

Dartfish User Guide

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Chapter



Tagging Video

1 Tagging Video

Traditionally, reviewing sporting performance on video is a linear process – you play the video and observe the action as it takes place. Of course the fast forward button saves time but finding and replaying important moments in the game or competition essentially remains linear – and slow.

Imagine how useful it would be to be able to mark and label these events on the video as it is recorded? You could later jump between these marks in any order you choose. You could review only the events of interest and choose to see related events: "Let me look at all the times our opposition scored" ceases to be a lengthy process of fast forward and play.

Dartfish's Tagging module doesn't physically mark a tape but instead brings digital video onto the computer and allows you to create a searchable index of the video content. Each event is tagged with not just one label but a set of keywords that really identify what is happening. This process not only lets you search and review these events but compiles match statistics: "Which shot does my opponent most often score with?" is not only a question that can be easily answered, but the relevant shots can be replayed and analyzed.



A short history of tagging

If all this sounds familiar, that is because Dartfish Tagging is a combination of long-used tactical analysis methods:

- Notational analysis - the coach or analyst sits on the sideline with pen & paper ticking off or coding events as they take place in a game. Tagging does this using buttons which are clicked to code events.
- Video indexing - even before digital video, coaches attempted to make it easier to find useful moments in the video of the game by noting the time that they took place. This made it easier to fast forward to that point on the tape but it's easier still with Tagging; the events you code are listed in an index which can be searched and displayed non-sequentially.

Is Tagging just for Team sports?

No. While other Dartfish modules are used for technical analysis of isolated events. Tagging is more about a tactical analysis of the game as a whole while being able to focus on specific moments of choice. It is therefore useful for any sport where these qualities are of interest: Team sports, racket sports, combat sports, skating/gymnastic routines etc.

In this chapter

- [What is Tagging?](#)
- [The Tagging Workspace](#)
- [Creating Tagging panels](#)
- [Tagging video](#)
- [Importing events](#)
- [Review & edit events](#)

- [Filtering and viewing statistics](#)
- [Producing & sharing tagging resources](#)

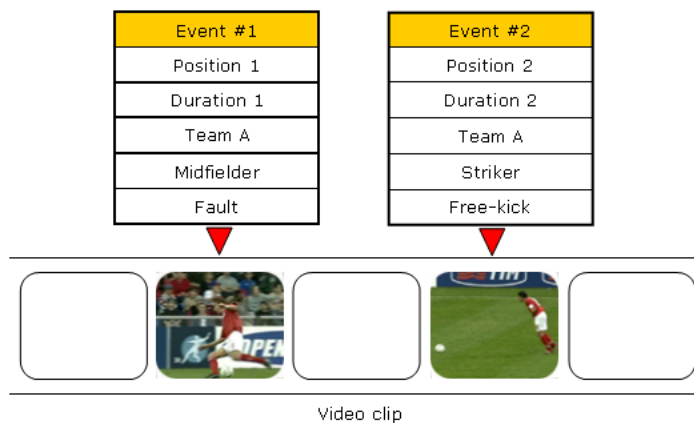
1.1 What is Tagging?

Tagging is the action of creating a video index, a list of **Events** that occur in the video. Consider for example a video that contains a soccer game; the video index could look like this:

Index	Position	Duration	Event Type	Player	Team
Event #1	23 s	7 s	Pass	Defender	Team A
Event #2	1 min 13s	7 s	Free kick	Striker	Team B
...

- The **Position** corresponds to the time in the video when the event occurred.
- The **Duration** is a portion of the video when the events take place.
- Event type, Pass and Team are **Categories**. Pass, Defender and Team A are the **keywords** in each **category**.

An event is fully defined by the **Position**, **Duration** and the **categories' Keywords**. It can be illustrated as follows:



Once you have created your index, you will be able to retrieve particular events. For example, you may want to retrieve events that match the following criteria:

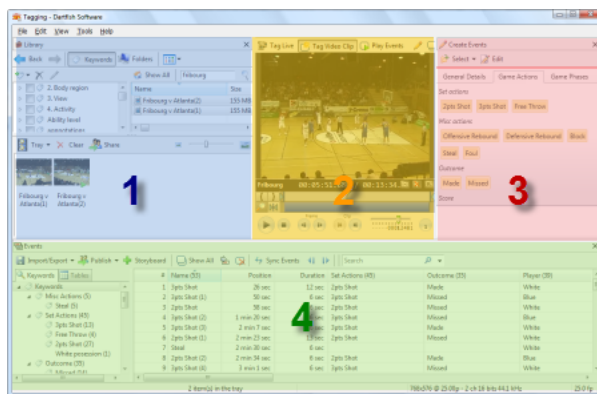
- Team = Team A, i.e. all events of Team A
- Event Type = Pass and Team = Team A, i.e. all the passes of Team A

It is important to be aware that the Tagging module doesn't just tag instantaneous events such as these examples, lengthy sections of video such as a team's ball possession can be tagged at the same time as the passes and free-kicks taking place during that possession.

1.2 The Tagging Workspace

To launch the **Tagging** module, click on the **Tagging button** in the **tool bar**, or select *Tools > Tagging* from the **menu bar**.

The module workspace is illustrated below:



It is composed of four different elements (clockwise from top left):

1. The **Library** (more precisely the Tray of the library), which opens a collection of video clips to be tagged or reviewed.
2. The **Video Panel**, which contains the video display and the different video controls which let you capture and replay video. This also has controls to display and hide the other panels and select the video source.
3. The **Tagging Panel**, which contains a set of buttons and other tools; some of which create a timestamp for each event and others which describe the event with values.
4. The **Events List**, which contains the list of **events**, i.e. your video index. It also has features related to the management of events; editing, searching and import/export functions.

These elements are described in more detail in the remainder of this section.

! When you launch the Tagging module for the first time, the workspace may not look like the one illustrated above. If any of the four elements are not visible they may be displayed by using the Views Bar buttons at the top right corner of the video panel (see [The Video Panel](#))

1.2.1 The Library

It is likely that your tagging analysis will be based on more than one file. Perhaps different periods of the game were recorded as separate video files or perhaps you are reviewing the video of an entire season. Dartfish offers you a simple way of working with as many video clips as you require.



Loading all the clips you wish to analyze into the **Tray** section of the **library** allows you to:

- See **events** from all clips contained in the **Tray**; allowing the events of many videos to be analyzed together.
- Search for **events** from all video clips within the **Tray**.

- View or tag multiple video files as if they were a single clip.

When working with multiple clips, it is useful to know that the video clip highlighted with a green triangle is the one currently being played or tagged and that the **Player's** repeat options can be used to play each clip continuously as a single movie (See Video playback in the Getting Familiar with Dartfish chapter)

1.2.2 The Video Panel

The **Video panel** is illustrated below.



Mode bar

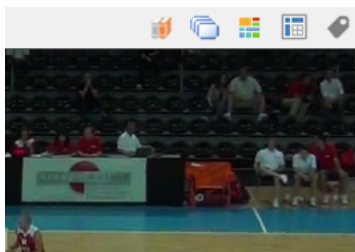


The **Mode Bar** at the top left of the video display enables you to choose between two tagging modes and a video player mode.

- **Tag Live mode** records a video stream, at the same time as allowing you to tag during capture. The screen and the different settings are identical to the **Video Recorder module** (see Video Recorder: capture a video stream in the Video Import chapter)
- **Tag Video Clip mode** allows you to play entire video files that exist on your hard disk. The clips can be tagged during playback
- The **Play Events mode** allows you to play back the selected events from the Events list






These last two modes use the video playback controls illustrated above. Read the section Video Playback of the Getting familiar with Dartfish chapter to learn about the different controls.

Views bar



The Views bar is found at the top right of the video display. Its buttons show and hide the different

parts of the Tagging module. The buttons' functionalities are:

-  show/hide the **Tagging Panel**
-  show/hide the **Events list**
-  show/hide the **Library**
-  show/hide the **Table**
-  show/hide the **Keyword filter**

 *Use the maximized workspace view (keyboard shortcut = F9 to simplify the screen layout then show or hide these features as you need them.*

1.2.3 The Tagging Panel

The Tagging Panel contains the tools to tag (or create the events index) of a video. It is also used to

- Access the **tagging panels** provided with Dartfish
- Open panels created by you or sent to you by others
- Create or edit new panels.



The Panels button

The **Panels button** is used to open tagging panels which you have created or those which you have been given. It also gives access to the built-in panels and to create new panels to meet your specific needs (see [Creating Tagging Panels](#)).

 *Tagging panels are saved as files just like Word documents or Excel spreadsheets. In other*

words, they exist independently of Dartfish software, they can be saved and organized using Windows file management, and can be attached to emails to be shared with others.

The Edit button

Opens the **tagging panel editor**. A **tagging panel** must already be open before the **edit button** can be used.

The tagging panel

Although Dartfish tagging panels allow great flexibility and creativity in how they can be used, the tools on them principally have one of three functions:

1. **Event** tools - used to create events by time stamping the event and assigning it a descriptive value
2. **Keyword** tools - used to add additional keywords to events
3. Grouping tools - used to organize other tools into groups; either to improve the layout visually or ergonomically or to confer shared features on the group

Tagging panels can consist of one or more pages, accessed by **tabs**. **Buttons** and tools for use at different times in the tagging process are placed on different pages to improve the ergonomics of the panel.


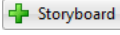

1.2.4 The Events List

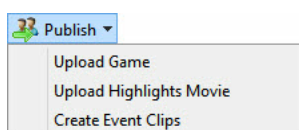
The **Events List** contains the list of all events for all video clips in the current **Tray**:

<div> <div>Import/Export</div> <div>Publish</div> <div>Storyboard</div> <div>Show All</div> <div>Filter events</div> </div>					
#	Name	Position	Duration	Action	Player
1	Non-attacking possession	17 sec	29 sec		
2	Tackle Lost	36 sec	5 sec	Tackle Lost	Ben Taylor
3	Tackle Lost	39 sec	5 sec	Tackle Lost	Guilherme Reis
4	Tackle Lost	40 sec	5 sec	Tackle Lost	Anteneh Lemm
5	Tackle Lost	41 sec	5 sec	Tackle Lost	George Davis IV
6	Foul	43 sec	10 sec	Foul	William Njamer
7	Tackle Lost	47 sec	5 sec	Tackle Lost	William Njamer
8	Aerial Challenge Lost	1 min 11 sec	3 sec	Aerial Challenge Lost	Jean Tshimpaka
9	Aerial challenge won	1 min 12 sec	3 sec	Aerial challenge won	Joseph Prince-V
10	Tackle Won	1 min 15 sec	5 sec	Tackle Won	Andrew Kinnou

Events are selected by clicking on the row containing them. The video **playhead** moves to the start of the event. Double-clicking an **event** both plays it and places Dartfish tagging in its **Play Events mode**.

Selected events may also be:

- Deleted using the **Delete button** 
- Analyzed in Dartfish's **Analyzer** module (**Storyboard button**) 
- Exported as .csv files using the **Import/Export button** 
- Published as new video clips that can be stored on your hard drive (e.g. to make a highlights movie using video editing software) or directly burned onto a CD or data DVD (e.g. to give to team players or coaches), or uploaded to your dartfish.tv channel using the **Publish Events button**.

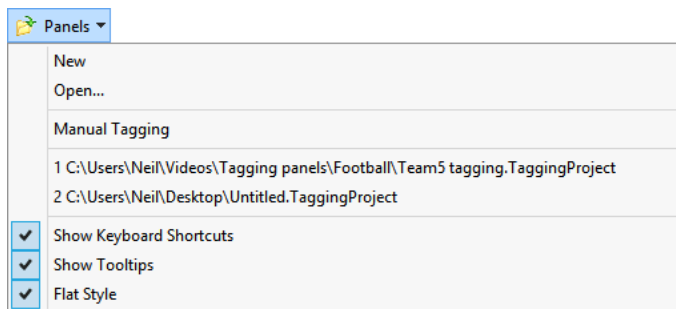


- Sorted by clicking on the **column heading** you wish to sort.
- Searched and filtered. See [Search to retrieve specific events](#) for more details.

1.3 Creating Tagging panels

To create a new **tagging panel**, proceed as follows:

1. Click on the **Panels button** and choose *New* from the context menu.



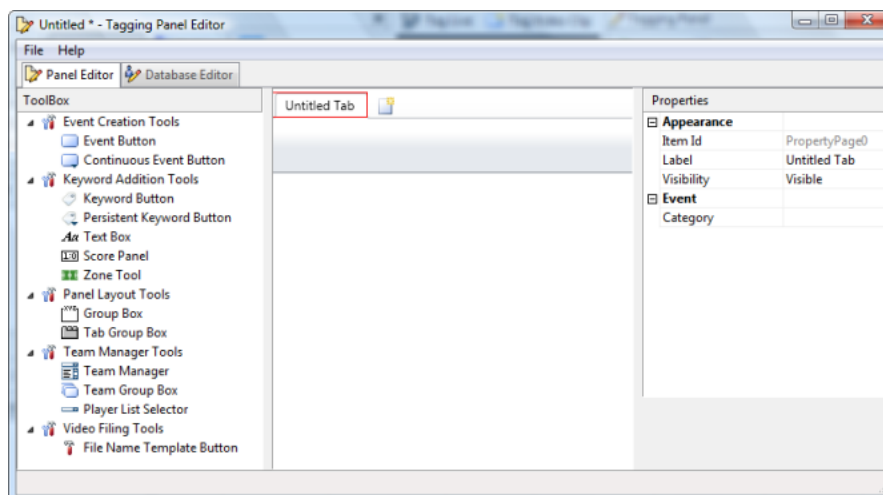
2. Click on the **New Panel icon**



3. Select from the list of new project types. Create a new **Blank Panel** if you wish to start with an empty panel OR base a new panel on one of the built-in tagging panels. This displays the **Tagging Editor window** as shown below

💡 We recommend starting by using one of the Dartfish built-in tagging panels. Change labels and add/delete buttons as necessary for your sport.

The Tagging Panel Editor



The tagging panel editor has 3 sections, (left to right as displayed above):

1. The **ToolBox** contains buttons and other tools used to create and describe **events**. They are added to your tagging panel by drag and drop.
2. The **Tagging panel editor**. This is where the content and layout of a tagging panel is defined. A new blank tagging panel already contains a **tab group box** allowing you to create a multi-page

panel if required.

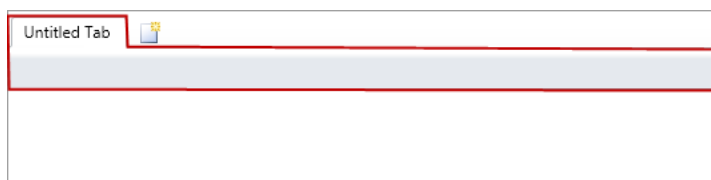
3. The **Properties** pane. Properties are used to define the appearance and actions of tagging panel tools

1.3.1 Adding/deleting/moving/copying tools

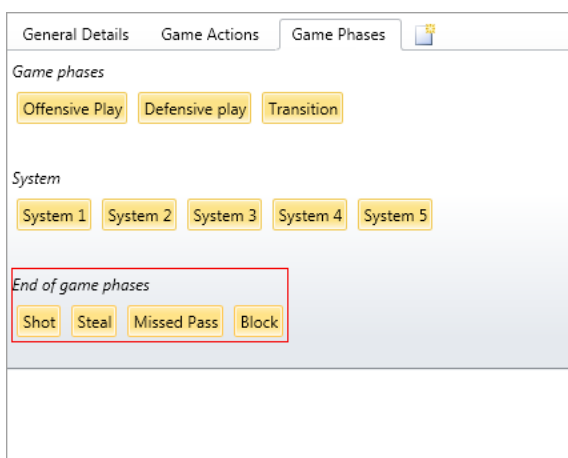
To add a tool to a tagging panel

Items are placed onto the **tagging panel editor** by dragging and dropping them from from the **Toolbox**.

