

Increase Your Business with Arecont Vision Megapixel IP Technology

Customer Webinar 18 July 2012

Networked Megapixel Technology



The

BEST SURVEILLANCE SOLUTION

for

EVERY APPLICATION

in

ANY TYPE OF BUSINESS.

Agenda



The State of the Industry

Scott Schafer [Executive Vice President]

Product Updates

Raul Calderon [Senior Vice President]

Success Story

John Bujarski [Regional Sales Manager]

Technology Partner Introduction

Jason Schimpf [Director of Partner Relations]

Guest Presenter: Exacq Technologies

Roger Shuman [Sr. Marketing Manager]

Tech Tips

Ted Brahms [Director of Field Applications]

Marketing Update

Mark Espenschied [Marcom Director]

Close & Q&A

Scott Schafer



Arecont Vision Update

Scott Schafer Executive Vice President

Company Profile



WORLD LEADER

- Founded April 2003
- High-definition, state-of-the-art, full motion, multi-megapixel video surveillance cameras for the security industry
- Design, development, manufacturing, assembly, service

LOS ANGELES HEADQUARTERS

 Engineering, production, quality assurance, sales, service and support are all located at our global headquarters

ENGINEERING and DESIGN

- Superior CMOS imaging and high-speed image processing
- Excellent image quality, frame rate and compression designs
- Leadership in multi-sensor architecture and H.264 compression

CUSTOMER SERVICE

- Global Sales and Support
- Technical support engineers and sales support for our customers





Security Industry Direction

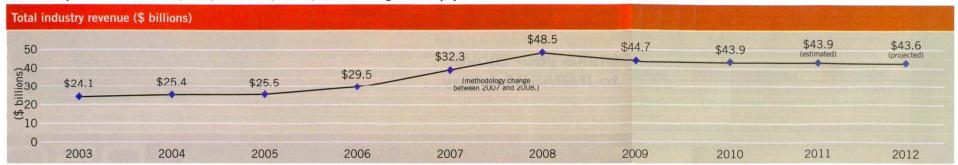
SDM 2012 Industry Forecast



SDM 2012 INDUSTRY FORECAST

2012 INDUSTRY REVENUE: Flat

Total industry revenue from the sale, lease, installation, service, and monitoring of security systems

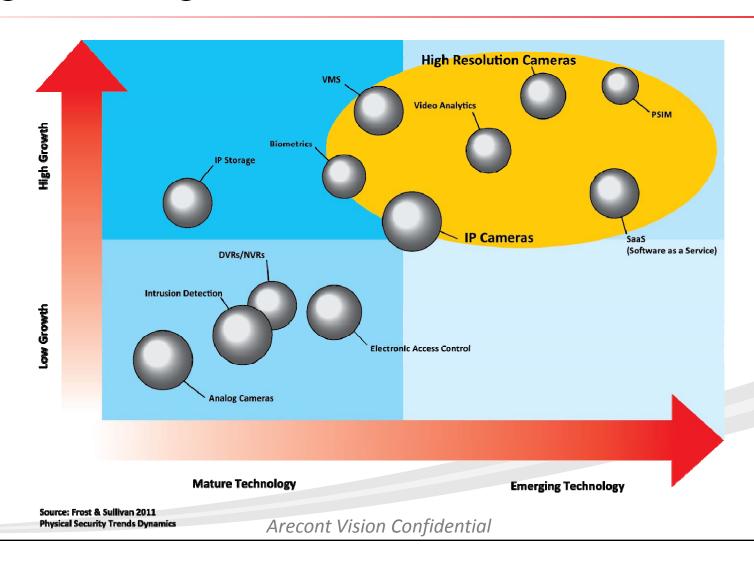


36 January 2012



Emerging Technologies ► Future Growth







Arecont Vision Results and Direction

June 2012 Results



- June 2012 was a record sales month!
- 2Q12 was a record sales quarter!
- Key Initiatives for 2H2012
 - Key New Product Releases
 - Improved Price Position in 1.3MP/1080 Product Lines
 - Increased Advertising and Promotion Activity
 - Company Expansion Internationally

Key Actions In Process



• Product

•	WDR demonstration units (FCA)	6/12
•	MegaDome2 Deliveries to Customers (GCA)	7/12
•	WDR Deliveries to Customers (GCA)	7/12

- 3 Year Warranty USA & Canada 6/12
- Quality Improvements
- Technical Support Process Improvements and Impressive Results
- RMA Process Improvements
 - Advance Replacements much more often and more liberal
 - Process improvements from Service incident to Product Receipt to Fix to Package to Shelf to Shipment

Customer Service Improvements



- Technical support metrics for calls answered within 60 seconds (65%) and 120 seconds (85%) show that we are doing much better in responding quickly to our customers. Only 1-2 customers are leaving tech support messages per day, and those are answered within 2 hours.
- Advance RMA processes are reducing in-process returns significantly.
- Our quality product and process improvements, technical support improvements, and Inside Sales support are really making a noticeable difference.
- When you add in the training our field provides, the new on-line training for installation and troubleshooting, and improved products through our early evaluation program prior to full General Customer Availability, things look very good ahead.

