



Comprehensive Product Life-Cycle Management Solutions

**Business Services
Product Development Solutions**

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**Ian Kimbrell
President**

BIO:

Ian Kimbrell established Boundary Systems in 2006. Ian helps customers solve design and manufacturing problems quickly and on budget. Ian has been selling and supporting Product Lifecycle Management software for over 15 years within the PTC Channel. Ian has a Bachelor of Science in Mechanical Engineering and a Bachelor of Arts in Political Science from Case Western Reserve University.

About Boundary Systems:

Boundary Systems implements product life-cycle management solutions for companies involved in new product development. Boundary Systems uses a comprehensive approach that

includes consulting, education, and software solutions.

**Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine**

CEOCFO: Mr. Kimbrell, Boundary Systems is pushing the limits of product development. How so?

Mr. Kimbrell: At a high level, we help companies that develop and manufacture physical products to make them faster, better and less expensive. The primary tools we use to do that are advanced engineering software and 3D printers.

CEOCFO: Would you give us a concrete example of a project so we can get a better idea of how it works in reality?

Mr. Kimbrell: If a company wants to take a new product to market, if they have a new idea, that idea is often in the form of a napkin sketch, a few specifications and a basic idea of what they want the product to do.

Traditionally, in the design to manufacturing process, the next step is to start to design what it looks like in either 2D or 3D CAD. It is then passed to engineering to get the final details put together, to test it, prototype it, confirm it can be manufactured and verify that it will work as intended. The product is then rolled out to manufacturing to be planned and produced.

Our latest tools manage the 3D CAD designs with which companies design. 3D CAD is essentially engineering virtual reality. We take that virtual design space and we help them to use that data to drive processes.

For example, you can take that 3D model and you can teach a machine to program a machining center or that 3D model can automatically build instructions on how to assemble the final product on the plant floor. That model can also simulate what that product would do in the real world. In that virtual design space I can drop it on the floor, expose it to extreme temperatures, or watch the moving parts function all before I ever build it. Our software participates at many different phases of the development steps including in the concept design stage, the engineering stage and the manufacturing planning stage. Our solutions allow organizations to utilize a common set of software tools all the way through the process no matter what task they are working to accomplish. That is a big part of what we do to help companies streamline their processes.

CEOCFO: Are many companies using more advanced systems like yours or are you still a little ahead of the game?

Mr. Kimbrell: The majority of companies out there are using, if not our products, some type of 3D CAD solution to design their products. It is a fairly settled industry with really just four major platforms remaining out there. What most companies are not doing is extending that out to the rest of the enterprise. That has sparked a new science called Product Lifecycle Management. PLM is the idea of taking this data and having it touch every single part of the company in real time so that people can make changes and communicate better with everyone looking at the same data, whether it be 3D models, assembly instructions, requirement documents, quality specifications, or any other

critical piece of information. Most companies are just starting to get into PLM.

CEO CFO: How do you reach prospective clients?

Mr. Kimbrell: Through our sales team and marketing. Reaching out to the right companies and showing people the products. One of the benefits of the industry we are in is that you can show it. You can show it working and you can show it working on company's products. Any chance we have to jump into a product development and manufacturing environment and actually have people get hands on experience with our software, we do it. It is the same thing with our 3D printers. Touch and show is a big way of how we sell.

CEO CFO: Once you are able to show your wares, what do you need to overcome with a prospective client?

Are there certain common areas that people are a little reluctant about, or a certain aha moment that really makes the case?

Mr. Kimbrell: As a part of the sales process and part of helping companies move in to our full suite of products, you have to talk about how they will accomplish things before and after using our products. You have to help them understand how they do things now and how it could be if they had more advanced tools. I would say one of the biggest challenges is actually the first part. A lot of companies are so busy trying to get product out the back door that they do not have a good sense of how they are doing it now and so there is not always an immediate appreciation for their current inefficiencies and bottlenecks.

We have even had engagements with companies who have committed to investing in a large implementation, and we get stuck early on because the first step is to define their current processes. Often, the knowledge of how they do things now is in everybody's heads. They are dependent on tribal knowledge. Often, our biggest challenge is helping customers to define how they are

doing things now and to have the whole team within a company to understand that. Often, engineering does not know what manufacturing is doing and manufacturing does not know what quality is doing. Everybody sort of lives on their own islands within the organization. That is where we end up spending a lot of our time – helping companies understand, in a holistic way, how they are doing things now so we can help them plan the future state.

CEO CFO: Does the economy play a big factor in people likely to use your services? Are they more likely because it will help them or are they less likely because it will cost them money and they have to think about it? On the other hand, is it just not a factor over all?

Mr. Kimbrell: It is a factor, I think, in the short term. Our industry in 2008 and 2009 got hit like everybody else

“We can help [people] understand where that next opportunity is and then back it up with turnkey solutions to better manage their data, implement methods to design their products faster and to streamline how engineering and manufacturing work together.” – Ian Kimbrell

because the capital expenditure of initial investing in the technology and the setup of some of these systems was easy for companies to say they would just push it off for another year. Over the long haul, it actually helps us. Because companies have become more cautious about adding the overhead of new employees, and because we do allow companies to take the people they have now and make them much more efficient, our solutions become critical to companies trying to stay lean.