! New panels always have a tabbed group box with a single page, as show below. In order to place the tool on that page, it should be placed in the area denoted by the red line shown here:



Adding subsequent items also requires care, in the image below, new tools should be placed on the gray shaded area if they are to appear on the same page as the other buttons.



💡 If placed below the page then that tool will be visible from all pages.

To move an item

Drag and drop the item you want to move to the new position.

To move a panel layout tool (group boxes etc)

1. Click within the panel layout tool (but not on any button or other tool)
2. A red outline surrounds your selection - use this to identify that you have the correct tool selected
3. Click and drag the panel layout tool to a new location


! It is not possible to move a group box to between other group boxes. Instead it should be moved above or below the other group boxes which can then be shuffled further to achieve the desired position.

To delete an item

Right-click on the item and select *Delete* from the context menu.

To copy an item

Drag and drop the item while holding down the CTRL key on the keyboard. Release the item before releasing the CTRL key.

 *Many tools will have similar properties so creating one button, defining its properties and then copying it can be a very efficient way of creating a tagging panel.*

1.3.2 Modifying properties



Items which have been added to the Tagging Editor have their appearance and function modified by changing properties in the Properties panel. There are two types of properties; properties which can take any value and properties which must take one or more fixed values. The methods for modifying these two types of property are described below:



A complete description of properties can be found in the topic [Properties list](#)

Modifying 'any' value properties.

1. Click on the tool. This will display the **properties** for that item.
2. Click and type in the second column of the **properties list** to add or modify values.

Modifying 'fixed' value properties.

1. Click on the tool. This will display the properties for that item.
2. Clicking in the second column of the properties list will allow you to select a value using the buttons that appear. It is not possible to type values. One of two types of button are used:
 -  - selects or creates **property** values from a dialog box e.g. shortcut key property
 -  - selects **property** values from a drop down list e.g. style property

In the example shown below these buttons are shown as they would appear in the properties panel. Properties such as **Shortcut Key**, **Preroll** and **Trigger** are selected using . Properties such as **Style** are selected using , and properties such as **Category**, **Value** and **Label** are typed.

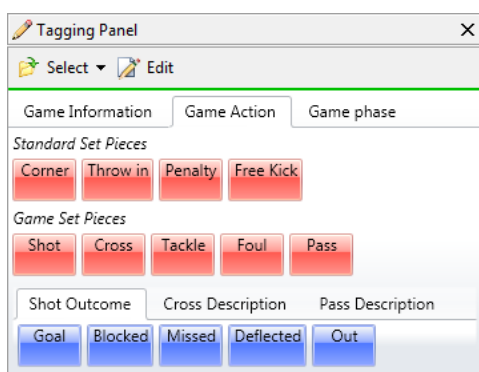
Event Properties	
Appearance	
Item Id	EventButton5
Label	Event
Tooltip	Create an event when the button is clicked.
Shortcut Key	
Image	
Style	Red
Event	
Category	
Value	
Preroll	5 sec
Duration	10 sec
Interaction	
Reset Category	
Trigger	

The shortcut key is the key that should be pressed on the keyboard to trigger the action attached to the item.

 Double clicking the property heading in the column on the left is a shortcut to editing properties.

1.3.3 Planning a tagging panel

Example of a basic **Tagging Panel**:



Which events do you want to tag in your sport?

Creating tagging panels requires a clear idea of what you want to tag and how you want to define the events' **durations** and the **keywords** which describe them.

One definition of an **event** could be "a segment of video". You need to decide what are the different types of video segments that you want to denote. Those events are likely to be key moments or highlights within the video.

Many events in your sport or activity are easy to define but perhaps others are less easy, consider this example:

In soccer, ball possession in the opponent's half is a key moment that might be tagged as an "attacking possession". That possession might end in an attempt to score. So do you want to tag two events (attacking possession and attempt) or one (attacking possession; outcome = attempt)?

There is no right or wrong answer to this; your decision will be based on what you want to review; tagging this as two events gives you the capacity to choose whether to review attempts separately from attacking possessions.

From this example it should also be clear that Dartfish allows you to tag events which coincide or

overlap.

Which of these events have a fixed duration (e.g. actions) and which are of variable duration (e.g. game phases)?

Dartfish can create 2 types of event.

1. Those where the duration can be predicted so only require a single button click to create an event with fixed duration.
2. Those where the duration of is not predictable and is defined by clicking a button on and then off.

! Regardless of how the event duration is defined, it is editable after creation.

How will your events be categorized?

The **events list** is a table made up of rows and columns. Each row contains the **keywords** which describe the event and at the top of each column there is a heading which describes the **category** of information displayed in that column.

When categorizing events you may choose to simply list all events under a single heading such as 'Action' in the example below:

Position	Duration	Action
12 sec	29 sec	Non-attacking possession
32 sec	5 sec	Tackle Lost
34 sec	5 sec	Tackle Lost
35 sec	5 sec	Tackle Lost
37 sec	5 sec	Tackle Lost
43 sec	5 sec	Tackle Lost
44 sec	5 sec	Foul
1 min 7 sec	3 sec	Aerial Challenge Lost
1 min 7 sec	3 sec	Aerial challenge won
1 min 11 sec	5 sec	Tackle Won

Or you may decide that your events fall into different categories such as 'Set piece plays', 'Open play', 'Phases', 'Possessions' etc.

Placing all events into a single category keeps things simple, but using different categories offers flexibility when it comes to filtering the events list and creating statistics.

! It is not possible to simultaneously create multiple variable duration events (i.e. those created using the continuous event tool) with the same category. If this is required, it is essential that different categories are used. For example, Team A might have possession but if there are to be different phases of play within that possession then these events should be categorized differently e.g. 'Phase' and 'Possession'.

How will you describe these events? Events are described by assigning keywords to them.

Creating an event automatically adds 3 keywords; the video **position**, the **duration** of the event plus one user-defined **keyword**. Further keywords can be added to more completely describe the event so you need to consider what additional categories of information are needed. For example: 'Player' and 'Outcome' might be categories of keywords need to fully describe an 'Attempt' event.

What Keywords are required for all events?

It is very common that you will be tagging or reviewing the tags from more than one video file as

described in the topic [The Library](#). In this case the same keyword should be added to all the events of each file to allow you to easily distinguish which events belong to which file.

For example, if you create 2 video files for the first and second half of the soccer game, it would be a good idea to have a category in your events list headed 'Game period', containing the keywords '1st Half' and '2nd Half' to allow you to distinguish between events which took place in the first video file and the second.

Ready to start creating a tagging panel?

Having thought carefully about the questions above, you will have a list of **events** and a list of **keyword categories**. No doubt you have also have some ideas about the keywords which should go into each category. Now you are ready to turn those ideas into a **tagging panel**.

1.3.4 Panel layout tools

Group boxes

These tools organize the layout of a panel by grouping buttons together. So unless you have a very simple tagging panel, group boxes are likely to be the first tools that you will add to a new tagging panel. They have two functions:

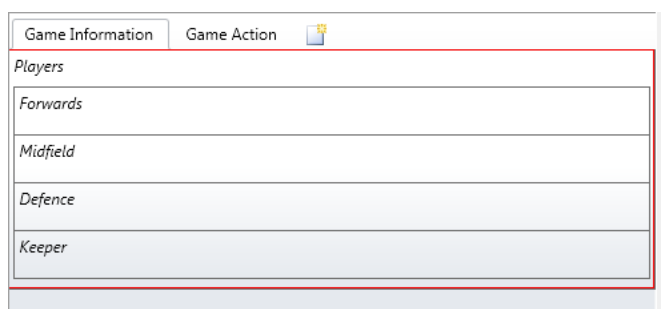
1. To organize the layout of buttons on a tagging panel.
2. To set the **category property** of many buttons simultaneously i.e. tools placed into a group box inherit their **category** from it.

This is an efficient way of ensuring the category property of buttons is not omitted or inconsistently applied. However it is possible to over-rule the inherited category simply by setting the property of the individual tools.

💡 If you have already read the topic [Planning a tagging panel](#), you should have a good idea of what categories your events list requires. Start your new tagging panel by adding a group box for each category and set the category property of each to each one of your categories.

Nesting group boxes

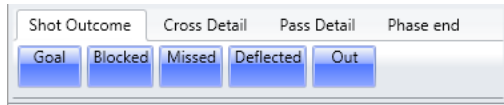
It is possible to place group boxes inside another group box. In the example below, group boxes have been used to organize the layout of players on a soccer pitch.



In this image, 'Players' is the selected **group box** and the red line indicates that it contains the other group boxes. Its **category property** is set to 'Players' therefore the other **group boxes** and any buttons placed in them inherit this.


Tab group boxes

The pages of a **tab group box** each behave like a **group box**, the contents of which are only seen when the tab of that page is selected.



The advantages of a tabbed group box are:

- They are a very space efficient way of including many buttons on a tagging panel.
- Panels can be created to only show buttons which are relevant to the current event; simplifying the panel and guiding the user to appropriate tools.

 *Use the trigger property of a button to automatically select a tabbed group box page. Examples of this method to display relevant buttons as they are required can be seen in most of the built-in tagging panels.*

Adding tabs to a tabbed group box

In the tagging panel editor, new pages are added to a tab group box by clicking the last tab showing the new page icon. The new page displays the label [...] until an alternative label property has been set.

Panel layout tool properties

Property	Description
Label	The text which is displayed on the tab.
Visibility	The visibility property is a way of concealing tagging tools when the user is not required to use them directly. Other tools can be used to trigger the contents of a hidden group box even when not visible.
Orientation	Defines whether the contents of a group box are stacked vertically or placed horizontally within a group box.
Image	An image can be placed as a visual label for the group box. It will be resized to fit next to any text label
Category	The category of a layout tool sets the category of any other tool it contains. Inheritance can be over-ruled by setting the category of individual tools

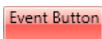
1.3.5 Event creation buttons

Event creation buttons are used to add events to the **Events List**. The action of these tools is to create an event described by:

- **Position** - the timestamp of the start of the event in the video clip
- **Duration** - how long the event last for
- **Keyword** - the event is described by a single user-defined keyword. The event can be more fully described using [Keyword addition tools](#) after the event is created
- **Name** - the filename that will be used if the event is exported as a video clip. This will be the based on the event keyword but can be modified.

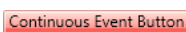
Event buttons

The difference between **Event buttons** and **Continuous event buttons** is how they define the duration. **Event buttons** are used to create events with a fixed duration e.g. a tennis serve might take around 5 seconds to prepare, deliver then witness the outcome. A single click on this type of event button records the event.



Continuous event buttons

Continuous Event buttons are used to create events where the duration cannot be predicted, e.g. a whole point in a tennis game or an attacking phase in soccer. This button is clicked "on" and "off" as the event starts and ends.



Continuous events are also switched off by activating other continuous events with the same **category property**. For example, this allows you to define the change in possession from one team to another with a single click. This improves the ergonomics of tagging but it makes the categorization of continuous event buttons important: if two **continuous events** are to run concurrently then they must have different **categories**.

Important event creation tool properties

Property	Description
Label / keyword properties	These properties define the keyword to be recorded in the events list. Where the keyword property is not set, the label on the button will be used as the keyword. By setting these properties to different values, it is possible to tag a different keyword to the text displayed on the button.
Category property	Defines the column of the events list where the keyword will be added. Without a category property the button won't record its keyword.
Duration	For event buttons only; this is the fixed duration of the event
Preroll	<p>Defines the number of seconds before the button click that will be included in the event.</p> <p>For example when a shot is made, the button is clicked but you want to define the start of the event 10 seconds prior to this in order to see the action leading up to the shot.</p> <p>An event button with a 10 second preroll and a 15 second duration would define an event starting 10 seconds before the button click and ending 5 seconds after.</p>
Offset start	<p>For continuous event buttons only; the equivalent of preroll.</p> <p>A negative value defines the event start prior to the button click and a positive value defines the event start after the button click.</p>
Offset end	For continuous event buttons only; defines the end of the event before or after the button click.

These are the essential event button properties. Other properties are described in the [Properties list](#) topic.

Other event creation tools

The **team group box** tool and the **Zone tool** can be used to create events by setting their **Action property** = event. However, their default action is as keyword addition tools.

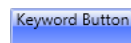
1.3.6 Keyword addition tools

Keyword addition tools are used to add keywords to an event. They do not create events. Keyword addition tools can be one of two types:

- **Keyword tools** - are used after an event has been created to add a keyword to that event only
- **Persistent keyword tools** - are activated before an event and add their keyword as the event is created. They remain active until deactivated and so can be used to add their keyword to many events.

Keyword button

A **Keyword button** assigns an addition keyword value to the last tagged event (or to the selected event in the **Events List**).




Persistent keyword button

The persistent keyword button applies its value to all events which are tagged while it is active ("pressed").



For example, in tennis the name of the server could be assigned to a persistent value button. All events created while that button is active will be tagged with the server's name.

 *Persistent keywords can be very useful when the analysis consists of more than one video file. For example to allow you to differentiate between an event which takes place one minute into the "first half" and another which takes place one minute into the "second half". First and second half are the persistent value buttons in this example.*

Text box

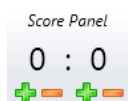
The **text box** tool is a **persistent keyword tool** that assigns a variable keyword based on text typed into the box. For example you might use this to include the name and date of the competition or information about the conditions, as illustrated below:

The screenshot shows a 'Tagging Panel' window with a close button (X). Inside, there are two tabs: 'Game Information' (selected) and 'Game Action'. Below the tabs is a form with three input fields:

Location	Fribourg (away game)
Date	010611
Round	Semi-final

Score panel

The **score panel** is a **persistent keyword tool** that lets you record the current score of the game.



Zone tool

The **zone tool** is used to record where an event takes place based on where an image is clicked. The recorded **keyword** is the coordinates of the clicked position or a **keyword** for designated zones. The **zone tool** is further described in the [Zone tool](#) topic

Important keyword addition tool properties

Property	Description
Label / keyword properties	These properties define the keyword to be recorded in the events list. Where the keyword property is not set, the label on the button will be used as the keyword. By setting these properties to different values, it is possible to tag a different keyword to the text displayed on the button. In the case of the textbox tool, the keyword property can be used to define a default text box entry.
Category property	Defines the column of the events list where the keyword will be added. Without a category property the tool won't record its keyword.

These are the essential properties. Other properties are described in the [Properties list](#) topic.

Other keyword addition tools

The **Team Manager**, **Team Group Box** and **Player List Selector** can also be used to add keywords to events. Their use is described in the topics [Team Manager tool](#) and [Team Group Box and Player List Selector](#)

1.3.7 The Zone Tool

The **zone tool** is used to record where an **event** takes place by clicking a position on an image instead of clicking a button. The keyword it adds can be either numerical coordinates or a user defined keyword or both. The default image is a soccer pitch but can be changed to any image.

