SURVEILLANCE WITH WIRED USB WEBCAMS

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Web location for this presentation

http://aztcs.org

Click on "Meeting Notes"
SUMMARY

• You can use various models of wired USB Webcams to spy on your home(s), business(es), and pets. They can alert your cell phone and/or your computer when they detect motion.
TOPICS

• Wired USB Webcams
• Surveillance with Wired USB Webcams
• Option 1: Set up Skype to auto-answer
• Option 2: Use a video surveillance software program:
  □ "Yawcam"
  □ "Contacacom"
WIRED USB WEBCAMS

• Most "Wired USB Webcams" have a USB 2 cable that must be connected to a USB 2 port or USB 3 port of a computer

• Only a few models of super-expensive Webcams have a USB 3 cable that must be connected to a USB 3 port of a computer
Webcam-friendly software application program

USB cable transmits video to the computer

same USB cable provides DC power to the Webcam

Your computer

Wired USB Webcam
WIRED USB WEBCAMS (continued)

• "Wired USB Webcams" get DC power from their USB 2 or USB 3 cable (so they do not require a separate AC power adapter)

• 16.4 feet (5 meter) limitation for "USB 2" cables that are not "active": "not active" means "USB 2" cables that have no electronic circuitry inside them (to clean up and repeat the digital signals)
For many models of wired USB Webcams, active and powered USB 3 extension cables connected to "USB 2" or "USB 3" ports of a computer can extend the total USB cabling distance between a computer and a wired "USB 2" Webcam up to 62 feet. Since the maximum length of an active USB 3 extension cable is 32 feet, you will need 2 active USB extension cables in order to reach a total cable length of 62 feet.
WIRED USB WEBCAMS (continued)

• We do not recommend the use of active and powered USB 2 extension cables for extending the total USB cabling distance between a computer and a wired USB 2 Webcam because they are too slow
WIRED USB WEBCAMS (continued)

• The 32-foot "Cable Matters" active USB 3 extension cable has worked well for us:
Cable Matters SuperSpeed USB 3.0 Type A Male to Female Active Extension Cable 10 Meters/32.8 Feet

by Cable Matters

235 customer reviews | 20 answered questions

List Price: $89.99
Price: $35.01 & FREE Shipping. Details
You Save: $54.98 (61%)

In Stock.
Want it Tuesday, Jan. 26? Order within 66 hrs 45 mins and choose Two-Day Shipping at checkout. Details
Sold by Cable Matters and Fulfilled by Amazon. Gift-wrap available.

Size: 10m
Cable Matters SuperSpeed USB 3.0 Type A Male to Female Active Extension Cable 10 Meters/32.8 Feet
by Cable Matters

List Price: $89.99
Price: $35.01 & FREE Shipping. Details
You Save: $54.98 (61%)

In Stock.
Want it Tuesday, Jan. 26? Order within 66 hrs 44 mins and choose Two-Day Shipping at checkout. Details
Sold by Cable Matters and Fulfilled by Amazon. Gift-wrap available.

Size: 10m

10m 5m
• High performance active USB 3.0 extension cable extends the connection between a computer or Windows tablet and both USB 3.0 and USB 2.0 peripherals including hard drives, USB hubs, mice, keyboards, flash drives, printers, and more

• Upgrade to SuperSpeed USB 3.0 and future-proof your data transfer rate while maintain backwards compatibility with your existing USB 2.0 devices. Enjoy SuperSpeed USB 3.0 data transfer rate at up to 5 Gbps, 10x faster than USB 2.0

• Active extension cable is bus powered with an integrated amplification chipset to ensure the SuperSpeed USB 3.0 performance at longer lengths than a normal USB extension cable

• Premium USB 3.0 repeater cable engineered with molded strain relief connectors for durability and grip treads for easy plugging and unplugging

• The combination of gold-plated connectors, bare copper conductors, and foil & braid shielding provides superior cable performance and error-free data transmission
ACTIVE USB 3 EXTENSION CABLES

• The "Cable Matters" USB 3 extension cable works better when you also install an optional generic AC power adapter for it:
Generic Premium External Power Supply 5v 1A 2A (1000mA - 2000mA) AC/DC Adapter, Plug Tip: 1.35mm x 3.5mm x 7mm, for USB HUB and 2.5-inch HDD Enclosure

by Generic

Customer rating: 4 stars out of 5, based on 252 customer reviews | 42 answered questions

List Price: $66.99
Price: $4.89 & FREE Shipping on orders over $35. Details
Your Save: $61.10 (93%)