Key Actions In Process



• <u>Promotion</u>

- Rolling Thunder Public Relations Campaign
 - o "Thought leading" Articles
 - o MegaLab Review by Security Products Magazine
 - Case Studies and Customer Testimonials
 - New Product and Program Releases
 - New Personnel Announcements

Price

- Significant improvement in pricing for key products, especially 1.3MP/1080p based cameras and camera systems. 7-12% reduction effective 1 July 2012.
 - o AV1115xx
 - o AV2115xx
 - D4x-AV1115xx-xxxx
 - D4x-AV2115xx-xxxx
 - D4SO-AV2115xx-xxxx
 - o AV1125xx
 - o AV2125xx
- 3 Year Warranty USA & Canada

Key Actions In Process



- Marc Ladin joins Arecont Vision as Chief Marketing Officer (CMO)
- Arecont Vision Sales People
 - Erin Glackin, Director of Sales Operations and Customer Service
 - Paul Taggar, Country Sales Manager, UK/Ireland
 - Joel Murawski, Region Sales Manager, South Central USA
 - Harry Ervin, Region Field Applications Engineer, Eastern USA
 - Leo Lin, Regional Sales Manager, South China
 - Cathy Li Yuen Wah, Region Sales Manager, Hong Kong
 - Tony Piyapoj Phakdeesuparithi, Region Sales Manager, South East Asia
 - Tommy Wu, APAC Inside Sales
 - Acdaela Valencia, Central USA and Latin America Inside Sales Manager
- New Sales Representatives
 - Security Marketing Consultants, Midwest USA
 - Rep Marketing expands into NYC & Northern New Jersey
- Recent Wins: Data Centers, Warehouses, Schools/Universities
- Office Expansion: EMEA and Asia Pacific

Provide the Best



Performance

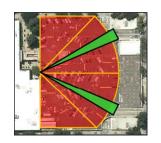


- Image Quality
- Fastest Frame Rates
- Highest Resolutions
- Most Efficient Compression
- Low Light
- Casino Mode
- Color Accuracy

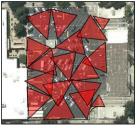
Quality / Reliability



ROI / TCO



3 Vs. 17



- Made In USA
- Solid State Technology
- MegaLab Integration
- Own Our Own Intellectual Property
- Education Leaders
- Knowledgeable Support

- More detail with fewer cameras.
- Real Savings:
 - Installation Costs
 - Management Costs



Arecont Vision New Product Updates

Raul Calderon July 2012

Upcoming Product Releases



- All-in-one Design
 - 1.3MP, 1080p, 3MP & 5MP Resolutions
 - Integrated 3-9mm or 3.6-9mm Remote Focus, Remote Zoom, Auto-iris Lens
 - Day/Night, IR and Audio Options
 - Adjustable 3-axis Gimbal
 - IP66 & IK10 Vandal Resistant Dome
- **Total PoE Solution**
 - PoE 802.3 af class 3 to Support Camera, Heater & IR LED ring
- Casino Mode, Binned Mode, Privacy Masking
- **PSIA & ONVIF Compliant**

