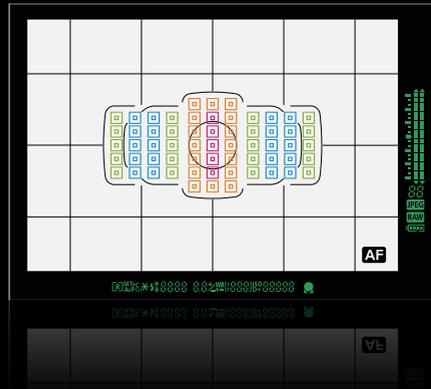




# Canon EOS-1D X

## AF Setting Guidebook

Detailed explanations of how to use the various high precision AF features



Canon

NON LENS EF 50mm 1:1.4

EOS-1D

X

# EOS-1D X AF Setting Guidebook

By combining the ultimate in AF performance and easy of use, a wealth of new photographic possibilities are available.

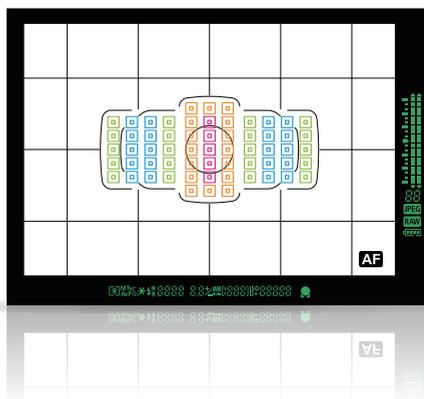


## 61-Point High-Density Reticular AF

Improved AF performance capturing fast moving subjects

The EOS-1D X is equipped with a newly developed 61-Point High-Density Reticular AF, making it possible to capture fast moving subjects in situations where accurate focusing even with a high performance autofocus is difficult. By arranging the 61 AF points in a high concentration, the level of composition freedom, and tracking performance is greatly improved.

Featuring 41 cross-type AF points, including 20 high-precision points compatible with f/4 lens, and new AI Servo AF III with totally updated calculation and speed to improve accuracy for predictive AF, it's possible to focus precisely when shooting subjects with extremely fast movement, such as wildlife, athletes, and more.



## AF Configuration Tool

Simple selection of the best combinations of AF settings for any subject or scene

The AF Configuration Tool makes it possible to set the AI Servo AF features by simply selecting the shooting scene from [Case 1] to [Case 6]. Should you need to, it is also possible to adjust the parameters separately. This AF Setting Guidebook will introduce a variety of features and most effective settings centered around the 61-point AF and AF Configuration Tool, in order to take advantage of the high performance AF functions of the EOS-1D X.



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AF frame indicated in this information may differ from those interior indication and color of actual finder.

EOS-1D X maximum continuous shooting speed is restricted to 10 fps when the battery charge is less than 50%, or when the ISO speed is above 32,000. If the camera's internal temperature is low and ISO speed above 20,000, maximum continuous shooting speed is restricted to 10 fps.

## All AF-related menu functions now in a separate menu

The Various AF-related functions are now incorporated into an AF menu tab



AF-related setting items in the AF menu



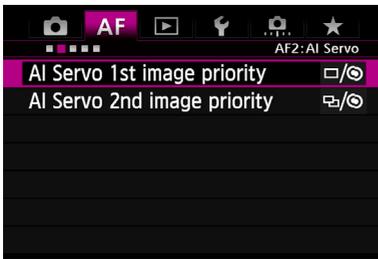
### The AF1 tab includes the AF Configuration Tool

The AF1 tab is important when shooting moving subjects using the AI Servo AF of the EOS-1D X. It is possible to effectively set AI Servo AF characteristics by selecting the option that closely matches the scene with the AF Configuration Tool.

The various AF-related settings that were previously included in the custom functions (C.Fn) menu, have been incorporated into the new AF menu tab. This makes smooth access to AF-related settings possible. In particular, the AF Configuration Tool included in tab AF1 can be used to easily match settings with the AI Servo AF characteristics, making it an important feature that takes advantage of the advanced AF performance on the EOS-1D X. By selecting

from six presets (Case 1 - Case 6), makes it possible to set the AI Servo AF characteristics to most accurately suit the subject's movement, and scene conditions. It is also possible for fine control to adjust each parameters separately. (Refer to P. 7 – 25 for AF Configuration Tool details.) Tabs [AF 2] – [AF 5] include a variety of settings such as shutter-release timing settings, a setting for the number of AF points that can be selected, and AF area selection method.

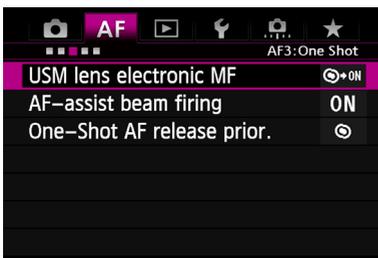
## Various settings for AF-related features can be made with AF menus [AF2] - [AF5]



### AF2 AI Servo

Settings related to the camera priorities when using AI Servo AF

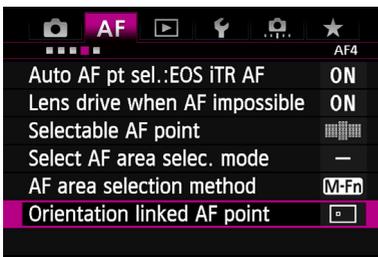
The [AF2] tab includes settings related to cameras priority concerning shutter-release timing when using AI Servo AF. [AI Servo 1st image priority] and [AI Servo 2nd image priority] make it possible to make focusing the priority slowing the shutter-release timing, or prioritize faster shutter-release.



### AF3 One-Shot

Settings related to focusing and shutter-release timing when using One-Shot AF release priority

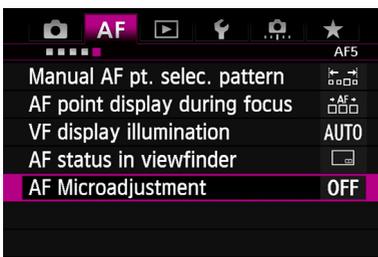
Within the [AF3] tab, the [One-Shot AF release priority] settings related to focusing and shutter-release timing when using One-Shot AF release priority. The other options [USM lens electronic MF] and [AF-assist beam firing], control the manual focus operation of some lenses and the operation of AF assist function of attached Speedlites.



### AF4

Includes general settings related to AF point selection

Select which and how AF points are selected. This menu includes settings related to [AF area selection mode] ([Automatic AF point selection criteria], [Selectable AF points], [AF area selection mode], [AF area selection method]), and [Orientation linked AF point]). In addition there is the [Lens drive when AF impossible] option in this menu.



### AF5

Includes general settings related to display of AF points, etc.

Within [AF5] tab are settings that control how AF points are displayed in the viewfinder such as ([AF point display during focusing], [VF display illumination], and [AF status in viewfinder]). With the [Manual AF pt. selec pattern] the AF point selection can stop at the outer-most AF point, or instead loop back to the opposite side of the AF area. For those who need to make fine adjustments to the focus position [AF Microadjustment] is available.

## Select from Case 1 - Case 6 to match subject scenarios

Presets consist of three different parameters combinations



[AF1] tab screen. By selecting an appropriate preset from the Case 1 - Case 6 icons on the left side of the screen, the most effective AI Servo AF settings for different subjects can be made.



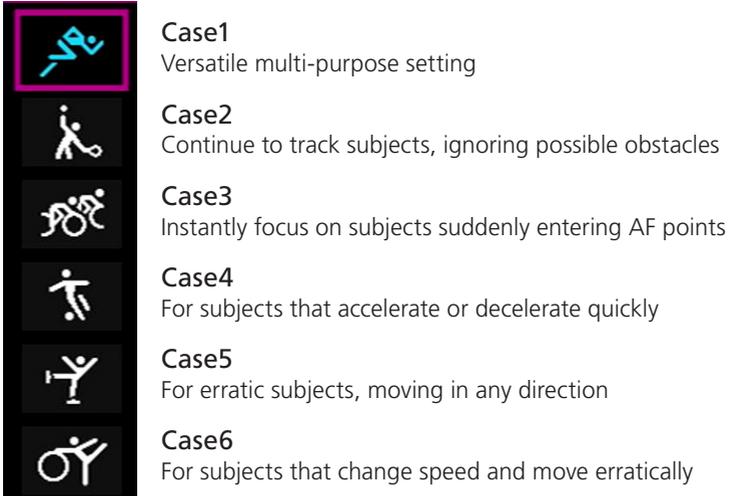
The AF Configuration Tool is a function for setting AI Servo AF characteristics. Therefore, its settings will have no function when using [One shot AF].

When the **[AF1]** tab on the EOS-1D X is opened, **[Case1 Versatile multi-purpose setting]** a running man icon will be displayed. This is the default option for the AF Configuration Tool. Different presets to match the characteristics of the type of subject and its movement, and the shooting conditions, can be selected from Case 1 – Case 6. By simply selecting one of these cases, settings for the AI Servo AF characteristics that match the scene will be used.

These six presets are combinations of the following three parameters, **[Tracking sensitivity]**, **[Accel./decel. tracking]**, and **[AF pt auto switching]** (P. 20 - 25). Using the presets sets the parameters in the most effective way. However, if you wish It is also possible to manually adjust the parameters individually.

Important to note: the six Cases in the AF Configuration tool only affect focus tracking in AI Servo AF — there's no impact in One-Shot AF.

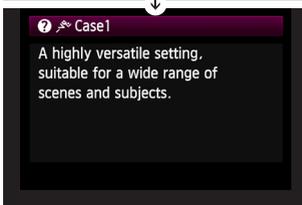
## The best parameters for different subjects and shooting scenes are combined into presets from Case 1 - 6



A combination of parameters to tailor the EOS-1D X's focus-tracking with various types of moving subjects have been used to create the presets from Case 1 – Case 6. By selecting the appropriate icon and Case, photographers can change and fine-tune AI Servo AF for incredible continuous AF, even with the most challenging action subjects.



Press the  
INFO  
button



Content  
displays on  
the help  
screen

### Hints & Tips

Pushing **INFO** button while any of **[Case]** is indicated in display, then text information of **AF Setting Characteristics or Shooting Scene Example** is indicated.

Moving the purple square over Case 1 – Case 6 will display the name of each case, for example **[Case1 Versatile multi-purpose setting]**. If you want more detailed information, you can press the **INFO** button. This will display the help screen containing information about shooting scene examples and which settings to alter and when.