Preparing the Zone tool to record coordinates

1. Set the **Image** property: Any image can be used but it is not resized by Dartfish, so it should be created and edited at appropriate dimensions with image editing software before addition to the panel.
2. Define the grid: **Field height** and **field width** properties are used to define a grid e.g. a **field width** value of 3 would split a soccer pitch into three vertical sections or a **field width** = 100 would split an American football field into 1 yard sections.
3. Define the center of the grid: **Field center X** and **field center Y** properties are used to define the coordinates of the center of the grid. When the **zone tool** is clicked, zones to the left or above the central zone record a negative coordinate, zones below and to the right record a positive coordinate. If left at default settings, the origin will be at the top left corner of the image and the grid area at the top left will record the coordinates (1,1)

The image below shows the coordinates which are recorded when a zone tool with field height

and width=3 and Field center X=2 and Y=2:

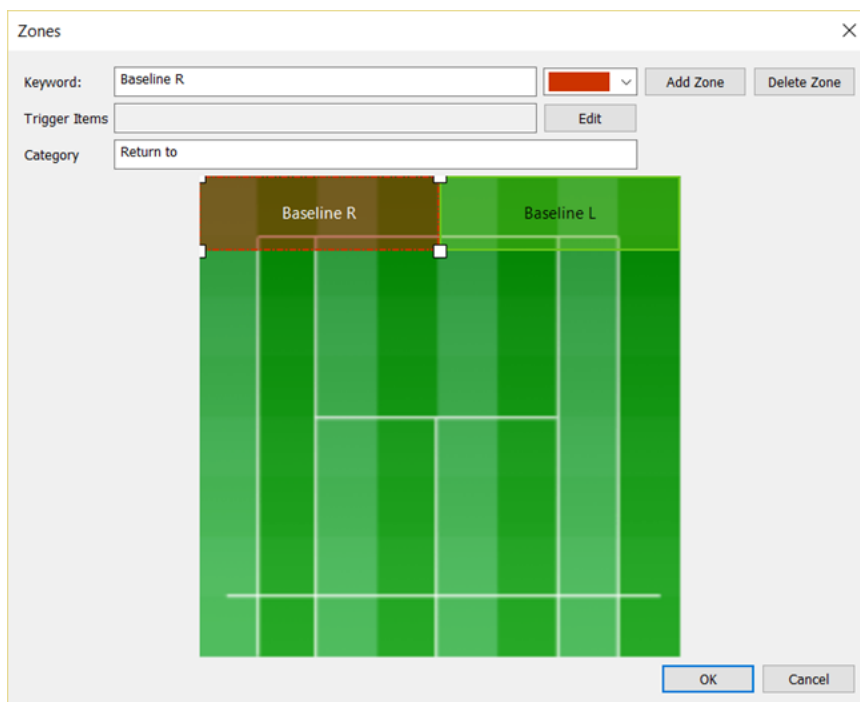


4. Set the category: as with all tagging tools, the zone tool requires a category in order to be able to record its keyword in the events list. The default category is 'Field position'

! Each zone has equal dimensions. For sports with playing areas where the zones are not equal it will be necessary to create a zone tool image which distorts the zones to equal sizes. The grid is not shown. If it is required, it should be defined on the image itself using image editing software.

Preparing the Zone tool to record text keywords

1. Set the **Zones** property; a new window appears
2. Click the **Add Zone button**
3. Position the new Zone using drag & drop with the mouse
4. Drag the sizing handles in each corner of the zone to define the area
5. Define a **Keyword** property for the zone - this is what will be recorded in the events list when the zone is clicked
6. Define the **Category** property for the Zone. By default this will be the same as the category property for the Zone tool. It is possible to override this if a different category is to be used



7. Repeat for other zones

! If zones overlap, the keyword of the topmost zone will be used

Recording both coordinates and text keywords

- When no text keyword zones are defined coordinates are recorded in the Events List in the column defined by the **Category** property.
- When text keyword zones are defined, coordinates are no longer recorded.
- To record both, set the **Coordinates Category** property. Doing so creates a new column in the Events List where coordinates are recorded.

Event creation tool or keyword addition tool?

By default, the zone tool is a keyword addition tool. It can alternatively be used to create events. To do this set the **Action property** to 'Event' and define **Preroll** and **Duration** properties as for an event button.

1.3.8 Team Manager tool

If you have many players or several different teams to tag, you can use the **Team Manager** to manage a database of all teams and player names, then select only those players taking part in the game. The selected players can be represented on the panel by linking the following tools to it, using their **Team Manager Link property**:

- A **Team Group Box** tool - displays buttons representing each player selected in the Team Manager. See [Team Group Box](#) topic
- A **Player List Selector** - a team and up to ten players can be selected from lists produced by the Team Manager's database. Selections can be used as persistent keywords or linked to the keyword property of other tools. See [Player List Selector](#) topic.

Preparing the Team Manager tool

Very little needs to be done with the **team manager** during tagging panel creation. Simply add it to your panel; teams and players will be added after closing the editor.

Setting the **category property** for the team manager is optional. If it is set then a keyword representing the selected team will be recorded when a player button is clicked.

Team Manager databases


The teams and players that you add to a **Team Manager** tool are stored in a database file which is created automatically in the same folder and with the same name as the tagging panel. However, you may want to use a database previously created by you or another Dartfish user.

Use the **Database Editor tab** of the tagging panel editor to select the database file that you wish to use.

Each **tagging panel** can have only one **database** but have many **team managers** enabling selection from different teams and players.

Adding teams and players

Teams and players are added outside the editor as described in the topic [Using the Team Manager](#)

 *To simplify the layout of a tagging panel it is usually best to put a team manager on a separate page of your tagging panel from the team group box and other tagging buttons. During*

tagging, most activities will not require frequent access to the team manager; perhaps only before the start of the game.

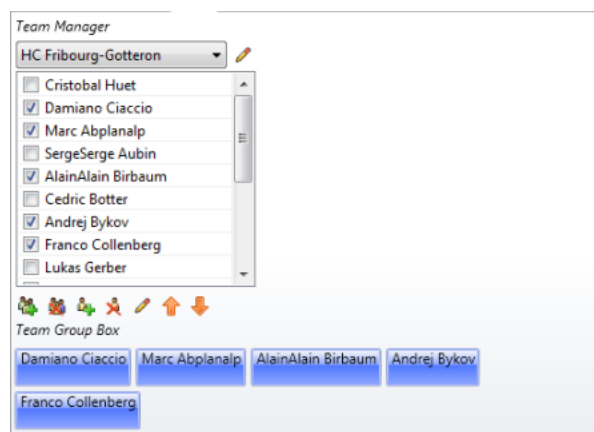
Important Team manager properties

Property	Description
Label	Using a label helps to identify a team manger. This is useful when linking it to a team group box or when more than one team manger is being used.
Category property	The category property is not an essential property for a team manager. If used then a keyword representing the selected team will be added to the events list.

These are the main properties to consider. Other properties are described in the [Properties list](#) topic.

1.3.9 Team Group Box

A Team Group Box is a group box to which buttons are added by selecting players from a linked [Team Manager](#) as illustrated below. When there are many potential players which you may choose from, it enables you to display only the buttons required .



Team group box buttons can add keywords or create events

Team group box buttons are **Keyword** buttons by default. Set the **Action property** to define whether the buttons function as **keyword buttons**, **persistent keyword buttons**, **event buttons** or **continuous event buttons**.

For example, a **persistent keyword button** might be used to tag the 'Server' to all the events created in a tennis game whereas **event** or **continuous event** buttons might be used to tag player possession in soccer.

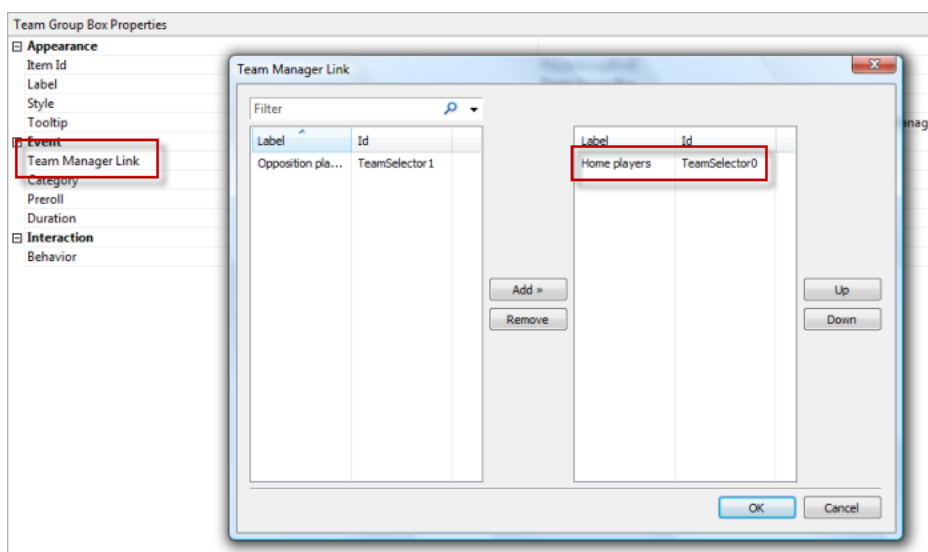
Linking to a Team Manager

A Team Manager tool must be linked to a **Team Group Box** or a **Player List selector** tool which will display the selected player names. To do this, proceed as follows:

1. Select the **team group box** or **Player List Selector**.
2. Double click the **Team Manager Link property** to display the property editor window (as shown

below).

3. Select the **Team Manager** to be linked; it is identified by its label and Id.
4. Click the **Add button**. The Team manager on the right is that linked to the team group box.



! Buttons are not added to the Team Group Box in the tagging panel editor. They are added by selecting players from the Team Manager on the completed tagging panel. This allows players to be added or removed during the game.

Important team group box properties

Property	Description
Team manager link	Establishes a link to a team manager and its database of teams and players.
Category property	Defines the column of the events list where the keyword will be added. Without a category property the tool won't record its keyword.
Action	Defines the button type used in a team group box. The default setting is keyword button but buttons can also be event buttons, continuous event buttons or persistent keyword buttons.
Duration/Preroll	If buttons are event buttons, duration and preroll properties should be set to define these features of the event. See the topic Event creation buttons to learn more about these button types.

These are the essential properties. Other properties are described in the [Properties list](#) topic.

1.3.10 Player List Selector

A **Player List Selector** may be used for several outcomes:

- To add a selected player's name as a **persistent keyword** to events
- To add multiple player's names as a **persistent keyword** to events
- To add a player's name to the keyword recorded by another tool by referencing the **Player List Selector** from the **keyword property** of a button (see [Using variable keywords](#))

Preparing a Player List Selector to record a player's name as a persistent keyword

Red contestant	GB Taekwondo	Ruebyn Richards
Blue contestant	Switzerland	Paco Cerletti

1. Set the **Category** property for the **Player List Selector** e.g. in the example above, the category "Red Contestant" might be used for the first Player List Selector.
2. Set the **Team Manager Link property** to link the **Player List Selector** to a **Team Manager** tool

Preparing a Player List Selector to record multiple players' names as a persistent keyword

Suisse			
Players	Johann BERNOULLI	Max FRISCH	H. R. GIGER
	Daniel BERNOULLI	Gottfried KELLER	

1. Set the **Number of Keywords** property to the number of players required e.g. in the example above, the number of keywords = 5
2. Set the **Category property** for the Player List Selector e.g. in the example above, the category "Players" might be used
3. Set the **Team Manager Link** property to link the **Player List Selector** to a **Team Manager** tool (see the topic [Team Group Box](#) for more information on how to do this)

When the **Player List Selector** is used in this way, a single keyword is recorded, listing each player separated by a semicolon (;)


Player
Johann BERNOULLI;Max FRISCH;H. R. GIGER;Daniel BERNOULLI;Gottf...

Preparing a Player List Selector to be referenced by another tool

The **Player List Selector** can also contribute the selected player(s) names to the **keyword** property of another tool, an **Event button** for example. In this case, the **Player List Selector** would be prepared as in either of the examples above BUT setting the category property is not required. To learn more about this, see the topic [Using variable keywords](#).

Adding players to a Player List Selector

Players are added using the [Team Manager tool](#)

 *When you wish to define or describe the actions of a team of players, consider whether the Team Group Box may be a better choice of tool. It uses buttons rather than lists.*

Important Player List Selector properties

Property	Description
Team manager link	Establishes a link to a team manager and its database of teams and players.
Category	Defines the column of the events list where the selected player will be added as a keyword
Number of keywords	Up to 10 players can be selected from one team
Sort Items	Defines whether players are listed alphabetically or in the order in which they appear in the Team manager


These are the essential properties. Other properties are described in the [Properties list](#) topic.

1.3.11 The Filename Template tool

The **Filename template** tool enables tagging panel creators to control the **file name** used to save recordings made when using live tagging. When the user clicks the button it sets the file name for the next video recording.

To use a filename template:

1. Add a **filename template tool** to the tagging panel
2. Set the **label property** to indicate the function of the button
3. Set the **File Name Template property** to the desired file name

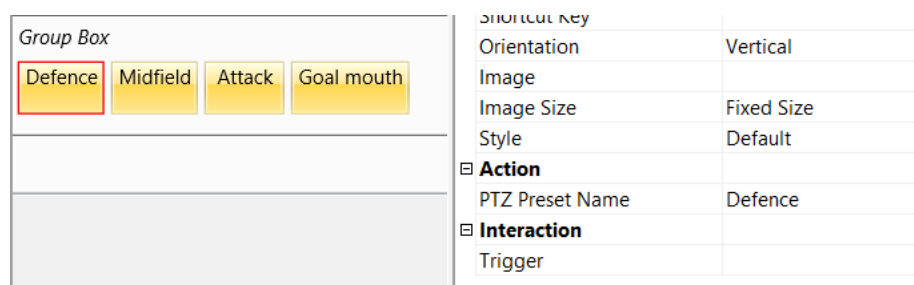
 *The file name template property can be set to a variable value based on the selection from a Player List Selector tool. See the topic [Using variable keywords](#) to learn more.*

1.3.12 PTZ move button

This button is used by those who are using network cameras with pan-tilt-zoom (ptz) functionality. The PTZ move button is used to select preset camera positions.

To use a PTZ move button


1. Define position presets on your camera
2. Set the **PTZ preset name property** of the button to the PTZ preset to be used, as shown in the image below.



Important team PTZ move button properties

Property	Description
Label	Information for the user to identify the button
PTZ preset name	Defines the camera preset which will be selected when the button is clicked. The values entered must correspond with those created on the camera

These are the essential properties. Other properties are described in the [Properties list](#) topic.

 *The trigger property can be used to activate other tools and vice versa e.g. when a 'corner' button is clicked on a soccer tagging panel it could trigger the 'goal mouth' PTZ move button.*

1.3.13 Properties list

By clicking on any item on the **tagging panel editor**, its **properties** are displayed in the **Properties pane**. The properties of each tagging panel element are used to alter their appearance and behavior.

Most tools have three crucial properties which you should set:

1. **Label** – the text that identifies what this tool does.
2. **Keyword** – the keyword that will be assigned to the event (same as label by default)
3. **Category** – the category to which the keyword will be assigned. Think of the **category** as being the **column heading** of the **Events List** in which **keywords** will appear. (see [Planning a tagging panel](#) for help to plan the categories that you need).