MegaDome®2



Shipments Targeted July End/August Mid

e.g. 1080p MD2 Models

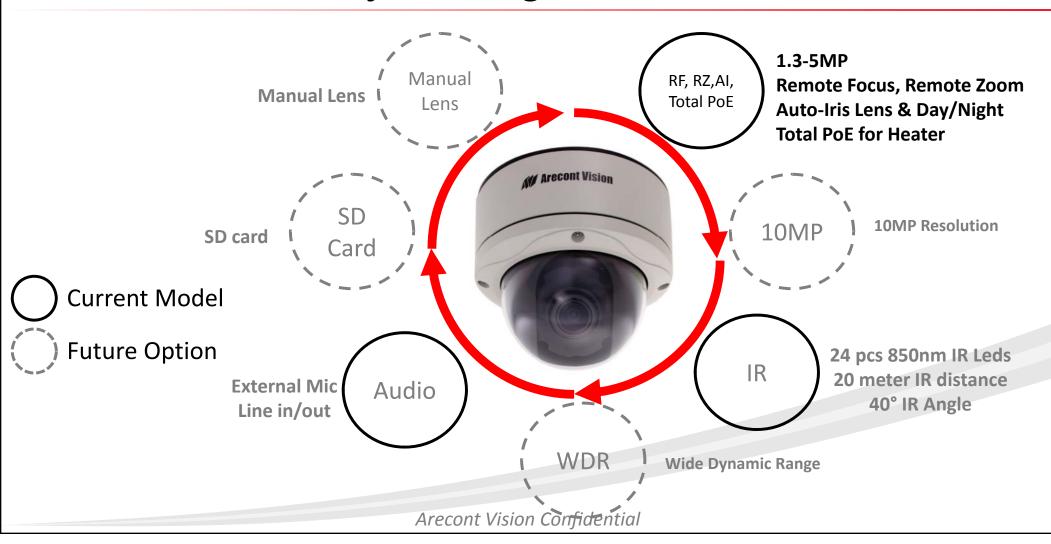
AV2255AM : Base

AV2255AM-H: w/Heater AV2255AM-A: w/Audio

AV2255AMIR: IR LED

The Whole Family of MegaDome® 2





Advantages of Remote Focus Lens



- No need for hands-on focusing at the camera
- Remote zoom and focus for easy installation through the camera web page
- Easy Focus Button & Precision Focus
- No Focus Tool Requirement
- Installer Friendly and Labor Cost Savings
- Unsurpassed Image Quality

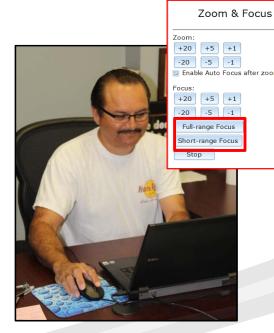
Manual Focus Lens



How difficult for Installer to focus camera w/ manual focus lens!

Arecont Vision Confidential

Remote Focus Lens



Focus through the camera web page, Just Click Focus Buttons to get clear image! Or fine tune with manual web interface adjustments.

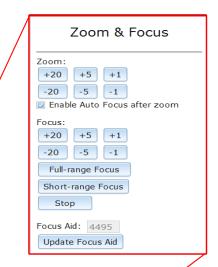
How to Drive Motorized Lens?

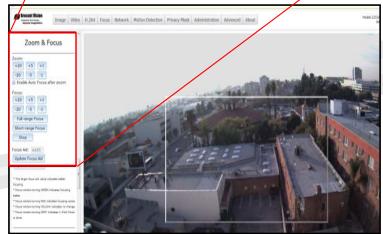


- Use Camera Web Page Motorized Lens Interface
 - Zoom and Focus Adjustable
 - 20 Steps, 5 Steps and 1 Step Manual Fine Tune
 - Full-Range Focusing: Automatically Scan the Full Focus Range and Find the Best Focus Position
 - Short-range Focusing: Fine Tune and Quickly Get a Precise Focus Position to Save Time

Resolution	Model #	Focal Length	F Number	Wide H-FOV	Tele H-FOV
1.3MP	AV1255AM	3-9mm	F1.2	76°	24°
1080p	AV2255AM	3-9mm	F1.2	115°	37°
3MP	AV3255AM	3.6-9mm	F1.8	72°	25°
5MP	AV5255AM	3.6-9mm	F1.8	92°	36°





