uniview

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Tech Tip #1

Uniview U-Code: How to save bandwidth and HDD Space.

Uniview has developed their own Smart Codec that they have intergraded with 4MP+ cameras and 3XX network video recorders. Don't worry if a previously ordered device does not have the U-Code feature it can be added with just a firmware update!
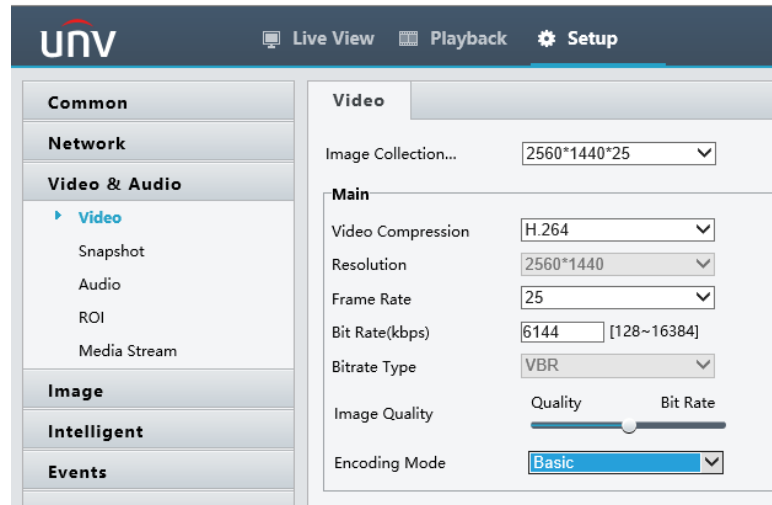
Enabling U-Code is super simple with just needing to set a simple drop down box to the level of support you want to use! U-Code Basic supports 3rd party manufactures and saves up to 75% of bandwidth and HDD storage. While U-Code Advanced is for UNV cameras and Recorders to sync together saving up to 90% of bandwidth on the network and the recorders HDD space.
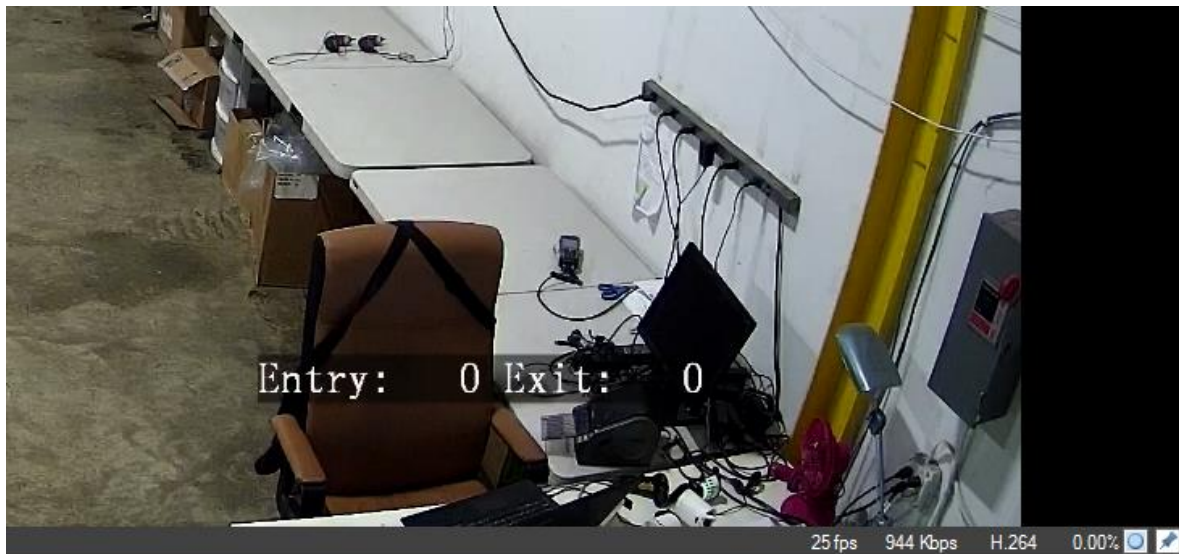
Enabling U-Code on a UNV Camera

1. Log into the Uniview camera directly on Internet Explorer.
2. Check to see how much bandwidth the camera is using in the live view by hovering the mouse over the live image and checking the streaming bit rate in the lower left hand corner of the overlay. In the demo image below we are using a little over 6 Mbps.