Properties which alter appearance:

Property	What it does...	Applies to...
<i>Label</i>	Sets the text that is displayed on the item	All
<i>Tooltip</i>	The tooltip is the explanatory text that appears when the mouse cursor is pointed at a button. Use this to explain the function of each button.	All event creation and keyword addition tools
<i>Image</i>	An image can be displayed on a tool to help identify the event or value that it represents. As the Zone tool is based on clicking an image, this property is essential.	Buttons, group boxes, zone tool
<i>Orientation</i>	For a button this defines whether the image is displayed above or to the side of the label. For a group box this controls whether buttons are laid out vertically or horizontally.	Buttons, group boxes
<i>Style</i>	Sets the color of a button	Buttons
<i>Label size</i>	Makes the text on the button bigger or smaller to improve readability, reduce space or to make buttons bigger for touch screen tagging	All tools with a label property

<i>Label style</i>	Makes the text on the button bold to improve visual ergonomics or to make buttons bigger for touch screen tagging	All tools with a label property
<i>Show label</i>	Defines whether the label is visible or not	Buttons
<i>Margin</i>	Defines whether additional space is added between labels and the edge of buttons. Remove the margin to make buttons require less space	Buttons
<i>Image size</i>	There are two possibilities: the image is a fixed size limited by the size of the button or it is the size of the original image	Buttons, group boxes
<i>Button size</i>	Used to define whether all buttons have variable width based on the label size, or the same width, based on the widest label	Group boxes
<i>Visibility</i>	Defines whether a group box and its content are visible. This may be used to hide tools which will be triggered automatically by other buttons. Or, simply to suppress the display of buttons rather than deletion when not required	Group boxes


Properties which affect behavior:

<i>Category</i>	<p>The category property defines the events list column into which a tagging tool's keyword will be placed.</p> <p>Each tool inherits its category property from the group box in which it is placed. It is therefore an efficient way to categorize buttons of the same category by placing them in the same group box. Override the inherited category by setting the category property for individual tools.</p>	All
<i>Keyword</i>	Defines the keyword which will be used to describe the event in the events list. For buttons, the keyword will automatically set to the same value as the label property, however it is possible to record a different keyword if desired. For example, the label might be an abbreviation of the keyword.	All event creation and keyword addition tools
<i>Preroll</i>	Defines the time before an event creation tool is clicked that will be included in the event. Preroll ensures that you don't miss the start of the action.	All event creation tools
<i>Duration</i>	Duration is the duration of the event that will be tagged when this button is clicked. This time includes any preroll that has been set. If the event is not of fixed duration then a <i>continuous event</i> button should be used to manually mark the beginning and end of an event.	All fixed duration event creation tools
<i>Offset</i>	Offset Start - the amount of video before	Continuous Event

<i>Start</i>	or after a <i>continuous event</i> button being clicked on that will be included in the event. This ensures that you don't miss the start of the action. If a negative number is used, the start of the event is set before the tool is triggered, if positive it will be afterwards	Buttons
<i>Offset End</i>	Offset End – the amount of video before or after a <i>continuous event</i> button being clicked off that will be excluded at the end of an event. If a negative number is used, the end of the event is set before the tool is triggered, if positive it will be afterwards	Continuous Event Buttons
<i>Target</i>	Defines where the keyword typed into a text box will be applied: Event category - the keyword is added to the events list Video clip category - the keyword is added to video clips captured with live tagging and appears in the Dartfish library	Text box
<i>Event color</i>	Color codes events. Color coding is used to help distinguish events from each other in the events list and also on dartfish.tv after publishing games or highlights movies	Event buttons
<i>Action</i>	Defines the button type of a team group box. The default is for a team group box to contain keyword buttons but this property can be used to select any button type.	Team group box
<i>Description</i>	Used to automate the addition of a description to the description field of the events list. The description field is used to annotate events with free text description and is particularly intended to add information to events being published to dartfish.tv	Buttons
<i>Team Manager Link</i>	Used to link a Team Group Box to a Team Manager tool.	Team group box, Player list selector
<i>Number of keywords</i>	Used by the Player list selector to define how many players can be selected	Player list selector
<i>Field width, field height, field center X, field center Y</i>	Used by the zone tool to define the layout and coordinate map of the zone grid. See The Zone Tool	Zone tool
<i>PTZ preset name</i>	Used by the PTZ Move button to identify the IP camera preset to activate	PTZ move button

Properties used to automate tagging (see [Automating tagging](#))

<i>Item Id</i>	A unique identifier for each tool. It is used to identify tools in macro scripts and when setting trigger properties	All
<i>Shortcut Key</i>	Rather than clicking buttons on a tagging panel, using the keyboard Shortcut Key property for event or value buttons can be much more efficient. Note that these shortcuts are displayed in parentheses in each button	All event and value tools
<i>Reset Category</i>	Tools with a reset category property can be used to deactivate other continuous event or persistent value tools. When this tool is clicked, all other buttons using the category specified are reset.	All buttons
<i>Trigger</i>	The trigger property is a list of one or more tools that can be activated when this button is clicked.	All buttons
<i>Visibility</i>	This property is used to hide a group box and all its contents. Used when the action of the hidden tools will be defined by the tagging panel creator and shouldn't be modified by the user or when it will be triggered by other buttons.	Group boxes
<i>Game Time</i>	Used to control a Game Timer. See Using the Game Timer	All buttons

 Clicking on a property title in the properties panel displays a description of that property. Double clicking on the property title allows you to change that property.

1.3.14 Automating tagging

Large tagging panels with many buttons present two problems to the user:

1. Many mouse clicks might be required to record an **event**, making it hard to keep up with a fast moving game
2. It becomes more difficult to locate the buttons you want to use.

This topic explains properties and features which assist with these problems

Reset Category property

Tools with a **reset category property** can be used to deactivate other **continuous event** or **persistent keyword buttons**. When the tool is clicked, all other buttons with the specified **category** are reset.

This behavior is equivalent to that of **continuous event buttons** (see the topic [Event creation buttons](#)) which automatically deactivate all other **continuous event buttons** sharing the same **category**, except that the **reset category property** can deactivate buttons from any other category that you specify.

! Be careful with spelling and use of spaces - the reset category you specify must match the category of the tools that you wish to reset. However the case used is unimportant.

Trigger property

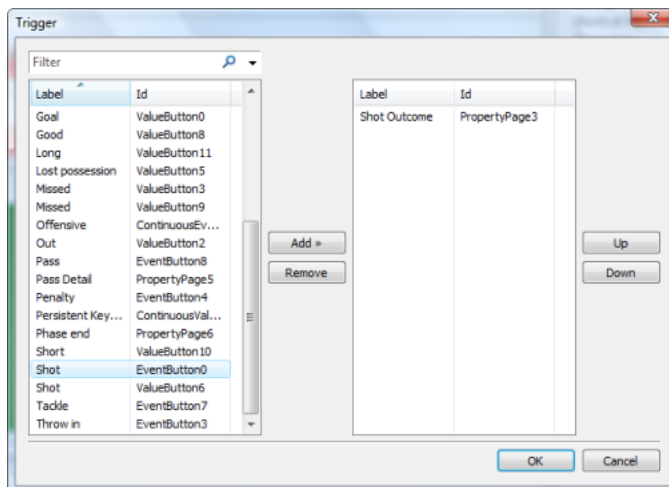
The **trigger property** is used to activate or deactivate other tools. This property specifically identifies which tools will be triggered by selecting them from a list.

Examples of the use of the **trigger property** can be seen in some of Dartfish's built-in tagging panels where clicking an event button triggers a page of a **tab group box** revealing **keyword buttons** associated with that event.

For example, when a scoring event is tagged the **trigger property** could be used to activate the **tab group box** which contains a **score tool**.

To set a trigger property:

1. Select the tool which will trigger other tools.
2. In the **properties panel**, double-click the property heading **Trigger**
3. In the trigger dialog (see below) select the tool(s) which will be triggered. Tools are identified by both their label and Id; be careful to select the correct tool in the case where more than one tool has the same label
4. Click the Add button
5. Repeat as often as required to create a list of tools which will be triggered
6. Use the Up and Down buttons to specify the order in which tools will be triggered

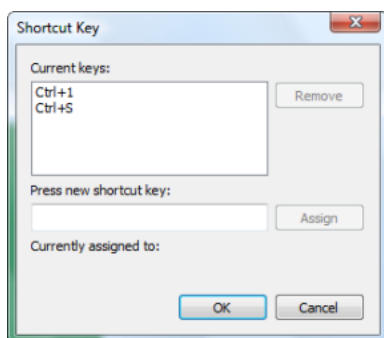


Shortcut key property

Shortcut keys are used to **trigger** buttons without having to use a mouse. This can be useful because once you know which keys to press tagging can be much quicker.

To set a shortcut key:

1. In the properties panel, double-click the property heading **Shortcut key**
2. Type a key, or combination of keys, on the keyboard
3. Click the **Assign button**. This must be done before clicking **OK**



! As you can see here; more than one shortcut key can be assigned; and any combination of keys can be used e.g. 'S' might be used for a home team shot and 'ctrl+S' might be used for an opposition shot.

1.3.15 Using variable keywords

A simple macro can be used to generate a variable keyword or category for a tagging tool.

Syntax

\$(Item_Id.property[#])

Example: \$(teamlistselector0.keyword1)

- **Item_Id** is a unique identification which can be found in the first row of the **properties list** of any tool. Here, it can only refer to a **Player List selector**
- **Property** can be either "keyword" or "category". When **keyword** is used, the player selected from the **Player list selector** is the variable keyword generated. When **category** is used, the team is the variable keyword generated
- **#** is a number from 1 to 10 which represents which of up to 10 keywords it is possible to select from a **Player List selector**. This is optional, if omitted it is assumed to be 1 and refers to the first keyword.
- Text and macros can be combined together to create the desired result, as shown in the examples below

Limitations

- Only **keyword** and **category** properties can be set with a macro. The exception to this is the **Filename Template Button** which can also have its **Filename template property** set.
- Only a **Player List Selector** can be the source and only its **category** or **keyword** can be referenced.

Example 1 - Personalized event buttons

In the following example, a macro is used to personalize the keyword property of the event buttons:

Tagging buttons

Player actions

Team Dartfish player Pro players Pascal Binggeli

Opposition player Pro players Serge Ayer

Winners and Errors

Team Dartfish Winner Team Dartfish Error Opposition winner Opposition error

#	Position	Duration	Player actions
1	5 min 39 sec	10 sec	Winner Pascal Binggeli
2	10 min 55 sec	10 sec	Error Pascal Binggeli

The macro used to record these keywords in the above events list is, for example:

Keyword = Winner \$(TeamListSelector0.Keyword)

Result = Winner Pascal Binggeli

Example 2 - Filename Template tool

Continuing the example above, if a **filename template tool** (see the topic [The Filename Template tool](#)) has the following macro for its **Filename template property**:

keyword = Semi-final \$(TeamListSelector1.Keyword) versus \$(TeamListSelector0.Keyword)

result = Semi-final Serge Ayer versus Pascal Binggeli

1.3.16 Recording time of day

Events are time stamped with video position. You may also wish to record the time of day with an event. This can be done by including a simple macro script in the **Keyword property** of a button

Syntax

\$(WallClock)

For example, the Keyword property 'Goal \$(WallClock)' would record a keyword such as 'Goal 15:32:25'.

If, in the above example, you wished 'Goal' and '15:32:25' to be recorded as separate keywords, two buttons would be required; perhaps an Event button with keyword 'Goal' and a Keyword button with keyword \$(WallClock). In order to reduce the number of clicks required, the Event button should trigger the Keyword button.

1.3.17 Recording game time

Events are time stamped with video position. You may also wish to record the match or game time. This is the time . This can be done by including a simple macro script in the **Keyword property** of a button

Syntax

\$(GameTime)

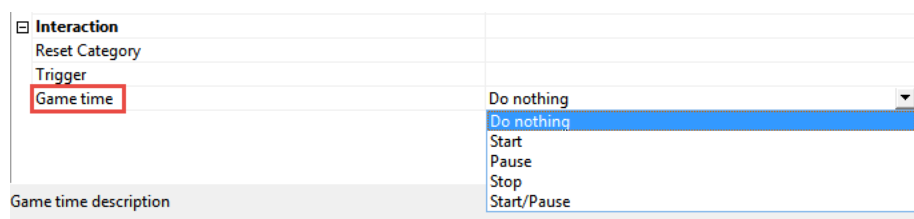
For example, the Keyword property 'Goal \$(GameTime)' would record a keyword such as 'Goal 15:32:25'.

💡 If, in the above example, you wished 'Goal' and '15:32:25' to be recorded as separate keywords, two buttons would be required; perhaps an Event button with keyword 'Goal' and a Keyword button with keyword \$(GameTime). In order to reduce the number of clicks required, the Event button should trigger the Keyword button.

Game Timer

To effectively use the \$(GameTime) script you must also display and use the **Game Timer** to set the current game time, allow for breaks in play etc (see the topic [Using the Game Timer](#))

In addition to the Game Timer's controls, it may also be controlled using **Event** or **keyword buttons** on the tagging panel by setting their **Game Time property**. Use the button to execute one of the actions shown below:



1.3.18 Saving Tagging Panels

To save your tagging panel:

Select **File > Save** (or **File > Save As...**) from the **menu bar** of the **Tagging Panel Editor** window.

! It can be seen from this process that tagging panels are saved as files, stored independently of Dartfish software and the video file(s) being tagged. Therefore the important factor in choosing a file name and location for a tagging panel is simply that the user knows where to locate it.

Distributing tagging panels

Because a **panel** is saved as a file it can be easily distributed to other tagging users, however the following items should also be distributed if they have been used in a panel:

1. The **tagging database** - if a team manager tool has been used a database file will have been created with the same name and in the same location as your tagging panel. It will have the following icon:



2. **Image files** - any images included on your tagging panel are referenced as external files

1.4 Tagging video

In essence, the basic tagging process is simple; you see an event, you click an **event button** then you click **keyword buttons** to add further details. The features that you might find on a tagging panel are described in this section (see [Using tagging panels](#))

Tagging can be applied in the following ways:

- [Tag Live](#) - use this mode if you want to tag the action directly from a video stream, either as it happens or from a tape recording (play back mode). In either case you will be tagging and capturing video to your hard drive simultaneously.
- [Tag Video Clip](#) - use this method if the video clip is already on your computer. In this case, your task is to playback the video clip, locate an event and tag.
- Mixed tagging - you do not always have time to fully and accurately define events as they happen, or you may miss events. In this case, you are able to combine Tag live and Tag Video Clip by playing back the video clip and editing/adding events after the game.

The result is a list of **Events** (displayed in the **Events List**, see [The Events List](#)) which can be played individually or in sequence.

Events can also be created by importing them from "character separated value" (CSV) files created by other applications, e.g. sport specific statistical tools or the Dartfish Note App for smartphones and tablets (see [Importing events](#)).

1.4.1 Using tagging panels

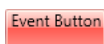
Opening panels

Access to tagging panels is described in the topic [The Tagging Panel](#).

Tagging tool and feature summary

Below is a summary of tagging tools that may be found on a tagging panel. However, Dartfish tagging panels are highly variable and versatile, if the use of the tagging panel you use is not obvious it may be necessary to ask for instruction from its creator.

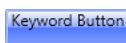
Event button - clicked once to create an **event** with a fixed **duration**. Default color red.



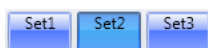
Continuous event button - appearance identical to **event buttons** but when clicked, it remains activated until clicked a second time. Used to tag events of unknown **duration** such as possession or phases of play.



Keyword button - keyword buttons add **keywords** to **events**. They are not used to create events. Default color blue.



Persistent keyword button - appearance identical to **keyword buttons** but when clicked, it remains activated until clicked a second time. Used to add a **keyword** to many events. Must be activated before events are created and remains active until clicked a second time.

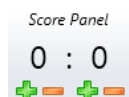


Text box - a **persistent keyword tool** which adds of a variable keyword to events as they are

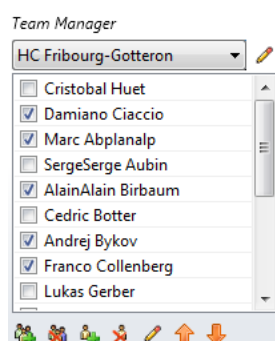
created.

Match description	French open 2012 fin
Player	Andy Murray
Opponent	Roger Federer

Score panels - a persistent keyword tool which adds the current score to events as they are created.



Team manager - Displays a variable set of tagging buttons in a **Team Group Box** or a set of teams and players in a **Player List Selector** according to which team and players are selected. Has buttons to enable addition of teams and players.



Player List Selector - adds a **persistent keyword** based on the player selected.

Red contestant	GB Taekwondo	Ruebyn Richards
Blue contestant	Switzerland	Paco Cerletti

Tab group box - used to simplify the layout of a panel by grouping related buttons together. Click the tab to see the buttons; often selection of a tab is automated by the action of another button.