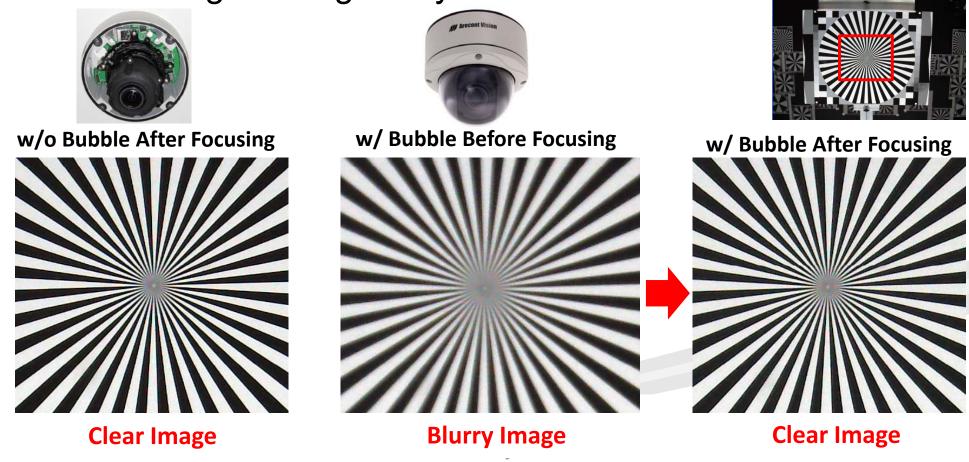


The Value of Remote Focus



AV5255AM

Get Clear Image through Polycarbonate Bubble



Remote Zoom



5MP @ 3.6mm HFOV=92°







Wide FOV

Tele FOV to See Detail

IR Version Testing



300 Lux 0 Lux





IR Leds Specs

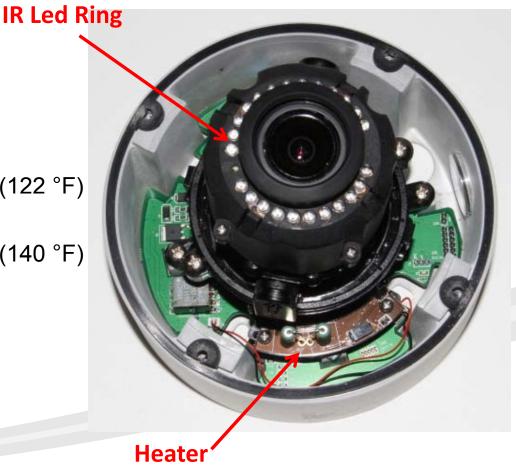
- 24 pcs 850nm Leds
- 20 meter IR distance (max)
- 40 degree IR angle
- MTBF: 82,442 hours

Total PoE Solution for Heater and IR Led



- Total PoE Solution:
 - 2.1 Watts Heater
 - Operating Temperature
 - » 1.3MP and 1080p
 - \circ -30°C (-22 °F) to +50°C (122 °F)
 - » 3MP and 5MP
 - o -30°C (-22 °F) to +60°C (140 °F)
 - IR Led Ring

No External Power needed for both heater and IR Led ring!!



MegaDome® 2 Accessories





MD-WMT2 (Fit 1.5NPT)



SV-JBA



MD-FMA



MD-JBA (For MD-CMT only)



MD-CRMA



MD-CMT



SV-EBA



MD2-HK 2 watts Heater



MD-EBA



MD-PMA

Upcoming Product Releases



- True Wide Dynamic Range Camera
- Dynamic Range up to 100 dB
- 1080p & 3MP Resolutions
 - AV2116v1
 - AV2116DNv1
 - AV3116v1
 - AV3116DNv1
- Color & Day/Night Models
- Fastest Frame Rates
 - 21 fps @ 3MP
 - 32 fps @ 1080p
- Casino Mode, Binned Mode, Privacy Masking
- PSIA & ONVIF Compliant (soon)

Compact WDR



Shipments Targeted
July End

AV3115 vs. AV3116



	AV3115	AV3116
Resolution	3МР	3MP
WDR	NO	Yes
Wide Dynamic Range	60 dB	Up to 100dB
Frame Rate	21fps	21 fps
Privacy Mask	Yes	Yes
Binned Mode	Yes	Yes
PSIA	Yes	Yes

ONVIF Coming Soon

AV2115 vs. AV2116



	AV2115	AV2116
Resolution	1080p	1080p
WDR	NO	Yes
Wide Dynamic Range	69 dB	Up to 100dB
Frame Rate	32fps	32 fps
Privacy Mask	Yes	Yes
Casino Mode™	Yes	Yes
PSIA	Yes	Yes

ONVIF Coming Soon

Regular vs. WDR cameras



Regular Camera: (AV3115)

Color Washed Out & Can't Clearly see
 Shaded Area under Strong Sunshine



True WDR Camera: (AV3116)

 Vivid Color and Clearly See Shaded and Bright Light Areas under Strong Sunshine



WDR vs. Regular Cameras



 Dynamic Range up to 100 dB Allowing Users to See Clearly in Shaded and Bright Light Conditions Simultaneously





Arecont Visio





- Pricing on these products was released on our newest price list released on July 2nd.
- Contact your Arecont Vision Representative for more information.