# Precise and accurate focusing is possible for a wide range

## Versatile multi-purpose setting



### Parameter default settings

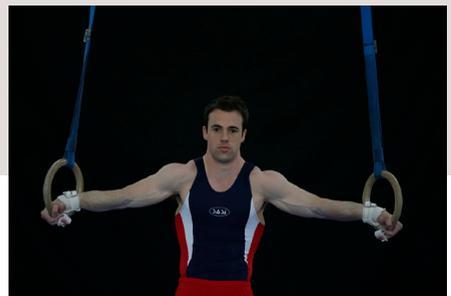
Subject tracking sensitivity	[0]
Accelerate / decelerate Tracking	[0]
AF point auto switching	[0]



Case 1 is the basic AI Servo AF setting on the EOS-1D X. As its name indicates, it is versatile and achieves a high level of tracking performance in a wide variety of scenes.

Equipped with AI Servo AF III, the EOS-1D X has improved flexibility in handling a variety of moving subjects, and superior prediction of movement for more accurate focusing. Even with a variety of difficult elements such as extremely fast movement, sudden changes in speed, and interruptions by obstacles, AI Servo AF III overcomes these and is able to capture the subject.

Case 1 is the recommend starting point for tracking moving subjects, especially those moving at a steady speed. When more specific settings for individual cases are desired, please try Case 2 – Case 6 to match shooting conditions.



## of subjects



Case 1 can be used to great advantage when shooting continuously moving subjects, regardless of the speed of their movement.

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### Single-Point

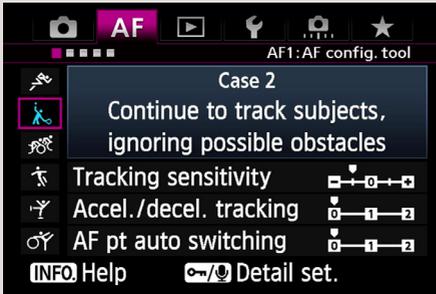
**AI Servo AF III makes it possible to carry out precise focus for subjects in a wide variety of conditions**

AF on the EOS-1D X is equipped with a new focus tracking algorithm, AI Servo AF III. It supports an even greater variety of subject movement than before. Case 1 should be most users' first option for action shooting. In particular, it's ideally suited for subjects moving continuously toward or away from the camera.

---

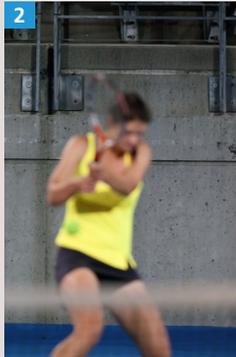
## Continue to focus-track even when the subject momenta

Effective when shooting scenes with fast moving subjects, or when an obstacle momen



### Parameter default settings

Subject tracking sensitivity	[-1]
Accelerate / decelerate Tracking	[0]
AF point auto switching	[0]



Example of a fast moving subject where the focus has shifted to the background (photo2). By selecting Case 2 for situations like this, AF is less likely to be thrown off by sudden changes.



Case 2 is an effective setting for shooting fast moving subjects which may move away from the selected AF point, or when obstacles may momentarily obscure the subject. Sometimes when the subject moves from the selected AF point, focus can shift to the background

(resulting in an out of focus subject). Or, if another subject or obstacle suddenly comes between you and the subject, AF may re-focus on the obstacle. By selecting Case 2 in situations like these, the AF system will attempt to continue to track the initial subject. When a

## Tracking moves from the AF points

Tracking moves from the AF points

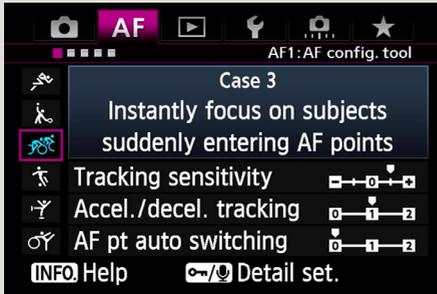


Tracking moves from the AF points for an extended period (such as swimmers doing the butterfly stroke, or sports where the subject is hidden for intervals), even better performance may be achieved by manually setting the **[Tracking sensitivity]** parameter to [-2].

Try selecting Case 2 when shooting a tennis player with fast side to side movement. The subject will be tracked even when they move away from the AF points.

## Focus instantly on subjects that move into the AF points

Effective when you want to continuously photograph targeted athletes one after the



### Parameter default settings

Subject tracking sensitivity	[Responsive: +1]
Accelerate / decelerate Tracking	[+1]
AF point auto switching	[0]

Case 3 is the ideal setting when you want the AF system to focus instantly on any new subject within the active AF area. In Case 3, the **[Tracking sensitivity]** parameter is set to **[+1]**. As a result, subjects that come into the AF points will be focused on more quickly. This setting is most effective when subjects appear suddenly in the frame (for example, an alpine skier bursting over a hill and suddenly appearing in your viewfinder). Case 3 can also be extremely effective when you want to instantly switch from one moving subject to another (for example, at the finish line of a bicycle road race, when you want to shoot continuously and switch from cyclist to cyclist while focusing).

With Case 3, unlike Case 2, if the subject moves away from the AF points, the camera may quickly refocus on a different subject or background. Therefore, Case 3 is recommended only when you truly want the AF to instantly refocus on new subjects.



2. Focus on the lead cyclist

other



**1. Shoot the whole group while focusing on the cyclist in the center**

A scene with cyclists coming towards the camera. While focusing on the lead cyclist, you may wish to switch focus to the other cyclists while continuously shooting. In this situation, Case 3 would allow you to move the active AF point from one cyclist to another, and instantly begin to focus-track on the new subject.



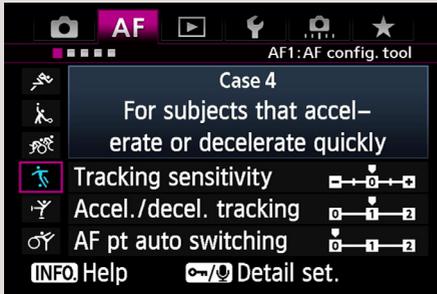
**3. Focus on the right side cyclist**



**4. Focus on the left side cyclist**

## Focus track subjects that can accelerate or decelerate

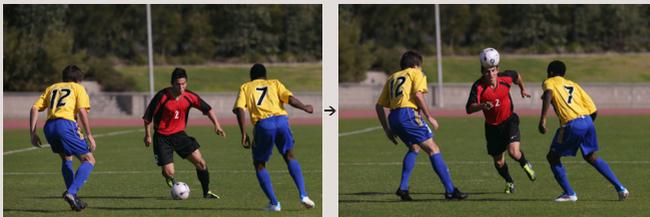
Effective when a subject's speed changes rapidly, or in sports where subjects stop or



For example in soccer. A player dribbling at high speed stops suddenly in front of a defender, changes direction and then begins to sprint again. By using Case 4 the AF system reacts to sudden changes in speed, allowing continuous and accurate focusing.

### Parameter default settings

Subject tracking sensitivity	[0]
Accelerate / decelerate Tracking	[+1]
AF point auto switching	[0]



Continuously track players as they suddenly slow down and speed up



When shooting sports, there are many situations where subjects won't be moving at steady, continuous speeds. Athletes suddenly going from static to moving or sudden stopping can occur in various sports and situations, and

it can be challenging for traditional AF systems. In these situations, Case 4 may be most effective. With the **[Accelerate / decelerate Tracking]** parameter set to **[+1]**, the AI Servo AF will work to focus-track any changes in speed,

## quickly

change direction

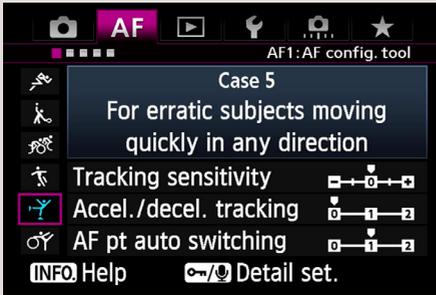


including sudden stops and starts. This makes Case 4 an effective setting for shooting American football, soccer, rugby, basketball or sports where there is a lot of running and stopping, as well as changes of direction. It is

also effective for cornering during motor sports (sudden deceleration and acceleration), and for many types of wildlife shooting.

## Focus on subjects with erratic movement

Suitable for sports and fast action where traditionally AF systems have difficulty tracking



### Parameter default settings

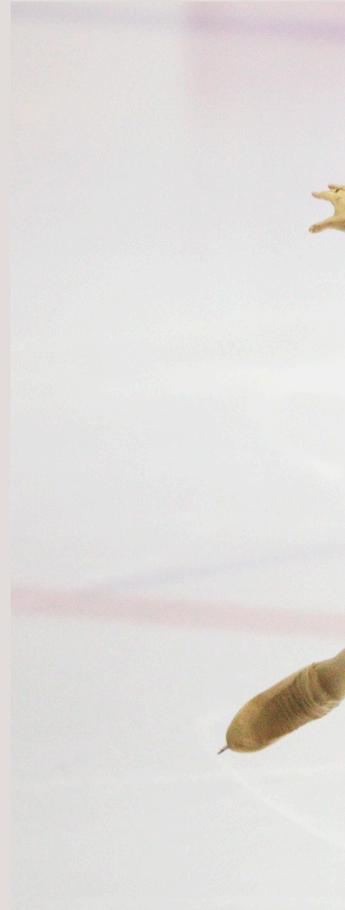
Subject tracking sensitivity	[0]
Accelerate / decelerate Tracking	[0]
AF point auto switching	[+1]

It is possible to focus on subjects that move erratically and could move in any direction



Inline skating on a half-pipe. Capturing the moments when the skater is jumping and twisting is easier with Case 5.

Using Case 5 when photographing a figure skater making a big jump (the AF area selection mode is set to **[AF point expansion]**). Case 5 allows even faster automatic switching from one AF point to another, when an enlarged AF Area is selected.



