

# SMART ESSES

# STREAMING GUIDE





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# INTRODUCTION

With SmartQuiz you can to host quizzes from your home or studio and let people play remotely in at home. The show is broadcast using an online streaming service such as YouTube Live, Facebook Live, Twitch or Zoom.

This document is a step-by-step guide on how to setup your Game Show for online streaming.

## **THE SETUP : INSTALL OBS**

When streaming/broadcasting a show, you would like flexibility in how to setup things. Of course the screen with the quiz should be visible to the audience. But next to this there should be various options:

- The players can only hear you
- The players can hear you and see you in a small corner on screen
- The players can hear you and see you Full screen between questions
- .....

In order to do be able to do this, you need to install **OBS** (Open Broadcaster Software). This is free and open source software for video recording and live streaming. OBS is not the only solution out there. Another alternative is for example vMix which you can read more about on <u>www.vmix.com</u>. If you plan to use Zoom for streaming, you also do not have to install OBS as you can directly share the screen that runs the quiz from Zoom. This does give less flexibility though in the way that you want to present the show.

You can download and install the OBS software from <a href="https://obsproject.com/">https://obsproject.com/</a>

How the connection between this software and the streaming platform (like for example YouTube Live) works, is described later.

Let's first look at how to setup the stream itself. In this document YouTube Live is taken as an example.

## **SETTING UP THE STREAMING SERVICE ONLINE**

In order to setup YouTube (which we take as an example) for streaming, please take the following steps:

- Go to <u>www.youtube.com</u>
- Login to your YouTube account (if you don't have one yet, create one ;-) ).
- On the top right side, click the button  $\pm$
- In the dropdown that appears click Go live

		<b>(99</b>
Þ	Uploa	d video
((•))	Go live	е

- Note: when you have never setup a live stream before, you need to first confirm your identity through SMS. After this, the YouTube activation takes 24 hours. Please take this into account.
- At the top of the screen, click on Stream (as we are not going to simply use our webcam)



• In the details fill in: a title for your stream, whether its public/unlisted/private, if the stream runs now or is scheduled later and if the audience includes kids. You can also upload a custom image that is shown while the stream is prepared for broadcast.

New stream				
Create a title				
Public	•			
Add a description				
Entertainment	-			
Schedule for later	••			
UPLOAD CUSTOM THUMBNAIL				
Audience				
Is this video made for kids? (required)				
Regardless of your location, you're legally required to comply with the Children's Online Privacy Protection Act (COPPA) and/or other laws. You're required to tell us whether your videos are made for kids. What's content made for kids?				
○ Yes, it's made for kids				
○ No, it's not made for kids				
<ul> <li>✓ Age restriction (advanced)</li> </ul>				
	CREATE STREAM			

When all has been filled in click Create Stream.

In the window that pops up after creating the stream there is an important piece of information which you need in order to use the OBS streaming software to 'Direct' your broadcast, the *stream key*. Copy this key (you could also paste it in a text document to keep it in the meanwhile while we prepare further).



After pressing 'Done' the window closes and you return to the YouTube stream dashboard. Here, please choose the following setting at the bottom left:



When streaming, there is always a bit of delay between what you see on screen and what the audience sees. As we want to keep this *latency* as short as possible, we set the setting to *'Ultra low-latency'*.

#### **Be the director of your stream : obs**

Start OBS. Before explaining a bit more about how to use OBS, we are first going to change a couple of settings.

#### **OBS SETTINGS**

Click the settings button at the bottom right

Start Streaming
Start Recording
Studio Mode
Settings
Exit

In the settings window that opens, some settings need to be changed. These settings also make sure you will have the lowest latency when streaming while keeping a good stream quality.

#### Stream tab:



In the field Stream Key, paste the Youtube Stream key that you copied earlier.

#### Output tab:

	Output Mode Ad	vanced	0
s	treaming Recording Audio Rep	lay Buffer	
	Audio Track O	1 ● 2 ● 3 ● 4 ● 5 ● 6	
	Encoder x	264	
	<u>∽</u>	Enforce streaming service encoder settings	
	Rescale Output 🗹 🛛 1	280x720	
	Rate Control	CBR	
	Bitrate	2500 Kbps	$\Rightarrow$
		Use Custom Buffer Size	
	Keyframe Interval (seconds, 0=auto)	0	$\Rightarrow$
	CPU Usage Preset (higher = less CPU)	veryfast	
	Profile	(None)	
	Tune	zerolatency	
	x264 Options (separated by space)		

In the output tab, do the following:

- Set the output Mode to 'Advanced'.
- Set a checkmark before 'Rescale output' and set it to 1280x720
- Set the Tune field to 'zerolantency'

Leave the rest at their defaults.