"How I Shot the Bear" Success Stories

John Bujarski Regional Sales Manager





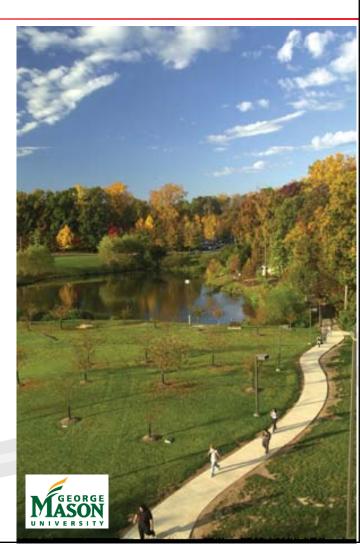


Video Surveillance Upgrade for Virginia Largest Public University

About GMU



- 670-acre residential campus
- Enrollment 33,320+
- Staff 2,600
- Four Campuses
- Located in the heart of Northern Virginia's technology corridor near Washington, D.C.
- One of the top 40 Law Schools in the United States.



Purpose & Challenge



- Previous Video System Challenges
 - Poor Video Quality.
 - Not enough Detail to Identify Persons or Events.
 - Inadequate Coverage.
 - No Standardization across the Campus.





Lack of Image Quality



Solution



"We have installed almost every variety of megapixel camera made by Arecont Vision, from the 1.3 megapixel MegaDome® to the 8 megapixel 360-degree SurroundVideo® panoramic camera," said James L. McCarthy Jr., Director of Physical Security, George Mason University, Fairfax, Virginia.







Entrances & Hallways





- Higher Resolution Cameras provide more detail at key entrance and gathering points.
- More resolution enables you to see details further into an image or further down a hallway.



Large Venues







Large Venue Coverage

- Using fewer cameras but higher resolutions.
- Reduced installation cost allowing the purchase of more Higher Resolution Cameras.
- Spend money on technology that can be used over and over, as opposed to installation labor which is only utilized once.

SurroundVideo® Panoramic







Arecont Vision 8 Megapixel Panoramic Cameras

- Single Camera providing Detail Coverage over large areas.
- Provide great detail both Live and Forensically.
- Building Exteriors and Parking Areas.

Building Exteriors







Camera Placement & Latest Technology

- New System Designs and deployment can reduce cost dramatically.
- Are you changing the way you deploy technology?
- What classes have you taken to help you think outside Standard Resolution IP?

George Mason Results



Video Surveillance Upgrade Projected to be a Five Year Project.



Actually implemented in **Two Years**.

Arecont Vision Megapixel Solution reduced camera count, reduced labor cost and enabled GMU to implement solutions faster.

Solutions Worth Noting



- Case Studies for Many Different Vertical Markets.
- Presentations & Images for specific Vertical Markets.
- Do you have one worth promoting?

Arecont Vision CUSTOMER

of Virginia's fastest growing high-

er education institutions with four

Located in the heart of Northern

Virginia's technology corridor near Washington, D.C., George Mason University offers strong

undergraduate and graduate degree programs in engineering, information technology, biotechnology and healthcare. The George Mason University School of Law

has been recognized by U.S. News and World Report as one of the top 40 law schools in the United

from poor video quality and a lack

of standardization. The legacy sys-

tem could not provide the needed

levels of video surveillance, either

related to the area being viewed

or the quality of images needed to identify events and/or individu-

included the required funds for an

initial investment in an IP-based surveillance system. The University needed a system that could provide better video quality to

capture facial recognition and to

offer a wider range of options.

CHALLENGE

ises and 35,000 students

Look Closer™ Case Study

George Mason University **Deploys Arecont Vision Cameras**

Several Models including 8 Megapixel Panoramic Cameras Keep Watch Over Multiple Campuses



The previous video system at George Mason University suffered

A need for better image quality led George Mason University directly to IP-based megapixel camera technology. The University evaluated several well-known camera suppliers before deciding on Arecont Vision, which leads competitors related to processing power, breadth of product line and use of H.264 compression technology to minimize bandwidth and stor-

MEGAPIXEL SOLUTION

"We have installed almost every variety of megapixel camera made by Arecont Vision. from the 1.3 megapixel MegaDome* to the 8 megapixel 360-degree SurroundVideo* panoramic camera," said lames L. McCarthy Ir. Director of Physical Security, George Mason University, Fairfax, Virginia, The capabilities of various cameras are matched to the areas

AV8185DN 8 Megapixel H.264 Day/Night 180° Panoramic IP-camera

- 1600(H) x 1200(V) per sensor
- 8 megapixel 180" field of view
 H.264 (MPEG-4, Part 10), Motion JPEG