Case 5 is most effective for subjects that can move unpredictably from side to side — when more than one AF point is active. This setting works with 61-point automatic selection AF, Zone AF, and AF point expansion AF Area

settings only. In Case 5, **[AF pt auto switching]** is set to **[+1]**, speeding up the camera's ability to shift from one AF point to another. One of the key benefits of the 61-point AF system is its ability to enlarge the active AF area, and Case 5

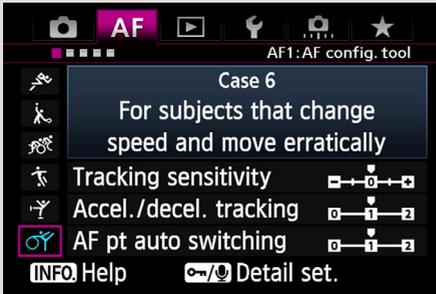


takes full advantage of this when erratic-moving subjects make it difficult to keep a single AF point on the subject. This setting is especially effective when shooting subjects with erratic movement such as figure skating,

skateboarding, and inline skating. It can also be valuable in various types of wildlife and nature shooting, especially with birds in flight.

## Focus on subjects with erratic movement and changes in

Effective when shooting sports that feature lots of quick movements



### Parameter default settings

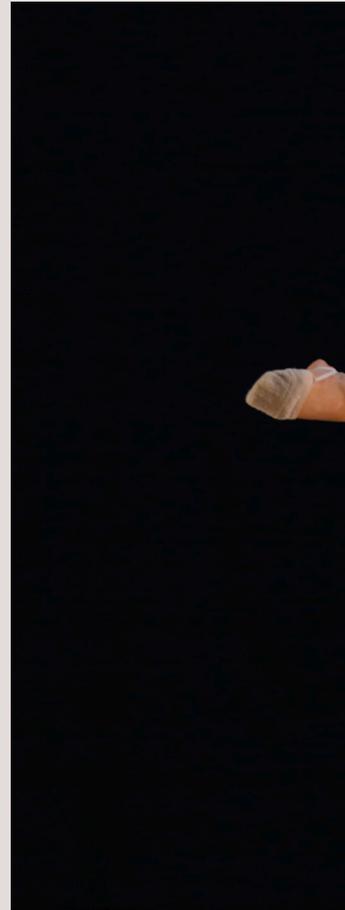
Subject tracking sensitivity	[0]
Accelerate / decelerate Tracking	[+1]
AF point auto switching	[+1]

A rhythmic gymnast making sudden big jumps can be captured when shooting with Case 6 which can focus on subjects with sudden movement, and erratic movement. Continuous focusing is possible for large movements and changes in speed.

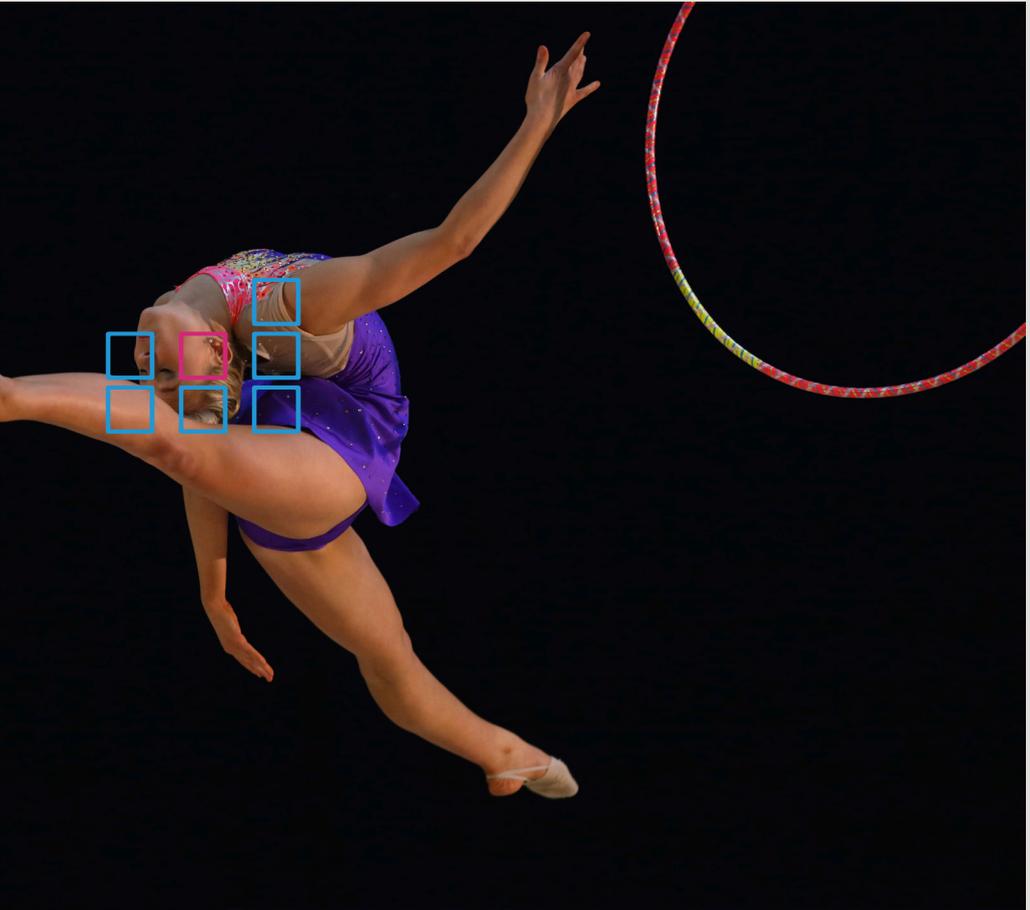
Case 6 combines features of both Case 4 (support for sudden changes in speed), and Case 5 (support for erratic movement in any direction). **[Accel./decel. tracking]** and **[AF pt auto switching]** parameters are both **[+1]**.

Therefore, Case 6 is an effective setting for subjects that stop and start suddenly, but also have erratic side-to-side movement. Like Case 5, its faster AF Point Auto Switching works when the AF Area is set to Auto selection 61-point AF, Zone AF, and AF point expansion settings only.

Subjects that are most appropriate for Case 6 include rhythmic gymnastics, where there are often large movements with complete stops.



## speed



→



→



# This setting allows obstacles that pass in front of the sub

[Locked on] can be effective when an obstacle crosses in front of the subject and when

[Locked on : -]

[Responsive : +]



Choose any of [Case] and push  button for Tracking sensitivity, then adjust level with  SET button.



An example where [Locked on: -1/-2] is more effective

When another player, or a referee crosses in front of the subject and focus can shift to the foreground/background

Example where the referee momentarily appears in front of the player being tracked, then the player appears again. With the [Locked on: -1] setting, the camera resists re-focusing on the new obstacle, and the AF system continues to track the original player.

## ject to be ignored, as well as focusing on new subjects focus jumps to the background,

With the AF Configuration Tool on the EOS-1D X, not only can you select from Case 1 – Case 6, but three parameters for each can be further adjusted individually.

**[Tracking sensitivity]** addresses how quickly the AF system will try to re-focus on a new subject, when you're focus-tracking an original subject and there's a sudden change.

The **[Locked on: -1/-2]** setting delays AF from switching to a sudden new subject, and

continues to focus-track the original subject . Selecting -2 results in the targeted subject being tracked for the longest time before focus changes to a new subject now in the AF point.

The **[Responsive: +1/+2]** setting speeds up the process of re-focusing on a new subject with AI Servo AF. It is also effective when you want to quickly focus on subjects that are hidden and will appear suddenly.



**An example where  
[Responsive: +1/+2] is  
effective**

**When you want to focus on an  
athlete who appears suddenly in  
the frame.**

Example where a skateboarder appeared suddenly from the far wall. In a situation like this, setting to **[Responsive: +1/+2]** makes it possible to focus even quicker on the skater that just appeared. (Photo top left, shown to illustrate scene prior to the skateboarder appearing,)

## Set tracking for subjects that move or stop suddenly

[+1/+2] is effective for fast sports which may include sudden stop-start motion

[0]



[+1]



Choose any of [Case] and push  button for Accel. / decel. Tracking, then adjust level with  SET button.



Examples where the [0] setting is effective

Track and field events where constant speed is common

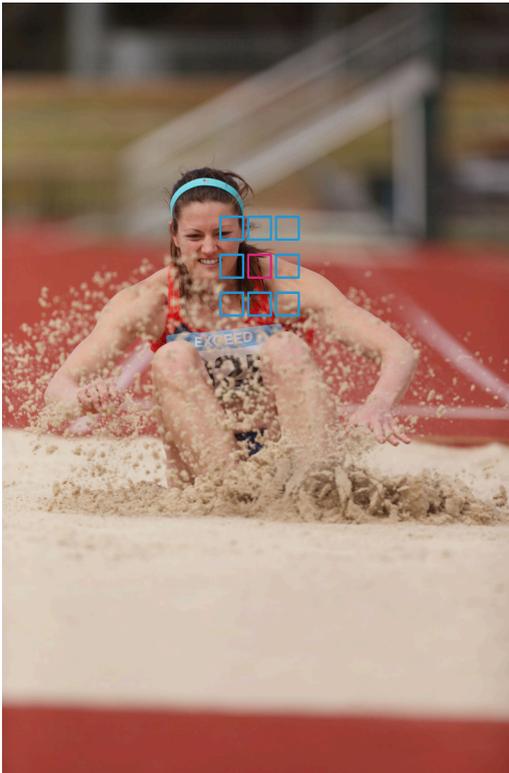
A track and field example where an athlete is running directly towards the camera. [0] is most suitable for taking shots of subjects moving at a steady, continuous rate of speed — regardless of whether that speed is fast or slow.

**[Accel./decel. tracking]** is revolutionary: it allows you to set the AF system for either continuous, steady movement, or erratic, stop-and-start movement. The default setting is **[0]**, which is suited for shooting subjects that move at steady speeds, .

**[+1/+2]** are intended to shooting subjects that stop/change direction suddenly or accelerate/ decelerate suddenly, enabling it to continue to focus on the subject. +2 can handle

greater changes in speed than +1, however, it can also be more prone to be affected by slight movements of the subject causing temporarily unstable focus accuracy.

Other parameters are the same, so first try shooting with default settings, then increase the setting to **[+1]** and then **[+2]** settings when subject motion tends to have frequent changes in speed.



### Examples where the **[+]** setting more effective

#### Sports where athletes movement sudden stop or start

A long-jump landing is a perfect example of movement that suddenly comes to a stop. With this sudden change in subject speed, normal AI Servo AF may not be able to perfectly capture it. However, changing the **[Accelerate / decelerate Tracking]** set to **[+1]** or **[+2]** adjusts the EOS-1D X's AI Servo AF to expect and adjust for sudden speed changes.

