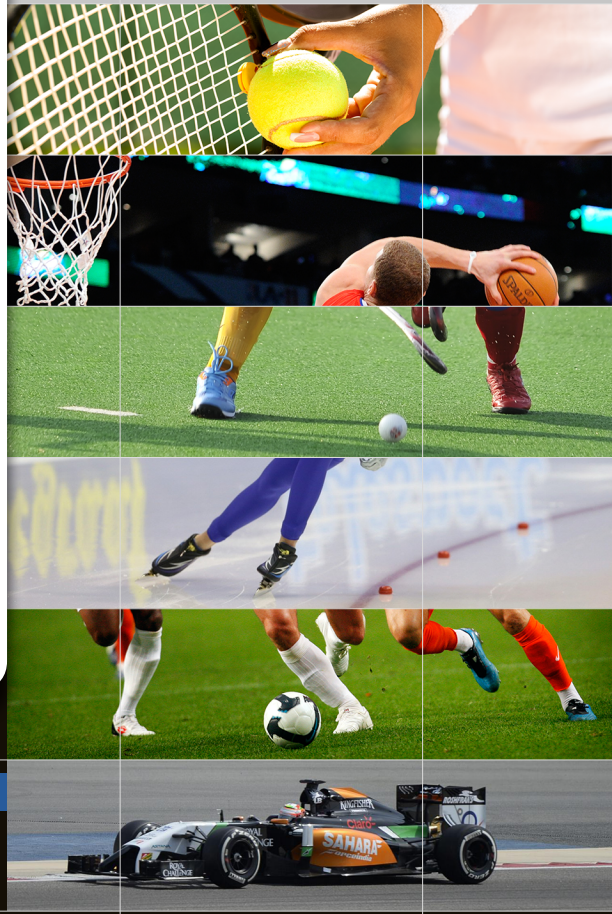
INMOTIO

System

version 3.4
English

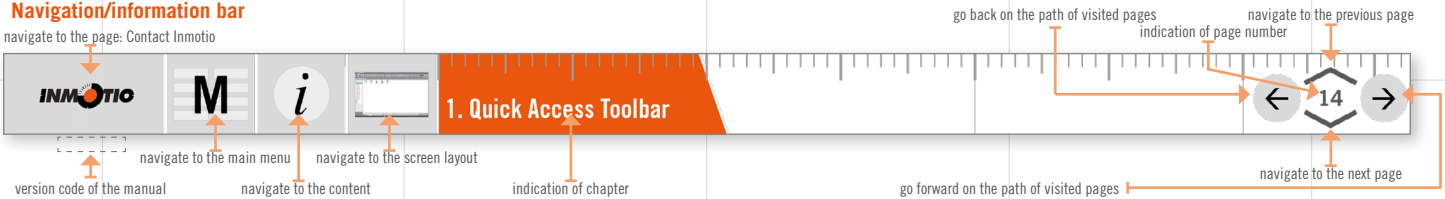
draft-version-6

Manual



This manual is an interactive PDF. You can easily navigate through it, providing the answers you are looking for. There are several ways to utilize it:

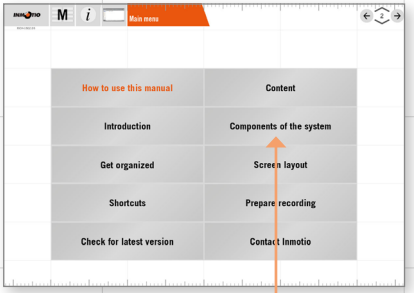
Navigation/information bar

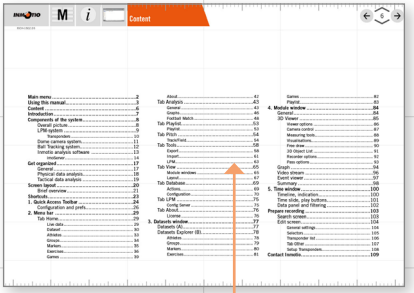


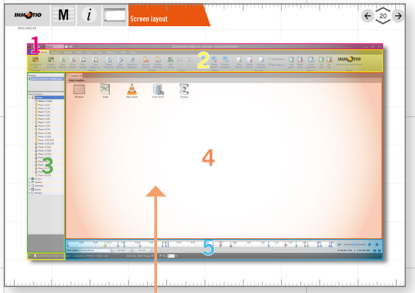
This bar is on every page helping you to find your way.

Main menu, Content and Screen Layout

The Main menu offers you a choice between all subjects in this manual.
The Content shows a complete view of all items. You can click om the topic of your choice and you automatically navigate to that page.
The Screen Layout offers you the fastest way to find your way int the screen, you can click on one of the five windows.



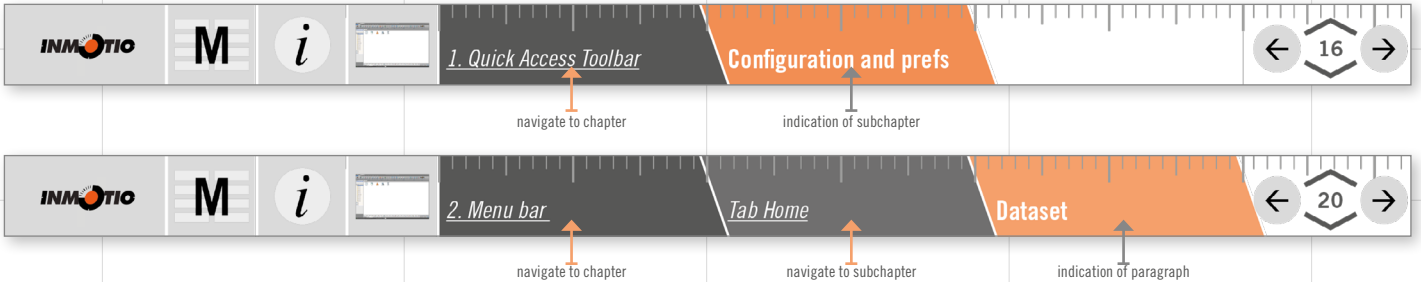




If a topic continues on the following page, you will see this sign:

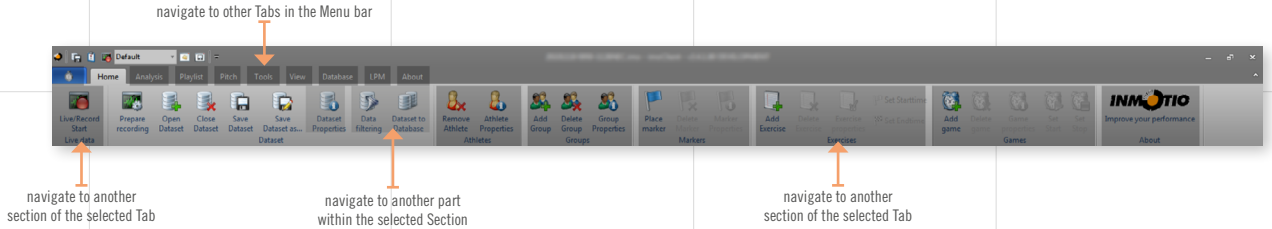
Chapters, subchapters and paragraphs

The beginning of a chapter, subchapter and paragraph is marked with a tab in orange (fading in colour). That indication turns into gray on the following pages and is then activated to switch to the beginning.



Navigation by windows

The five windows of the Screen Layout each have their own chapter in the manual. The screen shots of these windows are interactive. Here is an example of navigation using the Menu bar (window #2 in the Screen Layout):



Navigation in the text

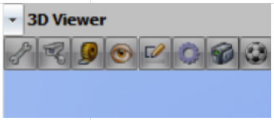
When the explanation text is referring to another explanation, that part of the text is indicated by an orange rectangle. You can click on this text to navigate to this explanation.

next

Navigation with shortcuts

Rotating

Click on the button at the bottom left (c) of the screen, in order to rotate the field through 90 degrees. You can also change the position of the field in the window by clicking on the field and moving the mouse while holding the left mouse button pressed down. You can also zoom in and out using the scroll wheel on your mouse or the arrow keys on your keyboard.
If you select an athlete in "Datasets Explorer (B)", this player will be highlighted on the field with a yellow circle.



Display

You will see a number of icons at the top left of the module layout window (d). By clicking on an icon, a window containing options such as "Viewer options", "Camera control", "Measuring tools", "Visualisations" and "Recorder options", will appear (explained on the next pages).

navigate to the according place in the manual

Alt ← Go back on the path of visited pages (Windows). Equal to:

cmd ◄ Go back on the path of visited pages (Mac). Equal to:

Alt → Go forward on the path of previously visited pages (Windows). Equal to:

cmd ► Go forward on the path of previously visited pages (Mac). Equal to:

Content

Dear User,

The Inmotio System has been developed being an efficient and user-friendly athlete monitoring system. The system is based on the measurement of athletes position data, heart rate, video streams and optionally the ball.

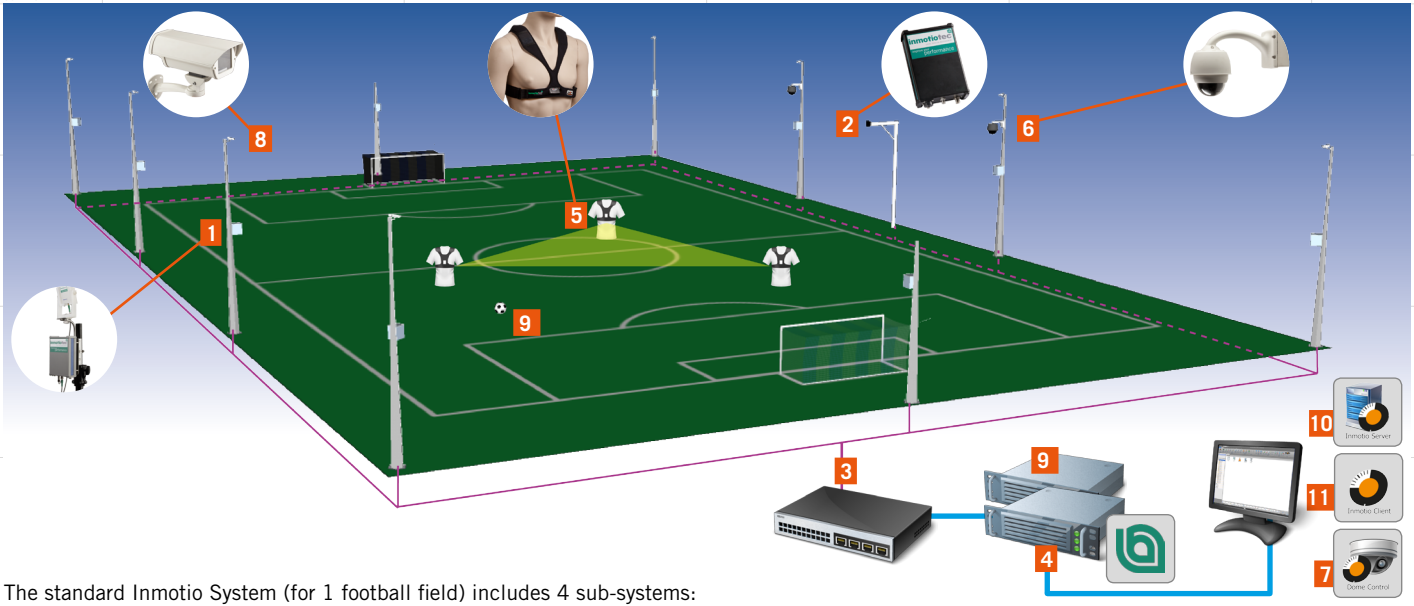
It serves both physical and tactical analysis of individual athletes and teams. The system provides real time feedback during live training sessions and games. The Inmotio System helps you to better understand the physical performance of individual players and of the team, increases tactical insight, helps to prevent injuries and allows you to build up individual player profiles.

The Inmotio System includes player tracking (LPM), dome (PTZ) cameras, a ball tracking system and advanced analysis software. This manual describes the system in general but focuses on the use of the analysis software.

The application is flexible and therefore any suggestions for improvement or extension are welcome and will be seriously considered.

If you have any questions or suggestions, please contact us by phone: +31 20 3632693 or e-mail: support@inmotio.eu

INMOTIO OBJECT TRACKING BV
Founded by Abatec and TNO



The standard Inmotio System (for 1 football field) includes 4 sub-systems:

Local Position Measurement (LPM) System

capturing the position of the athletes

includes:

- 1 Base Station (10x)
- 2 Reference Transponder (1x)
- 3 Glass Fiber Hub (1x)
- 4 LPM-server
- 5 Athlete Transponder

next

Pan, Tilt, Zoom (PTZ or dome) Camera System

capturing of automated HD video

includes:

- 6 PTZ or Dome Camera (2x)
- 7 Dome Camera Application

next

Ball Tracking System

capturing the position of the ball

includes:

- 8 Camera (12x)
- 9 Ball Tracking Servers

next

Inmotio Analysis (coaching) Software

real time data analysis, database and reporting

includes:

- 10 imoServer *)
- 11 imoClient **)

*) sofware, can be installed on same PC as imoClient or seperate (rack-)server.
**) software, can be installed on desktop, laptop, or tablet PC.

next

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1

Capturing the position of the athletes

Local Position Measurement (LPM) System

The LPM system measures real time position of the athletes. The system includes base stations 1 that are mounted around the measurement area. The athletes wear a transponder 5 that communicates with these base stations.
A reference transponder 2 is positioned at an edge of the field for calibration purposes.
The base stations are connected through a fiber optic infrastructure to a fiber optic hub 3. From here the base station data is transferred to the measurement PC (LPM Server) 4.
The LPM Server calculates the position data of the athletes in real time.
A sensor is connected to the transponder's telemetry channel socket. This sensor picks up the heart rate signal that is produced by a H2 or H3 Polar heart rate belt.

2

3


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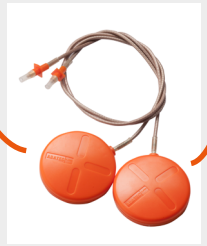


Athlete equipment

The vest contains the Polar heart rate measurement belt and the transponder.
Please make sure the antennas are positioned on the top of the shoulders. Adjust the vest if necessary.

Check the connection between the antennas on the shoulders and the transponder on the back of the player's vest.

Charging the transponders

After every measurement, the transponders must be charged in the charging station. When the transponder has been fully charged, a green light on the charging station will light up next to the transponder.

- Fully charged transponders will last for approximately 4.5 hours.
- Charging a transponder takes max. 1 hour (depending on the current power level of the transponder).

Activating the transponders

Adding transponders to the system and how to activate them, is explaned in "Setup Transponders" in the chapter "Prepare recording".

Capturing of automated HD video

The dome camera system 6 records the training session or match by means of 1 or more HD quality PTZ cameras. The video streams are recorded in sync with the position data of the LPM-system. The cameras can be controlled automatically by following 1 or more athletes.

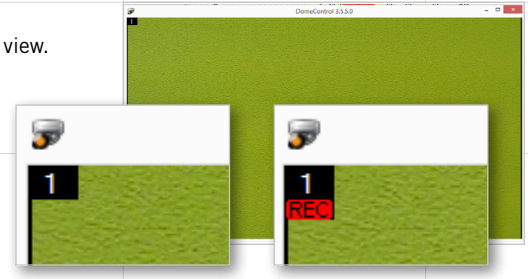
Dome Control Application

This application 7 takes care of the capturing of the video streams that are produced by the dome cameras (see “Dome-Control Application”).
The application includes a live viewer.

The DomeControl Application usually starts automatically when a measurement starts in the imoServer. If the application is started **without** the imoServer, than the screen (with 1 camera connected) looks like this test screen.

Connected with the imoServer

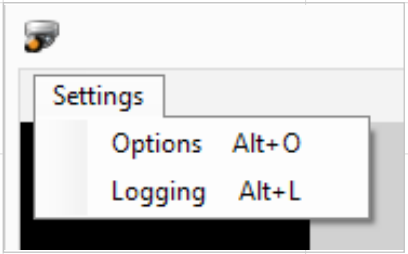
If the Measurement Selection is activated in the imoServer, the screen will show the camera's view. During recording, the sign 'REC' shows under the camera number.



Menu

Alt The **Alt** key makes the menu to appear.

! Changes made by unauthorised persons can jeopardize the camera configuration and is therefore strongly discouraged.

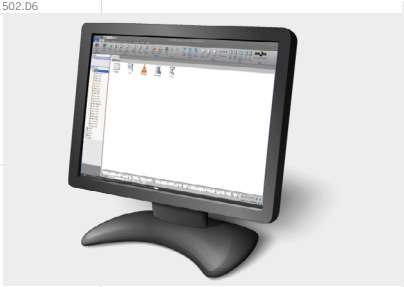


next


8

Capturing the position of the ball

The ball tracking system includes 12 fixed CCD-cameras 8 that are positioned around the measurement area. The cameras capture the position of the ball, which is calculated in real time by the feature servers. Each feature server is connected to three cameras.
Fiber optic cables connect the cameras. The ball data is synchronized and merged with the position data and video.



Real time data analysis, database and reporting

Inmotio analysis software

The Inmotio analysis software or Inmotio Application (as shown in “Screen layout”) gathers the position data, ball data and video streams. The application can be used to record, store and analyze the data. A standard database can be connected to this application. Reports can be retrieved from this database by using standard report generating software.

Inmotio Server application

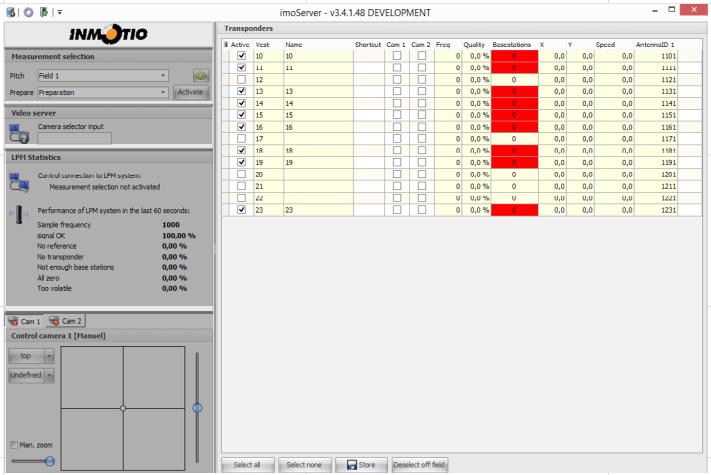
The Inmotio Server application or “imoServer” manages the communication between the LPM System, Ball Tracking system and the Inmotio Application. It is amongst others applied for activating and checking the status of the transponders in the system. It is used for controlling the dome cameras and enabling multiple Inmotio Applications (clients) to monitor a measurement simultaneously.

Dome Control Application

This application takes care of the capturing of the video streams that are produced by the dome cameras (see “Dome-Control Application”).
The application includes a live viewer.

The user interface of the imoServer includes of the following sections:

- **“Section Transponders”**
- **“Section Measurement selection”**
- **“Section Video server”**
- **“Section LPM Statistics”**
- **“Section Control Camera”**



and the following buttons (at the top):

Settings. Please note that unauthorised use of this feature may jeopardize the system and is therefore discouraged.

Exit. Shut down the imoServer.

Section Transponders

Shows the overview of all transponders, selected for this measurement.

Vest	The ID of the vest (attached to the vest itself).
Name	The name of the player, wearing the vest.
Shortcut	A key that enables you to switch quickly between yes or not to follow with the dome camera.
Cam x	A transponder with this box checked is followed by the corresponding dome camera.
Freq.	The number of measurements per second for this transponder.
Quality	The quality of the signal in %.
Basestations	The number of base stations used for calculating the last position of this transponder. If smaller or equal to 6, the box turns red, or else it is green.
X, Y	Position on the field.
Speed	Instant speed of the player wearing the vest.
AntennaID1	The ID of the first antenna in this transponder.

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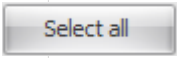
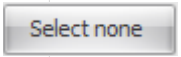
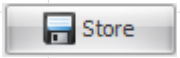


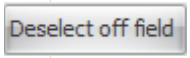
Select all of the shown transponders.



Deselect all of the shown transponders.



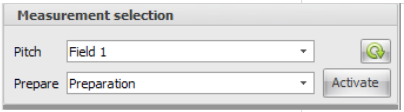
Save the present combination of selected transponders.



Deselect off field. Deselect all transponders that show less than 10% quality and are therefore considered to be off field. Please note that for using this option, first all transponders must be selected..

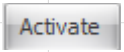
! The buttons above are nowadays barely used (only for testing purposes), since this option had been taken over by “Prepare recording”.

Section Measurement selection



Select the **Pitch** you are intending to use and select the type of **Preparation** you want to use.

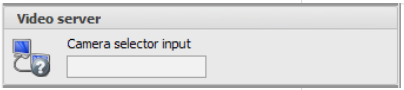
Refresh to apply the latest changes made in the coaching software.



Start a measurement with the **Activate** button.

! This is not the same as starting a recording.

Section Video server



The **icon** shows if there is a connection with the DomeControl application.

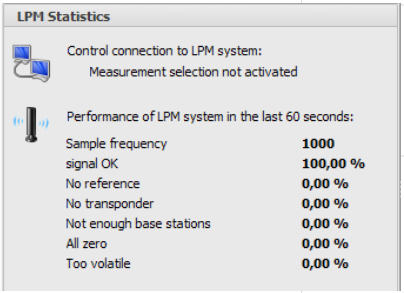
Camera selector input — Fill in this field by using the short cut caracter and the camera number (see “Section Transponders”). The checkbox of the camera is ticked in case the camera is on.

next

Section LPM Statistics

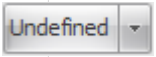
The first **icon** shows the status of the connection with the LPM server. The second line shows the previous status of the system.

The lower part shows the detailed status of the sysem in the last 60 seconds.

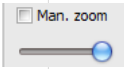


Section Control Camera

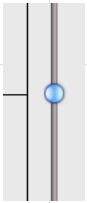
Select a camera to operate it manually. You can move the camera (pan and tilt) by moving the cross in the window.



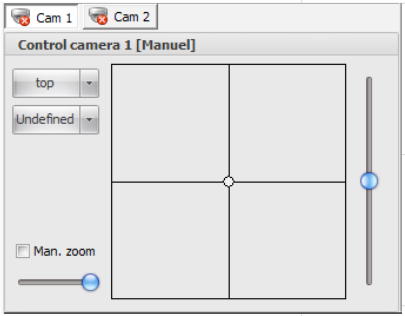
You can store and name maximum 4 camera positions.



Zoom ruler for the camera that is focussed on a player (transponder).



Zoom ruler for a camera with no particular focus.



The Inmotio coaching software analyses data that has been stored. In this database generic information, like players, teams, pitches, etc is collected along with measurement data based on games and exercises (datasets).

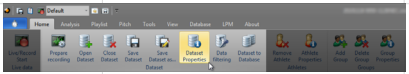
Please note that training elements should be structured in order to be able to compare tests through time. By analysing the data we distinguish two kinds of analyses:

"Physical data analysis"
"Tactical data analysis"

Reports can be build by third party report building applications such as Visual Studio, MS Report Builder, Tableau and others or by using **.csv** files in combination with MS Excel.

General

First, we have to define general items like: **Players**, **Teams**, **Clubs**, **Training types**, **Dataset types**, **Exercise names**, **Agility Definitions** and **Exercise Analyze Options**.
This is done in the Section "Configuration" of the "Tab Database". Please ask your Inmotio consultant for help.



Before a measurement can be started, a **Team** and a **Dataset type** must be selected in the "Dataset Properties".
In case a training will be measured, one or more **Exercises** need to be defined first. In case of a match, a **Game** needs to be define first.

After the “General” settings being finalized, the physical definitions need to be filled in. When starting the application for the first time, all values are default.
The physical definitions can be entered in “Exertion Analyze Options” in the Section “Configuration” of the “Tab Database”. Please, ask your Inmotio consultant in case you need support.

Other parameters, like: **Speed**, **Heartbeat**, **Acceleration**, **Deceleration**, **Power**, **Sprint Category**, **Acceleration Category** and **Deceleration Category**, are defined in “Zones” in the “Configuration and prefs”-menu, also known as “Options” in the “1. Quick Access Toolbar”.

Analysing physical data

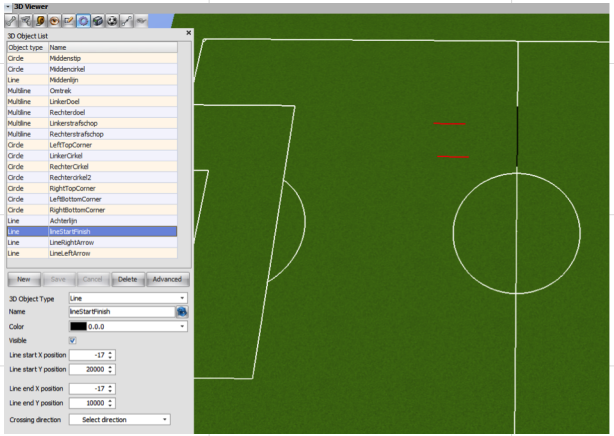
When the above mentionned definitions are made and a dataset has been recorded, the physical data is analyzed by using the “Exertion”-module in the Section “General” of the “Tab Analysis”.

Agility test

The **Agility Test** is applied to analyse a sprint or agility. For this test **lines** (start, finish, sector) must be defined first in the “3D Object List” of the “3D Viewer”.

Example

The black start and finish line (midfield line) and the two red lines (Line LeftArrow and LineRightArrow) are defined in the 3D Viewer.



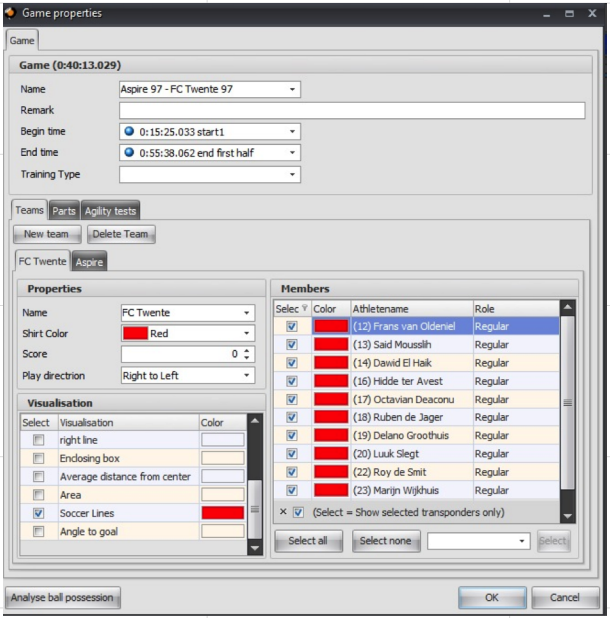
Then, the sequence of crossing is defined in “Agility Definitions” in the Section “Configuration” of the “Tab Database”.

