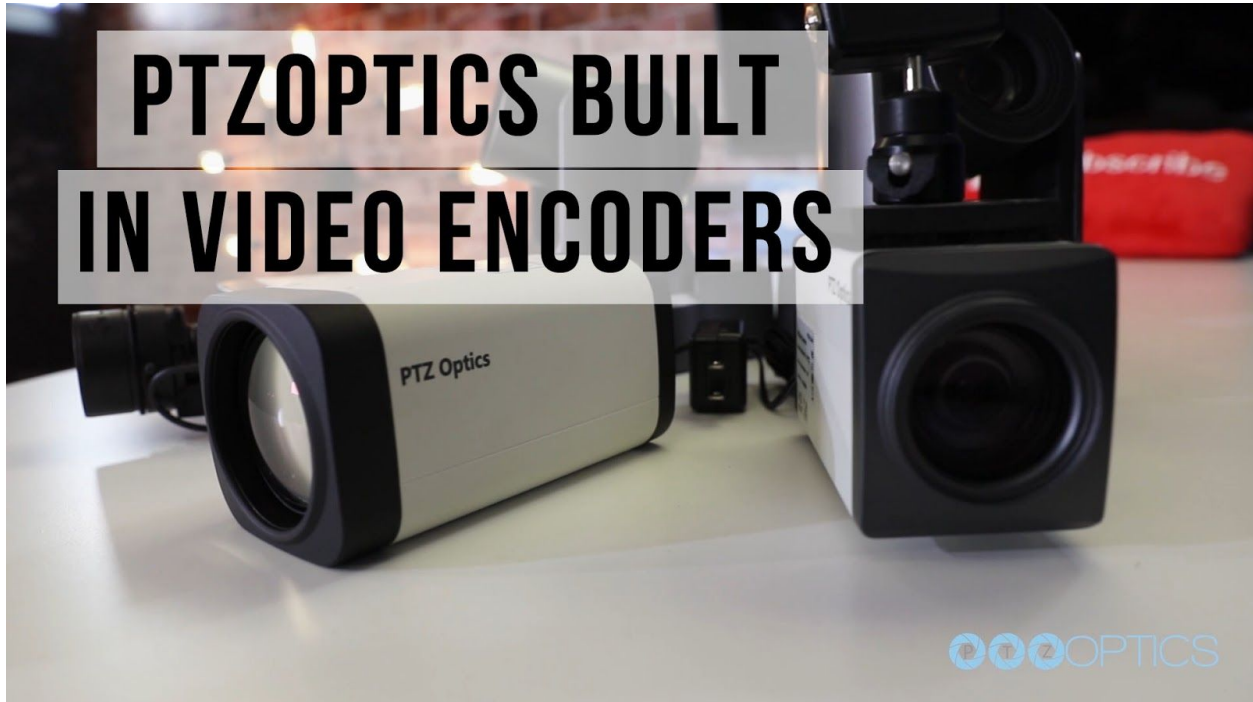
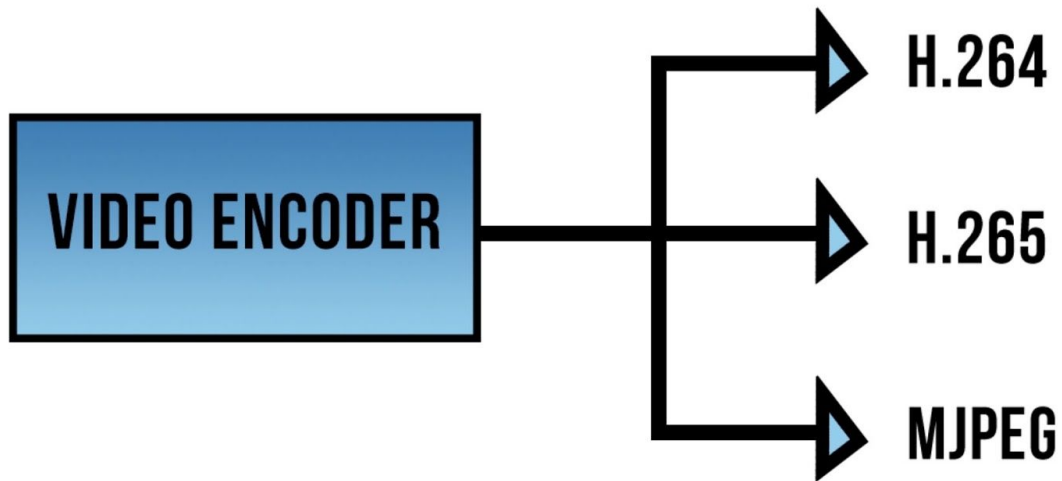