## Set how rapidly the AF point switches to a new AF point [+1/+2] setting is most effective for sports with lots of movement where the subject can

[0]



[+1]



Choose any of [Case] and push  button for AF pt auto switching, then adjust level with  SET button.

Examples where [0] is most effective, Sports with comparatively big movements, and are not very fast



Example of a golf bunker shot. The [0] setting is recommended when shooting subjects that do not move significantly.

### Tip for AF setting

Change the level of "Accelerate / decelerate Tracking" and "AF point auto switching" as needed for the best possible results — depending on the type of motion.

"Accelerate / decelerate Tracking" and "AF point auto switching" are two fundamental aspects of the 61-point AF system, whenever you've got moving subjects and more than one AF point active. Start with the factory default settings, but if you need more focus consistency, understand you can adjust either or both to suit the subject at hand.

## for moving subjects

easily move out of the selected AF point

**[AF pt auto switching]** adjusts the speed of AF point switching when the subject has a lot of movements. This parameter is only for switching between multiple AF points, so it is unavailable when using AF area selection modes **[Single-point Spot AF]** and **[Single-point AF]**.

The **[0]** setting is a standard setting for smooth, predictable switching of AF points. The **[+1/+2]** settings are used when shooting subjects with faster, erratic movement which

could happen in any direction. Whenever the initial or primary AF point (again, with more than one AF point active) leaves the subject, it will rapidly switch to surrounding AF points to continue to follow the subject.

Use the **[+]** setting when you want the camera to speed-up the process of switching AF points; the **[0]** setting provides more stable changing of AF points, and is ideal for subjects that don't move radically from side-to-side.

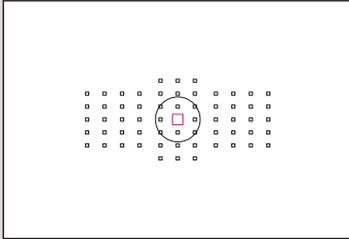
**Examples where [+]** is effective, fast moving sports with big movements, where the AF points can lose the subject easily



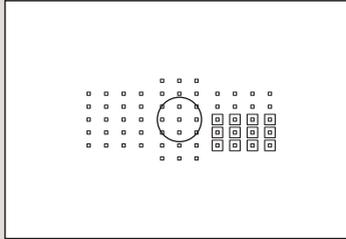
A rhythmic gymnast showing lots of movements in all directions. Use the **[+1]** setting in order to capture the movement by taking advantage of rapid shifting AF points.

# Change the AF point selection to match your the shooti

Choose whether only one AF point is used, or select from a vast array of AF selection



Using only one AF point



Using multiple AF points (zone)

**AF modes can be selected to match the subject and conditions**

The AF area selection modes make it possible to set how many of the 61-point AF are available to be used. Set the selection method of AF points that best matches the subject and shooting conditions.



Press the  button



The mode is changed each time the M-Fn button is pressed

## How to set the AF area selection mode

After pressing the  button, each time the M-Fn button is pressed, the [AF area selection mode] changes. By setting menu [AF4] tab's [AF area selection method] to [ -> Main Dial], after pressing the  button, you can switch the AF Area setting with the Main Dial if you prefer.

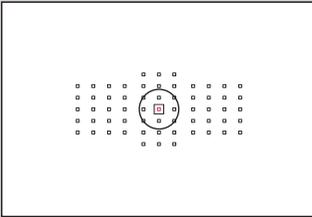
The EOS-1D X is equipped with 61-point AF. Not only can all these AF points each be selected individually, but also automatic switching among multiple AF points to track the subject, even using all 61 AF points. The [AF area selection mode] setting allows the selection of these AF point modes.

The two types of modes that you can manually select a single AF point to focus with are [Single-point Spot AF] and [Single-point AF].

Four modes can switch automatically between multiple AF points to capture moving subjects: AF point expansion (4 points — up, down, left, and right); AF point expansion (surrounding 8 points); Zone AF; and Auto selection of 61 AF points (during AI Servo AF). AF Area features are explained from P. 27 – 35, so you can select the mode best suited to your subject's characteristics and shooting scene.

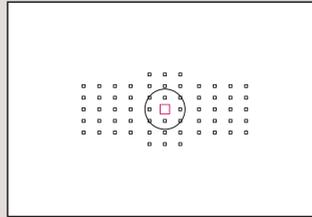
## AF style options

### There are six AF area selection modes to choose from



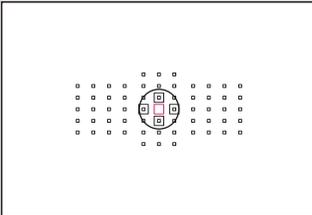
#### Single-point Spot AF

A single AF point is manually selected, and its size reduced for selective focus on small areas.



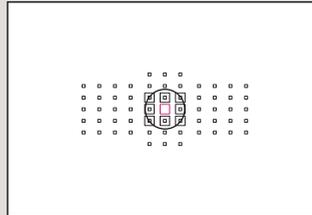
#### Single-point AF

The default setting. One single point is active, and can be manually moved within the 61-point array by the photographer.



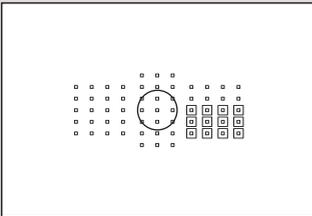
#### AF point expansion (four surrounding points)

Focus using one manually selected point assisted by 4 other AF points (up, down, left, and right).



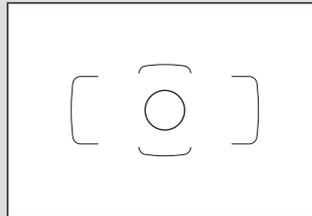
#### AF point expansion (eight surrounding points)

Focus using one manually selected point assisted by a larger cluster of surrounding AF points.



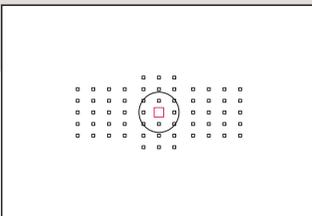
#### Zone AF

Nine pre-set AF zones are available; the camera focuses on nearest subject within active zone.



#### 61-point automatic selection AF

All AF points are used with this mode, and the camera selects and focuses automatically.

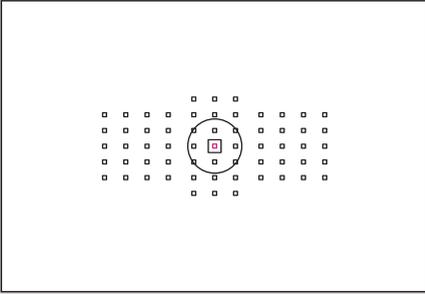


### Single-point AF is an easy to use mode for still life photos etc. in One-shot AF

Single-point AF: one manually selected AF point is used to focus. For experienced photographers or when it is easy to keep the single AF point on a moving subject, it can be combined with AI Servo AF to focus-track moving subjects. However, this AF Area setting is often more effective for shooting still life and landscapes with One-shot AF mode.

## Focusing on a small or narrow area

It is possible to focus on pinpoints such as the eye when a helmet is being worn



When set to **[Single-point spot AF]**, a small rectangle is displayed inside the manually selected AF point.

Image of a BMX rider wearing a helmet. Focus was pinpointed on the eye using **[Single-point spot AF]**.



**[Single-point spot AF]** is effective when there is something like the edge of the helmet, or visor near the eye you want to focus on. An even smaller AF area is used to focus upon a precise area of the subject.



Spot AF mode reduces the size of a single, manually-selected AF point, making it even easier to carefully focus on small, precise areas of a scene. It's often an ideal way to focus on the exact area, even when there is an obstacle

near the area you want to focus on. One example when shooting sports is when you want to focus on the eyes of a rider wearing a helmet (see photos above). Even with normal Single-point AF, focus can easily get caught on



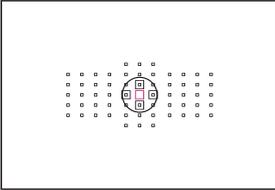
the edge of the helmet near the eye, resulting in sharpest focus at this edge. In situations like this, **[Single-point Spot AF]** makes it possible to focus more accurately on the rider's eye.

However, since Spot AF reads such a small

area of the scene, it's not really suited to fast-moving subjects, and especially if there's not a lot of detail at the subject where the Spot AF point is placed, it may take longer to focus than other AF Area selection modes.

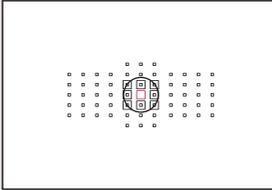
## For fast moving subjects that are difficult to track with a

This mode is ideal for sports photography



**Shooting with AF point expansion (up, down, left, and right)**

**AF point expansion (surrounding points)**



Viewfinder display of [AF point expansion]. The manually selected AF point lights up red.



[AF point expansion] mode can be used for a wide range of sporting events with erratic movement. [AF point expansion (Up, down, left, and right)] was able to accurately track the dribbling soccer player.

AF Point Expansion lets the shooter manually choose a single AF point for focus — but it adds a cluster of surrounding points, giving a larger area for following subjects and focusing. It's especially well-suited for rapidly moving

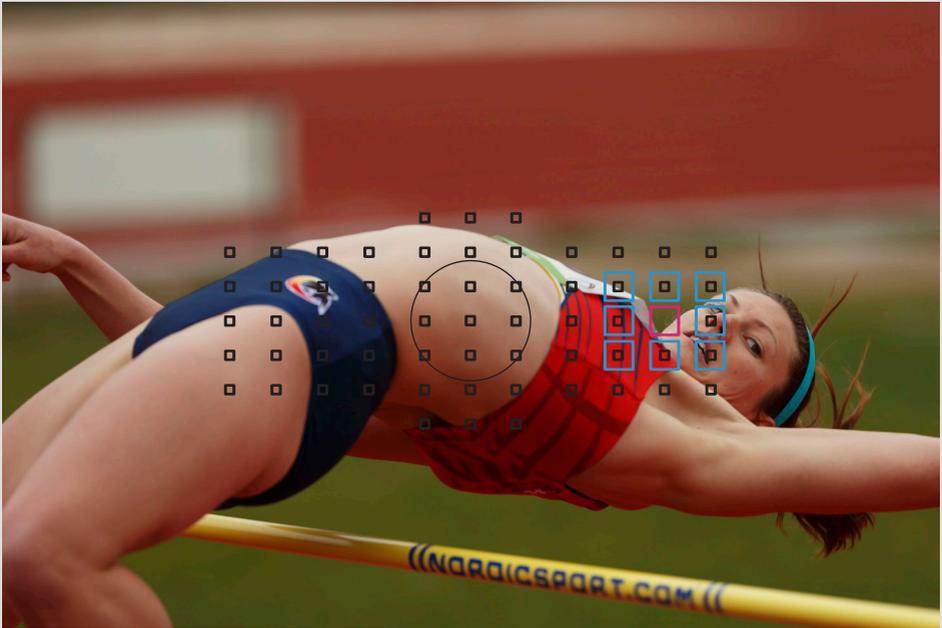
subjects, such as sports or wildlife. And, it works well with subjects that don't have lots of detail or texture. The "principal" (central) AF point is primarily used for focus, but the outer points are instantly available if AF can't be

## single AF point

### Hints and tips

[Up, down, left, and right] and [surrounding] can be selected according to the difficulty of reading the movement, and the relative importance to the central AF point

Two AF Point Expansion choices: the large [Surround] option, which adds eight AF points around a central primary point, or smaller 4-point option, which broadens coverage with a point up, down, left and right of the primary point. [Surround] is a good choice when you expect lots of lateral movement.