In Stock.
Want it Tuesday, Jan. 26? Order within 47 hrs 41 mins and choose Two-Day Shipping at checkout. Details
Sold by New cam and Fulfilled by Amazon. Gift-wrap available.
Generic Premium External Power Supply 5v 1A 2A (1000mA - 2000mA) AC/DC Adapter, Plug Tip: 1.35mm x 3.5mm x 7mm, for USB HUB and 2.5-inch HDD Enclosure

by Generic

252 customer reviews | 42 answered questions

List Price: $65.99

Price: $4.89 & FREE Shipping on orders over $35. Details
Total price: $39.90

- **This item:** Generic Premium External Power Supply 5v 1A 2A (1000mA - 2000mA) AC/DC Adapter, Plug Tip: 1.35mm x 3... $4.89
- Cable Matters SuperSpeed USB 3.0 Type A Male to Female Active Extension Cable 10 Meters/32.8 Feet $35.01
• "Wired USB Webcams" and Webcams that are built into laptops and monitors are the only types of Webcam that work directly with online meeting services such "Skype", "Adobe Connect", "zoom.us", "appear.in", "Face Time", etc.
The other types of Webcams (Wi-Fi Webcams and cloud-based Webcams) do not work with online meeting services, at the present time (unless your use specialized interface software such as "Manycam" that can fool online meeting services into thinking that you have a wired USB Webcam).
WIRED USB WEBCAMS (continued)

• An example of a very popular wired USB Webcam:
Logitech HD Portable 1080p Webcam C615 with Autofocus

by Logitech

⭐⭐⭐⭐⭐ 1,161 customer reviews | 270 answered questions

List Price: $69.99
Price: $44.99 & FREE Shipping. Details
You Save: $25.00 (36%)

In Stock.
Want it tomorrow, Nov. 3? Order within 7 hrs 12 mins and choose One-Day Shipping at checkout. Details
Ships from and sold by Amazon.com. Gift-wrap available.

Package Type: Standard Packaging

- Full 1080p HD video recording and fluid 720p HD video calling in 16:9 wide-screen
- Dazzling 8 MP photos
- Auto Focus for extreme close-ups
- 360-degree full motion rotational camera, fold-and-go portability and tripod-ready base
- Works with PC and Mac
- Full 1080p HD video recording and fluid 720p HD video calling in 16:9 wide-screen
- Dazzling 8 MP photos
Logitech HD Portable 1080p Webcam C615 with Autofocus

by Logitech

4.8 out of 5 stars, 1,161 customer reviews | 270 answered questions

List Price: $69.99
Price: $44.99 & FREE Shipping. Details
The Logitech model C615 has a threaded tripod hole in the clip assembly on its bottom side. (Most wired USB Webcams do not have a threaded tripod hole.)

The Logitech model C615 does not have night vision capability.
SURVEILLANCE WITH WIRED USB WEBCAMS

• By themselves, **wired USB Webcams** are not smart enough to detect motion, record a video clip, and/or e-mail an alert to you.

• To use a wired USB Webcam for video surveillance, you have to use it with a separate software application program that does the following:
SURVEILLANCE WITH WIRED USB WEBCAMS (continued)

• Two options:
  Option 1: Set up Skype to auto-answer
  Option 2: Use a video surveillance software program such as Yawcam or Contacacam
Details of Option 1 (Set up Skype to auto-answer):

- If you wish to dial in remotely to look in on a live "Webcam" at your home or business:
- Step 1: Get a second "Skype" account (for your child, your cat, or your dog!)
SURVEILLANCE WITH WIRED USB WEBCAMS (continued)
Details of Option 1 (Set up Skype to auto-answer) (continued):

- Step 2: Use this second "Skype" account to set up "Skype" to do the following:
  "Answer incoming calls automatically AND
  Start my video automatically when I am in a call AND
  "Start Skype when I start Windows"
Details of Option 1 (Set up Skype to auto-answer) (continued):

- Step 3: Set your active "Power Options" profile so that your computer does not go into "Sleep" or "Hibernate".
- Now, you can use Skype to access your live "Webcam" using a computer, tablet, or some cell phones from anywhere in the world.
Details of Option 1 (Set up Skype to auto-answer) (continued):

- https://www.youtube.com/watch?v=HaYeI_NX3po
Details of Option 1 (Set up Skype to auto-answer) (continued):

- http://www.dummies.com/how-to/content/how-to-set-up-147nannycam148-surveillance-with-sky.html
- http://www.supertintin.com/blog/skype-recorder/skype-cctv-using-skype-for-your-home-surveillance
Details of Option 1 (Set up Skype to auto-answer) (continued):

Details of Option 2: (Use a video surveillance software program):
Two free software programs:
"Yawcam"
"Contacam"
Details of Option 2: (Use a video surveillance software program) (continued):

FUNCTIONS OF A VIDEO SURVEILLANCE SOFTWARE PROGRAM:

✓ detects motion in the video picture,
✓ initiates a video recording for a specified time period,
✓ store the video recording somewhere on your computer or on a local server device
✓ optionally alerts you by sending an email message
Details of Option 2: (Use a video surveillance software) (continued):

• If you install (or already have) a Webcam and you install the free "ContaCam" or "Yawcam" software programs into your "Windows.." computer, you can use the "Simple Mail Transfer Protocol" (SMTP) server of your email service to have "ContaCam" or "Yawcam" send photos of motion detection events to your cell phone, tablet, or laptop.
Details of Option 2: (Use a video surveillance software program) (continued):

• A moving person, object, or animal triggers the motion-sensing function of the "ContaCam" or "Yawcam" program in your "Windows.." computer.