#### Video tab

Base (Canvas) Resolution	1920x1080	Aspect Ratio 16:9
Output (Scaled) Resolution	1280x720	Aspect Ratio 16:9
Downscale Filter	Bicubic (Sharpened scaling, 16 samples)	
Common FPS Values 💲	30	

Set the Output on the video tab to 1280x720.

## Using OBS

So how can you setup your system for streaming in OBS ?

OBS has the concept of Scenes and Sources. You can find them at the bottom left of the OBS application.



Some examples of sources are: your screen or one of your screens (if you attached multiple), a certain window, your webcam or a picture.

A scene consists of one or more sources.

You can create scenes and sources by clicking the + button (and remove by clicking the – button).

You can think of a scene as a part of the broadcast. For example:

- You have an intro scene with a video and a picture
- You have an welcome scene where you introduce the quiz in front of the Webcam or external cam
- You have a scene where the quiz player is shown (with optionally yourself in a small corner)

The things you see in a scene are defined by its sources. For example (following the scenes example above):

- Create a scene called *'Intro'*. Add as its sources a window with a YouTube video and an image source.
- Create a scene called 'Welcome'. Add as its sources the 'Video capture device'
- Create a scene called 'Quiz screen'. Add as its sources the window showing the SmartQuiz Live (the SmartQuiz quiz player). Alternatively add a 'Display Capture' source which is one of your entire screens.

While streaming, you can click the scenes on the left to switch between them. As a result the broadcast screen will change to show the contents of that scene.

For hosting a game show, the most straightforward setup will be to have two scenes, one with SmartQuiz Live and one with the (web)cam. You can switch between these to enable showing the quiz and showing yourself, the host.

Some other tips:

- The up and down buttons for sources can be used when sources obscure each other. By putting a source higher in the list, it will overlap underlying sources (so for example, if you inserted an image but cannot see it, move it higher in the list of sources).

# **GO LIVE!**

Now that we have setup our Settings, Scenes and Sources, it's time to go Live!

Going Live is a two part step. First, you press the 'Start Streaming' button at the bottom right.

This does not start the YouTube Live stream yet, but connects the OBS software with YouTube.

On the YouTube Stream management screen, which is still open, the window in the top left still looks like this:



After a couple of seconds (please not this can take a while) you will see the stream as displayed in OBS. You can now try some of the scenes if all looks the way you intended.

If everything looks ok, you can really go Live on YouTube. In order to do so, click the 'Go Live' button.



In order to end the stream when you are finished, click the End Stream button at the top right



#### **OTHER TIPS AND TRICKS**

Before starting the broadcast, check what the latency is before going Live. You can check this by comparing the footage shown in OBS versus the footage shown in the YouTube preview (for example raise your hand and check the delay).

Once you know what the latency is, you can instruct the players to answer the same amount of seconds before the clock runs down (as the real clock has already counted down before that footage reaches the viewers).

With a regular internet connection the latency to achieve with the settings described earlier in this document on YouTube is about 4 seconds.

#### Please note that in SmartQuiz you can compensate for the delay caused by the stream.

While the players' apps respond immediately to the quiz player running, the stream the players watch is shown a couple of seconds later. This means that answers appear on the phone and the clock starts ticking on the phone, before the stream shows this. In order to compensate for this, you can set a delay in SmartQuiz which is applied to the messages going to the phones. This will result in the question starting later on the phones, being more in sync with the stream. In order to determine the number of seconds latency to set, please check first what your typical latency is.

The above latency setting can be found in SmartQuiz Director. You can show SmartQuiz Director by pressing 'D' once the quiz has been started. In Director, click on the Mobile tab . Here, you can set the Server delay setting. It is advised to leave the other two boxes unticked as the app already shows this information clearly.

Kindly note that the below setting is currently not stored, you need to check latency and make the setting before each quiz session.

Mobile Settings		×	
Options          Options         Send confirmation to mobile device when vote is received         Send a message when answer is not provided or not in time			
Server delay You can set a delay to compe send to the mobile devices wi when the quiz is restarted.	ensate for the latency of a broadcast vi ill be delayed for the set amount of time	deo stream. All commands . This value will be reset	
0 sec	3,0 Sec	10 sec OK Cancel	

This document explains the set-up of the broadcast using OBS and YouTube. It is also possible to use a paid service such as Zoom.us or livestorm.co where only specific participants are invited to the broadcast. These services offer the possibility to share the screen in combination with showing a camera. Therefore, OBS is not necessary in this case.

### Monetization

You can ask the players of the show to support your game show by using a variety of donation/tip services.

This can be done by setting up one of the services and showing a link to the donation page in the description of the YouTube stream.

Some of these services are:

- <u>www.gofundme.com</u>
- <u>https://www.tipeeestream.com</u>
- <u>https://streamlabs.com/donations</u>

When you use the streamlabs donation service, you can also show notifications of donations onscreen during the Game Show, as described in the next section

#### SETUP ONSCREEN NOTIFICATIONS OF DONATIONS/TIPS IN YOUR STREAM

In order to setup onscreen (configurable) on screen notifications during a stream using streamlabs, take the following steps.