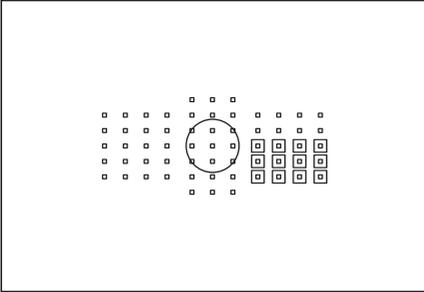
As switching of the AF point takes place centered on the selected AF point with [AF point expansion], this mode makes it easy to obtain the desired composition. This high jump athlete was captured with [AF point expansion (surrounding)].

completed with the principal AF point or if the subject moves slightly away from the central point. Of course, the central point and 4 or 8 surrounding points can be manually moved anywhere within the 61-point AF array.

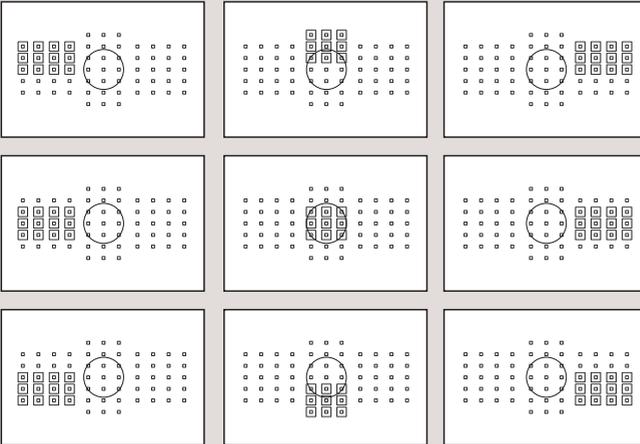
Case 5 or Case 6 can be selected to allow even faster switching to outer AF points, if you anticipate really rapid side-to-side subject movement. AF Point Expansion is a setting any sports shooter should become familiar with.

## Effective for capturing subjects within a known area

For larger subjects or subjects that subjects moving over a larger area



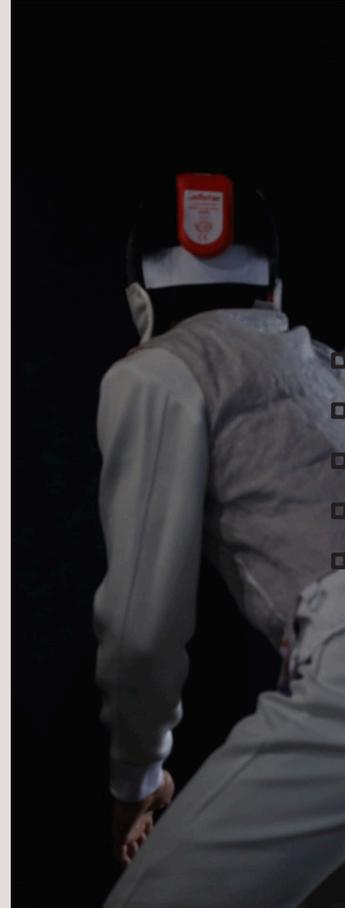
The selected AF points display in **[Zone AF]**.



### Selection can be made from nine focusing zones

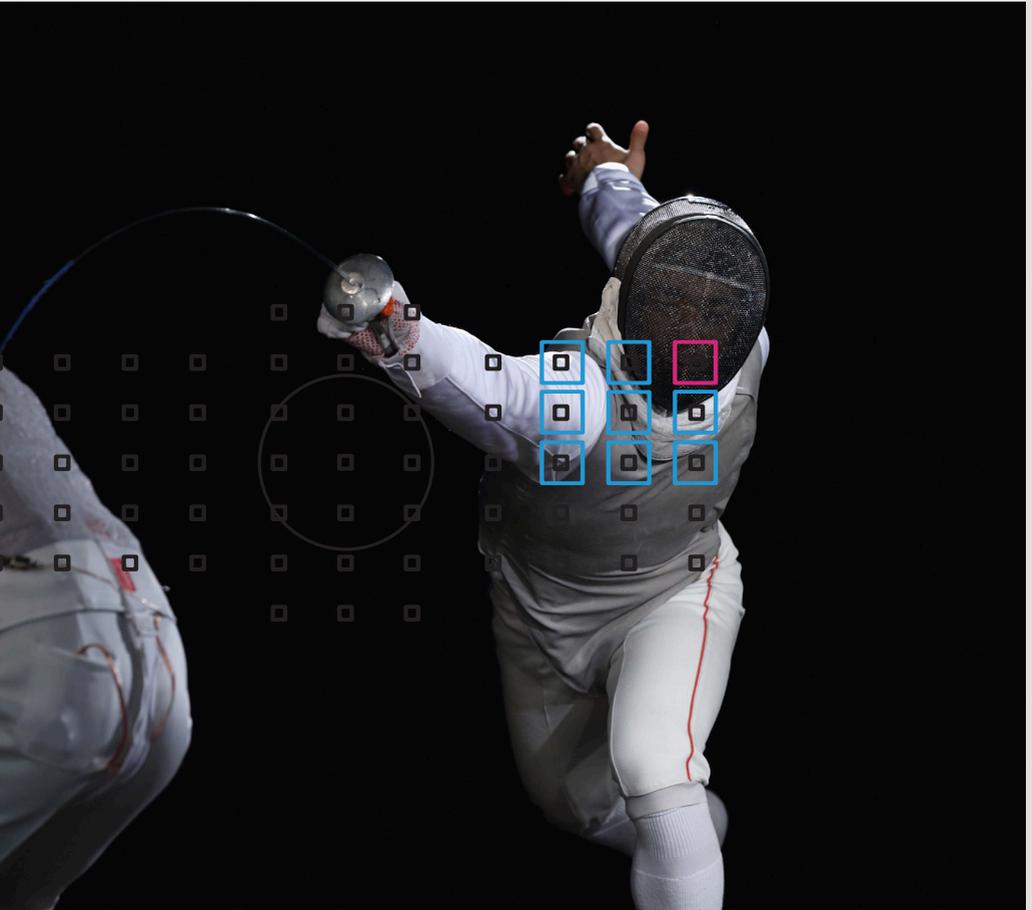
The 61 AF points are divided into three blocks, left, center, and right, and each has upper, central, and lower zones, and the desired location can be selected from these nine zones.

A photo of a moment of action in fencing shot with **[Zone AF]**. In order to focus on the fencer's facial area, this shot was taken by selecting the upper right zone.



With the **[Zone AF]** mode, one of the nine focusing zones can be selected, and the EOS-1D X will focus on the nearest subject within that zone — whether in One-Shot AF or AI Servo AF mode. Zone AF differs from **[AF point**

**expansion]** — with Expansion, one principal AF point is used, and outer points only called upon if the subject moves or AF isn't possible. But with Zone AF, the entire zone of AF points is always active, and any can be used to focus on

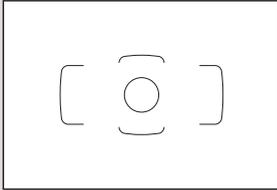


the nearest subject. Zone AF is ideal in situations where you can reliably place the active zone over a face or other part of a subject that will be closest to the camera. The large areas of each zone lend Zone AF to subjects that will

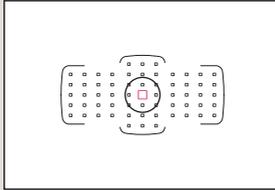
move side-to-side frequently, reducing the need to keep a single point upon a difficult-to-follow moving subject.

## AI Servo AF with all 61 points used for automatic tracking

Ideal for moving subjects that the old AF systems struggle with



One-Shot AF



AI Servo AF

When using **[One-Shot AF]**, EOS-1D X automatically chooses one or more AF points to focus on nearest subject. With **[AI Servo AF]**, user selects one starting AF point, and camera will automatically shift points from there if subject moves.



**Capture the subject with an AF point near the center, and then by moving the camera to the left, you can compose a photo with space on the left side of the frame.**

Shooting started by pinpointing focus on the leader of a cycling road race with a manually selected AF point. While taking continuous shots, the camera was moved to the left so the following cyclists on the left of the leader are rendered beautifully out of focus in the background.

### Hints and tips

With "AI Servo AF" mode, the shooting starts from one AF frame that is user-selected. So select one AF point that will cover the position where focus-tracking starts. An interesting option is to manually pick the same AF point in Single Point AF, and in 61-point Auto AF select mode. Now, the same start position occurs if AF Area is switched from Manual to Automatic selection.



Combining AI Servo AF with Automatic AF point selection allows the user to select one starting AF point. Once tracking begins, the camera will automatically change AF points to keep the original subject in sharp focus. The AF points are arranged in a wide area and allow a lot of compositional freedom.

However, depending on shooting conditions or if the subject is small, tracking may not be possible, so caution is necessary. **[Auto selection of 61 AF points]** is effective when shooting subjects with movements that cannot be captured with **[AF point expansion]** or **[Zone AF]** (figure skating jump scenes for example).