We often focus on the idea that if you have to grow 50% but you do not want to grow your workforce by 50%, we help with that by making the people you have already to be more productive. We are an industry that grows 10% to 20%. It is driven by the fact that companies are going to great lengths not to add overhead but still hit their growth goals.

CEO CFO: What is your geographic reach?

Mr. Kimbrell: We primarily cover the Great Lakes region – Ohio, Michigan, Indiana, Illinois, Kentucky and Pennsylvania. It is basically a six-hour radius around our headquarters in Cleveland, Ohio. We also have customers throughout the world. We support customers in China, Mexico, the UK and Germany. That is primarily because a lot of the companies that we work with are going global.

CEO CFO: Do people purchase or use your services on an ongoing basis, or do they work with you project by project? What is your model?

Mr. Kimbrell: It is both. People have reoccurring support contracts that they maintain with us and we are in touch with them all the time for technical support, answering questions and helping people add new users. That is the reoccurring revenue side of the business. But then there are major events where an organization is either upgrading to a new system or implementing a new location. Those tend to be one-time events that only have to happen every three to five years.

CEO CFO: Do many companies take advantage of the full range of your products?

Mr. Kimbrell: Product Lifecycle Management is the extending of your data, whether it be 3D CAD data, a standard process or any other type of information, to the entire enterprise. Eventually, every single product development manufacturing company is going to have to have these advanced tools to manage their data and processes, and that is something that our partner PTC predicted in the late 90s.

If you go to the last few pages of Jack Welch's book [Straight From the Gut](#), he makes two predictions. One prediction is that China will have the biggest impact of anything else in the future of manufacturing, and the second thing is that everybody will move towards the ability to view their

businesses from a dashboard that tells them everything that is going on in real time. That is where PLM – Product Lifecycle Management – plays a part. It allows them to plug into what everybody is doing in real time in the effort of getting new and competitive products to market.

CEOCFO: What has changed most for you from when you founded the company in 2005 to today?

Mr. Kimbrell: We really did not see the 3D printer business coming when we started. It is a very fast-growing part of our business and it is accelerating right now. Even though I have been familiar with the technology for 20 years, about three years ago it just took off like wildfire. To watch an idea impact every aspect of manufacturing is wild and it is amazing how innovative our customers are with it. Many take the core technology and they find very inventive ways to apply it.

CEOCFO: As someone who is working with manufacturers, what would you say to people who think manufacturing is just dead in the United States?

Mr. Kimbrell: Walter E. Williams, an economist out of George Mason, outlines that manufacturing is growing about 10% every year in the United States. Even though we have lost millions of jobs within manufacturing and people blame China and India, for every three million manufacturing jobs we lose, they lose 10 to 15 million manufacturing jobs. That is just because of the efficiency born of technology.

Manufacturing and productivity is just off the charts. We play a part in that, and I think people who say manufacturing is dead are looking at the wrong numbers. One of the exciting things about American manufacturing is that there are so many things we can do that nobody else can do, just because of our economy and our technology, and the American individual productivity per individual is about five times that of other countries. Even though we do not manufacture good, all of our customers are manufacturers and they tend to be very stable companies. They tend to have cash and good credit. And right now, they are very lean. They have been able to grow and be profitable, but they really have not added all the employees that they had back in 2009, which I think makes it a very attractive customer base.

CEOCFO: Business is good as shown by recognition on the Inc. list. How do you continue the same trajectory?

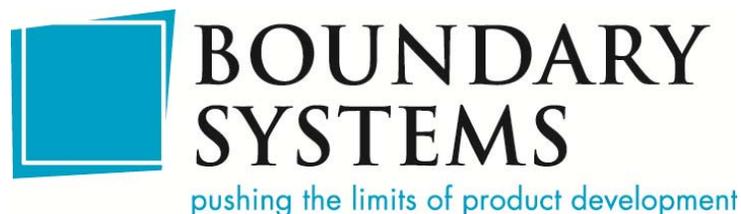
Mr. Kimbrell: I think everybody will tell you that it is picking the right people as you grow, and keeping your best people is probably the most important thing. Unlike the early days, I have customers that I have never personally met, and their relationship is entirely with a team of people who work for me, who I know will take care of them, advance the technology and make their people successful. That is probably the number-one thing.

Also it is about picking good technology partners. For us, that means the best-in-class technology. Everything we sell is number one or number two in the market. We do live

in an industry where too often companies have what has been called “shelfware”. That is where a company buys software having bought into what it is supposed to do for them and, of course, are expecting a return on investment from that purchase. Too often it never fully becomes implemented or they never really gain full use out of it. We are very sensitive to that. We never want our customers to buy something from us and then not be successful with it. Part of that has got to be a good solution backed by a good company. For us, that is PTC and Stratasys. We have a lot of technology partners, but those are our two biggest. And, right now, they are two companies that are doing very well.

CEOCFO: Why pay attention to Boundary Systems?

Mr. Kimbrell: Most people in the design and manufacturing space know they could be doing things faster, better and with less cost. I would say most people in the industry have a sense that they have maxed out the technology that they have and they need to both figure out where the next opportunity is to be more productive and how to be more profitable. But they may just be overwhelmed by the amount of different technologies out there. That is where Boundary Systems can play a part. We can help them understand where that next opportunity is and then back it up with turnkey solutions to better manage their data, implement methods to design their products faster and to streamline how engineering and manufacturing work together.



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