Working with PTZOptics Built-in Video Encoder



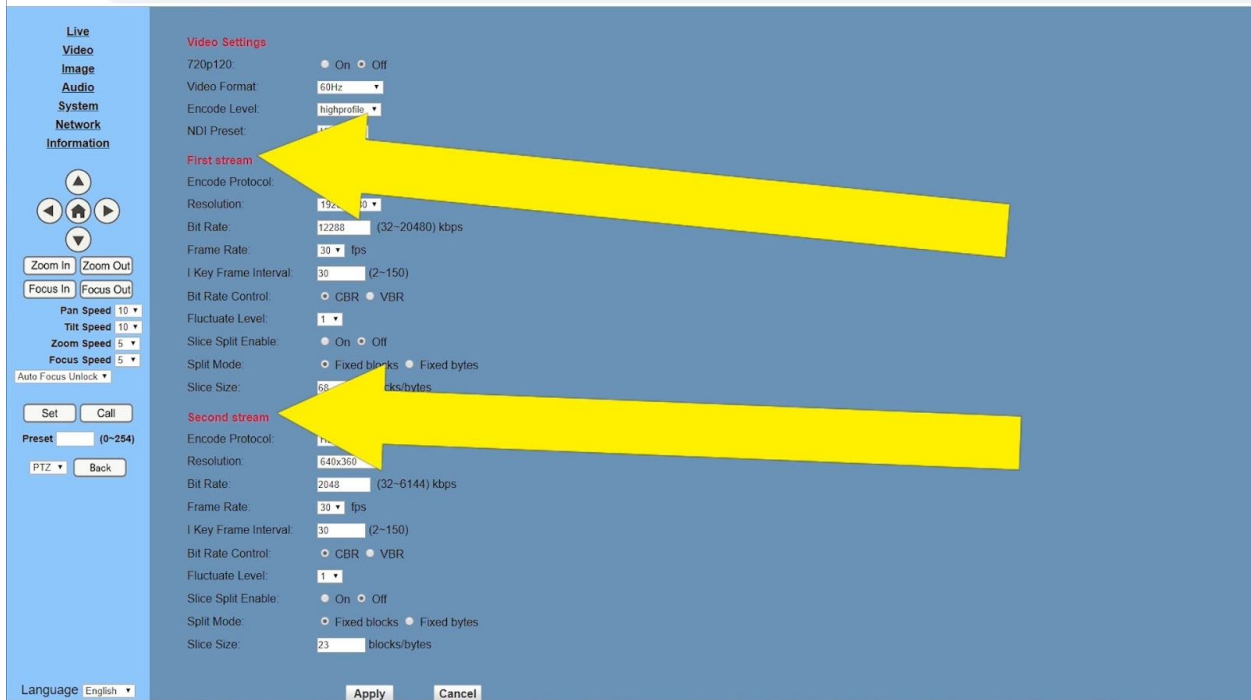
Did you know that PTZOptics cameras have built-in video encoder? That's right. PTZOptics PTZ and ZCam camera models can encode and stream multiple high definition video streams simultaneously while still outputting video via HDMI, 3G SDI and/or USB 3.0. So what is an encoder anyway? And what is it used for? A video encoder is a device that converts video from one format into another.

Many people use a video encoder to stream audio-video content for a variety of purposes. Encoders are useful for streaming to a content delivery network for example. Encoders can also be used to stream audio and video directly into your favorite video production application such as vMix, Wirecast or OBS. Video encoders are even used to stream content to video management servers where the video is then distributed to users all around the world. Because PTZOptics cameras have a built-in video encoder, unlike a standard camcorder our customers do not normally need to purchase an additional video encoder to stream the video and audio content coming from the cameras.



The PTZOptics built-in camera encoders can encode video and audio into popular streaming formats such as h.264, h.265, and MJPEG. Using the built-in encoder inside your PTZOptics camera is a handy way to deliver video over your local area network. Using a single ethernet cable you can power your PTZOptics camera, deliver video and audio to a specific destination, and control the cameras PTZ functionality. Video production professionals are using the built-in camera encoders to preview video over a local area network, send video over a wide area network and even stream via RTMP to live streaming websites such as Facebook and YouTube.

You can configure the built-in encoder by navigating the to the cameras IP address. We highly recommend setting a static IP address for your camera on your local area network. You can check out the PTZOptics camera set up video to learn more about setting up a static IP address. You can enter your cameras IP address into any web-browser to access the camera's settings and enter the default passwords which are admin and admin.



The majority of the camera's built-in encoder settings can be found under the "Video" tab. You will notice that the camera has the ability to stream two simultaneous IP streams. Generally, it is recommended to encode one high definition video stream and one standard definition video stream which saves bandwidth. Inside the video tab, you can fine tune the settings for your IP video streams which includes the encoding protocol, resolution, bit-rate, frame rate, IFrame intervals, bit rate controls, fluctuation levels and so forth. You can reference the PTZOptics streaming settings guide available at ptzoptics.com/downloads to learn more about the recommended settings for encoding profiles.

Note: In order to bring audio into your encoded video stream you can use the 3.5mm audio input on the back of the camera. You will notice an audio settings area in the camera's log-in page which allows users to adjust volume levels, sample rates, and audio types.

Under the "Network" tab in the camera's settings page you can configure the RTMP settings for your camera. It is here that you can enter in the details of your RTMP stream. For example, you can go to YouTube.com and schedule a live stream. You can use the server URL slash the secret key to connect your camera to YouTube. You can then click the "on" radio button and check the options to include both video and audio.

You will also notice more advanced options for supporting multicast, RTSP authentication and ONVIF.

Finally, let's check out how easy it is to gain a live preview of your PTZOptics camera over IP inside a software such as OBS. To do this we highly recommend installing software called VLC Media player. Once you install VLC Media Player on your computer, you will automatically see a "VLC Video Source" option in your OBS sources menu. Once the VLC Media Input is open click the plus button on the right and select "Add Path/URL." Here you can enter the RTSP address for your camera. Generally, this address will look like "rtsp://THE-IP-ADDRESS-OF-YOUR-CAMERA/1" OR "rtsp://192.168.1.99/1". Before clicking "OK" leave "Loop Playlist" checked and "Always play even when not visible" on. And that's it. You will find similar setup options inside video production software such as Wirecast, vMix, and xSplit.

We hope that this video has been helpful. The PTZOptics built-in video encoder is a useful tool for many video productions. You can learn more about IP video production with PTZOptics cameras at ptzoptics.com/IP.