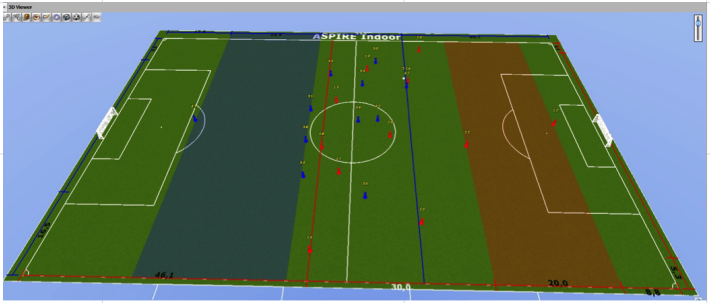
Now, it is possible to analyse the “Agility Test” in the Section “General” of the “Tab Analysis”.

The Inmotio tactical analysis modules have mainly been developed for 11 versus 11 games, played on full sizes football pitches. The tactical modules are based on definitions that have been developed by scientists and professional football trainers. Some of these definitions can be changed by the user. Please ask your Inmotio consultant for advice.
For performing tactical analysis a **Game** has to be defined first (see “Games” of the “Tab Home”).

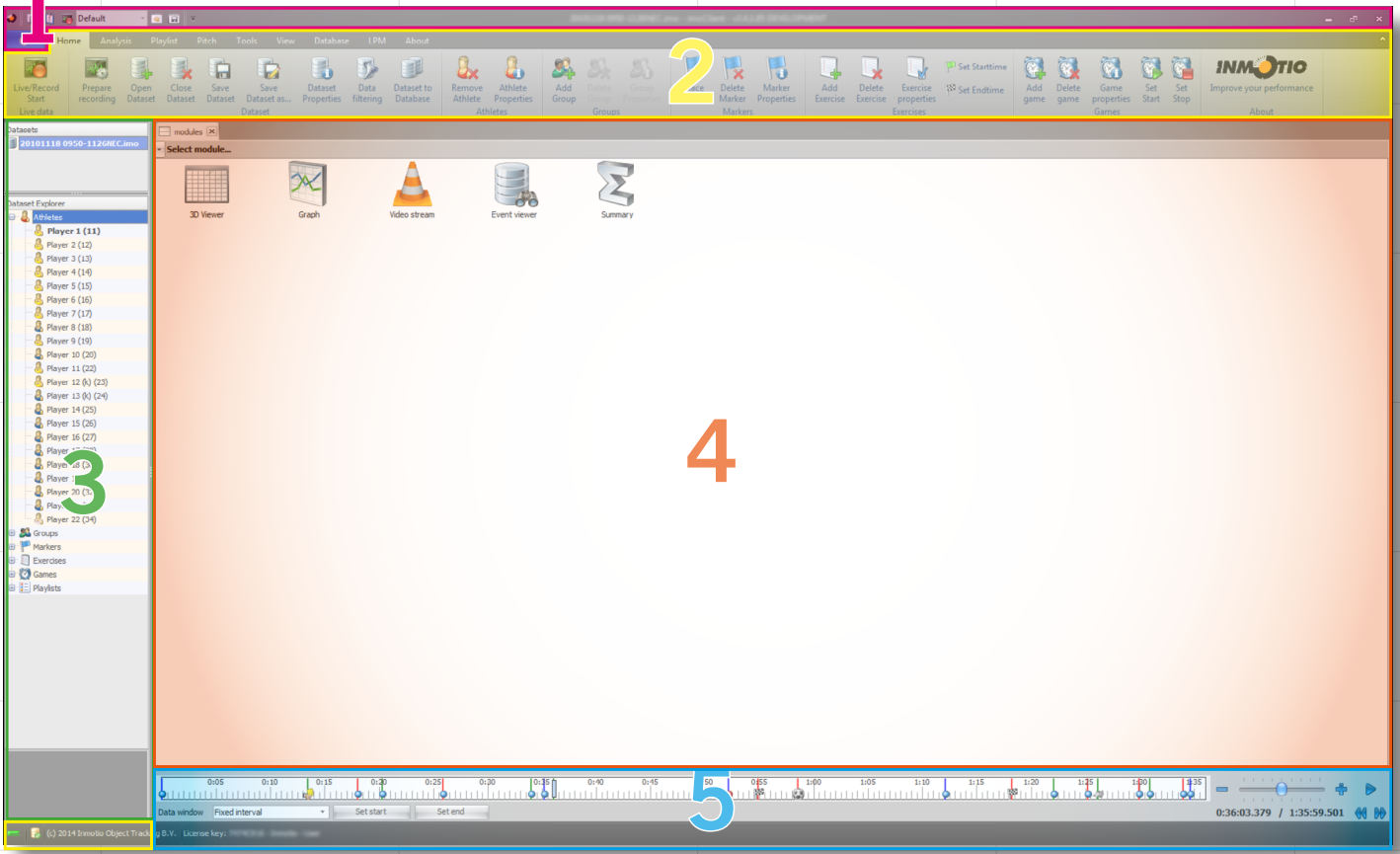
Example

This example **Game** has two **Teams** with players, 2 parts (first and second half) and a team playing direction in the first half (the second half is automatically assigned the opposite playing direction). Selecting **Soccer lines** in the Visualization window section enables you to observe the relations between the different lines of a team in the “3D Viewer”. The button **Analyse ball possession** has to be activated in order to analyse ball-related behavior in the tactical modules.
Please note that **Analyse Ball Possession** must not be used in case the ball was tracked manually.





Various tactical analyses can be made in the Section “Football Match” of the “Tab Analysis”.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2
3
4
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Default
Home
Analysis
Playlist
Pitch
Tools
View
Database
LPM
About
Live/Record Start
Prepare recording
Open Dataset
Close Dataset
Save Dataset
Save Dataset as...
Dataset properties
Data filtering
Dataset to Database
Remove Athlete
Athlete Properties
Add Group
Delete Group
Group Properties
Delete Marker
Marker Properties
Add Exercise
Delete Exercise
Exercise properties
Set Starttime
Set Endtime
Add game
Delete game
Game properties
Set Start
Set Stop
Improve your performance
Live data
Dataset
Athletes
Groups
Markers
Exercises
Games
About
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Dataset Explorer
Athletes
Player 1 (11)
Player 2 (12)
Player 3 (13)
Player 4 (14)
Player 5 (15)
Player 6 (16)
Player 7 (17)
Player 8 (18)
Player 9 (19)
Player 10 (20)
Player 11 (22)
Player 12 (k) (23)
Player 13 (k) (24)
Player 14 (25)
Player 15 (26)
Player 16 (27)
Player 22 (34)
Groups
Markers
Exercises
Games
Playlists
modules
Select module...
3D Viewer
Graph
Video stream
Event viewer
Summary
Data window
Fixed interval
Set start
Set end
0:36:03.379 / 1:35:59.501
(c) 2014 Inmotio Object Tracking B.V. License key:

1. Quick Access Toolbar the key, most frequently used features that the user can set up himself.

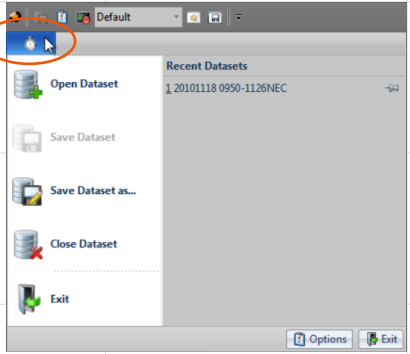
2. Menu bars contains tabs with the following menu bars:

Tab Home	contains the menu buttons, sub-divided into:
Live data	starting or stopping a recording.
Dataset	opening, closing or saving dataset files, editing the properties of the dataset and setting the dataset filter.
Athletes	deleting athletes/transponders or editing athlete properties.
Groups	adding or deleting a group of athletes or editing the properties of the group.
Markers	placing, deleting or editing the properties of the marker.
Exercises	placing, deleting or editing exercise properties.
Games	adding, deleting or editing game properties.
Analysis	contains the menu buttons, sub-divided into:
General	contains data analysis options.
Graphs	options for graphically displaying the analysis.
Football Match	analysis of the field occupancy.
Playlist	contains the menu buttons, sub-divided into:
Playlist	making compilations of video's (under construction).
Pitch	contains the menu buttons, sub-divided into:
Track/Field	the opening, saving or editing the properties of the measuring area and the menu buttons for adding pylons and goal(s).
Tools	contains the menu buttons, sub-divided into:
Export	for exporting data.
Import	importing data from other programs.
LMP	loading lpm files.
View	contains the menu buttons, sub-divided into:
Module windows	options for displaying the modules in the module windows (tabs).
Layout	opening and closing (multiple) module layout windows (tabs), storing the active layout window and taking a snapshot of the active layout window.
Database	contains the menu buttons, sub-divided into:
Actions	modifying analyzes and removing datasets
Configuration	adding, deleting of editing players, teams, clubs and definition of agility tests and exercises.

LPM	contains the menu buttons, sub-divided into:
Configuration server	configuration of transponders and defining pitches, settings of the imoServer(s).
About	contains the menu buttons, sub-divided into:
License	to view the licence information and check for updates.
About	surf to the Inmotio website.
3. Datasets window	contains the following panes:
Datasets	the dataset of the live recording and any existing, open dataset files.
Dataset Explorer	the athletes, groups, markers, exercises, games and playlists from the selected dataset.
Camera selector input	select the (set of) camera('s) you want to enable or disable.
Detail window	the data from the selected transponder/group/marker/exercise/game.
4. Module window	contains the following modules:
3D Viewer	2D or 3D display of the field.
Graph	graphic display of data of the selected transponder/group.
Video stream	video image.
Event viewer	displays filtered details of events per athlete.
Summary	summary of the position, heart rate, speed and distance for each player.
5. Time panel	contains the following components:
Timeline	display of time of the recorded measurement.
Time indication	time of the current view and total duration of entire recording.
Time slide	to take small steps forward or backwards in the time of a recorded measurement, and to slow down or speed up the playback speed.
Play/Pause	to play/pause a dataset and the buttons below it, to go 30 seconds forwards or backwards in the time of a recorded measurement.
Data panel	settings for how the data are displayed in the window.

Working with the Inmotio IpmSystem, you may find the following shortcuts very handy:

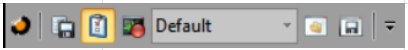
Ctrl + S	Save Dataset
Ctrl + O	Open Dataset
Ctrl + P	Prepare recording
Ctrl + R	Start Recording; Live/Record Start; Stop recording; Live/Record stop
Ctrl + L	Start Live data; Stop Live data
Ctrl + D	Dataset to Database
Ctrl + F	Data filtering
Ctrl + Alt + M	Marker on play position
Ctrl + Alt + L	Live marker
Ctrl + Alt + E	Open Exertion module
Ctrl + Alt + A	Open Agility test module
Ctrl + Alt + I	Open Time On Ice module
Ctrl + Alt + T	Open Transition module
Ctrl + F4	Close dataset
Shift + F4	Close module/layout
Ctrl + (spacebar)	Toggle play/pause dataset
Ctrl + Page Up	Step forward
Ctrl + Page Down	Step backwards
Ctrl + ←	1 Frame back
Ctrl + →	1 Frame forward
Ctrl + ↑	Replay faster
Ctrl + ↓	Replay slower



Open the window containing the main options of the application. It also allows you to quickly open previously saved datasets.

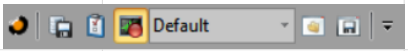
Save

Saves the selected dataset.



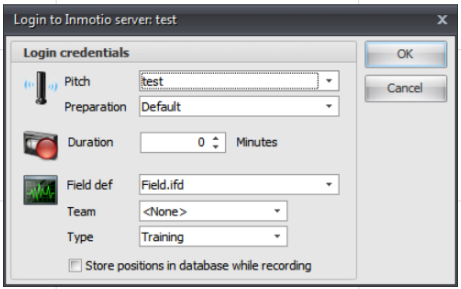
Options

Provides direct access to the “Configuration and prefs” window.



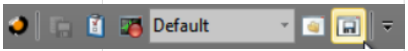
Live data

Logs you in to the “imoServer” to set the required credentials and start a direct dataset recording. Once running, the same button will stop a direct dataset recording.



Load layout

Opens a selected, previously saved layout of your workspace (combination of open windows). Please also see: “Layout”.



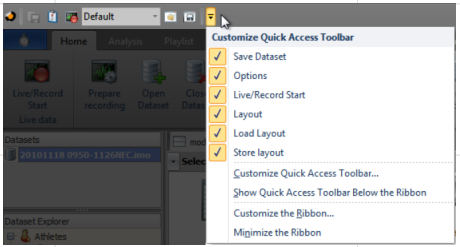
Save layout

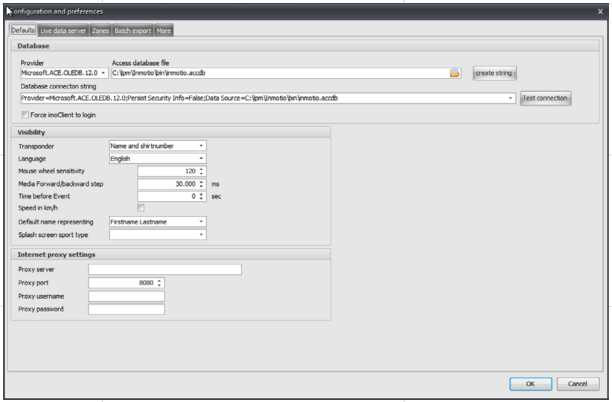
Saves your present working space (combination of open windows). Please also see: “Layout”.

next

More buttons

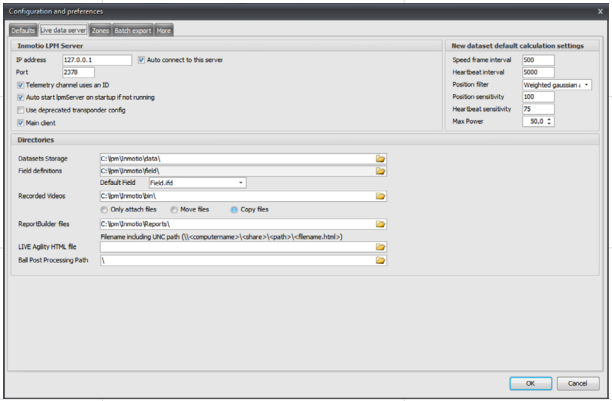
A pull-down menu will appear, in which you can specify the desired options and can change the location of the Quick Access Toolbar and the menu bar on your screen.





Defaults

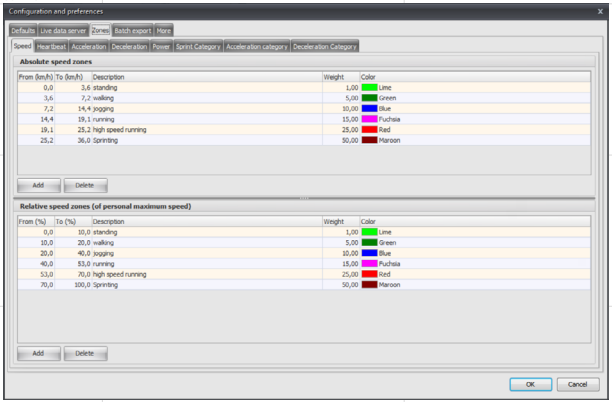
The Defaults tab contains the connection with the “imoServer” (**Database**), the user settings concerning **Visibility** and the **Internet proxy settings**.



Live data server

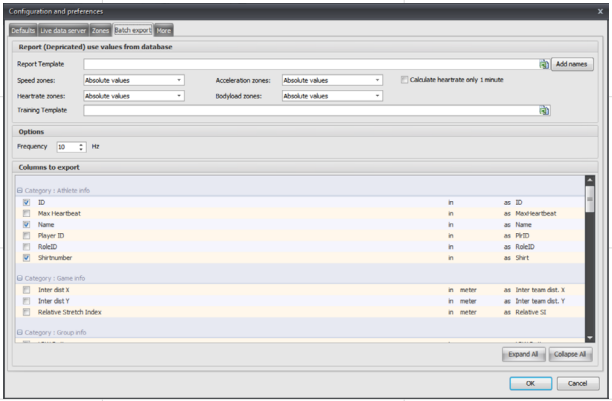
The Live DataServer tab contains the default settings of the “imoServer” and its **Directories**.

next



Zones

The Zones tab contains the definitions of the absolute and relative zones for **Speed**, **Heartbeat**, **Acceleration**, **Deceleration**, **Power**, **Sprint Category**, **Acceleration Category** and **Deceleration Category**.
New zones can be added load by adding rows (**Add** button). It is necessary to adjust the zones, among other things for the movement statistics and exertion calculations.



Batch export

The Batch export tab contains the values for exporting data **Report template**, **Options** (frequency) and **Columns to export**. These settings are used in the “Batch conversion” menu button in the Tools tab menu.

next

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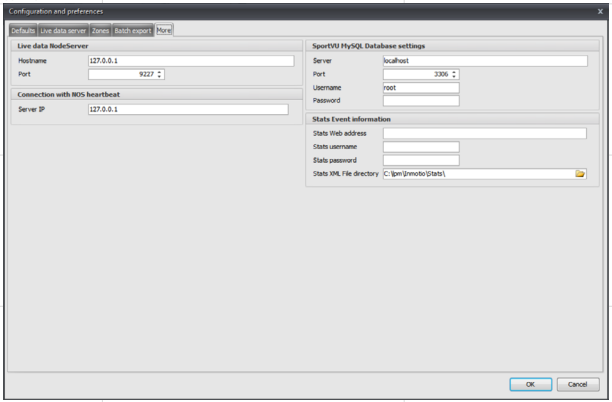

More

The tab “More” contains setting for **Live data NodeServer**, **Connection with NOS heartbeat**, **SportUV My SQL Database settings** and **Stats Event information**.

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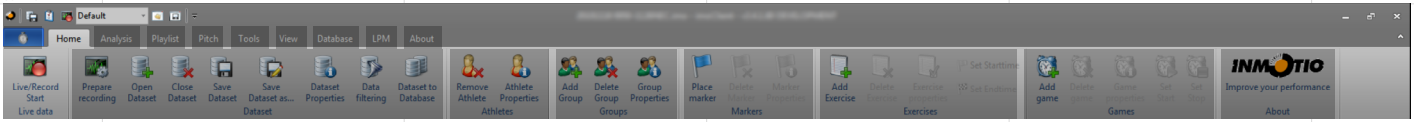
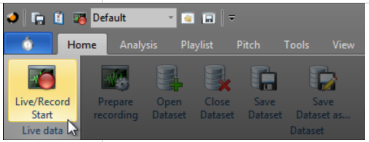
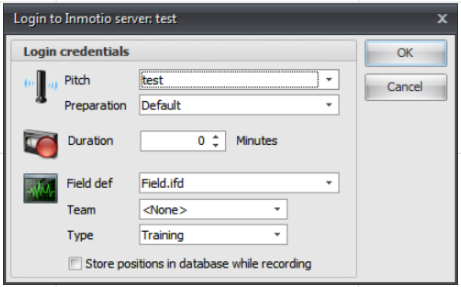
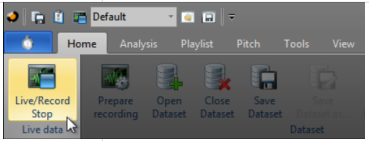




Live/Record Start

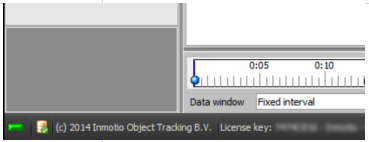
This button will log you in to the "imoServer" to set the required credentials and start a direct dataset recording.





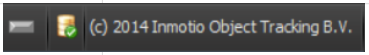
Live/Record Stop

Once running, the same button (the red dot changed into a blue square) will stop a direct dataset recording.

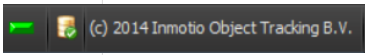


Recorder indicator

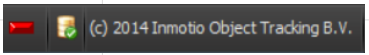
The recording indicator is a small rectangle in the far left bottom of the screen. It an turn from grey into green or red.



Grey — the system is not ready to make a live data capture.



Green — the system is ready to make a live data capture (Live Data enabled).



Red — during a recording (Live Data recording).

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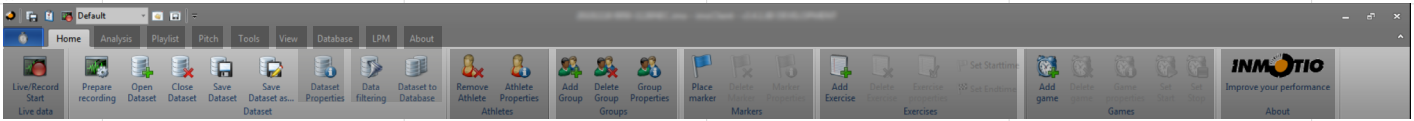
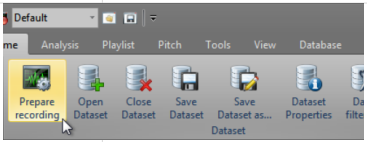
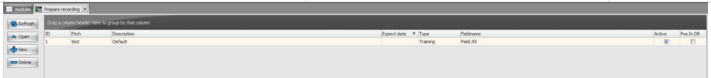
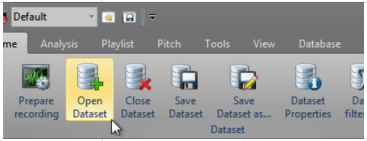




Prepare recording

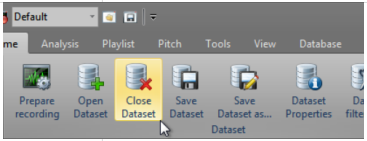


The data of the current transponders/athletes on the field will be displayed. New players can be added here and linked to a transponder. A recording will start automatically. See “Prepare recording” for further instructions.



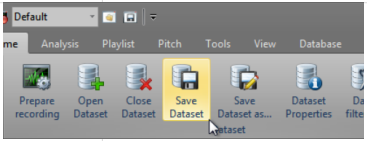
Open dataset

Open a saved **.imo** file.



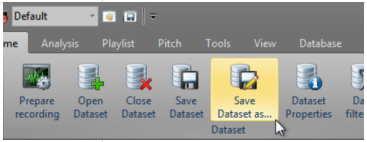
Close dataset

Close the opened dataset.



Save dataset

Save the recorded dataset. In case of a recording, the recording stops and you can save the dataset under a specific name in any folder. This button also saves the changes you have made in an open dataset.



Save dataset as...

Save the recorded or opened dataset under a different name.

next

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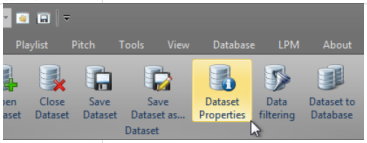
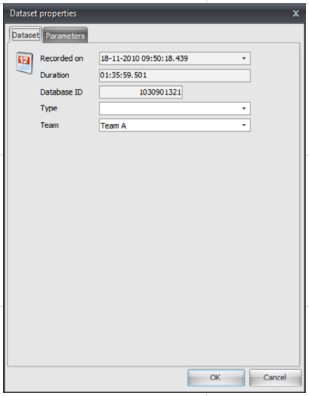


Dataset Properties

Open the dialog with the dataset properties containing the **Dataset** and **Parameters** tabs.



Dataset

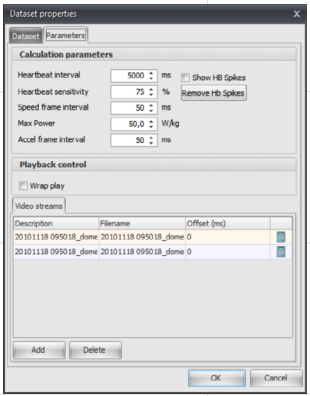
Displays the date and duration of the recording.

Type	Select the kind of dataset (Match, Training, Test match, or Other, prepared in “Dataset types”).
Team	Select the team (prepared in “Teams”).

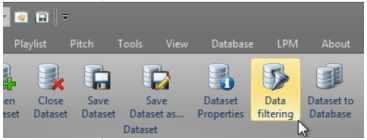
Parameters

Contains the following parameters:

Calculation parameters	Set the heartbeat interval, heartbeat sensitivity, speed and accelaration frame interval and maximum power.
Playback control	**Wrap play**: by ticking the box, the dataset that is currently being played is restarted each time it reaches the end of the dataset.
Video streams	Add video files to the dataset or deleting them from the same. Video streams can be imported via the **Add** button. The video can be synchronised with the data (see Modules – Video stream) via **Offset** (ms). If Inmotio has supplied a camera system, the video streams will be recorded via this system and are immediately synchronised with the data.

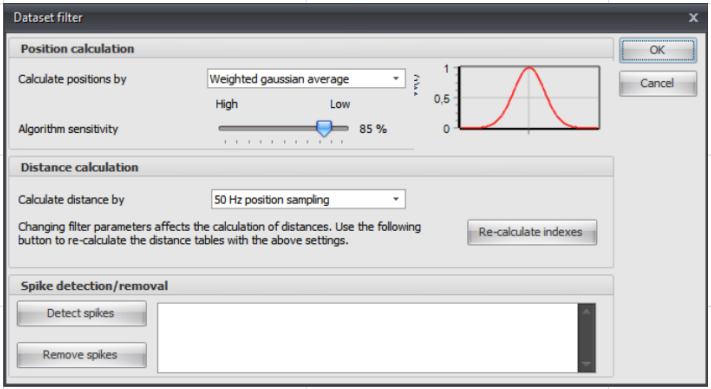


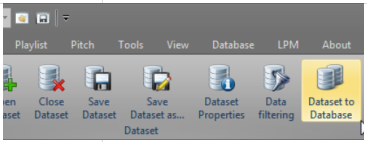
next



Data filtering

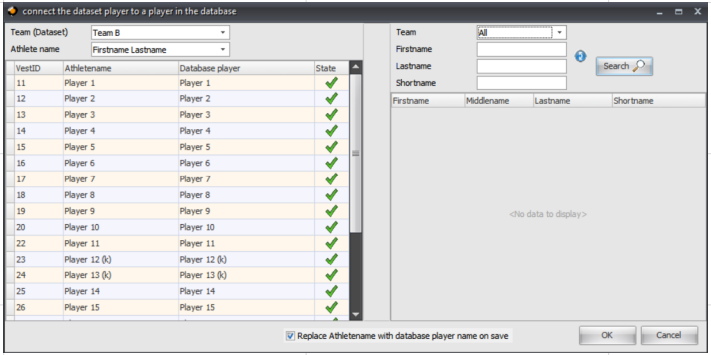
Opens a dialog box that contains the settings for the position and distance calculation. Inmotio sets the optimum values for your lpm system. If you want to change these settings, you are advised to do so after consulting Inmotio.

