Arecont Vision Update

June 2016

Campus Security

- Schools have often been idealized as safe zones for freedom of thought and expression

- Today for campus security overall and education in particular, as the song said *"The Times They Are A Changin"*
                                            -- Bob Dylan, 1964

- Tragic events on and off campus have raised concerns for schools and colleges worldwide

- The result is that students, faculty, and parents have increasingly welcomed enhanced campus security and video surveillance

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NY Students Protest for More School Security
Students are concerned after racist and homophobic threats were discovered on campus

By CS Staff – December 2, 2015 - SUNY Potsdam students protested what they see as inadequate school security measures on Nov. 30 in light of a threat against a black professor found on campus.

http://www.campussafetymagazine.com/article/n.y._students_protest_for_more_school_security#

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CAMPUS OBJECTIVES

84% Video surveillance for crime prevention was ranked by 84% as the most important for campus leadership.

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THE PRIVACY ISSUE...

9%

of students view video surveillance as
an invasion of privacy but

49%

of students say video surveillance
makes them feel safer.

Source: Anixter & Arecont Vision – *Inside the Mind of Campus Security Professional Survey*, 2015.

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- Typical Applications
  - Classroom, cafeteria, quad, gym, natatorium, and track/field area situational awareness
  - Reception areas with record management system integration
  - Front entrance inside and out with facial recognition integration
  - Parking lots and surrounding streets for situational awareness and license plate recognition/capture
  - General surveillance of hallways and classrooms

Reduction in Number of Cameras: Indoors
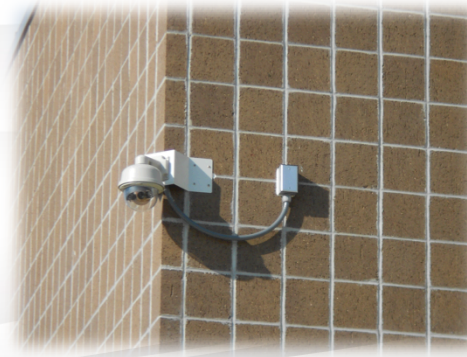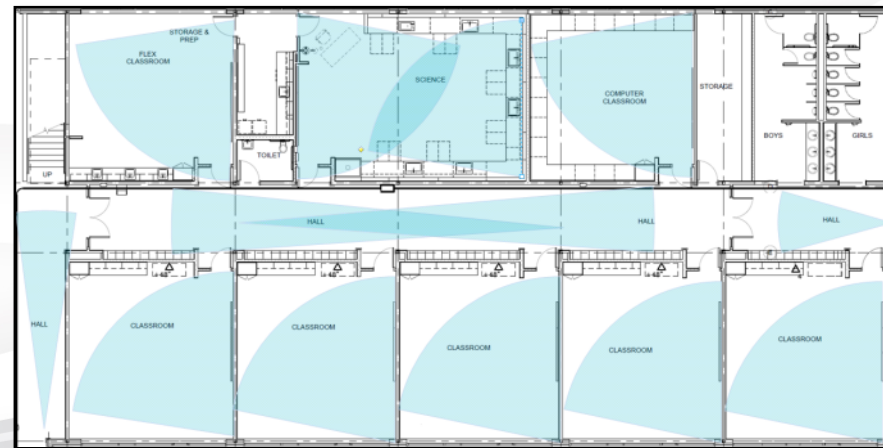
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Analog
21 cameras to cover classrooms.
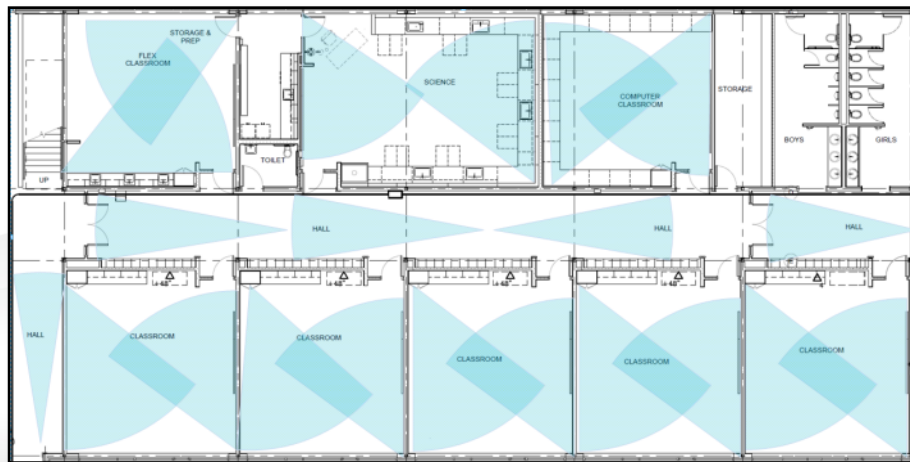
Megapixel
13 Arecont Vision 1 megapixel cameras yield better clarity and more than double the resolution.