Partner Presentation



Roger Shuman Exacq Technologies







Roger Shuman

Sr. Marketing Manager

- Been with exacq since January 2006
- Employee #9 (now over 100)
- Previously employed with Integral Technologies





- 1. Hybrid Server Ease of Migration from Analog to Megapixel
- Use an existing analog infrastructure initial cost savings
 - exacqVision servers: 8, 16, 32, 48 and 64 analog inputs



- Most exacqVision hybrids **INCLUDE** 8 IP licenses
- Expandable to up to 128 IP licenses per server (depending on server)

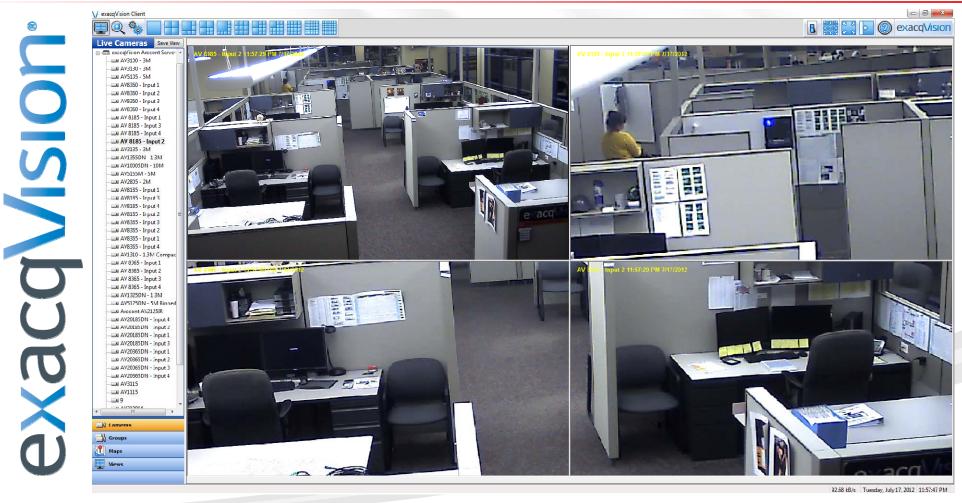


- Very common for end-users to replace poor or broken analog cameras with megapixel cameras
- Scalable with all exacqVision servers



Over 150,000 exacqVision IP licenses sold in 2011









- 2. Easy to Install and Operate exacqVision VMS
- exacq will do nearly 75 TRTs in 2012
- "Software is easy to use—why did we need training?"



- Software is licensed to the MAC address of the server, not the camera.
- Intuitive user interface, up and running in minutes











- 3. Free, scalable, cross-platform software and mobile apps
- No charge for client or server software
- Single camera to enterprise same interface
- Server installs on Windows or Linux. Client installs on Windows, Linux or Mac
- 3 Year warranty on server hardware, 3 year SSA
- Out of the box solution
- Free exacq Mobile app for iPhone, iPad, Android, Kindle Fire, BlackBerry Playbook



Tech Tips

Ted Brahms Director of Field Applications



Field of View and it's Effect on Image Clarity

Pixel Density Concepts

Examining Pixel Density by FOV



- Part of getting the best picture from megapixel involves thinking about "pixels on target."
- With the same camera and settings, image quality can vary widely depending on the field of view covered by your lens selection.
- Camera reduction is a big motivator for buying megapixel, but it's important to remember the basics of pixel density when setting end user expectations.

Backyard Experiment



- Camera used is an AV2115 @ 1080p (1920 x 1080).
- All camera settings were left at "factory default."
- In the scene captured, ambient lux levels throughout the scene averaged between 400-900lux.
- Camera distance to the target was fixed. The license plate in the images is 26'/ 7.92 meters from the front of the camera lens, the wall is 46' / 14 meters from the same point.

