

PEGASUS 3

User Manual



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Preface

Kongsberg Target Systems (KTS) are proud to present Pegasus 3, that will replace Orion 2. Pegasus 3 have similarities with the previous Orion-versions, but lot of things are improved and the application has a totally new interface. Therefore, we chose to rename the new Orion-version to Pegasus 3. Pegasus 3 stems from the winged divine stallion “Pegasus” in Greek mythology. Pegasus brought flashes of lightning, which is in harmony with our improved and fast Orion-version.

Pegasus 3 can be installed on a Windows-PC and connects to a signal distribution unit (SDU) on your firing line. It’s possible to operate the entire firing line from Pegasus 3 on your computer. For example, to organize competitions, and more.

KTS hopes you find this user manual quite helpful. If there is any comments or suggestions to the user manual or the application itself, please let us know. Contact information can be found at: www.kongsberg-ts.com.

We recommend you to follow the user manual from top to bottom. It has a dedicated chapter for first time configuration and other chapters for further later configurations.

The most extensive changes in Pegasus 3 compared to Orion are:

- Two different competition modes: Common and Individual Mode.
- An Official and Unofficial database that prevents Official Course of Fire from being modified. Custom made, Unofficial Profiles will not be deleted when upgrade Pegasus 3 later on.
- A totally new database with higher level of security when it comes to data integrity and avoiding database corruption.
- Individual Shooting Times in Individual Mode.
- Alter all relevant monitor settings from the setup menu in Pegasus 3. The new settings are:
 - o Visual Target Definition.
 - o Feeding length and interval for the strip/band.
 - o Profiles. This new concept will make it easier to organize competitions. We will get back to this later. We divide profiles threefold:
 - Target Profiles.
 - Event Profiles.
 - Sub-Event Profiles.
- View of shot counters. This is to facilitate maintenance and eventual detect target malfunctions.
- Ability to graphical printout from training/practice mode.
- Spectator view in training/practice mode.
- Re-shooting for ISSF and CMP pistol according to regulations.
- Improved user interface (UI) with full screen support. You will have more space for targets and shots at the same time.
- Target zeroing from Pegasus 3.
- Improved systems check with more information.

- Ability to add more ranges at the same time.
- New WinGPS protocol that's more reliable and stable, and isn't dependant for a specific start up sequence. You can also restart in the middle of a shooting.
- Ranked list in WinGPS to use in finals etc.

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1.0 Introduction/system requirements

Pegasus 3 is KTS' control room software. When you connect this to the server on a firing line, you are able to overrule all monitors and targets from Pegasus 3 on your computer. You can then organize courses of fire and competitions from this application. It's mainly the Range Officer that runs the application, but it's also possible to run competitions with individual progression from their monitor, even when Pegasus 3 is in use.

When you use Pegasus 3 for shooting competitions it is very common to use a result program in addition. For example you can use Leon for ISSF and CompetitionTracker for CMP. These applications generate relays you can open in Pegasus 3, and these applications generate result files. You can also use WinGPS for live view for graphic targets and results, local and on the Internet.

We have tested Pegasus 3 on Windows 7, Windows 8.1 and Windows 10. It will also, most likely, function on older versions as well, but we have not tested this. Microsoft has closed their support on Windows XP, and Windows Vista is a poor version with many problems. KTS will for that reason not support these versions.

To run Pegasus 3 you must upgrade server/monitor software to version 190/190 or newer. Pegasus 3 is capable to run with SDU-3 only. **N.B!** Orion 2 it not capable to run together with this server/monitor version. If you use WinGPS Server and WinGPS Monitor, they must be upgraded to version 3.3.0 or newer. You can run Leon with version 1.73 or newer.

We have used technical words in the manual, some will be listed here with an explanation:
Signal distribution unit (SDU)/server – this is the server at the firing line.

H1M – this is an example of a target model. The first letter is either an “H”, “U” or an “O”. If the letter is an “H” the target has 4 corner sensors, if the letter is an “U” the target has 3 sensors in the bottom, and if the letter is an “O” the target is optical. The number is the revision number of when the target is made; the higher number, the newer the revision of the target model is. The last letter says something about the target model. For example is “M” a short range target, and “E” is a long range target.

SBR – Small Bore Rifle.

SBP – Small Bore Pistol.

AR – Air Rifle.

AP – Air Pistol.

BBR – Big Bore Rifle.

BBP1 – Big Bore Pistol 1.

BBP2 – Big Bore Pistol 2 (even larger calibre than BBP1).

Upgrade 1 – software updates for Server/Monitor.

Upgrade 2 – update of Visual Target Definition for Server/Monitor.

2.0 Installation

To run Pegasus 3 for the first time, you have to upgrade the Server/Monitor software first. Other applications can be installed later.

Before you start the Pegasus 3 installation, please connect the entire firing line with SDU and monitors. Upgrade your software with latest Upgrade 1 and 2 first.

Install the Pegasus 3 application on your hard drive from one of the following options:

2.1 From Memory Stick or Internet Download

Insert the memory stick into your computer and run the installation wizard “Mpx97Install”. Select the “Pegasus 3” tab on left side and then “Install Pegasus 3”. If you don’t have the memory stick, download the software package from KTS’ download area if you have purchased the software and received the login details. You will get URL, username and password from KTS. The application will install all necessary files on your hard drive. In the installation wizard you can choose which directory to install Pegasus 3 into. The wizard will also make an icon on your desktop. Pegasus 3 will automatically start after the driver installations has complete. Insert the cable between the Pegasus 3 PC and the SDU 3. This is a standard USB A/B cable.

2.2 Copy of the Database

If you have more firing lines and have got the same visual target definitions on all of your monitors and servers, you can easily copy the entire database from one computer to another. If you are going to have the same target and event profiles on all of your computers, it’s very easy and recommend to copy the database from the computer you have defined it on. When you have defined all the target and event profiles on a computer, find the directory where you installed Pegasus 3. The directory will be “C:\Pegasus3” in a standard installation. You will find several folders in that directory, including “DataBase”. Copy that folder on a memory stick. Then bring your stick to the Pegasus 3 PC you don’t have defined target and event profiles yet, but will have the same. It’s very important that Pegasus 3 already is installed on this computer. Find the same directory (“C:\Pegasus3”) and delete the folder “DataBase”. Copy the “DataBase” folder from your memory stick to the directory on Pegasus 3 computer where you deleted the “DataBase” folder. You can now open and use Pegasus 3 on this computer, and the linking of the profiles are identical to the first PC.

2.3 Uninstall

Pegasus 3 is removed by using “Add/Remove Programs” located in “Control Panel”.

2.4 Upgrade

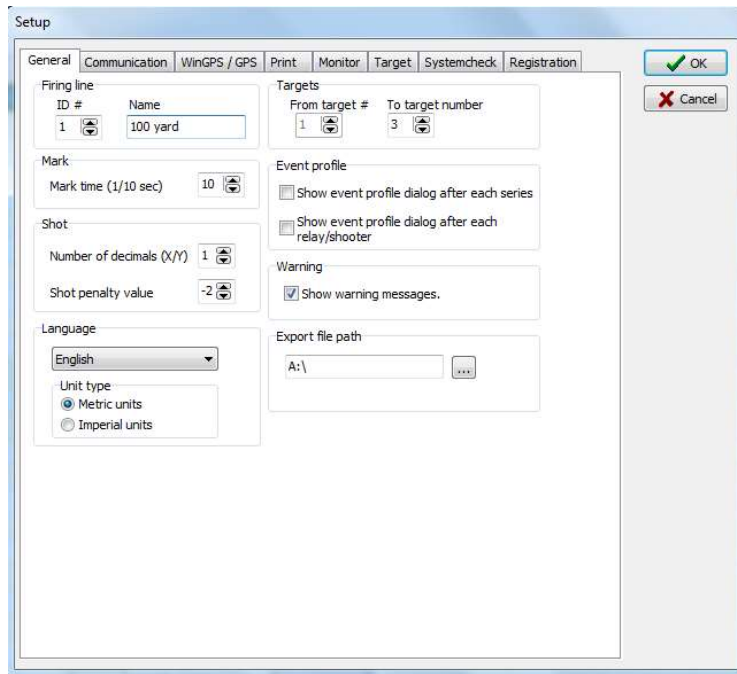
Newer versions can be installed without uninstalling the older version. The existing, both official and unofficial, courses of fire, event profiles, target profiles, the linking between them and competition data will not be deleted. New and updated official Courses of Fire and events will be updated. New events must be linked before use.

3.0 Setup

Connect the cable between the SDU and the computer and open Pegasus 3. You can open Pegasus 3 in your Start menu or by double-clicking on the shortcut icon on the desktop.

First time opening Pegasus 3, the setup wizard will open automatically. Configure the settings before you link the target and event profiles.

3.1 General



3.1.1 Firing Line

It's an unique ID number for each firing line. It's very important this ID number is correctly configured so that the exchange of data between Pegasus 3 and the results handling program will be possible. The ID number has to be the same ID number as configured in the results handling program. WinGPS also uses the same ID to present the results of the specific range. The ID is used to identify the range, for example 1 for 10/15 meter and 2 for 50/300 meter. In the name box you can write whatever you like, but maximum 20 letters. This text is used by the spectator viewer application WinGPS to show what range is displayed, so it's most practical to have name as for example "10m", "300m", "Pistol range", etc.

3.1.2 Targets

Here is the setting for which target numbers that's in use. In our example we are using the target number 1, 2 and 3. If the firing line for example was built for 15 monitors, but just use 10 targets regularly, you should choose target number 1-15.

3.1.3 Mark

"Mark time (1/10 sec)" defines the time between each shot that is marked on the monitors in 1/10 second resolution, for the closed marking mode. In our example we have chosen 10 tenth of a second, i.e. 1 second.

3.1.4 Shot

Number of Decimals (X/Y)

You can select the number of decimals you would like at printouts and log-files. The allowed number of decimals is 0, 1 or 2. It's common to use 1 decimal, that's most often suitable.

Shot Penalty Value

The “Shot Penalty Value” defines the penalty value given if you for example cross fire. The default setting is -2,0 points, but you can set whatever you like.

3.1.5 Language

Choose the preferred language of the Pegasus 3 application.

3.1.6 Unit Type

It’s possible to choose between metric and imperial units. When selecting metric units, all the coordinates will be shown in millimetres, and by selecting imperial units, all the coordinates will be shown in inches. For example: ISSF is using metric units and the CMP (long range) is using imperial units.

3.1.7 Event Profile

An Event Profile consists of a set of Sub-Event Profiles. One thus selects the main exercise that you will use in the competition. The main exercise may consist of sub exercises that it will be possible to switch between competitions. In the Event Profile the following is defined: Name of the Exercise, Organization, Course of Fire, Target Profile and Individual Setup in the Target Profiles (which is necessary if you have different target models at the same range). You have two options that can be selected:

Show Event Profile Dialog after Each Series

By activating this, you are able to select another Event Profile after each series. This can for example apply for pistol shooting, when you have to change Visual Target Definition between precision and rapid fire stage. Another example is from the CMP in US where they are competing on different distances for different series.

Show Event Profile Dialog after Each Relay/Shooter

By activating this, you are able to select another Event Profile after each relay/shooter.

3.1.8 Warning

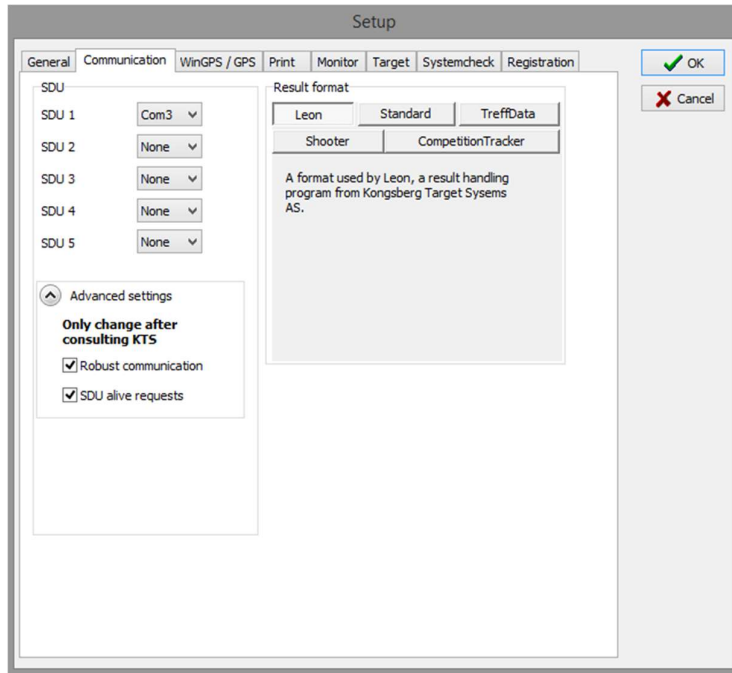
Normally, warning messages is displayed if for instance you try to proceed to next series without any shots being registered on any of the lanes in the current series. Normally it’s smart to get these warnings, but they can be deactivated here.

3.1.9 Export File Path

In the main window, there is a floppy disk icon. By clicking this, the results can be transferred to a chosen storage media. As standard, this will be a memory stick (it’s very important that the memory stick is in the PC when clicking the floppy disk icon). If there are any problems with the LAN network result exchange to the results handling application, this can be done by memory sticks.

N.B! A common misunderstanding is that this value is to be set to the hard disk where the result program is installed. This is not the correct use. Export is only meant as an extraordinary transfer when normal transfer doesn’t work.

3.2 Communication



3.2.1 Server (SDU)

Here it is possible to configure which serial port(s) the SDU(s) are connected to the PC. If only one SDU is used, then only “Server 1” can be used. If using two SDUs, it doesn’t matter which SDU you set up to “Server 1” and “Server 2”. For troubleshooting, it’s best to connect the SDU with the lowest lane number on “Server 1”. It’s necessary to use “Server 2” if you have typical more than 25 targets, or if you connect two firing lines together.

If you believe you found the correct COM port, press “OK”. If it was the correct COM port, the setup window disappears. If it was incorrect you will get an error message.

Connected COM ports can also be found in Windows in the Device Manager. Click on your Start icon in Windows and search for “devmgmt” and open the program with the same name. You will get a list, and under “Ports (COM & LPT)” you will get a list of active COM ports with the number in parentheses. To define or identify which COM port is connected to SDU 1 or SDU 2, disconnect one of the USB connections. The one disconnected should disappear in the “Ports (COM & LPT)” list.

3.2.1.1 Advance Settings

N.B! These settings should only be changed after a consultation with Kongsberg Target Systems. Standard settings are default.

Robust communication is a safer way for communication between Pegasus 3 and the SDU. It’s a bit slower, and it may be a bit to slow when you make series changers etc. on big ranges. In such cases it will be smart to turn the function off, but you will not get an immediate warning if you lose the connection between Pegasus 3 and the SDU (but notice this happens very rarely). The communication will not go any significant slower for normal lanes (less than 30-40 targets) with this function activated.

Pegasus 3 will continuously check the communication between Pegasus 3 and the SDU with the “SDU alive request” activated. You will then get a warning very early if the connection is lost. You will get a question to reconnect if the connection is lost. If not, navigate through: **Tools → Reconnect SDU → SDU 1.**

3.2.2 Result Format

Because the results handling applications use different file formats and protocols, the “Result format” must be correctly configured. Mark the result format you are going to use.

3.2.2.1 Leon

“Leon” is used by Leon result handling application. It’s important that the communication between Pegasus 3 and the results handling application has both file and folder permissions. Set for read and write. Look at “chapter 20.2 Result Handling Application“ for this setup.

3.2.2.2 Standard

Result format

Leon Standard TreffData

Shooter CompetitionTracker

Standard format for most result applications

Split the series to 10 shots series

Group all series to one series

“Standard” is used by some results handling applications. It’s important the communication between Pegasus 3 and the results handling application has both file and folder permissions. Set for read and write. Look at “chapter 20.2 Result Handling Application“ for this setup.

By activating “Split the series to 10 shots series”, series containing more than 10 shots will be divided into series by 10 shots. This selection can be used if the results handling application require a big series to be transferred as 10 shots series, for instance will 60 shots in prone position in ISSF be transferred as 6 x 10 shots.

By activating “Group all series to one series”, Pegasus 3 will collect all series in the course of fire into one series. This selection can be used in case of Pegasus 3 is configured with single shot program while the results handling application requires it as one series. For example if it’s a single shot final with 10 shots (10 series with 1 shot in each). In this case it will be stored as one 10 shot series.

3.2.2.3 TreffData

Result format

Leon	Standard	TreffData
Shooter	CompetitionTracker	

Result application for running moose target, fixed target and re-entry shooting

Running Moose target, fixed target and re-entry shooting are using “TreffData”. Pegasus 3 supports running Moose target and fixed target. Exchange of data from re-entry shooting is not supported.

3.2.2.4 Shooter

Result format

Leon	Standard	TreffData
Shooter	CompetitionTracker	

Swedish result application for FSR

“Shooter” is a Swedish results application developed for FSR. The application is using its own file format; KMX.BIN.


3.2.2.5 Competition Tracker

Result format

Leon	Standard	TreffData
Shooter	CompetitionTracker	

Ranking software for Civilian Markmanship Program

BaseURL:

Refresh interval (ms):
 

“CompetitionTracker” is developed for CMP in the US. The application is using an external server for result/data exchange.

3.3 WinGPS / GPS

WinGPS uses TCP/IP as transfer protocol on the network. This protocol must be set up on all PCs in the network. This can be done by static or dynamic IP address. The most common solution today is dynamic IP address. By using static IP address you must physically into the PCs protocol to set a fixed unique IP address.

3.3.1 Static IP Address

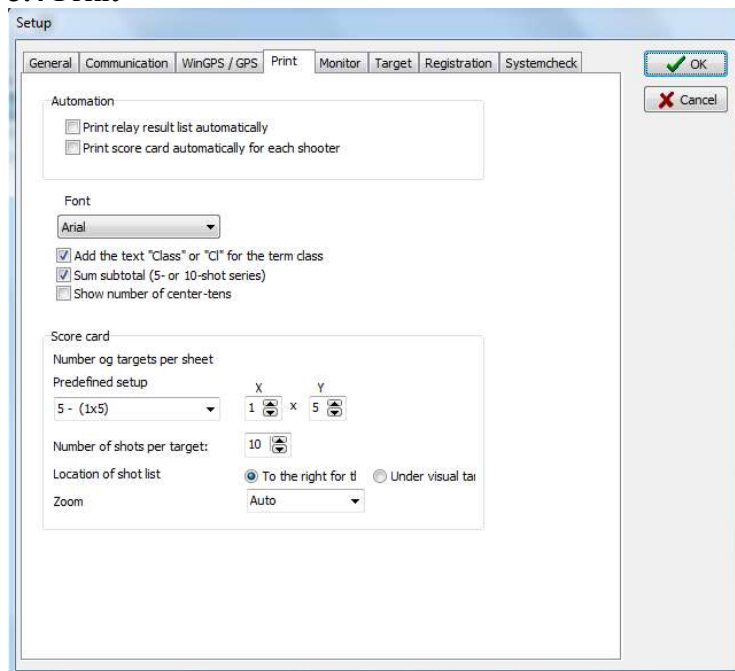
In this tab you are supposed to write the IP address of the computer where WinGPS Server is running, or the PCs name on the network (the NetBios name) if using dynamic IP address. We recommend to install WinGPS Server at the PC where Leon or WinGPS Monitor is in use.

For instance the IP address 192.168.0.1 can be used for the WinGPS Server PC. Use the first part of this IP address on every computer, but increase the last value with one: 192.168.0.2, 192.168.0.3 etc. It's very important to use the same subnet on every computer (the first numbers; 192.168.0). The last number can be everything between 1 and 255, here written as X: 192.168.0.X.

3.3.2 Dynamic IP Address (Recommended!)

If you use dynamic IP address on your network (with aid of a DHCP server) you must use the Windows PC name. If you choose this option, you do not have to do what is described earlier in this subchapter. DHCP is standard on Network Routers. We recommend this method.

3.4 Print



3.4.1 Automation

Check “Print relay list automatically” if you want a collected result list for the relay to be automatically printed when “Register” is clicked. This can be practical for ordinary training where Pegasus 3 is used. It’s also smart to check this for competitions where you use a results handling application. The paper copies will be your backups if everything stops working. Look at “chapter 13.0 Print“ for set up of the printout and printer settings.

Check “Print score card automatically for each shooter” if you would like a graphical print (score card) to be printed automatically for each shooter when “Register” is clicked. Typical used for competitions. Look at “chapter 13.0 Print“ for set up of the printout and printer settings.

3.4.2 Font

The printers/PNG files font can be configured separately. As a standard, we recommend *Arial*.

3.4.3 Add the Text ”Class” or ”Cl” for the Term Class

Default there will be no text in front of the class description of the printouts. To make evident that this is class, the text “Cl” or “Class” will be added in front. For example “Cl 5” instead of just “5”.

3.4.4 Sum Subtotal (5- or 10-shot series)

If this option is activated, subseries (sub sum) for each 10 shots will be displayed for series with more than 10 shots. This is used for international shooting (ISSF) when there are a lot of shots in one series. For example 60 shots prone position will display the sum of 6 of the subseries by 10 shots. If “Number of shot per target” under “Score card” is “5”, series with more than 5 shots will display subseries for each 5 shots.

3.4.5 Show Number of Inner Tens

Shows the total of Inner Tens in the series and total sum. In some targets is “*” used for other values than Inner Tens (for example Scandinavian terrain shooting).

3.4.6 Score Card

The shooter’s target and score in a graphical printout.

3.4.6.1 Number of Targets per Sheet

Settings for the number of targets/series on each page on the score card. It’s three predefined settings for number of target in X and Y directions:

4 – (1x4): One series in X direction and four series in Y direction.

5 – (1x5): One series in X direction and five series in Y direction.

12 – (2x6): Two series in X direction and six series in Y direction.

X direction is horizontal and Y direction is vertical.

Below “X” and “Y” you can choose number of series in X and Y directions yourself. X can be 1, 2 or 3. Y can be 1, 2, 3, 4, 5 or 6. Then it’s possible to select from 1 to 18 series/targets per page.

In “Number of shots per target” you can select the number of shots it will display for each target. If for example you have selected 5 shots per target, a 10 shot series will be divided into 2 target displays with 5 shots each. 10 is standard, and recommend in ISSF.

3.4.6.2 Location of Shot List

You can choose to have the shot list placed below or to the right of the target. To the right of the target is the default.

3.4.6.3 Zoom

In the graphical printout a zoom level can be selected (1-10). It’s possible to select a specific fixed zoom level between 1 and 10, or let Pegasus 3 automatically select the best zoom level based on shot value (Auto). We recommend auto as the default.

3.5 Monitor

The screenshot shows the 'Setup' dialog box with the 'Monitor' tab selected. The dialog has several sections:

- Show on the monitor:**
 - Info field: Left (1 - Shooter's name), Right (1 - Series name)
 - Show X- and Y-coordinates at the middle point
 - Show the shooter's name at the monitor before
 - Show the clock
 - The clock is counting downwards.
 - The clock is counting upwards.
 - Show stop indicator on shooters monitor when series is finished
- Impact point on the monitor:**
 - Standard as on monitor
 - Fixed size
 - Gauge size
 - Cross
- Last shot:**
 - Flashing
- Visible shots at the monitor:**
 - All
 - List
- Shot info on monitor:**
 - As set on monitor
 - Direction arrow
 - Timestamp in sequence
- Shooter monitor access level:**
 - Menu: Selection of target profile
 - Menu: Control of shooting course (Start, stop, next series, etc.)
 - Advance shooter from shooters monitor
 - Menu: Print
 - Menu: Slow marking
 - Menu: Toggle team members
 - Manual control of target lift from monitor:**
 - Off
 - Only sighting shots
 - All series

Some setting changes will not take effect before you reopen the relay and/or select the event profile.

3.5.1 Show on the Monitor

Info field

Left

In the bottom left corner on the shooter’s monitor (above the menu), is a field that is used to display selected information. This can either be shooter’s name, X/Y coordinates on the last shot, maximum centre-centre distance between shots (S-S), maximum, height + width distance of shot group (H+W) or S-10 (sub 10-shots series sums). All values except shooter’s name and S-10 are displayed as millimetres (or inches if the imperial units are selected).

Right

In the bottom right corner on the shooter's monitor (above the menu), is a field that is used to display selected information. This can either be series name or target profile name.

Show X- and Y-coordinates of the mean value hit point

Beneath the totals of the display, you can choose to display X/Y coordinates of the mean value hit point. It's displayed in selected unit of measure.

Show the shooter's name at the monitor before shooting

If this box is ticked, the shooter's name, visual target definition and the sub event profile will be displayed on the shooter's monitor whenever a new relay is loaded. The information will disappear either when the shooter presses a button or when the "Start" button in Pegasus 3 is clicked.

Show the clock

Enable or disable the shooting time on the shooter's monitor. The shooting time limit is synchronized with the shooting time limit in Pegasus 3, and uses the time defined in the course of fire to count downwards or upwards in the current series.

The clock is counting downwards

The shooter's clock counts downward from the series total time and counts down to 0. Applies for shooter's monitor clock, and the clock in Pegasus 3.

The clock is counting upwards

The shooter's clock counts upward from 0 until the "Stop" button is clicked in Pegasus 3. Applies for shooter's monitor clock, and the clock in Pegasus 3.

Show stop indicator on shooter's monitor when series are finished

When the series are finished, a stop message will be displayed on the shooter's monitor. This can be used as a warning meaning all shots in the series are fired. It's typically used in ISSF.

3.5.2 Shooter Monitor Access Level

The shooter himself will be able to control from the monitor the selections made here.

Menu: Selection of Target Profile

The shooter will be able to change the target profile from the monitor. If you are using different target profiles, it might be more expedient to let the shooters do this themselves.

Menu: Control of Shooting Course (Start, Stop, Next series etc.)

The shooter will be able to start and stop the series, and advance to the next series in the Course of Fire. This is necessary for the ISSF match courses of fire.

Advance shooter from shooter's monitor

By activating this function you are allowing a shooter to advance to the next shooter in the next relay. Typical used in smaller competitions, and where the shooter also controls the course of fire (Start, Stop, Next series etc.). When a shooter has finished the event, he is able to advance to the shooter on the current lane in the next relay.

Menu: Print

The shooter will be able to print his score card from the monitor. This can be expedient if you will save paper and the shooters themselves can decide if they want their score card or not.

Menu: Slow marking

If this box is ticked, the shooters will be able to press the button “Slow” on the monitor to get the marking again. Typically used if the shooter would like to see the whole series marked again, for easier tracking shot by shot.

Menu: Toggle team members

By activating this function you are allowing the shooters to toggle between the team members on the monitor. This is used by the CMP in the US; two and two team members are shooting as pairs, where one team can contain from one to three pairs. If you activate this function, the shooters are able to toggle between the pairs in the team. The function works like this: the shooters of a team is number from 1 to the number of team members. The first two makes the first pair, number 3 and 4 the next pair, and so on. By selecting a shooter on the monitor, the first shooter of that pair is selected. When that shooter shoots the first shot, the system automatically selects the other shooter in the current pair. The shooters in the current pair alternate for each shot, and the name automatically alternate accordingly.

Manual control of the target lift from the monitor

Off: The shooter cannot control the target lift from the monitor at all.

Sighters only: The shooter can control the target lift from the monitor during sighting shots.

All series: The shooter can control the target lift from the monitor during all series.

3.5.3 Impact Point on the Monitor**Standard as on monitor**

Pegasus 3 does not overrule the individual settings for the impact point on the monitor. This could result in different impact point marking on the monitors.

Fixed size

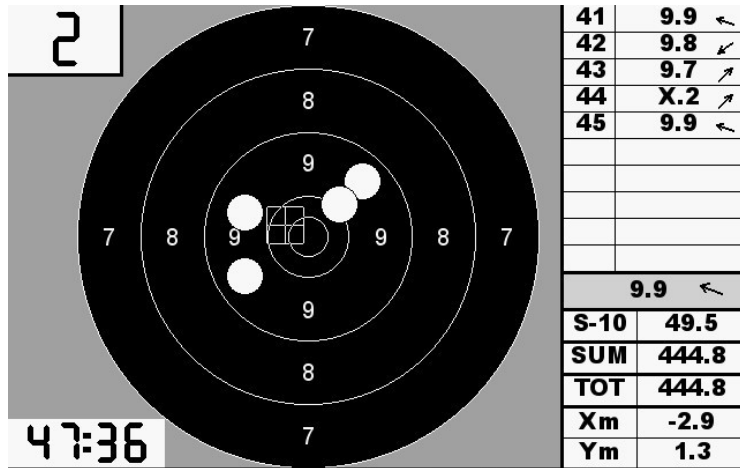
The size of the impact point marking is fixed. This is the standard setting. Normally used at long range targets (100 m/yards and more). Pegasus 3 overrules all individual settings on all monitors.