Reduction in Number of Cameras: Outdoor

Analog

24 cameras cover this public area with about 8,000,000 pixels

Megapixel

8 panoramic cameras deliver better coverage with 96,000,000 pixels

Situational Awareness Outdoors

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Leading the Way in Megapixel Video™

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Situational Awareness Indoors

Classroom

Stairways/Hallways

Cafeteria

Entrances/Exits

Walkways

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Customer Testimonials

"The improvement in the quality and performance of our video surveillance system with the Arecont Vision megapixel cameras is incredible. The 360 degree views have made a tremendous difference in providing a safer and more secure campus."

- Bill Weber, Assistant Chief of Police, Butler University

"We have to date protected more than 50% of our buildings with Arecont Vision, and add more every year. Arecont Vision has greatly enhanced the safety and security of our students, staff, and visitors here at Goddard Public Schools – USD #265."

- Ronny Lieurance, Police Chief, Goddard Public Schools

"I was introduced to Arecont Vision over five years ago and their cameras have become the main workhorse in our CCTV system of over 1,300.

The [SurroundVideo] 180 cameras have proven time and again that PTZ's are a thing of the past and the new OMNI's have given us a new appreciation for Arecont [Vision's] continued superiority in the CCTV field."

- James McCarthy, Director, Physical Security, University Police Department, George Mason University

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Case Studies

- Butler University
  - http://goo.gl/xiOHBQ
- George Mason University
  - http://goo.gl/jf05Xk
- Forest Lake High School
  - http://goo.gl/NyQWkp
- Harligen Consolidated Independent School District
  - http://goo.gl/YgIRQh
- Tular Cave Laboratory
  - http://goo.gl/1ihxEr
- Jonathan Adler High School (video case study)
  - http://goo.gl/fDHRP4

- Flour Bluff Independent School District
  - http://goo.gl/MtLFBY
- Mission Consolidated Independent School District
  - http://goo.gl/3hLG7d
- SAR Academy
  - http://goo.gl/Tj0YdY
- Northern California High Schools (news video)
  - http://goo.gl/JcYO6Y
- Skyline Elementary (news video)
  - http://goo.gl/KLhd7P
- Indianapolis Middle Schools (news video)
  - http://goo.gl/L5XeTD

Campus Security for K-12 and Higher Education

- Educational institutions require security systems that provide a safe learning environment for students, while protecting faculty, staff, visitors, and property indoors and out

- Violent incidents at on and off campus for schools and universities around the world have created an increased focus on increasing safety, situational awareness, and post-incident forensic viewing

- Students, faculty, and parents increasingly see video surveillance as valuable and necessary, rather than an invasion of privacy

- Arecont Vision IP megapixel cameras are proven in deployments at schools, colleges, universities, and educational institutions worldwide

Product Update

Arecont Vision®

Arecont Vision®

Leading the Way in Megapixel Video™

SurroundVideo® Omni Mini

2 User-Configurable Sensors in an Omni-Directional All-in-One Solution

Highlighted Features Include:

