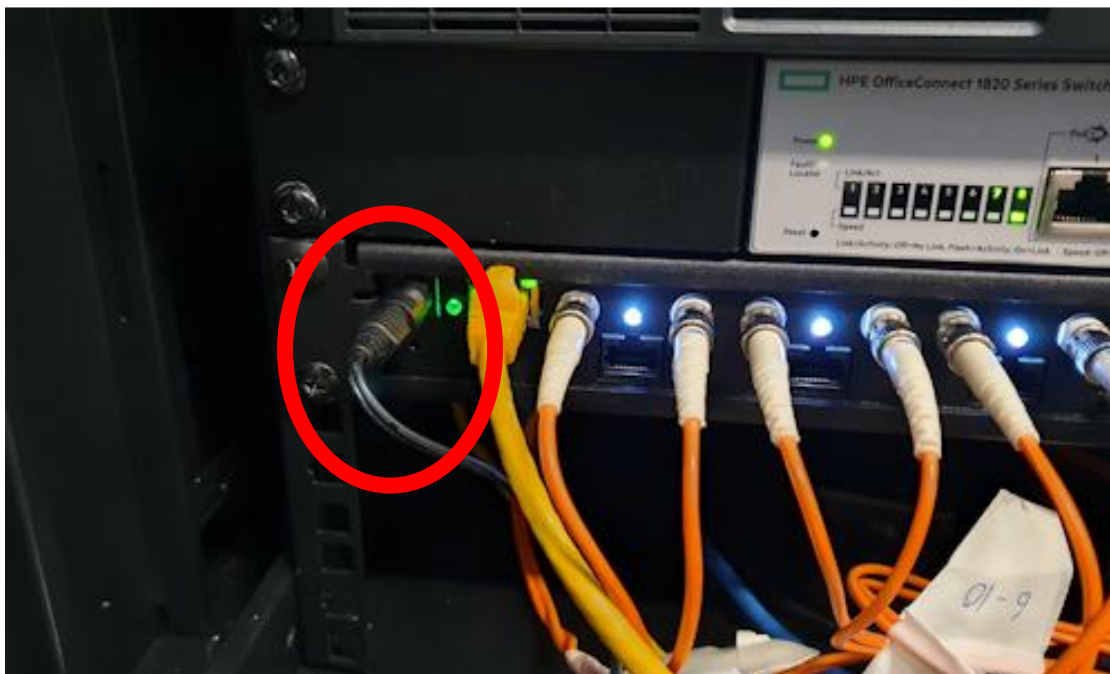
If you are using the system with monitors at shooters stand, the server must then be stopped. Otherwise, both the server and the master monitors will compete to communicate with the dials.

5.1 Method 1 (the correct one)

- Log in to your PC.
- Stop the server (MLBia). Answer YES to the question about "Ending active event".
- It will now stop flashing on the multi-channel adapter.
- Connect the monitors as normal.
- Start the system in the usual way to activate WiFi again afterwards.

5.2 Method 2 (if needed)

If something is wrong with the system, it can be easily disconnected by unplugging the power plug(s) of the multi-channel adapter(s). See picture:



- Then connect the monitors as normal.
- Select Menu → New Card on the monitors to make sure the monitor is checking the dial.

Plug the power cable back in afterwards and activate the WiFi in the usual way.

6 WiFi Access Point

The WiFi access point is normally set up correctly upon delivery.

Example setup where the IP of the network adapter on the main PC is 10.14.1.1

IP	10.14.1.2
Gateway	10.14.1.1
DHCP Enabled	True
DHCP Start	10.14.1.10
DHCP End	10.14.1.199