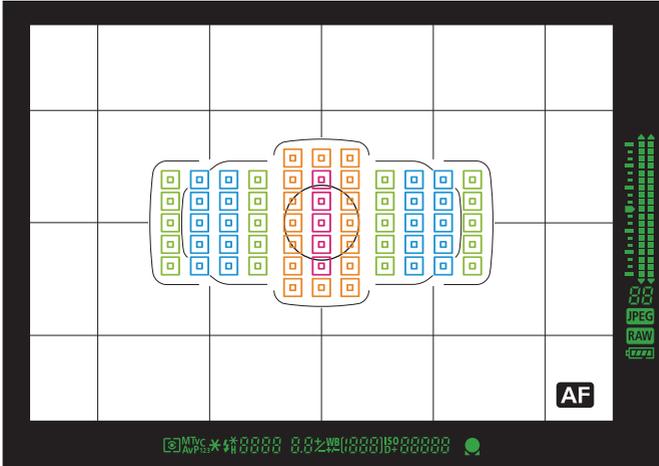
Another effective use is when you want to take action images for publication/articles with lots of space in the composition for text etc. In the examples above shooting began by capturing the targeted cyclist first with a manually selected AF point (in the center, etc.). From there, while continuous shooting and

moving the camera (lens) to the left or right, it is possible to position the lead cyclist off to one side and include a lot of background (focusing continues to track the cyclist by automatically switching AF points).

# The 61-point AF has numerous cross-type points for gre

High-precision, cross-type focusing is possible even using lenses with a maximum

Up to 41-point cross-type AF with f/4 lenses, enabling superior tracking performance with most lenses



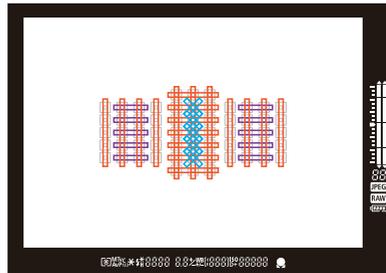
This diagram shows the distribution of cross-type AF points in the EOS-1D X. The five AF points at the center operate as diagonal cross-type AF points at f/2.8; 41 cross-type AF points are available for f/2.8-f/4 lenses; and the center 21 AF points serve as cross type at f/5.6. This makes it possible to focus with high precision and high tracking performance with the many AF points.

- f/2.8 and f/5.6 cross-type AF (dual-cross AF)
- f/5.6 cross-type AF
- f/4 (vertical-line focusing) + f/5.6 (horizontal-line focusing) cross-type AF
- f/5.6 (horizontal-line focusing) AF

\*The colored AF points are for illustrative purpose only. This does not represent the actual viewfinder display.

## Newly developed 61-point AF sensor

By increasing number of AF points greater freedom of composition is possible. The large number of cross-type AF points improves ability to instantly focus on various types of subjects. And as a result of two-line AF sensors in a zigzag pattern, tracking performance is improved for low contrast subjects as well.



- ✕ f/2.8 cross-type AF
- f/4.0 vertical-line focusing AF
- f/5.6 vertical-line focusing AF
- f/5.6 horizontal-line focusing AF

Backing up all the flexibility and control of the EOS-1D X's new 61-point AF system is an amazing new AF sensor. Designed from the ground up with an emphasis on accuracy, precision and reliability, it's the foundation of the EOS-1D X's spectacular AF performance.

Its 61 AF points offer not only the widest coverage ever for a full-frame EOS camera, but the greatest level of AF precision Canon has yet

achieved. Highlights include: Five central cross-type AF points, in a diagonal "X" shape, with ultra-high precision (when used with lenses f/2.8 or faster); 20 outer cross-type AF points with extra-high-precision (with f/4 or faster lenses); and 21 central AF points that preserve cross-type coverage, even with lenses having f/5.6 (or faster) maximum apertures. 41 out of the 61 AF points offer cross-type coverage.

# at tracking performance

aperture f-number of f/4

## 61-point AF (1) The number and placement of cross-type points used by the f/2.8 lenses



EF400mm F2.8L IS II USM

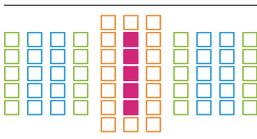


EF85mm F1.2L II USM

### 41-point cross-type AF points and 5 Dual Cross -f/2.8 AF points can be used with many lenses

Pros often rely on fast lenses, and with lenses f/2.8 or faster (see the Group A lens list), full advantage of the five ultra-high-precision, cross-type central AF points is achieved. Additionally, full cross-type coverage is available at all 21

central AF points, and high-precision cross-type performance is achieved at 20 of the left/right outer AF points. High-precision AF at the sensor with f/2.8 or faster lenses means added focus accuracy when pros need it most.



#### Group A

#### 41-point cross-type AF, with five f/2.8 diagonal-cross AF points at the center

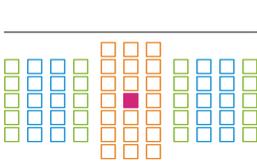
AF focusing is possible with 61 points. All AF area selection modes can be chosen.

#### Major lenses

EF24mm f/1.4L USM	EF24mm f/1.4L II USM	EF28mm f/1.8 USM	EF35mm f/1.4L USM	EF35mm f/2
EF50mm f/1.0L USM	EF50mm f/1.2L USM	EF50mm f/1.4 USM	EF50mm f/1.8	EF50mm f/1.8 II
EF85mm f/1.2L USM	EF85mm f/1.2L II USM	EF85mm f/1.8 USM	EF100mm f/2 USM	EF135mm f/2L USM
EF135mm f/2L USM + Ext EF1.4x		EF135mm f/2.8 (with soft focus)		EF200mm f/1.8L USM
EF200mm f/1.8L USM + Ext EF1.4x		EF200mm f/2L IS USM	EF200mm f/2L IS USM + Ext EF1.4x	
EF200mm f/2.8L USM	EF200mm f/2.8L II USM	EF300mm f/2.8L USM	EF300mm f/2.8L IS USM	EF300mm f/2.8L IS II USM
EF400mm f/2.8L USM	EF400mm f/2.8L II USM	EF400mm f/2.8L IS USM	EF400mm f/2.8L IS II USM	TS-E45mm f/2.8*
TS-E90mm f/2.8*	EF16-35mm f/2.8L USM	EF16-35mm f/2.8L II USM	EF17-35mm f/2.8L USM	EF20-35mm f/2.8L
EF28-70mm f/2.8L USM	EF24-70mm f/2.8L II USM**	EF70-200mm f/2.8L USM	EF70-200mm f/2.8L IS USM	EF70-200mm f/2.8L IS II USM

#### Group B

#### 41-point cross-type AF, with one ultra high-precision diagonal-cross AF point at center



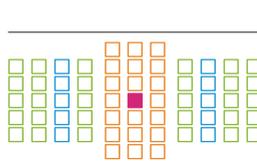
#### Major lenses

EF14mm f/2.8L II USM
EF20mm f/2.8 USM
EF24mm f/2.8
EF24mm f/2.8 IS USM***
EF28mm f/2.8 IS USM***
EF24-70mm f/2.8L USM

AF focusing is possible with 61 points. All AF area selection modes are available. High-precision, cross-type AF at 20 outer AF points.

#### Group D

#### 31-point cross-type AF, with one ultra high-precision, diagonal cross-type center point



#### Lens

EF28mm f/2.8
--------------

AF focusing is possible with 61 points. All AF area selection modes are available. High-precision, cross-type AF at 10 outer AF points.

\* TS-E lenses are manual focus only. \*\* Sales start scheduled in July, 2012 \*\*\* Sales start scheduled in June, 2012

\* Focus confirmation light works during manual focus (without any tilt or shift movements).  
 "Ext EF1.4x" is an abbreviation of various EF 1.4x Extenders.

## 61-point AF (2) The number and placement of cross-type points used by the f/4 lenses



EF70-200mm f/4L IS USM

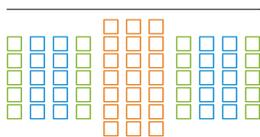


EF 17-40mm f/4 L USM

### 41-point cross-type AF points can be used

Pros also often work with f/4 lenses, or f/2.8 tele lenses with an EF 1.4x Extender. EOS-1D X provides all 61 AF points to these users, with 41 offering cross-type coverage. 20 of the outer AF points provide an added measure of high-

precision, cross-type AF coverage, making them even more useful as an alternative to the center AF points. Note that the EF 100mm f/2.8L IS macro lens is part of this grouping, and AF with that lens conforms to these characteristics.



#### Group C

**41-point cross-type AF points available, and they can be used with a high level of tracking performance**

AF focusing is possible with all 61 points.  
All AF area selection modes are available.

- f/2.8 and f/5.6 cross-type AF (dual-cross AF)
- f/5.6 cross-type AF
- f/4 (vertical-line focusing) + f/5.6 (horizontal-line focusing) cross-type AF
- f/5.6 (horizontal-line focusing) AF

#### Major lenses

EF50mm f/2.5 Compact Macro	EF100mm f/2.8L Macro IS USM	EF300mm f/4L IS USM
EF200mm f/2.8L USM + Ext EF1.4x	EF200mm f/2.8L II USM + Ext EF1.4x	EF300mm f/2.8L USM + Ext EF1.4x
EF300mm f/2.8L IS USM + Ext EF1.4x	EF300mm f/2.8L IS II USM + Ext EF1.4x	EF400mm f/2.8L USM + Ext EF1.4x
EF400mm f/2.8L II USM + Ext EF1.4x	EF400mm f/2.8L IS USM + Ext EF1.4x	EF400mm f/2.8L IS II USM + Ext EF1.4x
EF135mm f/2L USM + Ext EF2x	EF200mm f/1.8L USM + Ext EF2x	EF200mm f/2L IS USM + Ext EF2x
EF8-15mm f/4L Fish eye USM	EF17-40mm f/4L USM	EF24-105mm f/4L IS USM
EF70-200mm f/4L USM	EF70-200mm f/4L IS USM	EF70-200mm f/2.8L USM + Ext EF1.4x
EF70-200mm f/2.8L IS USM + Ext EF1.4x	EF70-200mm f/2.8L IS II USM + Ext EF1.4x	EF500mm f/4L IS USM
EF500mm f/4L IS II USM	EF600mm f/4L IS USM	EF600mm f/4L IS II USM

### Cross-type AF coverage at 41 points, with many f/2.8 tele lenses and Extender 1.4x

On the full-frame EOS-1D X, an extender is often used for sports, photojournalism, wildlife, and other situations where longer focal lengths are required. When many wide-aperture telephoto lenses (f/2.8 lenses, 200 thru 400mm) are used with the Extender EF 1.4x attached, the maximum aperture will effectively become f/4 and these combinations therefore are included in Group C. High performance AF can be utilized at all 61 AF points, with cross-type coverage at 41 of them — therefore, offering superb AF performance, centered or off-center.

