Image Fusion

NUUO is the open platform leader in software-centric video solutions. We innovate to answer the need for sophisticated yet simple to use surveillance products. With solutions designed for every vertical industry, we have crafted an exciting array of products suitable for any surveillance needs.

Our products offer unmatched flexibility from combining open platform and open standards, yet remain feature rich and highly customizable. With a growing list of 1800 compatible cameras, NUUO leads the market with excellent camera compatibility and analog/IP camera integration. In this issue of NUUO Technical Quarterly, we are going take a closer look at Image Fusion and how this technology can solve a long-standing surveillance problem - camera blind spots.

Camera blind spots

One of the very first considerations to make in designing meaningful surveillance perimeter is the position of cameras and their blind spots. Every security camera has a blind spot, and this area may vary greatly depending on the camera’s field of view. Some surveillance cameras have an especially narrow field of view due to their increased detection distance. In essence, the narrower the field of view, the great the blind spot will be.

One great way to illustrate this is imagine looking through a spyglass. Through the lenses you may be able to see things far away, however this leaves you oblivious and blind to your immediate surroundings. The same idea applies to surveillance cameras. Several solutions exist to solve this problem, the obvious being adding more cameras to cover the blind spots. The downside is that this will lead to more potential blind spots and hard to track from the monitor which camera is pointing at what angle.

Another solution is to use a 360° camera to cover a wide panoramic area, but warped views from those cameras often present a problem for users.

Blind spot free surveillance with NUUO

NUUO offers Image Fusion, the unique software in NUUO Crystal™ that is built to solve the blind spot problem with multiple cameras with a different approach. By overlaying different camera views in a virtual 3D space, Image Fusion is able to piece together different view grids and create a complete, sweeping panoramic view with all angles corrected.

Image Fusion works differently than autostitching, otherwise employed in many photo imaging technology nowadays. The program does not attempt to calculate the edges and seams of the different views, but merely places them next to each other. This saves process power and offers users with better flexibility in adjusting their viewing angles and options.
The use of Image Fusion has benefits over many in-camera technology because it is flexible and easily saves user a lot of viewing troubles. Imagine looking down a hallway with several cameras all pointing from different angles. It might be difficult to detect initially when an object enters into the hallway just which direction the object is traveling from and to. However with Image Fusion this becomes a non-issue, with all the different views pieced together to form a coherent long view of the hallway. Image Fusion not only displays a series of flat scene in a spatial 3D scene, it can also link different views from different NUUO Crystal™ servers and form a coherent panoramic view.

Flexible and powerful VMS solution

NUUO Crystal™ is an extremely robust and redundant VMS system. Coupled with the intuitive NUUO NuClient software, NUUO Crystal™ provides advanced imaging capability and cutting edge video technology to compliment its powerful recording capabilities. NUUO Crystal™ is a solid platform built on open platform software to empower you with an array of exciting VMS options. For more information please refer to NUUO’s website at http://www.nuuo.com/crystal

Layout Wizard

To match Image Fusion’s flexible capability, NUUO Crystal™ provides an interface that perfectly compliments Image Fusion’s powerful capabilities. NUUO Crystal’s NuClient comes with a simple, drag ‘n drop grid layout tool. Simply select the grids that best matches your Image Fusion scene and merge the views together. Vertical scenes are also supported.