Zone tool - records the coordinates of where the image is clicked. Can be either used for event creation or keyword addition.



File name template tool - used to set the filename of recordings made during live tagging.

1.4.2 Tag Video Clip mode

Use this mode to tag video files already existing in the **library** - it has been imported from the camcorder or other storage media. Tag video clip mode is selected by clicking the button at the top left of the video display.



Tagging a video clip principally consists of these steps:

1. Loading all the video clips to be tagged into the **Tray** (see the topic [The Library](#) in the Tagging workspace section)
2. Selecting **Tag Video Clip** mode
3. Finding the relevant **position** on the video clip (see below).
4. Tagging an event in the video clip by clicking on an **event button** on the **tagging panel**.
5. Adding further **keywords** to that event by clicking on **keyword buttons**.

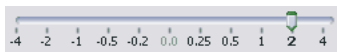
Finding the relevant position

Compared with [Live tagging](#) where events must be created in real time and in order, tagging a video clip allows the user greater flexibility. There are many ways to quickly navigate the video clip find the positions where events take place:

- Drag the **playhead** to quickly position the video clip. Watch the time information next to the playhead as you drag it. It can help you position the video if you approximately know when an event took place.



- Use the **speed control** to fast-forward and/or fast-rewind the video. To do this, set the speed to values greater than 1 (or -1 for fast-rewind) and play the video. Whenever you see an event, either click on an **event button** or **pause** the video first, and then select the appropriate buttons to tag the event.



- Position the **playhead** to a previously tagged event and continue tagging from there. The way to do this depends on the tagging mode being used:

In **Tag Video Clip mode**, click the event once to move the playhead to the start of that event

In **Play Events mode**, double click the event then switch back to **Tag Video Clip mode** to continue tagging. The playhead remains at the position of the selected tagged event.

💡 When the action is too fast to tag as the video plays, the video can be quickly paused by tapping the space bar on the keyboard. Now add tags before tapping the space bar a second time to resume playback.

1.4.3 Tag Live mode



Tag live mode allows you to tag while recording video from a live video stream. This allows tagging to take place during the game and be ready for analysis immediately afterward. **Tag live mode** is selected by clicking the button at the top left of the video display (see [The Video Panel](#)).




The Tag live interface

The interface is identical to the **Video Recorder** interface: Read the section Video Recorder: capture a video stream in the Importing video files chapter to learn how to use it.

Tag live process

1.  Click the **Record button**. The video clip starts being captured to your hard disk. The live feed is displayed in the **Video display**. In tag live mode it is not possible to tag without first starting to record.
2. Tag an event by clicking an **event button** on the **tagging panel**.
3. Add further **keywords** to that event by clicking on **keyword buttons**.
4.  Click **Stop Recording** at the end of the game. A new clip is saved on your hard drive and a thumbnail appears in the **Tray**.

 *It takes practice before you are able to accurately tag all events as they happen. Start simply by tagging "important" events without adding too many additional values. Read the section [Review & edit events](#) to see how you can edit and/or add events after they have taken place.*

1.4.4 Time shifted recording and Live Delay

Time shifted recording allows you to review earlier parts of the recording while continuing to record. This is possible when the video source provides a DV, HDV, M2TS, MP4 or H.264 video stream.

To use Time Shifted Recording

When recording in [Tag Live mode](#), you may:

- Click the **time line** to move the **playhead** to that point of the recording
- Select an **event** from the events list to view it
- You may also use the replay controls to navigate the recording e.g. by using the jog wheel.

Ending Time Shifted Recording

To return to 'live' view of the video feed from the camera, click the **Live button**



Live Delay

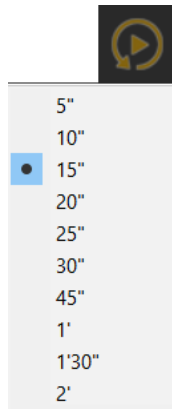
Live delay is a special instance of Time Shifted Recording initiated by clicking the Live delay button:



This moves the Playhead to a pre-defined position before the end of the recording. Tagging with Live Delay allows you to watch the live action, make decisions on how best to tag it, then tag the delayed video when it appears on your PC screen some seconds later.

Configure the required amount of delay by right-clicking the Live Delay button and choosing a delay

interval:



1.4.5 Videoless tagging with Note Pro

The **Note Pro module** is available with the TeamPro editions of Dartfish and it provides an alternative tagging method which does not require the presence of video. Instead of time-stamping events by a position in a video, a timer is used.

Note Pro creates a **Notebook** file, the events from which can be imported into a video file using the **Tagging module** OR can be opened in Note Pro to view content and create frequency tables.

In providing videoless tagging, Note Pro fulfills a similar role to the **Dartfish Note** mobile app but with the benefit of the more sophisticated tagging panels of Dartfish.

Opening panels

Your first step is to create or open a tagging panel. Access to tagging panels is described in the topic [The Tagging Panel](#). Creation of a tagging panel is described in the topic [Creating Tagging panels](#)

Defining Notebook properties

Properties such as **file name** and where the Notebook will be located are defined before recording starts, using the Properties panel. See [Setting file properties](#) and [Selecting a recording location](#).

Recording events:

Now you are ready to start recording using the following buttons



Starts the timer. Choose when to start carefully. Particularly if intending to import the Notebook into a video, you should start recording at a moment which will be easily identifiable on the video recording



Stops the timer



Resumes the timer

The timer must be running in order to use the tagging panel to create events. As you do so, events will appear in the Events List. How to tag is described in the topic [Using tagging panels](#)

Saving the recording

The Notebook is automatically saved according to the file properties defined before recording is started.

 *One Notebook should be made per video file. Otherwise synchronization of events and video is difficult.*

Distributing Notebooks

Notebooks are saved as files on your PC and these files can be distributed for use by other Dartfish users.

A nice alternative to email or memory stick is to upload to dartfish.tv. To do this click the Share Game button:



Clearing the events list/Starting a new recording

Click the **New Game** button:

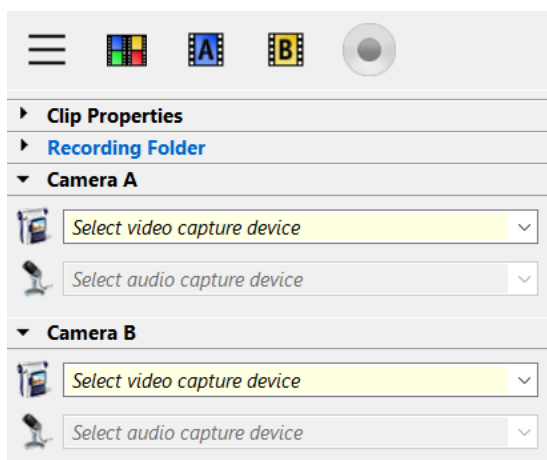



1.4.6 Dual camera recording

This feature is only available in the **Video Replay edition** of Dartfish. With this edition, it is possible to record, and tag video from two cameras simultaneously.

To select and use two camera inputs



1. Select [Tag Live mode](#)
2. Select the two camera inputs from drop-down lists in the settings section below the video display:




3. Click the **record** button  to simultaneously record both video streams (learn more in the topics [Tag Live mode](#) and Video Recorder: capture a video stream)

To select which input is displayed

The video display will initially show the input from the first camera (**Camera A**)

- Click the  button to show the input from **camera B**
- Click the **Split screen** button  to show the input from both cameras

 *Depending on the time taken by your computer to process the video from each camera, there may be an observable lag between the video displays from each camera. Generally this will be too short to be of concern for many tagging activities. However, if timing is more critical, we suggest switching on both video sources simultaneously. Dual camera recording does not have a way to synchronize the inputs.*


! When live tagging, events are added to Video A's events list. When recording is stopped, events are copied from Video A to Video B. Thereafter the events belong to each video independently so editing the event in one video does not edit it in the other.

1.4.7 Using the Team Manager

Adding teams and players

Adding players and teams to the Team Manager is not completed in the tagging panel Editor but after the tagging panel has been created and saved. Buttons at the bottom of the Team Manager allow you to (left to right) add/remove teams and players from the team manager.



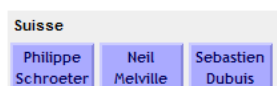
You may want to create more than one team if you tag several teams or squads but at least one team must be created before adding players. After adding teams and players, their properties (such as team/player name) may be altered by clicking the  button next to the item to be edited.

Selecting players

Players are selected/deselected by 'ticking' the box next to their name. If the box is ticked, a button representing the player will appear in the team group box linked to this player manager control.

 ☒ Philippe Schroe...

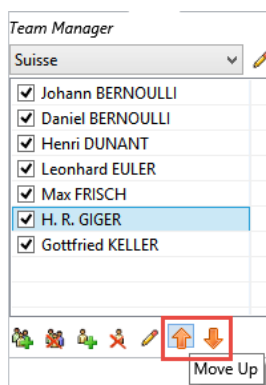
Philippe has been ticked, so...



... a button representing him appears in the team group box

Order of players

Buttons below the **Team Manager** control the order in which players are listed.



The order that players are listed in the **Team Manager** also defines the order that they will appear in the **Team Group Box** and is also the default order for player lists in the **Player List Selector**.

Using other Player Database files

When a tagging panel containing a **Team Manager** tool is first saved, a **database** with the same name but the extension '.taggingdb' is created. You can find it in Windows File Explorer, represented by the following icon:



The database is then automatically updated as each team or player is added. Distributing your database for others to use, it is easily done by distributing this file. Other users can then use the file are follows:

1. Open the **tagging panel** in the **Tagging Panel Editor** window
2. Select the tab **Database Editor** at the top of the editor window
3. Click the **Open button** and browse for the tagging database file

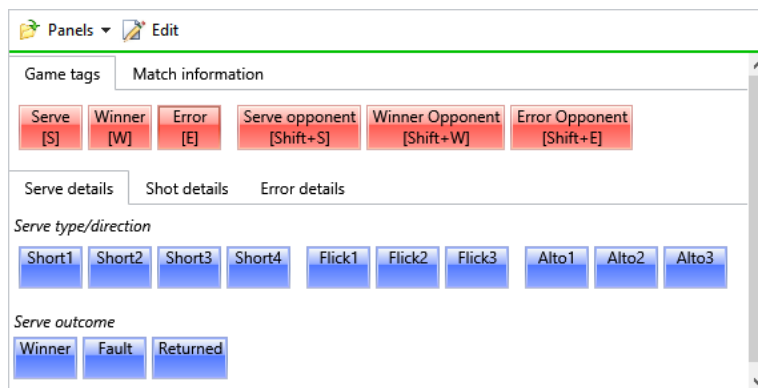
1.4.8 Using keyboard shortcuts

Using the keyboard to activate tagging tools can be much more efficient than using the mouse. Buttons which have a **keyboard shortcut** display it below the label; it is used simply by pressing the keys indicated.



Activating panels to use keyboard shortcuts

Keyboard shortcuts only work when the tagging panel is active. Look for a green line at the top of the panel and if the line is red, click anywhere on the panel to activate it.



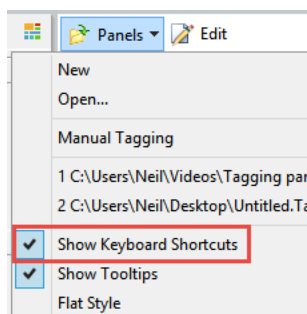
Be particularly careful when starting and stopping recording or using the **Play/Pause** controls - clicking anywhere outside the panel will cause that line to turn red again and keyboard shortcuts will not work. The restriction of use of keyboard shortcuts to when the tagging panel has focus allows the use of keyboard shortcuts which might have other functionality in Windows or Dartfish Software.

Score panels can also have keyboard shortcuts but they are not displayed - use the editor to discover whether the score can be updated with a keyboard shortcut or seek advice from the tagging panel's creator.

Hiding shortcut keys from buttons

After memorizing shortcut keys it may be advantageous to remove the display of the shortcut from the buttons label. To do this:

1. Click the **Panels** button at the top of the **tagging panel**
2. Click the option *Show Keyboard Shortcuts* to deselect it
3. Repeat these steps to show shortcuts again



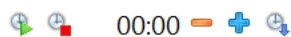
1.4.9 Using the Game Timer

The game timer functions as a match clock. Start it at the beginning of the game, pause it during breaks in play and stop at the end.

It is used in conjunction with a tagging tool where the **Keyword property** contains a [\\$\(GameTime\) macro string](#). For example, a "Shot" button might record the game time when the shot took place.

Displaying the Game Timer



1. Click the **Panels** button at the top of the tagging panel
2. Select *Show game timer* from the menu
3. The **Game Timer** is displayed in the tagging panel toolbar:



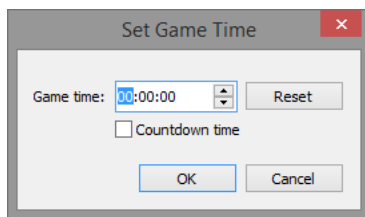
Using the Game Timer

The game timer is a simple stop clock with **Start**, **Pause** and **Stop** capabilities.

However, it does have features which allow adjustments to the time:

- Click the  and  buttons to increase or decrease the time by one second per click (for example, if you are late to pause the timer during a stoppage in play)
- Set a specific time by clicking the **Set** button.

The **Set Game Time** dialog allows you to set the clock to a time of your choosing



Using a countdown timer

You can also use the Game Timer to show the amount of time remaining in a game or period. To do this:

1. Click the **Set** button
2. Set the **game time** to the total duration of the game or period
3. Select the **Countdown time** check box (see above image)

Limitations

As the Game Timer is a simple stop clock it does have some imitations, particularly when used with the [Tag Video Clip mode](#) when the optimal method of tagging may be non linear and not in real time. Also be aware of the following:

- No adjustment for **Preroll**. Whatever is on the clock when a button is clicked is what gets recorded.
- No link to video time. If the video **position** is edited, game time values are not adjusted. The [methods used to adjust position and duration](#) cannot be used to edit game time.

1.4.10 Manual tagging

Manual tagging divides a video clip into a series of sequential **segments** where adding a new **segment** defines the end of the previous one. Each **segment** is described by a **label**, **description** and **keywords** which are manually entered as required.

Events can be added to **segments**. Their duration is defined by the point at which they are added until the end of the segment. They inherit all of their segment's **keywords** as well as being further described by their own **keywords**.

Typical uses

1. Manual tagging is a simplified form of tagging where it is not necessary to create a tagging panel and keywords can simply be added as required.
2. Segments are useful for dividing a video into sections. Their label, description and keywords are

especially useful when they are exported as video clips or the tagged video is uploaded to dartfish.tv.

3. Segments can also be considered as a way of tagging events in the same way that a text box adds a persistent keyword to events on a button-based tagging panel.

To understand its intended use it may help to know its origins, it was created for The City of Lausanne to distribute video of council meetings on dartfish.tv. The segments are of each session and events are used to identify minuted details. Their dartfish.tv channel uses the keywords and descriptions applied by manual tagging to enable citizens to search for discussions. However, Manual Tagging has applications as a tagging tool for many other situations.

Creating Segments

1. Click the tagging panel's **Panels button** and choose *Manual Tagging* from the menu
2. Click the **New Segment tab** of the tagging panel
3. Enter a **label** and a **description**. This information is used to describe the Segment when published to dartfish.tv
4. Segments are defined by adding **categories** and **keywords** to the table. One segment can be defined by many keywords.
5. When the segment is fully described, click the **Add button** to create an event in the **Events list**.
6. Repeat steps 3-5 to add further segments. Each one added alters the previous segment's duration so that each segment ends as the next begins.

