

Trying GroupLab

What it is, in three sentences

GroupLab measures how accurately a rifle shoots, from a photograph or a scan of a target you have shot. It is built around one idea: a small group tells you far less than shooters think, so every figure comes with the range it could really be, and the software says plainly when the evidence does not support a conclusion. It is free, it keeps everything on your own machine, and it has no account and no network use at all.

This page is for somebody who has never seen it. It is an unfinished test build, and the last section says what is not done.

Getting it

1. Download the installer or the zip from the test build (<https://github.com/oRAirwolf/grouplab/releases/tag/test-build>). That build is rebuilt automatically from the newest change that passes the tests, so it is the one to test and the one to name in a bug report. The newest numbered release (<https://github.com/oRAirwolf/grouplab/releases/latest>) is beside it, and changes only when somebody makes one.
2. Windows will say "Windows protected your PC". Click More info, then Run anyway. GroupLab is unsigned, because signing costs money the project has not spent; the source of the build is public.
3. Your antivirus may quarantine it, for the same reason. If it does, the file it took is GroupLab.App.exe.
4. The installer puts GroupLab in the Start menu and in Add or remove programs. The zip needs no installing: unzip it and run GroupLab.App.exe.

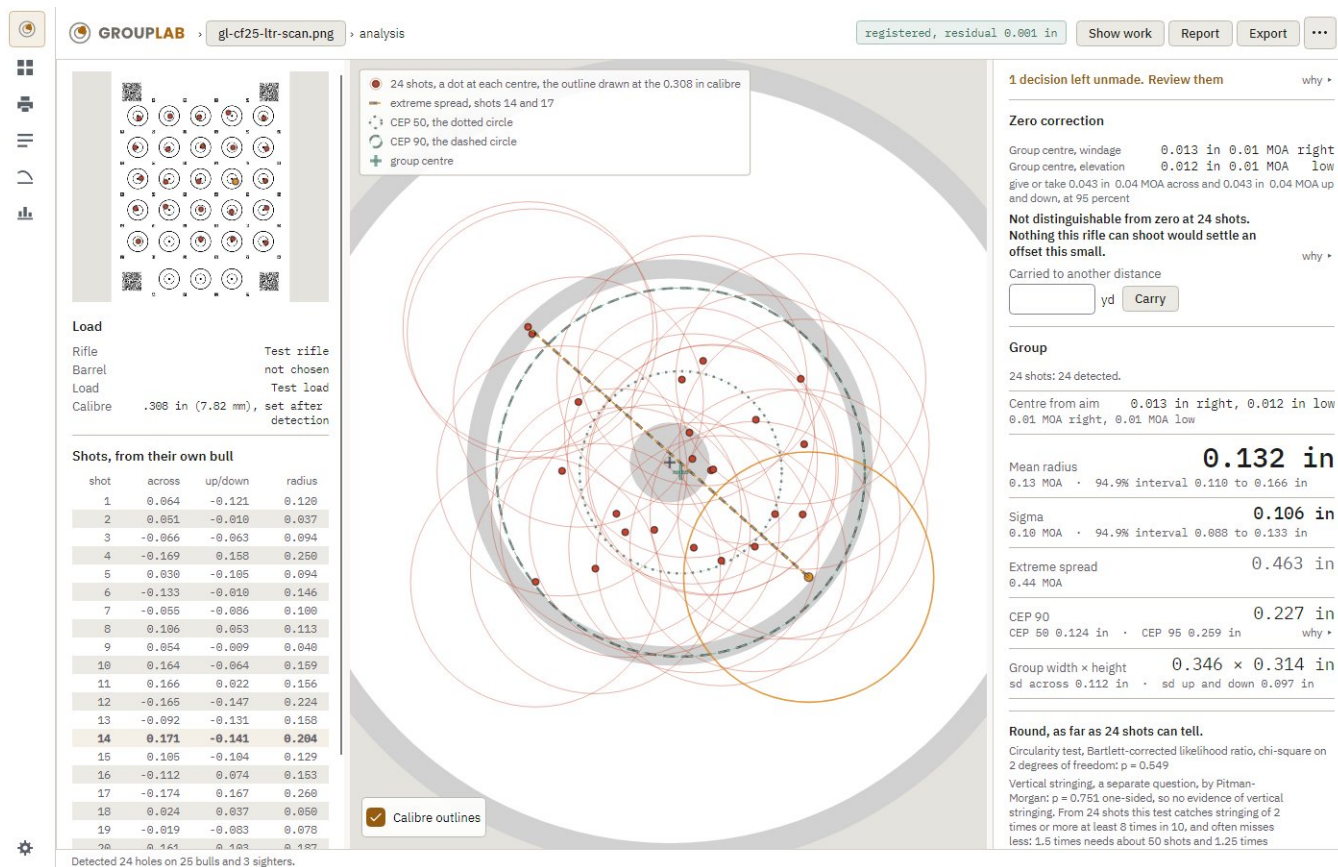
Nothing else is needed: the download carries its own .NET runtime.