- 2 Sensor Omni Camera

- Remote Focus – Still Able To Change Lenses

- 3 Axis Gimbals

- Discrete and Low Profile

- Fast Frame Rates

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Arecont Vision®

Leading the Way in Megapixel Video™

SurroundVideo® Omni Mini

Mechanical Overview

Mounting Plate for Easy Installation

NPT Port

Motorized Lens Modules

Uses Existing MicroDome Gimbals and Bubble

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Arecont Vision®

SNAPstream®

Smart Noise Adaptation & Processing

- Smart H.264 Codec Enhancement

- Updateable on Most Legacy Cameras

- Reduces Bandwidth Without Impacting Image Quality

SNAPstream™
Technology

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SNAPstream®

Arecont Vision MegaView 1080p @ Default Settings
30 FPS 2.2 Mb/s

Arecont Vision MegaView 1080p @ Default Settings
with **SNAP**stream®
30 FPS 0.5 Mb/s

SNAPstream®

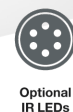Arecont Vision MegaView 1080p @ Default Settings
21 FPS 10 Mb/s

Arecont Vision MegaView 1080p @ Default Settings
with SNAPstream®
21 FPS 2.4 Mb/s

Arecont Vision®

Leading the Way in Megapixel Video™

MegaVideo® Flex

Ultra Low Profile Design Solution

Highlighted New Features Include:

- 1.2MP, 1080p, 3MP, and 5MP H.264 Remote Focus True Day/Night Indoor/Outdoor Tethered IP Cameras

- Camera Sensor and Main Unit can be Connected via a USB Cable up to 40ft in Length

- Optional IR LEDs

Designed for Flexible Installation

Sensor Unit

Main Unit

Use USB cables up to 40ft long

Optional IR LED Units

Wall or Bracket

Threaded washers screw in from both sides

Optional IR LED Units*

Sensor Unit

Main Unit

Interchangeable Lenses with Motorized Remote Focus

Ultra Low Profile Design

Tethered Camera

NightView™ on 1.2MP Models

Wide Dynamic Range Available on Some 1080p and 3MP Models

WDR

True Day/Night with Mechanical IR Cut Filter

Water Resistant from Front

CorridorView™ with 90° Image Flip

SDHC Card Slot

Pixel Binning Mode on 3 and 5MP Models

Optional IR LEDs

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*Sold Separately

ONVIF | S

PSIA

Tech Tips & Tricks

Remote Focus on SurroundVideo G5 Products

Protecting our most valuable assets: Students

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- Educational institutions require security systems that provide a safe learning environment for students

- Violent incidents at schools and universities increase the focus on video surveillance

- School funding continues to cut

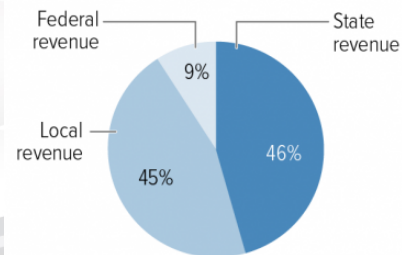- Arecont Vision IP megapixel cameras reduce the total cost of ownership

Global Education Expenditure ($ in trillions)

CAGR = 7.4%

Year	Value
2012	$4.4
2013E	$4.7
2014F	$5.1
2015F	$5.4
2016F	$5.8
2017F	$6.3
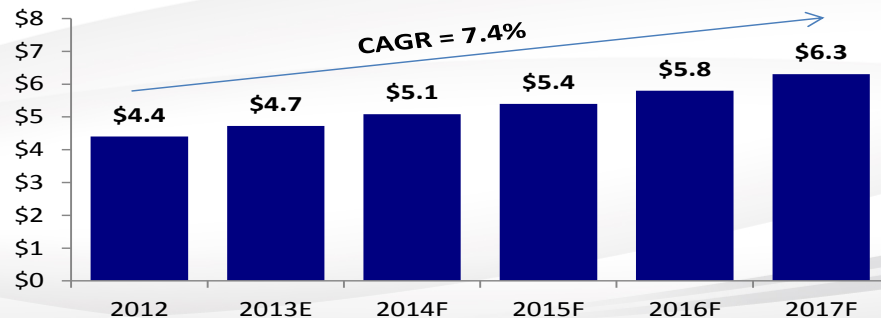
Source: IBIS Capital

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States Provide Nearly Half of School Funding

Share of total K-12 education funding, 2013

Federal revenue — 9%
State revenue — 46%
Local revenue — 45%

Source: Census Bureau, "Public Elementary-Secondary Education Finance Report, 2013 Data," June 2, 2015.

