



An Arena Solutions case study

www.arenasolutions.com



case study

Pixel Velocity Moves Away from Excel to use Arena to Gain Great Efficiencies in BOM Management and Reduced Risk

SITUATION

Pixel Velocity has leveraged decades of experience in the defense industry to create the world's first end-to-end system specifically optimized to provide highly reliable automated threat detection and multi-camera tracking over very large areas. The Pixel Video Fusion™ System utilizes a distributed processing methodology that provides contiguous coverage while allowing automated analysis of all high-definition cameras, resulting in complete situational awareness. Pixel Velocity's system is proven for effective, proactive surveillance of critical assets at airports, seaports, critical infrastructures, and government facilities.

The Pixel Video Fusion™ System is constructed of multi-mega-pixel cameras, edge-based processing and recording, and a client-server-based management interface. The company's system addresses today's need for more detailed images and better video management. At the same time it creates an evolutionary path to tomorrow's need for more reliable and advanced automation techniques. The company believes reliable video automation systems can best be created through the process of working with users and its integration partners to understand their operational environment. By first laying a foundation of higher quality video, Pixel continues its work of developing value-added software suites targeted to focused market applications.

THE CHALLENGE

Even though Pixel Velocity has been building a presence in its market, the company is still in start-up mode, having grown over the past eight years from five to approximately 25 employees—not one a full-time IT professional—who work out of its corporate offices and remotely. The ability for employees to work remotely is a core value for the company and in keeping with its roots. Pixel Velocity started as a virtual company whose founders all had “day jobs” and worked remotely with each other and one major supplier. Since the beginning, all of the product development information was organized in Excel spreadsheets, and transmitted via spreadsheets and saved in an online storage service.

The company has quickly grown from having one supplier to having dozens of suppliers with whom they must collaborate and source hundreds of components. Product offerings have grown, and business has become more complex, making each decision—and each mistake—more impactful. Along the way, the capability of the company's spreadsheet system was overwhelmed. Using spreadsheets altogether had become a liability.

“Arena is one of the most important tools we use to get our products to market. It's right up there with Outlook, Word, and the rest of the Microsoft Office software.”

- Matt McAmmond
Director of Manufacturing
Pixel Velocity



Fusion HD Camera

case study

Using spreadsheets, Pixel Velocity had to work extra diligently to be certain that the Bill of Materials (BOMs) they released to manufacturing were the right revisions, because Excel offered them no easy way to prevent or discover the discrepancies between their BOMs and their drawings—or even within the BOMs itself. Every cell in their Excel BOMs was a potential source of errors since any changes to the data require manual intervention – rekeying, deletion, recalculation, etc.—and inspection across all affected data, a tedious, error-prone job across a few dozen items and a nightmare over multi-level, indented BOMs with hundreds of parts. And since every person in every department could use his own formulae, nomenclature, macros, and even formatting, every Excel worksheet ran the risk of introducing chaos at every stage of their design-through-manufacturing process.

Moving to the next level in the development of their business, Pixel Velocity knew changes had to be made. Their intellectual property—engineering documents, vendor and supplier information, manufacturing data and BOMs—was among both their most valuable assets and their biggest liabilities. The company finally decided that using a dedicated collaborative BOM and change management solution was its smartest choice. Modern BOM and change management software would provide the company a cost-effective solution that could overcome the flaws and risks inherent in continuing to use Excel.

As a growing company, Pixel Velocity required a scalable solution that could grow with it, as more personnel, products and suppliers, were added and the software was integrated with other key business systems. The company decided to pursue a web-based product so anyone in Pixel Velocity's extended enterprise who had permission, could go on to virtually any computer and interact with the company's product data at anytime. In addition, the company required an easy-on solution that would allow them to be productive with it in a matter of days and weeks, instead of months and years, like competitive software on the market.

ARENA DELIVERS

Pixel Velocity selected Arena early in the company's development, as soon as it became clear it would need to move away from Excel to improve document control, outsourcing management and help them track engineering changes throughout the entire product development process, all which were difficult, at best, using Excel. The on-demand delivery of Arena was an important part of that decision, as it offered the company the remote access it needed for its distributed work force. The only thing required was a simple Internet connection.

Pixel Velocity saw the company's acquisition of Arena BOM and change management software as a strategic step in its long-term growth. "We originally started using Arena to organize our product information and be able to collaborate with each other from remote locations. We didn't originally have a server, so it made sense to use a web-based product. It is nice to be able to get on virtually any computer and be able to get my job done," said Matt McAmmond, director of manufacturing at Pixel Velocity.