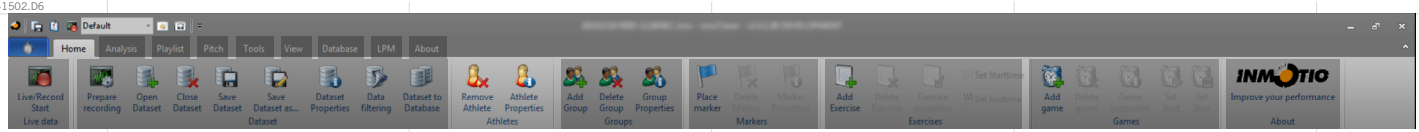


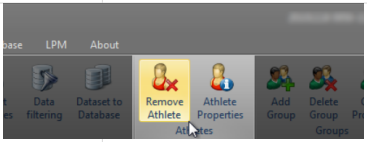


Dataset to Database

Allows you to link the current dataset to a database.

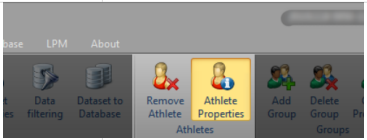






Remove Athlete

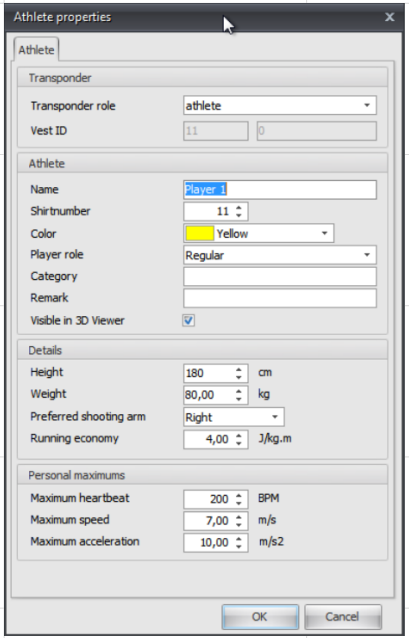
Delete a selected player/transponder from the “Datasets Explorer (B)” from a live recording or from an open or previously recorded dataset. The deletion of an athlete is final and cannot be undone.



Athlete Properties

Open the athlete properties dialog:

Transponder	The definition of the **transponder role** (such as: athlete, ball, or referee) an the **Vest ID**.
Athlete	Define properties such as **Name**, **Shirt Number**, **Colour**, **Role** (function), **Category** and **Remarks** if any of the selected athlete/transponder.
Details	The **Height** and **Weight** of the selected player and other relevant remarks.
Personal Maximums	Define the **Maximum heartbeat**, **Maximum speed** and **Maximum acceleration** of the selected player/transponder.



! During a live recording, a transponder is automatically added when data is received from a transponder. For this transponder, the data entered under “Configuration and prefs” are taken over.

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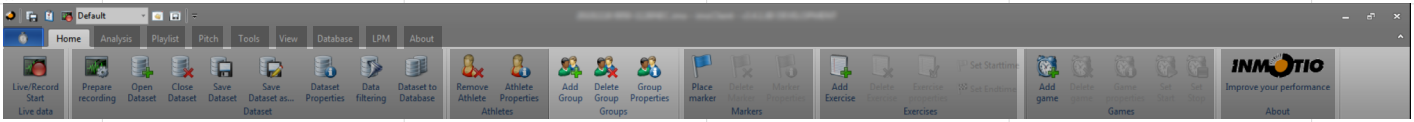
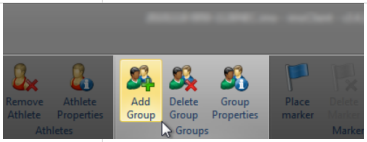
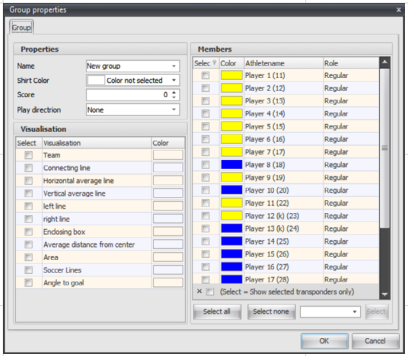




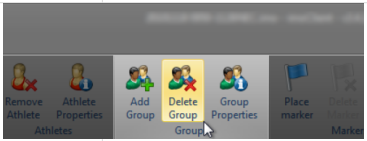
Add Group

Open the group properties dialog box and add a group:



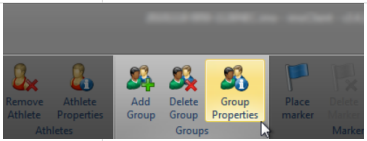
Properties	Define the properties such as **Name**, **Shirt Colour**, **Score** and **Play direction** for the group.
Members	Define the composition of the group of players by checking or unchecking the box for the ID number and the name of the player.
Visualisation	Select how the group will be displayed in the “3D Viewer”.

You will find a created group of athletes in the “Datasets Explorer (B)”.



Delete Group

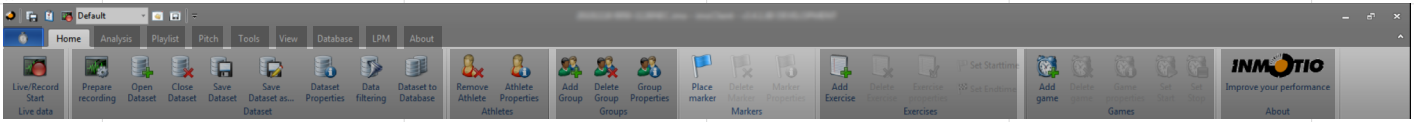
Delete the selected group.

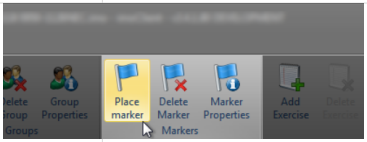


Group Properties

Open the dialog with the properties of the selected group (see Add Group).

RICH-1502.D6

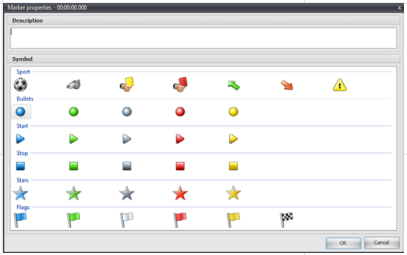




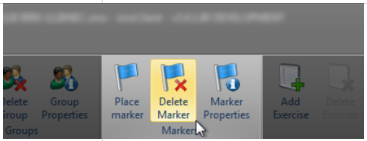
Place marker

Open the dialog box for marker properties and place a marker:

Description	Here, you describe the situation/define the position of the marker.
Symbol	Assigning a symbol for the marker.

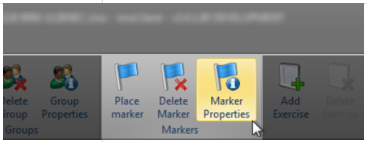


You will find a created marker and the defined properties in the “Datasets Explorer (B)”.



Delete Marker

Delete the selected marker.



Marker Properties

Open the dialog for the properties of the selected marker (see “Place Marker”).

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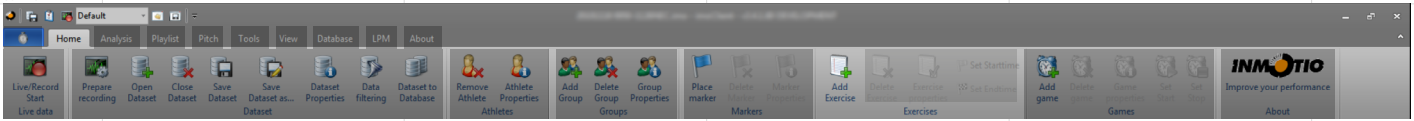
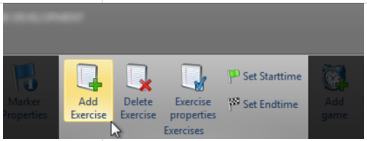
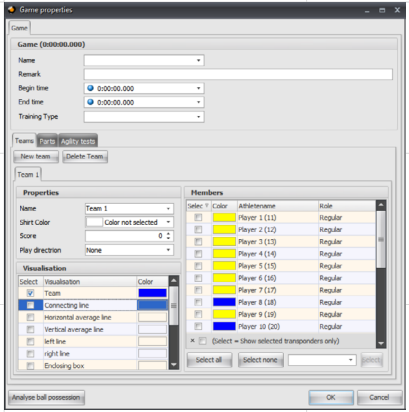




Add Exercise

Open the dialog box for the exercise properties:



Game — Define the **Name**, **Remark**, **Begin time, End time** and **Traning Type** of the exercise.

Analyse ball possession — Based on the data, the system calculates the ball possession of a player and his passes. The results can be used for "Tactical data analysis" later on.

Tab Team

Properties — Define the properties such as the **Name**, **Shirt Colour**, **Score** and **Play direction** of the teams. You can add or delete a team using the New Team/Delete Team buttons (above the tabs for the teams).

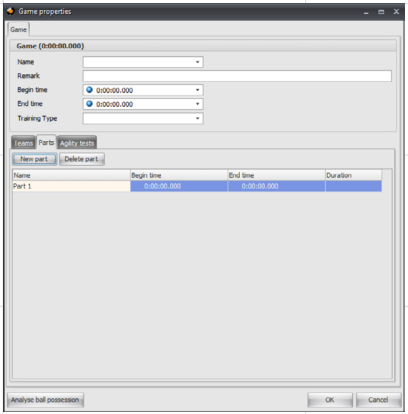
Members — Define the composition of the team by checking or unchecking the box for the ID number and the name of the player.

Visualisation — Choose how the team is displayed in the "3D Viewer".

next

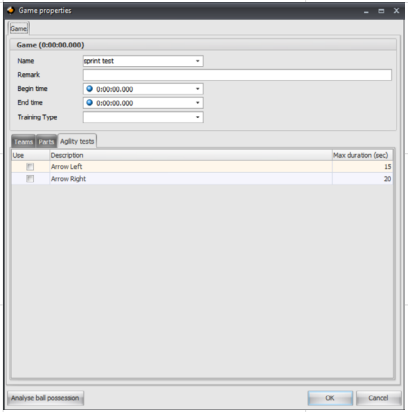
Tab Parts

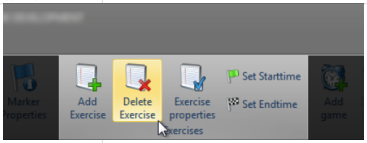
Define parts of the exercise using the **New Part/Delete Part** buttons. You will find an exercise created under “Exercises” in the Dataset Explorer.



Tab Agility tests

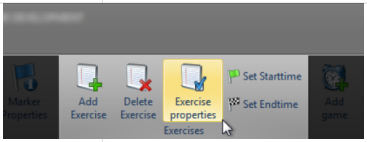
Select which agility tests are executed in this exercise. These tests are earlier defined in “Agility Definitions”.





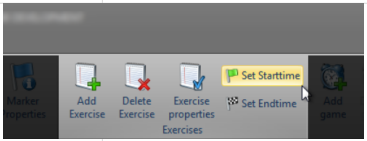
Delete Exercise

Delete the selected exercise.



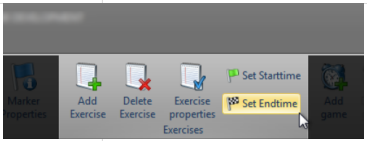
Exercise properties

Open the dialog box for the properties of the selected exercise (see “Add Exercise”).



Set Starttime

Set the actual playing position as the starting time of the selected exercise.



Set Endtime

Set the actual playing position as the ending time of the selected exercise.

! There is no difference between adding an exercise or a game, except that two teams are generally created in a game, while only one team is created in an exercise. Thus if there is a party form, one may best create a Game, and in other cases, it is sufficient to create an Exercise.

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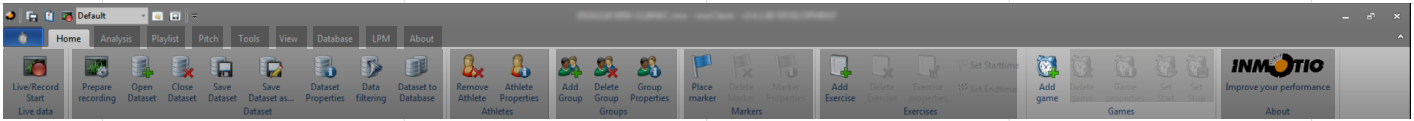
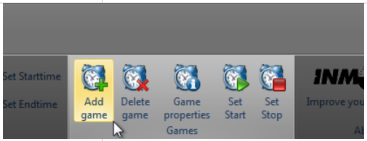
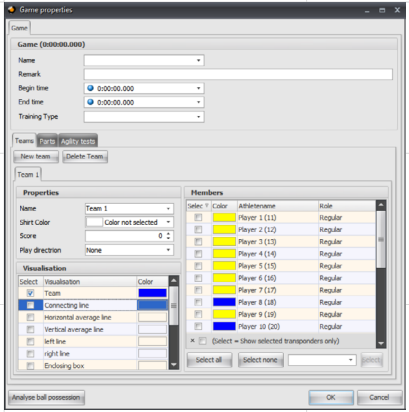




Add game

Open the dialog box for Game properties:



Game	Define the **Name**, **Remark**, **Begin time, End time** and **Traning Type** of the game.
Analyse ball possession	Based on the data, the system calculates the ball possession of a player and his passes. The results can be used for “Tactical data analysis” later on.

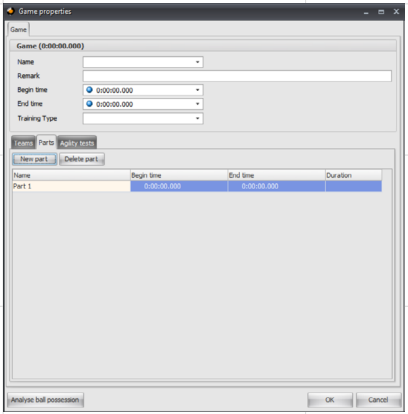
Tab Team

Properties	Define the properties such as the **Name**, **Shirt Colour**, **Score** and **Play direction** of the teams. You can add or delete a team using the New Team/Delete Team buttons (above the tabs for the teams).
Members	Defining the composition of the team by checking or unchecking the box for the ID number and the name of the player.
Visualisation	Choosing how the team is displayed in the “3D Viewer” module.

next

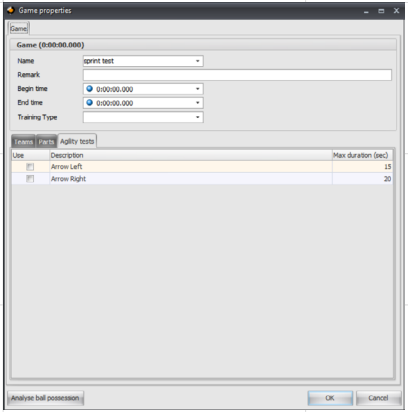
Tab Parts

You can define parts of the game using the **New Part/Delete Part** buttons. You will find an game created under “Games” in the Dataset Explorer.



Tab Agility tests

Select which agility tests are executed in this exercise. These tests are earlier defined in “Agility Definitions”.



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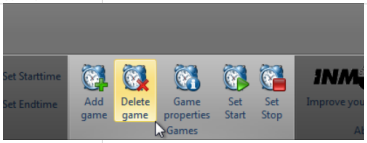
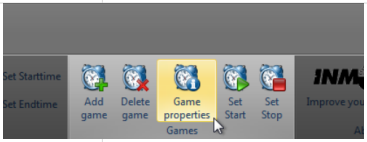


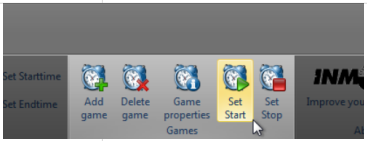
Delete Game

Delete the selected game.



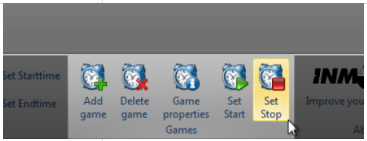
Game properties

Open the dialog box for the properties of the selected game (see “Add game”).



Set Start

Set the actual playing position as the starting time of the selected game.



Set Stop

Set the actual playing position as the ending time of the selected game.

! There is no difference between adding an exercise or a game, except that two teams are generally created in a game, while only one team is created in an exercise. Thus if there is a party form, one may best create a Game, and in other cases, it is sufficient to create an Exercise.

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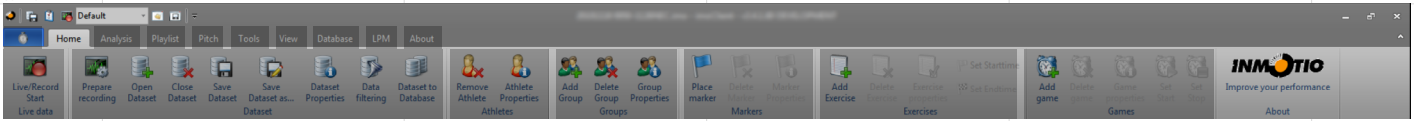
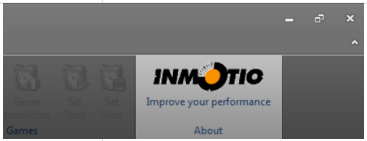
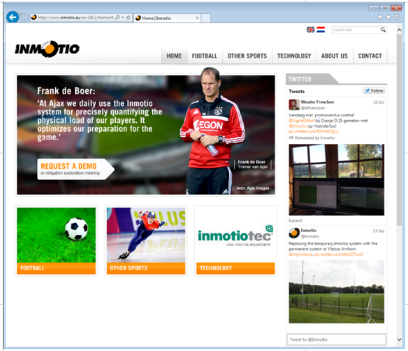
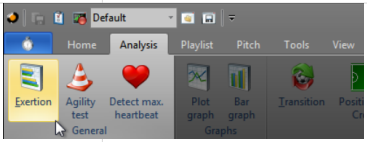




Inmotio

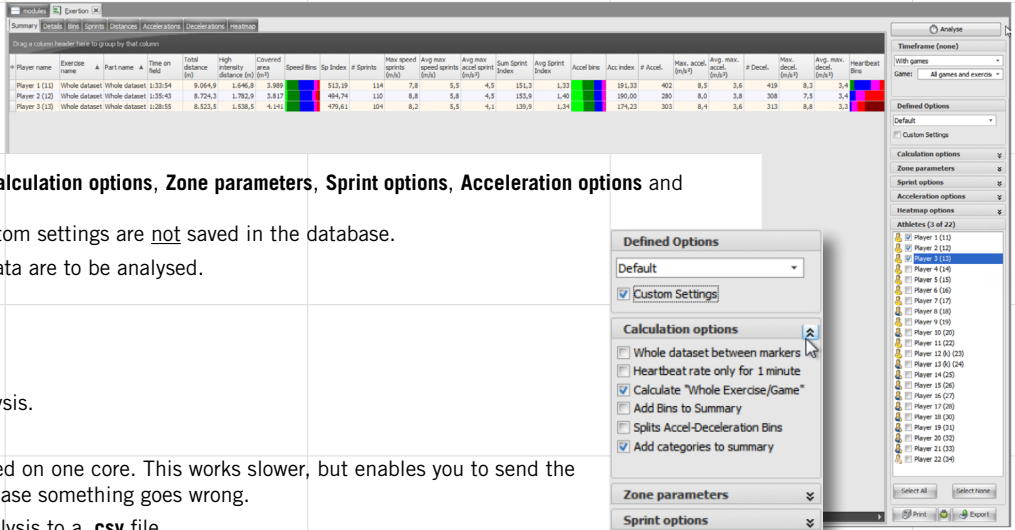
Surf to the Inmotio website.





Exertion

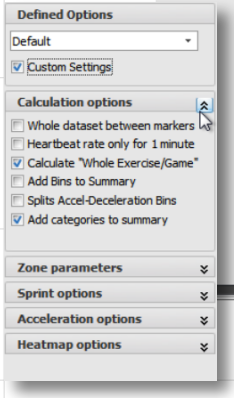
Open the Exertion module in the module layout window (tab). All data come from the database. You can set the data for analysis in the right column of the screen. These data are displayed in the tabs **Summary**, **Details**, **Bins**, **Sprints**, **Distances**, **Accelarations**, **Decelarations** and **Heatmap** when you click on the **Analyse** button thereafter.



Timeframe Define the time interval for the data to be analysed.
Normally: keep default '**All games and exercises**' and press **Analyse**.

Defined options Check box **Custom Settings** and edit the settings like: **Calculation options**, **Zone parameters**, **Sprint options**, **Acceleration options** and **Heatmap options**.

! Calculations with Custom settings are not saved in the database.



Athletes Check the athletes whose data are to be analysed.

Print Allows you to print the analysis.

Single thread analysing

The calculations are executed on one core. This works slower, but enables you to send the exeption log to Inmotio, in case something goes wrong.

Export Allows you to export the analysis to a **.csv** file.

next

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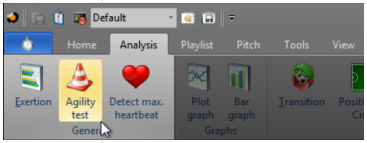
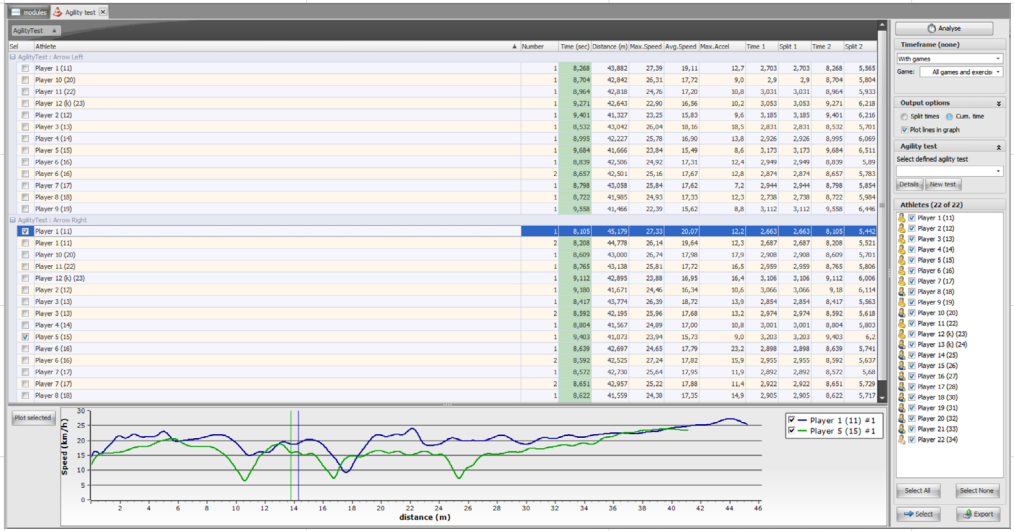


Agility Test

Open the Agility test module in the module layout window (tab). You can set the data for analysis in the right column of the screen. These data are displayed when you click on the **Analyse** button thereafter.



Timeframe — Define the time interval for the data to be analysed. Normally: keep default '**All games and exercises**' and press **Analyse**. The exercise/game in the database is earlier defined in "Agility Definitions".

! Only when an earlier defined agility test is analysed, the results are saved in the database.

Output options — Check **Plot line in Graph** to see the data and the graph in the same window.

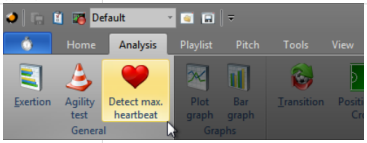
Agility test — Select a previously defined agility test.

Athletes — Check the athletes whose data are to be analysed.

Export — Allows you to export the analysis to a **.csv** file.

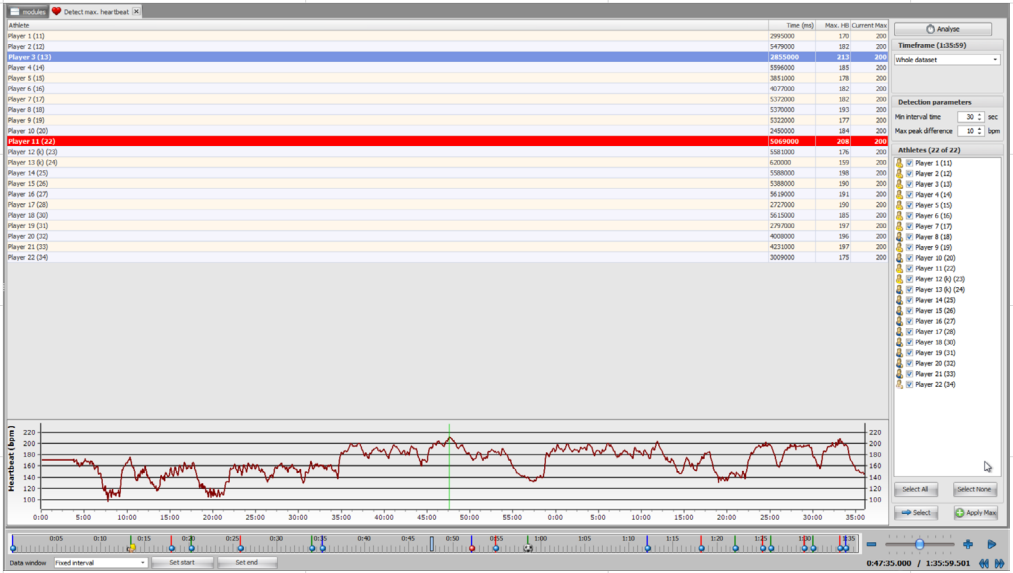
You can select this moment by selecting an athlete and then pressing the **Select** button. You can then review this moment in the "3D Viewer" and "Video stream" modules.

next



Detect max. heartbeat

Open the Detect Max. Heartbeat module in the module layout window (tab). This shows if an athlete has a higher maximum heart beat than he currently has (Athlete line turns red in case). You can set the data for analysis in the right column of the screen. These data are displayed when you click on the **Analyse** button thereafter.