The first minute, with no rifle

Both packages bring a samples folder.

1. Open GroupLab. In the header's menu, top right, choose Open image.
2. Open samples/sample-25-shots.png. It is a GroupLab sheet with 25 shots, generated by GroupLab itself, so it is nobody's target.
3. GroupLab reads the sheet's printed codes, registers the page from the corner markers, finds the holes and puts each on its bull. Watch the status line.
4. Settle anything the review queue raises in the side panel, then press Accept and analyse.

Reading what it shows you



The analysis

- The plot draws every shot on one bull, each from its own bull's centre, with the group's centre and its CEP 50 and CEP 90 circles.
- Every figure carries its interval: the range the true value is likely to lie in. That interval is the point of the software. A five-shot group's mean radius could easily be half or double what it measures.
- The zero correction says what to dial, in your scope's clicks, and refuses when the group's centre is too close to the aim to tell from chance, saying how many shots would settle it.
- The two cards judge the group's shape and its worst shot, each naming the test it used and what that test could have detected.
- Every "why" opens the reasoning behind a figure.

Printing a sheet and shooting it

The rail on the left has the target library and the print screen: twenty built-in sheets, printed at actual size.

- Print with Open to print, and choose Actual size or 100 percent, never Fit to page.
- Measure bull 1 to bull 5 before you shoot: on the Letter 5x5 sheet it is 5.98 in (152.0 mm). If it is not, the printer scaled the sheet.
- Mount it flat, fire one shot per bull in order, and write only in the load block.
- Photograph it from about 2.5 ft on your phone's main camera with the whole sheet in frame, or scan it flat at 600 dpi. Do not crop it, and do not send it through a messaging app.
- Print a volunteer pack on the print screen gives the sheet and a page of these instructions together.

What is not done yet

The repository's README is the authority on what works; this is the short version.

- Printing from inside GroupLab lost every marker and code on one printer, which made those sheets unmeasurable. That is fixed and held by a test on more than one printer driver, but no sheet from the fixed

version has been checked on paper yet, so use Open to print.

- Hole detection on plain paper, with no sheet definition, is not built.
- Garmin Xero import is not built. Chronograph readings are typed in, and reconciled with the shots rather than assumed to line up with them.
- Several of the project's own gates have no material yet: no mounted photograph set, no 25-shot editor timing, no blank-paper photograph. So GroupLab is careful software that has not yet been proved against a large body of real targets.
- Linux and macOS are built and tested on every push. Nobody uses either day to day, and the macOS build is not offered for download.

Telling somebody when it is wrong

The gear at the bottom left opens the settings. The top of that screen names the build: copy that line into any report, because a test build changes whenever the code does. Report a problem there writes a report package: a zip with the log and what GroupLab was doing, carrying no location data and no images unless you add them. Send it with a line about what you were doing.

GroupLab keeps everything in %APPDATA%\GroupLab: settings, your sessions database, any sheet you design, and the log. To remove it, uninstall or delete the folder you unzipped, and delete that folder when you want the data gone.