USER GUIDE SWING CATALYST SOFTWARE

1

* Pressure and Stance

20 in

50%

Info

Force Factor

Max Torque 56 N·m Max T. Timing



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This guide provides an overview of the main features in the Swing Catalyst software. Please find more detailed information at:

https://www.swingcatalyst.com/help

Note that some parts of the user guide are only applicable to software supporting live video stream and hardware.

THE SWING CATALYST INTERFACE



MAIN MENU OVERVIEW





Analyze:

- Create new user page 17
- Create new group page 20
- Start session page 21

Settings:

- Configure software and additional hardware page 8
- About

	swing	30	catalyst	
<i>.</i> %	Analyze	₽	General	1
°o	Settings	٩.	Cameras	2
(i)	Help	ľo	Hardware	3
		਼ੂ	Screen	4

General:

- Set up unit preference, email and YouTube sharing and lesson branding.

Cameras: *

- Enable or disable cameras and advanced camera configuration.

Hardware: *

- Balance Plate / 3D Motion Plate, Launch Monitor, Audio Trigger and Lighting Control.

Screen:

- Enable Full Screen mode, configure Feedback screen and enable Lesson Audio Device.

* Only applicable to software supporting live video stream and/ or hardware.

GENERAL SETTINGS



- Change the measuring units in the program. You can also customize the Launch Monitor Units.
- 2 Enable or disable notifications. Beta versions will give you early access to features in development. Please be aware that beta versions increase the risk of running into critical issues.
- Enable improved rendering for better video and capture performance. Will work on most new computers.
- Show Swing Catalyst license configuration.
- 5 Change where you store your recordings.



- Fill in your name (or the name of your facility) and your contact information.
- Upload your logo.

This information will appear at the beginning and the end of all the video lessons that you record. Read more about creating and sharing video lessons on **page 48**.

Email Sharing	
Send lessons by email.	
Gmail O Outlook.com O AOL O Custom 8	
Email Address	
Password	9
Test Save 10	

Email Sharing: *

- Select an email provider.
- 9 Enter your email address and password.
- 10 Click Test to verify, then click Save.

* You need to use a valid email account to be able to share video lessons via email.



Then login to your Google account. Enter the verification code if 2-Step Verification is enabled in your Google account.

* You need to use a valid Google account to be able to share video lessons via YouTube.

CAMERA SETTINGS



Camera settings are only applicable to software supporting live video stream.

- Select camera angle.
- Turn camera on/off.
- Preview camera.

The software allows you to capture recordings from 4 cameras simultaneously. To see an updated list of all supported cameras, please refer to:

https://www.swingcatalyst.com/products/cameras

For additional information regarding camera configuration, please refer to the provided Camera Installation guide.

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HARDWARE SETTINGS

Sensor Plate
We have detected a Balance Plate 3 setup on your system, is this the sensor plate you would like to use? Yes No I want to select it manually
Launch Monitor
O TrackMan (not connected)
O FlightScope (not connected)
O Full Swing Sim (not connected)
O Foresight GC2 (not connected)
O Foresight Sim (not connected)
Foresight GCQuad (not connected)
O SkyTrak (not connected)
Use as trigger

- 1 The system will detect your sensor plate for you, if it. It is possible to select manually if you wish. Note that you have the option to configure and calibrate the plate here.
- Switch Launch monitor ON. The Swing Catalyst software automatically detects which tracking device is connected. Swing Catalyst supports all the tracking devices in this list.

Trigger Device	
Jump Off	
Microphone	3
O Realtek High Definition Audio(SST)	
Configure	
Qualisys Track Manager	
Enabled	4
Lighting Control	
Choose the COM port the device is connected to.	
Refresh Connect Configure	5
Status: Disconnected	

- Tick Enabled to use a microphone to trigger the recordings and select the desired microphone from the list. Learn more about the auto trigger function on **page 22**.
- Enable Qualisys Track Manager
- Please contact Swing Catalyst support if you require more information about our automatic light dimming system.

SCREEN SETTINGS

🗘 General	General Screen Settings
🛀 Cameras	Enable Fullscreen Mode Enable Feedback Screen
🍂 Hardware	Feedback Window
Screen	Display 1 Display 2
	Click a monitor to move the feedback window here.
	Scaling (DPI) Settings
	Change the size of font and elements in the software.
	A A A Small Normal Large Custom Scaling 85%
	Lesson Audio Device
	Configure Enabled

- Tick Enable Feedback Screen if you wish to use a separate monitor as a feedback screen. A feedback screen is typically used in teaching scenarios to provide instant feedback to the student.
- 2 If you wish to add comments (voice) to your video lessons, tick Enabled and select one of the listed microphones.