First, navigate to <u>https://streamlabs.com/donations</u> and login with your YouTube account.

Now, you can connect one of the following online payment services:



Fill in the details on one of the services you are subscribed to, and press Connect.

After seeing the message of the successful connect, press Continue, 'Skip' on the next page and 'Finish' on the page that follows.

You will end up on the streamlabs dashboard which shows a menu on the left hand side. The two items which are important are 'Settings' and 'Alert box'.

First, click the settings option. On the right hand side several tabs will be shown, of which the 'Donation Settings' tab is the one you need to check out.

Here you see all of the linked payment services. As we linked to PayPal, you will see that this service is *Connected*. Kindly note that there are two PayPal options. We connected to the 'legacy' PayPal where you can only accept payments from viewers\players with a PayPal account.

If you also would like to accept debit and credit cards, and other local payment methods in one, simple integration through PayPal, click the top PayPal option and then click *Connect* to go through the process.

The settings page shows the website link you need to include in the description of your stream , display on your stream or mention on your stream. This link is indicated on the picture on the following page as the blue square. **So copy this link for your reference to use later.** 

Here is where you can o	control your donation settings, merged platforms, email preferences and more.	
Donation Settings	Account Settings Shared Access Integrations API Settings 📀 Prime	
Methods   Settings		
	This is the URL to your tip page where viewers can send you donations <a href="https://streamlabs.com/gunstituterererererererererererererererererere</th> <th></th>	
PayPal	Let your viewers pay how they want to pay - PayPal, debit and credit cards, local payment methods - in one, simple integration	
PayPal[LEGACY]		
PayPal Email: infege		
🚍 Credit Cards	Connect and allow your viewers to send you tips with their credit cards.	
₽ Unitpay.ru	Connect your QIWI Number and start accepting tips through QIWI, Webmoney, and more.	
€ Skrill	Connect your Skrill account and start accepting tips through paysafecard.	
e skrill	Connect your skrill account and start accepting tips through paysarecard.	

After having configured the Donation Methods, now click Settings.



Here you can enter settings like the currency used for Donations, preset donation amounts, whether you would like to refer to donations as 'Donations', 'Tips' or something else, and various other settings.

Now click the *Alert Box* setting. When someone gives a donation\tip, you can optionally show an alert message on screen thanking the person donating. The design of this alert can be customized in this section. You can choose to play a sound (which can also be configured). Changing the default GIF image used is recommended.

In the Alertbox section you will see the following section.

	Donations Subscribers Members Super Chats Merch Cloudbot Redemption Streamlabs Prince	ime Gift	
Widget URL	Click To Show Widget URL	Сору	Launch
	Note: Widget URL contains sensitive information. It should not be shared with other users or sites.		

Please only keep the tick before *Donations* and click the Copy button. You will need this copied text for the next section, where we are going to integrate the alert box into OBS.

Do not close the page yet, as we will still use it to test the alerts in the next section.

#### **INTEGRATION INTO OBS**

Now that we have setup the streamlabs donation service, connected this to a payment provider and designed the alert box (if you want to show one), this section describes how to integrate this into your stream, as well as how to test the setup.

In OBS Studio, add a Source of type Browser. You can call the source 'Alert'.

In the URL field of the properties that are shown after the insert, paste the link that you copied for the Alerts in the previous section.



	You've just added a browser source!         Browser sources let you display a webpage from the internet or a local file and are commonly used for widgets and alerts.         Set the URL to the page you'd like to display		
_	Local file		
URL	https://obsproject.com/browser-source		
Width	800		$\Rightarrow$
Height	600		÷
	Use custom frame rate		
	Control audio via OBS		
Custom CSS	<pre>body { background-color: rgba(0, 0, 0, 0); margin: 0px auto hidden; }</pre>	; overflow:	
Defaults		OK Ca	incel

After pressing OK you will see a square box in the OBS window which will show the Alerts during the stream when a donation comes in. You can resize and reposition this box to a location which you prefer (if you chose not to show any alerts this step is not necessary. Donations given will be transferred through the donation link mentioned before without onscreen notice).

You can also test how an alert looks. In order to do this, go back to the streamlabs dashboard. In the Alert Box section, you see the button *Test Donation*. Once you click this, the alert will be shown in OBS as configured.

#### **FURTHER QUESTIONS ?**

When you have any further questions on the above or need any additional help, please do not hesitate to contact us. We do offer support via our support section @ <u>https://redtooth.zendesk.com</u> and also via our private Facebook group @ <u>https://www.facebook.com/groups/smartquizsupport/</u>

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# HAVE FUN!

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