## 61-point AF (3) The number and placement of cross-type points used by the f/5.6 lenses



EF100-400mm f/4.5-5.6L IS USM

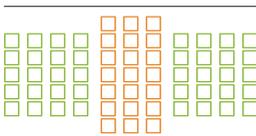


EF70-300mm f/4-5.6L IS USM

### Majority of lenses can make use of the central 21-point cross-type AF

Many lenses with EF 1.4x or 2x Extenders, and compact zooms fall into this category. With lenses having maximum apertures slower than f/4, high-precision AF is technically not possible,

but 21 AF points in the central area still provide cross-type AF coverage, and the wide-area coverage from all 61 AF points remains available.



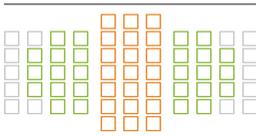
### Group E The central 21-point cross-type AF points can be used

AF focusing is possible with 61 points. All AF area selection modes are available.

#### Major lenses

EF 50mm f/2.5 compact macro + life size converter EF	EF500mm f/4.5L USM	EF100mm f/2.8 Macro USM
EF400mm f/5.6L USM	EF400mm f/4 DO IS USM + Ext EF1.4x	EF300mm f/4L USM + Ext EF1.4x
EF300mm f/4L IS USM + Ext EF1.4x	EF600mm f/4L IS USM + Ext EF1.4x	EF500mm f/4L IS USM + Ext EF1.4x
EF600mm f/4L USM + Ext EF1.4x	EF300mm f/2.8L IS USM + Ext EF2x	EF200mm f/2.8L USM + Ext EF2x
EF200mm f/2.8L II USM + Ext EF2x	EF400mm f/2.8L USM + Ext EF2x	EF300mm f/2.8L IS USM + Ext EF2x
EF300mm f/2.8L IS II USM + Ext EF2x	EF400mm f/2.8L IS II USM + Ext EF2x	EF400mm f/2.8L II USM + Ext EF2x
EF400mm f/2.8L IS USM + Ext EF2x	EF70-200mm f/2.8L IS USM + Ext EF2x	EF500mm f/4L IS II USM + Ext EF1.4x
EF600mm f/4L IS II USM + Ext EF1.4x	EF70-200mm f/4L USM + Ext EF1.4x	EF70-200mm f/2.8L IS USM + Ext EF2x
EF70-200mm f/2.8L IS II USM + Ext EF2x	EF70-300mm f/4-5.6 IS USM	EF70-200mm f/4L IS USM + Ext EF1.4x
EF28-300mm f/3.5-5.6L IS USM	EF100-400mm f/4.5-5.6L IS USM	EF70-300mm f/4-5.6L IS USM
EF70-300mm f/4.5-5.6 DO IS USM		

### Group F 21 central cross-type AF points available; total of 47 AF points available to select



#### Major lenses

AF focusing is possible with 47 points (61-point AF is not possible). All AF area selection modes can be available.

### Group G 15 central cross-type AF points available; total of 33 AF points available to select



#### Lenses

EF180mm f/3.5L Macro USM
EF180mm f/3.5L Macro USM + Ext EF1.4x
EF1200mm f/5.6L USM

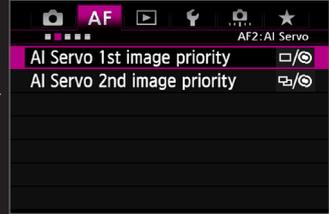
AF focusing is possible with 33 points (61-point AF is not possible). All AF area selection modes can be available.

# AF operation and Image/Focusing Priority settings

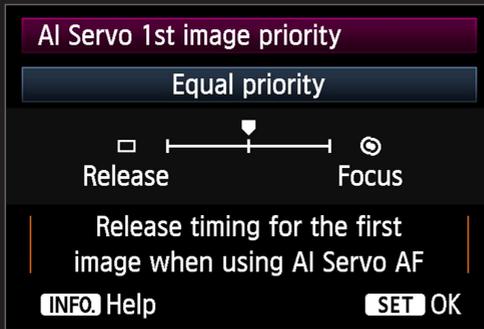
You can set whether focusing or shutter-release has priority

## Image/Focusing parameters during AI Servo [Set in the AF 2 tab]

You can decide whether to put priority on focusing or shutter-release



### 1 Shutter timing — first shot in a sequence [AI Servo 1st image priority]



#### Equal priority

This setting gives an equal timing priority to both focus and shutter-release

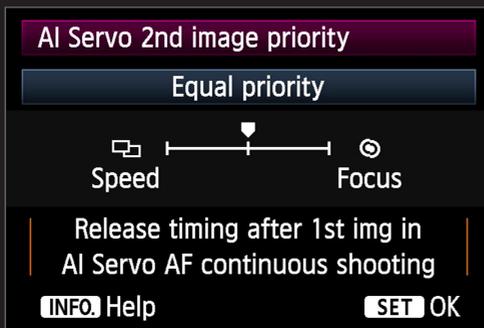
#### Release priority

This setting gives priority to releasing the shutter as quickly as possible, even if focus has not been fully confirmed by the AF system. When capturing the moment is the priority, consider using this setting.

#### Focus priority

This setting gives priority to focusing on a subject and won't allow shooting until it is in focus. It is recommended when you want to ensure your images are in focus, even if the first shot is delayed.

### 2 Shutter timing/fps speed in continuous shooting [AI Servo 2nd image priority]



#### Equal priority

This setting gives an equal priority to both focus and shooting speed during continuous shooting. The FPS rate may slow down if AF becomes difficult... low-contrast subjects, dark areas, etc.

#### Shooting speed priority

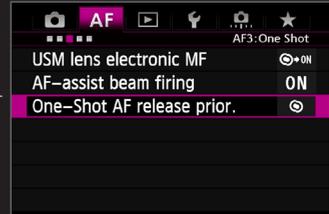
This setting gives priority to fastest continuous FPS speed, rather than priority on focus. Continuous shooting speed will not drop. Effective when FPS speed, or maintaining the same intervals, is priority.

#### Focus priority

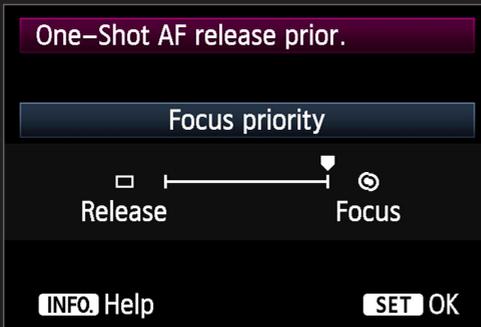
This setting gives priority to sharp focus for each frame, rather than continuous shooting speed. FPS rates will slow down when needed to confirm sharp focus for every shot in a continuous sequence.

## Image/Focusing parameter for One-Shot AF [Set in the AF3 tab]

You can decide whether to put priority on focusing or shutter-release



### Shutter timing — One-Shot AF mode [One-Shot AF release priority]



#### Focus priority

You cannot shoot a picture unless it is in focus. It is effective with stationary subjects, to insure sharp focus... this has been the One-Shot AF default for years with Canon EOS cameras.

#### Release priority

New: priority is on the least possible "shutter lag" time, rather than confirming sharpest focus. This can be useful in One-Shot AF mode when capturing the decisive moment is the ultimate priority, even if it means risking the occasional slightly soft image.

The **[AF2]** and **[AF3]** tabs include settings related to AF operation parameters and shutter-release timing. With these items it is possible to set which has priority (or a balance) between focusing with AF, and the shutter-release.

The **[AF2]** tab contains the **[AI Servo 1st image priority]** and **[AI Servo 2nd image priority]** parameters for AI Servo AF. The priority on focus and shutter-release can be set for both the 1st image and subsequent images during continuous shooting. With **[Focus priority]**, shooting is delayed until after the camera has focused on a subject (this could be just a few milliseconds). With **[Release priority/Shooting speed priority]** shooting takes place instantly without waiting to focus, resulting in fastest

response — but possible out of focus images. The default **[Equal priority]** balances both (attempting to focus without major delays to shutter release timings), ideal for most shooting situations.

When using One Shot AF the shooting priority can also be altered via the **[One-Shot AF release priority]** option in the **[AF3]** tab. The priority of focusing and shutter-release can be altered in similar fashion to AI Servo AF. However there is no **[Equal priority]**, and instead **[Focus priority]** is the default setting — as it has been on EOS SLRs for years.

# Automatically switching of AF points for horizontal and Using Orientation Linked AF point, to instantly switch AF points when the camera is

	<b>AF</b>			
AF4				
Auto AF pt sel.:EOS ITR AF	ON			
Lens drive when AF impossible	ON			
Selectable AF point				
Select AF area selec. mode	—			
AF area selection method	M-Fn			
Orientation linked AF point				

Use [Orientation linked AF point] in the [AF4] tab to set the AF points for each orientation

### Set up steps

**1** Select the [Select separate AF points] option from [Orientation linked AF point]

Orientation linked AF point	
Same for both vert/horiz	
Select separate AF points	
<b>INFO</b> Help	

**2** Change the camera position and select the desired AF point or AF mode

**A** Horizontal →

**B** Vertical position with grip at the top →

**C** Vertical position with grip at the bottom →

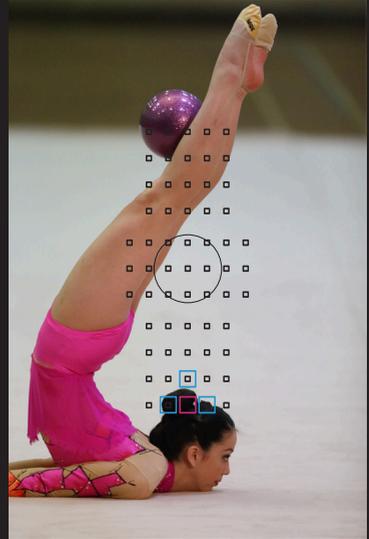
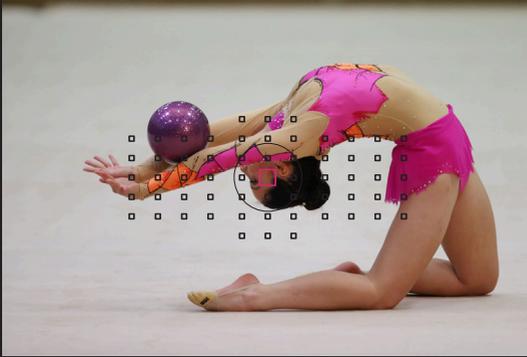
**3** By changing the camera's orientation, the set AF points and modes will switch automatically



First, select [Select separate AF points] from [Orientation linked AF point]. Next, select the AF area selection mode and the manually selected AF point for each of the positions (orientation) of A) Horizontal position, B) Vertical position with grip at the top, and if required C) Vertical position with grip at the bottom. The settings will automatically be remembered. Now, for each of these orientations the camera will automatically switch to the select mode and AF points.