CREATE NEW USER

Zswin	gcatalyst
🦓 Analyze 🚺	৹. ≣া
°o Settings	
(i) Help	Michael Bradley
	Mike Weir
	Roberto Castro
	Russell Knox
	Stuart Appleby
	Suzann Pettersen
	2
← Exit	💄 New 🖉 Edit 🗴 🛅 Delete





Edit User Information	×
Contact Information	User Information
First Name *	Golf
Last Name *	Handicap
Email	Handedness
Phone	Left Handed 🔲 4
Address	
Address 2	
Address 3	
	Ok Cancel

3	Select New User (for New Group see page 20).
	Fill in the required fields. Please note that a valid email
	address is required if you want to email the video lessons
	directly to this student.

Make sure to tick the Left Handed box if the user is a left handed player.





6 Click Start Session.

CREATE NEW GROUP

Edit Group		×
Group Name		02
Group Members		All Registered Users
Kevin Streelman	3	Michael Bradley
Stuart Appleby		Mike Weir
	<< Add	Roberto Castro
		Russell Knox
		Suzann Pettersen

Group mode enables you to run a session with a group of people simultaneously.

Note that in order to use the group function you will first need to add the individual users (see **page 17**).

1 Select New Group.



Select the students in the right column and add to the group by clicking Add.

START SESSION



CAPTURE



The Capture feature is only applicable to software with live video stream feature.

There are 3 different ways to capture recordings in Swing Catalyst. You can either use (1) a microphone or (2) a tracking device to capture recordings automatically, or you can use (3) the Manual Trigger button.

- 1 The microphone will determine the moment of impact and the software will automatically save a sequence before and after impact. Remember to adjust the (4) Mic Threshold to the appropriate level (microphone sensitivity).
- 2 The tracking device will determine the moment of impact and the software will automatically save a sequence before and after impact.
- 3 Click on the Manual Trigger button at the time of impact. Swing Catalyst will then automatically save a sequence before and after impact.

The Mic threshold bar is used to adjust the sensitivity of the trigger microphone. Lower the threshold to increase sensitivity.

Multi Capture resumes to capture as soon as the system is ready. Preferably used when you want to capture many recordings in a row without interuption.

Multi Capture with replay will replay the recording just captured at least one time before resuming capture. This allows for a quick recap of your swing between shots.

Single Capture with replay will replay the recording just captured repeatedly until you decide to resume capture. Can be used for a quick analysis of your swing between shots.

Disabling the **automatic trigger** will allow you to stream live video in the software without automatic capture of recordings. Can be used to stream live video while recording a lesson. Automatic triggers include launch monitors and microphone.

Launch monitors can be turned on and off at ease.



Select the user you would like to capture a recording of (for more info see **page 43**).

		Explorer	S. Appleby	() Capture Ready	a Manual Trigger	Capture Options	Layout	Record Lesson
k	Recor	rding with Stua	rt Appleby 🔻 (Solf 🚽	• Default]		
€			► Driver			1	6	
۵			► Wood ► Hybrid					
Ē			► Iron ► Wedge					
`			► Putter					



Select the current club type from the drop down menu.

Remember to set the correct club type before you capture a recording. This will help you to organize and filter your recordings in the Explorer (see **page 26**).



Wait until the video buffer is completed before starting your swing. When the label says "Ready" and the stippled line has filled up and started moving you can take your shot.

When buffering the software saves a couple of seconds of video continuously to have before the trigger point in the captured swing.



After a capture has been triggered the software will process the recording before it is ready for a new capture. You can click on the circular progress bar to get more details about the processing. The time it takes to process a recording depends on your computing power and devices connected.



During replay of a recording you can give it a star rating (see **page 33**), open it for further analysis or resume to capture new recordings.* You may also use the drawing tools while the recording replays.

* If you have selected the Multi Capture mode, capture will resume as soon as the recording has been processed, and the options above will not be presented.

EXPLORER



Here you have access to all your stored recordings and lessons. The Explorer lets you organize all your recordings in an intuitive manner based on name, date and time. You can also import and export recordings in the Explorer.