Gauge size

The size of the impact point marking is in gauge size. This can result in very small size of the impact point marking. If the size of the impact point marking is very small, so small that it's hard to see the shots, switching back to fixed size will most likely give a more visual size of the marking. Gauge size is normally used at short range targets (10-50 m). Pegasus 3 overrules all individual settings on all monitors.

Cross

The size of the impact point marking is in gauge size for the last shot only, while the rest of the shots are displayed as a cross. Pegasus 3 overrules all individual settings on all monitors.



Only the current 5 shots in the shot list are visible of a total of 45 shots.

3.5.6 Shot Info on Monitor

As Set on Monitor

Pegasus 3 does not overrule the individual settings for the shot info on the monitor. This could result in different shot info on the monitors.

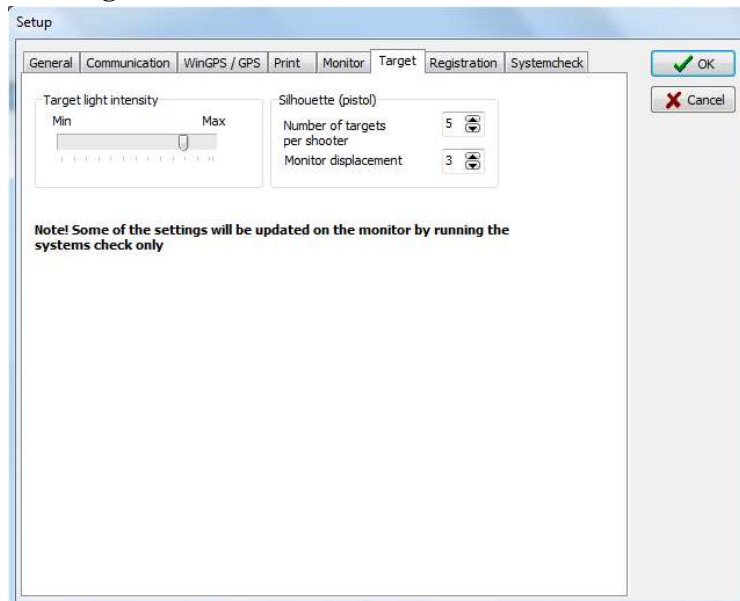
Direction Arrow

A direction arrow shows where the shot is located. Pegasus 3 overrules all individual settings on all monitors.

Timestamp in Sequence

Used for pistol shooting, a time (in second) relative to each green period in a sequence is shown on the monitor. Used for pistol target with red and green pistol light only. Pegasus 3 overrules all individual settings on all monitors.

3.6 Target



3.6.1 Target Light Intensity

Adjustment of the insensitivity of the target lights. **N.B!** This applies for pistol targets with red/green lights only, and not for LED lights.

3.6.2 Rapid Fire (Pistol)

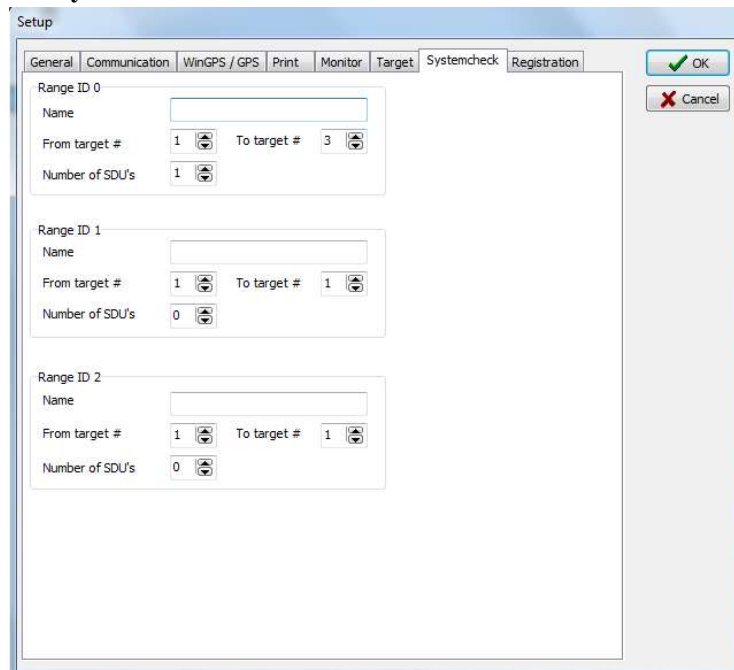
Number of targets per shooter

Here you can select the number of targets for each shooter. In rapid fire the shooter shoots on 5 different targets. When this is set to 5, shooter number 1 will have target 1-5, and shooter number 2 will have target 6-10 etc.

Monitor displacement

Here you can set which monitor the shooter is going to use when shooting the rapid fire event. If numbers of targets is set to 5, and the shooter is going to use monitor 3, the “Monitor displacement” must be set to 3. If there are more shooters, the next ones will use monitor 8, 13, 18 etc.

3.7 System Check



Here you can configure how many SDU's your firing line got. It's possible to shoot at 3 different distances from the same firing line.

For the target number is it important to notice that you must write lowest and highest number that the target is defined as. I.e. you have 15 targets, the first is defined as target number 1 and the last is defined as target number 15, then you have to write “From target # 1” and “To target # 15”.

If a range IDs is not in use, set “Number of SDU's” to 0.

3.7.1 One SDU

If you use one SDU only at the firing line, configure this under “Range ID 0”. It’s normal to write the name of the range you are shooting at, for example “50 meter”. Choose from and to target number. Set “Number of SDU’s” to “1”.

3.7.2 Several SDU’s at One Distance

If you use several SDU’s at the same firing line at one distance, configure this under “Range ID 0”. This is often used if you have very many targets at your range. One SDU typically apply up to 25 targets. If you for example have 30 targets, you must connect one SDU to each segment, named low end and high end. In this example the low end is consisting of lane 1-15, and the high end is consisting of lane 16-30. The two SDU’s connects to the Pegasus 3 computer. As name it’s logic to write which distance you are shooting at, for example “50 meter”. Specify the from and to target number you use at the target line. Set “Number of SDU’s” to “2”.

3.7.3 One or More SDU’s per Range, on Several Ranges, Linked to One Firing Line

You need to configure each distance on different range ID’s if you are shooting on several distances linked to one firing line.

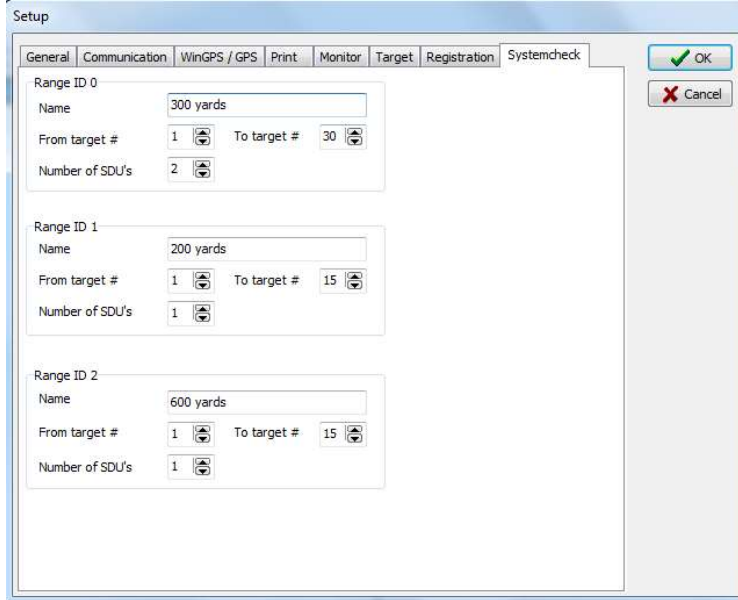
For instance, you can shoot at 200, 300 and 600 yards from one firing line, and have all these three ranges in Pegasus 3’s course of fire. Let us use this example, and let us say that we have 15 targets at each range, except from the 300 yards target line where we have 30 targets.

Set “Range ID 0” to the range with two SDU’s, the 300 yards range. It’s most expedient to write “300 yards” as name. Set the from and to target number you use, in our example its target # 1-30. We have 2 SDU’s at this range, set “Number of SDU’s” to “2”.

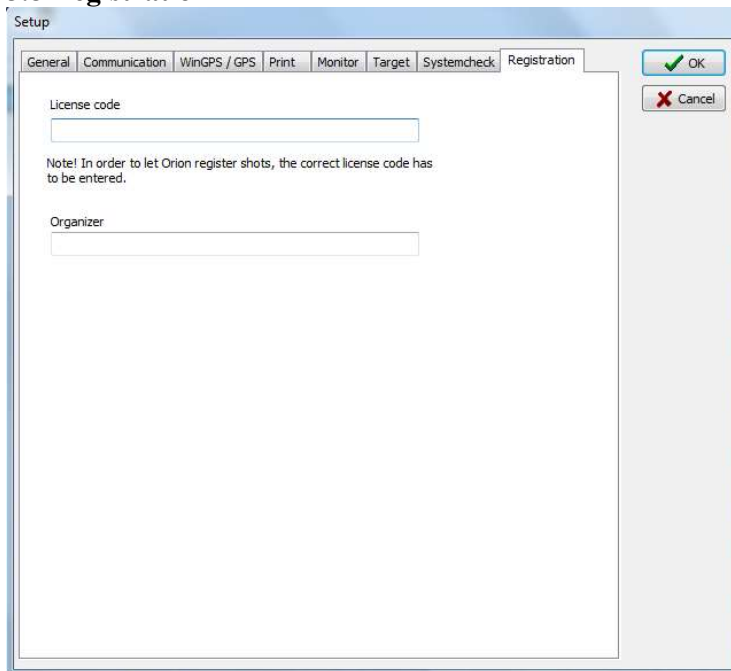
Set “Range ID 1” to a different range, for example 200 yards. It’s most expedient to write “200 yards” as name. Set the from and to target number you use, in our example its target # 1-15. We have 1 SDU at this range, set “Number of SDU’s” to “1”.

Set “Range ID 2” to the last range, in our example is this 600 yards. It’s most expedient to write “600 yards” as name. Set the from and to target number you use, in our example its target # 1-15. We have 1 SDU at this range, set “Number of SDU’s” to “1”.

Our example will look like this in the setup system check tab:



3.8 Registration



3.8.1 License Code

To make the program to work properly, a valid license code must be entered. The licence code is unique for each installation and will only work at the system it's registered on. Since the code is unique for each installation, a SDU from another installation cannot be used on the system before it's upgraded by the current upgrade 2.

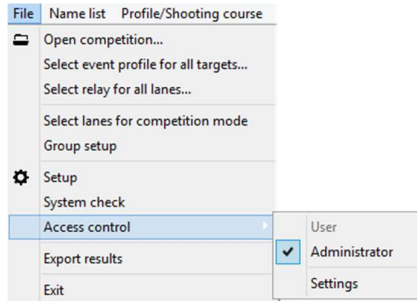
3.8.2 Organizer

Here you can write the name of the organizer of the competition. The name is printed in the header of the score card. To get Pegasus 3 working, it's not needed to write anything.

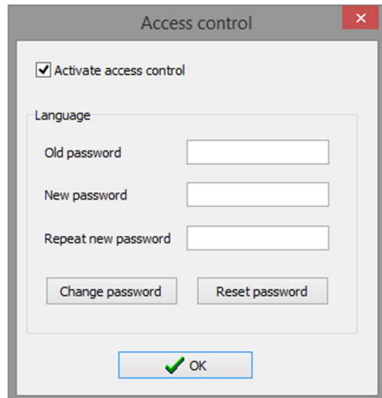
Relay	Lane	Summer Competition 2016 - Kongsberg Shooting Club	Class A
2	2	Morten Undseth Oslo Shooting Club	

Image: After the name of the competition (Summer Competition 2016) is the name of the organizer (Kongsberg Shooting Club). Beneath is the name of the shooter and then his club name.

3.9 Access Control



We have chosen to limit the access to areas where you can change Profiles, Course of Fire etc. in Pegasus 3. It's smart that's only the persons who knows the application are available to change the important settings. Activate the access control by navigate through these menus: **File → Access Control → Settings**. This dialog will emerge:



Check “Activate access control” and enter your required password. Then press the “OK” button. It's also possible to change and reset the password in this menu.

Navigate through this menu when the access control is activated: **File → Access Control**. By pressing the “Administrator” button you have access to all settings and menus in Pegasus 3 after entering your password. You will not have access to the two menus “Profile/Shooting Course” and “Administrator” by pressing the “User” button.

4.0 Creation of Target and Event profiles

Before we start to create Target and Event profiles it's very important the server and the monitors have the newest version of upgrade 1 and 2.

If starting Pegasus 3 for the very first time, the setup dialog will start. When you have configured the setup (described in "chapter 3.0 Setup"), the Target and Event profile setup wizards will automatically start, provided that you haven't run the wizard yet.

At the first time the wizard can look a bit overwhelming, but take your time and use this user manual as a guide. Pegasus 3 will function much better than its predecessor when you first have gone through this. If you have more firing lines, we recommend the same list of Target profiles are used on every firing line, provided the same upgrade 2 is installed on each firing line. Then it's possible to use the same PC, SDU's and monitors across the firing lines. Please have a look at "chapter 2.2 Copy of the Database" for an explanation of how to copy the installation.

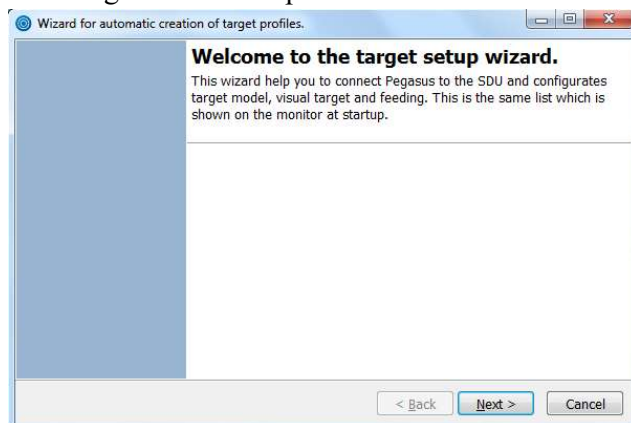
Target profiles are created on the basis of which targets you have got. The Target Profiles are defined of the following: Visual target definition from the SDU (upgrades with an upgrade 2), the target model at the target line, if the target uses automatically feeding of strip/band (in that case length and interval) and name of the Target profile.

For example, you can use the short range target "H1M" for different competitions; Small Bore Rifle (SBR), Air Rifle (AR) and Air Pistol (AP). You then need to create a target profile for each course of fire, because it's different feeding length and interval of the strip/band and different trigger levels for the sound sensors.

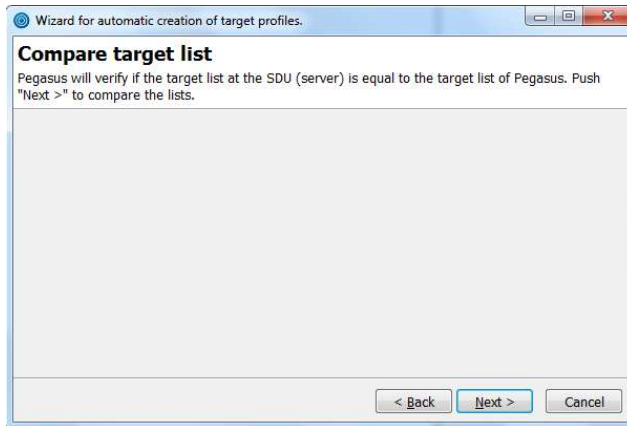
If you have configured Target profiles earlier, or if the setup wizard doesn't automatically open, go straight to "chapter 4.2 Later Setup of Target Profiles".

4.1 First Time Setup of Target Profiles

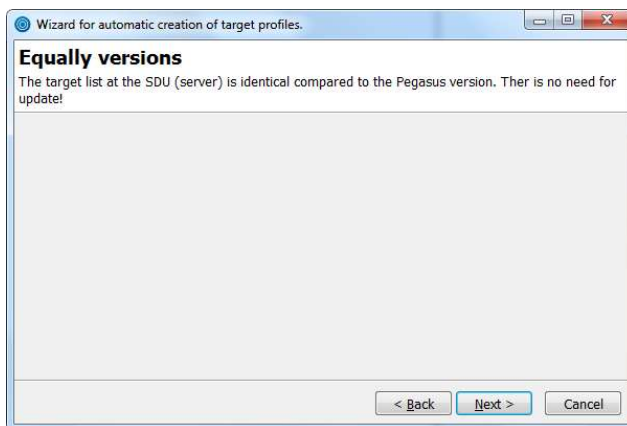
The Target Profile setup wizard starts with the following dialog:



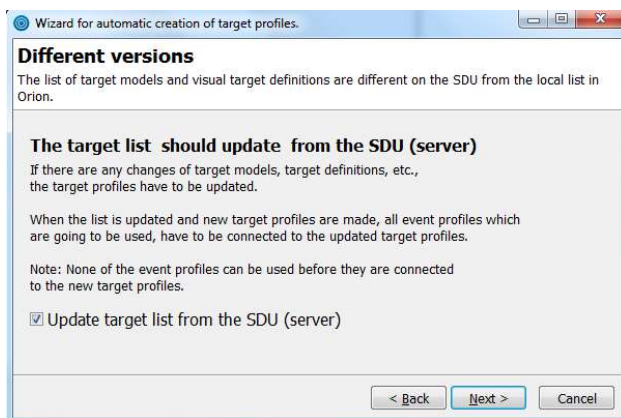
Press **Next**.



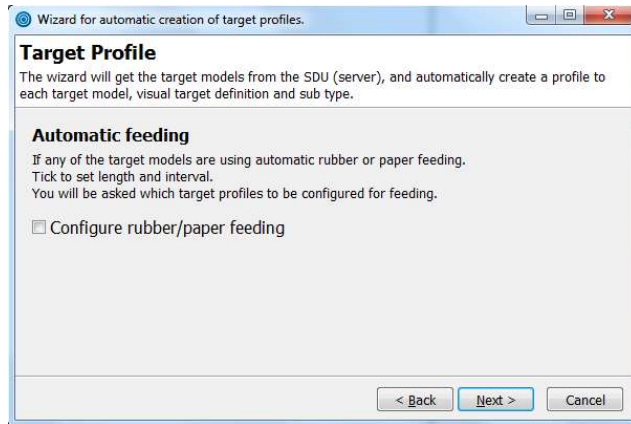
If you get this question to compare target list, press **Next**.



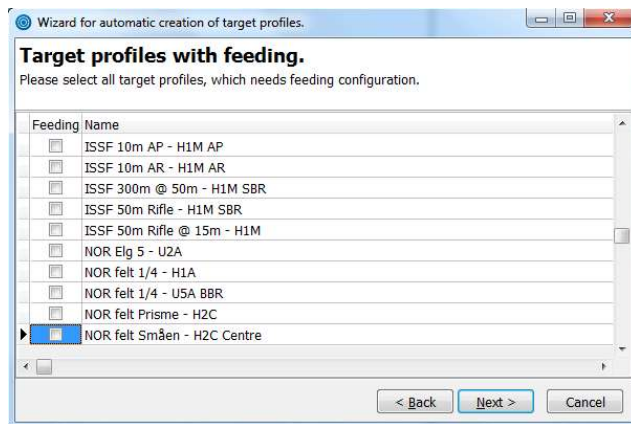
You will get this dialog if the target list, Visual Target Profiles, is the same on the SDU and in Pegasus 3. Press **Next**.



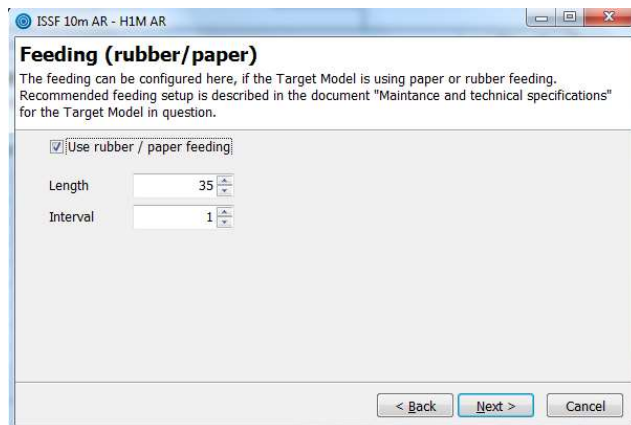
You will get this dialog if the Target List, Visual Target Profiles, is not the same on the SDU and in Pegasus 3. Then check "Update Target List from the SDU wizard" and press **Next**.



If you are using target models with automatic rubber or paper feeding check this box and press **Next**.



Now you get a list of the Visual Target Profiles that you have installed on your SDU. That list will probably be different from our example, but the progress will be the same. Check the target profiles that are using automatic rubber or paper feeding. Press **Next**.

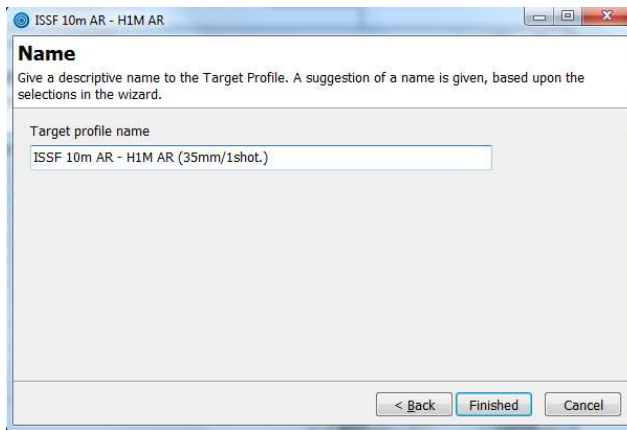


If you checked any of the targets in the previous window, you will now get the setting of each Target Profile. It says which Target profile you configure in the top of the window. In our example we now configure “ISSF 10m AR – H1M AR”. If you are using the same target (H1M) in other course of fire, for example AP, another window will emerge.

Check the box “Use rubber/paper feeding” and set the length and interval of the strip. These setting are given in the manual of the target. For the H1M target we can find this table (**N.B!** Do NOT use this table for the H1M target. The content of the table is subject to change!):

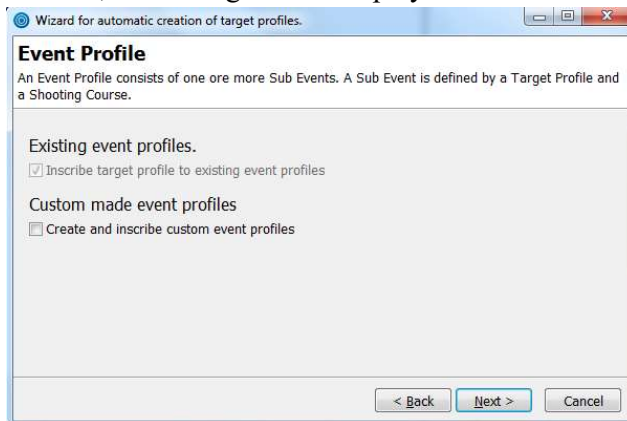
Calibre	Shooting	Strip/Band	Feeding length/interval
4.5mm air rifle	10/15m rifle	Paper	30 – 40mm every shot
4.5mm air pistol	10/15m pistol	Paper	40mm every shot
Cal .22	10/15m rifle	Rubber	3mm every 3’rd shot
Cal .22	15m pistol	Rubber	3mm every 6’th shot
Cal .22	50m rifle	Rubber	3mm every 4’th shot

The Target Profile in our example is using the target H1M at 10 meter for Air Pistol. The table says that the feeding length should be 30-40mm after each shot. In our example we use 35mm. Fill correct length and interval in the window and press **Next**.



Give your Target Profile a name. Pegasus 3 generates a name automatically, and we recommend to use the suggested name. The automatic generated name includes the name of the visual target name, the target model, and feeding length and interval are described in parenthesis. Press **Finished**.

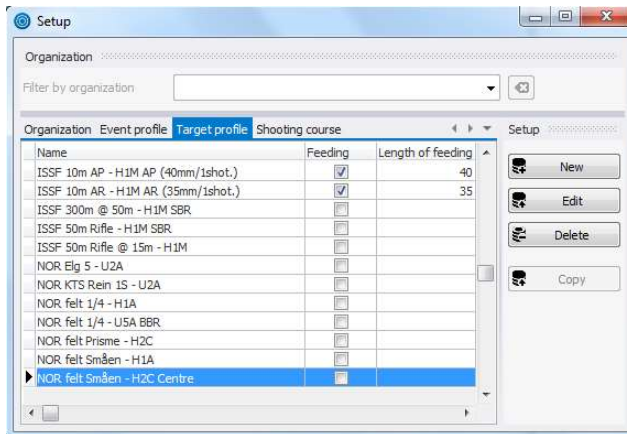
Continue the wizard to all Target Profiles are set up. When you have set up all Target Profiles, this dialog will be displayed:



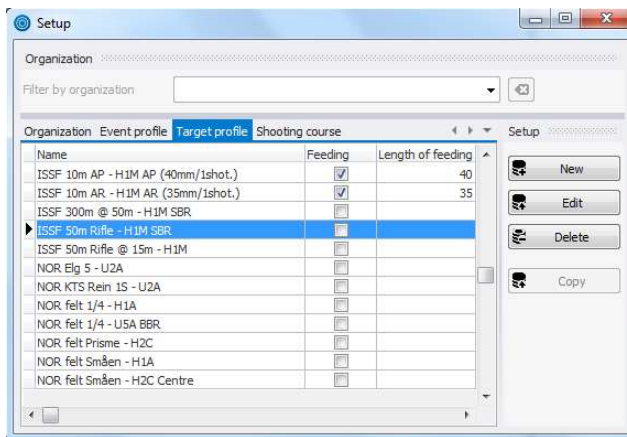
Go to “chapter 4.4 Event Profile”.

4.2 Later Setup of Target Profiles

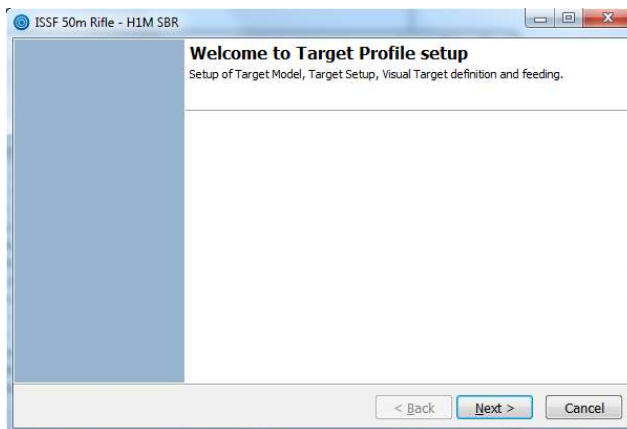
If you have configured Target Profiles earlier, or you want to edit the existing setup, open the setup menu by clicking **Profile/Shooting course** in Pegasus 3.



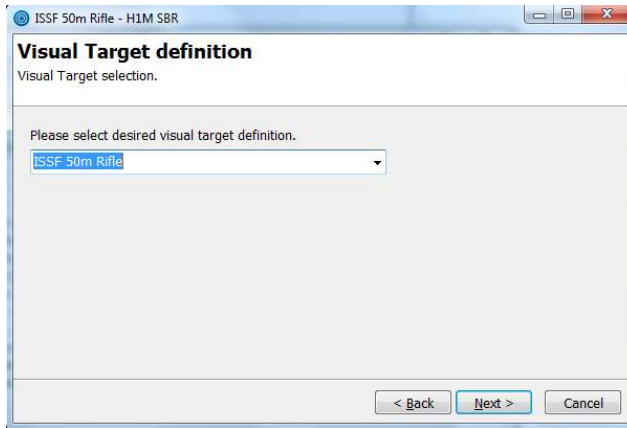
Select the “Target Profile” tab.



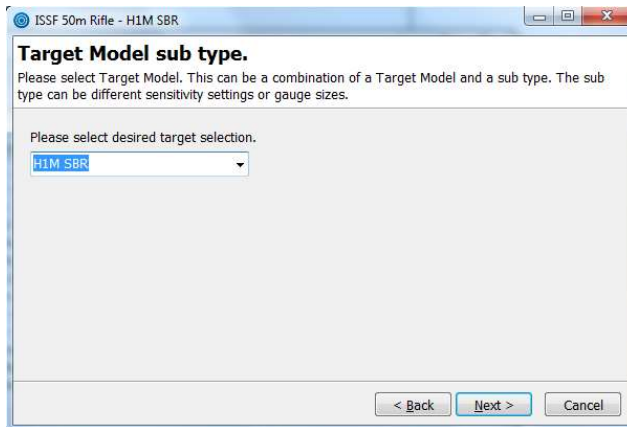
Mark the Target Profile you would like to configure with automatic feeding of strip/band. It’s important to notice that the same target model can be used in different course of fire, i.e. it can be different feeding length/interval. In our example we mark “ISSF 50m Rifle – H1M SBR” and press **Edit** to the right.