3. Next navigate to Setup at the top of the screen then to Video & Audio on the left hand menu.
4. In the Video Encoding menu, find the Encoding Mode Setting.
5. For UNV cameras the only option currently is the BASIC Encoding Mode. Set Basic as the Encoding Mode and then click Save at the bottom of the screen.

6. Last after saving the Encoding Mode, navigate back to Live View and check the new streaming bit rate, there should be a large noticeable difference in bitrate streaming, but the video quality should be exactly the same. In the example below after turning on U-Code the camera is not streaming at about 950 Kbps! That is a 85% reduction in bandwidth!
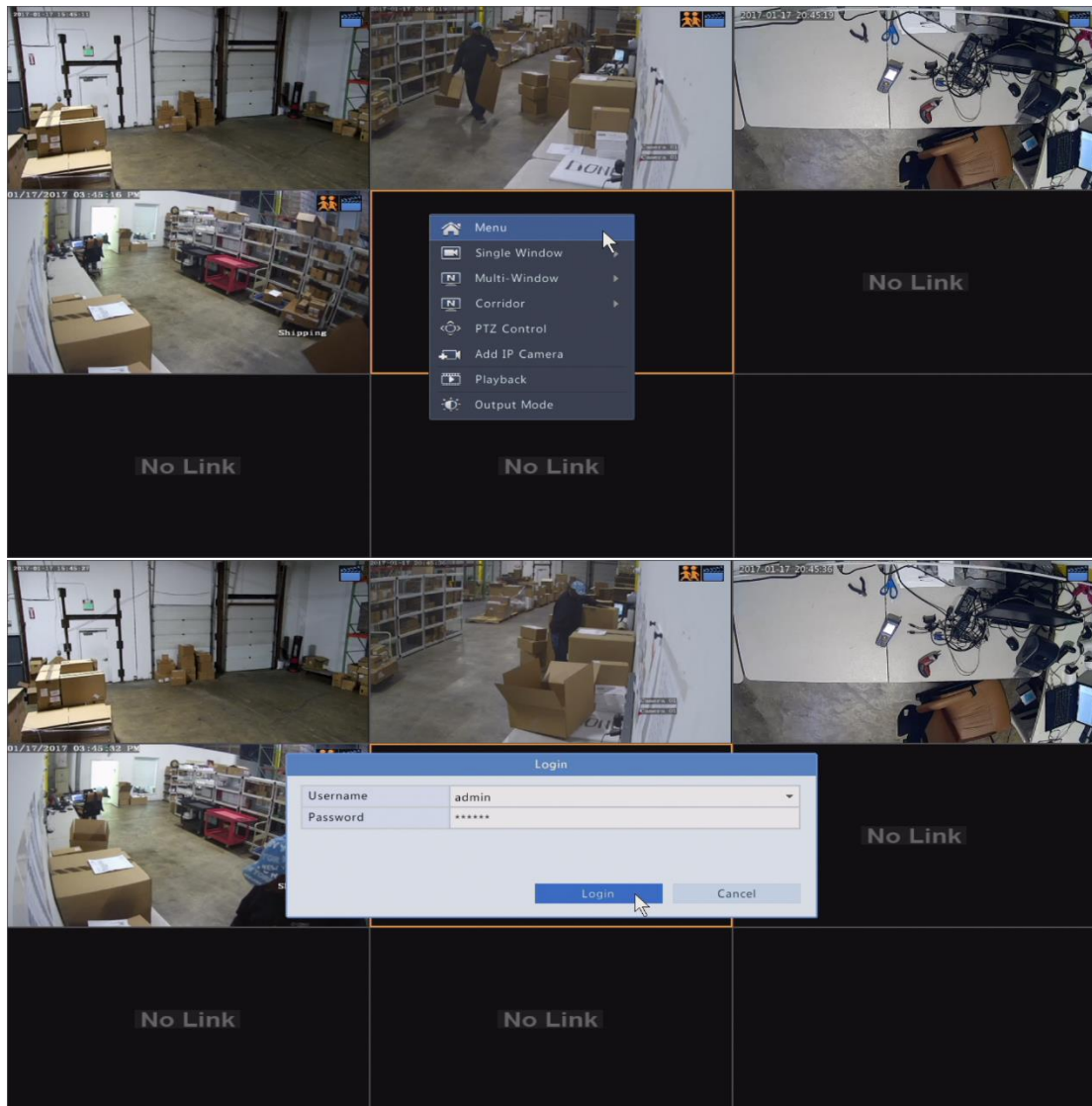
Enabling U-Code on a UNV NVR