There are two ways to access the Explorer:



Top menu.



EXPLORER FILTER

iverch Filter Upload	Shop					
FILTERS Sport Club	Launch Monitor Rating					
Golf						
9						
Golf	Ski jump	American footba	Arct	hery	Badminton	
Baseball	Basketball	Bowling	Che	erleading	Cricket	
Crossfit	Cycling	Dance and perfo	rmance arts Dart		Discus throw	
Drivers	Woods	Hybrids	Irons	Wedges	Putters	
Driver	Fairway Wood	1 Hybrid		Wedge	Putter	
8.0° Driver	2 Wood	2 Hybrid	1 Iron	47.0" Wedge	Blade Putter	
9.0* Driver	4 Wood	4 Hybrid	3 Iron	52.0* Wedge	Centre Shaft	
9.5* Driver	5 Wood	S Hybrid	4 Iron	54.0" Wedge	Face balanced	
Carry		Spin Rate		Smash Factor		
Min []	Max	Min []	(Max Min		- N •
From 0	то 400	From 0	To 20000	From 0 ,	7 To 1,5	Ŭ
Rating						

Filter result:						

- The filter function allows you to sort recordings based on several different parameters. In order to filter recordings based on club type make sure you always set the club type before you capture a recording (see **page 24**).
- If you are using any of the supported tracking devices you can filter recordings based on: Carry, Spin Rate and Smash Factor.



Filter recordings based on star rating (see page 33)

LESSONS IN EXPLORER



- Double-click to open the lesson. Or select then click the Open button.
- When selected the name of the lesson can be changed.
- Search for a lesson by name.
- If you got many lessons the list will be split into several pages.

IMPORT VIDEO



- 1 To import a video clip from your handheld camera, connect it to the computer via a USB cable, or insert the memory card into the card slot of your computer.
- 2 Click Import Recording(s) either in the Quick Start menu or in the Explorer.

	Import swings	E Imp
Organize ▼ New folder IIII ▼ IIII ▼ IIII ♥ Image: Size Image: Size <th>(ILIM (J:) → DCIM → Camera v C Search Camera P</th> <th>(€) → ↑ ↓ Computer → EXILIM ():) → DCII</th>	(ILIM (J:) → DCIM → Camera v C Search Camera P	(€) → ↑ ↓ Computer → EXILIM ():) → DCII
Ibraries Name Date modified Type Size Libraries ▲ CIMG1003.MOV 17-Jan-10 9:42 PM VLC media file (.m 14,402 KB Music ■ Pictures ▼ Videos Wideos Wideos		Organize 👻 New folder
Libraries Documents Index CIMG1003.MOV 17-Jan-10 9:42 PM VLC media file (.m 14,402 KB) Index Pictures Videos Wideos	Date modified Type Size	Recent places ^ Name D
Conservation Cons	003.MOV 17-Jan-10 9:42 PM VLC media file (.m 14,402 KB	☐ Libraries
Music Pictures Videos Monegroup		Documents
E Pictures Videos		D Music
🗃 Videos		E Pictures
🖏 Homegroup		😁 Videos
		« 3 Homegroup
r Computer		i興 Computer
🖵 Administration ()	4	🖵 Administration (
🖵 Developers (\\inr		Pevelopers (\\ini
Local Disk (C:)		Local Disk (C:)
System Reserved Jocal Dick (Fr)		Josef Disk (E)
DVD RW Drive (G		DVD RW Drive (G
EXILIM ():)		EXILIM ():) 3
File name: ✓ All supported files (*take;*.avÿ* ✓ Open Cancel	✓ All supported files (*.take;*.avi;* ∨ Open Cancel	File name:

Plug in your camera or SD card and locate it in the menu.

Select the video clip you would like to import and click Open.





5 Select a user to assign your imported clip to. You may also create a new user (see **page 18**).

When importing Swing Catalyst ".take files" the software will automatically create a new user with the correct name.

6 Recently imported clips are displayed in the stack at the bottom of the screen. To analyze recordings from the stack simply drag it from the stack to the main viewport or double-click on the recording.

Your recently imported clips are also automatically stored in the Explorer (see **page 26**).

STAR RATING



A recording can be given a star rating several places in the software.

- In the recording info bar
- 2 In the stack info popup
- In the recording info panel inside the Explorer
- After a recording has been captured (see **page 25**).