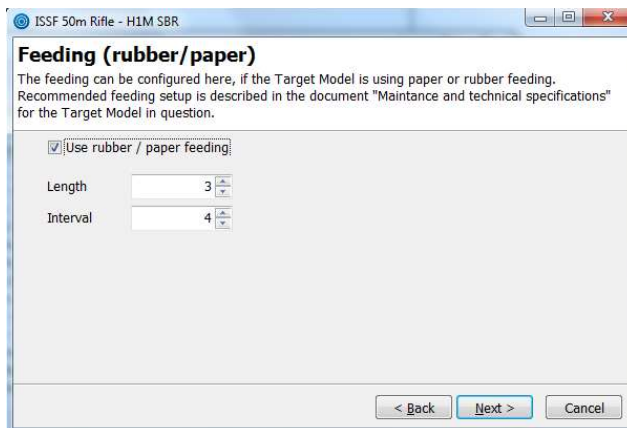
Press **Next**.



Select Visual Target definition. For our selected Target Profile, it will be logic to select the automatic suggestion that comes up; “ISSF 50m Rifle”. It will be logic to use the same as the Target Profile’s name (the Target Profile’s name is written on the top of this window). Press **Next**.



Select which target you will link to the Target Profile. Here it also will be logic to use the same as the Target Profile’s name (the Target Profile’s name is written on the top of this window). Press **Next**.



If you checked any of the targets in the previous window, you will now get the setting of each Target Profile. It says which Target Profile you configure in the top of the window. In our

example we now configure “ISSF 50m Rifle – H1M SBR”. If you are using the same target (H1M) in other course of fire, for example AP, another window will open.

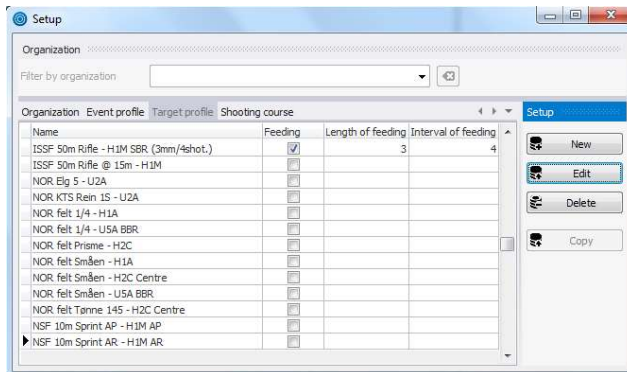
Check the box “Use rubber/paper feeding” and write length and interval of the strip. These settings are stated in the manual of the target. For the H1M target we can find this table (**N.B!** Do NOT use this table for the H1M target. The content of the table is subject to change!):

Calibre	Shooting	Strip/Band	Feeding length/interval
4.5mm air rifle	10/15m rifle	Paper	30 – 40mm every shot
4.5mm air pistol	10/15m pistol	Paper	40mm every shot
Cal .22	10/15m rifle	Rubber	3mm every 3 rd shot
Cal .22	15m pistol	Rubber	3mm every 6 th shot
Cal .22	50m rifle	Rubber	3mm every 4 th shot

The Target Profile in our example uses the target H1M at 50 meter with cal .22. The table says the feeding length should be 3mm every 4th shot. Set correct length and interval in the window and press **Next**.



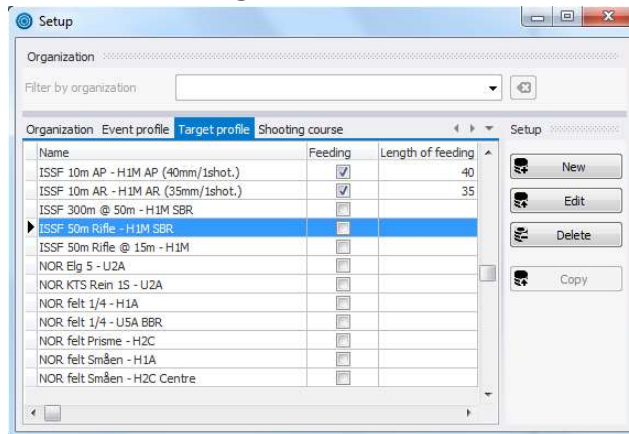
Give your Target Profile a name. Pegasus 3 generates a name automatically, and we recommend to use that name. The automatic generated name includes the Visual Target Definition, target model, and feeding length and interval are described in parenthesis. Press **Finished**.



You have now configured the Target Profile with automatic feeding. Repeat the process until every relevant Target Profile is configured with automatic feeding.

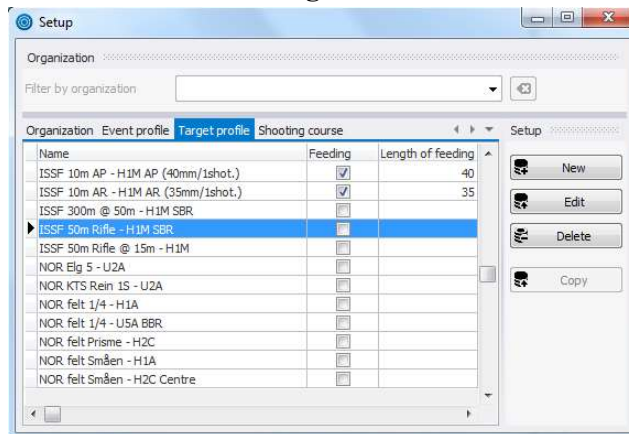
It's very important that new Event Profile will be linked to a Target Profile. Go to "chapter 4.4.2 Late linking of Target Profile to Event Profile" for a description.

4.2.1 Delete a Target Profile

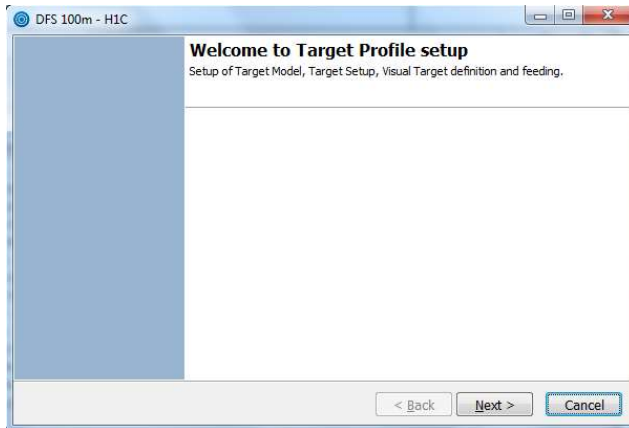


By marking the Target Profile you would like to delete, and then press **Delete**, it will be removed.

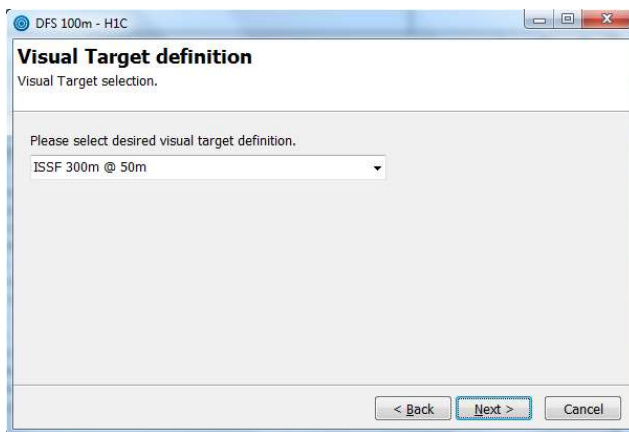
4.2.2 Create a New Target Profile



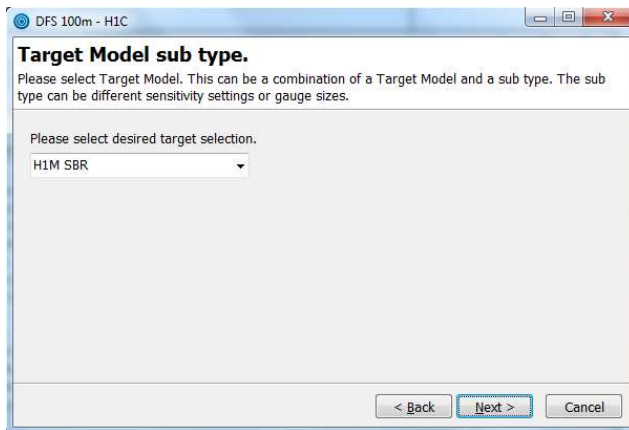
By clicking **New** you are able to create new Target Profiles. This can for instance be practical if you would like more Target Profiles with different kind of feeding. It's important to note that the Target Profiles are defined by the Upgrade 2 which is installed on the SDU/Monitor. If you can't find relevant Visual Target Definition, please contact KTS to order.



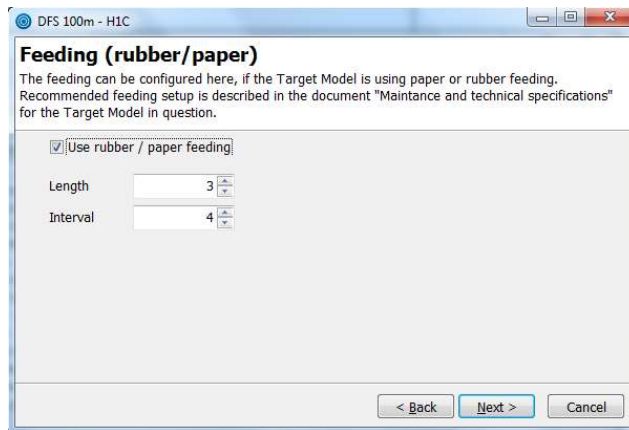
This window will appear after pressing **New**. Press **Next**.



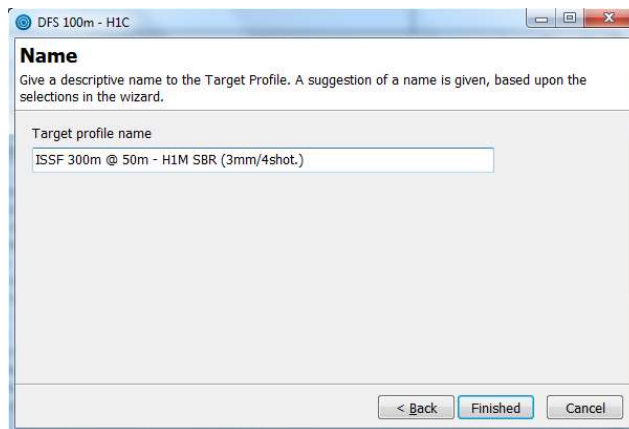
Select desired Visual Target Definition and press **Next**.



Select desired target selection and press **Next**.



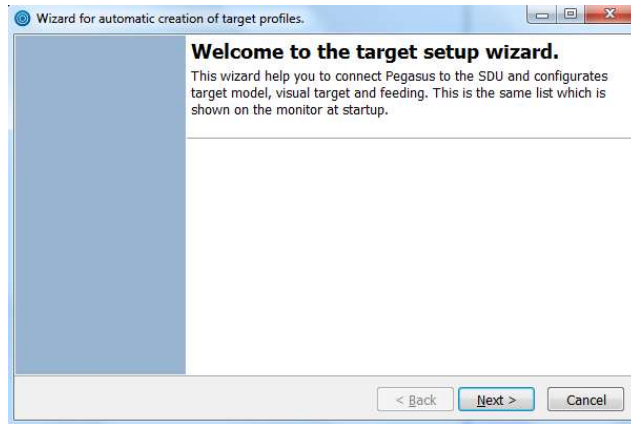
Check the box and fill in length and interval if the target is using paper or rubber feeding. Press **Next**.



Give your Target profile a name. Pegasus 3 generates a name automatically, and we recommend using that name. The automatic generated name includes the Visual Target Definition, target model, and feeding length and interval are described in parenthesis. Press **Finished** and the Target Profile will now appear among the others. It's very important to know that new Target Profiles have to be linked to an Event Profile. Go to "chapter 4.4.2 Late linking of Target Profile to Event Profile" for a description.

4.3 Add New Target Profiles

If you have upgraded SDU/Monitor with a new Visual Target Definition (upgrade 2) you must load these from the SDU into Pegasus 3. Open the wizard by clicking **Administrator** → **Profile setup** → **Update target list from the server (SDU) wizard** in Pegasus 3.



This window will appear. Press **Next**.

Further configuration is the same as the description of “chapter 4.1 First Time Setup of Target Profiles”. Please go to that chapter.

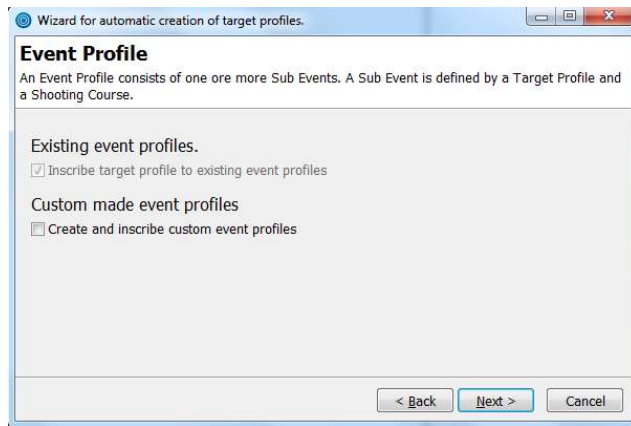
If you get a dialog that’s indicating equal versions between the SDU and Pegasus 3, then the SDU hasn’t been upgraded with a new Visual Target Definition. The SDU hasn’t been upgraded correctly, or the new Upgrade 2 is identical to the already installed Upgrade 2. Contact KTS to order new Visual Target Definitions.

4.4 Event Profile

To get Pegasus 3 to work you need to link the Event Profiles to the Target Profiles. An Event Profile is a profile that links the Course of Fire and the Target Profile together on a firing line. For example, “ISSF 10m Air Pistol 60 Shots” is a Course of Fire. To get the Event Profile to function, you need to link it to this Course of Fire and one or more Target Profiles. If you link it to just one Target Profile, your target line consists of just one target model. If you have several target models, you need to link the Event Profile to several Target Profiles for the correspond targets.

An Event Profile is defined from the following parameters: Name, Organization, Event type and at least one or more Sub-Events (the Sub-Events name, Course of Fire, Target Profile and advanced setup where it’s possible to link different Target Profiles to the same Event Profile → to be used if you have different Target models at the same target line). Or different Visual Target definitions for different parts of the Course of Fire (i.e. ISSF 25 m Pistol, precision and rapid fire).

You can link Target Profiles to the Event Profiles in two ways. When starting Pegasus 3 for the very first time the setup menu will open. When this is configured (described in “chapter 3.0 Setup”) the first time setup wizard for Target and Event Profiles will automatically open. When you have completed the Target profile setup (described in “chapter 4.1 First Time Setup of Target Profiles”) this dialog will emerge:

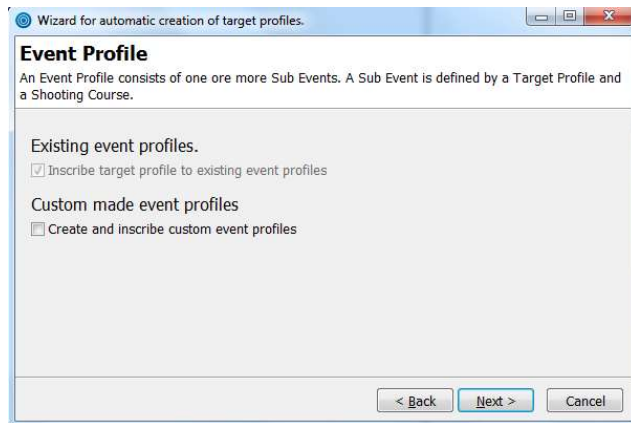


Then go to “chapter 4.4.1 Link Target Profile to Event Profile” for further explanation.

If you have configured Event Profiles earlier, but would like to change existing profiles or would like to add new ones, go to “chapter 4.4.2 Late linking of Target Profile to Event Profile”.

4.4.1 Link Target Profile to Event Profile

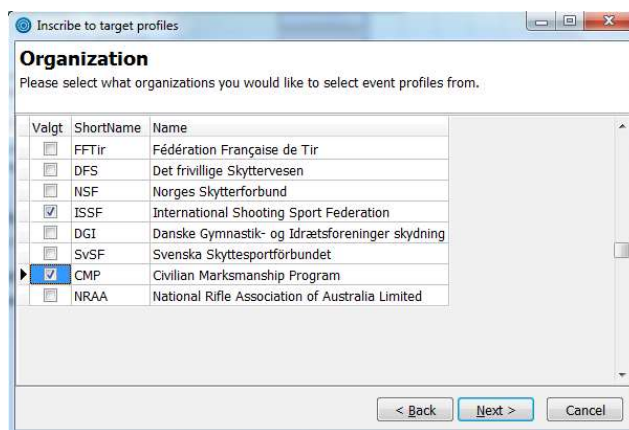
(You can also open this wizard by clicking **Administrator** → **Profile setup** → **Inscribe Target profile wizard** in Pegasus 3).



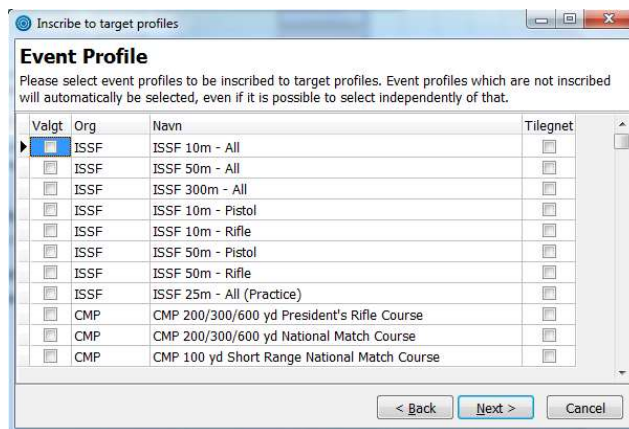
Check “Create and inscribe custom event profiles” if desired. We recommend you to create own Event Profiles later (described in “chapter 4.4.2 Late linking of Target Profile to Event Profile”) because you will have a much better basis to understand how to do it after going through this wizard. Press **Next**.



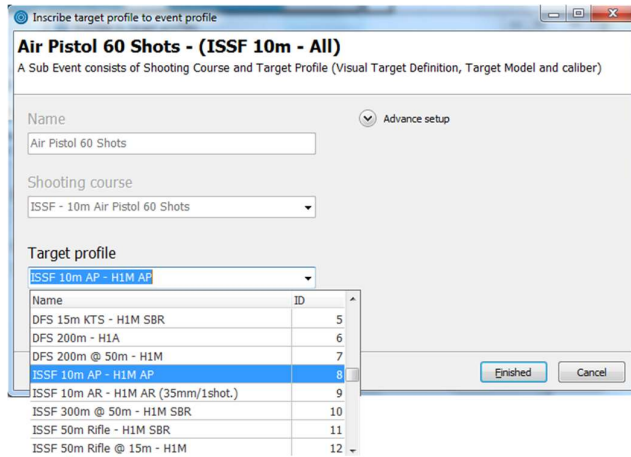
Press **Next**.



Select which organization(s) you will get Event Profiles from. Press **Next**.

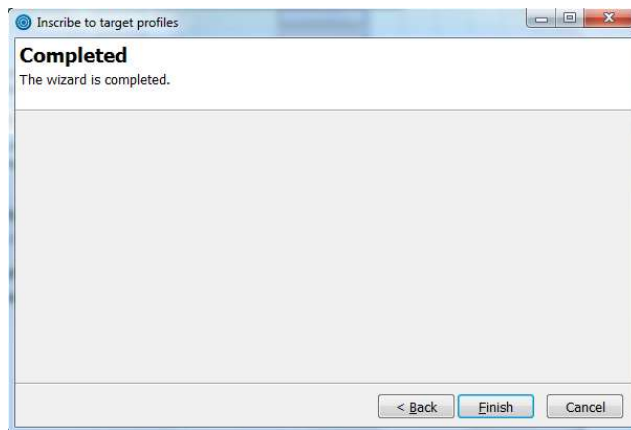


Every official Event Profile from the Organization(s) you selected will be listed here. In our example we selected ISSF and CMP, Event Profiles from these organizations will then be listed. Select the Event Profiles you would like to inscribe to Target Profiles. Press **Next**.



Now you are supposed to link the Event Profiles you selected to the Target Profiles. It's very important you choose correct Target Profile you actually are going to use in a competition. In our example we have the Course of Fire "ISSF – 10m Air Pistol 60 Shots", and we are going to use the Target Profile "ISSF 10m AP – H1M AP". When you have linked a Target Profile to the Event Profile, press **Finished**. Then a new window will open for another Event. It's not possible to change the name of the Course of Fire in official Event Profiles, this is just possible for custom made unofficial Event Profiles.

When using different target models at the same target line, it's described how you link different Target Profiles to an Event Profile in "chapter 4.4.1.1 Different Target Profiles in the Same Event Profile".

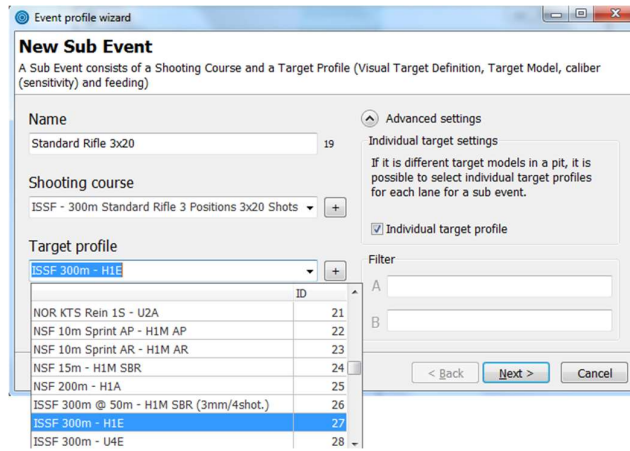


This window will emerge when linking of Target Profiles to Event Profiles are done. Press **Finish**. Now you can start using Pegasus 3!

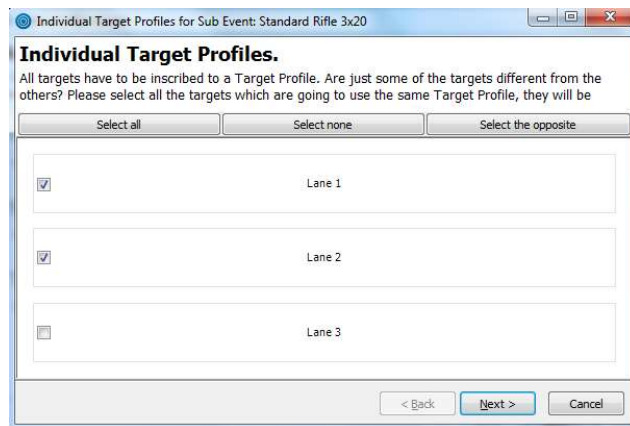
If you will check your settings, which Event Profiles that are inscribed, choose the tab "Profile/Shooting course" in Pegasus 3. By selecting "Event Profile" in this setup form you can see which profiles that are inscribed. They can also be copied and edit, read more about this in "chapter 4.4.2 Late linking of Target Profile to Event Profile". **N.B!** It's only possible to run competition on inscribed events!

4.4.1.1 Different Target Profiles in the Same Event Profile

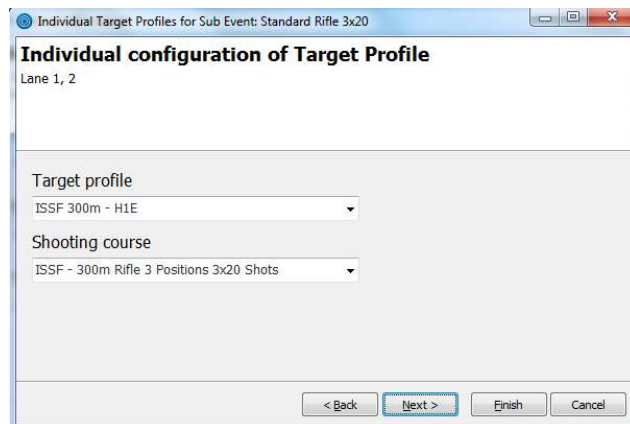
If you use different target models at the same range, you need to configure this in “Advanced settings”. Let us take an example:



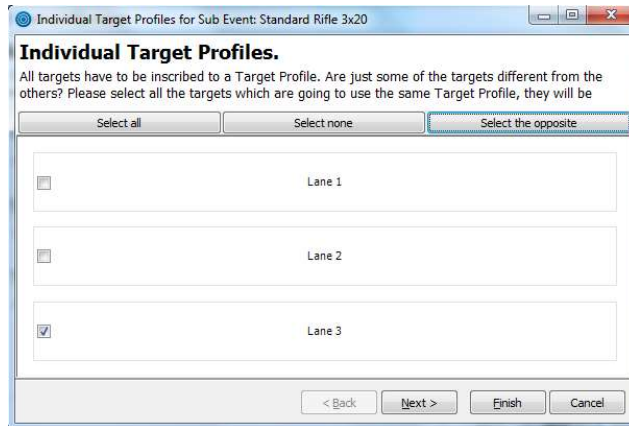
Press “Advanced settings” and check “Individual Target Profile”. Select a Target Profile and press **Next**.



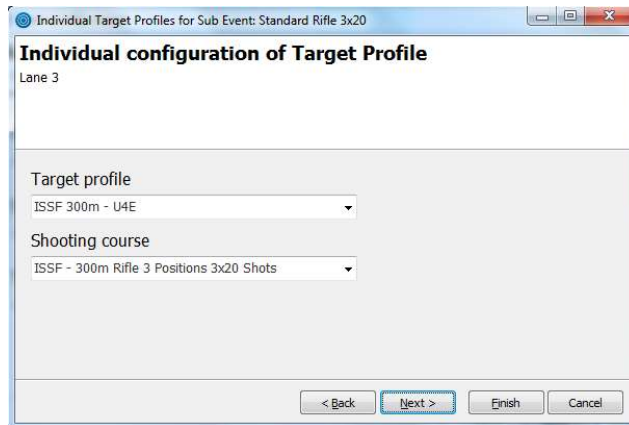
Check the targets using the same Target Profile (i.e. the same target models). In our example target 1 and 2 use the same Target Profile. Press **Next**.



Select current Target Profile and Course of Fire. In our example the first two targets are using the “H1E” target model. Press **Next**.



Check the target using another, but same Target Profile (i.e. the same target models). In our example target 3 is using another Target Profile. If you only have two different Target models on your target line, press the button “Select the opposite”, and the application will mark the target(s) that wasn’t checked previously. Press **Next**.



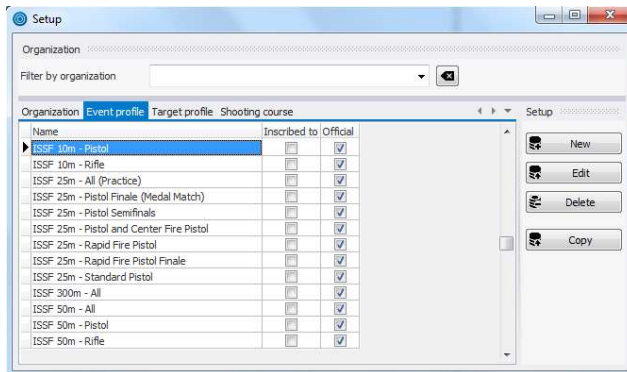
Select the correct Target Profile and the same Course of Fire. In our example target 3 is using the “U4E” target model. Press **Next**.



If you have more different target models, check the target using the same Target Profile (i.e. target models) and do the same. When you’re done linking Target Profiles to this Event Profile, press **Finish** and the next Event Profile will appear.

4.4.2 Late linking of Target Profile to Event Profile

The tab for Event Profiles you can open by selecting “Profile/Shooting course” in Pegasus 3, and then select the Event Profile tab.

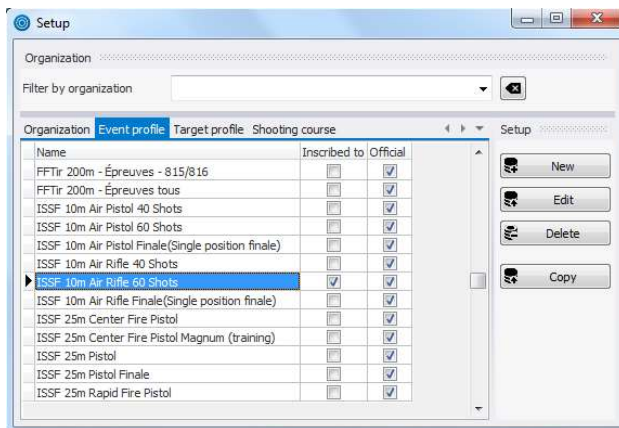


Here all the Event Profiles from all Organizations will be listed. Select the “Organization” tab to get an overview over the different Organizations and its initials.