CENTER ON BUDGET AND POLICY PRIORITIES | CBPP.ORG

Source: Center on Budget and Policy Priorities

Why Increase Surveillance

- Many tragic events have occurred
  - School security has grown as a higher priority as a direct result for K-12, colleges, and universities
- Megapixel cameras reduce the number of cameras and maximizes coverage
- Megapixel technology offers
  - Improved situational awareness
  - Proactive campus monitoring
  - Post-incident forensic detail
- Applications
  - High traffic and sport venues
  - Reception & front entrance
  - Parking lots

Remote Focus

- Installation & Setup
  - Simpler
  - Quicker

- Less Expensive Total Cost of Ownership

Available now on SurroundVideo G5

Easy to Use Controls

Classic Focus Method

New Way to Focus

Zoom & Focus

Zoom:

| +20 | +5 | +1 |
| -20 | -5 | -1 |

} Zoom Controls

☑ Enable Auto Focus after zoom

Focus:

| +20 | +5 | +1 |
| -20 | -5 | -1 |

} Precision Focus

Full-range Focus

Short-range Focus

} Easy Focus

Stop

Remote Focus of the SurroundVideo G5
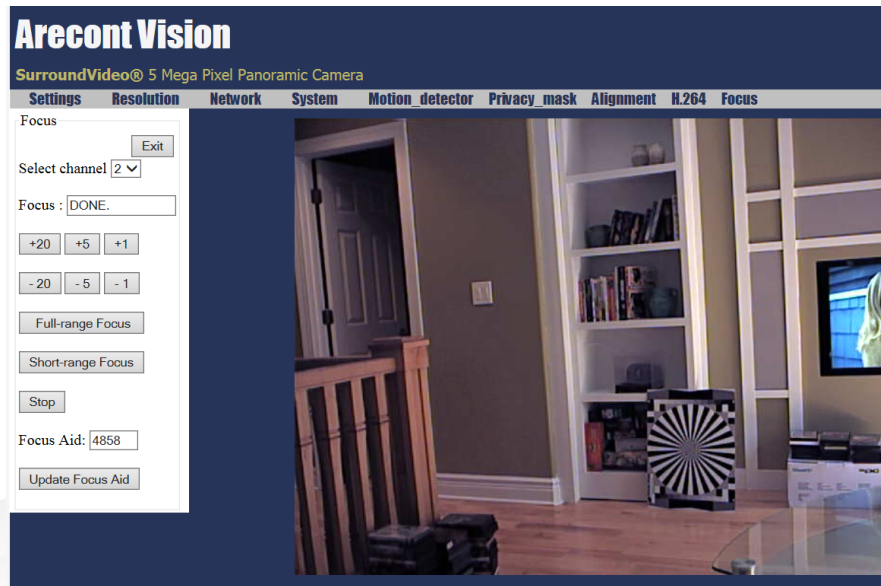
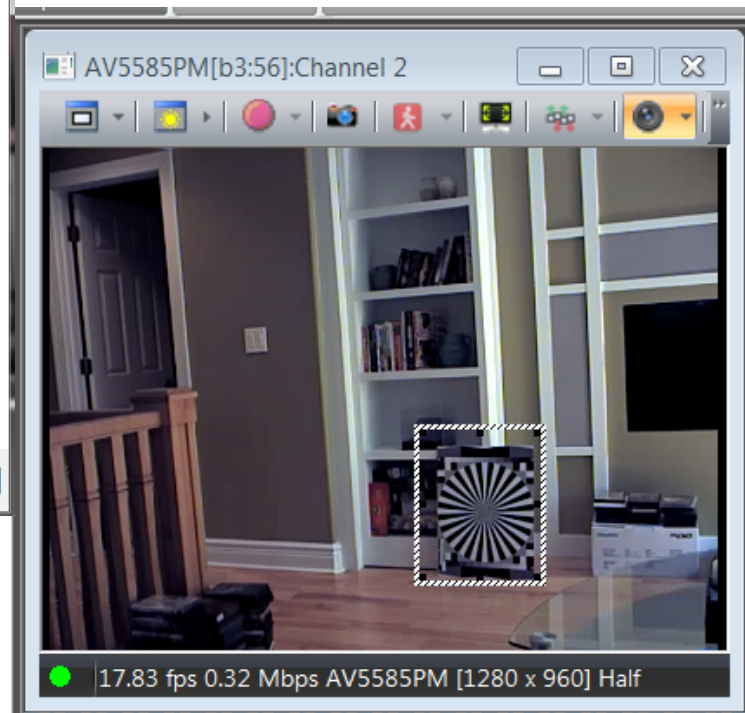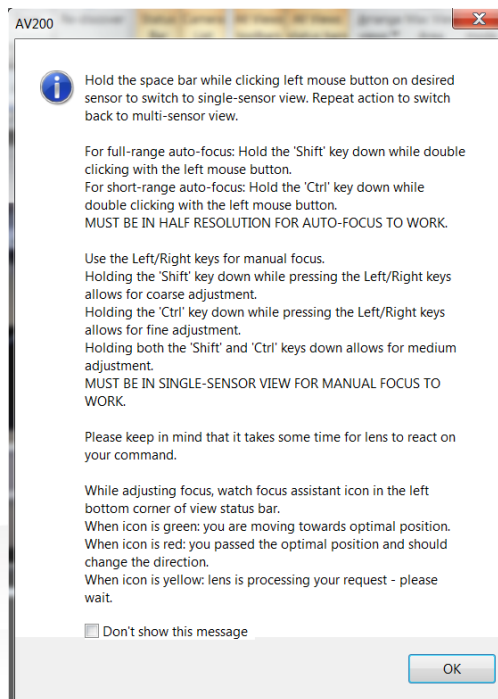## Focusing Steps