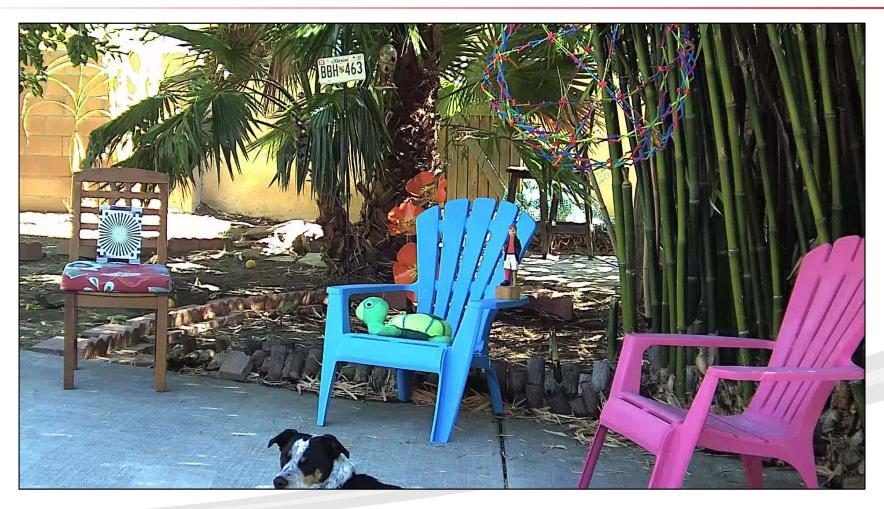
The Lenses



- 4mm, 8mm, 12mm are all from Arecont Vision. The "wide angle" lens used is a 1.67mm Theia lens also available from Arecont Vision.
- The lenses are:
 - 12mm M1214-MP, f1.4
 - 8mm MPL-8.0, f1.8
 - 4mm MPL-4.0, f1.8
 - 1.67mm SY110M, f1.8

12mm 12'/ 3.65 Meters = 90ppf/295ppm





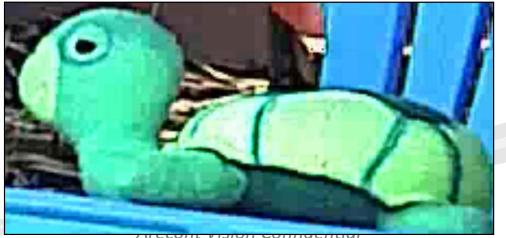
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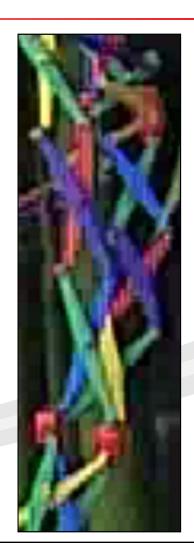
12mm 90ppf/ 295ppm @ 500%











8mm 14.5'/ 4.41 meters = 75ppf/245ppm



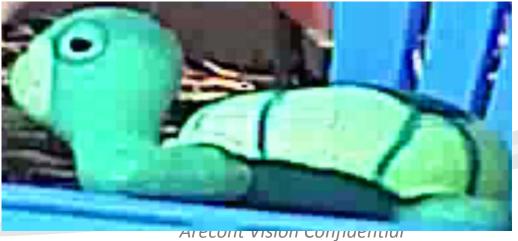


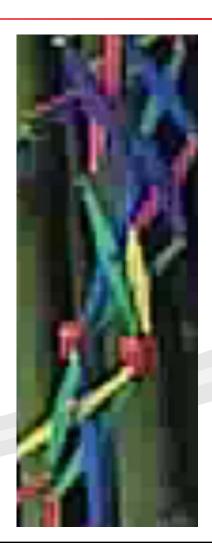
8mm 75ppf/ 245ppm @ 500%











4mm 23'/ 7 meters = 47ppf/154ppm





Arecont Vision Confidential

4mm 47ppf/ 154ppm @ 500%











1.67mm 54'/ 16.4 meters = 20ppf/66ppm Marecont Vision





1.67mm 20ppf/ 66ppm @ 500%









Arecont Vision Confidential



What We Learned



- The farther we stretch the field of view the less detail is available when digitally "zooming" the image, stretch it enough and even color detail begins to get lost.
- 1080p can provide excellent digital image detail if we keep the field of view tight enough. If you want to cover a wider area and have the same level of detail use a higher resolution camera.
- If the image does not meet expectations, use a higher resolution camera or narrow the field of view with a tighter focal length and add more cameras.





- No, there are a lot of other factors that play into image quality: quality of the lens, local lighting conditions, camera exposure settings and image compression all play a role as well.
- I will address these in future webinar sessions so stay tuned for my next installment.