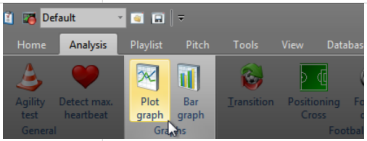
Timeframe — Define the time interval for the data to be analysed. Normally: keep default '**All games and exercises**' and press **Analyse**.

Detection parameters — Set the min. time interval and max. peak difference.

Athletes — Check the athletes whose data are to be analysed.

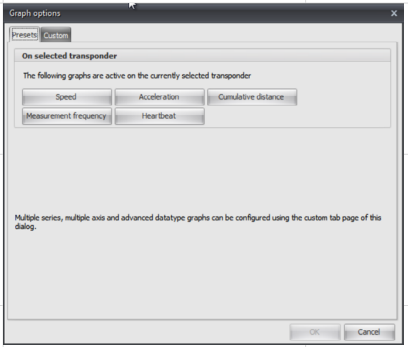
Select — Go to the moment of the selected max. heart beat (red line turns into blue) in the Time Line (marked with a green vertical line) and check if this value should be considered as the new Max. Heartbeat for this athlete.

Apply Max — Apply the selected Max. Heartbeat in the Database as new value (see: above).



Plot graph

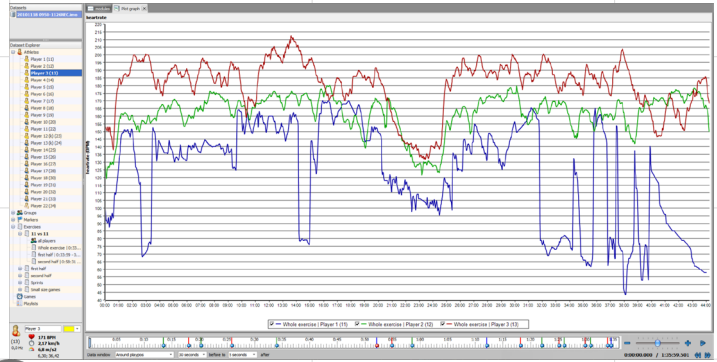
Open the dialog box for the Plot graph module in the module layout window (tab) with the **Presets** and **Custom** tabs.



Presets

Make a selection in the type of graphic: **Speed**, **Acceleration**, **Cumulative distance**, **Measurement frequency** or **Heartbeat**. The graphic of your choice will then appear in the module layout window. In the Dataset Explorer window at the left, click on a part of an exercise and drag it to the graphic. Then drag the players whose graphic you want to see, by clicking in the "Datasets Explorer (B)" window on a Transponder/player and dragging it to the graphic. You can see the players for whom the data is displayed, in the legend below the graphic.

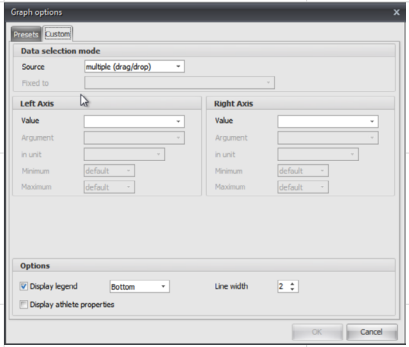
! You can zoom into the graphic by moving the cursor to a position in the graphic and pushing downwards while holding down the right mouse button. This enlarges the portion of the graphic that you have selected. To zoom out, move the mouse from bottom to top while holding down the right mouse button.

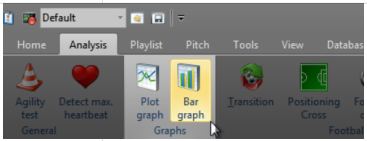


next

Custom

You can simultaneously display various parameters in the Custom tab. Here as well, the scale of the axis-value can be changed, from metres to kilometres, as well as a high number of other parameters in order to adjust your calculation.





Bar graph

Open the Bar graphic module in the module layout window (tab). You can set the data for the analysis in the right column of the screen. These data are displayed in the **Data** and **Chart** tabs when you click on the **Analysis** button thereafter. If you have conducted an analysis and wish to create another bar graphic with new data, click on the **Clear** button.

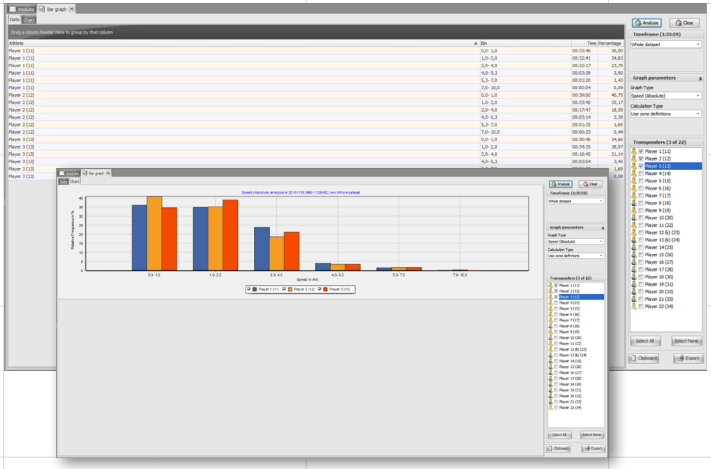
Timeframe Define the time interval for the data to be analysed.

Graph parameters Set the **Graph Type**, **Calculation Type**.

Transponders Check the transponders/athletes whose data is to be analysed.

Clipboard Enables one to copy the displayed graphic to the clipboard and to paste the same in another application if so desired.

Export Allows you to export the analysis to a **.csv** file.



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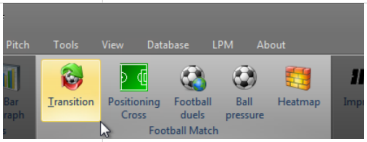
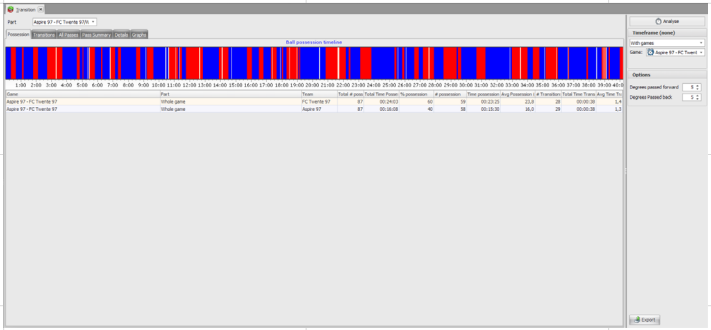


Transistion

Open the Transition module in the module layout window (tab). You can set the data for the analysis in the right column of the screen. These data are displayed in the **"Tab Possession"**, **"Tab Transitions"**, **"Tab All Passes"**, **"Tab Pass Summary"**, **"Tab Details"** and **"Tab Graphs"** when you click on the **Analysis** button thereafter.

Timeframe	Select the game/part for the data to be analysed.
Options	Define the degrees passed forward and back.
Export	This allows you to export the analysis to a **.csv** file.



Tab Possession

Shows an overview of the ball possession. **Blue** is the first team, **red** the second. **Yellow** is the transaction time in between. These colours do not correspond with the team colours in the 3D Viewer.
The table shows the total figures:

Total # poss	Number of times ball possession.
Total Time Poss	Total time ball possession (and transactions) of that team.
% possession	Percentage of ball possession.
# possession	Number of times when the ball came in possession (by definition).
Time possession	Total time ball possession without the transition time.
Avg Possession	Average duration of ball possession.
# Transitions	Number of times the ball was in the team, but lost it before it became in possession (by definition).
Total Time Transition	Total time the ball was in transition.
Avg Time Transition	Average duration of a transition time.

next

Tab Transitions

Shows an overview of all transitions.

BeginTime Begin time possession, counting from the start of the part.

EndTime End time of possession.

Short BP If checked, the possession was too short to be counted as ball possession, therefor counted as transition.

Duration (sec) The duration of the transition.

First Player The first player in possession.

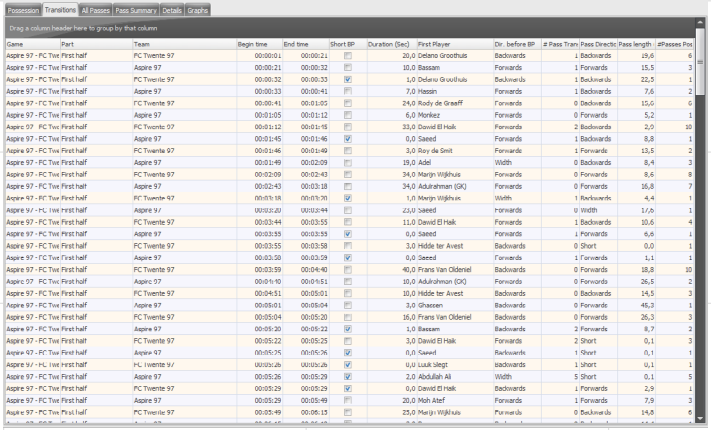
Dir.before BP Direction of first player before team got ball possession.

#PassTrans Number of passes during transition time.

Pass Direction The direction of the first pass.

Pass length (m) Pass length in meters.

#Passes Pos Number of passes during possession.



Tab All Passes

Shows an overview of all passes.

Athlete name The player who has received the ball.

Received from The player who passed the ball.

Passed to Next player who passed Athlete to.

PassOptions Number of pass options when the ball was passed.

WasOption Checked if the 'next player' was among the options.

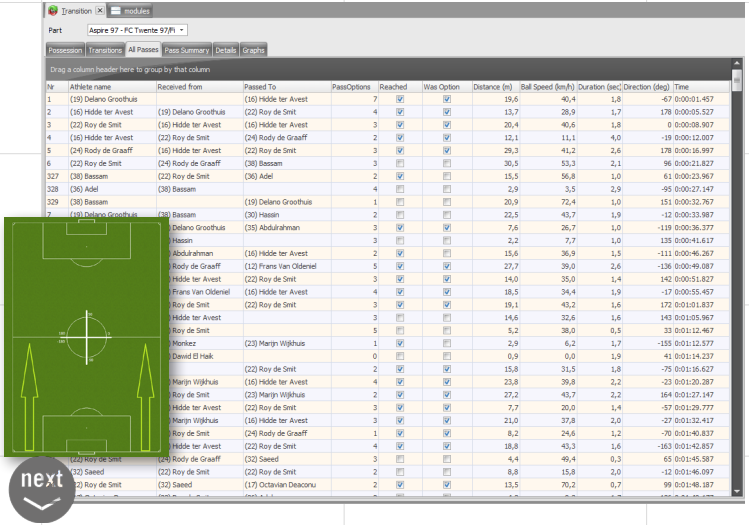
Distance (m) The distance of the pass in meters.

Ball Speed (km/h) Average speed of the ball during the pass.

Duration (sec) The duration of the pass in seconds.

Direction (deg) Direction of the passing (see inserted picture).

Time Time in the part of the game.



Tab Pass Summary

Shows an overview of the passes of each player.

Passes Number of passes by the player.

Reached Number of passes reached a team member.

Was Option Number of passes to a team member being a pass option.

Lost, W.O. Number of passes not reaching a team member in cases there were pass options.

Avg Options Average number of pass options at the moment a ball is passed.

Distance (m) Average pass length in meters.

Ball Speed (km/h) Average ball speed.

Duration (sec) Average duration of the passes.

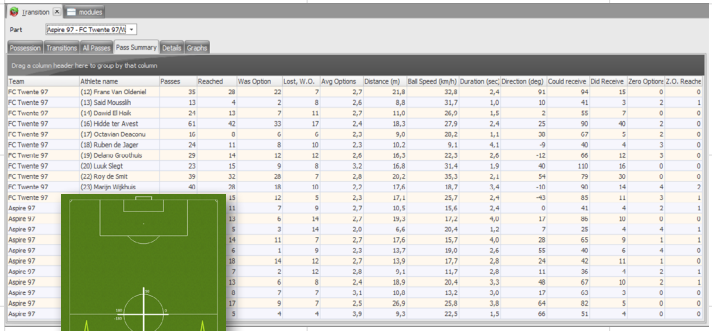
Direction (deg) Average direction of the passes (see inserted picture).

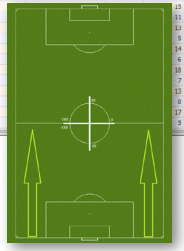
Could receive How often this player was a pass option.

Did receive Number of times this player received a pass, being a pass option.

Zero Options Number of passes when there was no pass option.

Z.O.Reached Number of received passes by a team member in cases there was no pass option.





Tab Details

Shows the details per player per part of the game. The top grid section (a)is similar to the **Pass Summary**. In the second grid (b):

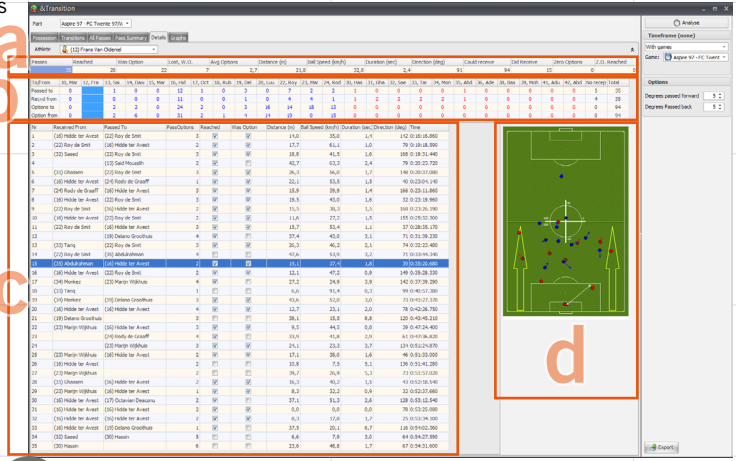
Passed to The selected player passed to this player.

Recvd from The selected player received from this player.

Options to Number of times this player had a pass option to a team member.

Options from Number of times this player was a pass option for a team member.

The third grid (c) shows all passes of the selected cell in grid (b). Double clicking on a pass, will show this pass on the field (d)



next

RICH-1502.D6

Tab Graphs

Shows a graphic visualisation of the passes of a team.

White circle Number of correct passes is in between 1 standard deviation of the team avarage.

Red circle Number of correct passes is less then 1 standard deviation of the team.

Green circle Number of correct passes is more then 1 standard deviation of the team.

Small circle Number of passes less then 1 standard deviation.

Middle circle Number of passes in between 1 standard deviation.

Large circle Number of pases larger then 1 standard deviation.

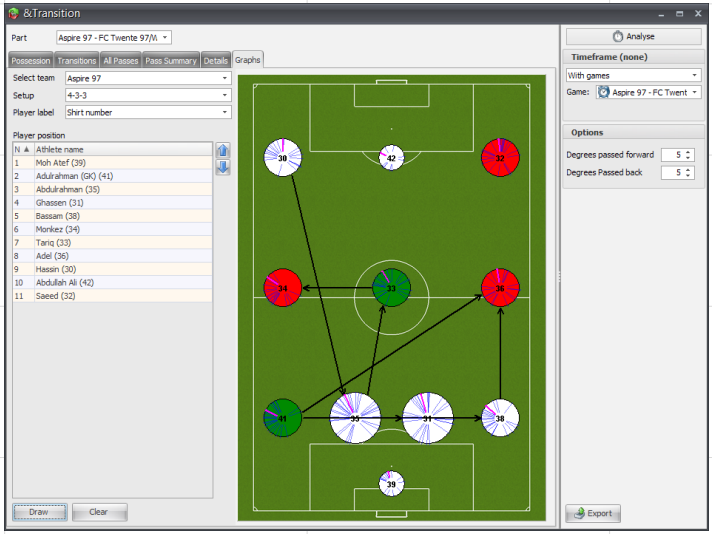
In (or between) the circles:

Number Shirtnumber.

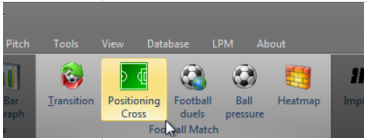
Bleu lines Direction of all passes.

Pink line Avarage pass direction.

Arrows Dominant passes.



next



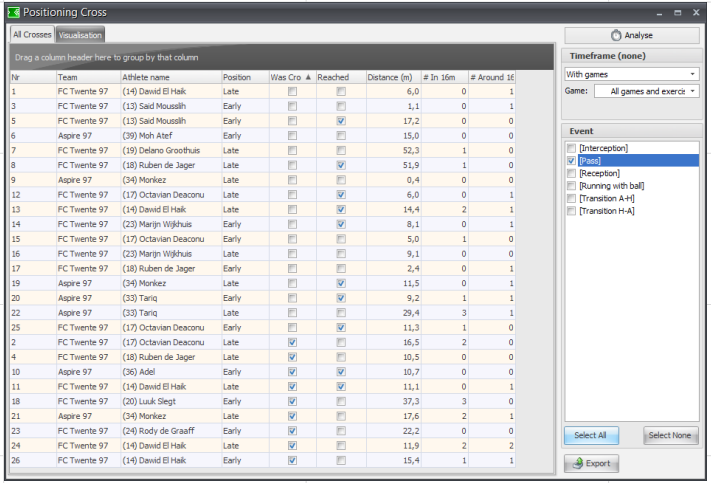
Positioning Cross

Open the Positioning Cross module in the module layout window (tab). You can set the data for the analysis in the right column of the screen. These data are displayed in the **"Tab All Crosses"** and **"Tab Visualisation"** when you click on the **Analysis** button, when the **[ ] Pass** event is checked.

Timeframe Select the game/part for the data to be analysed.

Event Select the event of your choice.

Export This allows you to export the analysis to a **.csv** file.



Tab All Crosses

Shows all passes done in a certain area of the field. (From half field part of the oponent (see inserted picture).

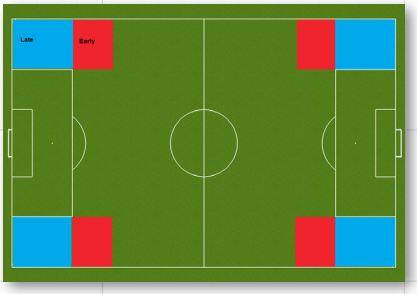
Was Cross Checked if this pass was a cross.

Reached Checked if the pass was reached by a member.

Distance Passing distance.

 # In 16 Number of players in 16m area.

 # Around 16 Number of players just outside the 16m aera.



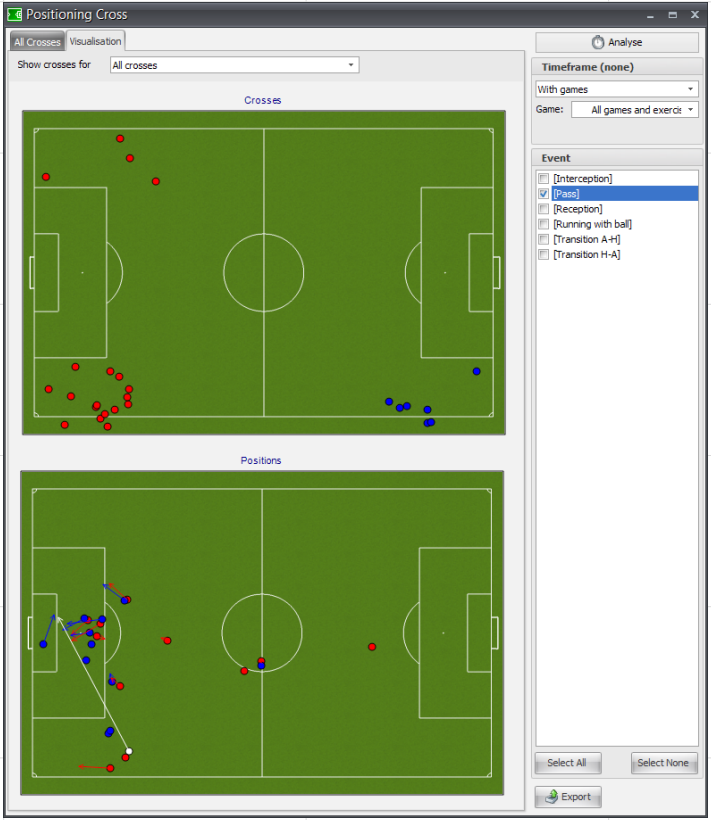
next

RICH-1502.D6

Tab Visualisation

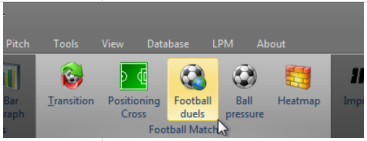
The top field reflects where all passes were done. In the dropdown selection at the top you can select a player doing crosses.

When clicking on a dot in the top field, the situation at the beginning of that pass is reflected in the lower field.



next

RICH-1502.D6



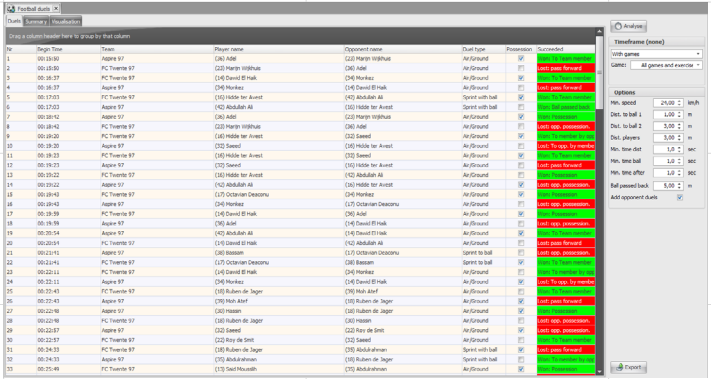
Football duels

Open the Football Duels module in the module layout window (tab). You can set the data for the analysis in the right column of the screen. These data are displayed in the **"Tab Duels", "Tab Summary"** and **"Tab Visualisation"** tabs when you click on the **Analysis** button thereafter.

Timeframe Select the game/part for the data to be analysed.

Options Define parameters as: **Min. speed**, **Distance to ball 1**, **Distance to ball 2**, **Distance between players**, **Min. time distance**, **Min. time ball**, **Min. time after, Ball passed back**.

Export This allows you to export the analysis to a **.csv** file.

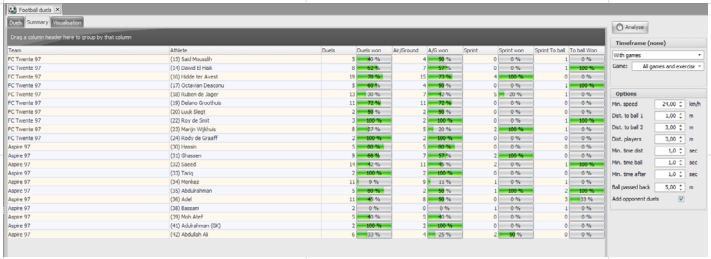


Tab Duels

De geschreven tekst lijkt weinig overeen te stemmen met de getoonde schermen...

Tab Summary

Shows the scores of the Duels.

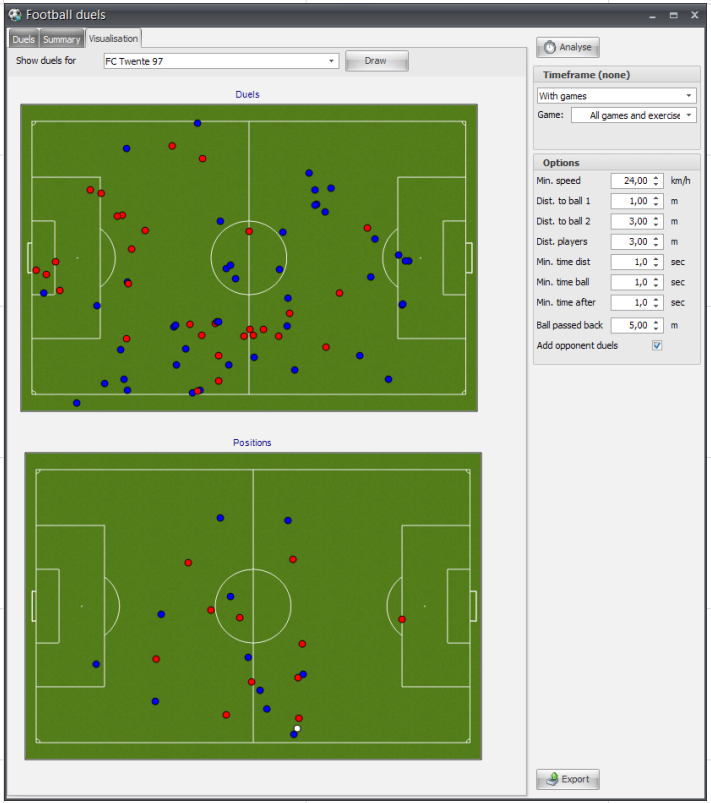


next

Tab Visualisation

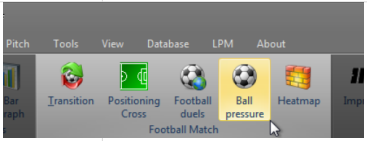
The top field reflects all duals for a team. In the dropdown selection at the top you can select the team.

When clicking on a dot in the top field, the lower field shows the postion of all players..



next

RICH-1502.D6



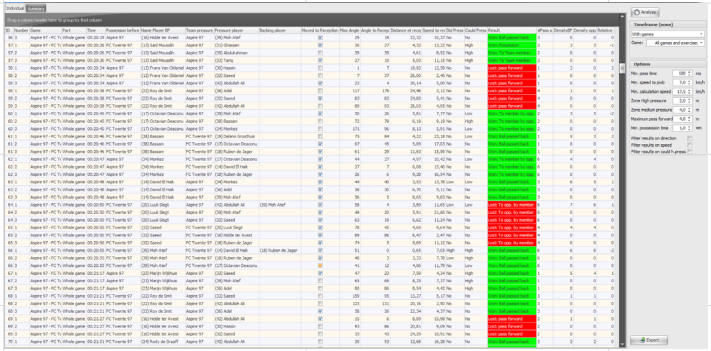
Ball pressure

Open the Ball pressure module in the module layout window (tab). You can set the data for the analysis in the right column of the screen. These data are displayed in the **“Tab Individual”** and **“Tab Summary”** when you click on the **Analysis** button thereafter.