Pixel Velocity was quick to recognize that its operations professionals hold a critical role in the success of the company and management clearly understood that supporting them with the right tools, especially in a challenging economy, is a business imperative. Pixel Velocity's operations leaders (who hold a variety of

**“ARENA WAS A MODEST
INVESTMENT THAT HAS MADE
US FAR MORE PRODUCTIVE.”**

- Matt McAmmond
Director of Manufacturing
Pixel Velocity

case study

different titles) use their power and influence to ensure the company's products move forward according to the company's time, cost and quality expectations through each division and stage of development, from concept through delivery. With great foresight, the company took the needs of this role seriously and recognized that Excel posed serious roadblocks to meeting its goals. The company made sure they had BOM management software that could enhance the way they do their jobs and give them more time to focus their skills in engineering, operations, supply chain management, manufacturing and strategy, on getting products to market instead of on trying to work around inefficient and error-prone spreadsheet software.

STRATEGIC BENEFITS

The company no longer manages product development with email and spreadsheets alone, inappropriate tools by themselves, which held the imminent risk of breaking down and costing it dearly. Pixel Velocity operations are supported with the right collaborative BOM and change management software, so they can get their jobs done in the best and most cost-effective way.

"I am responsible for releasing information to our suppliers and managing our change process. Since we started using Arena, we are able to communicate the information for our designs more easily. We make bid packages quicker and more accurately. Arena is helping us get better and better. We're able to make changes more quickly and we've been able to give better access to everyone in the process," said McAmmond. "Arena has helped us improve so many of our processes. I have to give Arena credit for helping us be able to make production parts right from the get-go. We make fewer mistakes."

With Arena, Pixel Velocity manages all of its product information and history—including BOMs, suppliers, costs, quotes, specs, drawings, files, compliance records and much more—in a single, centralized, version-controlled product record. The Arena product record is accessible to employees—from such diverse departments as engineering, finance, and manufacturing—over the Internet, and gives them real-time visibility into current product data from anywhere in the world. This is done without having any full time IT support at the company or any IT intervention in the process.

"Excel is fine software, but it became frustrating using it to manage all of our product information. It just didn't have the kind of control we need. As our business and our products became more complex, and our decisions got more critical, Excel started to fail us. When we had one supplier, Excel wasn't so bad, but now that we have dozens of suppliers, we need the kind of control Arena provides," said McAmmond.

From design through delivery, Arena has helped Pixel Velocity make better, faster decisions, develop superior products and more quickly bring those products to market. The company can track their product information easier and more reliably than when it used Excel. This newfound ability has proven to be a huge time and money saver, allowing the company to release designs to manufacturing nearly 20 percent

“ARENA IS DELIVERED ON-DEMAND AND IS ALSO GREAT SECURITY FOR US. WE DON'T HAVE OR NEED AN IT PERSON AND DON'T HAVE TIME FOR DOWNTIME. ARENA WORKS FOR US THE WAY IT IS SUPPOSED TO.”

- Matt McAmmond
Director of Manufacturing
Pixel Velocity

case study

faster now that we are documenting it all better with Arena.

“All of our information is right at our fingertips in Arena, including hundreds of parts, components and assemblies,” said McAmmond. “As the company grows, Arena grows with it, offering us continual benefits along the way, no matter what our size.”

Finally, Arena’s on-demand delivery means Pixel Velocity doesn’t have to worry about whether or not its servers are secure or up and running. Without involvement from IT staff, Pixel Velocity managers can be certain their data, and processes, are safe and available to them and their employees anywhere, anytime. It also means there are no interruptions in workflow due to software and server upgrades or deal with a security issue.

“We often work remotely, and no matter where we are in the world, as long as we have an Internet connection, we can still access Arena. That alone has saved us a lot of time and money. On-demand delivery has been great,” said McAmmond. “Arena is up and running everyday.”

RETURN ON INVESTMENT

- **Improved Profit Margins.**

Like many other small to mid-size manufacturers, Pixel Velocity has the same kinds of product development challenges as many larger companies, but fewer resources to address them. Using Arena has helped Pixel Velocity make up that gap, helping the company not only generate cost savings and significant time savings over using Excel, but also realize improvements in profit margins.

- **Improved Change Management.**

Reducing reliance upon manual processes like spreadsheets, emails, and phone calls and removing barriers that interfere with approvals and handoffs lead to improved change management at Pixel Velocity. The company now releases designs to manufacturing nearly 20 percent faster.

- **Greater Accuracy.**

Using Arena has ensured greater accuracy because all parties— no matter where they are in the world— are always working from the same, most up-to-date version of the product. This has helped the company avoid costly human errors.

- **Affordable Total Cost of Ownership (TCO).**

Because Arena is delivered on-demand, Pixel Velocity did not need any additional IT infrastructure to support its adoption. Over a five-year period, the TCO of Arena is 30 percent of the cost of its competitors’ traditional client-server software.

- **Improved Supplier Collaboration.**

Moving from one supplier to more than 20, Pixel Velocity has no problems managing and even switching contract manufacturers using Arena—it’s done in minutes with a simple adjustment to the application.

SALES CONTACT

sales@arenasolutions.com
P. 1.866.937.1438

CORPORATE CONTACT

Arena Solutions
4100 East Third Avenue
Suite 300
Foster City, CA 94404
P. 650.513.3500
F. 650.513.3511