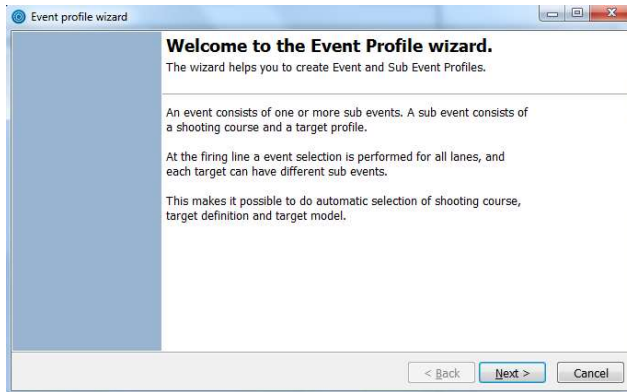
It’s not possible to edit profiles that are checked as “Official”, but they have to be inscribed before they can be used. You can create new Event Profiles if desired. That’s practical if you have an internal special competition. You can also create your own organization in the organization tab.

When an Event Profile have been inscribed, the box under “Inscribed to” will be checked. An Event Profile can only be used for a competition if it’s inscribed. Inscribe all Event Profiles you need. It’s not necessary to inscribe Event Profiles that you don’t have a Target profile for, or you’re not going to use for competitions.

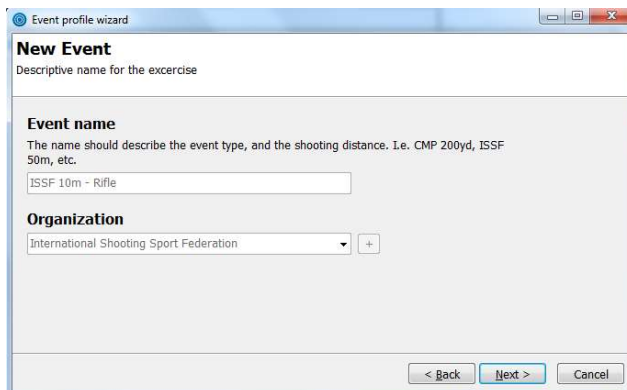
Mark the Event Profile you would like to configure.



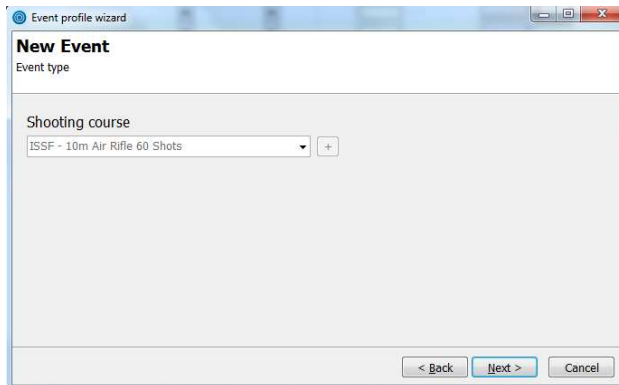
In our example we use “ISSF 10m Air Rifle 60 Shots”. We mark this and press **Edit** on the right side.



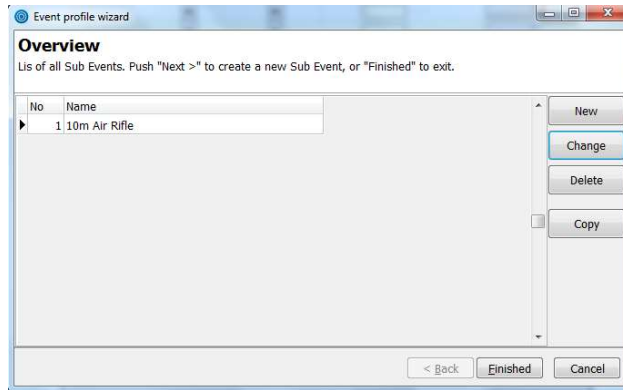
Press **Next**.



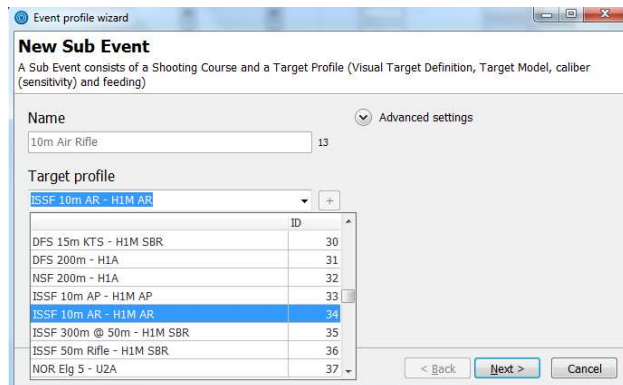
Here is the Event Name and the Organization described. It's not possible to change these data in "official" profiles. If you create an unofficial profile it's possible to change name and organization. Press **Next**.



Select Course of Fire. Press **Next**.

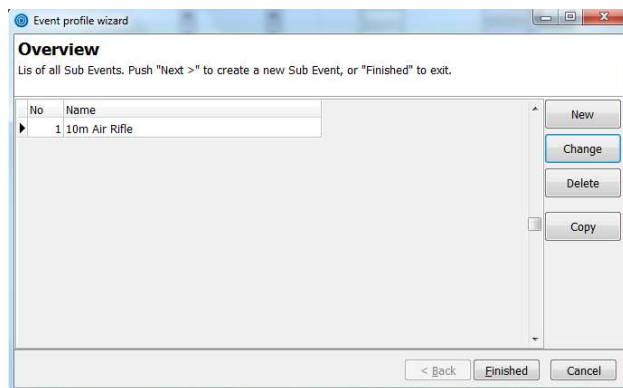


This window will now emerge. Mark the sub event and press **Change**.

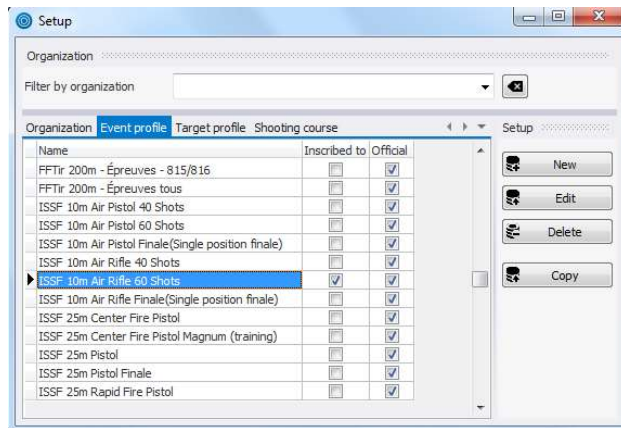


You are linking the Event profile to correct Target profile under “Target profile”. In our example are we linking ISSF 10m Air Rifle, i.e. we select the Target profile that is configured for that Event. Press **Next**.

If using different target models at the same range, it’s described how you link different Target Profiles to an Event Profile in “chapter 4.4.1.1 Different Target Profiles in the Same Event Profile”.



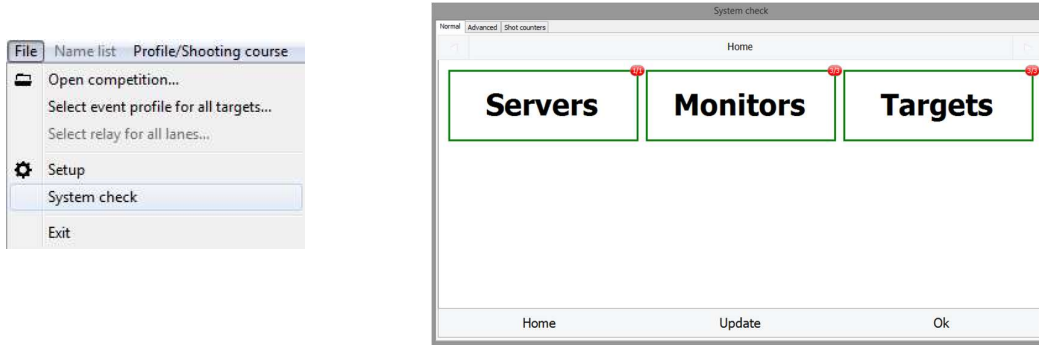
This window will now emerge again. If it’s more sub events, mark the next one and press **Change**. Do this until you have linked all Sub-Events with a Target Profile. You are also able to create new Sub-Event Profiles. In that case, press **New** and do as described over. When you have finished, press **Finished**.



You will now see that the Event Profile has been inscribed. Configure all desired Event Profiles in the same way. It's very important that you're doing this properly, because wrong inscription will lead to wrong marking. Press "Edit" to check which inscriptions you have made.

By using the button "Copy" you are able to copy an Event Profile. In many cases an official Event Profile can be a good start for an unofficial custom made Event Profile.

5.0 System Check



Before doing a system check, check that no monitors have a system card in the reader, and that all monitors have the “Insert smartcard or press any key” displayed or displaying a target.

5.1 Normal

By pressing the “Normal” tab in the System check you will see which parts of the target system Pegasus 3 is connected to. If one of the three boxes is green, Pegasus 3 is connected to all the equipment in that category. In the top right of each box it is a number of how many units Pegasus 3 is connected to, and the number it should be connected to. In our example we have configured the system with one SDU, 3 monitors and 3 targets. Pegasus 3 is connected to all servers (1/1), all the monitors (3/3) and all the targets (3/3).

When starting Pegasus 3 the System check will automatically open. When everything is green, press **OK**.

5.1.1 Servers (SDU)

Green:

The SDU('s) are ready to use.

Red:

Can't get a connection to the SDU('s). Double-click in the “Servers” box if you are using more than one SDU. There is a list of which SDU's you can't connect to. Press “Update” to run a new System check.

5.1.2 Monitors

Green:

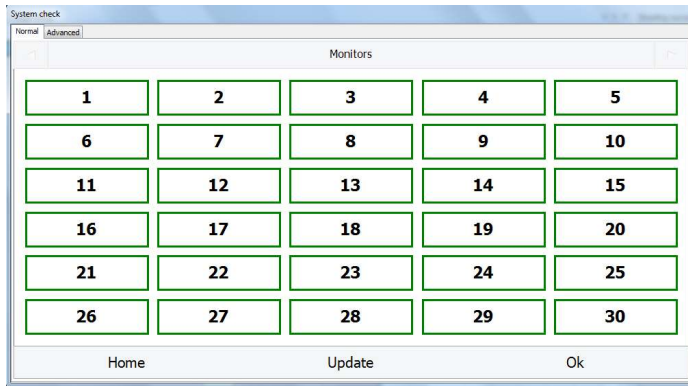
The monitors are ready to use.

Yellow:

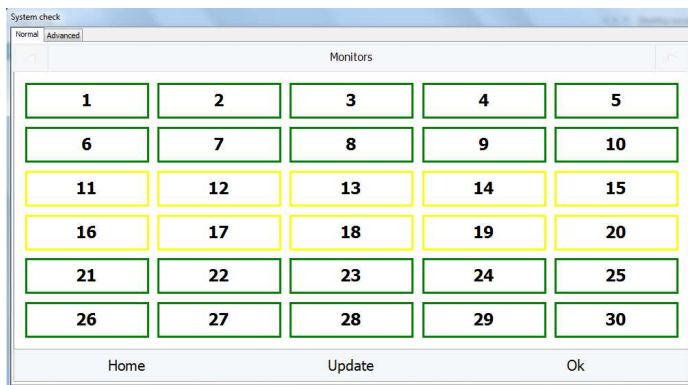
All monitors are connected, but one or more isn't ready. Double-click in the “Monitors” box to check which monitor(s) that isn't ready. This happens if a monitor doesn't have the text “Insert smartcard or press any key” displayed, but is starting up. Press “Update” to run a new System check.

Red:

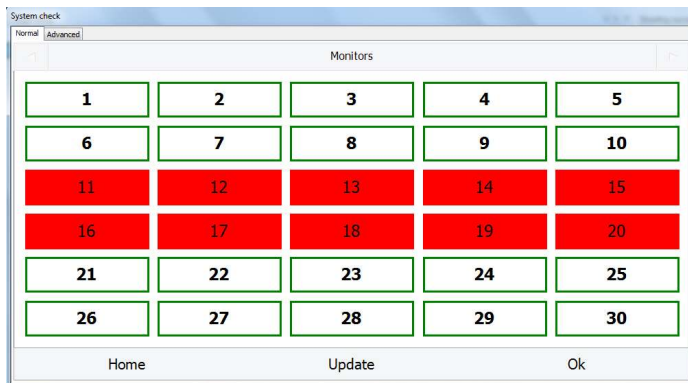
Can't connect with one or more monitor(s). Double-click in the “Monitors” box to check which monitor(s) you can't connect to.



This is an example on how the System check looks like when Pegasus 3 has connection with all the monitors.



This is an example on how the System check looks like when Pegasus 3 has connection with all the monitors, except from ten monitors that's isn't ready (target no. 11-20 is not ready).



This is an example on how the System check looks like when Pegasus 3 has connection with all the monitors, except from ten monitors (there is no connection with lane no. 11-20).

5.1.3 Targets

Green:

The targets are ready to use.

Red:

Can't connect with one or more target(s). Double-click in the "Targets" box to check which target(s) you can't connect to. If there is no connection to any targets, check the signal indicator of the SDU. The signal indicator diode is not supposed to light if it's a connection.

Check the signal indicator diode on the target as well (for which diode this is, look in the target’s user manual). You can also try a restart of the target electronics.

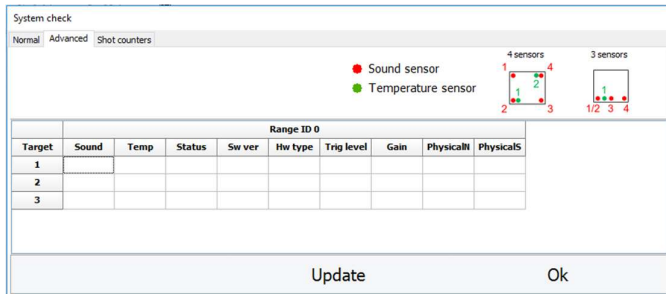
The System checks home window will always be displayed by pressing the “Home” button. Here is a status overview of servers, monitors and targets.

To run a new System check press “Update”.

When you have checked status in the System check and would like to begin a competition, press “OK”.

If a monitor stops functioning during a competition, it might be needed to restart this monitor or replace the monitor. This is described in “chapter 22.1 Monitor Stops”.

5.2 Advanced



By pressing the “Advanced” tab in the System check a status window will emerge, showing a list of the targets acoustics and temperature sensors. The target electronics software can be upgraded if the system doesn’t support this function. Contact KTS for an upgrade.

By pressing “Update” the values will be updated. To navigate back to the normal System check, press the “Normal” tab. To close the System check window, press “OK”.

Table explanation:

Target: Target number.

Sound: “Ok” will be displayed when all the sounds sensors are working properly. The field will be red, and sensor numbers will be displayed, if it’s not a connection to one or more sensors. Use the graphic on the top right to locate the sensor(s) with no connection. Notice: you must know if the target has corner sensors, or all the sensors are located in the bottom of the target. The target will not mark if this field is red.

Temp: “Ok” will be displayed when all the sounds sensors are working properly. The field will be red, and sensor numbers will be displayed, if it’s not a connection to one or more sensors. Use the graphic on the top right to located the sensor(s) with no connection. Notice: you must know if the target has corner sensors, or all the sensors are located in the bottom of the target. The target will still mark if this field is red. The target will assume the temperature is 20°C if one or both sensors are not working, but the target can still mark accurate. The

marking are more accurate when the real temperature is closer to 20°C if the temperature sensors is not working.

- Status: An error code will be displayed if the target HW/SW has managed to diagnose what's wrong.
- Sw ver: Version number of the target software.
- Hw type: Hardware type number of the target.
- Trig level: Specifies how much audio is required for the target to start register this as a potential shot. *1)
- Gain: A factor that indicates how much the signal is to be amplified. *1)
- PhysicalNr: The Target Models Number is shown here (i.e.: H1A, OP1, H2C etc.).
- PhysicalSub: The Target Models physical sub type is shown here (i.e.: BBR, SBR, AR etc.).

*1) For both trig level and gain it's important to notice that the values shall be equal for the same target models and the same calibre, but the values can be different for different target models. This is not relevant for optical target models.

5.3 Shot Counters

System check				
Normal Advanced Shot counters				
Range ID 0				
Target	Reg12	Reg3	ShotCoun	TotalCoun
1	0	0	11	1229
2	0	0	10	1185
3	0	0	10	1251

Export to file Update OK

The shot counters are opened from this tab. It counts total number of fired shots in each target, in addition to noise registrations. The noise counter is a good tool to diagnose possibly malfunctioning targets/sensors. High numbers of noise registrations can come due to broken sensors/cable, leaky target (hole in the target rubber skin) or poor maintenance of horizontal and vertical rubber skin, frame hits, ricochets, noise from the bullet catcher, target handling, in and out connecting of the target cables and sensors brushing.

A target with significantly higher values than other targets must be checked. A value 10 times higher than the other targets over some time must be at least checked.

The shot counter is saved at the target number in the SDU, i.e. you are able to replace monitors if needed. It also counts when the system is in training/practice mode and not using Pegasus 3.

In each column you can find values of each target. The meaning of each column is listed here:

- **Reg 1/2:** Number of registrations where one or two of the sensors has detected a signal.

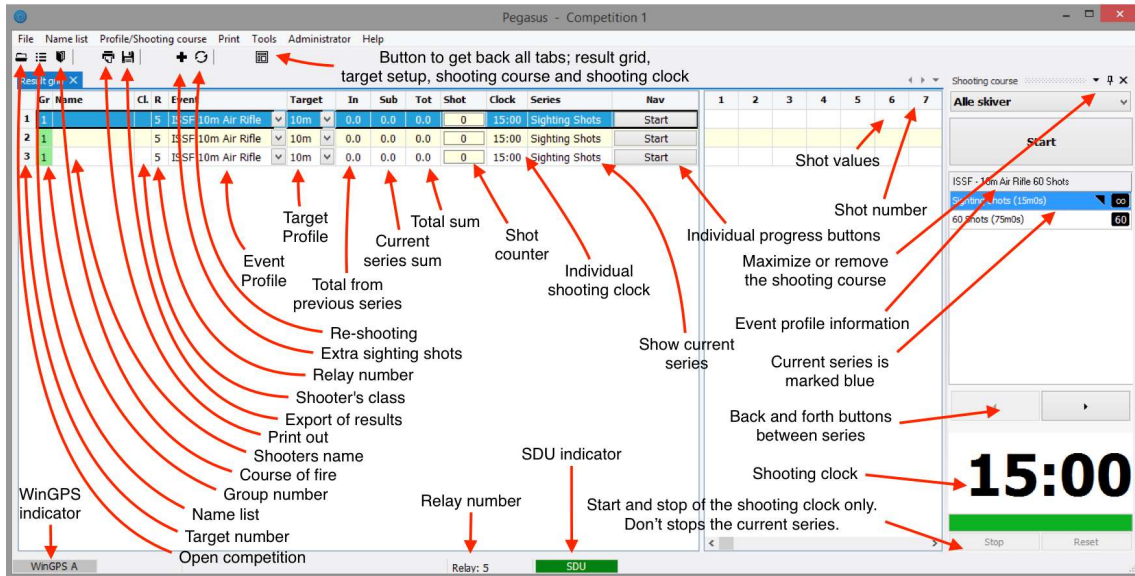
- **Reg 3:** Number of registration where all of the sensors have detected a signal, but not the last one.
- **ShotCount:** Shot counter that can be reset to zero.
- **TotalCount:** Total shout counter that cannot be reset to zero.

If using more servers, they will also be displayed in this overview.

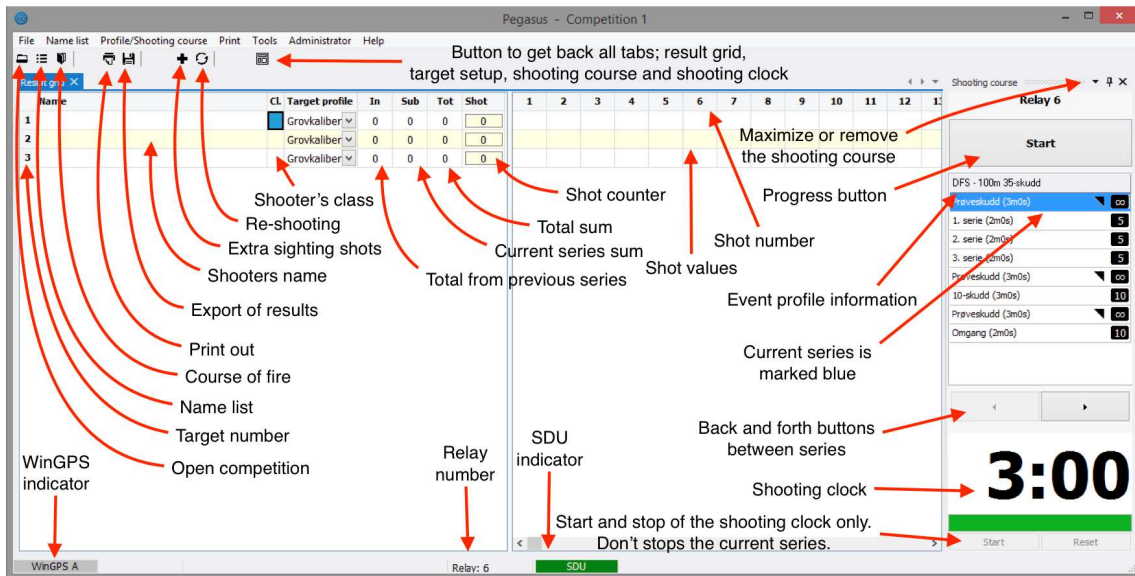
Press “Update” to update all values in this overview. Go to “chapter 19.3.1 Get Shot Counters From Server“ for the description of how you can delete the shot counter.

6.0 Introduction

Under we show two screenshots of how Pegasus 3 looks like in common and individual mode with an explanation of the buttons and components. The first print screen is how Pegasus 3 looks like in individual mode, typical used by ISSF. The second print screen is how Pegasus 3 looks like in common mode.



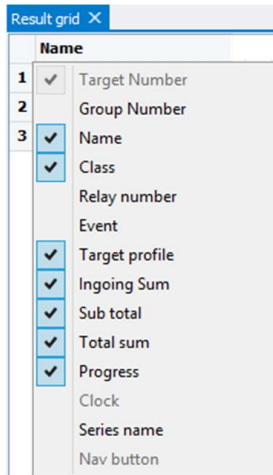
Pegasus 3 in individual mode. You can operate each lane separately.



Pegasus 3 in common mode. You operate all lanes common.

6.1 Change information in the Result Grid

You can easily remove and add information (Name, Class, Target Profile etc.) in the Result Grid. This is done by right-clicking the mouse in the box just above Target Number 1:



Check the information you would like to be visible.

7.0 Competition Mode

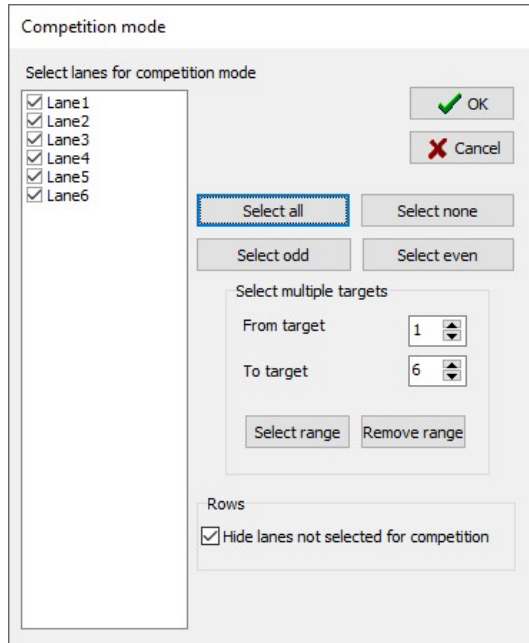
Select desired lanes for Competition Mode.

7.1 Select Lanes for Competition Mode

It's important that you select the lanes you would like in Competition Mode. You will be able to use Pegasus 3 for the selected lanes. Unselected lanes can be used for practice at the same time there's a competition for the others.

7.1.1 When Pegasus 3 Opens

When the Pegasus 3 has opened, this window will emerge after the System Check has been performed:

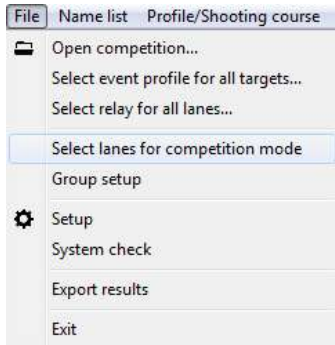


Select the lanes you would like to use in Competition Mode.

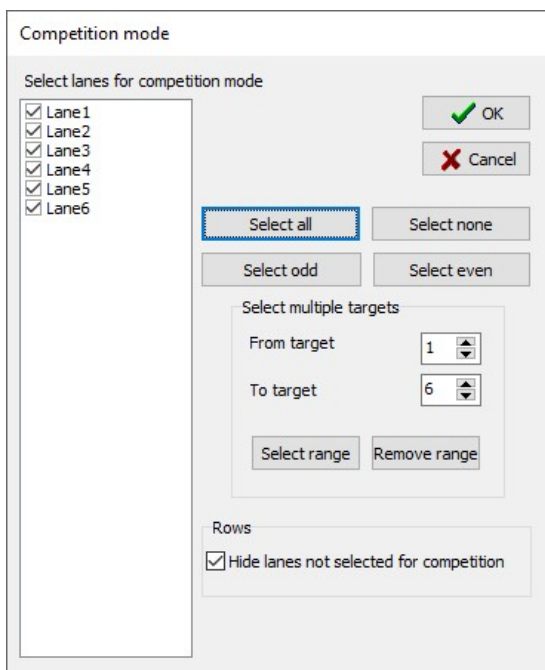
If Hide lanes not selected for competition is selected, these lanes will not show up in the main window at all. This functionality is great if you've got a large range with a lot of lanes, and for example will use just every second lane.

Press "OK".

7.1.2 Select Competition Lanes Later

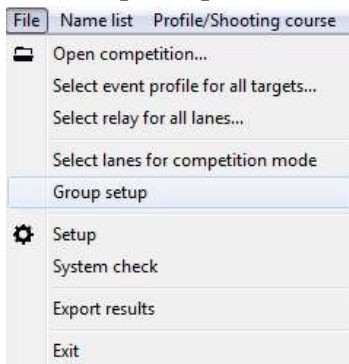


To change lanes you would like to have in Practice Mode, navigate through this menu: **File** → **Select Lanes for Competition Mode**. This window will emerge:



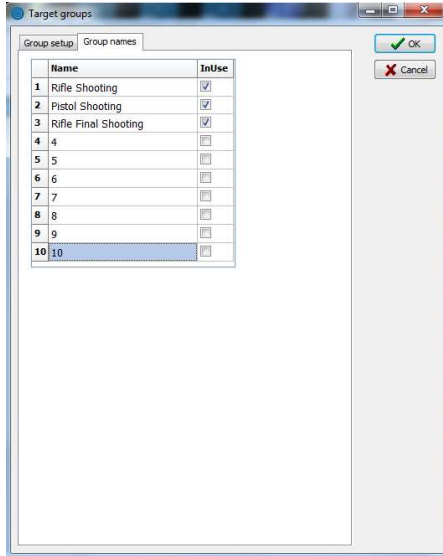
Select the lanes you would like in Competition Mode and press “OK”.

7.2 Group Setup



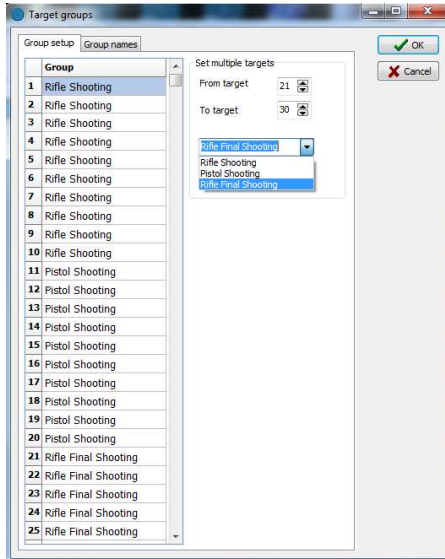
Go to this menu (**File** → **Group Setup**) to define different kind of shooting from the same Pegasus 3 if desired.

7.2.1 Group Names



You can make up to 10 Groups. Pick a desired name. Tick the Groups you would like to use. Go to the Group Setup after ticked the desired groups.

7.2.2 Group Setup



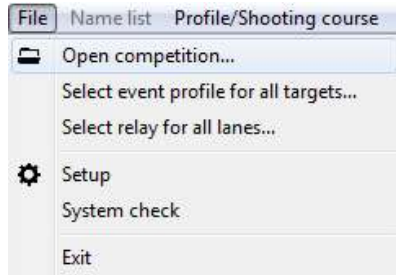
Select from and to which lanes you would like to have in the same Group. In our example (as shown over) we have the group “Rifle Shooting” on target 1-10, the group “Pistol Shooting” on target 11-20 and the group “Rifle Final Shooting” on target 21-30. We are now able to have three different events at the same time by using the same Pegasus 3.

