



- Carry out accurate measurements of athletic competitions.
- Easy and quick to handle for any user.
- Measurement of 6 different sports.
- Generation of direct field reports and release of data to the control center.



Long jump



Triple jump



Discus throw



Shot put



Javelin throw



Hammer throw

### Athletics, the competition within your reach.

The possibility of carrying out accuracy measurements at sports events with your Trimble total station has now become a reality. The application for Settop Athletics sports events can quickly and accurately measure 6 different sports. These sports include: Shot put, discus throw, hammer throw, javelin throw, long jump and triple jump.

### Simplicity and versatility.

Athletics application is open to any user. It does not have to be handled by a surveyor as any person with a basic understanding of the instrument can handle all of the module's options to perfection.

Athletics has been designed by IAAF referees in collaboration with specialized sports event staff, thus favoring an immediate and intuitive use.

### Configuration of the competition.

Open a job and select the type of competition as well as the gender of the participants (men/women). Edit the competition record and once the event is over, take down the best records.

Determine the throwing center in accordance with a reference point or three points constituting the throwing range. Compare the ranges established in relation to IAAF (International Association of Athletics Federation) regulations.

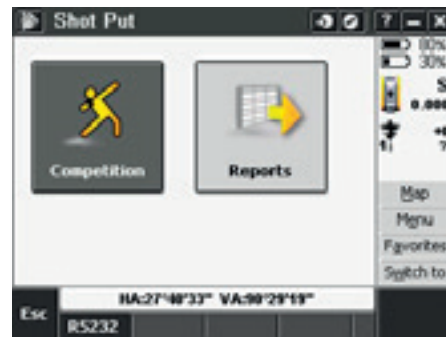
During long jumps, establish the reference line as the orthogonal source of measurements.

Establish the number of attempts and add as many sportspeople as you wish in each competition.

Data display in accordance with the criteria of the federation (truncated to the cm) and, in the event of a play-off, check the millimeters of each jump.

Determine the quality of the throw by entering the record, invalidating the attempt with a Null or passing the round at the sportsperson's discretion.

Automatic ordering of competition results according to chronological order or sports records.



### Immediate forwarding of records.

Send the competition records in a fully editable format and convey this to the control center by means of RS232 connection.

### Control points.

Always check the origins of the measurements of each sport and verify the stationing of the device with the determination of external points.

In the event of a change of station, you may extract the panel or transfer the information with a USB port.

### Generation of direct field reports.

You may, at any moment, check the results of the competition and generate a final report of the sports event.

At any point of the competition, you may export the results in \*.csv format, which is interpretable by ASCII and Excel.

## Configuration of Competition

Characteristics	Detalles
Job	<ul style="list-style-type: none"> <li>Select New Job, Open Job, Revise Job, Point manager, Copy between jobs and Job properties.</li> </ul>
Editing of the Competition	<ul style="list-style-type: none"> <li>Selection of the sport, gender (Man/Woman), editing of the Championship Record and the Record of the Meeting.</li> <li>Editing of number of attempts or automatic increase during the competition.</li> </ul>
Sports	<ul style="list-style-type: none"> <li>Shot put.</li> <li>Discus throw.</li> <li>Hammer throw.</li> <li>Javelin throw.</li> <li>Long jump.</li> <li>Triple long jump.</li> </ul>
Output of results	<ul style="list-style-type: none"> <li>Possibility of configuring the output of results to another equipment via the RS232 port.</li> <li>Edit data forwarding configuration parameters.</li> <li>Output of predefined results in Trimble Esport (IAAF) and RFEA format.</li> </ul>
Source of throw	<ul style="list-style-type: none"> <li>Direct reading of throwing center.</li> <li>Determination of the source from the reading of three points constituting the throwing range.</li> </ul>
Reference Line	<ul style="list-style-type: none"> <li>Determination of the long jump reference on the basis of the three points the measurement source line is composed of.</li> </ul>
Control	<ul style="list-style-type: none"> <li>Verifying the source of the measurements of each sport.</li> <li>Determination of outer points of stationing control.</li> </ul>

## Competition

Characteristics	Details
Measurement at the Competition	<ul style="list-style-type: none"> <li>Automatically corrects the sphericity and refraction of each visual.</li> <li>Results truncated to the cm in accordance with IAAF regulations.</li> <li>Possibility of observing the mm of each measurement.</li> <li>Possibility to Enter Null or Pass in the record.</li> </ul>
Control	<ul style="list-style-type: none"> <li>Verifying the source of the measurements of each sport.</li> <li>Determining outer points of stationing control.</li> </ul>
Reports/Results	<ul style="list-style-type: none"> <li>Showing the table/results at any point of the competition.</li> <li>Exporting the reports in ASCII format during the competition.</li> </ul>
Exporting	<ul style="list-style-type: none"> <li>CSV format: Full report of the results table of the whole competition.</li> <li>Format can be interpreted by ASCII and Excel.</li> </ul>



## System Requirements

### Instruments

- Trimble M3 total station
- Trimble S3 total station
- Trimble S6 total station
- Trimble S8 total station

### Controllers

- Trimble CU controller (Model 3)
- TSC2 controller
- TSC3 controller
- Trimble Tablet controller

## Accuracy

### Standard Deviation in the measurement of Distances at 100m.

Error by visual:

5" Angular Accuracy Equipment	3.5 mm
3" Angular Accuracy Equipment	2.1 mm
1" Angular Accuracy Equipment	0.7 mm
0.5" Angular Accuracy Equipment	0.4 mm

### Standard Deviation in the measurement of Distances at 25m.

Error by visual:

5" Angular Accuracy Equipment	0.9 mm
3" Angular Accuracy Equipment	0.6 mm
1" Angular Accuracy Equipment	0.2 mm
0.5" Angular Accuracy Equipment	0.2 mm