Creating Events

1. Click the **New Event** tab of the manual tagging panel
2. Enter a **label** and a **description**. This information is used to describe the event when published to dartfish.tv
3. Events are defined by adding **categories** and **keywords**.
4. When the **Event** is fully described, click the **Add button** to create it in the **Events list**.
5. When a new segment is added, the durations of all the events from the previous segment are set.

1.5 Importing events

You can create events by importing them from files produced by other software provided that the data contains a column of time-stamps representing the **position** of each **event**. This will be useful to the following groups:

- Those using the Dartfish tagging Apps for Apple and Android mobile devices. These apps allow you to create events using a tagging panel similar to a Dartfish panel, and then import the results into a tagging events list.
- Those that already use data logging software which creates statistics but does not relate the event to video or allow visual analysis. If this software can create a CSV file then the results can be imported into Dartfish.
- It is also possible to use data exported from certain other tagging software. At time of writing these include products from Opta and Sportstec and in each case the exported data is either not in a .csv format or the layout of data is not optimal for use with Dartfish. To use this data a product specific add-in must be installed as described in the topic [Importing events using add-ins](#)

1.5.1 Importing dartfish.tv Notebooks

This import method is used to import events from tagged videos and Notebooks on dartfish.tv. Notebooks are produced by the Note Pro module or Dartfish Note mobile app, which is a hand held tagging panel, very similar to the Dartfish tagging panel, but can be used without video and therefore simplifies the equipment required for tagging live. Learn more about Dartfish Note in its [knowledgebase](#).

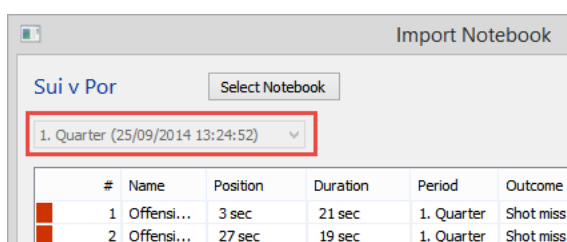
To import events

1. Pause the video or set the **cue in** to an easily distinguishable moment in the video. Doing so will simplify the synchronization of data and video. This can be one of the following possibilities:
 - The moment representing zero time on your imported data (when you started the Dartfish Note timer). **Pause** the video or set the **cue in** at that point.
 - An easily identifiable tagged **event**. If the event timestamp was added using a preroll, position the playhead at the start of the event rather than when the button was clicked
2. Click the **Import/Export button** located in the **Events list toolbar** and select *Import Notebook...* from the menu.



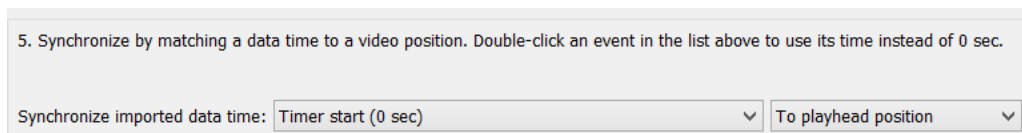
3. Sign in to dartfish.tv. Access to Notebooks and the ability to download them requires special access rights. See the Dartfish.tv [knowledgebase](#) for more details on this
4. Select the channel from which you wish to access the video or Notebook
5. Click on the thumbnail of the video or Notebook from which you wish to import events (documents can be searched by filename or keyword). Then click the **Select button**
6. Choose which Period's events to import.

Dartfish Note has the ability to record multiple period's events for a game. For example, the first and second half of a soccer game can be recorded in a single Notebook. If you video recorded the game as one recording then you can import the events from all periods. If you stopped recording at the end of each period, you must choose which period's events to import for the videos files for each period.



This Notebook has one period therefore the selection is unavailable

7. Select how the imported data is to be synchronized with video. The method depends on the choices made in step 1 and are described in the topic [Synchronizing imported events](#).

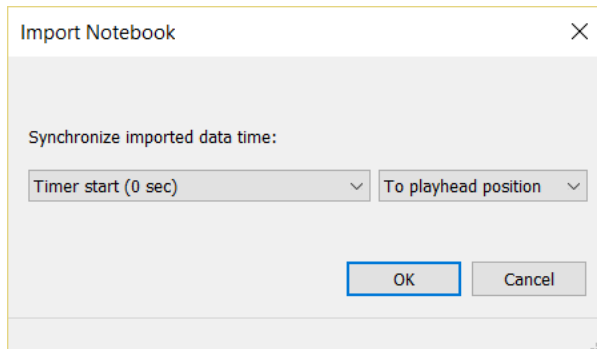


1.5.2 Importing Notebook files

In addition to importing Notebooks from dartfish.tv, it is also possible to import events from Notebook files in the Library or on disk.

One way to do this is to use the method described in the topic [Importing events from files](#) however the more convenient way is to open the Notebook directly from the library as follows:

1. Position the video **playhead** at the position where the Note Pro timer was started
2. Find the Notebook in the **Library**
3. Double-click the file to open it. The synchronization dialog appears:



4. Click the **OK button** to confirm the default synchronization option
5. The Notebook's events are imported and displayed in the **Events List**

1.5.3 Importing events from files

This import method is used to import from a wide variety of software tools which can create a character separated value (CSV) output. This includes the Dartfish Easytag app which has been superseded by Dartfish Note but is still available from the App Store and Google Play. This method is also used to import Notebooks created by the Note Pro module.

To import events

1. Pause the video or set the **cue in** to an easily distinguishable moment in the video. Doing so will simplify the synchronization of data and video. This can be one of the following possibilities:
 - The moment representing zero time on your imported data. For example, if you started your Dartfish Easytag timer at the start of the game, **pause** the video or set the **cue in** at that point.
 - An easily identifiable tagged **event**. If the event timestamp was added using a preroll, position the playhead at the start of the event rather than when the button was clicked
2. Click the **Import/Export button** located in the **Events list toolbar** and select *Import Events...* from the menu.



3. Locate and open the .csv file. The **Import Events wizard** then opens.
4. Choose the **delimiters** which separate each column of data in the imported file. If unsure, experiment with the various choices remembering that more than one delimiter might be used. The data preview will reveal when your data is successfully separated into columns.

Select delimiters used to separate data:

☒ Tab ☒ Semicolon

☒ Comma ☐ Space

5. Select which column heading in your data corresponds to the event time stamp or **Position**. Optionally, columns representing the **duration** and **name** categories can also be selected if the data contains them.

Select columns with default data:

Position:

Duration:

Name:

Time Format:

6. Select the **Time Format** used in the imported data. The preview shows the original data in brackets next to the time interpreted by Dartfish according to the selected time format: If the format is not correct, the times shown in the position and duration columns will all be "0" or appear very obviously wrong.

! EasyTag time format is hh:mm:ss.ms and is automatically selected

7. Decide which **categories** and **events** to import by ticking or unticking the headings at the top of each column and side of each event.

Select the columns to be imported as category for the events. Select All Unselect All

<input checked="" type="checkbox"/> #	<input checked="" type="checkbox"/> Name	<input checked="" type="checkbox"/> Position	<input checked="" type="checkbox"/> Duration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Direction	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> 1	NET	0 sec (440)	5 sec (5000)			
<input checked="" type="checkbox"/> 2	NET (1)	7 sec (6600)	5 sec (5000)			Double fault
<input checked="" type="checkbox"/> 3	LONG	32 sec (32000)	5 sec (5000)			
<input checked="" type="checkbox"/> 4	BACKHAND	39 sec (38800)	7 sec (7000)			
<input checked="" type="checkbox"/> 5	Brychta	43 sec (43160)	6 sec (6000)	Team 1	CROSS COURT	UNFORCED E
<input checked="" type="checkbox"/> 6	BODY	1 min 12 sec (...)	7 sec (7000)			
<input checked="" type="checkbox"/> 7	Jayant Mistry	1 min 20 sec (...)	6 sec (6000)	Team 1	DOWN THE LI...	WINNER

8. Select how the imported data is to be synchronized with video. The method depends on the choices made in step 1 and are described in the topic [Synchronizing imported events](#).

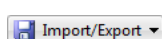
5. Synchronize by matching a data time to a video position. Double-click an event in the list above to use its time instead of 0 sec.

Synchronize imported data time:

Quick Import

Quick Import is a tool allowing you to quickly repeat an import using exactly the same settings as previous imports. To use Quick Import, proceed as follows:

1. Set the **Playhead** or **Cue-in marker** as described in step 1 above.
2. Select *Quick Import...* from the **Import/Export** menu located in the **Events list toolbar**.



3. Locate and open the .csv file.
4. The data is imported.

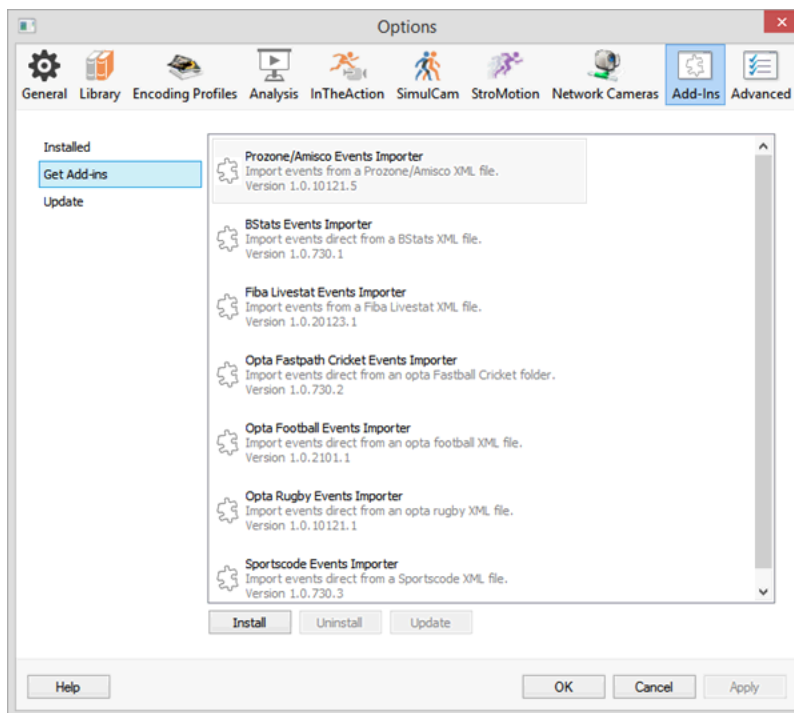
! If Quick Import is used when no previous imports have been made then the full Import Events options will be displayed

1.5.4 Importing events using add-ins

Although Dartfish can import .csv data into its events list (see [Importing events](#)) the data exported from some sources is not always optimal for use with Dartfish. For certain products, **add-ins** are available which process the data during import.

Installing add-ins

1. From the **menu bar**, select *Tools > Options*
2. Select the **Add-ins** section

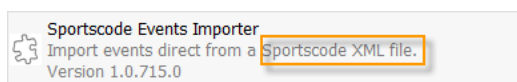


3. Select the **Get Add-ins** option
4. Choose an add-in from the list of those available
5. Click the **Install** button

! Dartfish may add or remove add-ins. The list shown above is only representative

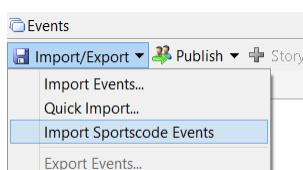
Importing events using an add-in

First you will export a data file from the third party software. Refer to its documentation to discover how to do this. Some software may offer multiple outputs, in this case, refer to the Dartfish *Options* to discover which file type is supported

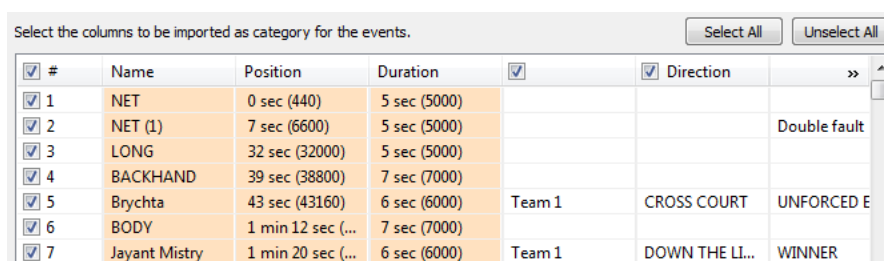


Now use Dartfish as follows:

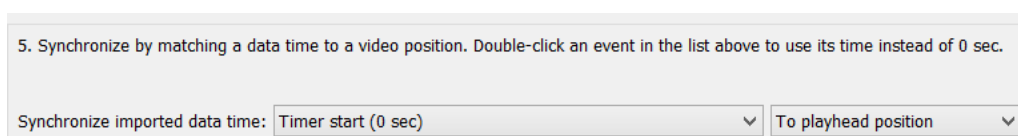
1. **Pause** the video or **set the cue in** to an easily distinguishable moment in the video. Doing so will simplify the synchronization of data and video. This can be one of the following possibilities:
 - The moment representing zero time on your imported data.
 - An easily identifiable tagged event. If the event timestamp was added using a preroll, position the playhead at the start of the event rather than when the button was clicked
2. Click the **Import/Export button** located in the Events list toolbar and select *Import [.....] Events*



3. Locate and open the data file. The **Import Events wizard** then opens.
4. The correct **delimiters**, default data and **time format** will be automatically selected, but you may wish to choose which **categories** and **events** to import by ticking or unticking the headings at the top of each column and side of each event.



5. Select how the imported data is to be synchronized with video. The method depends on the choices made in step 1 and are described in the topic [Synchronizing imported events](#).



1.5.5 Synchronizing imported events

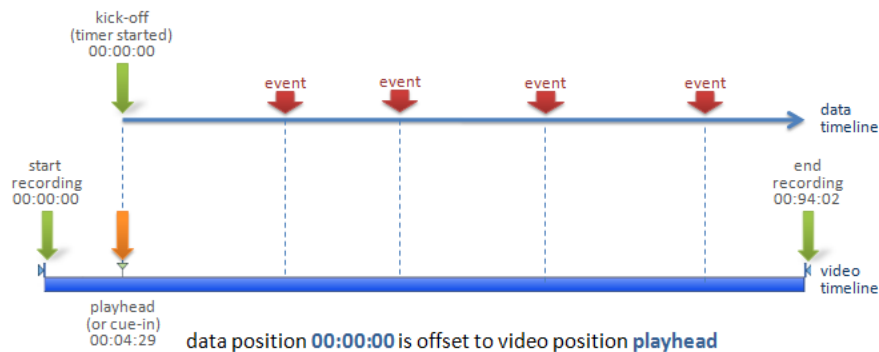
Unless video recording was started at time 00:00:00 of the imported data, it will be necessary to synchronize data with the video.

This is done by matching a time in the imported data to a **position** in the video denoted by one of the following: the start of the video clip, the **Playhead** position or the **Cue-in** marker position. Consider the following common examples:

Synchronizing using the data's zero time

The simplest case to synchronize is when the timer of data logging software is started at an easily identifiable moment that will appear in the video. For example, the kick-off in a soccer game (as illustrated below).

💡 If you need to start the timer before kick-off or where there is no easily identifiable moment before the first tag, you can raise a hand in front of the camcorder as the timer is started.



To synchronize data in this case:

1. Before import set the **Playhead** (or **Cue-in** marker) to the video position where the timer started.
2. During import leave the data position at 0 sec and select which video position that corresponds to.

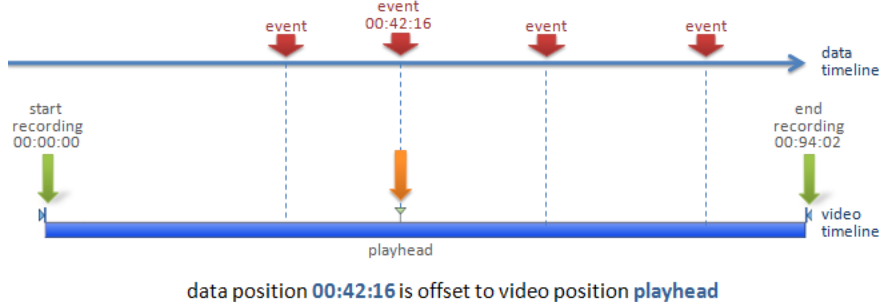
5. Synchronize by matching a data time to a video position. Double-click an event in the list above to use its time instead of 0 sec.