1. Use a focus chart

2. Select the focus tab

3. Select a channel

4. Select Full-range Focus

5. Perform a Short-range Focus

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Precise Adjustment from AV200

1. Launch AV200
2. Select Camera or Camera Channel
3. Select Zoom & Focus drop down
4. Draw a box on the area or interest
5. Perform precise adjustment
   1. Coarse = Shift + Left/Right keys
   2. Fine = Ctrl + Left/Right keys

AV200

Hold the space bar while clicking left mouse button on desired sensor to switch to single-sensor view. Repeat action to switch back to multi-sensor view.

For full-range auto-focus: Hold the 'Shift' key down while double clicking with the left mouse button.
For short-range auto-focus: Hold the 'Ctrl' key down while double clicking with the left mouse button.
MUST BE IN HALF RESOLUTION FOR AUTO-FOCUS TO WORK.

Use the Left/Right keys for manual focus.
Holding the 'Shift' key down while pressing the Left/Right keys allows for coarse adjustment.
Holding the 'Ctrl' key down while pressing the Left/Right keys allows for fine adjustment.
Holding both the 'Shift' and 'Ctrl' keys down allows for medium adjustment.
MUST BE IN SINGLE-SENSOR VIEW FOR MANUAL FOCUS TO WORK.

Please keep in mind that it takes some time for lens to react to your command.

While adjusting focus, watch focus assistant icon in the left bottom corner of view status bar.
When icon is green: you are moving towards optimal position.
When icon is red: you passed the optimal position and should change the direction.
When icon is yellow: lens is processing your request - please wait.

☐ Don't show this message

OK

AV5585PM[b3:56]:Channel 2

17.83 fps 0.32 Mbps AV5585PM [1280 x 960] Half

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