Timeframe Select the game/part for the data to be analysed.

Options Define parameters as: **Min. pass time**, **Min. speed to pwb**, **Min. calculated speed**, **Zone high pressure**, **Zone medium pressure**, **Maximum pass forward**, **Min. possession time**.

Export This allows you to export the analysis to a **.csv** file.

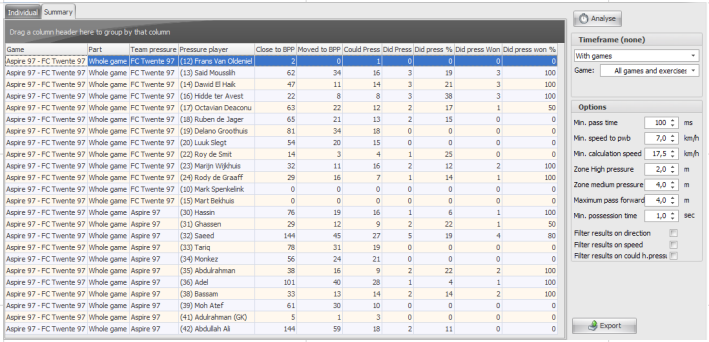


Tab Individual

next

RICH-1502.D6

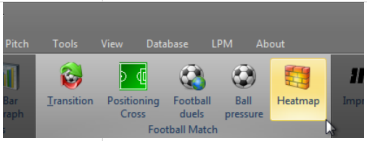
Tab Summary



Game	Part	Team pressure	Pressure player	Close to BPP	Moved to BPP	Could Press	Did Press	Did press %	Did press Won	Did press won %
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(12) Frans Van Oldeniel	2	0	1	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(13) Said Mousslih	62	34	16	3	19	3	100
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(14) Dawid El Haik	47	11	14	3	21	3	100
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(16) Hidde ter Avest	22	8	8	3	38	3	100
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(17) Octavian Deaconu	63	22	12	2	17	1	50
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(18) Ruben de Jager	65	21	13	2	15	0	0
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(19) Delano Groothuis	81	34	18	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(20) Luuk Slegt	54	20	15	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(22) Roy de Smit	14	3	4	1	25	0	0
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(23) Marijn Wijkhuis	32	11	16	2	12	2	100
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(24) Rody de Graaff	29	16	7	1	14	1	100
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(10) Mark Sperkelink	0	0	0	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	FC Twente 97	(15) Mart Bekhuis	0	0	0	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(30) Hassin	76	19	16	1	6	1	100
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(31) Ghassen	29	12	9	2	22	1	50
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(32) Saeed	144	45	27	5	19	4	80
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(33) Tariq	78	31	19	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(34) Monkez	56	24	21	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(35) Abdulrahman	38	16	9	2	22	2	100
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(36) Adel	101	40	28	1	4	1	100
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(38) Bassam	33	13	14	2	14	2	100
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(39) Moh Atef	61	30	10	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(41) Adulrahman (GK)	5	1	3	0	0	0	0
Aspire 97 - FC Twente 97	Whole game	Aspire 97	(42) Abdullah Al	144	59	18	2	11	0	0

next

RICH-1502.D6



Heat map

Open the Heat map module in the module layout window (tab). You can set the data for the analysis in the right column of the screen. These data are displayed when you click on the **Analysis** button thereafter.

Timeframe Select the game/part for the data to be analysed.

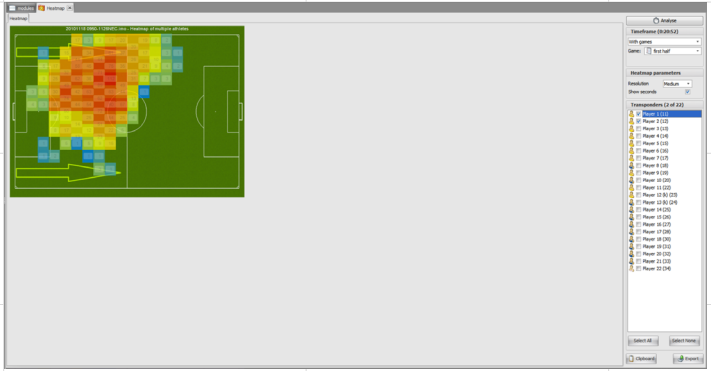
Heat map parameters

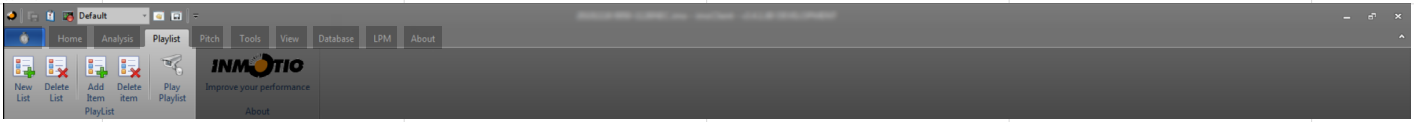
Define the resolution of the heat map and check if you want to see how many seconds a player has been in a certain area.

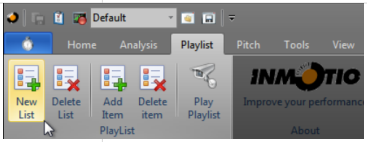
Transponders Select the athletes you want to analyse.

Export This allows you to export the analysis to a **.csv** file.

Moet hier nog wat meer over verteld worden?

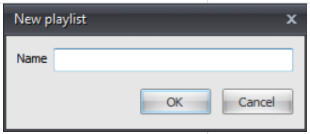


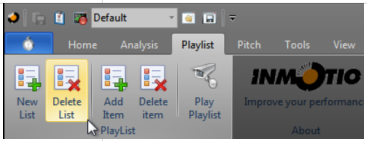




New list

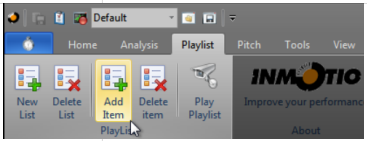
Open the dialog box to create a new play list.





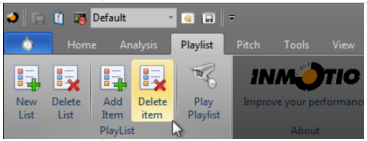
Delete list

Delete a play list.



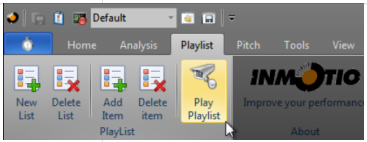
Add item

Add an item in an existing play list.



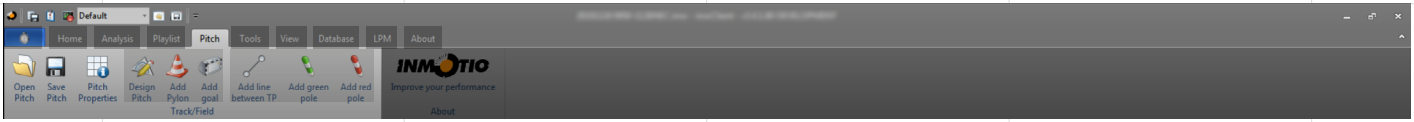
Delete item

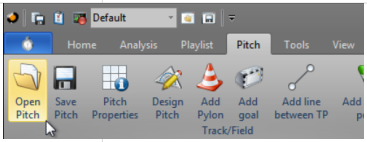
Delete an item in a play list.



Play Playlist

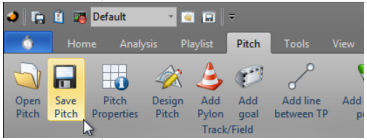
Replay the compilated video's.





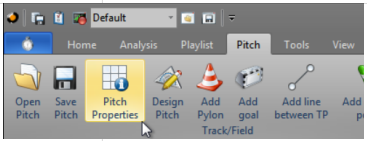
Open Pitch

Open an **.ifd** file with the related properties of the measuring area.
These are set by Inmotio and the regular user will not use this function.



Save Pitch

Save the current measuring area.
These are set by Inmotio and the regular user will not use this function.



Pitch Properties

Open the dialog box with the properties of the current measuring area.
These are set by Inmotio and the regular user will not use this function.

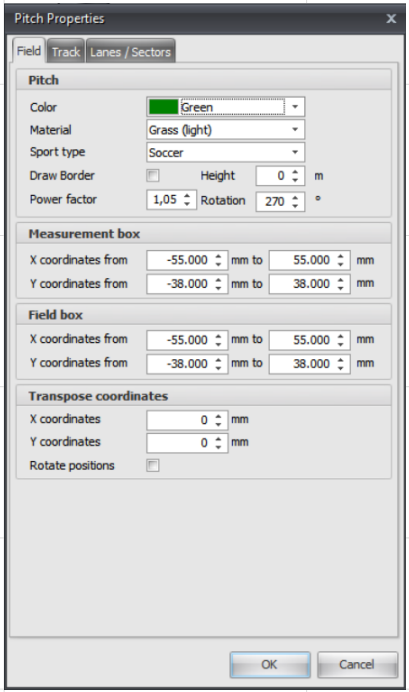
Tab Field

Pitch Define the **Colour**, **Material** and the **Sport type** of the measuring area.

Measurement box The X and Y coordinates of the area to be measured.

Field box The X and Y coordinates of the field to be measured.

Transpose coordinates The measuring area can thereby be shifted in X-and Y-direction.



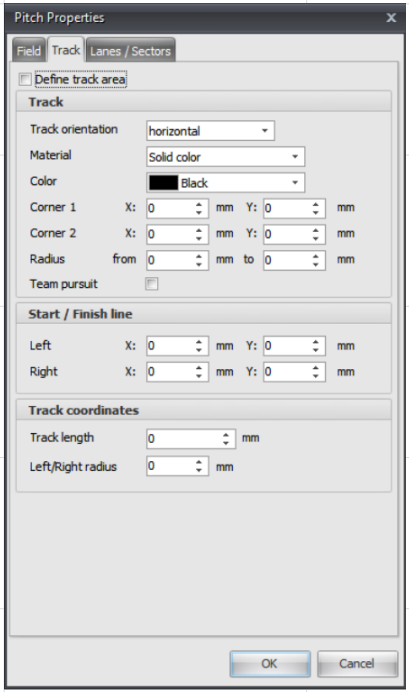
next

Tab Track

Track Define the **Track orientation**, **Colour** and the dimensions of the measuring area.

Start/Finish line The X and Y coordinates of the start/finish line.

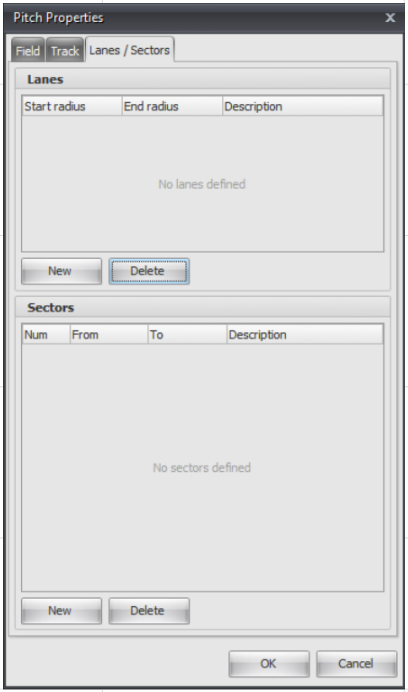
Track coordinates The length and radius of the track.



Tab Lanes/Sector

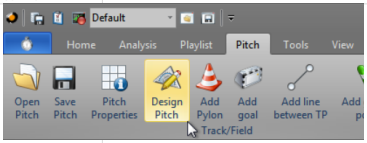
Lanes Define the **Lanes**.

Sectors Define the **Sectors**.



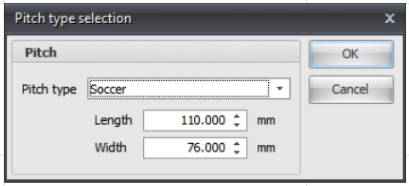
next

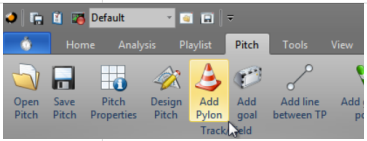
RICH-1502.D6



Design Pitch

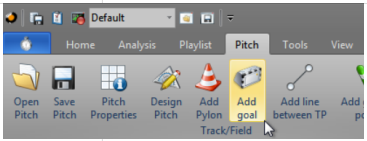
Open the Pitch type selection to design a new pitch.





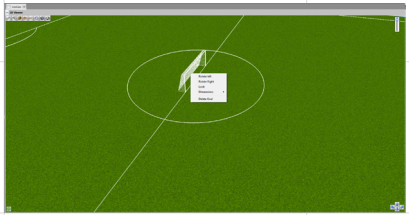
Add Pylon

Place a pylon in the field. After you have opened the 3D Viewer module and clicked on the **Add Pylon** button, a red Pylon will appear in the central circle of the field. You can place the pylon in the desired position in the field by dragging it with the left mouse button pressed down. You can delete the pylon by right-clicking on it. You can edit the properties of the pylon in the “3D Object List”.

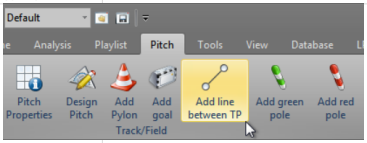


Add goal

You can place a goal thereby. After you have opened the 3D Viewer module and clicked on the **Add goal** button, a goal will appear in the central circle of the field. You can place the goal in the desired position in the field by dragging it with the left mouse button pressed down. You can delete or rotate the goal by right-clicking on the goal. You can edit the properties of the goal in the “3D Object List”.

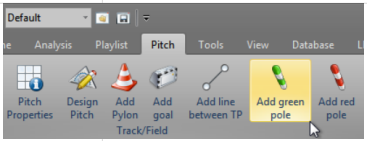


next



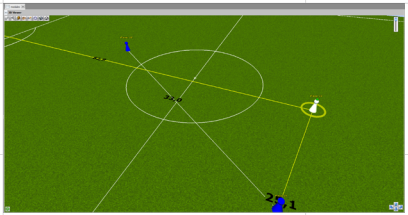
Add line between 2 transponders

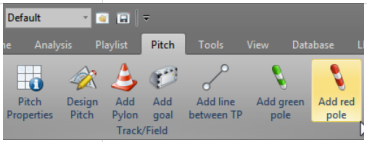
Draw a line between two athletes. After you have opened the 3D Viewer module and clicked on the **Add line** button, a dialog box appears to let you choose from which athlete to which other athlete you want to draw a line. You can edit the properties of the line or delete it in the “3D Object List”.



Add green pole

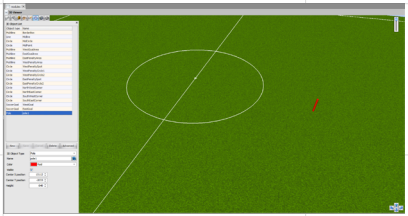
You can place a green pole. After you have opened the 3D Viewer module and selected an athlete, you click on the **Add green pole** button to place a green pole on the location of the selected athlete. You can delete or move the green pole by right-clicking on the pole. You can edit the properties of the green pole in the “3D Object List”.

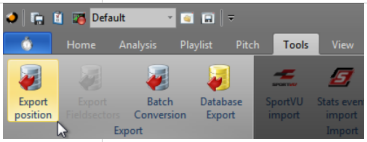




Add red pole

You can place a red pole. After you have opened the 3D Viewer module and selected an athlete, you click on the **Add red pole** button to place a red pole on the location of the selected athlete. You can delete or move the red pole by right-clicking on the pole. You can edit the properties of the red pole in the “3D Object List”.





Export position

Open the dialog box with the options for exporting position data. The window contains the **Selection** and **"Result set"** tabs:

Tab Selection

Timeframe Define the time interval for the data to be exported.

Options

Frequency the export frequency in Hz.

Seperator separation of tab, comma or semicolon.

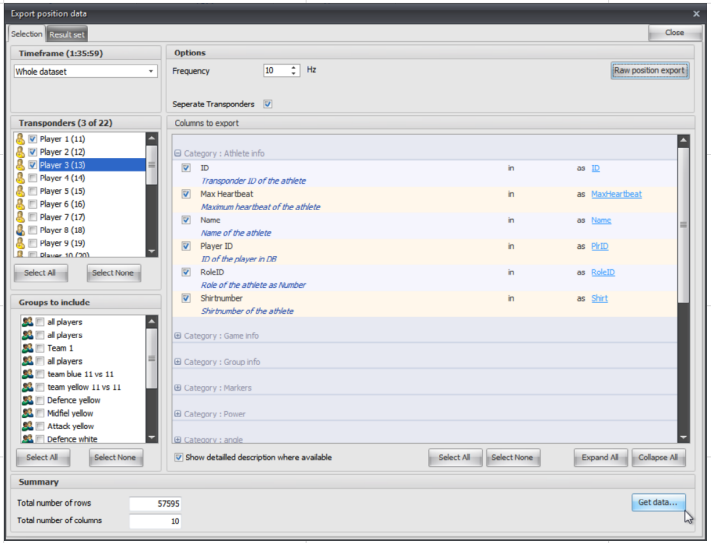
Transponders Checking the athletes whose data is to be exported.

Groups to include Checking the groups for which data must be exported.

Columns to export By clicking on the **+** button for the Category, the data columns that can be exported shall appear. Tick-mark the information that is to be exported. Defaults for checked boxes can be changed in the "Batch export" of the Configuration menu.

Summary The number of rows and columns with data selected for export.

On clicking the **Get data...** button, you will see the results of your selection in the **"Result set"** tab.



next

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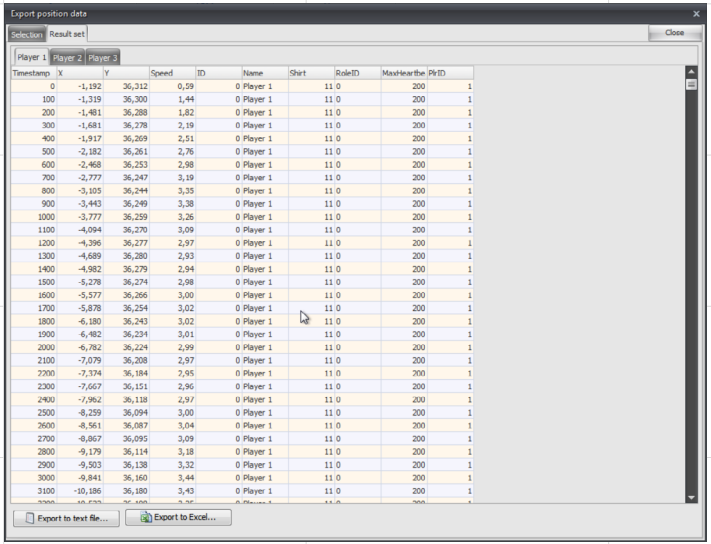
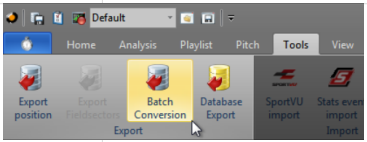
Result set

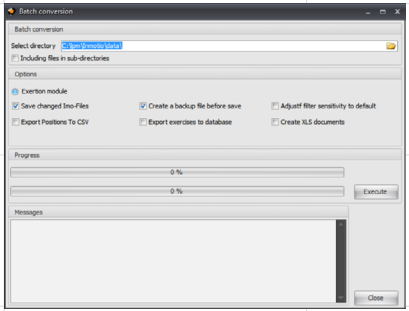
The result of the selected data that you have created in the “Tab Selection”. You can export the data to a **.csv** file (Export to text file...), an **.xls** file (Export to Excel), or save a copy to the clipboard (Copy to clipboard).





Batch conversion

Open the dialog box with batch conversion options.
Here, you can specify the directory in which the batch conversion should be stored, which file, and which part is to be converted, and you can also see the progress of the conversion.



next

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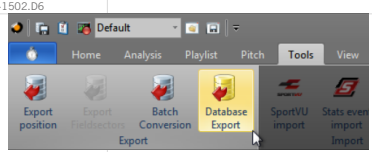
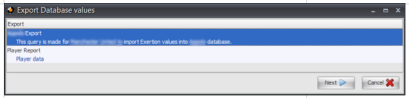
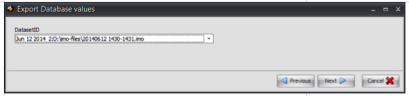


Database Export values

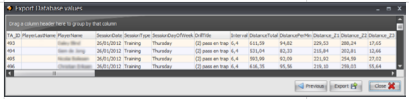
Open the dialog box with Export Database values. If you want to export data that matches a single imo-file then first open this imo-file.
Select one of the Queries and press **Next**.



Fill in the required parameters.
If using the dataset with an opened imo-file, this dataset will be preselected. Press **Next**.



Press **Export** and the result dataset will be exported in the format given.



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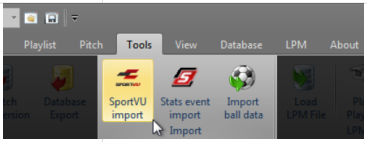
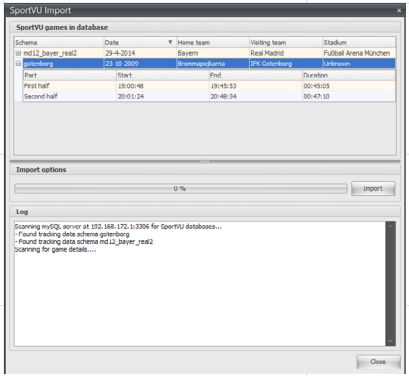
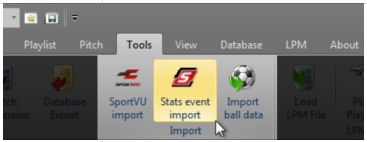


SportVU import

Open the dialog box with the options for importing SportVU data when you have a license from SportUV. A connection with the sportVU server is needed to import these data.

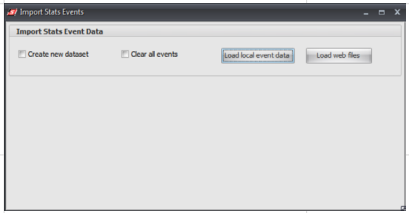
Select a game and press **import**. An imo-file is now created. Save it any time you are done.





Stats event import

Open the dialog box with the options for importing Stats Event data.



next

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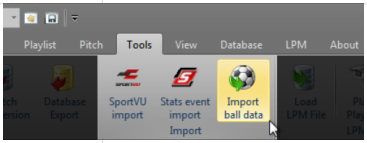
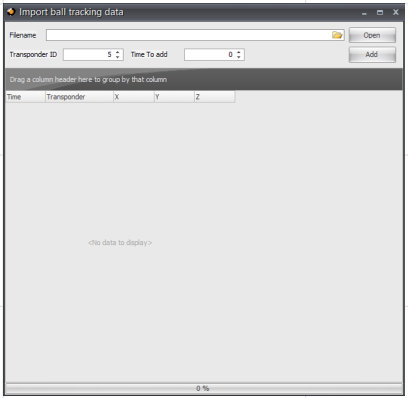


Import ball tracking data

Open the dialog box with the options for importing ball tracking data.
When a training is recorded with the Inmotio balltracking solution, the ball data can be enhanced afterwards.



Filename — First select the file by clicking the **Folder** button.

Open — Open the file. The file is now loaded into the grid.

Transponder ID — Select the transponder ID the ball gets when added to the dataset (see “Setup Transponders”). Then press the **Add** button.

Time to add — Add some time to synchronise in case there is an offset in the ball data and the position data.

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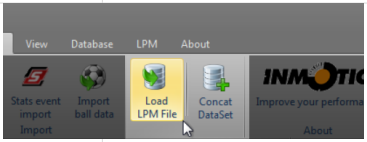
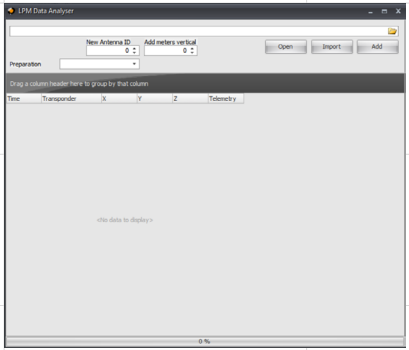
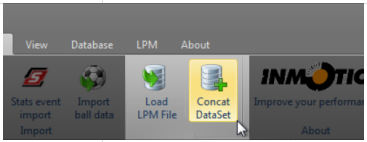


Load LPM File

It is possible to import a backup file - which is automatically created during a live recording - using the Inmotio system. This may be necessary if, by mistake, a dataset is not properly saved and the lpm file is still accessible.

Select the **lpm** file and press **Open**. After the file is read, press **Import**. The entire recording will then be available and can be saved again.

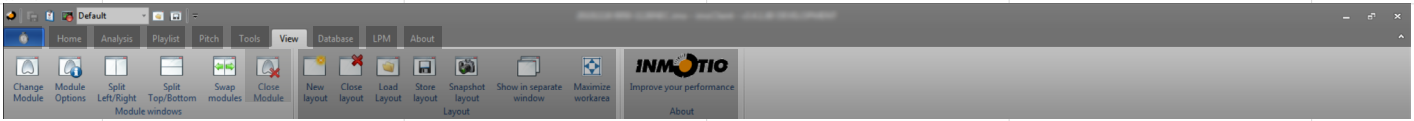


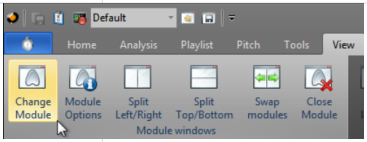


Concat DataSet

Two datasets (**.imo** files) can be combined into one, if they are shortly created after each other (for instance, when the first was stopped by mistake).
If the time between the two files is too long, you will receive the message "**Keep time between dataset**".

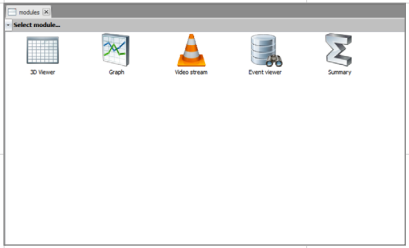
next

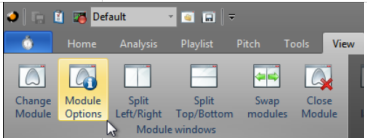




Change Module

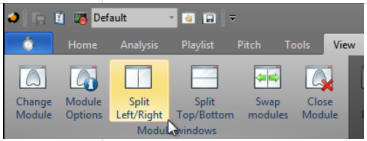
The main modules screen appears, in which you can select a different module.