Press “OK” after selected desired targets to your groups.

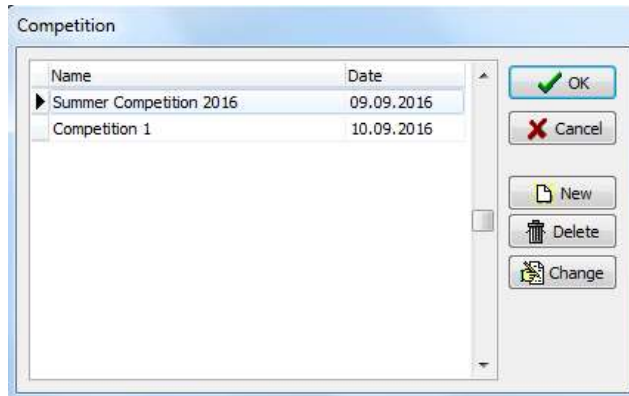
7.3 Shoot on different Groups Simultaneous

With these settings you are able to shoot at different groups simultaneous. I.e. you can shoot rifle shooting on target 1-10, pistol shooting at target 11-20 and rifle final shooting at target 21-30, at the same time. Notice: This functionality is very powerful, so make sure you understand this concept before you conduct your first competition of this kind. Do practice!

8.0 Open a competition

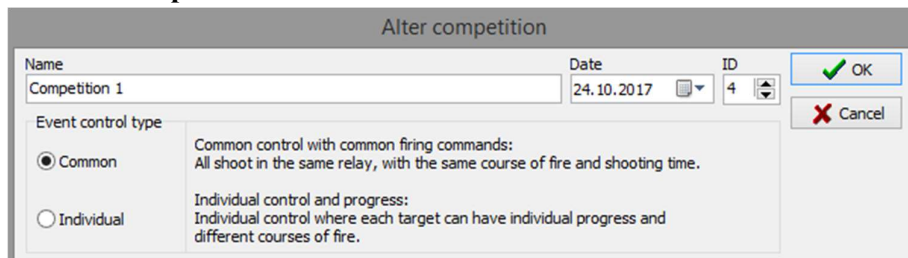


To open a competition, press the folder icon or navigate through **File** → **Open competition...**

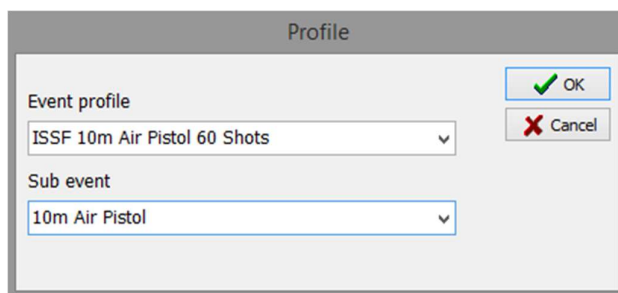


This window will emerge. Create, delete or change competitions by using the buttons to the right. Previous or ongoing competitions will be listed in this window.

8.1 New competition



By pressing “New” in the previous window you are able to create a new competition. Enter an appropriate name. The date will automatically be set to the today’s date, but it’s changeable. The ID will increase with one number for each made competition, don’t change this number. Choose between Common or Individual mode. Press **OK**.



Select the desired Event Profile first. The profiles will be listed, you can use the inscribed

profiles only (these are checked in the tick box). Finally select the desired Sub Event Profile, this can be a calibre choice. Press **OK**.

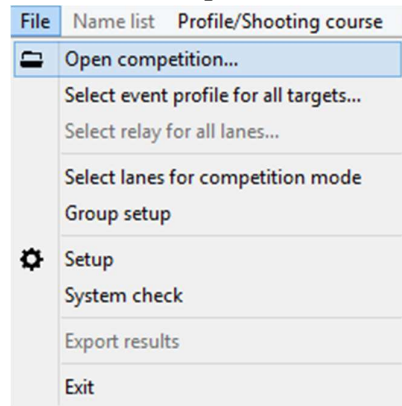
8.2 Delete a Competition

By marking a competition and pressing “Delete” all the data for this competition will be removed. It’s not possible to undo this deletion.

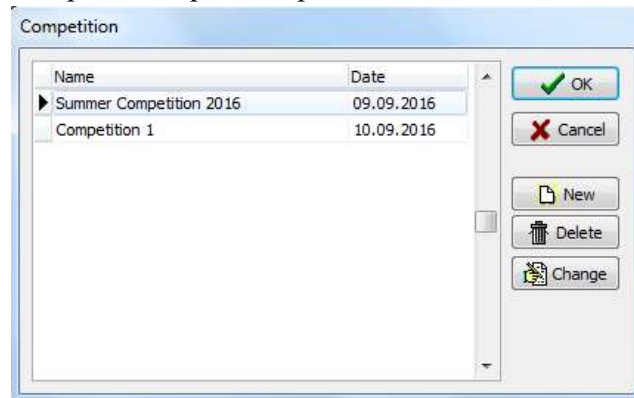
8.3 Change a Competition

By marking a competition and press “Change” you are able to change the competition’s name and date.

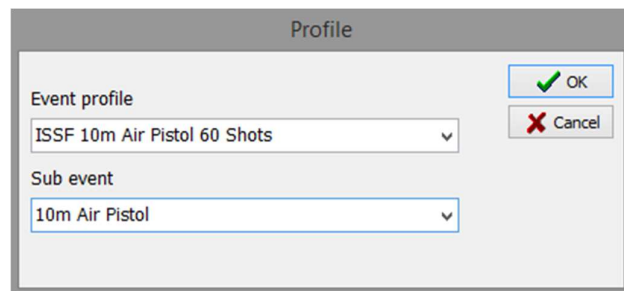
8.4 Run a Competition/Course of Fire



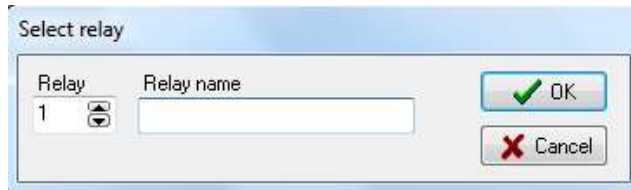
To open a competition, press as shown above. This window will emerge:



Mark a competition and press **OK**.



Select the desired Event Profile and Sub Event Profile. Press **OK**.

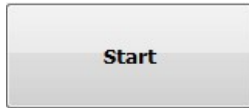


Select a relay number. If using a separate result handling application, select the relay number this application has generated. It's natural to start by relay number 1 if you don't have a separate result handling application. Press **OK**.

8.4.1 Common Mode

This applies if Pegasus 3 is in Common Mode.

Use the progress button to navigate through a Course of Fire. Below the progress button it's an overview of the Course of Fire. The current series is marked blue.



Click on **Start** to start the shooting clock. If it's configured with countdown time, it will start the countdown time. This is shown by a negative sign:

-14



The countdown time has started. We defined the Course of Fire with a 15 seconds countdown time, and now there are 14 seconds left. The time limit of the Course of Fire will start when the countdown has finished:

3:00



This clock was set up for 3 minutes, and the countdown has just started. If the clock was configured to count upwards, the clock would start at 0:00 and count upwards until you hit "Stop" in Pegasus 3.



Press **Stop** when the series has finished. You can press this button although the clock hasn't finished.



Press **Mark** to mark at the shooter's monitor. This button will not be displayed if it has been

single shot marking. If the Course of Fire was configured with manual marking, a dedicated marking dialog will appear, this is described in “chapter 14.1.2 Manual Marking”.

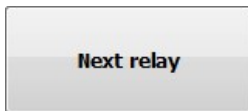
Shot fired before and after the time limits will be marked by a yellow background value in Pegasus 3. These shots are valid until you mark them as “invalid” in Pegasus 3. **N.B!** These yellow values are only indicative.



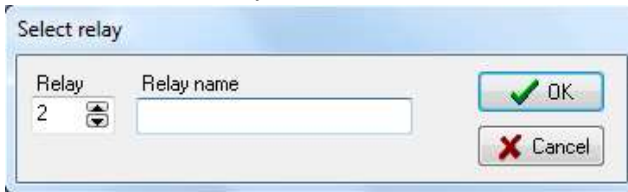
Press **Next series** to proceed to next series. The previous series will now be cleared, and a new Start button will emerge. If you have shot the last series, this button text will emerge:



By pressing **Register** all the results will be sent to a result handling application and printouts if that's configured.



This button text will be displayed after pressing **Register**. By pressing this button you are able to select another relay:



The relay number will automatically increase with one number, i.e. it's normally sufficient to just press “OK”. You can also fill in any relay number. Press **OK**.

8.4.1.1 Start and Stop Shooting Clock without Affecting the Series

It's possible to just restart the shooting clock after a series has started. In these situations it's mandatory to use the buttons below the shooting clock.

2:43



The countdown has started from 3 minutes in this example. By pressing this “Stop” button the clock will stop counting.

2:43



The clock has now stopped. You can continue from this time by pressing **Start**. By pressing **Reset** the clock will be reset:

3:00



The shooting clock has been reset. By pressing **Start** it will start counting again. If it's configured with a countdown first, this will begin before the actual shooting time.

8.4.2 Individual Mode

This applies when Pegasus 3 is in individual mode.

Use the individual progress buttons, or the one at the top right corner to overrule all the individual progress buttons, to navigate through the Course of Fire:

Gr	Name	Cl	In	Sum	Tot	Shots	Clock	Series	1	2	3	4	5	6	7	8	9
1	1		0.0	0.0	0.0	0	15:00	Sighting	Start								
2	1		0.0	0.0	0.0	0	15:00	Sighting	Start								
3	1		0.0	0.0	0.0	0	15:00	Sighting	Start								

The progress buttons are displayed to the right on this print screen. The progress button on the top right can overrule all the individuals when each lane has the same series.

In the column "Series" you can see which series each lane is at.

In the column "Clock" the individual shooting clocks are displayed.

In the column below "Shots" you can see how many shots that are fired. The example below show how many shots which were fired on three different lanes in a 40 shot series:

Shots

39/40
41/40
40/40

It's registered 39 of 40 shots in target 1, 41 of 40 shots in target two and 40 of 40 shots in target three.

We will show some examples of how the Course of Fire looks like in Pegasus 3. Let us for an instance take three shooters that are going to shoot 10m Air Rifle 60 Shots.

Here we started all the targets at the same time by using the common progress button. The countdown is synchronized.

Clock	Series	
14:52	Sighting	Stop
14:52	Sighting	Stop
14:52	Sighting	Stop

We pressed “Stop” on target 1. Target 2 and 3 can continue the sighting shots. It’s not possible to use the common progress button anymore, because the lanes are in different progress state of the Course of Fire.

Clock	Series	
14:47	Sighting	Next series
14:43	Sighting	Stop
14:43	Sighting	Stop

We pressed “Next series” on target 1. Now the “Start” button has emerged. Series name and shooting clock have changed.

Clock	Series	
75:00	60 Shots	Start
14:33	Sighting	Stop
14:33	Sighting	Stop

We pressed “Start” on target 1 and the shooting clock has begun the countdown. Target 2 and 3 are still in sighting shots.

Clock	Series	
74:57	60 Shots	Stop
14:26	Sighting	Stop
14:26	Sighting	Stop

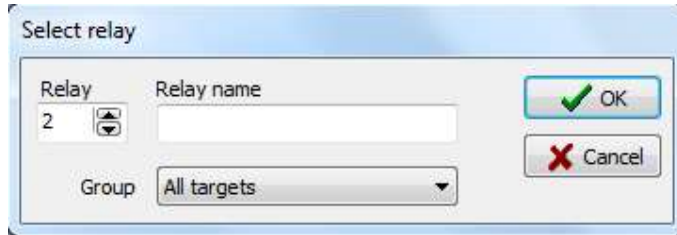
Target 1 is done and we pressed “Stop”. The results can be registered by pressing the “Register” button.

Clock	Series	
74:53	60 Shots	Register
14:20	Sighting	Stop
14:20	Sighting	Stop

You are now able to select a new shooter from another relay by pressing the “Next shooter”.

Clock	Series	
74:53	60 Shots	Next shooter
14:13	Sighting	Stop
14:13	Sighting	Stop

This window will emerge by pressing the “Next shooter” button:



The relay number will automatically increase by one number, i.e. it's normally enough to just press “OK”. You can fill in any relay number. It's important to notice that you're just able to insert a shooter from the same lane from whichever relay you select. Press **OK**.

It's possible to restart the shooting clock after a series has started. Look at “chapter 8.4.1.1 Start and Stop Shooting Clock without Affecting the Series”.

8.4.3 Individual Start and Progression from the Shooters Monitor

This is possible if the Course of Fire has individual mode, like “chapter 8.4.2 Individual Mode”. The difference is you're able to control the Course of Fire progression from the monitor. To make this happen, certain options must be selected in monitor setup, this is described in “chapter 3.5.2 Shooter Monitor Access Level”.

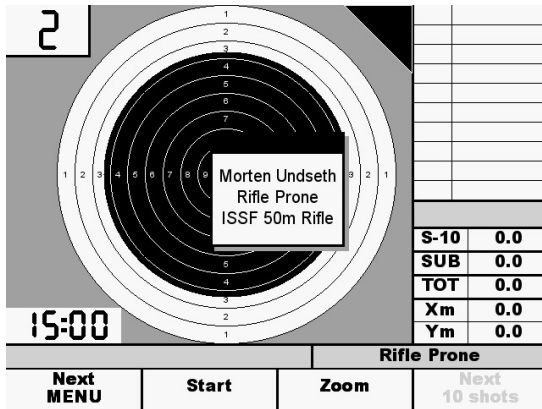
We have selected the following options in the setup:



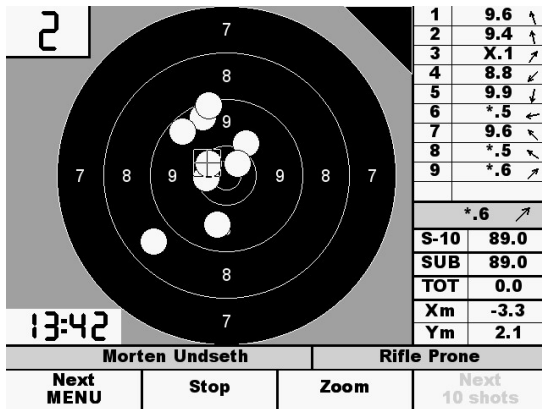
Below are the print screens with explanations of the access levels we selected.

The shooters have now the access as selected, but you're able to overrule this from Pegasus 3.

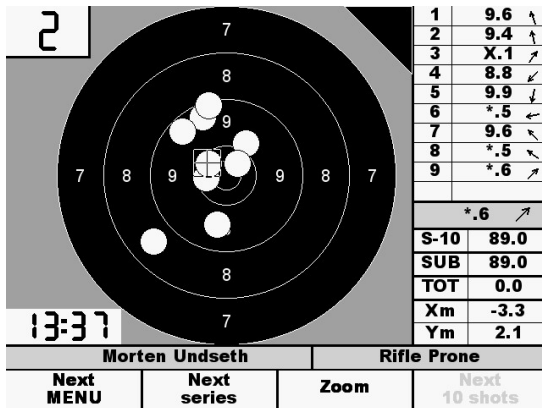
We open a competition in Pegasus 3. The shooter names are coming up one the monitor, and we use 60 Shots Prone as an example. We will show some print screens from monitor number 2:



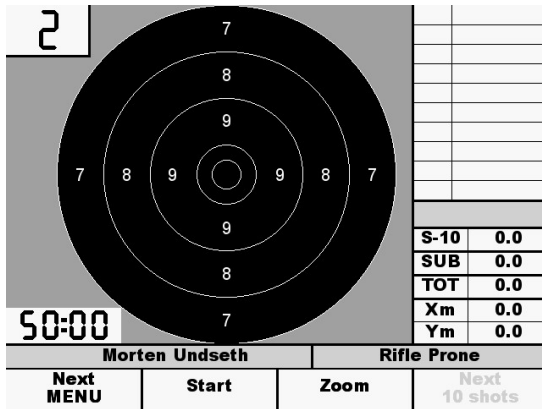
The series will start by pressing **Start**. In this example; sighting shots.



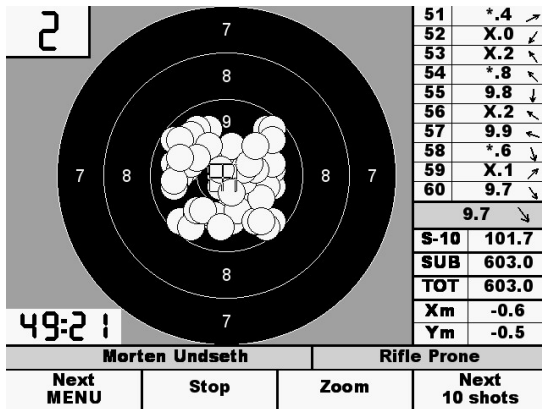
The shooting clock is counting and the shots are marked. You can abort the sighting shots by pressing **Stop**.



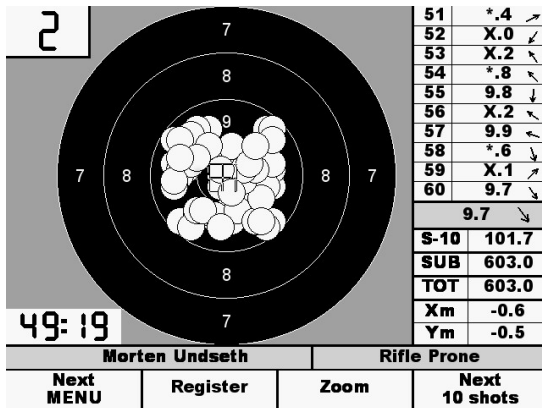
We aborted the sighting shots and the shooting clock has stopped. The **Next series** button emerged. By pressing this will you proceed to the next series.



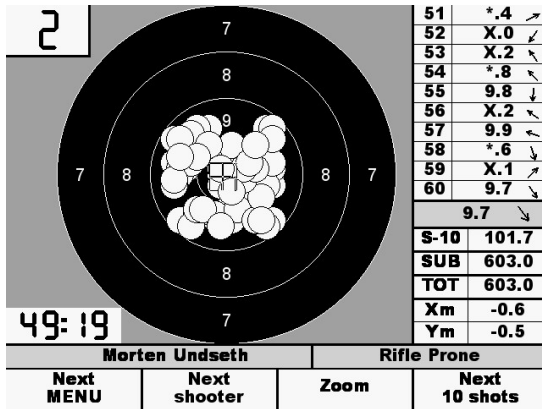
The shooting clock will begin when you press **Start**.



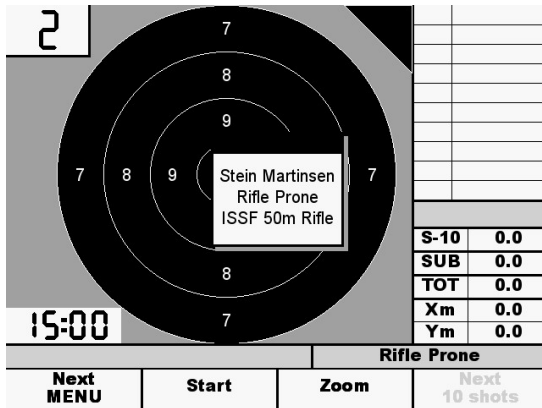
You can abort the series anytime by pressing **Stop**. In our example the shooter already has shot his 60 shots, and we press **Stop**.



The shooting will be registered when you press **Register**. The results will then be sent to a result handling application if using this.



It's possible to advance to the next shooter when the result is registered. The monitor will automatically insert the shooter on the same target in the next relay when you press **Next shooter**.



More options are available on the monitor by pressing **Next MENU**. The number of options depend on how many access levels you have approved in the setup (described in “chapter 3.5.2 Shooter Monitor Access Level”). If there are more than two access levels selected, you must press “Next MENU” to get all the choices. All options are shown below:



Press “Next Profile” to select another calibre or visual target profile for i.e. ISSF Pistol.



Press “Prone” to select another position of the target lift.



Press “Print” to print the score card.



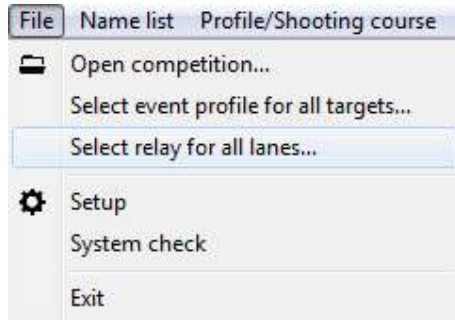
Press “Slow” to mark the shots on the monitor all over again.

Next MENU	Next team member	Zoom	Next 10 shots
----------------------	-----------------------------	-------------	--------------------------

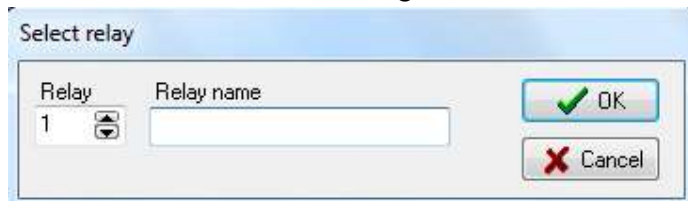
Press “Next Team Member” to toggle between the team members. This is used for team competitions in the CMP organisation.

9.0 New/Select a Relay

9.1 For Every Target (Common Mode)



After you have opened a competition and selected an Event Profile, the relay selection automatically will open. If you would like to open another relay, press select relay for all lanes and this window will emerge:



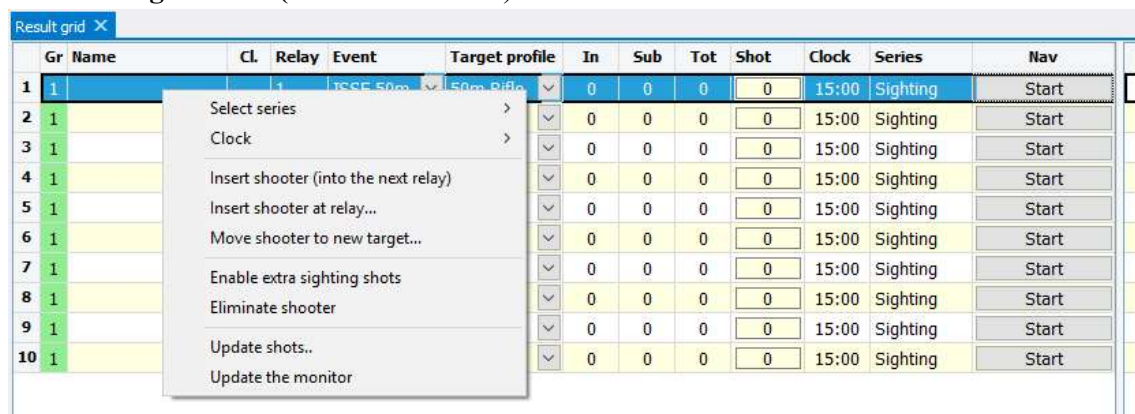
Select preferred relay number. This value can be anything between 1 and 10 000.

You can write a preferred relay name of maximum 30 characters. This name will be shown to the spectators through WinGPS.

The same relay number can't be reused. For instance, a higher relay number must be used on finals. If you use a result handling application, for example Leon, this application will generate these numbers automatically. Check Leon for what it generates. The first finals relay will typically be number 101.

Press **OK** when you have selected a relay number, or press **Cancel** to abort.

9.2 For Single Lanes (Individual Mode)



You can do some handlings by right-clicking in the selected lane.

You can select which series you would like to proceed to the “**Select series**” menu.

In the “Clock” menu you can start, stop and reset the clock, without restarting the whole series.

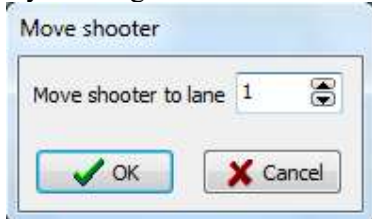
By clicking “**Insert shooter (into the next relay)**” Pegasus 3 will insert the shooter into this lane from the next relay.

By clicking “**Insert shooter at relay...**” this window will open:



Select the relay number you will insert the shooter from. It's important to notice that you're just able to insert a shooter from the same lane from whichever relay you select. Press **OK**.

By clicking “**Move Shooter to new target...**” this window will open:



Select the lane you would like to move the shooter too. Press **OK**.

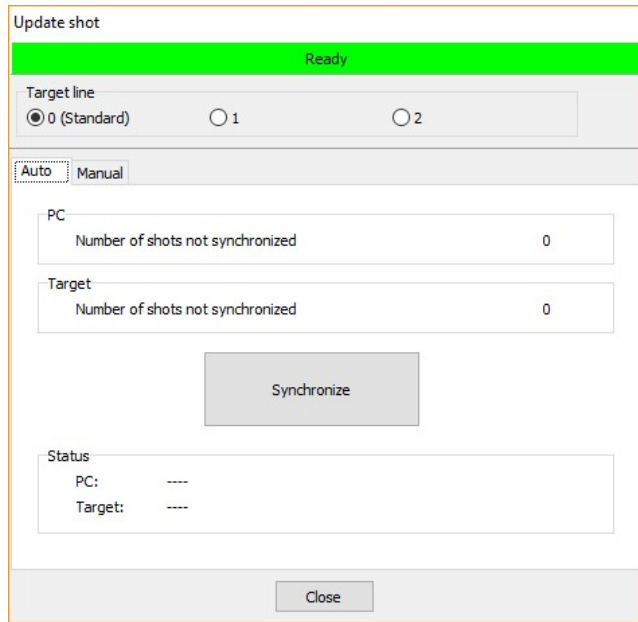
By clicking “**Enable extra sighting shots**” you are able to shoot extra sighting shots when you are performing a competition series. The sighting shots will be marked as blue in Pegasus 3 and not count in the sum/sub and total. The shots will be marked as sighting shots on the shooters monitor as well. Look at the example below (3 competition shots and 2 sighting shots):

Sum	Tot	Shots	Clock	Series		1	2	3	4	5
31.0	31.0	3/60	72:45	60 Shots	Stop	9.8	10.6x	10.6x	10.1	10.6x

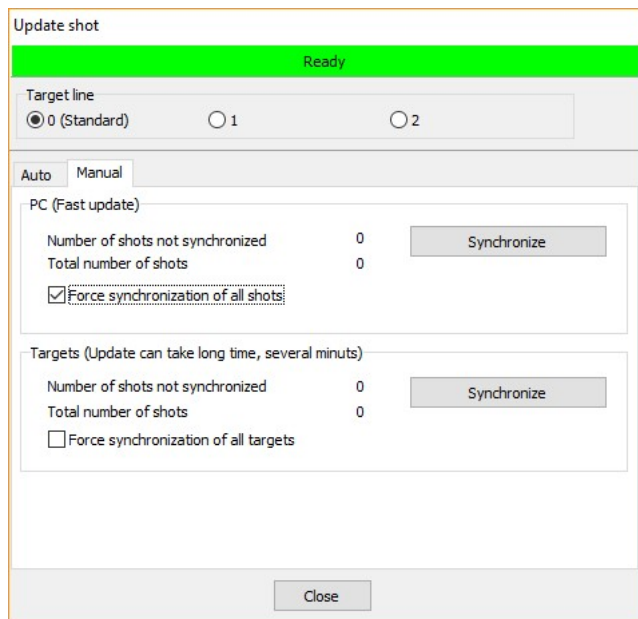
By clicking “**Eliminate shooter**” the lane will be marked orange to indicate the shooter has been eliminated from the competition. This is typically used for ISSF finals.

If you're missing one or several shots on one target in individual or common mode, it's possible to update the shots from the raw data on the PC or from the target, by right-clicking “**Update shots...**” on the lane missing shot(s).

The system will search for unsynchronized (missing) shots on the PC (raw data) and on the current target. If the number of shots not synchronized are greater than 0 for PC (raw data) or target, it will be possible to restore the shots, and they will show up on the monitor and in the grid in Pegasus3. Just hit the Synchronize button to do so:



If a shot or more are missing just from the monitor, you will need to manually force the synchronization. This is performed by selecting the Force synchronization of all shots check box in the Manual tab, and then hit the Synchronize button for PC. If that doesn't work, it might be a solution to do the same thing from Targets. The latter option is considerably slower.



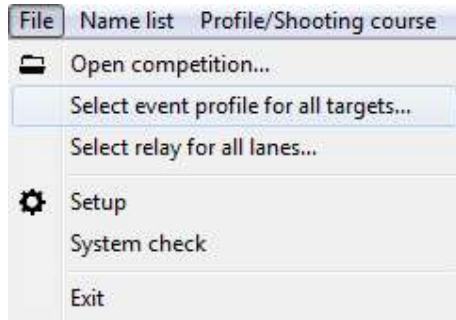
The last 200 shots are stored at the target, and at the PC (raw data) all the shots for the current competition is stored. This means it's possible to go back from the current series as well, to restore missing shots if needed.