## vertical shooting

turned from horizontal to vertical



### Note:

#### Different AF Area settings can be selected for horizontal and vertical orientations

Orientation Linked AF in the EOS-1D X allows not only different AF point for horizontal and vertical shots, but different AF Area settings can be chosen as well. For instance, it's possible to select the center AF point with Spot AF for horizontal shots, and Zone AF in an upper area for verticals.

This shot was taken with the orientation option set so that when in the horizontal position the central AF point was set, but when the grip is at the top in a vertical position, the AF point is at the bottom center. In rhythmic gymnastics the head may be close to the floor during the performance, so the AF point was set beforehand with this in mind.

Many studio and location photographers frequently change from horizontal to vertical compositions. And, one of the big advantages of the 61-point AF system is the complete flexibility it allows to focus and shoot, without having to re-compose.

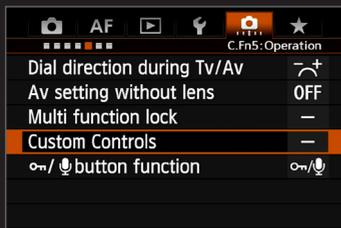
Orientation Linked AF point selection takes this to the next level. When **[Select separate AF points]** has been chosen in the AF menu, it's possible to have the camera instantly switch AF points — and even AF Area settings — when it's turned from horizontal to vertical, or vice-versa. For photographers who use off-center AF points, this can be a true game-changer for fast shooting in the field.

For vertical shots, separate AF points (and AF Area settings, if desired) can be set for both grip at top and grip at bottom orientations, thus allowing three separate points to be memorized.

This feature is one of the primary short-cuts that EOS-1D X owners should experiment with for rapidly switching from one AF point to another. It lends itself beautifully to many situations where the camera will be quickly moved from horizontal to vertical — anything from portraits to sports or news journalism. AF points remain fully adjustable, so even if Orientation Linked AF is active, users can still change AF point location or AF Area as desired.

## Instantly recalled AF points using [Switch to registered AF point]

Store your preferred AF point for instant access at the touch of a button



### Use [Custom Controls] from [C.Fn5: operation]

Using the [Custom Controls] option from the custom function [C.Fn5: operation] menu allows an AF point to be registered and recalled instantly. This function can also be used to assign various functions to the different camera controls.

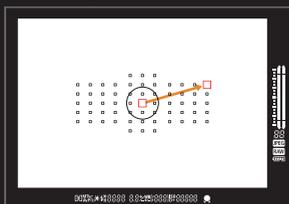
#### Set up steps

- 1 There are two options to customize the controls to register and AF point

**A** Assign [Metering - AF start] to the AF-ON button, or the \* button then press info and select [Registered AF point]

**B** Assign [Switch to registered AF point] to the button, LENS, or M-Fn2 button. Press info to select if the option is applied only when the button is held or not

- 4 To instantly return to the memorized AF point, press the assigned button (selected in stage 1) to switch to the registered AF point.



- 2 Manually select AF points you will want to recall. (This is possible with all AF area selection modes except Zone AF)



- 3 Press the button while pressing the ISO button until you hear a beep.



AF point registration and usage is described above. Also, for even more control, this can be combined with [Orientation linked AF point] setting (described on pages 42-43). Selecting the option [Select separate AF points], from the [Orientation linked AF point] option makes it possible to register and recall AF points separately for all three positions, vertical (grip top/bottom), and horizontal — and return to a separate memorized AF point as described here.

When the AF-ON button, or the \* button are assigned the function [Metering - AF start], instant switching to a memorized AF point becomes possible. Press the button in the [Customize Controls] assignment screen, and then select [Registered AF point]. Now when the button is held, AF will instantly switch to the memorized AF point.



Shooting the side to side movement of tennis strokes. After photographing the player positioned to the right side with a manually selected AF point at the upper right, it was switched to the AF point registered at the upper left with a single push of a button, then the player was photographed returning a backhand shot positioned to the right side.

Another way to instantly switch AF points is to memorize a point, and immediately return to by pressing a button. There are several methods to achieve this; one is to assign registered AF points to a button via **[Custom Controls]** function. The second method is AF point or **[AF area selection mode]** registration. By carrying out either of the two options, you can press a button and instantly switch between registered AF points.

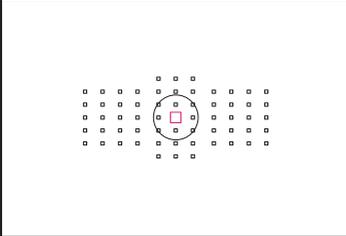
By registering frequently used AF points, or a strategically placed AF point, enables instant

response without the need to reframe or alter the camera's position. Further refinement in operation is possible with the <Depth-of-field preview> or the <Lens AF stop> buttons when set to (**[Switch to registered AF point]** setting). These buttons provide the possibility to **[Switch only while pressed]** or **[Maintain switching until pressed again]** settings, making detailed customization possible. Using these settings makes it easy and intuitive to quickly change AF points as you need, even if it's during the middle of action at a sporting event.

# Instantly switching AF area selection modes with a single button

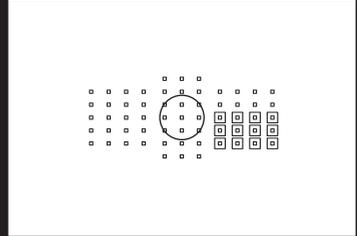
Assigning the AF modes you want to switch is convenient using [Custom Controls]

## Assigning functions



On shooting with optional 'AF area selection mode'

**AF-ON**  
By pressing the assigned button →

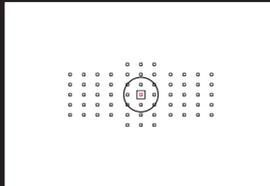
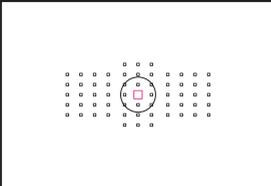


Switchable into set 'AF area selection mode'

By assigning an [AF area selection mode] to a specific button in the [Custom Control] screen, you can continue shooting and switch AF areas instantly with the press of single button without having to move your eye from the viewfinder.

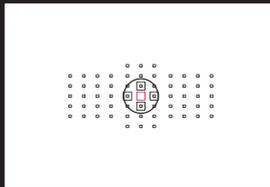
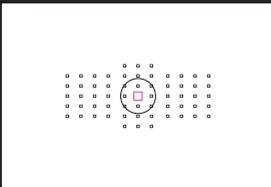
## Examples of instantly switching AF area selection modes

### From [Single-point AF] to [Spot AF]



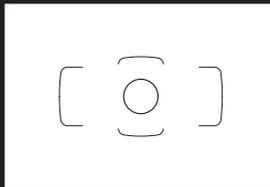
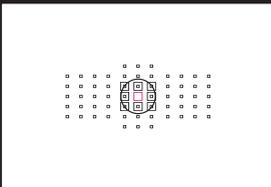
Shooting the pit stop in motor sports for example. After shooting wide shots at the wide angle end of a zoom lens with [Single-point AF], quickly zoom in, and when targeting the driver's eye avoiding the helmet using [Spot AF].

### From [Single-point AF] to [AF point expansion]



An example is soccer etc. where the player appears quite small in the viewfinder, then comes closer to fill the screen. In this case, by switching to [AF point expansion], it is possible to steadily track low contrast portions of the uniform even as it gets larger.

### From [AF point expansion] to [61-point automatic selection AF]



Switching to [61-point automatic selection AF] is effective with figure skating where the skater comes from far away to fill up the screen as they approach. You can leave AF point selection up to the camera, and concentrate on framing as you shoot.

## Buttons that can be assigned to switching AF area selection modes

There are the four buttons that can be assigned to switch AF functions. The AF-ON button and \* button can be assigned with [Custom Controls] to [Register/apply shooting functions], and the LENS button and  button can be assigned with [Switch to registered AF functions].

'Register/apply shooting functions' assigns.

**AF-ON** AF-ON button \* AE lock button

'Switch to registered AF functions' assigns.

**LENS** lens AF stop button  depth-of-field preview button

**M-Fn2** Multi function2button

### Set up steps

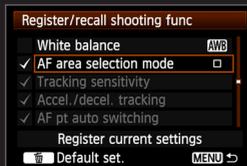
#### [Register/apply shooting functions]



Assign to the AF-ON button, or the \* button to [Register/apply shooting functions]



Press the INFO. button



Select the [AF area selection mode]



Assign [Register/apply shooting functions] to the AF-ON button or the \* button with the custom function's [Custom Controls]. Press the INFO. button on the assign function's selection screen, (various functions can be set) and select the [AF area selection mode] that you want to use.

Unique to the EOS-1D X is the ability to not simply memorize and instantly return to an AF point, but to register and immediately call-up either a different AF area selection, or an entire set of AF functions (different Accel/Decel tracking settings, Tracking Sensitivity, etc.)

The [Register/recall shooting functions] option, within the EOS-1D X's Custom Controls, provides access to this remarkable new feature.

Think about the characteristics of the sports

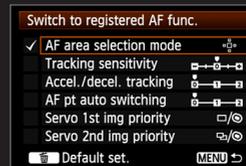
#### [Switch to registered AF functions]



Assign to the LENS button or depth of field preview button



Press the INFO. button now



Select the [AF area selection mode]

Assign [Switch to registered AF functions] to the LENS button or  button with [Custom Controls]. Press the INFO. button on the assign function's selection screen, and from various AF functions, select the [AF area selection mode], and select the mode that you want to use.

and subjects you want to shoot beforehand, and assign the AF area selection modes — or AF characteristics — you think you will use. By assigning different modes to each of the four AF areas and/or AI Servo AF options at will.

The ability to instantly change fundamental AF settings, on-the-fly, by simply pressing a button brings a new level of flexibility, allowing you to handle conditions as they change.