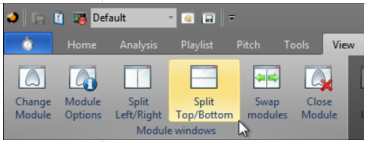
Module Options

Open the dialog box, if available, containing the options for the currently active module.



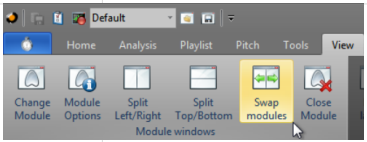
Split Left/Right

Split the module window into two parts (side by side) so that you can open another module in the right pane.



Split Top/Bottom

Split the module window into two parts (one above the other) so that you can open another module in the bottom pane.



Swap modules

Change the modules in the split module window.

next

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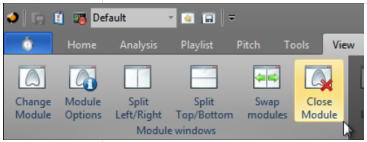
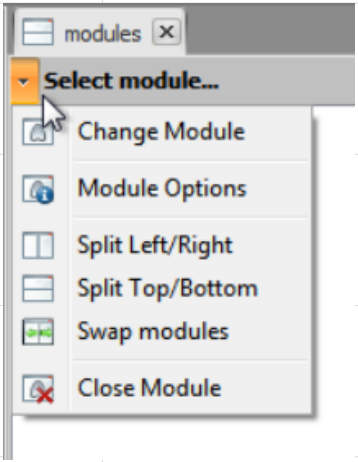


Close Module

Close the open module.



Dropdown Menu

These options may also be found in the “Drop-down menu” that appears when you click on the arrow next to the bar with the module name.

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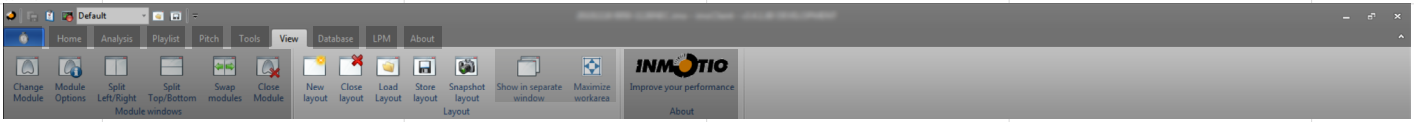
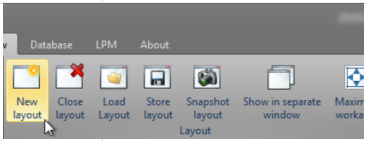
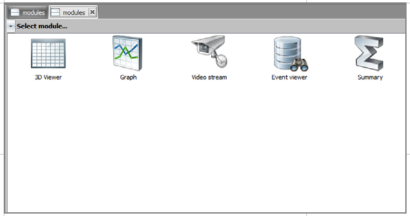
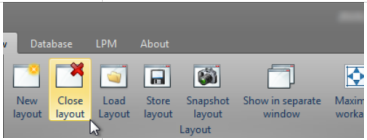




New layout

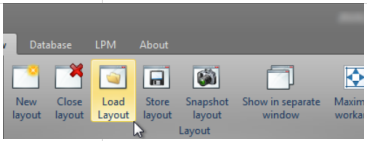
Open a layout window in a new tab where you can make a selection from the modules.





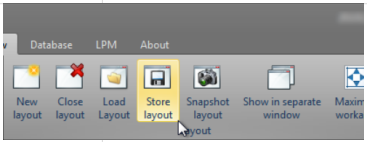
Close layout

Close the currently active layout window (tab).



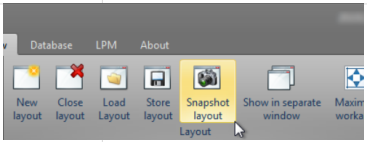
Load layout

Open a selected, previously saved layout of your workspace (combination of open windows).



Save layout

Save your present working space (combination of open windows).



Snapshot layout

Create a snapshot of the currently active layout window (tab). The dialog box shows a preview of the snapshot taken, that you can save if you so desire.

next

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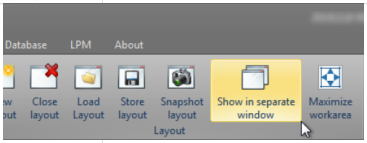
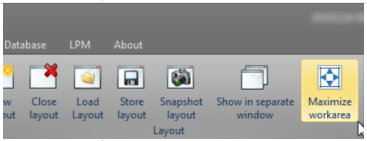


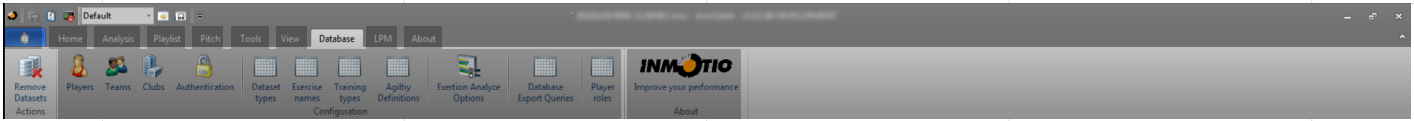
Show in seperate window

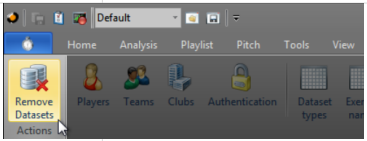
Open the module layout window in a separate window. You can also open a separate pane of the layout window module by right-clicking the mouse on the dark grey bar (next to Tab modules) and clicking on ‘Show in separate window’.



Maximize workarea

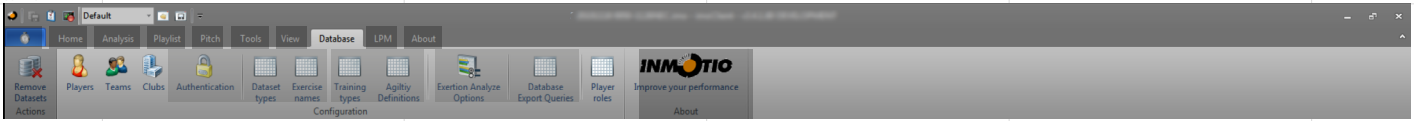
Maximizes the “4. Module window” on your screen, leaving unshown most of the “2. Menu bar” and “3. Datasets window”. This can be made undone by clicking the same button.

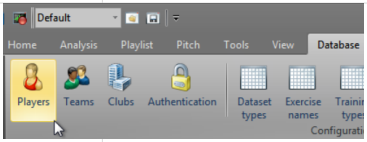




Remove Datasets

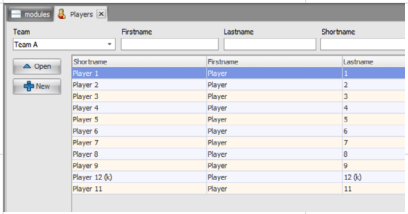
Get an overview of all datasets in the database. If a line turns red, it can not be found. One or more selected datasets can be removed from the database.

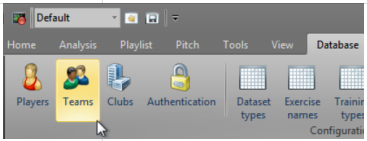




Players

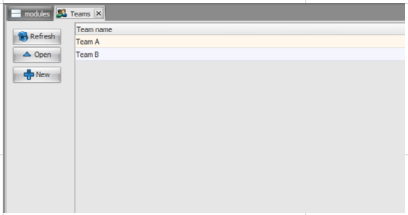
Open the Players map in the module layout window (tab). You can find a player in your database or add a new one and configure the settings.

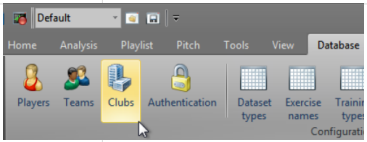




Teams

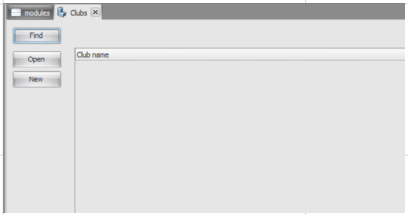
Open the Team map in the module layout window (tab). You can find a team in your database or add a new one and configure the settings.





Clubs

Open the Clubs map in the module layout window (tab). You can find a club in your database or add a new one and configure the settings.



next

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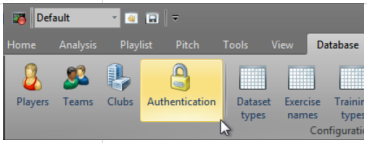
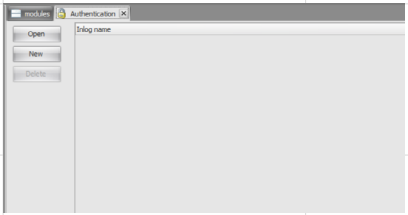
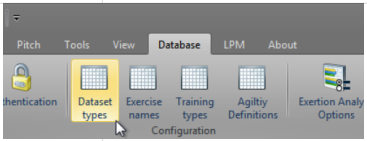


Authentification

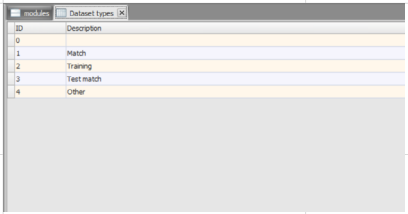
Open the Authentification map in the module layout window (tab). Herewith you can authorize employers to make use of the Inmotio IpmSystem.

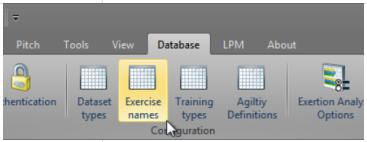




Dataset types

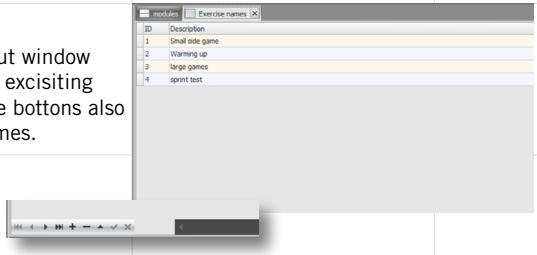
Open the Dataset types map in the module layout window (tab). Here you can define the kinds of datasets (training, match, ...) you want to use (and to compare with similar datasets).



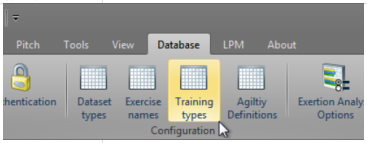


Exercise names

Open the Exercise names map in the module layout window (tab). You can define new exercises, edit or delete excisiting ones with help of the buttons at the bottom. These bottons also help you to navigate in a (long) list of exercise names.

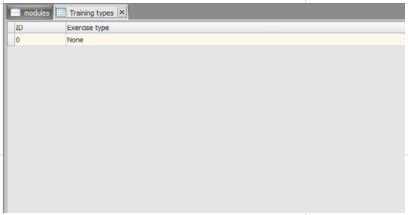


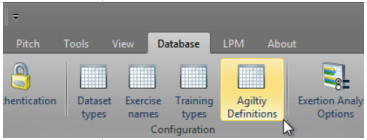
next



Training types

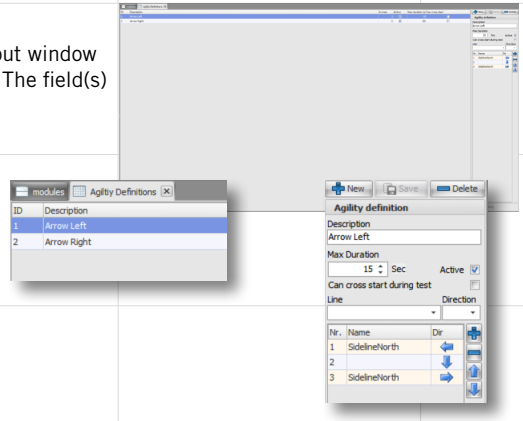
Open the Training types map in the module layout window (tab). Herewith you can define trainings within an exercise. E.g. a series of specified small games.



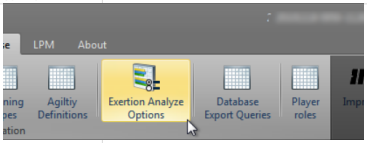


Agility Definitions

Open the Agility Definitions map in the module layout window (tab). (Example: sprint an arrow-shape left or right) The field(s) can be defined in the colomn at the right.

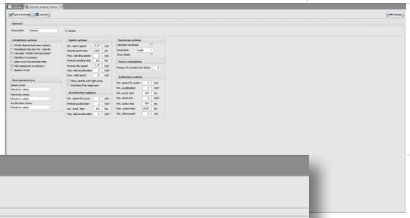


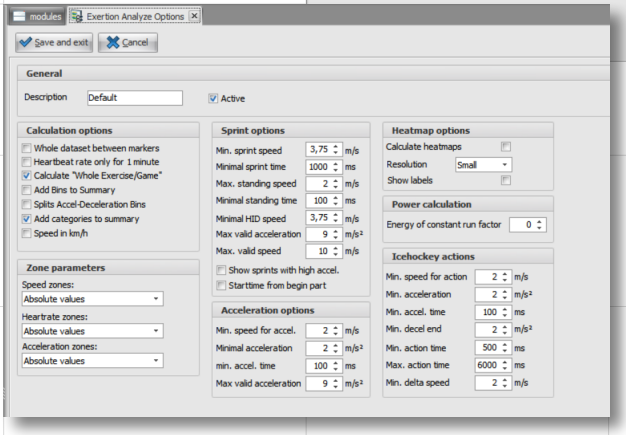
next

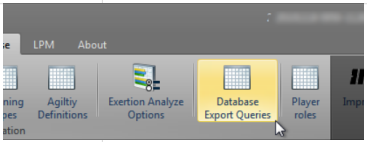


Exertion Analyze Options

Open the Exertion Analyze Options map in the module layout window (tab).
Here you can specify how you want to analyze an exertion.







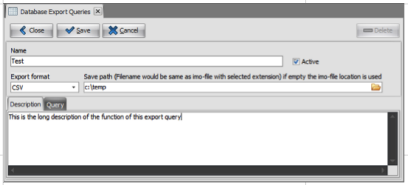
Database Export Queries

Open the Database Export Queries map in the module layout window (tab) to make Export queries from the database so data from the database can easily be exported to a **.csv** file.

Create a new export query by clicking on **New** or to open an existing one on **Open**.

Description

Complete the fields and press the tab **Query**.

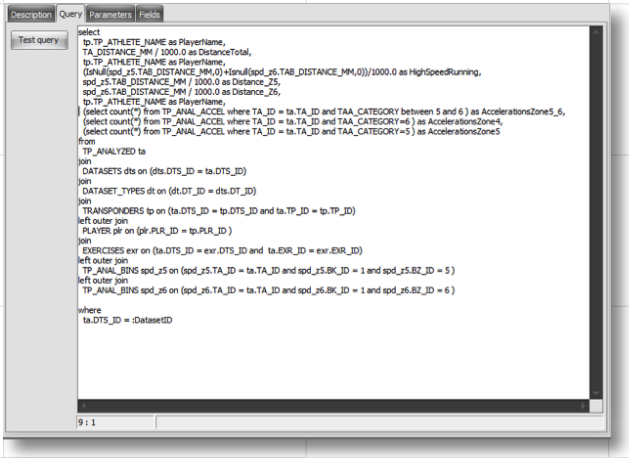


next

Query

Complete the query and press **Test Query**. If everything is OK, the result dataset will be shown.

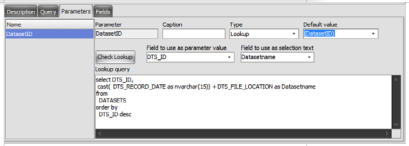
When testing for the first time, it is quite normal you encounter some errors. Often, this is because some parameters are left blank.



Parameters

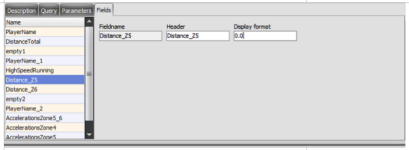
You can select a lookup type and default values.
Two predefined **Default values** are:

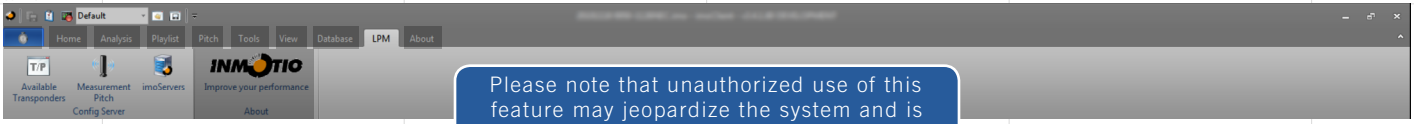
- (DatasetID): The current open imo-file
- (Date): The current date



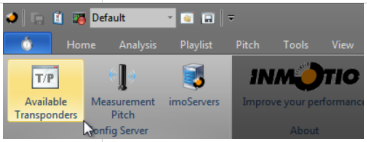
Fields

Here you can change the **name** of the field and the **display/ export format** of the field.



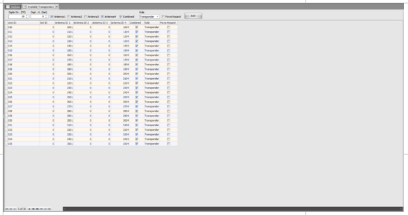


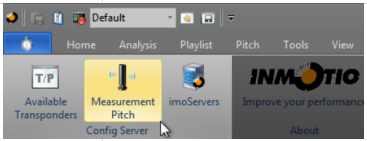
Please note that unauthorized use of this feature may jeopardize the system and is therefore discouraged.



Available Transponders

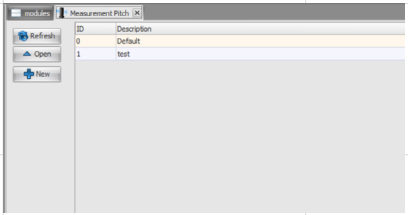
Open the Available Transponders map in the module layout window (tab). You can manage the transponders in your system or add a new one and configure the settings.
Also see “Setup Transponders” in “Prepare recording” for detailled instructions.

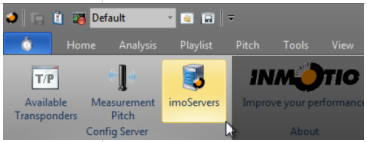




Measurement Pitch

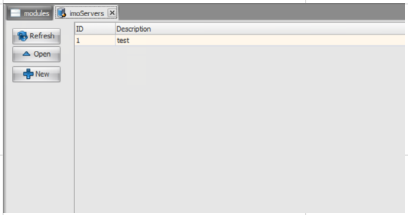
Open the Measurement Pitch map in the module layout window (tab). You can (re-)define the pitch in your database or add a new one and configure the settings.

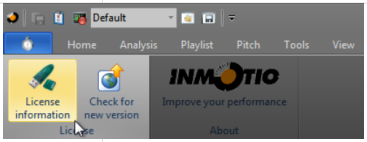




imoServers

Open the imoServers map in the module layout window (tab). You can find an imoServer in your database or add a new one. All imoServers must be registrated here by name and IP-nbr.in order to make a connection with i.e. a tablet PC in the field.
Also see “imoServer”.

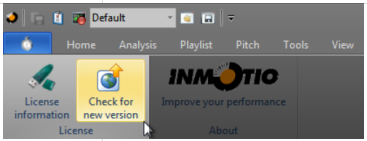




License information

Open the dialog box containing the license information.
Press on the **arrow** next to the **Close** button and select "Update dongle with license information from file".

- Write current license information to file. (So you can send it to Inmotio, when needed)
- Update dongel with license information from (updated) file.



Check for new version

Connect to the Inmotions' download site to obtain the latest version of your software: http://latestversion.inmotio.eu

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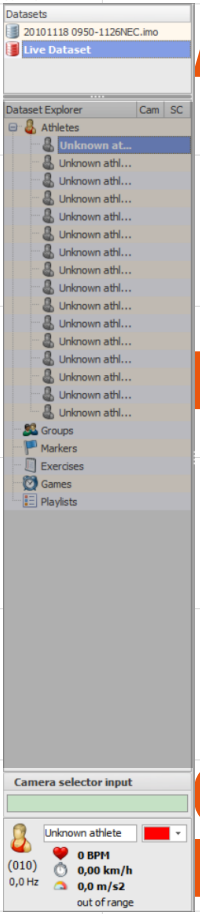

The datasets window consists of three distinct panels (four panels during a Live Data recording). These are, from top to bottom:

- **A** Datasets
- **B** Dataset Explorer
- **C** CameraZoom window
- **D** Detail window

Datasets (A)

Displays the names of the opened dataset files. The icon is red during a Live recording (a recording not saved under any name), and has the description ‘Live Dataset’.

Dataset Explorer (B)

Shows the Athletes, Groups, Markers, Exercises, Games and Playlists.

Camera selector input (C)

Select the (set of) camera(‘s) you want to enable or disable with help of easy shortcut keys. More information about the shortcuts and the camera control you will find in “Section Video server” and “Section Control Camera” in the chapter “imoServer”.

Detail windows (D)

The bottom panel (D) displays the details relating to the selection in the panel above.

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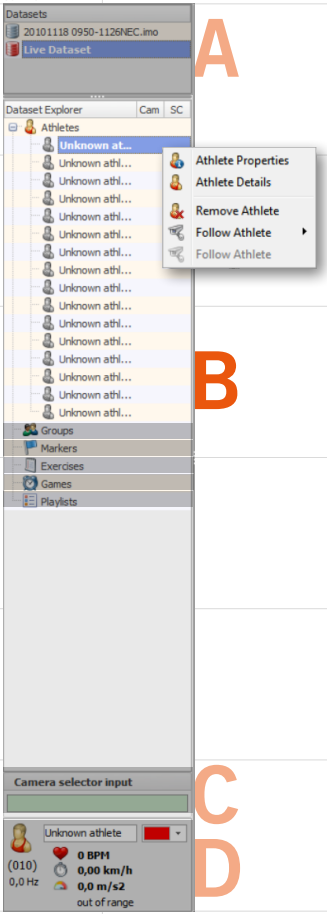

Under Athletes, you will find detailed information about the activated transponders located within the area to be measured. The ID numbers and names of the athletes are displayed by clicking on '**+**', left from 'Athletes'. When you select a transponder/athlete by clicking on the ID number, the details of the related athlete will appear in the Details pane (D) at the left bottom of the screen:

- transponder ID number
- frequency of measurement or sampling rate
- name of the athlete (edit if so desired)
- colour of the athlete as shown in the 3D Viewer (edit if so desired)
- current pulse
- current speed
- acceleration

By selecting a transponder/athlete and right-clicking the mouse button, you can open the dialog with the **Athlete Properties** (also see "Athletes"). This can also be done by double-clicking on a transponder/athlete.

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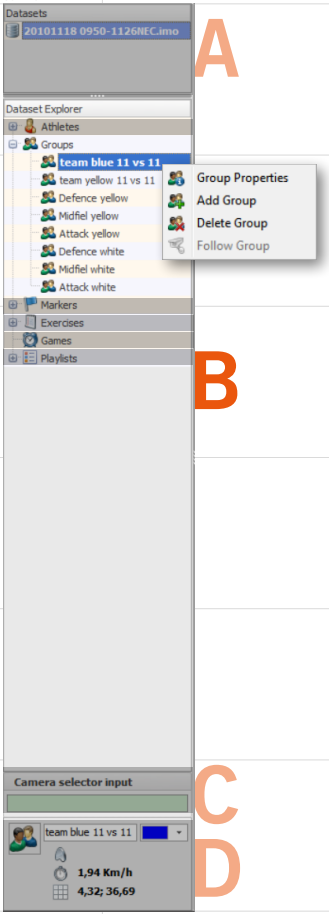

By clicking on '**+**', left from 'Groups', you will see the compiled group(s) of athletes. When you select a group by clicking on the name of the group, detailed information about this group will appear in the Details pane (D):

- group name (edit if so desired)
- group colour (edit if so desired)
- the selected visualisation(s)
- current speed
- current position of the centre of the group on the course, indicated by the X and Y coordinates

By selecting a group and right-clicking the mouse, you can open the **Group Properties** (also see "Groups") dialog or **Add Group**, or delete the group (**Delete Group**). The Group Properties window will also appear when you double-click on a group.

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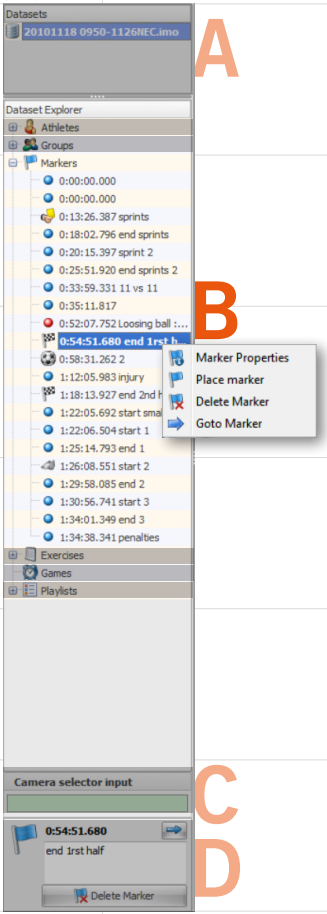

If you click on '**+**', left from Markers, you will see information about the markers made during the measurement. When you select a marker by clicking on a time, the details of this marker will appear in the Details pane (D) on the left bottom of the screen:

- time at which the marker is placed
- button with arrow to place the play control at the time of placing the selected marker
- description of the marker (edit if so desired)
- button to delete the marker

By selecting a marker and right-clicking the mouse button, you can open the **Marker Properties** (also see "Markers") or **Place Marker** dialog box, delete a placed marker (**Delete Marker**), or go to the time point of the marker (**Goto Marker**).