If one, several or all shots are missing on the monitor, but are present in Pegasus3 in the shot list, it's possible to select "**Update the monitor**". The shots visible in the shot list in Pegasus3

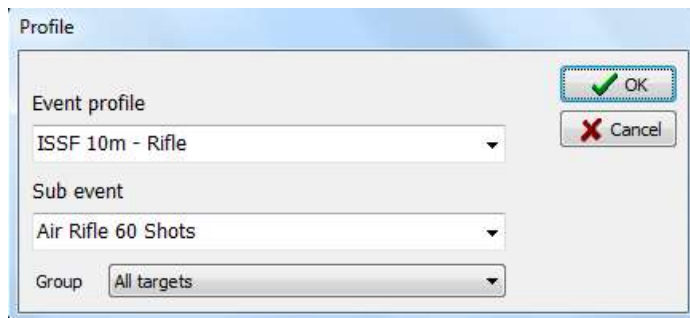
for the selected lane, will be sent to the monitor, and should be displayed there. This function is available both in individual and common mode.

10.0 New/Select Event Profile for All Targets

10.1 Select Event Profile for All Targets



When you open a new competition you will automatically get a choice where you select Event Profile and Event Profile. This selection can also be open manually by the menu selection “Select event profile for all targets”. This window will open:



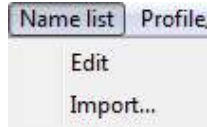
It’s typically used to change the Sub Event Profile before a finale stage. Select the desired Event Profile and Sub-Event Profile and press **OK**.

10.2 Select Individual Event Profile (Target Setup) in Pegasus 3

Gr	Name	Cl.	R	Event	Target profile	In	Sub	Tot	Shot	Clock	Series	Nav
1	1		1	ISSF 10m Air Pistol 60 Shots	10m Air	0	0	0	0	15:00	Sighting Shots	Start
2	1		1	ISSF 10m Air Pistol 60 Shots	10m Air	0	0	0	0	15:00	Sighting Shots	Start
3	1		1	ISSF 25m Standard Pistol	10m Air	0	0	0	0	15:00	Sighting Shots	Start

You can change Individual Events for each shooter by selecting this in the “Event” column at the preferred target number. It’s important that you have pressed “Register”, and nobody has started to shoot, before doing these changes. If not, the Course of Fire will start at the first series and removing the shots already shot.

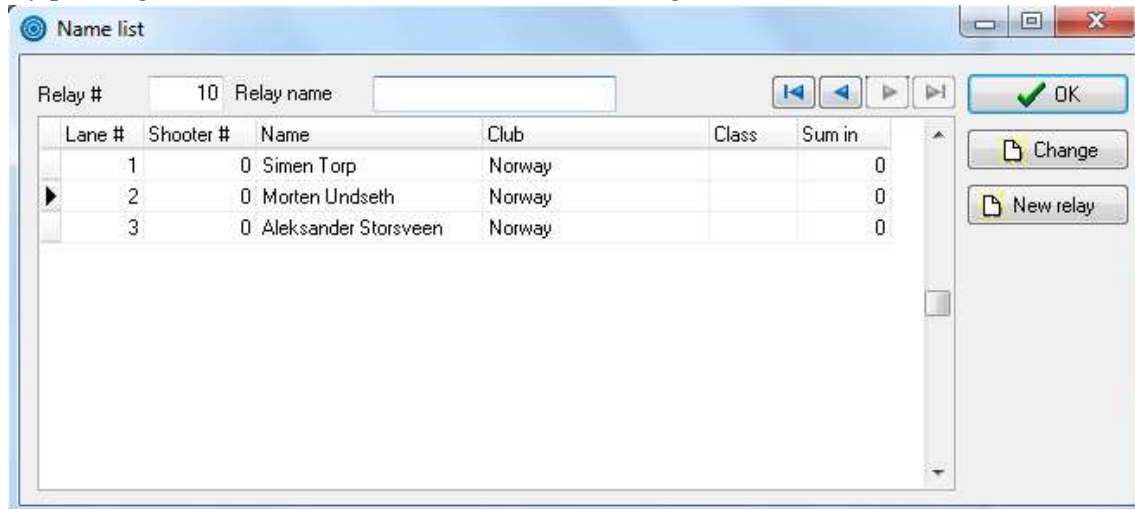
11.0 Name List



Normally a Name List will automatically be exchanged with a result handling application. If you don't use a result handling application the Name List function can be used.

11.1 Edit Name List

By pressing **Name List** → **Edit** this window will emerge:



Write relevant shooter's number, name, club, class and sum in (if for example this is a final) behind the lane number.

It's not possible to edit the relay name in this box, that's just possible when you select a relay, look at "chapter 9.0 New/Select a Relay".

Navigate between the relays with the arrow buttons.

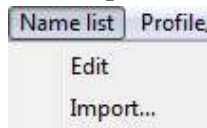
11.1.1 Change

Select the lane you would like to edit the information for and press "Change". A new window where it's possible to edit this information will emerge. If any changes have been done on the current relay, open the relay again, look at "chapter 9.0 New/Select a Relay" for a description.

11.1.2 New Relay

Press "New Relay" to add a new relay.

11.2 Import Name List



By pressing "Import" you are able to insert a name list automatically from a file.

A file like this can easily be made with a spreadsheet, for example Excel (CSV or SDV format). The file must be semicolon separated with the following order:

Range ID	Relay no.	Target no.	Name	Club	Class	Sum in	Shooters ID
----------	-----------	------------	------	------	-------	--------	-------------

For example:

2;3;14;Morten Undseth;Kongsberg Shooting Club;A;0;31415

2;201;3;Stein Martinsen;Kongsberg Shooting Club;A;592;327733

“Range ID” is the same as the “Firing line ID” from the setup, look at “chapter 3.1.1 Firing Line” for a description.

11.3 Quick Edit

You can easily edit or add a name by using the Quick Edit:

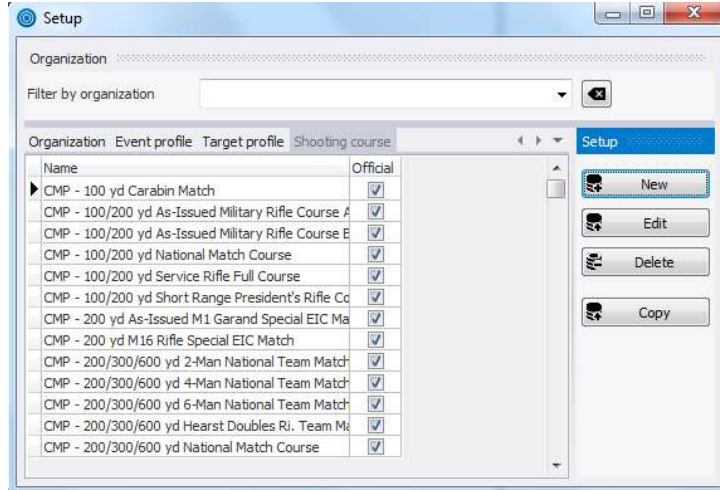
<input checked="" type="checkbox"/>	Name	Cl.	In	Sum	Tot
1	<input checked="" type="checkbox"/> Simen Torp		0.0	0.0	0.0
2	<input checked="" type="checkbox"/> Morten Undseth		0.0	0.0	0.0
3	<input checked="" type="checkbox"/>		0.0	0.0	0.0

Double click in the name field at the lane you would like to edit or add a name. The edit box will emerge.

12.0 Profile/Shooting Course

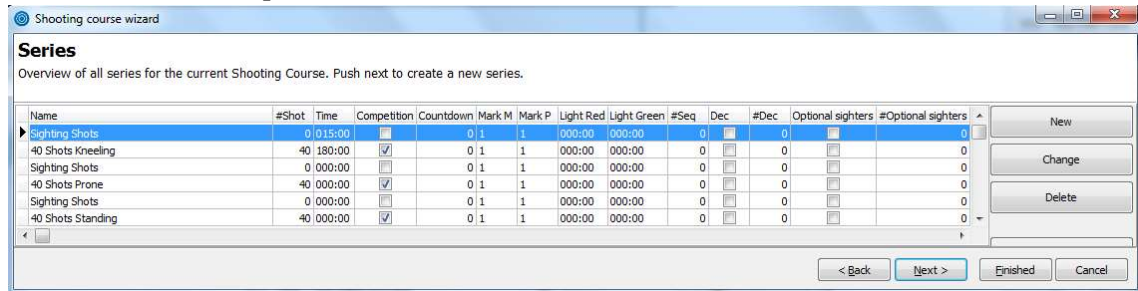
File Name list Profile/Shooting course Print Tools Administrator Help

By pressing "Profile/Shooting Course" the setup will open. Then press the "Shooting Course" tab. To run a competition you need to define a Course of Fire.



All Official and Unofficial Courses of Fire will be listed in this menu. It's not possible to edit an Official Course of Fire, but it's possible to check what it's defined like by clicking "Edit".

Let us taken an example:



This is the official "ISSF 300m Rifle 3 Positions 3x40 Shots" course of fire.

12.1 New Course of Fire

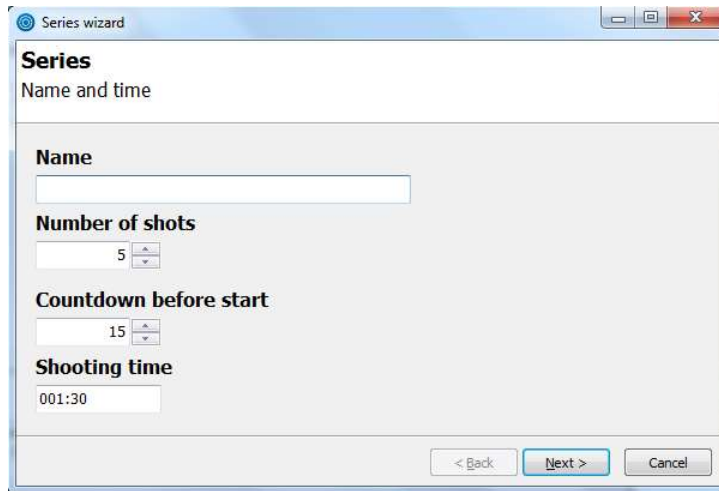
It's possible to create a new Course of Fire by pressing "New" in the setup menu. Or you can use an official (or a custom made unofficial) course of fire by marking it and press "Copy".

If you copied a Course of Fire, mark the copy and press "Change". A setup wizard will open: Write name and organization. Check "Silhouette" to activate this function according to the setup, look at "chapter 3.6.2 Rapid Fire (Pistol)". Press **Next**.

A window like the one above will emerge. Use the button "New" to add series. Mark a series and press "Change" to edit. Mark a series and press "Delete" to delete. Mark a series and press "Copy" to copy.

12.1.1 Edit or Add Series Wizard

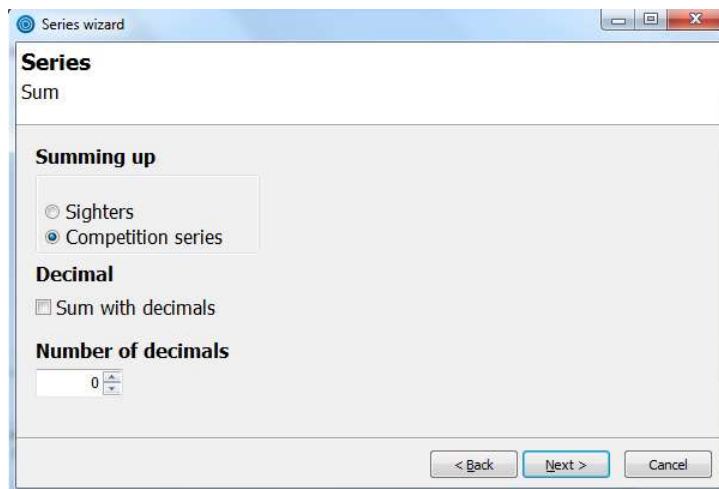
12.1.1.1 Name and Time



The screenshot shows a window titled "Series wizard" with a sub-header "Series" and the text "Name and time". It contains four input fields: "Name" (a text box), "Number of shots" (a spinner box set to 5), "Countdown before start" (a spinner box set to 15), and "Shooting time" (a text box containing "001:30"). At the bottom are three buttons: "< Back", "Next >", and "Cancel".

When you edit or add a new series this wizard will open. Write a name. Write number of shots if it's a series (write 0 if it's unlimited sighting shots). If you would like to add countdown time before starting the shooting time, write the time in seconds. In the edit field of shooting time, the time limit of the series is given the format is: mmm:ss (minutes before colon and seconds after). Press **Next**.

12.1.1.2 Sum



The screenshot shows a window titled "Series wizard" with a sub-header "Series" and the text "Sum". It contains three sections: "Summing up" with radio buttons for "Sighters" and "Competition series" (selected); "Decimal" with a checkbox for "Sum with decimals"; and "Number of decimals" with a spinner box set to 0. At the bottom are three buttons: "< Back", "Next >", and "Cancel".

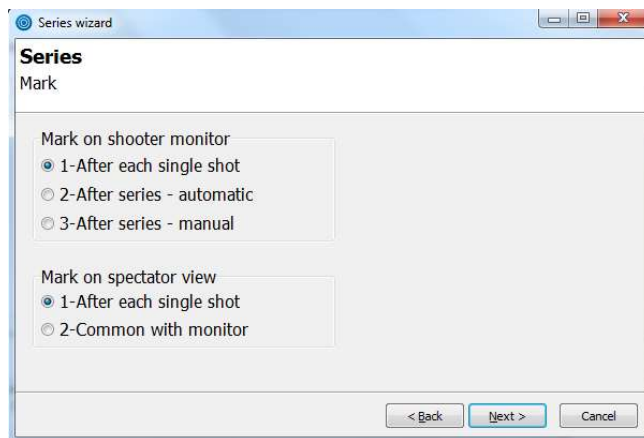
Select if the series is sighters or competition series. Check the decimal tick box if the score should sum with decimals. You have three options in the box of number of decimals: "0", "1" and "2". "0" is standard when you don't want to summarize with decimals. Select "1" if you would like one decimal. **N.B!** By selecting "2" you are activating the super-five function. This is for the NRAA organization. I.e. it will NOT give two decimal summarizing. Press **Next**.

12.1.1.3 Sighters Embedded in Match Series



Here you can activate sighters embedded in match series, optional or mandatory. Select the number of sighters. This is for the NRAA, NRA and CMP organizations. By selecting “Optional sighters” the sighters are optional. That means it’s possible to cut some of the sighters to be shot. By selecting “Mandatory sighters” the sighters are mandatory, please select the number of sighters in “Number of”. Press **Next**.

12.1.1.4 Mark



Mark on shooter monitor

- 1: The shots will be marked on the monitor immediately after they’re fired.
- 2: The shots will be marked on the monitor when the Range Officer press “Mark” in Pegasus 3.
- 3: The shots will be marked on the monitor manually. Range Officer selects which targets, tempo and number of shot he will mark. Typical used for finals in the DFS organization.

Mark on spectator view

- 1: The shots will be marked on the spectator view immediately after they’re fired. That’s independent of which marking you selected on the monitor.
- 2: The shots will be marked on the spectators view at the same time as they are marked on the shooters monitor. Typical used for finals in the DFS organization.

12.1.1.5 Target Light

This applies for targets with red and green pistol light. Must not be mixed up with LED-lighting in the sighting zone of some target models. In the field for red and green light, select how long you would like the lights to be on. Format: mmm:ss (minutes and seconds). Set how many green and red sequences you want during one series. Set all three values to “0” if you don’t use pistol lights for the current series. Press **Next**.

12.1.1.6 Target Lift

Fill out these boxes if you use a target with lift. This setup is for automatic target lift based on classes. Place the different classes in corresponding boxes. Separate the classes with comma and without space. Example:

Prone

You have to write the class name exactly as generated by the Result handling application, as Leon, if that’s in use. If for an instance Leon has a class called “Recruit” with the abbreviation “R”, you can’t write “Recruit” or “R”.

The character “*” can be used if all, or almost all classes uses the same position. Then the target will move to that position for every class. If almost all classes are in one position, you can write “*” in that position, and write the remaining classes for their position. For example:

Prone	*
Kneeling	3,4,5

All lifts will go to prone position, except from class 3, 4 and 5 which are shooting in the kneeling position.

Validation

You can use legal application letters and signs only. Pegasus 3 has a validation system. The background colour will be red if a character isn't legal in the application. Remove illegal characters. For example:

Prone	1,2,3,4,5-
-------	------------

Here is the character “-“ illegal. The background colour will change by removing the character:

Prone	1,2,3,4,5
-------	-----------

Prone

The target lift is moved to prone position at the beginning of the series.

Kneeling

The target lift is moved to kneeling position at the beginning of the series.

Standing

The target lift is moved to standing position at the beginning of the series.

6+4 (Kneeling+Prone)

The target lift is moved to kneeling position at the beginning of the series. After 6 shots the target lift is moved to prone position.

3+3+4 (Standing+Kneeling+Prone)

The target lift is moved to standing position at the beginning of the series. After 3 shots the target lift is moved to kneeling position. After 3 more shots the target lift is moved to prone position.

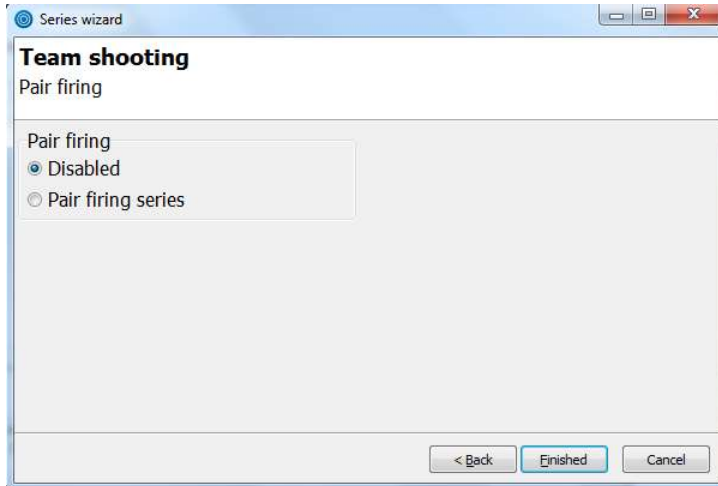
5+5 (Kneeling+Prone)

The target lift is moved to kneeling position at the beginning of the series. After 5 shots the target lift is moved to prone position.

5+5 (Standing+Kneeling)

The target lift is moved to standing position at the beginning of the series. After 5 shots the target lift is moved to kneeling position.

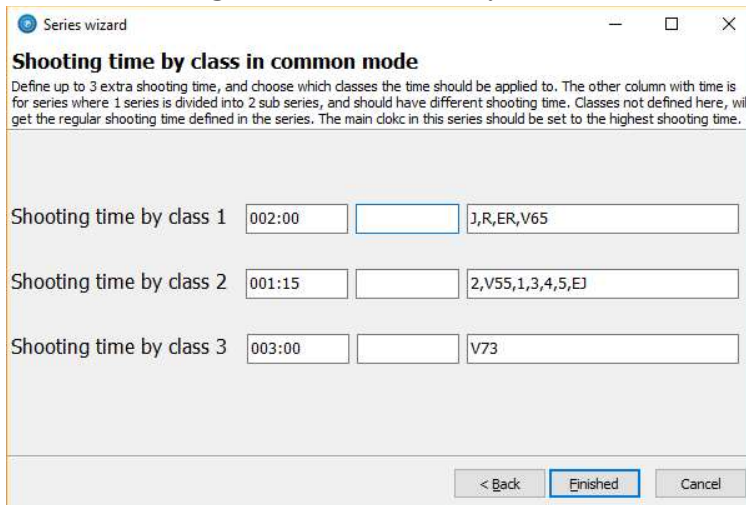
12.1.1.7 Pair Firing



Here you can activate pair firing. This is a competition used by the CMP organization; two and two team mates are shooting as partners, where one team can consist from one to three pairs. The partners toggles for each shot during the slow fire, the name of the next shooter who is going to shoot is displayed on the monitor. Press **Finished**.

You have now added a series. Repeat the procedure for more series.

12.1.1.8 Shooting time limit decided by class in common mode



It might be needed to set up several different shooting time limits for a series, as a function of the class a shooter belongs to. Above it's an example from a final series for the DFS 15m course of fire. In the example the classes 1-5, V55 and EJ got a shooting time limit of 75 seconds, the classes R, ER, J and V65 got a shooting time limit of 2 minutes, while the class V73 has got 3 minutes. The classes not mentioned here will get the main shooting time limit, which has to be set to the longest time limit seen here, which is 3 minutes.

The screenshot shows a 'Series wizard' window with the title 'Shooting time by class in common mode'. Below the title is a descriptive paragraph: 'Define up to 3 extra shooting time, and choose which classes the time should be applied to. The other column with time is for series where 1 series is divided into 2 sub series, and should have different shooting time. Classes not defined here, will get the regular shooting time defined in the series. The main clock in this series should be set to the highest shooting time.' The main area contains three rows for 'Shooting time by class 1', 'Shooting time by class 2', and 'Shooting time by class 3'. Each row has three input fields: a time field, a second time field, and a class list field. For class 1, the first time is 002:00, the second is 002:00, and the class list is 'NU,NV,R,ER,V65,V73,1,AG3,J,2,Å,V5'. For class 2, the first time is 003:00, the second is 002:00, and the class list is '3,4,5,EJ'. For class 3, all fields are empty. At the bottom are buttons for '< Back', 'Finished', and 'Cancel'.

Shooting time by class	Time 1	Time 2	Classes
Shooting time by class 1	002:00	002:00	NU,NV,R,ER,V65,V73,1,AG3,J,2,Å,V5
Shooting time by class 2	003:00	002:00	3,4,5,EJ
Shooting time by class 3			

Straight above here it's given an example from DFS 15m 10-shot series shot as 2 5-shot series set up by 2 different shooting time limits for the two series for some of the classes. The first time column sets the shooting time limit for the first execution of the series, while the second time column sets the shooting time limit for the second execution of the series, for the classes respectively.

That means for class 3-5 and EJ, the shooting time limit for the first execution (standing position) would be 3 minutes, while for the second execution (kneeling position) the shooting time limit would be 2 minutes. For the rest of the classes given, the shooting time limit would be 2 minutes for both executions.

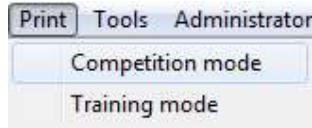
It's possible to have up to three different shooting time limits, and up to two executions set up by two different shooting time limits for one series.

13.0 Print

File Name list Profile/Shooting course **Print** Tools Administrator Help

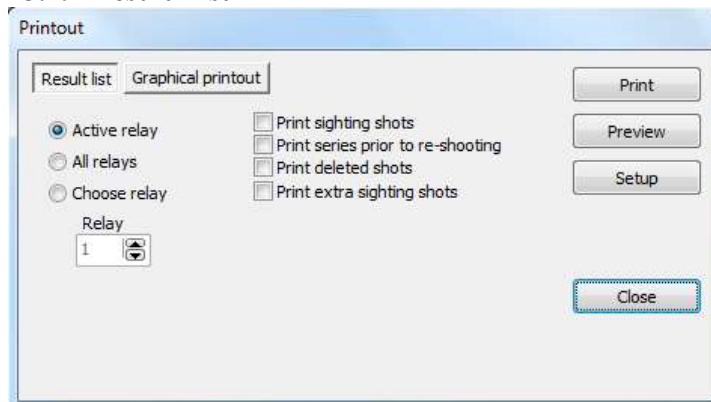


13.1 Competition Mode



It's possible to print relay lists and score cards for each shooter by pressing "Print" or the print symbol. You can print lists whenever you like during a relay. Look at "chapter 3.4.1 Automation" for automatic print out when pressing "Register".

13.1.1 Result List



The result list shows all the results for the selected relay. Shots will be specified without decimals if it's integer summation. If it's decimals summation the results will be displayed with decimals as well.

13.1.1.1 Active Relay

Applies for the current relay that's shooting or has just finished.

13.1.1.2 All Relays

All registered relays will be printed.

13.1.1.3 Choose Relay

Enter the relay number you would like to print.

13.1.1.4 Print Sighting Shots

Check this box if you would like to print sighting shots as well.

13.1.1.5 Print Series Prior to Re-Shooting

Check this box if you would like to print re-shooting series.

13.1.1.6 Print Deleted Shots

Check this box if you would like to print shot that have been marked as invalid.

13.1.1.7 Print Extra Sighting Shots

Check this box to print extra sighting shots in the case of extra sighting shots have been shot. Both the extra sighting shots and the ordinary sighting shots will be printed.

13.1.1.8 Example of a Result List

Below is an example of a result list.

Relay	Competition 2017											16.01.2017		
4														
1	Stein Martinsen	Cl. A					Kongsberg Shooting Club							
	60 Shots	10.1	9.5	10.6x	9.7	10.4x	9.8	10.1	9.8	9.8	10.1	99.9		
		10.1	10.1	10.1	10.1	9.5	9.3	10.4x	10.6x	9.5	10.1	99.8		
		9.5	10.6x	10.1	9.5	10.6x	10.1	9.5	9.5	10.1	10.1	99.6		
		10.4x	9.5	10.4x	10.1	9.7	9.8	10.1	9.8	10.4x	10.6x	100.8		
		10.1	10.1	10.1	9.3	10.1	9.8	10.9x	10.6x	10.1	9.8	100.9		
		9.8	9.8	10.6x	10.1	9.8	10.1	9.8	9.8	10.1	10.6x	100.5	601.5	601.5
													601.5	
2	Morten Undseth	Cl. A					Oslo Shooting Club							
	60 Shots	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	104.0		
		10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	104.0		
		10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	104.0		
		10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	104.0		
		10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	104.0		
		10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	10.4x	104.0	624.0	624.0
													624.0	
3	Bjarte Myran	Cl. A					Kongsberg Shooting Club							
	60 Shots	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	106.0		
		10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	106.0		
		10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	106.0		
		10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	106.0		
		10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	106.0		
		10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	10.6x	106.0	636.0	636.0
													636.0	

13.1.1.9 Print

Press this button to print.

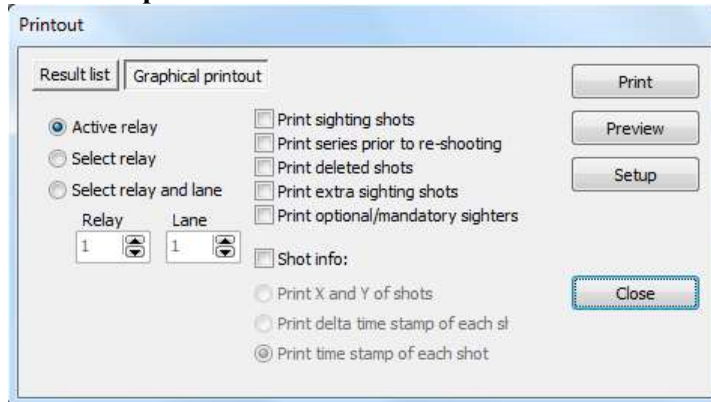
13.1.1.10 Preview

Press this button for a preview of a print out.

13.1.1.11 Setup

Select printer, paper size and direction.

13.1.2 Graphical Printout



The graphical printout, the score card, is printed on a sheet (or more if there are a lot of series) to each shooter with a graphical display for each series.

13.1.2.1 Active Relay

Applies for the current relay that's shooting or has just finished.

13.1.2.2 Select Relay

Enter the relay number you would like to print.

13.1.2.3 Select Relay and Lane

Enter the relay and lane number you would like to print.

13.1.2.4 Print Sighting Shots

Check this box if you would like to print sighting shots as well.

13.1.2.5 Print Series Prior to Re-Shooting

Check this box if you would like to print re-shooting series.

13.1.2.6 Print Deleted Shots

Check this box if you would like to print shots that have been marked as invalid.

13.1.2.7 Print Extra Sighting Shots

Check this box to print extra sighting shots in the case of extra sighting shots have been shot. Both the extra sighting shots and the ordinary sighting shots will be printed.

13.1.2.8 Print Optional/Mandatory Sighters

Check this box if you would like to print optional/mandatory sighting shots.

13.1.2.9 Shot Info

Extra information of each shot will be printed.

13.1.2.9.1 Print X and Y of Shots

If the X and Y coordinates for each shot is required, check this box. It's often used for protest handling. We don't recommend using this for ordinary competitions, since the print out can become complex and it's usually not important for the shooter.

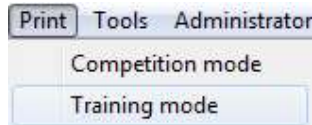
13.1.2.9.2 Print Delta Time Stamp of Each Shot

Check this box if you would like delta time stamp of each shot to be printed. Delta time is the time from the previous shot.