Marketing Update

Mark Espenschied Director of Marketing Communications

Upcoming Shows



July

- July 18, 2012, ADT Road Show –
 Houston, TX
- July 19, 2012, ADI Expo –
 Raleigh, NC
- July 31, 2012, ADI Expo Tampa, FL

August/September

- Aug 9, 2012, ADI Burbank, CA
- Aug 16, 2012, ADI Expo Columbia, SC
- Aug 23, 2012, ADI Expo Houston, TX
- Aug 28, 2012, ADI Expo Philadelphia
- Aug 30, 2012, ADI Expo Hawaii
- Sep 10-12, 2012, ASIS Philadelphia
- Sep 19, 2012, Anixter Canada Toronto
- Sep 25-28, 2012, Security ESSEN –
 Germany

















"Interactivity" - Video Resources

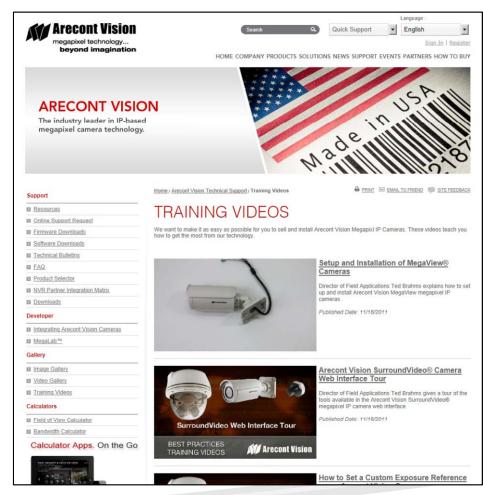




- Technical Videos
- Arecont Vision
 University
- Sample Videos
- Corporate Videos
- News Videos
- Case Study Videos

Technical Videos

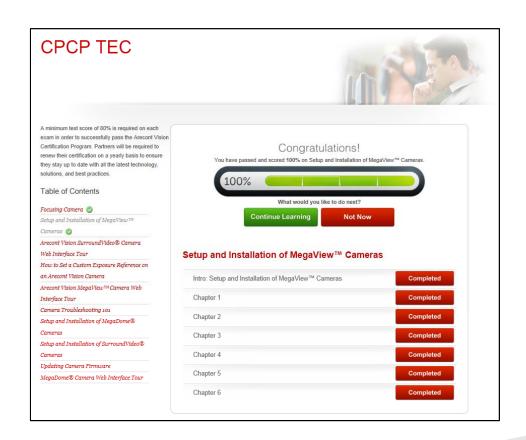




- Our experts explain how to install, adjust and get the most from Arecont Vision megapixel technology.
- "Support" Tab

Arecont Vision University

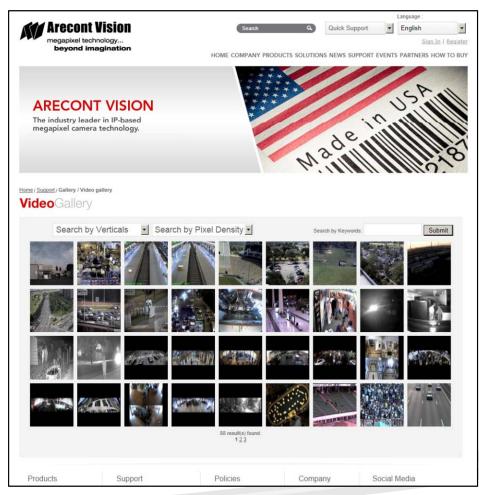




- Our technical training is going online.
- Register on our website to access free CPCP Tec training courses.
- Online CPCP and CPCP Advanced courses are coming soon.
- "Partners" Tab

Sample Videos

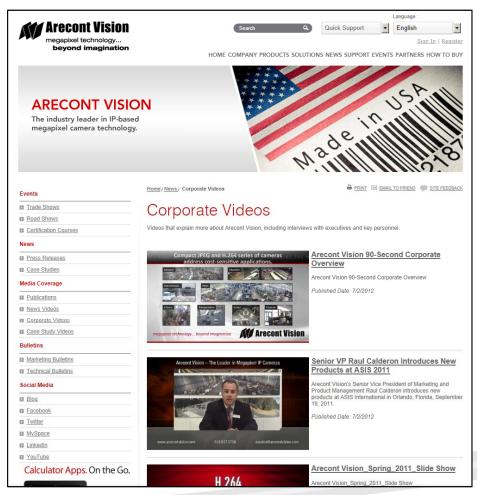




- Videos from Arecont
 Vision cameras can be
 sorted by camera
 resolution and vertical
 market.
- "Products" Tab

Corporate Videos





- Corporate messaging and video of our experts explaining Arecont
 Vision megapixel technology, driving interest in our products.
- "News" Tab

News Videos





- Television news stories that highlight Arecont Vision technology as a solution, driving interest in our products.
- "News" Tab

Case Study Videos





- Short "news story"style videos that drive interest in the written case studies and product information.
- "News" Tab

Questions?



Thank You!

Next Customer Webinars: Wednesday, August 15, 2012