A star rating is a way to separate and mark recordings. Example how to use stars: 1 star = bad, 2 stars = mediocre, 3 stars= good. However you may use it as you please.

VIDEO PLAYBACK

SET BOOKMARKS



- Playback controls. Play/pause or step frame by frame.
- 2 Adjust playback speed.
- 3 Synchronize recordings.
- 4 Navigate the video with the timeline slider.
- 5 Looped playback
- 6 Set bookmarks
- Recordings that are open in the main viewport are dimmed. In compare mode recording A will appear on the left side and recording B on the right side. Double-click or drag and drop a recording in the stack to open it in the main view.



Swing Phase bookmarks (the grey indicators above the time line) are used to identify 3 areas of interest of a golf swing: **Start of Take Away**, **Top of Backswing**, and **Impact**.

- Unlock the bookmarks by clicking this button, and lock them by clicking the button again after you have placed the bookmarks in the desired position.
- 2 Drag the bookmarks to the 3 correct positions (start of take away, top of backswing and impact).

When the bookmarks are set correctly, Swing Catalyst will automatically calculate the Tempo and Rhythm. The force graphs timing number also depends on bookmarks being set correctly.

TIP! Press CTRL+(1, 2 or 3) to set bookmarks to the current frame. Press CTRL+ALT+(1, 2 or 3) to set bookmarks for recording in viewport B to the current frame.

SYNCHRONIZE



- 1 When comparing two recordings (in compare or overlay mode) you can synchronize the recordings at 3 separate points of interest.
- 2 Make sure the bookmarks are set correctly and click the Synchronize button.
- Select which point of interest you want to synchronize.

INDIVIDUAL PLAYBACK



In comparison and overlay mode both recordings will be played back simultaneously, but you can also choose to play back one recording at a time.



Choose which of the recordings (A or B) you wish to play back. The other recording will remain in the same position.



DRAWING TOOLS OVERVIEW





- 1 Select (move / resize)
- Undo
- 3 Erase (erase lines)
- 4 Recycle Bin (delete all of your drawings)
- 5 Gradients
- 6 Line thickness
- 7 Line tools (Line, Vertical & Horizontal). Double-click to open the line type menu.



DRAWING



Select a drawing tool from the tool bar, for example the angle tool as shown above.

- Move the pointer to where you would like to start drawing. Click and hold the mouse button, then drag the mouse in the direction you want to draw.
- To draw angles with the angle tool, click the mouse in the three desired points of the angle.





- To move or resize an annotation, click the Select button. Click and drag the blue squares to change the size of an annotation or click and drag the dashed lines to move the annotation.
- Undo the last drawing. Can be used to undo several steps backwards.
- To delete an annotation choose the Eraser and click on the 6 annotation you want to remove.
- To erase all annotations click the Recycle Bin.
- To change the color of annotations, click the Gradients 8 button and choose a color. It is not possible to change the color of an annotation after it has been drawn.

ZOOM AND PAN





- Enable the Zoom and Pan tool in the drawing tools menu.
- 2 You may now click and drag the video image to change its position.
- 3 All video views will have individual zoom tools when the Zoom and Pan tool is enabled. You may individually zoom in, zoom out, fill view and fit to view each recording and camera angle.
- 4 Reset all the active video views to fill their viewport or fit inside their viewport. The function is alternating.

TIP! Hold in the "Ctrl" key and use your mouse and mouse wheel to zoom and pan while other drawing tools are enabled.

SWITCH USER



Change the user you want to capture a recording with. Groups created are also available in the list.



- Change between the users in a group
- Change back to a user outside the group or another group.

Part 4 Drawing Tools

LAYOUT



- Single Recording mode lets you view one recording at a time from multiple camera angles.
- The Data Centric mode enlarges the Data Boxes (see page 50) and increases readability.
- Compare two individual recordings side by side.
- Overlay two individual recordings (see page 45).
- Focus on one large Data Box.

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The Screen Layout button allows you to change the number 6 of cameras displayed in the main viewport. You can display up to 4 camera angles simultaneously.

Note: Your Swing Catalyst license may restrict how many cameras you can use simultaneously. Part 5 Top Menu



Use overlay to play two videos on top of each other.