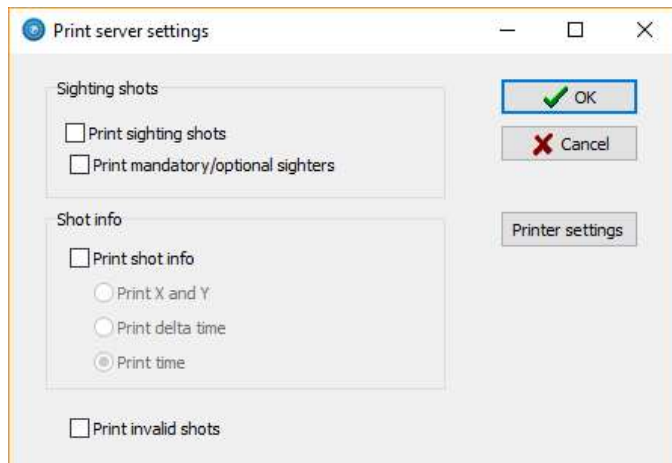
13.1.2.9.3 Print Time Stamp of Each Shot

Check this box if you would like time stamp of each shot be printed. This applies for targets with red/green pistol lighting (not LED light). The time for each shot in the green period will be displayed.

13.2 Training Mode



It's possible to print score cards for each shooter in Training Mode by this setting.



Add your settings and add a printer in the “Printer settings”. When you will print a Score Card, press the “Print Series” or “Print All” button in Menu 2 from the Shooters Monitor.

13.2.10 Example of a Score Card

Relay 3	Lane 2	Competition 2 Morten Undseth Oslo Shooting Club										Class A	
	1	*.3 →	6	*.3 ↑		31	9.8 ↓	36	9.5 ↓				
	2	*.7 ○	7	9.5 ↙		32	*.3 ←	37	*.3 ↓				
	3	*.3 ←	8	*.3 →		33	*.3 ↓	38	9.9 ←				
	4	*.3 →	9	*.3 ↓		34	*.7 ○	39	9.9 ←				
	5	9.9 ←	10	9.9 ←		35	*.3 ↑	40	*.7 ○				
	60 Shots Sub: 101.0					60 Shots Sub: 101.0							
	11	9.9 ↓	16	9.5 ↙		41	9.9 ↓	46	*.3 ↓				
	12	*.3 ←	17	*.7 ○		42	9.8 ↙	47	*.3 ↓				
	13	*.7 ○	18	*.3 ↑		43	9.9 ↓	48	*.7 ○				
	14	9.8 ↗	19	9.8 ↗		44	*.7 ○	49	X1 ↙				
	15	9.5 ↙	20	*.7 ○		45	*.7 ○	50	*.3 ←				
	60 Shots Sub: 101.0					60 Shots Sub: 101.0							
	21	*.3 ↑	26	*.7 ○		51	X1 ↗	56	9.5 ↙				
	22	9.9 ↓	27	*.3 →		52	*.3 ←	57	9.9 ↓				
	23	9.9 ↓	28	9.5 ↙		53	X1 ↙	58	X1 ↙				
	24	*.3 ↓	29	X1 ↗		54	*.3 ←	59	*.3 ↓				
	25	*.7 ○	30	9.9 ↓		55	9.9 ←	60	X1 ↙				
	60 Shots Sub: 101.0					60 Shots Sub: 101.0							
										Series: 606.0 Tot: 606.0			

Kongsberg Target Systems AS - 03.11.2016 15:55:43

14.0 Marking



You can mark in three ways:

- **Consecutively**, available in both common and individual mode.
- **Automatic**, available in both common and individual mode.
- **Manual**, available in common mode only.

These settings are defined in the course of fire. It's not possible to edit official courses of fire, but it's possible to check which type of marking it's defined with. You are free to select which type of marking you would like on custom made unofficial courses of fire. This is described in "chapter 12.0 Profile/Shooting Course".

The shots will come consecutively with consecutively marking. In this case it will not be a "Mark" button. You can still mark from the toolbar (**Tools → Various → Mark shots**) if the marking don't displays at the monitor during ordinary marking by pressing the "Mark" buttons, as shown first in this chapter. **N.B!** This is an emergency solution only! **DON'T** do this type of emergency marking before EVERY targets have been marked through the ordinary marking solution.

14.1 Common Mode



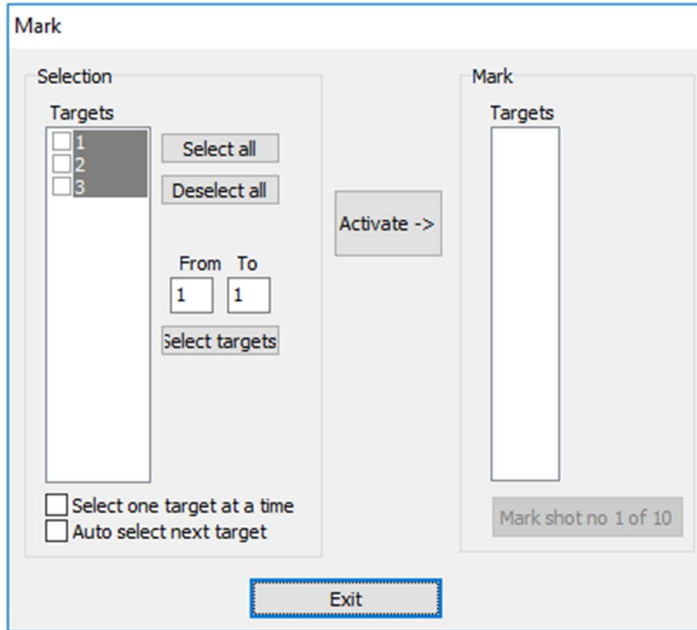
This sub chapter describes marking when using common mode. The big classic progress button (as shown above) will emerge to the right in Pegasus 3.

14.1.1 Automatic Marking

All monitors will mark automatic in a pre-generated interval when you hit "Mark". Look at "chapter 3.1.3 Mark" to set the marking interval.

14.1.2 Manual Marking

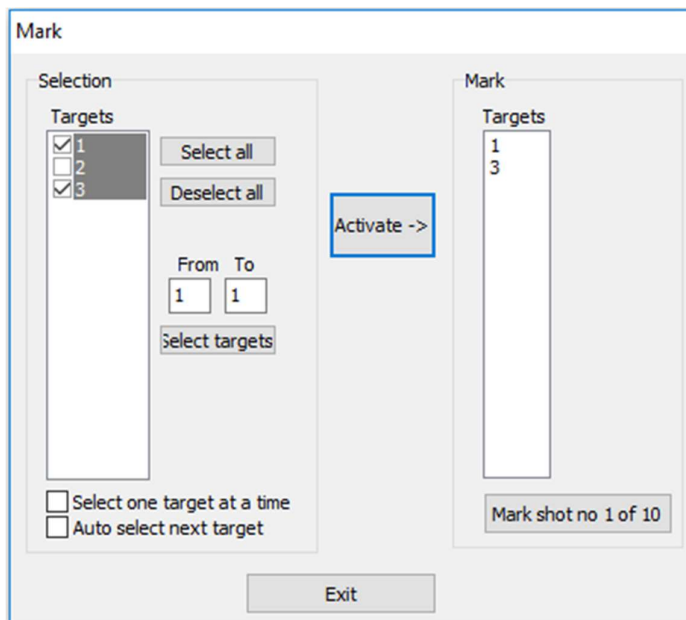
You can choose the order of when and which targets you would like to mark. A marking window will emerge by pressing the "Mark" button.



The marking window is divided into two parts; to the left is the selection side, and the marking side is to the right.

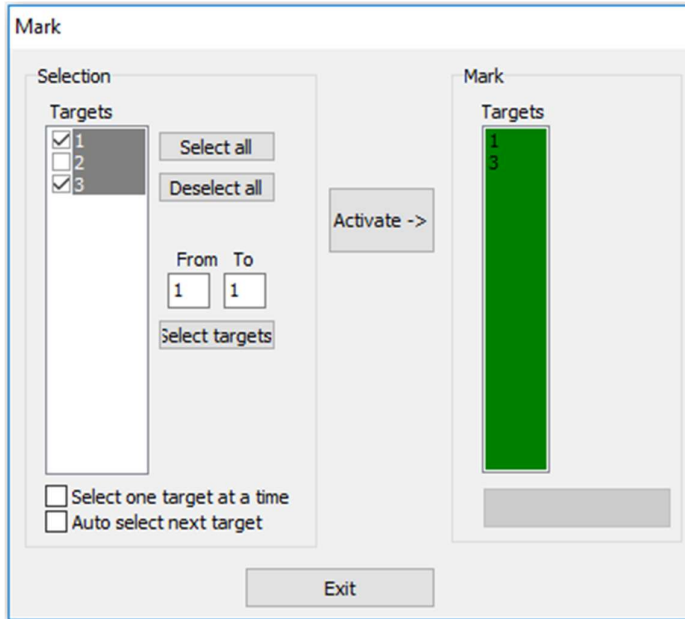
In the targets list, below the selection side, targets with registered shots will be marked as grey. I.e. it's registered shots in all three targets in the window above. Select the target(s) you will mark. Use the button "Select all" if you will mark all the targets at the same time. You can do a selection in the "From" and "To" edit box and press "Select all" below.

Press the button "Activate ->" when you have selected the targets you will mark. The selected targets will then be displayed in the targets list in the mark side. We selected target 1 and 3:



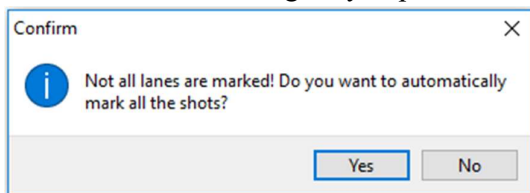
Target 1 and 3 are now ready to be marked. Press the button “Mark shot no X of Y” to mark one shot. Continue the processes until all shots are marked. You are also able to mark another target after just a few marked shots in a target, and then resume later.

The target list will be green when the targets are marked. Total score will be updated on the spectator view when the target list has become green. This is shown below:



Press “Exit” when all targets are marked. Press “Register” afterwards.

This window will emerge if you press “Exit” before all targets are marked:



All targets will be marked consecutively if you press “Yes”. Press “No” to abort.

14.1.2.1 Select One Target at a Time

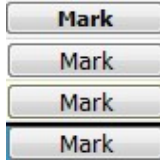
It can be wise to use this selection if only one target is going to be marked at a time. Only the target that you click on will be marked and all other selections will be unselected.

14.1.2.2 Auto Select Next Target

It can be wise to use this selection if only one target is to be marked at a time from a high target number to a low target number. Select the highest target number and check this box. When you hit “Activate ->” the next target will (a lower target no) automatically be selected.

Example: Target 4 has been marked and you press “Update”. By pressing “Activate ->” target number 3 will automatically be selected. Continue the processes until all targets are marked.

14.2 Individual Mode



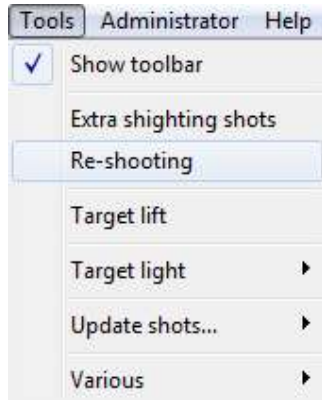
This sub chapter describes marking when using individual mode. There will be small progress buttons behind each target, and one on the top right that overrule all the others (when it's in the same progression state).

Consecutively marking is most used in this mode, and it will not be an own "Mark" button in that case.

Use the individual progress button behind each target or the one at the top right (that will overrule all the individuals) if the course of fire is defined with automatic marking. The monitor(s) will mark automatic in a pre-generated tempo when you hit "Mark". Look at "chapter 3.1.3 Mark" to set the marking tempo.

15.0 Re-Shooting

15.1 Common Mode



Use the re-shooting function if a shooter needs to shoot a series over again. You can also activate this function after the original series have been marked. Below it is a typical situation that can lead to a re-shooting. A 5 shot series has been fired, but the shooter at lane 2 has cross fired two shots in to target 3.

<input checked="" type="checkbox"/>	Name	Cl.	In	Sum	Tot	1	2	3	4	5	6	7	8
<input checked="" type="checkbox"/>	Simen Torp	5	0	50	50	*.6	X.1	X.1	*.6	X.0			
<input checked="" type="checkbox"/>	Aleksander Storsveen	5	0	30	30	X.3	X.3	X.0					
<input checked="" type="checkbox"/>	Lars Bekkeli	4	0	69	69	X.2	X.1	*.6	9.9	*.6	*.6	*.6	

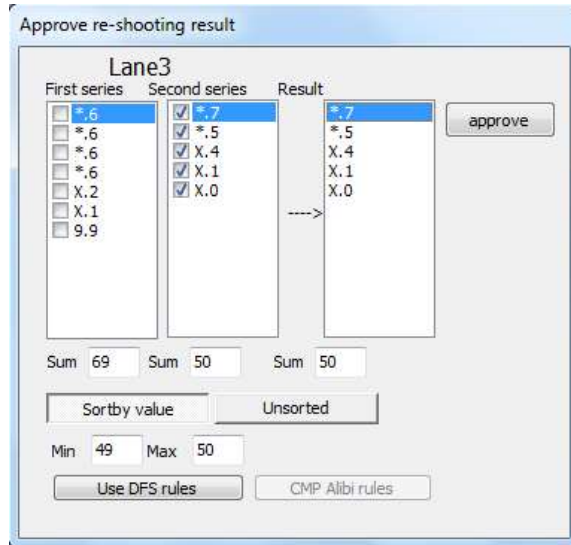
Then we use the re-shooting function. Press the re-shooting button in Pegasus 3 or navigate through **Tools → Re-shooting**.



Select re-shooting target(s) and press “OK”. In our example it is target number 3.

The shots in the selected target(s) will disappear in Pegasus 3. Shooting can start by the progress button at the upper right corner of Pegasus 3.

Press “Mark” to get all the targets marked after the re-shooting. The re-shooting series will be marked on the monitor where the re-shooting was performed. This window emerges when all targets are marked:



Here are the first and second series. Select the shots for the final result. You can also use the buttons “Use DFS rules” and “CMP Alibi rules” that automatic will select the values based on DFS’s and CMP’s regulations. When you have selected the values, press “Approve”. The results in the main window, WinGPS and on the shooters monitor will now be updated.

The same window will re-appear if there has been re-shooting on more targets.

15.2 Individual Mode

Re-shooting in individual mode can be performed in the same way as described in “chapter 15.1 Common Mode”. But this can be done a lot smoother in competitions, as some pistol courses of fire, with many series in a row with the same time limit, has special rules how to handle re-shooting like this. This will save you of a lot of time. In this sub chapter we will use the ISSF 25 Standard Pistol as an example. We will show how you can handle the re-shooting while the other shooters in the relay are shooting the next series.

Gr	Name	CL	R	Event	Target	In	Sub	Tot	Shot	Clock	Series	Nav	1	2	3	4	5	6	7
1	1		4	ISSF 25m Standard	25m	278	46	324	5/5	-20	Stage 2 - 3rd	Next series	9.7	9.4	10.0	9.4	9.2		
2	1		4	ISSF 25m Standard	25m	288	20	308	2/5	-20	Stage 2 - 3rd	Next series	10.0	10.3					
3	1		4	ISSF 25m Standard	25m	283	46	329	5/5	-20	Stage 2 - 3rd	Next series	10.3	9.5	9.9	9.9	9.2		

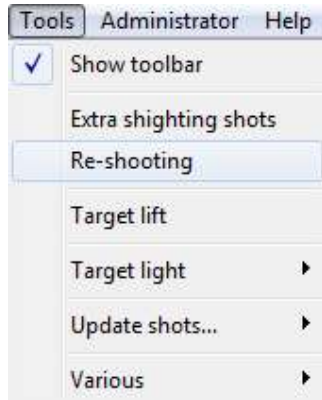
Shooting course: Alle skiver

Next series

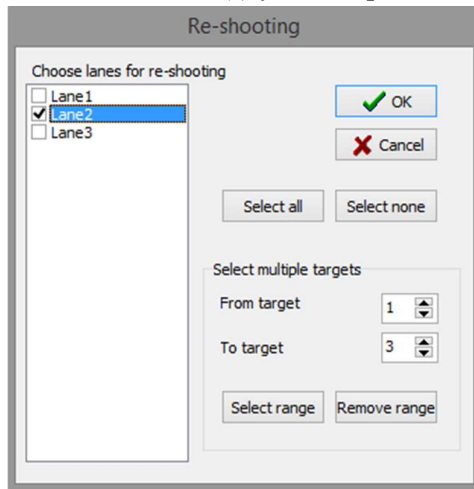
ISSF - 25m Standard Pistol

- Sighting Shots - 150s (2m) 5
- Stage 1 - 1st Series - 150s (2m) 5
- Stage 1 - 2nd Series - 150s (2m) 5
- Stage 1 - 3rd Series - 150s (2m) 5
- Stage 1 - 4th Series - 150s (2m) 5
- Stage 2 - 1st Series - 20s (0m) 5
- Stage 2 - 2nd Series - 20s (0m) 5
- Stage 2 - 3rd Series - 20s (0m) 5
- Stage 2 - 4th Series - 20s (0m) 5
- Stage 3 - 1st Series - 10s (0m) 5

The print screen above shows that we have shot the 3rd Series in stage 2. The shooter in lane 2 got a jam after just 2 shots. He hadn't time to shoot the three last shots, so he will get a re-shooting. To perform a re-shooting, press the "Re-shooting" button:



Select which lane(s) you will perform a re-shooting for in the emerged window:



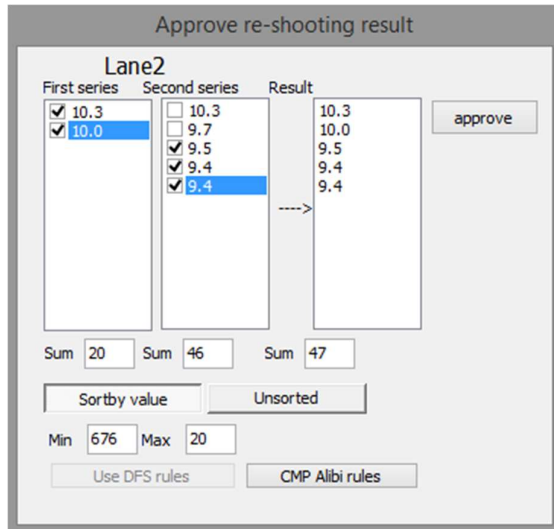
Lane 2 are getting the re-shooting in our example.

A screenshot of a "Result grid" window. It shows a table with columns: Gr, Name, Cl, R, Event, Target, In, Sub, Tot, Shot, Clock, Series, Nav, and a grid of 7 columns (1-7). The data is as follows:

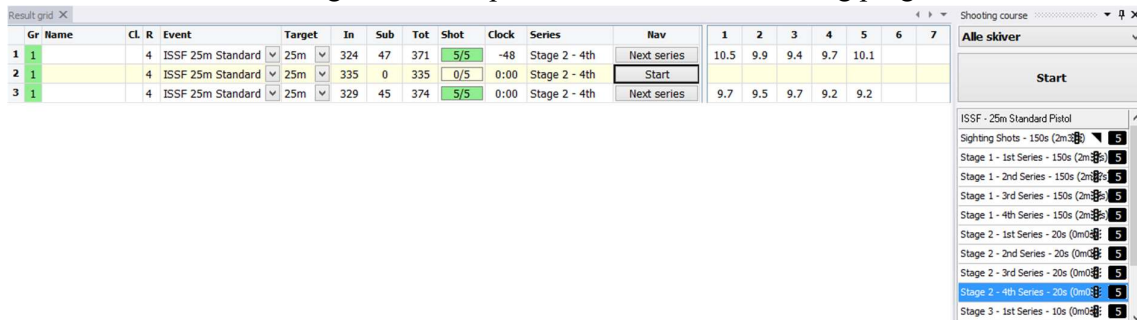
Gr	Name	Cl	R	Event	Target	In	Sub	Tot	Shot	Clock	Series	Nav	1	2	3	4	5	6	7
1	1		4	ISSF 25m Standard	25m	324	0	324	0/5	0:00	Stage 2 - 4th	Start							
2	1		4	ISSF 25m Standard	25m	288	0	288	0/5	0:00	Stage 2 - 3rd	Start							
3	1		4	ISSF 25m Standard	25m	329	0	329	0/5	0:00	Stage 2 - 4th	Start							

Below the table is a "Start" button. On the right side, there is a "Shooting course" dropdown menu set to "Alle skiver" and another "Start" button.

Lane 2 is in re-shooting mode for the 3rd series. Lane 1 and 3 are in the next series, the 4th series. Lane 2 will keep going one series behind the others along as the series has the same shooting time. The overview of the series below the big progress button has now disappeared, because the lanes are in different series. But we still are using the big progress button to navigate further on! We are now starting our series in the example, shooting 5 shots in each lane and pressing "Stop". This window will then emerge:



Select which shots you would like to make for record for the 3rd series in the re-shooting lane. We have chosen the two shots from the first series (where the jamming happened) and the three last shots from the second series (re-shooting series). Look in your organisation’s rules to sort this out correctly. When the shots you would like to make for record have been selected, press “Approve”. These shots are now updated in Pegasus 3 and on the shooter’s monitor. When the marking is finished, press “Next Series” on the big progress button.

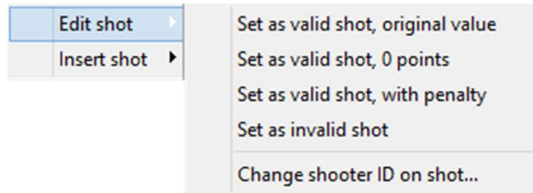


Lane 1 and 3 have now stopped until lane 2 has performed the 4th series since the 1st series in stage 3 has a different shooting time limit compared to series 1-4 in stage 2. All the lanes are now synchronized for the same series again, and the overview below the big progress button has returned. If for instance stage 2 had a 5th series with the same shooting time limit as series 1-4, lane 1 and 3 would be at series 5 when lane 2 would be shooting the 4th series.

16.0 Invalidate, Edit or Insert Shots

Some situations may lead to the need for deleting a shot, for example if someone has cross fired in to a target. It's not possible to delete a shot, but it's possible to invalidate a shot, making the shot not for record. Mark the value in Pegasus 3 by left clicking the shot, and then right click. You will then get two choices: "Edit Shot" and "Insert Shot".

16.1 Edit Shot



16.1.1 Set as valid shot, original value

Mark the invalid (red) value by left clicking the shot, and then right click and press "Set as valid shot, original value" to make an invalid shot valid. The cross on the monitor will immediately be removed, and the shot is again summed.

16.1.2 Set as valid shot, 0 points

The value of the shot will be altered and set to 0,0 by selecting this.

16.1.3 Set as valid shot, with penalty

The value of the shot will be altered and given a penalty value. The value of shot penalty is set in the setup menu. Look at "chapter 3.1.4 Shot".

16.1.4 Set as invalid shot

The value will be marked as red in Pegasus 3 by pressing "Set as invalid shot". On the shooters monitor the value will be marked with a cross and a symbol (T):

1	*.6	↑
2	X.1	↖
3	X.3	↗
4	*.6	↓
5	X.0	↙
6	Ⓣ 9.5	↘
9.5		↘
S-10	50	
SUB	50	

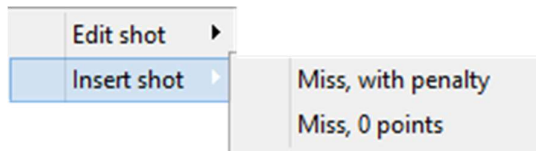
Shots marked as “invalid” will not count in the summation. The values will not be shown on ordinary score cards either. Example from Pegasus 3 when a shot is marked as invalid:

1	2	3	4	5	6	7
X.0	X.0	*.9	X.0			
*.6	X.1	X.3	*.6	X.0	9.5	
X.0	X.2	X.2	X.3	X.1		

16.1.5 Change shooter ID on shot

By using this selection, you are able to change the shooter ID on a value, or where it should be a value. Typical used by the CMP during pair firing if a shooter misses the target, or cross fires. Then it’s possible to set the shot/missing shot to correct shooter (ID).

16.2 Insert Shot



16.2.1 Miss, with penalty

This will be insert to the left for the selected shot field in Pegasus 3. It will be set to a penalty value by selecting this. The value of the shot penalty is selected in the setup menu. Look at “chapter 3.1.4 Shot”.

16.2.2 Miss, 0 points





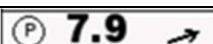

This will be insert to the left for the selected shot field in Pegasus 3. By selecting this will it generate a shot with the value 0,0.

16.3 Colour Codes on the values in Pegasus 3

Colour Code	Description
Rejected (Red colour)	Does not count in shot count (in series/strings) and sums/totals. Typically used to reject/delete if crossfire. Will not export to ranking software (CT).
Modified (Orange colour)	Original value has been modified, but will be exported and count in shot count and sums. Example of use: Penalty, and shots blocked by TIME outside pistol sequence with green light, or blocked by COUNT if too many shots in a sequence. As for the pistol light sequence, the shots will count as a shot, but the value will be modified to 0.
Outside Shooting Time (Yellow colour)	The value is registered outside the shooting time (remember that the rank officers voice is unique and he determinate if the shot was fired inside or outside the shooting time).
Ignored (Blue colour)	Shots to be ignored. Does not count in sums and totals. Used for optional sighters, mandatory sighters and extra sighting shots.
Regular	All regular shots.

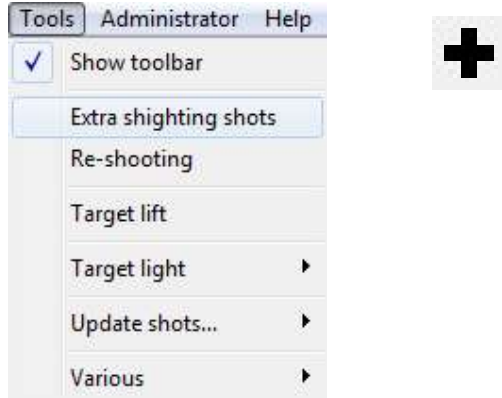
16.4 Shot Status/Codes on the Monitor

Different markings can appear over and to the left of the values at the shooters monitor. Explanation of these markings is shown in this table:

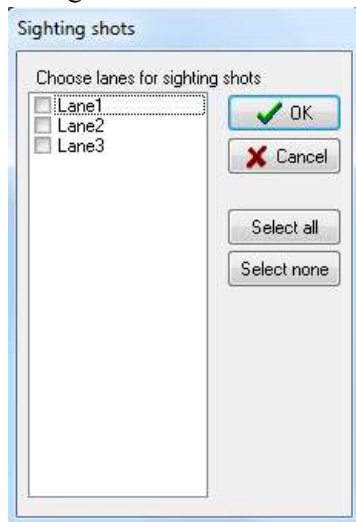
	Blocked by Count	It's registered to many shots in the sequence. The shot is not counting in the summation. Typical used during pistol shooting when the target has red and green lights.
	Blocked by Time	The shot is registered outside the green sequence time. The shot is not counting in the summation. Typical used during pistol shooting when the target has red and green lights.
	Miss Sensor	Indicates that's a fired shot has hit the targets frame.
	Sound deviation	Reg3. Sound deviation. 3 sensors only have registered the shot. The explanation can be that the fired shot has hit the target frame, or a sensor has failed.
	Penalty	A registered penalty from Pegasus 3. Typical a fired shot where it's subtract points.
	Inserted Shot	An inserted shot from Pegasus 3 (not a fired shot).

17.0 Extra Sighting Shots

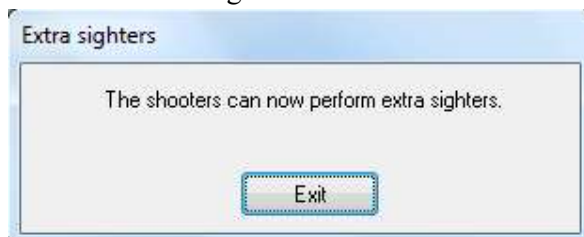
17.1 Between Series and Common Mode



Extra sighting shots can be enabled anytime during a competition. Open extra sighting shots by pressing the plus or navigate through **Tools → Extra sighting shots**. This window will emerge:



Select which targets that's going to have extra sighting shots and press "OK". Then this window will emerge:



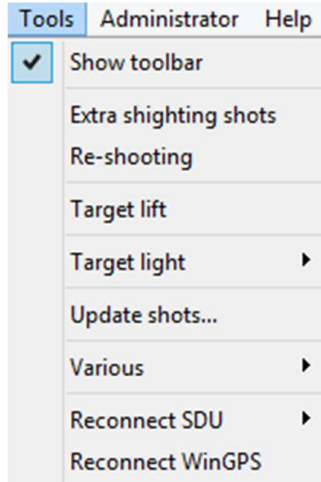
Let them shoot, and press "Exit" when done. Use a manual clock if the sighters has time limit. Continue the series when you have exited this window.