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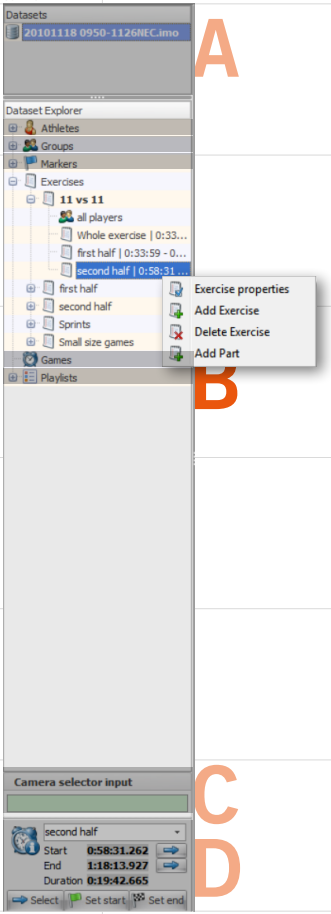

When you click on '**+**', left from 'Exercises', you will see information about the exercises that were created during the measurement. When you select an Exercise by clicking on an Exercise, the details of the related Exercise will appear in the Details pane (D) at the left bottom of the screen:

- name of the exercise
- start time of the exercise and button with arrow to move the play control to the start time
- end time of the exercise and button with arrow to move the play control to the end time

There are three buttons under the same:

Select	selects the exercise in the time bar
Set start	defines the (new) start time of the exercise
Set end	defines the (new) end time of the exercise

By selecting an exercise and right-clicking the mouse, you can open the **Exercise properties** (also see "Exercises") or **Add Exercise** dialog, delete the exercise (**Delete Exercise**) or add a part of an exercise (**Add Part**).

By selecting a part of the Exercise, detailed information concerning the part of the exercise will appear in the Details pane at the bottom left of the screen.

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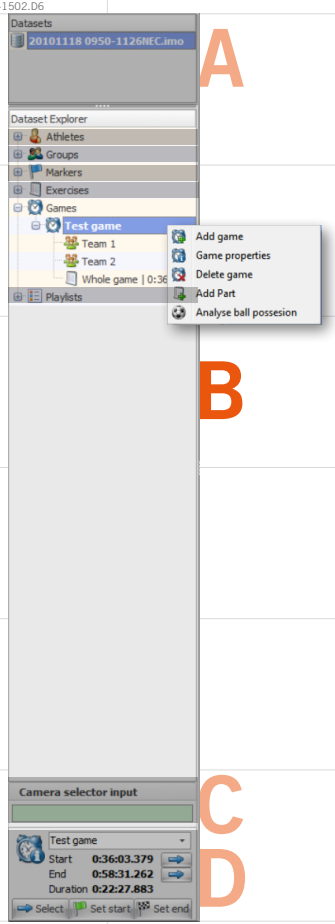
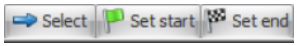


If you click on '**+**', left from 'Games', you will see information about the Games that were created during the measurement. If you select a Game by clicking on it, detailed information concerning the Game will appear in the Details pane at the bottom left of the screen:

- name of the Game
- start time of Game and the button with arrow to move the play control to the start time
- end time of the Game and the button with arrow to move the play control to the end time



There are three buttons under the same:

Select	selects the exercise in the time bar
Set start	defines the (new) start time of the exercise
Set end	defines the (new) end time of the exercise

By selecting a Game and right-clicking the mouse, you can open the **Game properties** (also see "Games") or **Add Game** dialog, delete the exercise (**Delete Game**) or add a part of a game (**Add Part**).

By selecting a part of the Game, detailed information concerning the part of the game will appear in the Details pane (D) at the bottom left of the screen.

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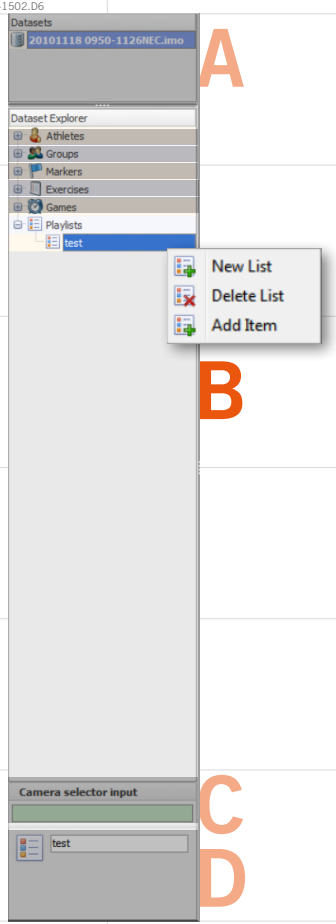

If you click on '**+**', left from 'Playlists', you will see the Playlists you already made. If you select a Playlist by clicking on it, the name of the list will appear in the Details pane at the bottom left of the screen.

By selecting a Playlist and right-clicking the mouse, you make a **New List** (also see "Playlist"), delete the Playlist (**Delete List**) or add an item to the list (**Add Item**).

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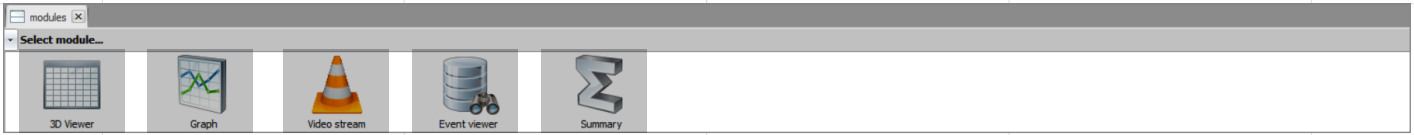
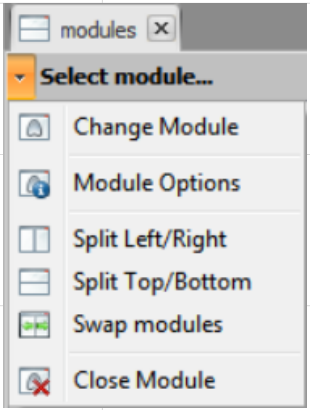


The available modules of your Ipm system will be found in the module layout window (tab). You can open a module by double-clicking on one of the icons.
It is possible to simultaneously open several modules (Split Left/Right or Split Top/Bottom) or several module layout windows (tabs), side by side.
You can find these options in the Menu bar under the “Tab View”.



Drop-down menu

You will also find these Module windows options in the “Dropdown Menu” that appears when you click on the arrow next to the bar with the module name.

You can manually change the size of the window in which the modules are displayed, by holding the cursor at the edge of the window and moving the mouse while holding the left mouse button pressed down.

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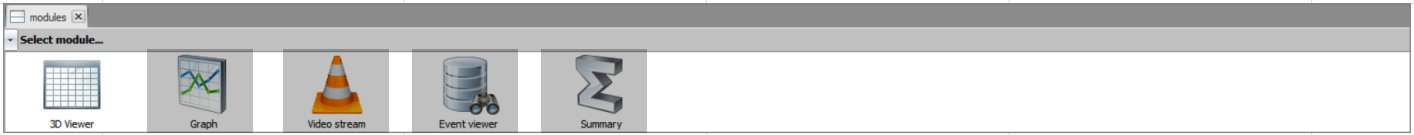
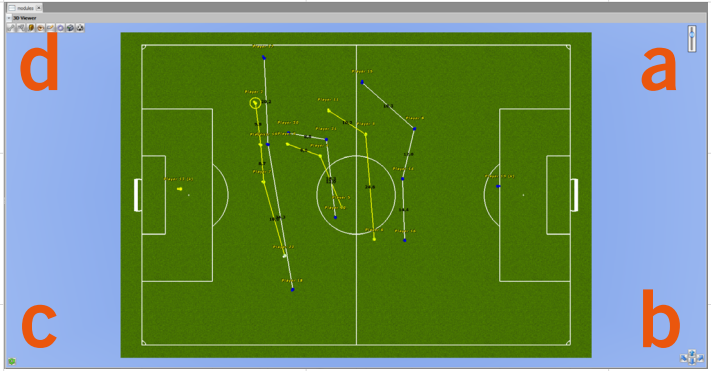
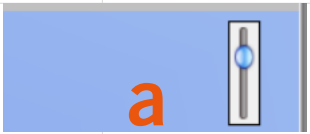


If you open the 3D Viewer module, the field with the athletes carrying the activated transponders will appear on the screen. You can change the field display using the interface buttons:





Zoom

Move the slide at the top right (**a**) of the screen up (to zoom in) or down (to zoom out).

Tilting

You can tilt the field using the arrows at the bottom right (**b**) in the screen. You can also tilt the field by clicking on the field and moving the mouse while keeping the right mouse button pressed down.

Rotating

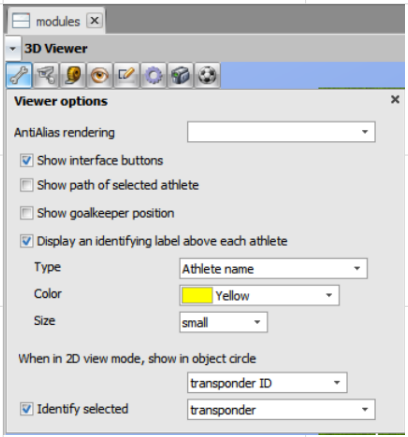
Click on the button at the bottom left (**c**) of the screen, in order to rotate the field through 90 degrees. You can also change the position of the field in the window by clicking on the field and moving the mouse while holding the left mouse button pressed down. You can also zoom in and out using the scroll wheel on your mouse or the arrow keys on your keyboard. If you select an athlete in “Datasets Explorer (B)”, this player will be highlighted on the field with a yellow circle.

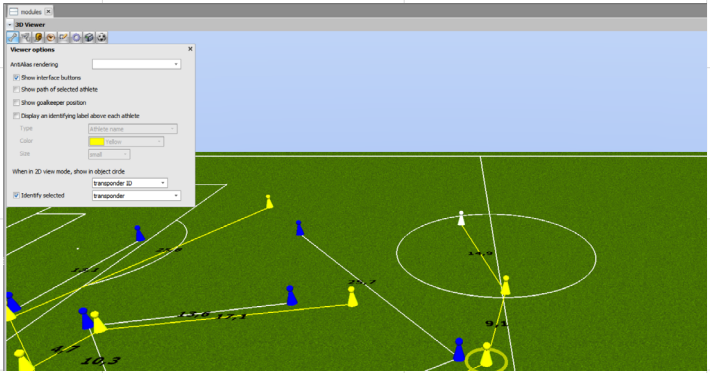
Display

You will see a number of icons at the top left of the module layout window (**d**). By clicking on an icon, a window containing options such as “Viewer options”, “Camera control”, “Measuring tools”, “Visualisations” and “Recorder options”, will appear (explained on the next pages).

The display options include:

Antialias rendering	smooth display of the lines of the field.
Show interface buttons	tick-mark to display the interface buttons.
Show path of selected athlete	tick-mark to display the selected athlete's route.
Display an identifying label above each athlete	select the information (Type, Colour, Size) to be displayed.
When in 2D view mode, show in object circle	select the information (transponder ID/shirt number) that should appear in the object circle.
Identify selected	tick-mark and select the data to be displayed.





The options for the view of the field:

Enable first person view mode
tick-mark in order for the mode with a player's-eye-view display.

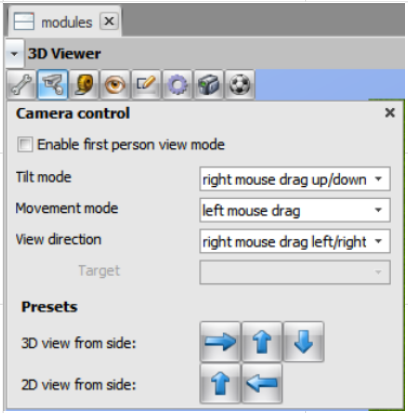
Tilt mode
select how the field should be tilted in the view.

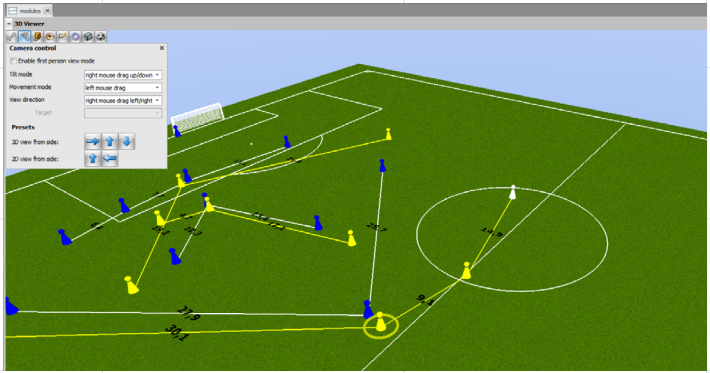
Movement mode
select whether the view should display the motion in the field.

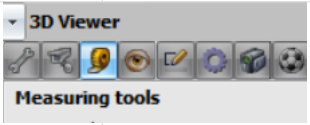
View direction
select the viewing direction of the display. If you select the option 'look at target', you select it under Target.

3D view from side
select the viewing direction of the 3D-display.

2D view from side
select the viewing direction of the 2D-display.



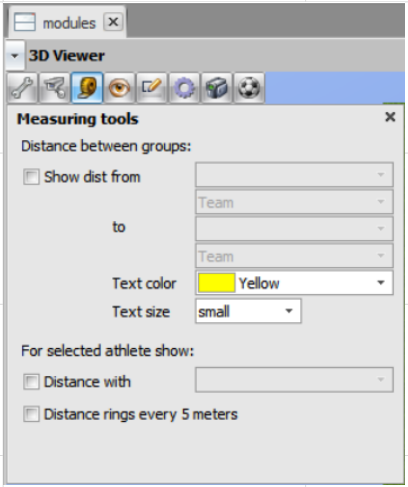


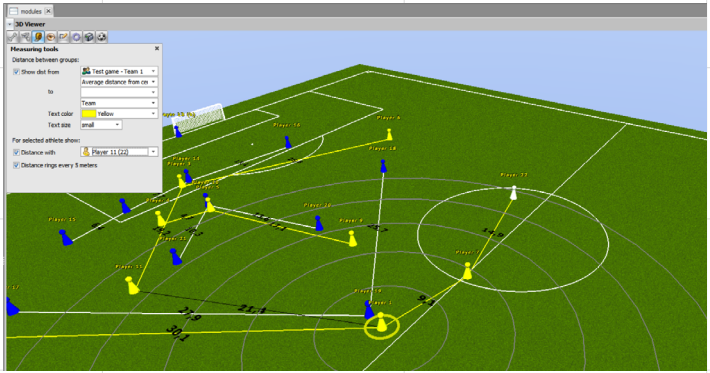


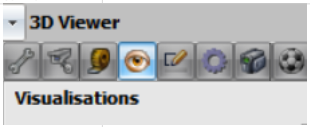
The options for displaying the measuring instruments:

Distance between groups — tick-mark and selecting the groups between which the distances should be displayed.

For selected athlete show — tick-mark and selecting what information concerning the selected athlete should be displayed.

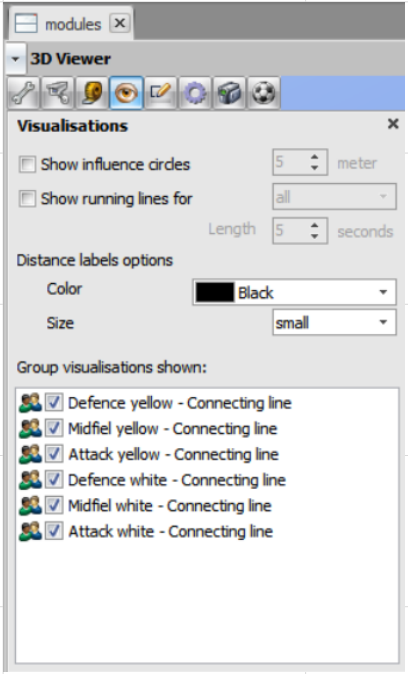


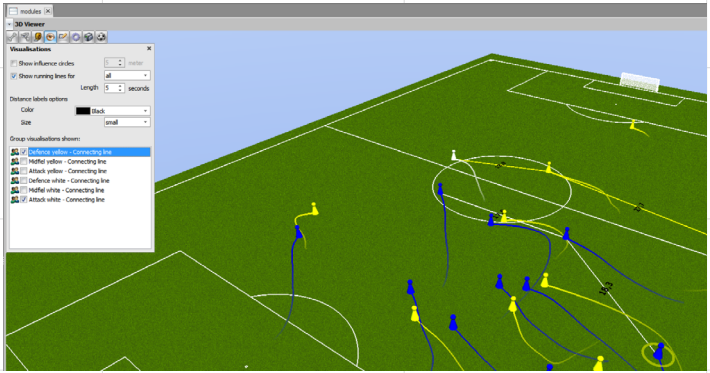




The options for the display of the visualisations:

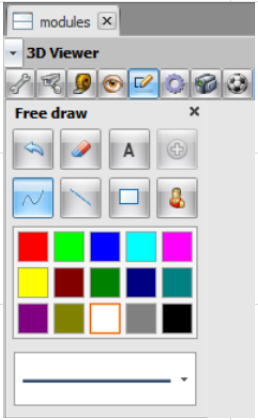
Show influence circles	tick-mark to display influence circles and defining the distance from the circles.
Show running Lines	tick-mark to display motion lines and selecting for whom there should be a motion line, and how long it should be.
Distance labels options	select color and size.
Group visualisations shown	select which visualisation should be displayed for the group.

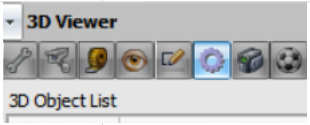




This option enables you to:

Draw	a line or rectancle yourself with its dimensions in the color of your choice;
Move	an athlete to another place;
Add text	whereever you want;
Remove	all the dawn items.



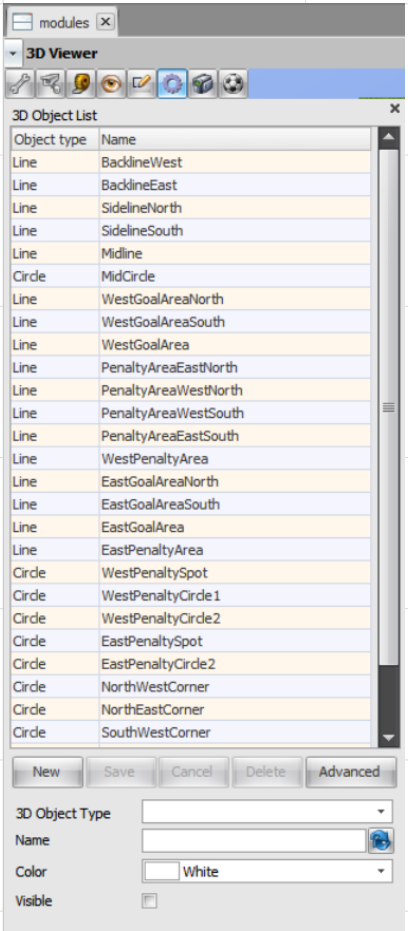


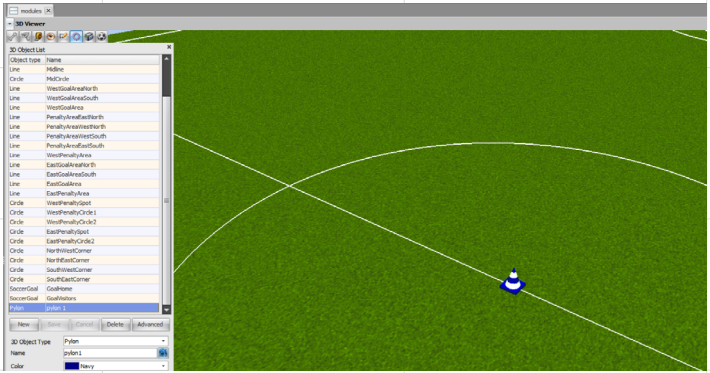
This option enables you to:

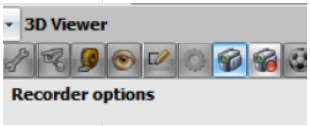
Change — an existing line or circle, being a part of the field;

Add — a new 3D object, like a pylon, goal, basket or net depending on your sport;

Move — these objects by completing the X- and Y- positions.



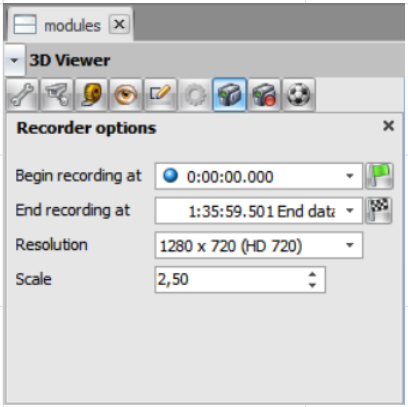


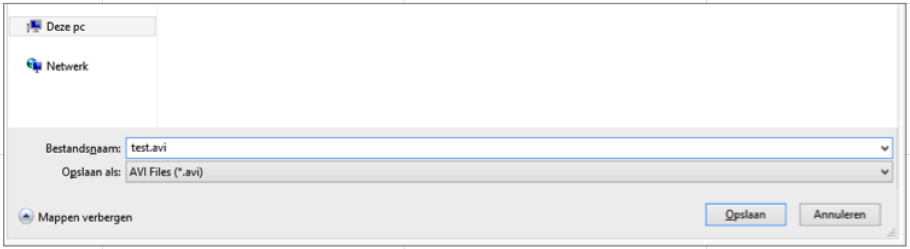


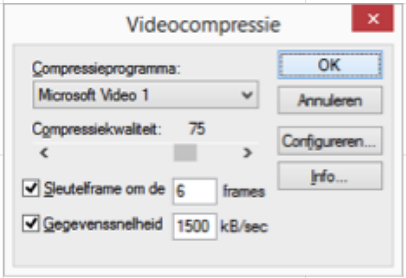
The options for recording the data:

Begin recording at	specify the starting point of the recording.
End recording at	specify the end point of the recording.
Resolution	select the resolution.
Scale	select the scale.

By clicking on the camera icon next to it, you can specify where the image file (**.avi**) should be stored.







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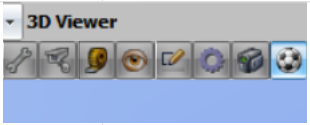
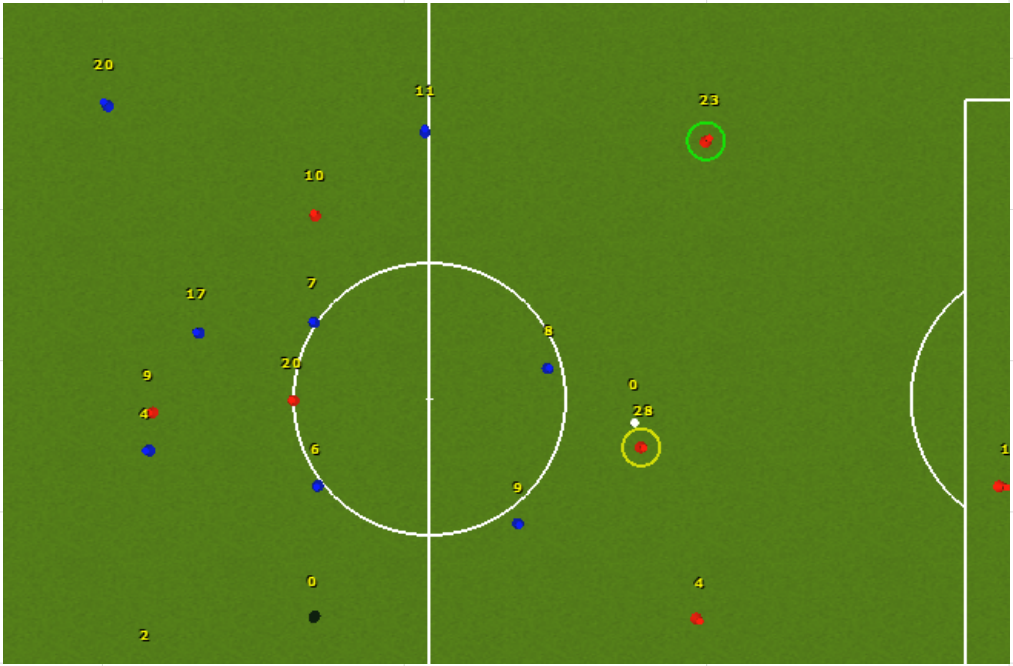
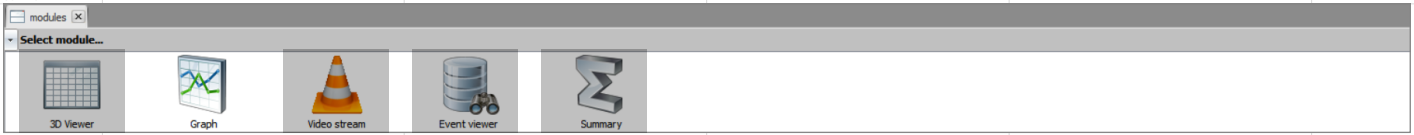


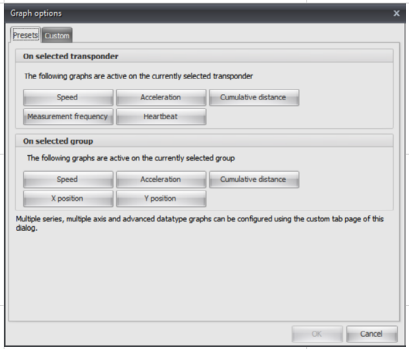
In cases ball data is available, the pass options for a player can be shown in the 3D Viewer.

The player in the yellow circle has ball possession (player nbr. 28 in the figure). His options to pass the ball to a team member are shown in a green circle (here player nbr. 23).





Double clicking on the Graphic module icon will open the Plot Graph in the module layout window (tab) and the dialog box containing the graphics options with the **Presets** and **Custom** tabs.



Presets

Make a selection from the possible graphics for the **selected transponder** or for the **selected group**. The graphic of your choice will then appear in the module layout window. Double clicking on the graphic will again open the dialog with the options for the graphics.

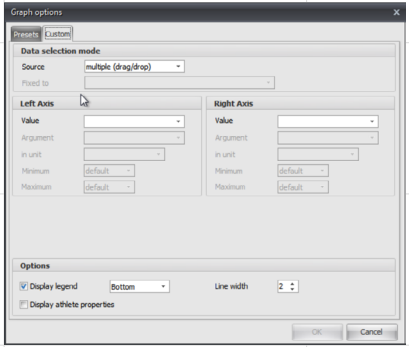
Custom

Data selection mode — select the **Source** of the graphic.