- Adjust the opacity between the two videos.
- Select Viewport A or B to draw on, interact with or play only one of the videos.
- Use the Zoom and Pan tools (see page 42) to align the videos. Remember to select Viewport A or B before interacting.
- Synchronize the two videos (see page 36) to make them play simultaneously and synchronized.

CHANGE CAMERA



- To change the camera angle, click the Camera button and select which angle you want to view.
- Expand the camera settings to mirror and rotate the video image.

RECORD LESSON



- 1 To record a lesson click Record Lesson, then click the Record button.
- The time indicator shows the length of your current recording.
- The Progress window shows the status of your lessons that are uploaded to YouTube, sent directly via email to a student or uploaded to your Online Account (see page 53).

Note: You are able to continue working with the Swing Catalyst software while lessons are uploaded.

DATA BOXES OVERVIEW



The intro and outro of your video lessons are automatically branded with your logo and contact details (see **page 10**).

Your name and contact information.

Your logo.

Note: All your recorded lessons are stored in the Explorer (see **page 29**)



- Pressure shift, foot pressure distribution, center of pressure (CoP) patterns & stance (Swing Catalyst Balance Plate or Swing Catalyst 3D Motion Plate required)
- CoP Velocity in the right to left direction (Swing Catalyst Balance Plate or Swing Catalyst 3D Motion Plate required).
- Tempo and Rhythm (bookmarks required, see **page 35** on how to set the bookmarks)
- Ball and club tracking data (tracking device from FlightScope, Foresight GC2 or Full Swing Golf required)



Swing Catalyst 3D Motion Plate required:

- 5 Torque & timing relative to impact.
- 6 Vertical force relative to body weight & timing relative to impact.
- 7 Horizontal force relative to body weight in the right and left direction.
- 8 Horizontal force relative to body weight in the toe and heel direction.
- 9 Center of pressure Back/Front
- 10 Center of pressure Toe/Heel

CHANGE DATA BOXES



1

Click on the title bar to change the data box.

Select the desired data box from the drop down list.

CREATE AN ONLINE ACCOUNT



Sign up for Online

	By clicking sign up you agree to our Terros of Use.
	or
	First name
)—	Last name
	Email
	Password
	Sign up

To sign up for a Swing Catalyst Online account go to **online.swingcatalyst.com** and click New User.

2 Sign up with Facebook or type in your name and email, choose a password and then click Sign up. A confirmation request will be sent to the email address that you provided. When you have confirmed your email address, you are ready to access your Swing Catalyst Online account.

ACCESS ONLINE

C Later Later	Capture Capture C		Cswingcatalyst	🕢 Log in
•				
*				
			Quick Start	
			Capture Control was uncondenge	
			Cpan an existing record	
			E Broot Bugett a solution	
				~ ~
	/ sow ⊥ (,		IIA



- Start up your Swing Catalyst software and click on the "Online" button located at the top right corner of your screen. A login dialogue box will then appear.
- Type in the same email and password that you used to sign up for your Online account, then click "Login". The same credentials can be used to log in to your Swing Catalyst App and the Swing Catalyst Webshop.

ONLINE OVERVIEW





The Swing Catalyst Online platform has two main tabs (Inbox and Explorer).

- 1 In the Online Explorer you will find your saved recordings and lessons.
- 2 The Inbox is your personal Swing Catalyst Online inbox. Recordings captured in the Swing Catalyst App and then shared with you will appear here.

DOWNLOAD A RECORDING





- To analyze a recording from your Online account (and create a video lesson), select a recording in your Inbox or in the Online Explorer and click Download.
- Find the student's name in the list, or set up a New User if the student is not already registered (see **page 18**). Click Save and close the window. The recording is now downloaded to your local Explorer.

SEND A VIDEO LESSON VIA ONLINE



- 3 Downloads in progress are shown in the Progress bar.
- 4 After completion, the recording that you downloaded can be accessed from your local "Explorer", located under the student's name.





- After you have recorded a video lesson, click Upload to online. Learn how to record a video lesson on **page 48**.
- Find your student by clicking Add recipient and typing in the name. You can also add some comments here.
- 3 Click Done when you are ready to send the lesson. Your student instantly receives a notification email that you have sent a video lesson, and can access the lesson both from their app and their Swing Catalyst Online account.

NOTES

SUPPORT



If you have any questions, please contact support:

support@swingcatalyst.com

Read more about Swing Catalyst: www.swingcatalyst.com