Synchronize imported data time: Timer start (0 sec)

To playhead position

Synchronizing using an event position

In the case that time zero for the imported data is unknown or otherwise not possible to identify on the video, you can synchronize the position of an event with a video position as illustrated here:



To synchronize data in this case:

1. Before import set the **Playhead** to the start of the event that you will use for synchronization.
2. During import find the same event in the data preview and double-click it to select it
3. The data synchronisation position is set to the time of the selected event

5. Synchronize by matching a data time to a video position. Double-click an event in the list above to use its time instead of 0 sec.

Synchronize imported data time: Foul (43 sec)

To playhead position

Synchronizing events after import

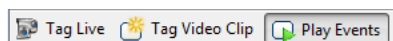
Synchronizing events, or adjusting synchronization, after import can offer more versatility than synchronizing during import. For example, it is possible to give a different offset to different types of event.


How to adjust position and duration of events is described in the topic [Editing event timings](#)

! Synchronizing modifies the time stamp for all events. It is therefore important that the time coding on your data remains comparable throughout the video clip. This means that if you pause the Easytag or data logger timer during time-outs you also have to simultaneously pause video recording or vice versa. If you record the game as multiple video files you will have to import the events of each file as separate imports. For convenience it is best to record both video and the timing of events continuously and for as long as reasonably possible during the game.

1.6 Review & edit events

Play Events mode is used to review and edit tagged events. To use **play events** mode you click the **Play Events button** on the mode bar above the video display.



If it is not already displayed you also need to open the **Events List** by clicking the **Events List button**  on the **views bar** above the video display.

1.6.1 Selecting events from the Events List

Selecting and playing events

- Single click selects the clip - can be used in either **Play Events** or **Tag Video Clip** modes
- Double click selects and plays the clip and switches to **Play Events** mode

Sorting events

Events may be sorted by clicking any of the **category headings** at the top of each column of the events list

List Overlapping

Events can overlap. For example, in soccer an 'Attacking possession' event may overlap with other events taking place during it. This button displays events that overlap with the currently selected event.



Selecting multiple events

By selecting more than one event you can indicate which events in your events list you want to play, edit or delete. Selecting several events is possible by the following methods:

- Select several isolated events – hold down the control CTRL key on the keyboard and click each

event in turn.

- Select a group of sequential events – click the first event in the group then hold down the SHIFT key and select the last event in the group.
- Select all events – click any event and then use the keyboard shortcut CTRL + A

1.6.2 Editing keywords

An event's keyword information can be added to or changed in 2 ways:

- Method 1: Use the **tagging panel** – when an event is selected in the **events list**, its keywords may be changed using the tagging panel's keyword addition tools.
- Method 2: Click the right mouse button while pointing at the keyword to be changed and choosing *Edit* from the quick menu. A new keyword may be typed or selected from a list.



💡 *Selections of multiple events can be edited simultaneously using either of these methods*

1.6.3 Editing event timings

To edit position and duration using the time line

The following method allows you to make modifications by selecting a start and finish point for the event in reference to the video.

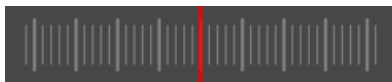
1. Ensure you are using **Play Events** mode:



2. Click on an **event** in the **Events list**. The event is represented by a yellow shaded area on the video's **timeline**:



3. Use the video controls to find the event's new start position. Often the **Jog Wheel** will provide the best way of doing this:



4. Click the **Cue In** button




5. Now find the point where the event is to end and then click the **Cue Out** button



To edit position and duration using the events list

1. Select the **events** to be modified.
2. Click the right mouse button while pointing at the **duration** of one of the selected events and then choose *Edit* from the quick menu.
3. Edit the existing time or type a new one.
4. Press the ENTER key to confirm the change

 *It is not necessary to enter a new duration in the full time format displayed. Simply entering the value '10' would set the duration to 10 seconds.*

To adjust timings using the events list

The video **position** of a single event can be modified as described above but when timing of position or duration require adjustment it is possible to add or subtract time in the following way:

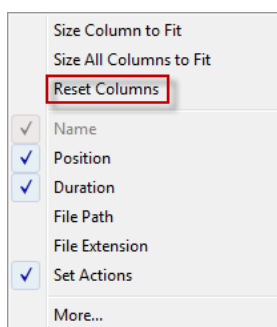
1. Select and edit events as described previously
2. Key a + or - in front of the new value depending on whether time is to be added or subtracted
For example, entering +5 would add 5 seconds to the selected times; entering -1:30 would remove 1 minute 30 seconds; and entering +1:25:00 would add one hour and twenty-five minutes.

 *If unsure about how to apply the correct time format, simply edit the existing value and place a + or - in front.*

1.6.4 Hiding unused categories

The **Events List** continues to display **categories** used by previous tagging projects even if they are not used by the current tagging session. The categories may be removed from the events list as follows:

1. Right-click any column heading, and
2. Choosing *Reset columns* from the quick menu that appears.



1.6.5 Reviewing events and video during live tagging

When using **Tag Live mode** it is possible to replay video while continuing to record. This will allow you to:

- Tag events that were missed and edit incorrectly tagged events
- Review the action to make informed coaching decisions during the game

! It is only possible to use time shifted recording when the video source provides a DV, HDV, M2TS, MP4 or H.264 video stream

To review video

1. Click and drag the **Playhead** to the position on the **time line** you wish to review.
2. The recorded video plays from this point but the **video display** controls can be used to control playback frame-by-frame etc

To review an event

1. Click the **event** in the **Events List** to select it
2. The **Playhead** jumps to the start position of the **event** on the **Timeline**

! It is not possible to enter Play Events mode while continuing to record

Returning to viewing live

The Live tagging video display controls has a Live button which returns the playhead to the end of the timeline.



1.7 Filtering and viewing statistics

Tagging will typically result in a long list of events. Locating particular events or analyzing their frequency using the events list alone would be a difficult task. There are three methods for searching for events:

Table filter

The **table** creates frequency and duration summaries by cross-referencing keyword categories. This can be used both to filter and to generate statistics. The **table** is described in the [following topic](#).

Simple filter

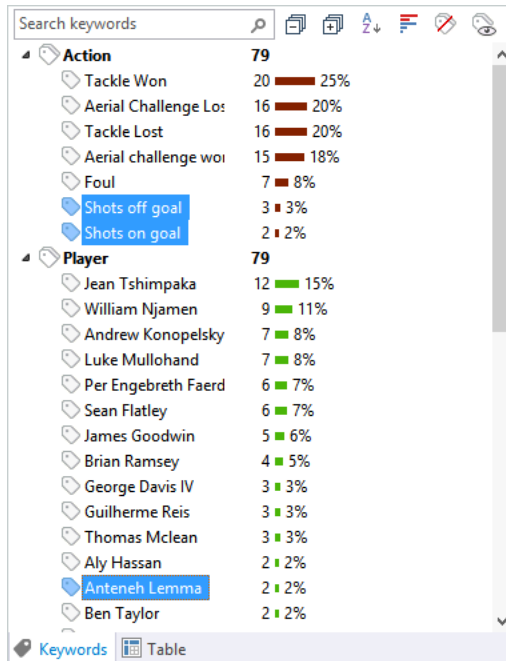
Events						
<div> Import/Export Publish Storyboard Show All <div>Filter events</div> </div>						
#	Name		Position	Duration	Player	Team
1	Tackle Lost		36 sec	5 sec	Ben Taylor	Team4
2	Tackle Lost		39 sec	5 sec	Guilherme Reis	Team4
3	Tackle Lost		40 sec	5 sec	Anteneh Lemma	Team4

The **events list toolbar** has a simple filtering tool which displays events based on an inputted value.

The results of the simple filter can be further refined using the **Keyword filter**.

To execute a **keyword filter**

- The following example would show shots off goal and shots on goal by player Lemma.



The results of the **simple filter** and the **keyword filter** combine.

Search keywords >> Import/Export Publish Storyboard Show All njamen

Search keywords

Import/Export

Publish

Storyboard

Show All

njamen

Action

79

Tackle Won

20

Aerial Challenge Lost

16

Tackle Lost

16

Aerial challenge won

15

Foul

7

Shots off goal

3

Shots on goal

2

Player

79

Jean Tchinnaka

12

Duration	Action	Player	Team
12 sec	Shots off goal	William Njamen	Team5
12 sec	Shots on goal	William Njamen	Team4

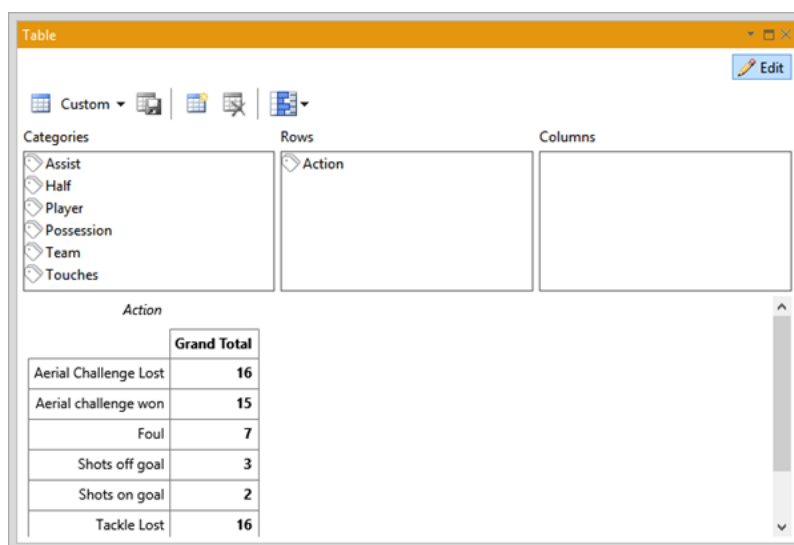
1.7.1 The table search

Tables derive statistics from **events** and also allow filtering for the events relating to those statistics. The default location for the **Tables** panel is to the left side of the **Events list**, docked with the **Keywords panel**.

Creating a table

Tables are constructed using the **categories** of **keywords** featured in the **Events List**. To create a table:

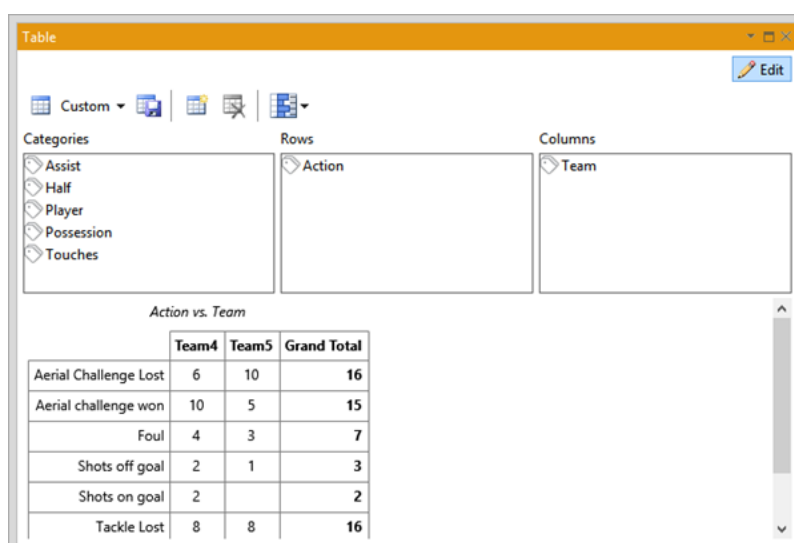
1. Click the **Edit button** (Shown top right of the tables panel in the image below)
2. Drag and drop a **category** from the **Categories list** on the left into the **Rows** area: A list of corresponding keywords and frequencies of events using them is displayed:



The screenshot shows the 'Table' panel with the 'Action' category selected in the Rows area. The table displays the following data:

	Grand Total
Aerial Challenge Lost	16
Aerial challenge won	15
Foul	7
Shots off goal	3
Shots on goal	2
Tackle Lost	16

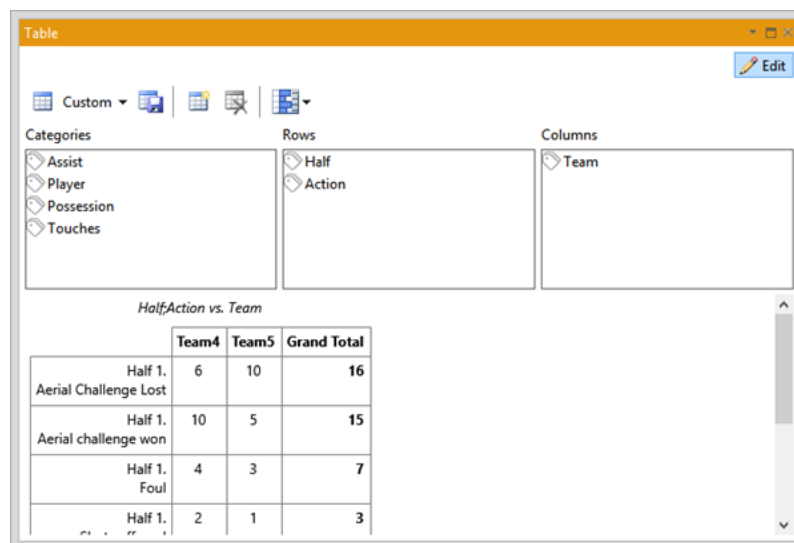
3. Drag another **category** from the **Categories list** into the **Columns** area: A cross-referenced list of frequencies for each of the keywords in each category is displayed:



The screenshot shows the 'Table' panel with the 'Action' category selected in the Rows area and the 'Team' category selected in the Columns area. The table displays the following data:

	Team4	Team5	Grand Total
Aerial Challenge Lost	6	10	16
Aerial challenge won	10	5	15
Foul	4	3	7
Shots off goal	2	1	3
Shots on goal	2		2
Tackle Lost	8	8	16

4. Additional **categories** can be added to either **Rows** or **Columns** areas to create groupings of keywords



5. Click the **Edit** button to hide the editor and maximize the use of space to display the table

💡 Large tables may not be easily viewed in the default tagging layout. For example, it may be better to dock the table panel with the events list or even make it 'float' over the application. You may wish to review the topic Repositioning panels in the Getting Familiar with Dartfish chapter.

Removing a category from a table

Categories can be removed from the **Rows** and **Columns** areas by:

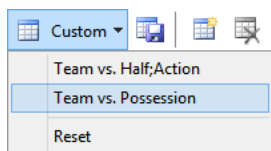
- Double-clicking them
- Drag & drop to the **Categories** area

Saving a table

Click the **Save** button to save a table layout



Previously saved tables can be recalled by clicking the **Custom** button



Displaying multiple tables simultaneously

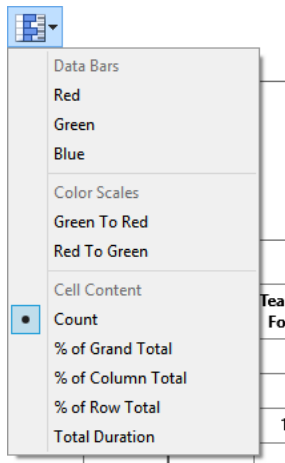
1. Click the *New Table* button



2. Construct the new table as previously

Changing the displayed data and formatting the table

By default, tables display frequency statistics. However you can also represent data as a **percentage** of frequency or of total **duration**. Data may also be represented visually in various ways. All of these choices can be made using the **Format Cells** menu:



Filtering using a table search

Clicking any number or heading of the table filters the events list to match your selection

Using table data in other applications

Data can be easily reused in other applications e.g. a match report or presentation. To do this:

1. Right click a **table**
2. Choose your copy method of choice from the quick menu (as CSV data or as an image)
3. Paste the data or image into the other application

1.7.2 Undo searches

Searches reduce the event list to displaying only search results. To see all events, click the **Show all** button above the **events list**.