Left/Right Axis — set the values for the vertical axes of the graphic (**Value**, **in unit**, **Minimum**, **Maximum**).

Horizontal Axis — set the values for the horizontal axis of the graphic (**From**, **To**, **Axis unit**).

Options — If the box for the **Display legend** is checked, the legend shall be displayed at a location of your choice. If **Display athlete properties** is tick-marked, the Details pane containing the details of the selected athlete will be displayed in the module layout window. You can also define the thickness of the line.

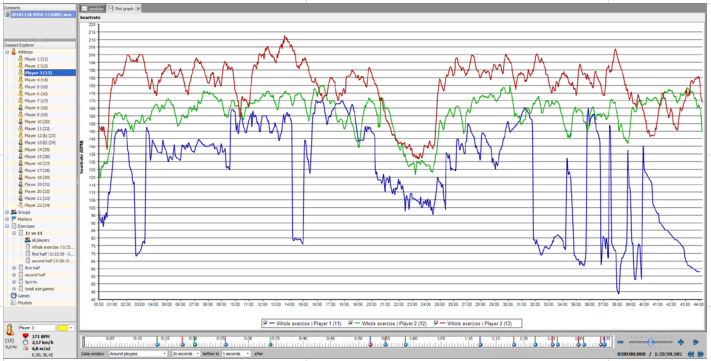


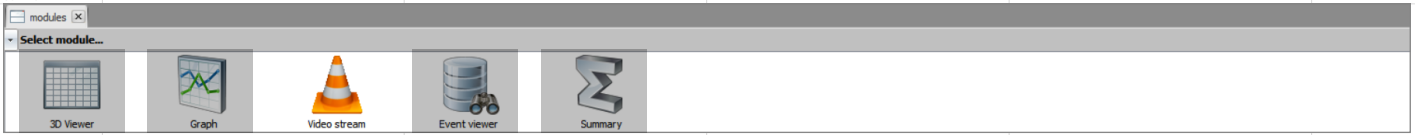
Double click on a displayed graphic to change its options. The dialog box will reappear.

next

To zoom in on the graphic, move the cursor to a position within the graphic and select the portion of the graphic to be enlarged by moving the mouse from top to bottom with the right mouse button held down. To zoom out, move the mouse from bottom to top while holding down the right mouse button.

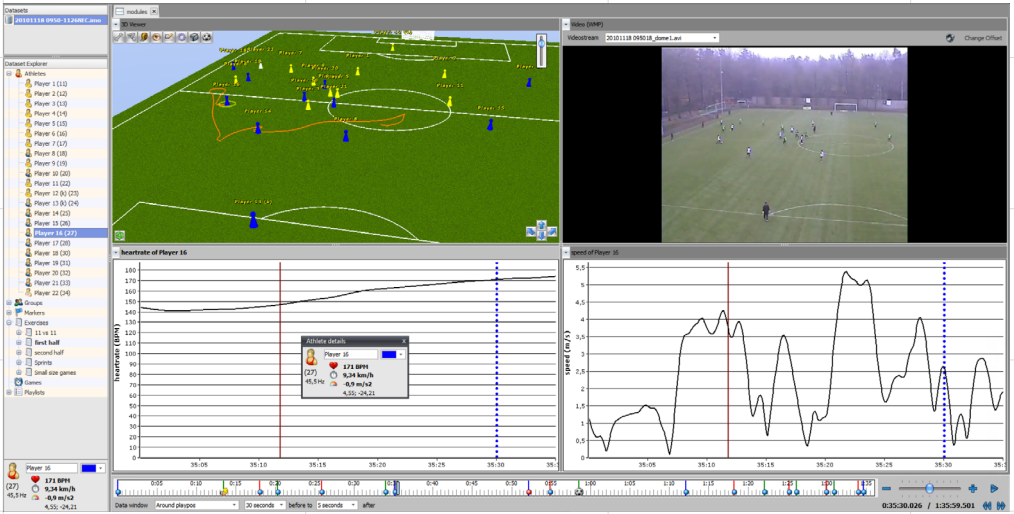
If in the **Data selection mode**, you select the Source '**multiple (drag/drop)**' in the **Custom** tab, you can drag several transponders from the **"Athletes"** in the **Dataset Explorer** to the graphic, after which the graphics of the selected transponders will be simultaneously displayed in the graphics layout window. By tick-marking the box next to the **Display legend**, you will immediately see in the layout window which line belongs to which transponder.

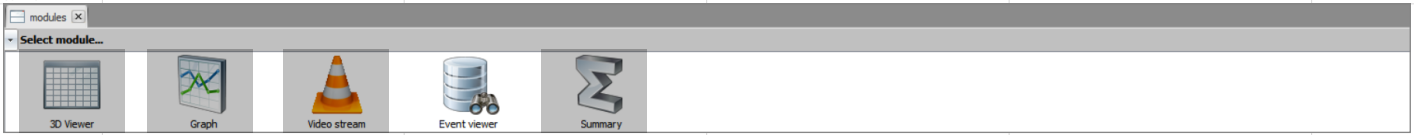




If you select the Video stream module, select a video recording linked to the measurement by clicking on the arrow next to video stream.
If no recordings are available, please first add one or more video streams in the “Dataset Properties”, tab **Parameters**.
You can synchronise the video image with the data via the Change offset button.

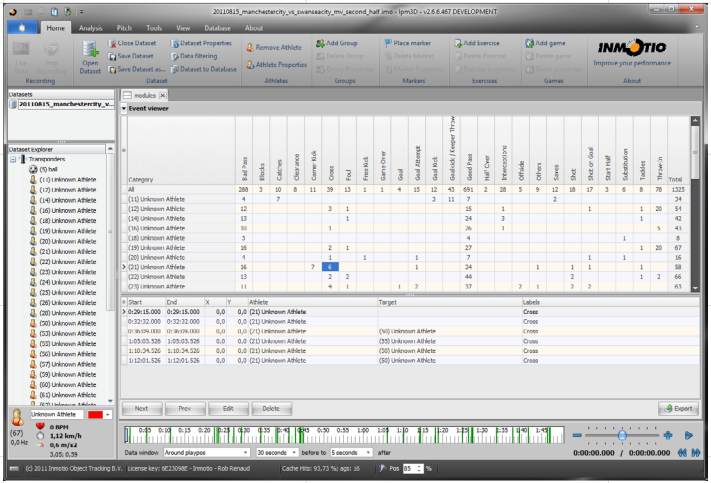
With help of the “Drop-down menu”, you can show several windows at the same time. For instance, you can watch the 3D View, real videorecording, the heart beat and the speed of the player of your choice all at once. The graph windows automatically show the details of the player at stake, but this is similar to the the Dataset detail window.





Double clicking on the Event Viewer module icon, a two-part screen will appear in the module layout window. The top part contains a table of events with the number per person.
The bottom part contains the selected events.

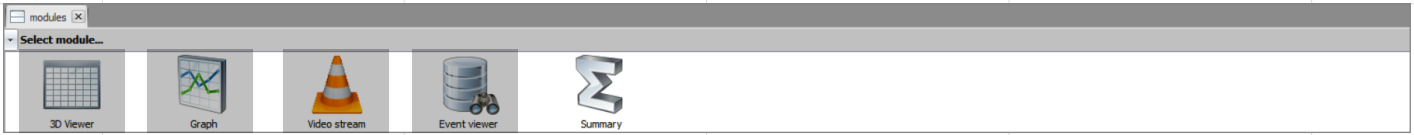
Next	You can use this to navigate to the next record.
Prev	You can navigate to a previous record (this only works well if the dataset is in 'pause').
Delete	This allows you to delete an event. This can no longer be undone after the dataset is saved.
Export	This allows you to export the selected events to a .csv file.



If 1 or more boxes are selected in the topmost screen segment, all the associated events will be visible in the bottom part.

One can jump to the 'Start' time in the time bar by double-clicking on an event. As a result, the 3D viewer/Graphics and Video also jump to that time.

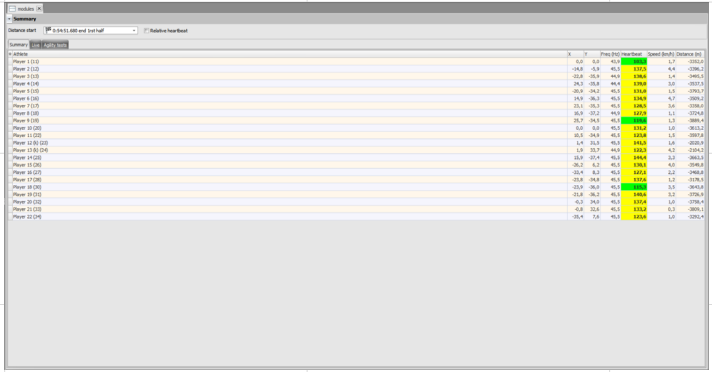
Ik krijg hier nu heel weinig data van in mijn scherm dus dit is overgenomen van de vorige versie.



Double clicking on the Summary module icon will open the Summary window in the module layout window (tab) with three tabs: **Summary**, **Live** and **Agility tests**.

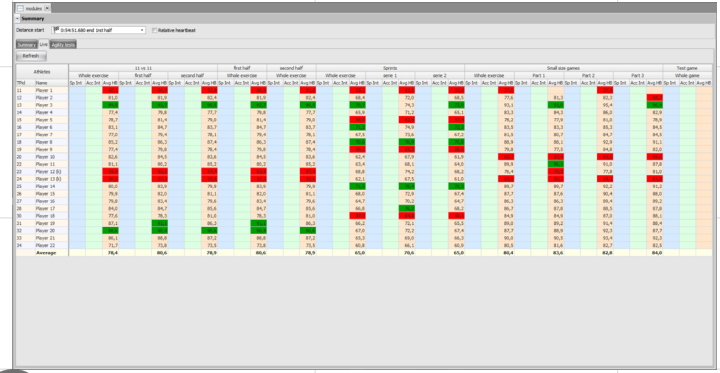
Summary

Shows a summary of the **position**, **heart beat**, **speed** and **distance** for each player in the module layout window.



Live

Shows in all exercises the Absolute Speed Index-calculated to 1 minute- (**Sp Int**), the Acceleration Index-calculated to 1 minute- (**Acc Int**) and Average heart beat (**Avg HB**) for each player in the module layout window.



next

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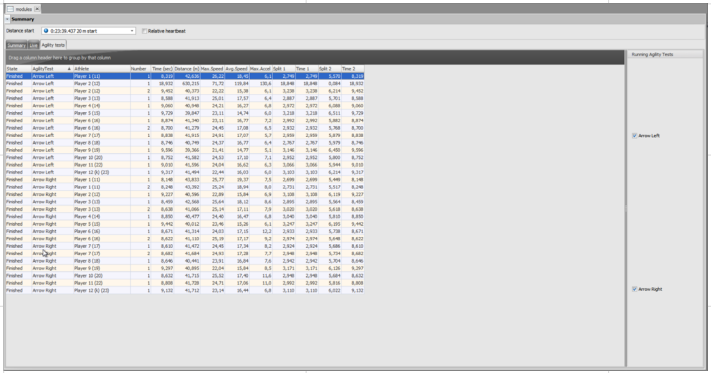
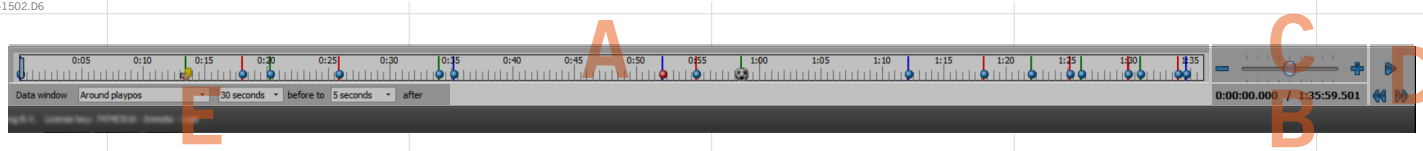
Agility tests

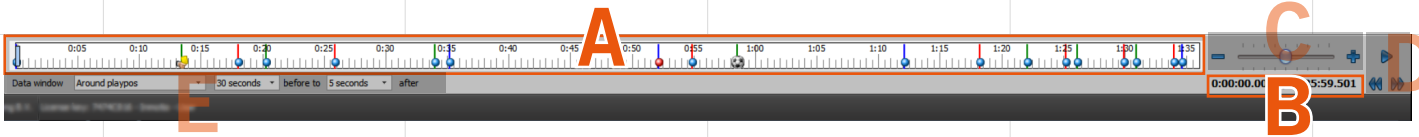
Shows a table with the results of your summary: the **Time** (sec), **Distance** (m), **Max. Speed**, **Average Speed**, **Max. Acceleration**, **Split 1**, **Time 1**, **Split 2**, **Time 2**.

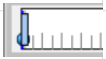


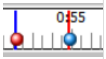


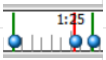
The Time window contains the following parts:

Timeline (A)	display of time of the recorded measurement.
Time indication (B)	shows the duration (right) of the entire recording and the time of the current view (left).
Time slide (C)	to take small steps forward or backwards in the time of a recorded measurement, and to slow down or speed up the playback speed.
Play/Pause (D)	to play/pause a dataset.
Data panel (E)	settings for how the data are displayed in the window.









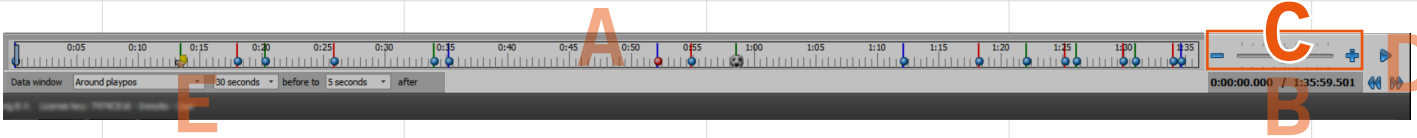
Timeline (A)

By clicking on a specific time in the Timeline, you can review a specific point of time in the record file.

Indicator	The current time is indicated with a thick, light blue vertical line.
Markers	The placed markers (see ”Markers” in the Menu bar or “Markers” in the Dataset window) are shown as a small blue vertical line with a dot or the symbol you have choosen.
Exercises/Game	The beginning of an Exercise/Game is marked with a green vertical line and the end with a red one.

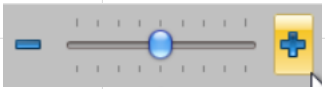
Time indication (B)

duration entire recording	shown at the right.
time of the current view	shown at the left.

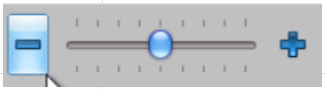


Time slide (C)

If you click and move the big blue dot with the left mouse button pressed down during a replay, you can go forwards or backwards in time.
If you move the time slider with the **CTRL** key pressed down, the playback speed will be maintained after release.



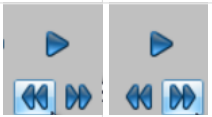
Plus-button — Clicking on the plus button speeds up the playback speed of the dataset.



Minus-button — Clicking on the minus button slows down the playback speed of the dataset.

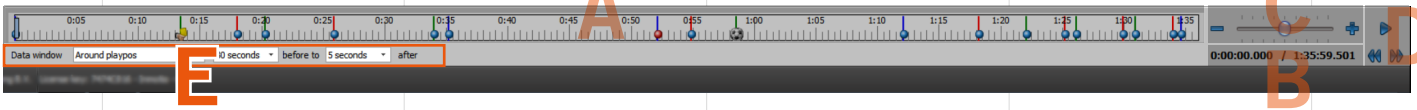
Play/Pause button (D)

With the play button (C) you can play back a previously recorded measurement (dataset). While replaying a dataset, you can freeze it with the pause button.



Backward-button — Move 30 seconds backward in time in a recorded measurement.

Forward-button — Move 30 seconds forward in time in a recorded measurement.

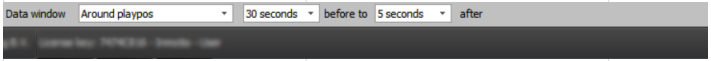


Data panel (E)

In the data panel, you can define the interval with which the dataset will be played; around the playing position or at a fixed interval.

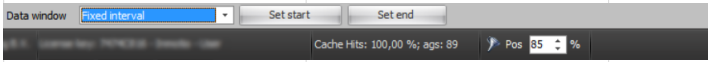
Around playpos

If you choose to play around the play position, you can set the time for until after the playback position.



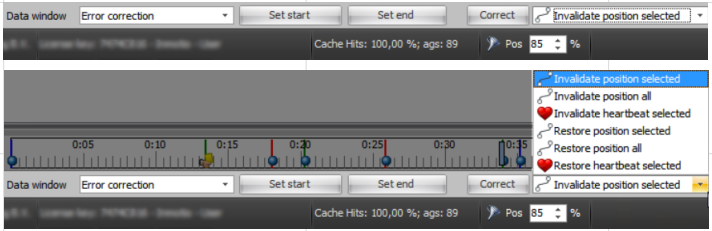
Fixed interval

Using the **Set start/Set end** buttons, you can define the start and end time of a fixed interval. This selection is greyed out in the timeline.



Error correction

Using the **Set start/Set end** buttons, you can correct an invalid position or heartbeat. You can select one or choose for all.



Introduction

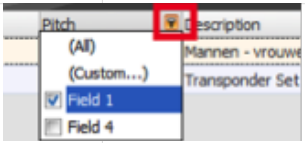
It is advisable to link athletes already to their transponder before any measurement will take place. This avoids the action to link an athlete to a transponder during a measurement. Also when you start the imoClient-software on any other device (laptop/tablet), the names of the athletes and the connection to their transponder are already in the database and ready to use.

This is done at the button **Prepare Recording** in the section “Dataset” of the Menu Bar, Tab Home.

Visible is the grid with all the preparations.

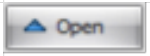
Grouping and filtering pitches

By dragging the column header to the top, the grid can be grouped by the pitches.

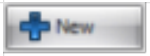


It is also possible to filter the grid. Point your cursor to the column header en press the marked button.

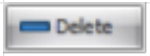
Refresh the grid.



Open the selected preparation. Or double click on the selected row. This wil bring you to the “Edit screen”.



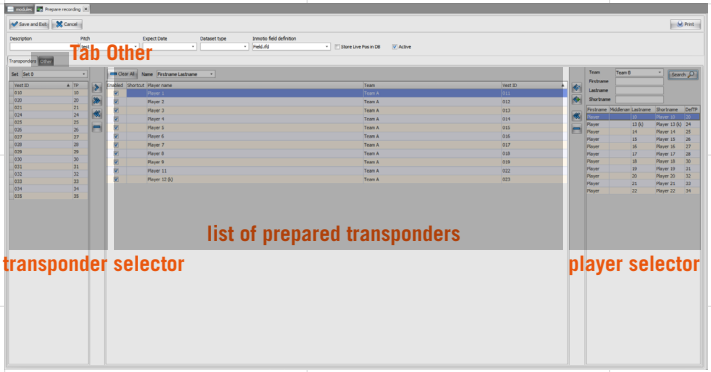
Create a new preparation.



Delete 1 or more selected preparation.

next

On the edit screen you can set up the preparation of the measurement.



Save and Exit	Saves the changes and shows the search screen.
Cancel	Close the edit screen without saving changes.
Description	A useful name for the preparation to make it easy to identify in the imoServer.
Pitch	On which pitch is the measurement taking place.
Expect Date	On what date is the measurement going to happen. In the imoServer all preparations without a date are visible and those whith a date are only visible on that particular date.
Dataset type	Required for reports when different type of recordings are done with LPM.
Inmotio field definition	The ifd-file that has to be loaded by the 'imoClient' when the recording is started.
Store Live Pos in DB	Save the Gaussian filtered data in the database for transponders that are connected to players. This is only useful when the WebClient is running. Positions are removed from the database a day after recording in order to keep the size of the database low so the Express version of MS SQL Server can be used.
Active	This preparation can be selected if checked.

Tab Transponders

Set	Selection box of the set of transponders, configured in "Setup Transponders".
Clear All	Removes all Transponders from the list.
Name	Choose how the name of the player is visible in the system.
Search	Search for a player or players in a team.

next

Transponder selector

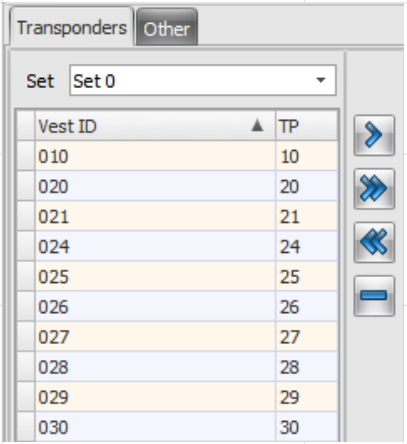
Selection transponders for a preparation. Select the set you want to use.

Add selected transponder to the list.

Add all transponders to the list.

Remove all unassigned transponders from the list.

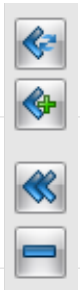
Remove selected transponder from the list, even if there is a player connected.



Player selector

Select players for the measurement.

Select a team and press search so all members of that team will be listed. You can also search for ”first name”, “last name” or “short name”. You don’t need to type the whole name, just a part of it will be enough to find the right person.

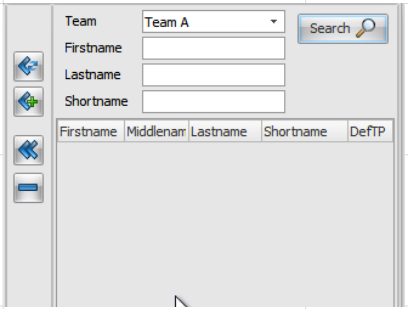


Replaces the player of the selected transponder with the selected player in the search grid.

Add the player in the search grid to the transponder list. Player is not automatically connected to a transponder.

Add the whole search grid to the transponder list. If the “DefTP” is available in the “Transponder List” or in the “Set”, the player is automatically connected to this transponder.

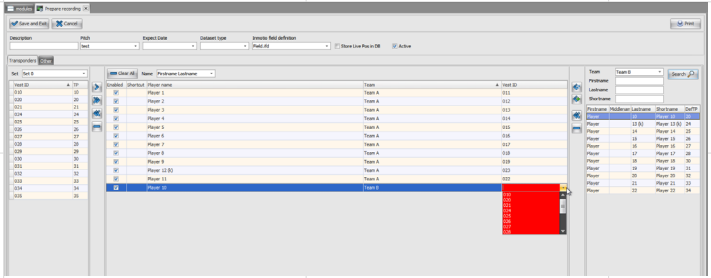
Disconnect the player from the selected transponder.



next

RICH-1502.D6

The list of prepared transponders



Removes all the transponders from the list

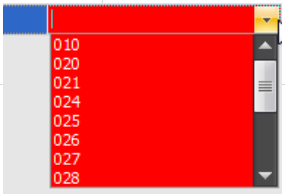
Player name

When adding players to the transponder list this is how the Player's name is created.

When the player is not in the DB you can add him by clicking this button.

Vest ID

Because a transponder is no longer unique on the first 2 digits, It is now called 'Vest ID' so also the 'Set ID' is a member of this value.



Cell 'Vest ID' is mandatory, when it is not filled it is marked red.
Select a 'Vest ID' from the dropdown list.

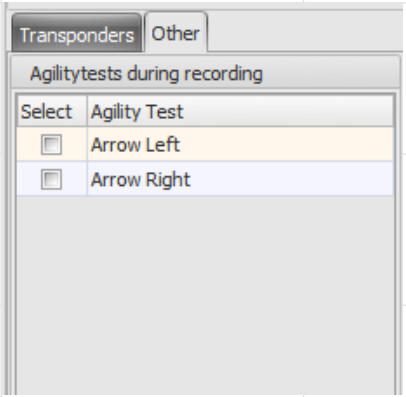
next

RICH-1502.D6

Tab Other

You can select all the agility tests that are going to be played in the training. When doing this, the lines should be defined in the corresponding Inmotio Field definition (see “Track/Field”).

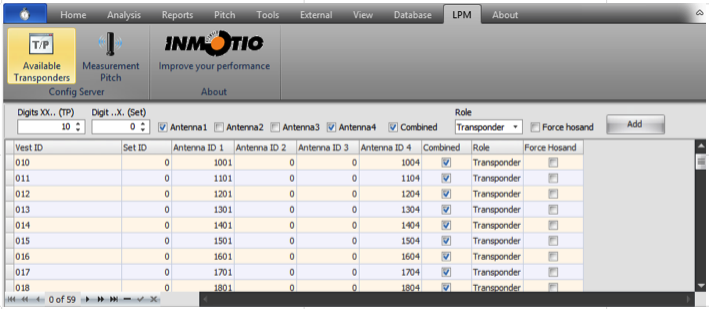
When the agility tests are selected in the preparation, you can see live results during the measurement.



RICH-1502.D6

Adding transponders to the system should be done by adding them to the database.

This is done in ‘imoClient’ at the button **Available Recording** in the section “Config Server” of the Menu Bar, Tab LPM.



Adding transponders to the system

Digits XX.. (TP)	This is the ‘old’ transponder ID.
Digit ..X. (Set)	In some applications this field is called **Field ID**, here it is called **Set ID** because it is not limited to a field.
Antenna checkboxes	If a Transponder has more than 1 antenna, please check all the antenna’s that are in use. We assume a transponder uses the same antenna ID except for the last digit. If in some cases the ID of the antenna differs, you can change it manually in the table.
Checkbox ‘combined’	Meaning the Abatec LPM server combines the AntennaID’s to only Antenna ID 1.
Role	Can be **Transponder** or **Ball**. If ‘Transponder’ it can be added to the Abatec Transponder.ini If ‘Ball’ it will not be added to the Abatec Transponder.ini
Add	The transponder is added and the **Digits XX..** is increased automatically so adding transponders is as easy as pressing the **Add** button until all the available transponders are inserted.

inmotiotec GmbH
local position measurement
Oberregauer Straße 48
A-4844 Regau
Austria

+43 (0)7672 27720-0
+43 (0)7672 27720-401
info@inmotiotec.com
www.inmotiotec.com

Inmotio Object Tracking BV
Hettenheuvelweg 8
1101 BN Amsterdam-Zuidoost
The Netherlands

+31 (0)20 3632 693
support@inmotio.eu
Inmotio: www.inmotio.eu
latest version: http://latestversion.inmotio.eu