• The "ContaCam" or "Yawcam" program begins recording still photographs and/or a video of the "motion detection" events.
USB cable transmits video to the computer.

The same USB cable provides DC power to the Webcam.

Your computer uses the "ContaCam" software program (free) to use the webcam.
USB cable transmits video to the computer.

Your computer

"Yawcam" software program (free)

Wired USB Webcam

USB cable provides DC power to the Webcam.
Motion detected!

fchao2@yahoo.com

Yawcam has detected motion in front of your camera.

/Yawcam

Yawcam_motion_2010-01-10_19.11.21_185.jpg

34K  View  Download
Motion detected!  Inbox | X

fchao2@yahoo.com

Yawcam has detected motion in front of your camera!

/Yawcam
Details of Option 2: (Use a video surveillance software program) (continued):

- When it detects motion, the "ContaCam" or "Yawcam" program stores these recordings as files onto a local hard drive that is part of your "Windows.." computer.
Details of Option 2: (Use a video surveillance software program) (continued):

- The "ContaCam" or "Yawcam" program immediately sends emails to any or all email accounts that you have including the ones that are inside your cellular phone or tablet device.
- You view the photos or video file attachments to determine what to do about the situation.
"Yawcam" in a "Windows.." computer detects a "motion event" and takes a "frame grab" photo of the intruder

"Yawcam" uses the Gmail SMTP server to send out a "Motion Detected!" e-mail to the e-mail address of my cellular phone (with the "frame grab" photo of the intruder attached as a file attachment)

Gmail SMTP server automatically copies and forwards a copy of the "Motion Detected!" e-mail to the "Sent" folder of my "Gmail" account
SURVEILLANCE WITH WIRED USB WEBCAMS (continued)

Details of Option 2: (Use a video surveillance software program) (continued):

- "Yawcam" is available for free at http://www.yawcam.com/
  (Do not click on the ad that is below the top-most banner. Click on "Download" on the left navigation bar instead.)

"Yawcam" only works with wired USB Webcams.
Yawcam

What is Yawcam?
Yawcam is short for *Yet Another WebCAM software*, and that’s exactly what it is ;-)

More precise Yawcam is a webcam software for Windows written in Java. The main ideas for Yawcam are to keep it simple and easy to use but to include all the usual features.

Features
- Video streaming
- Image snapshots
- Built-in webserver
- Motion detection
- Ftp-upload
- Text and image overlays

Start Download
Download Videos To Your Desktop & Convert To Any Format - All Free!
Details of Option 2: (Use a video surveillance software program) (continued):

- "Contacam" is available for free at http://www.contaware.com/contacam.html
  "Contacam" works with most wired USB Webcams.
  "Contacam" works with some wireless Wi-Fi Webcams.
ContaCam - Video Surveillance software

This Free Video Surveillance and Live Webcam software for Windows is extremely easy on system resources, and does not contain unnecessary bloat. It is fast, light, and versatile enough to meet all your security needs while still being very user friendly and able to run on even the most moderate systems.

Only three easy steps are necessary to setup a camera:

1. Decide for the usage (security surveillance, live snapshot webcam or manual records / snapshots)
2. Enter a friendly camera name, choose the web appearance & language
   (English, Spanish, Portuguese, French, Italian, German, Russian, Slovak, Czech, Dutch, Bulgarian, Polish)
3. Configure how long to keep the files on your hard disk

Take a look at the Camera Basic Settings screenshot. For the experts there are dozens of additional configuration options, check these screenshots.

With Version 5.0.1 (October 3rd 2015) 😊

- This is a stable release, download it from here
- Web interface has a new html5 calendar picker (browser must support it)
- Enhanced ContaCam service installation
- Audio support for Axis ip cameras (thanks to Michi for sponsoring the development)
- Disallow standby and hibernate when there are cameras running
- Full Vietnamese language support (thanks to toan.nguyenk@gmail.com)

**Attention:** with version 4.3.0 we removed UDP networking because it was ContaCam's proprietary streaming protocol not compatible with any current standard (it's still possible to stream a video source through the web server, see this FAQ entry)

- See the full Changelog
Details of Option 2: (Use a video surveillance software program) (continued):

- For "Yawcam", see our how-to document which is located at
  http://aztcs.org/meeting_notes/winhardsig/add-ons/Yawcam/Yawcam01.pdf
 DETAILS OF OPTION 2: (Use a video surveillance software program) (continued):

- Part 1 of our Yawcam Motion Alarm Presentation can be found at
  https://www.youtube.com/watch?v=R2d8y9wTFHc
- Part 2 of our Yawcam Motion Alarm Presentation can be found at