There are two different ways to set up U-Code on a UNV NVR. The first way is from the recorders direct monitor and the second way is from the web GUI.
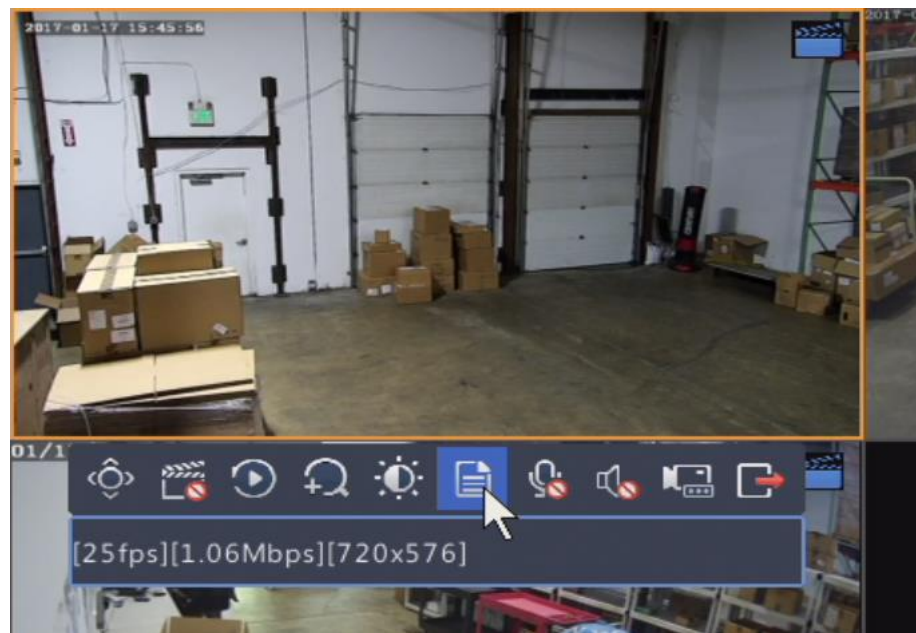
Enabling U-Code from the NVR Monitor

1. Right click and log into the main menu of the recorder. The Default login for the recorder is username admin and password 123456

2. Once in the main menu navigate to the Camera menu and then to the Encoding Menu.
3. The U-Code setting can then be set to two different settings. Basic mode is for 3rd party manufactures. Whereas advanced mode is for UNV Cameras. Select the setting that will best fit the camera that will be used on this channel. Remember that the U-Code setting in the recorder will need to be set up for each channel.

Encoding	Camera	D1			
	Storage Mode	Main Stream			
OSD	Image Format	1080P@25			
	Stream	Normal	▼	Sub Str
Image	Video Compression	H264	▼	H264
Privacy Mask	Resolution	1920*1080(1080P)	▼	720*57
	Bitrate Type	CBR	▼	CBR
PTZ	Bit Rate(Kbps)	4096	▼	1024
	Range	128~16384(Kbps)		128~1
	Frame Rate(fps)	25	▼	25
	Image Quality	Highest	▼	Higher
	I Frame Interval	50		50
	I Frame Range	10~250		10~25
	Smoothing			
	Audio Stream	☑		☑
	U-Code	Off	▼	Off
		Off		
		Basic Mode		
		Advanced Mode		

4. On the live view for the recorder the bitrate that the camera is being streamed at can be checked from the quick channel menu by highlighting over info button.

Enabling U-Code from the NVR Web GUI.

1. Load the recorders local IP address in the internet explorer browser. Once at the login screen login to the recorder, default login is username admin and password 123456
2. Once logged in navigate to the setup menu at the top of the screen. Note this may be behind the change password box make sure this is closed first.
3. Next navigate to the Camera menu on the left hand menu, and then into the Video sub-menu.

4. In the Video menu set the Smart Encoding Mode to the correct setting based off of the type of camera the channel is using. Remember if it is a 3rd party manufactures camera use Basic Mode and if it is a UNV camera use Advanced Mode. Also remember that U-Code has to be enabled for each channel in the recorder.