1.8 Producing & sharing tagging resources

Having tagged a video you may want to share that work with others. It is easily possible to share:

- Game video complete with tags
- Individual events - as separate video clips or as a compiled highlights video.
- The events list - can be exported as a .CSV file
- The tagging panel - tagging panels are saved as files. To give others access to your tagging panel, simply give them the file. They use the Create Events pane to open the tagging panel.

Dartfish offers the possibility to publish to a range of outputs including CD/data DVD and online to your own FTP site or to Dartfish TV; our own media sharing platform (see www.dartfish.tv). To get a more comprehensive view of publishing from Dartfish see the Dartfish outputs - publishing & sharing chapter.

1.8.1 Sharing game video

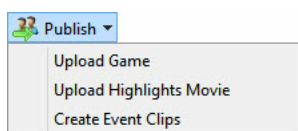
There are two possibilities depending on whether you want to share video with or without its tagged events or

1. **Share** video clips from the **Tray**. This method also shares the **.dartclip file** for each clip. The **dartclip** contains **events list** data so this is the best method to share video with other Dartfish users. Of course you can also **Share** match video with non-Dartfish users but if you want them to see tagged events it would be better to use the method below. Learn more about sharing video clips from the **Tray** and all the possible output destinations in the Publishing and Sharing chapter.
2. **Publish** from the **Events List** - send video and events to your **myDartfish Smart Cloud** or your organisation's **dartfish.tv channel**. This option is perhaps the more versatile as you can choose whether or not to include events with the upload and, if the game was recorded as multiple videos, the publish process will render all files as a single dartfish.tv document.



To publish game video to dartfish.tv

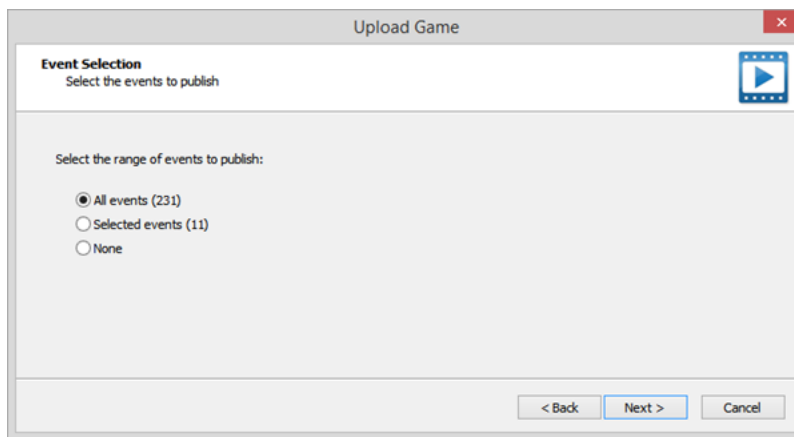
1. Load game video(s) into the Tray.
2. Filter for and/or select the events to be published with the game video (optional).
3. Click the **Publish button** on the **Events List** toolbar.



4. Select *Upload game...* The **Publishing Wizard** opens.
5. The subsequent steps of the Wizard are similar to those of other dartfish.tv publishing processes (see Upload to dartfish.tv in the Dartfish outputs - publishing & sharing chapter). with an additional step for event selection:

Event selection

The **Publish Game wizard** includes an **Event selection** step which controls which, if any events are included with the published game.



The options are:

- **All events:** all events currently displayed in the **Events List**. If a search or filter has been applied, **All Events** refers to the contents of the filtered list.
- **Selected events:** Only events which have been selected by you. This allows you to be more selective about which events are included in the upload
- **None:** You don't wish those who will view the game video to be able to see the tagged events

To use tagged video downloads from dartfish.tv (dartfish users)

Dartfish users can use tagged video from dartfish.tv. To do this see the topic Download from dartfish.tv in the Importing Video Files chapter.

To use tagged video downloads from dartfish.tv (non-dartfish users)

Those who do not have Dartfish software can still benefit from tagged video offline using the **Dartfish Express App**.

Simply tap the **Download** button when viewing a tagged video from a mobile device. The video will automatically open in the App and events can be filtered and played.

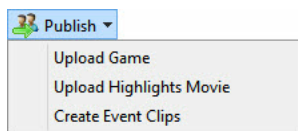
Learn more about Dartfish Express in its [knowledgebase](#)

💡 When Live tagging, choose to encode video using the dartfish.tv encoding profile (see Using an encoding profile in the Importing video files chapter). Both the originally high quality recording and the encoded one will be tagged and the publishing time for the game will be substantially reduced

1.8.2 Creating highlights movies

To publish a highlights movie on dartfish.tv

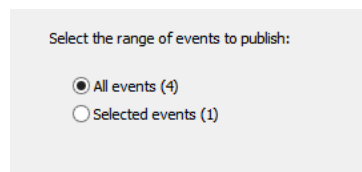
1. Load game video(s) into the Tray.
2. Filter for and/or select the events to be used to create the highlights movie (optional).
3. Click the **Publish button** on the **Events List** toolbar.



4. Select *Upload Highlights Movie...* The **Publishing Wizard** opens.
5. The subsequent steps of the Wizard are similar to those of other dartfish.tv publishing processes (see Upload to dartfish.tv in the Dartfish outputs - publishing & sharing chapter). with an additional step for event selection:

Event selection

The **Publish Highlights Movie wizard** includes an **Event selection** step which controls which events will be used to form the **highlights movie**



The options are:

- **All events:** all events currently displayed in the **Events List**. If a search or filter has been applied, **All Events** refers to the contents of the filtered list.
- **Selected events:** Only **events** which have been selected by you. This allows you to be more selective about which events are included in the **highlights movie**

Other ways to create highlights movies

Although publishing to dartfish.tv takes a lot of the hard work out of creating and distributing a highlights movie, there are other possibilities

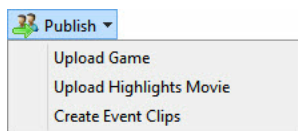
- The **Analyzer's Storyboard**: If you have sent selected events to the **Storyboard** you can save that selection as a movie. The movie will include any of the video drawings and measurements that you add to the video in the Analyzer (see [Storyboard](#) topic)
- The **Analysis Recorder** (Pro Editions only): Another way to use the **Storyboard** is to record voiceover and drawings in an **analysis recording** (See Recording analysis in the Dartfish outputs - publishing & sharing chapter)
- Video editing software: if you want fancy transition effects, motivational soundtracks and all the bells and whistles of video editing software, you can turn events into video clips and then drag those files straight on the storyboard of your preferred software (see [Exporting events](#) topic)

1.8.3 Turning events into video clips

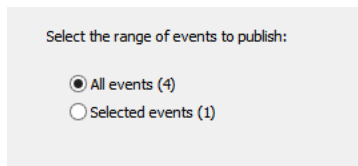
Events in the **events list** continue to be a part of the original video. It is possible to extract these video segments and turn them into video clips. You may wish to do this to be able to compare events in the **Analyzer**; because you wish to create a [highlights movie](#) using third party software; or because only the event clips, and not the game video, are of interest.

To publish events as new files

1. Load game video(s) into the Tray.
2. Filter for and/or select the events to be exported
3. Click the **Publish button** on the **Events List** toolbar.

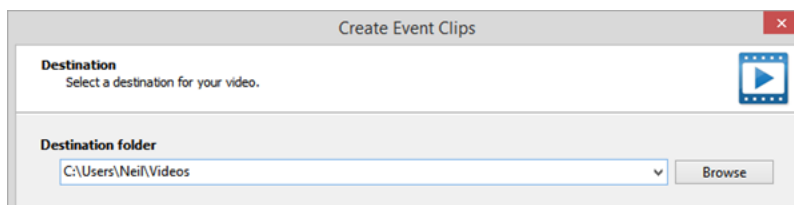


4. Select *Create Event Clips*. A **Wizard** opens.
5. Wizard step 1 - Destination: Choose where files will be created, on a drive/folder on your computer or burned directly to an optical disk. Then click the Next button
6. Wizard step 2 - Event selection

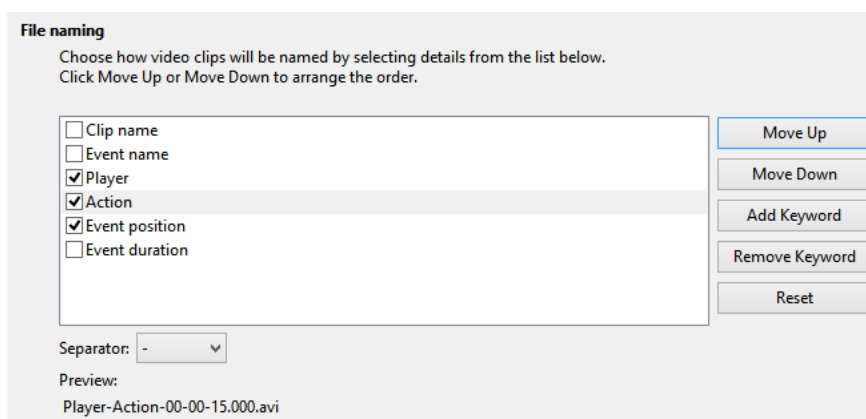


7. The options are:
 - **All events**: all events currently displayed in the Events List. If a search or filter has been applied, **All Events** refers to the contents of the filtered list.
 - **Selected events**: Only events which have been selected by you.
8. Wizard step 3 - Video settings: Choose an encoding profile for the new video clips. To learn more about video encoding see in the Getting Familiar chapter
- 9.
10. Wizard step 3 - **Destination**

In this step the **Destination folder** for the clips is chosen. Click the **Browse** button to change the folder



File naming options can also be chosen:



- The default setting uses only **Event name**. Clips will be named according to the value appearing in the **Name** column of the **Events List**
- Tick other boxes to add other details such as the **Event position** (time in video)

- Click the **Add Keyword** button to add other categories of information from the **Events List**
- Click the **Move Up** and **Move Down** buttons to define the order of the information as it will appear in the file name

In the example above an event featuring a 'Shot' by 'Pele' would be named 'Pele-Shot-54:32.000

Click the **Next** button to proceed to the next step where the event clips will be created.

1.8.4 Adding descriptions to events

The description property of events is a free text (rather than keyword) description of an event. It is useful for several reasons, among which are:

- The information will be useful to viewers after events published to **dartfish.tv** or exported to the **Storyboard**
- The information become part of the properties of video clips created from events and will therefore be visible when these clips are added to the **Storyboard**, turned into **Enhanced Optical Disks** or published to **dartfish.tv**

Adding description using event properties

1. Right-click an **event** in the **Events List**
2. Select *Properties* from the quick menu
3. Type or edit in the **Description** section of the **General** tab

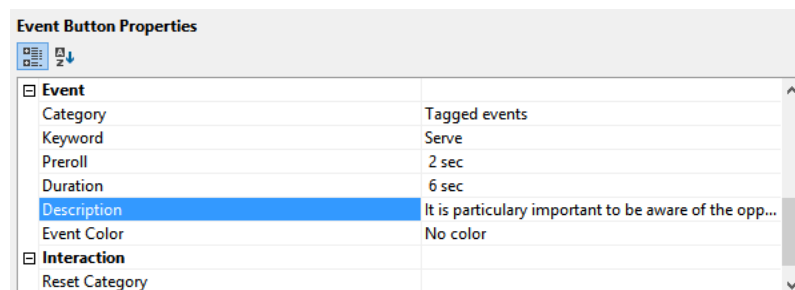
Using The events list description field

1. Right-click any of the **column headings** of the **Events List**
2. Select the *Description* option from the quick menu
3. There will now be a new column of the **Events List** with the heading 'Description'
4. Edit the description by right clicking the **Description field** for an **event** and selecting the *Edit...* option from the quick menu

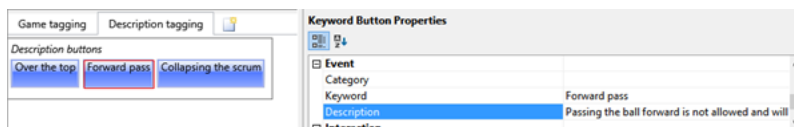
Using keyword buttons

Event and **Keyword buttons** can be used to automate the addition of a **description** to an event.

When building a **tagging panel** (see [Creating Tagging panels](#)), set the **Description property** of the button to the desired text:



- The **Description property** may be set on a button which will also record a **keyword** - perhaps in this case the description explains some technical jargon or some common errors?
- **Keyword buttons** may be added to a panel, specifically to add a **description** to an event. In this case, setting the **category property** is optional:



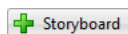
1.8.5 Storyboard

Selected events can be viewed in the **Analyzer** module and analyzed as any other **Storyboard** item. In many ways the Analyzer's **Storyboard** is the best presentation and publishing tool for the following reasons:

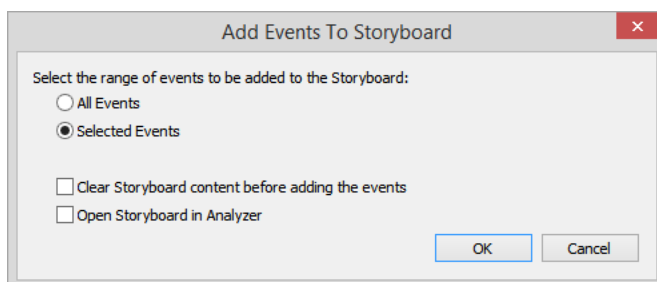
- Analyzer zoom and drawing tools can be used to help illustrate and explain.
- The **Storyboard** can be presented using the remote control in the same way as the **events list**. But with the advantage that a selection of many events from different searches can be compiled in the **storyboard**.
- The **Analyzer** offers additional outputs such as the **Mediabook** and **Analysis Recorder**.

To add events to the Storyboard:

1. Select **events** in the **Events list** and click the **Storyboard** button.



2. Select the range of events to be exported.



Each selected event creates a new **Storyboard** item. The process of selection and adding events can be repeated until the **Storyboard** contains all the events to be presented. See An analyzer project - the Storyboard in the Analyze performance chapter to learn more.

Remember that a storyboard's contents can be saved to allow recall at a later date. You might save one Storyboard presentation for the players and another for the coaches

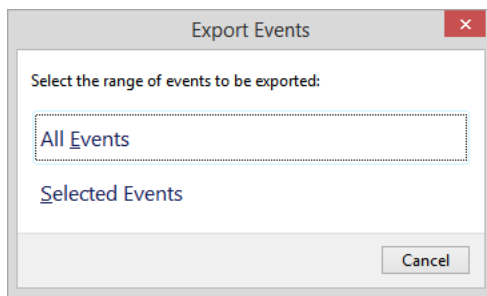
1.8.6 Exporting events

The Import/Export tool allows you to export data from the Events List as a CSV file. To do this:


1. Select events in the **Events list**
2. Click the **Import/Export** button and select the *Export Events...* option



3. Select the range of events to be exported - all events or only those which have been selected:



Your selection is exported to a CSV file which can be opened in spreadsheets and databases to analyze statistics and create graphs. You can also use such files as backup copy of your tagging work. Such a file can be imported later and re-synchronized to the video (see [Importing events](#)).

 *A quicker way to get data from the Events List is to select the events you want then copy & paste the data into spreadsheet, presentation or document*

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