17.2 In Series and Individual Mode

If the sighting shots is performed in a competition series, the shots will be marked blue and not count in the sum/sub and total. The shots will be marked as sighting shots on the shooters monitor as well. Look at the example below (3 competition shots and 2 sighters):

Sum	Tot	Shots	Clock	Series		1	2	3	4	5
31.0	31.0	3/60	72:45	60 Shots	Stop	9.8	10.6x	10.6x	10.1	10.6x

18.0 The Tools Menu



The “Tools” menu is located on the top in Pegasus 3. You will probably not use those functions very often, but you should have a knowledge of them.

18.1 Show Toolbar

Hide or show the following toolbar with this selection:



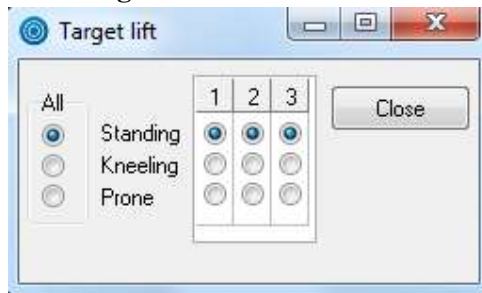
18.2 Extra Sighting Shots

Look at “chapter 17.0 Extra Sighting Shots”.

18.3 Re-Shooting

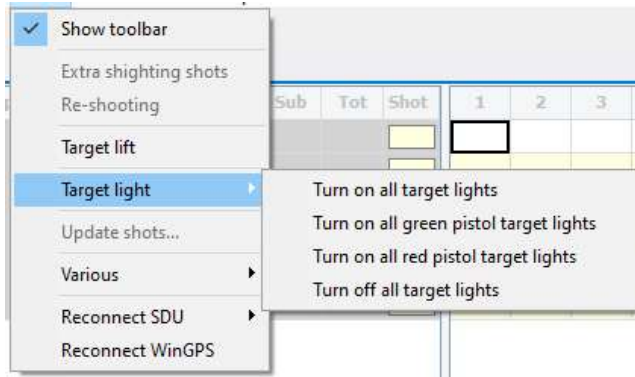
Look at “chapter 15.0 Re-Shooting”.

18.4 Target Lift



You’re able to control the target lift manually by this function. All targets can be overruled by the selection to the left (below “All”). The lifts can be controlled individually below each target number. Selected target lift(s) will go to the selected position immediately.

18.5 Target Light



18.5.1 Turn on All Target Lights

Turns on all red/green pistol target lights (does not apply for LED lights). Generally used as a function test to check that all lights are working correctly.

18.5.2 Turn on All Green Pistol Target Lights

Turns on all green pistol target lights (does not apply for LED lights). Generally used as a function test to check that all green lights are working correctly.

18.5.3 Turn on All Red Pistol Target Lights

Turns on all red pistol target lights (does not apply for LED lights). Generally used as a function test to check that all red lights are working correctly.

18.5.4 Turn off All Target Lights

Turns off all red/green pistol target lights (does not apply for LED lights). Generally used as a function test to check that all lights are working correctly.

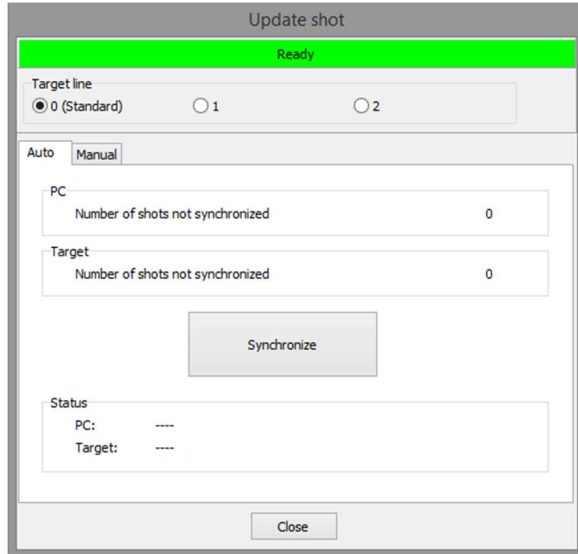
18.6 Update Shots

Missing shots for any lane can be updated from the PC (raw data) or the targets by using this function, if it is missing from Pegasus3 and monitor. The targets must have newer software version to run the update from target function.

This function selected from Tools->Update shots... checks all the lanes for missing shots.

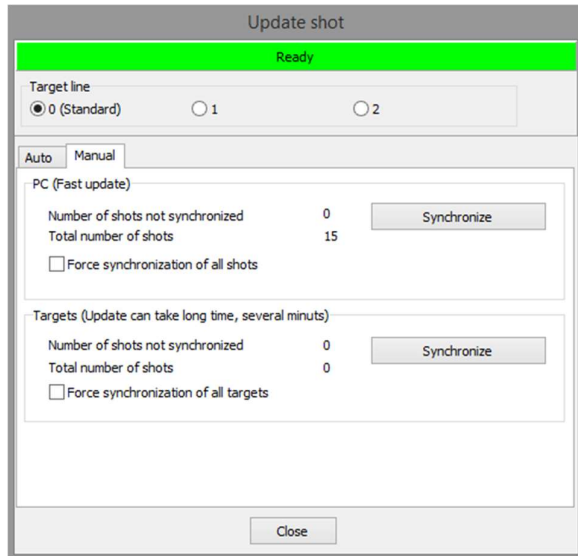
The system will search for unsynchronized (missing) shots on the PC (raw data) and on all the targets.

18.6.1 Auto



Select the correct target line ID. If the number of shots not synchronized are greater than 0 for PC (raw data) or targets, it will be possible to restore the shots. Press “Synchronize” to update shots from the PC or the target. The shot list in Pegasus 3 and at the monitor, will be updated by missing shots after the synchronize.

18.6.2 Manual

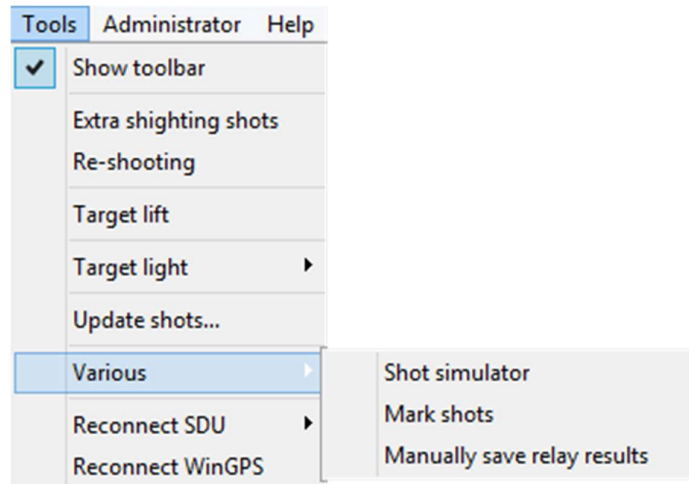


Select the correct target line ID. Perform a manual synchronize from either the PC or the targets. A target synchronize can take considerable longer time, so it's recommended to perform a PC synchronize first. The shot list in Pegasus 3 will be updated by missing shots after the synchronize.

If shots are missing from one or more monitors, you will need to manually force the synchronization. This might happen if some monitors have been needed to restart. This is performed by selecting the Force synchronization of all shots check box in the Manual tab, and then hit the Synchronize button for PC. If that doesn't work, it might be a solution to do

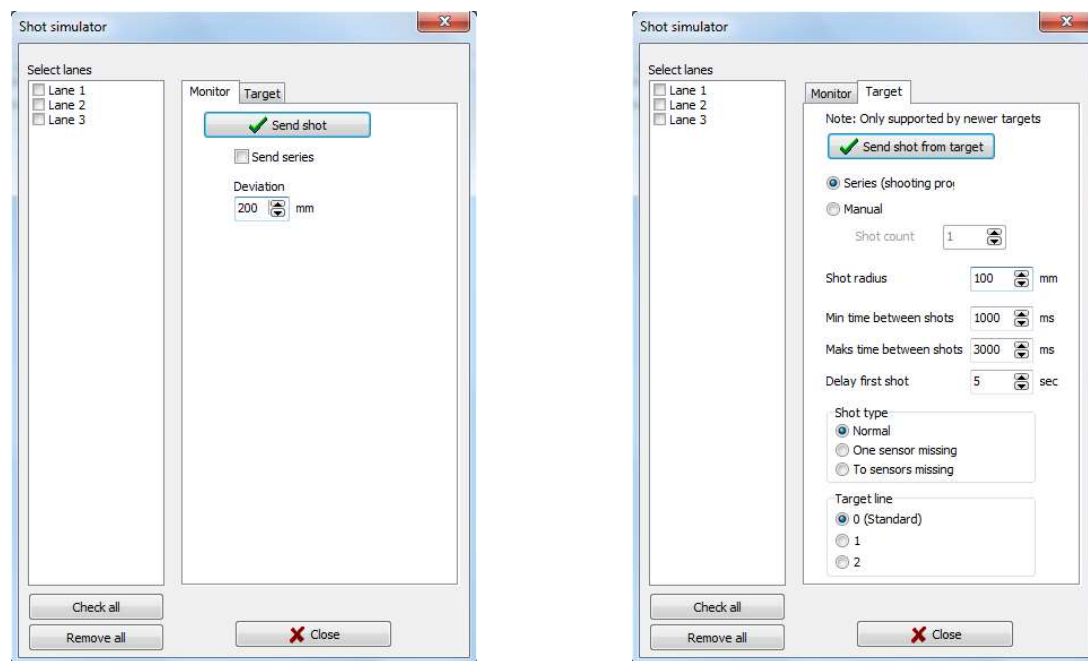
the same thing from Targets. The last 200 shots are stored at the target, and at the PC (raw data) all the shots for the current competition is stored. This means it's possible to go back from the current series as well, to restore missing shots if needed.

18.7 Shot Simulator



18.7.1 Shot Simulator

The simulator can be used to test different functions in Pegasus 3 (and for example WinGPS and Leon), and is also useful for rehearse conducting competitions.



Select which targets to the left you would like to simulate shots for. Select what kind of simulation by selecting the Monitor or the Target tab. Select deviation interval, number of shots, time interval etc. in their respective fields. Simulation from the target is functioning on newer target software only. Contact KTS for this update.

The functions “Update shots from targets/PC” do not work with the shot simulator from monitor, just from the target simulation only.

18.7.2 Mark Shots

Mark all targets automatically by pressing this button. To be used in emergency situations only, where normal marking has failed.

18.7.3 Manually Save Relay Results

The relay can manually be registered by this feature. A possible scenario can be to transfer the results to a result handling application before marking has been performed. Another reason can be if changes have been made, and the relay has to be registered again. The reason can be a shot has been changed from invalid to valid value after a protest.

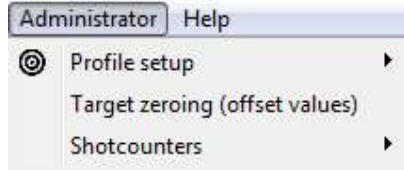
18.8 Reconnect SDU

Select the current server and try to reconnect.

18.9 Reconnect WinGPS

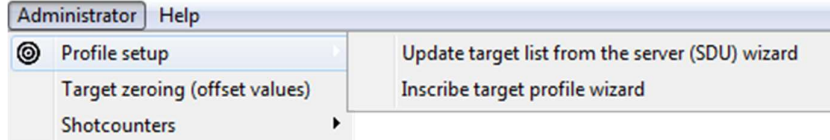
Pegasus 3 will try to reconnect WinGPS by selecting this choice.

19.0 Administrator



The “Administrator” menu is located on the top in Pegasus 3. You will probably not use those functions quite often, but you should have a basic knowledge of them.

19.1 Profile Setup



19.1.1 Update Target List From the Server (SDU) Wizard

Look at “chapter 4.3 Add New Target Profiles”.

19.1.2 Inscribe Target Profile Wizard

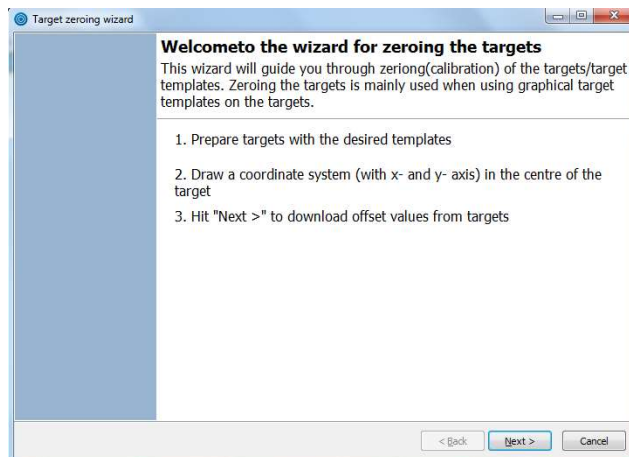
Look at “chapter 4.4.1 Link Target Profile to Event Profile”.

19.2 Target Zeroing (offset values)

Use this wizard to target zeroing (calibration). This function is used for making the visual and the electronic centre to be the same. You have to write the shot coordinates in this wizard, i.e. it's needed to physical measure the X and Y coordinates on the target and then compare them to the X and Y values displayed in Pegasus 3. This zeroing stays at the target number in the SDU, i.e. you are able to change monitors if needed without entering the calibration values over again.

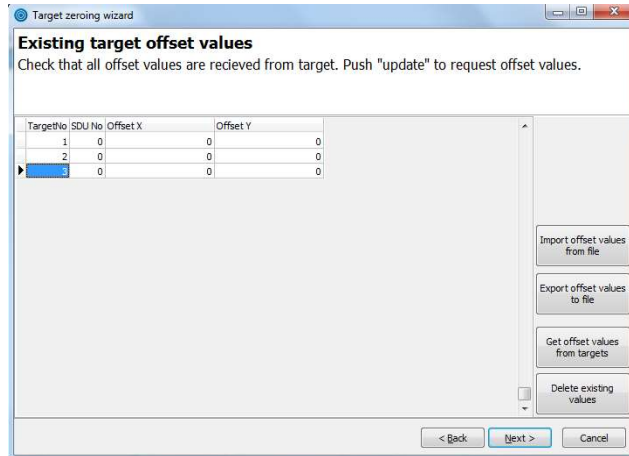
N.B! The middle of the target is the origin (zero). The X-axis is horizontally, and the right of the origin is positive. The Y-axis is vertical, and the upper way from the origin is positive. The opposite directions from the origin will give negative sign.

This is the target zeroing wizard:

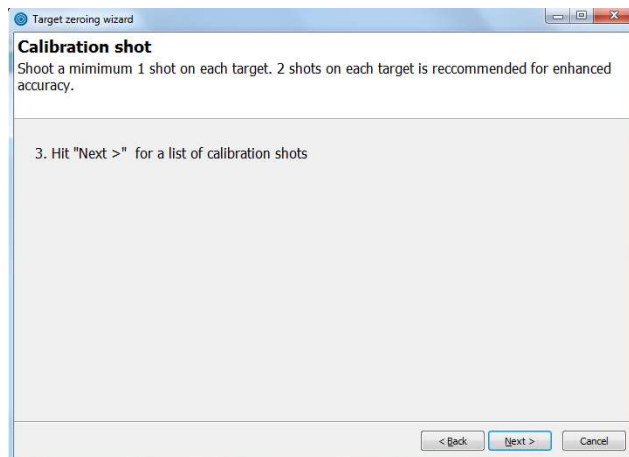


Prepare the target with front shield. It's needed to do a new target zeroing if you take the front shield on and off, because you can't expect that you do it exactly the same way each time.

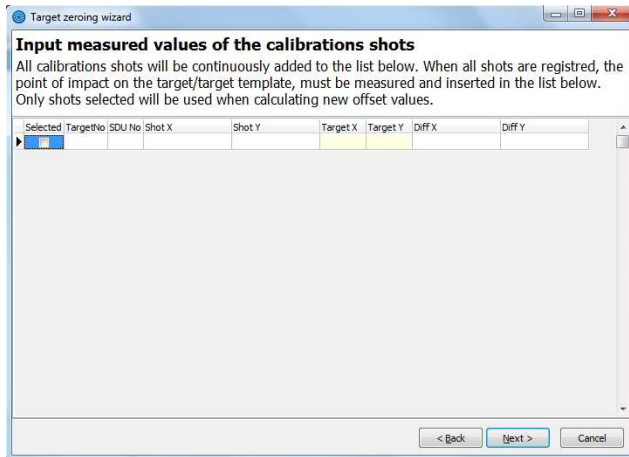
You measure on the front shields. X is horizontal and Y is vertical. Use a precise measuring tool, for example a caliper. Press **Next**.



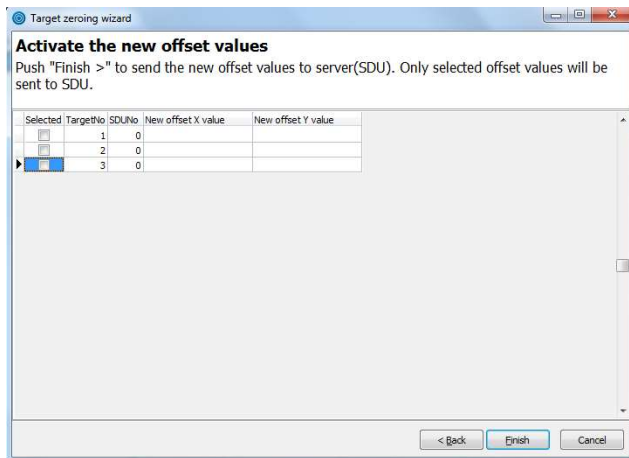
Existing offset values will be listed here.



Shoot at least one shot in each target that you would like to calibrate. We will recommend two shots to increase the target zeroing quality. Press **Next** to get these shots displayed.



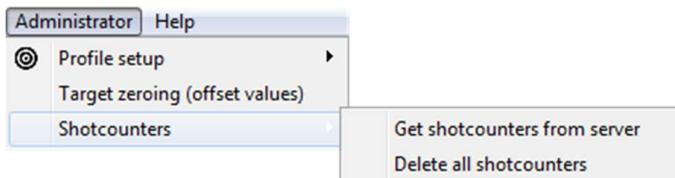
All calibration shots will consecutively be listed below the colon “Shot X” and “Shot Y”. After the measurement of the X and Y values on the target, input the values into “Target X” and “Target Y” fields. The differences will be listed in the column “Diff X” and “Diff Y”. The targets are now calibrated. Press **Next**.



The new offset values will be listed here. **N.B!** Calibrated targets must be selected! Press **Finish**.

The targets are calibrated and ready to use.

19.3 Shot Counters



19.3.1 Get Shot Counters From Server

Press this button to get the shot counter from the server.

19.3.2 Delete All Shot Counters

Delete all shot counters by using this function. Typically used after maintenance to keep track of the number of shots relative to the maintenance threshold of the targets. We recommend to

write a maintenance protocol on each shooting range. Write which type of maintenance you have made, noise registration and the shot counter values.

20.0 Result Format

20.1 Pegasus 3 Version 3.XX

This program uses three different formats:

- KMRES.DAT
 - This format consists of a simple file named KMRES.DAT. This file only exchanges shooting results and not roll call lists from result handling applications. The file will contain all shooting results from the competition.
- KMX.BIN
 - This is an expanded format that's used by a Swedish result handling application, called "Shooter".
- KMX/KMO
 - This format also supports rollcall lists. Some DFS and ISSF result handling applications supports this format (Leon). The format consists of several files:
 - KMINEW.TXT
 - New roll call lists are deleted when Pegasus 3 has read them.
 - KMI.UPD
 - The file states that KMINEW.TXT is updated.
 - KMONEW.TXT
 - New shooting results. The file is deleted when the result handling application has read it.
 - KMOALL.TXT
 - Contains all shooting results in the competition. This file is not deleted.
 - KMO.UPD
 - The file states that KMONEW.TXT and KMOALL.TXT is updated.

20.2 Result Handling Application

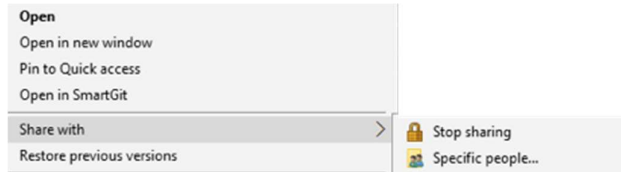
There are a lot of result handling applications that can be used with Pegasus 3. We will describe the overall setup (with file and folder permissions) in this sub chapter.

20.2.1 Setup of the Pegasus 3 PC

It's necessary to configure communication at the same network (LAN) between the Pegasus 3 PC and the result handling application PC. Data exchange (rollcall lists and result lists) takes place by standard Windows network distribution between Pegasus 3 and the result handling application.

It's necessary to share a folder on the Pegasus 3 PC so the result handling application can access the files. This folder must be shared with both file and folder permissions, and also read and write permissions.

The folder you're supposed to share is "Data" and it's a subdirectory of "Pegasus3". After a default installation the directory will be "C:\Pegasus3\Data". Right click and press "Share with" and then select the correct group to share this folder. As shown below:



Do the following to check that the folder is correctly shared on the network:

- Go to the result handling application PC.
- Open Windows explorer.
- Find the Pegasus 3 PC in the network.
- Go to the "Data" map.
- Right click and select "New" → "Text document".

If you managed to create a new document in this folder it is correctly shared with both file and folder permissions, and read and write access. It's not correctly shared if you get an error message. Delete the text file after this test.

Another easy way to check the file and folder permissions when you have connected the whole system (WinGPS, the result handling application and Pegasus 3) and each program is connected with WinGPS Server:

- Open a relay in Pegasus 3.
- Write a name in the result handling application, in the relay that's open in Pegasus 3.
- The name will emerge in both Pegasus 3 and WinGPS Monitor after maximum 10 seconds.
- Delete the shooter from the result handling application.
- The name will disappear in both Pegasus 3 and WinGPS Monitor after maximum 10 seconds.

Note that a PC's firewall can decline all communication, although the file sharing is in order. In that case allow the Pegasus 3 and Leon applications respectively to communicate through the windows firewall, or just turn it off.

21.0 Spectator Viewer

A PC is needed to run graphic spectator view of targets; WinGPS Monitor.

21.1 WinGPS Server

This application will work as a server for the WinGPS applications.

For the IP address/Machine name setup, look at “chapter 3.3 WinGPS / GPS”.

When you have opened a competition and selected a relay in Pegasus 3 and the system check is green, the license registration in WinGPS Server should be green as well.

The WinGPS Server also serves as a server for the new WinGPS Cloud application located on the Internet.

21.2 WinGPS Monitor

You can use this application on any number of PC's as required. It's also possible to run as many applications/directories on one PC to send it on different screens as desirable. Up to 10 Monitors are supported.

Enter IP address/Machine name and select correct Range ID (the same ID as the Range you are shooting at) to get the application to work.

Select target numbers and press “Start display”.

21.3 Spectator Viewer in Training/Practice Mode

You are able to view the WinGPS Monitor when Pegasus 3 is in Practice Mode. To do this, follow the steps below:

- Open WinGPS Server
- Open Pegasus 3
 - o Unselect the lanes you would like to have in Practice Mode
- Open WinGPS Monitor and select the desired lanes
- Shoot and have fun!

22.0 Error Handling


It's important that the Range Officer is aware of the most common errors that may occur. In this chapter the most common errors are explained with a solution.

22.1 Monitor Stops in Common or Individual Mode


A monitor needs a restart (or be replaced) if it stops (doesn't register shots, doesn't has a regular display or doesn't respond if pressing a button). It's possible to get a new marking after a restart/replacement, because all the shots are saved in the SDU. Solution to restart/replace:

- Restart the monitor (or replace if broken). Restart with the on/off button if it has an on/off button. If not: push the button to the left and to the right (not the contrast buttons) simultaneously.
- Select correct target number and press through the menus until the text "Insert smartcard or press any key" displays or displaying a target. It will automatically go into competition mode.
- Update shots from target/PC (**Tools → Update shots**) so shots fired after the monitor failed will be marked. This is described in "chapter 18.6 Update Shots".

22.2 A Shooter Has Cross Fired, Common Mode

 This chapter applies to common mode. Use the re-shooting function if a shooter request/claims re-shooting after having got to many shots from another shooter in his target. Press the re-shooting button on the toolbar, or navigate through the menu: **Tools → Re-shooting**. This is described in "chapter 15.0 Re-Shooting".

22.3 Long Pause During a Relay, New Sighting Shots

 Use the new sighting shots function if the shooters request/claims new sighting shots because a too long delay has occurred, for instance. Extra sighting shots can be opened anywhere during a competition, given you do it when Pegasus 3 is in an empty stage of series. It's not possible to have extra sighting shots when you have shots in Pegasus 3, in that case open a new empty series, and then open extra sighting shots. Open extra sighting shots by pressing the plus button on the toolbar, or navigate through **Tools → Extra sighting shots**. This is described in "chapter 17.0 Extra Sighting Shots".

22.4 About Sensor Errors Messages from a Target

An error message will appear if a target has been shot broken. Note the message and press "OK". Check the target after an incident like that. It can also be smart to check the shot counter for sensors noise, this is described in "chapter 19.3 Shot Counters". Error messages can also appear although the sensors or cables are intact. Other factors could be worn rubber skin, frame hits, ricochets or unfortunate noise from the bullet catcher.

22.5 No Names Enters in Pegasus 3 from the Result Handling Application

This may occur due to various factors:

- Check the Range ID in Pegasus 3 is set correctly. The value must be set as the value the result handling application generates. Look in the result handling application's user manual.
- Check the result handling application PC has both read and write permissions on the Pegasus 3 PC. This is described in "chapter 20.2.1 Setup of the Pegasus 3 PC".
- Check the WinGPS Server has connection with both Pegasus 3 and the result handling application. It can be errors in the setup of TCP/IP address/Machine name if it's no connection. Look at "chapter 22.8 Can't Connect with WinGPS Server".

22.6 Can't Open Final Relays from the Result Handling Application in Pegasus 3

All final Relays will usually be added with a offset. For example final relay number 1 in the result handling application can be relay number 101 or 1001 in Pegasus 3. This is located at the top right corner in Leon. Mark current relay in Leon, and it will show "Relay=X" top right. X equals the relay you should open in Pegasus 3. If the final relays increase with one number in the result handling application, it should also increase with one number in Pegasus 3.

22.7 Protest on a Shot Value

Accomplish a protest handling procedure if anyone delivers protests on a shot value. The shots should be fired immediately and they will be marked immediately as well. Mark these shots as "Invalid". If a protest is sustained, mark the shot(s) as "Valid" and register the relay again. Register the relay again by pressing **Tools → Various → Manually save relay results**.

If a protest is sustained or overruled is a decision of the jury. By printing the score card with X and Y coordinates it's easy to compare the shots on the target. Look at "chapter 13.1.2.9.1 Print X and Y of Shots" for a description of how to print that kind of score cards.

Check the shot counters if the protest was caused by missing shot(s). Check for sensors noise, this is described in "chapter 19.3 Shot Counters". It's not certain the target has registered all shots if it's a lot of noise. Check also the data log. This is localized by navigating to the "Data" folder in the "Pegasus 3" folder on the C disk (C:\Pegasus3\Data). All target numbers will be listed, select correct number. All fired shots on the target will be listed in the text file, the newest in the bottom. Scroll from the bottom. Error messages will be listed behind the shot values. An error message can for example be "Registered many sensors registrations on short time". This may occur due to many factors, including broken cable due shots (poor connection can cause error messages), and poor maintenance.

22.8 Can't Connect with WinGPS Server

Using the "Ping" command in Windows it's possible to check if two computers have connection by the TCP/IP protocol. Press the "Start" button in Windows on the Pegasus 3 computer and type "cmd". Open the application.

Write "Ping IP address" or "Ping PC name" (IP address/PC name to the PC you're supposed to find → WinGPS Server PC). If the WinGPS Server PS is named "WINGPSSRV" and have the IP address "192.168.0.1" you could write: "Ping 192.168.0.1" or "Ping WINGPSSRV".

You will get something similar to this if the communication is ok:

```
>> Pinging 192.168.0.1 with 32 byte of data
>>
>> Reply from 192.168.0.1: bytes=32 time=2ms TTL=128
>> Reply from 192.168.0.1: bytes=32 time<10ms TTL=128
>> Reply from 192.168.0.1: bytes=32 time<10ms TTL=128
>> Reply from 192.168.0.1: bytes=32 time<10ms TTL=128
>>
>> Ping statistics for 192.168.0.1:
>> Packets: sent = 4, received = 4, lost = 0 (0% loss),
>> Approximate round trip times in milliseconds:
>> minimum = 0ms, maximum = 2ms, average = 0ms
```

You will get something similar to this if the communication doesn't work:

```
>> Pinging 192.168.0.1 with 32 byte of data
>>
>> Request timed out.
>> Request timed out.
>> Request timed out.
>> Request timed out.
>>
>> Ping statistics for 192.168.0.1:
>> Packets: sent = 4, received = 0, lost = 4 (100% loss),
>> Approximate round trip times in milliseconds:
>> minimum = 0ms, maximum = 0ms, average = 0ms
```

We recommend running the ping command from both computers. A firewall can block communication for one PC, so only one PC is able to both send and receive from the other PC.