

Equipment Asset Reliability Solutions for Asset-Intensive Industries



Mark S Benak - CEO

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

CEOCFO: Mr. Benak, what is Asset Performance Technologies?

Mr. Benak: We sell solutions to customers in asset-intensive industries to improve the reliability of their equipment assets and increase profitability.

CEOCFO: How does this work?

Mr. Benak: Our current solution, which we just announced back in August, is now a web-based version of our original product (formerly, a desktop application). The web product, called Preventance, has two key components to it essentially. There is a content library of maintenance recommendations from equipment experts (called the Asset Strategy Library) that is the technical basis for the maintenance, i.e. what is the right maintenance to do on your equipment. On top of that content library are some software tools that allow one to determine the right times (or intervals) to be doing this maintenance for your business. We are all about doing the right maintenance (technical basis) at the right times (financial basis) for the maintenance. The key is to spend your maintenance dollars wisely.

CEOCFO: Is this your Preventance product?

Mr. Benak: Yes, that is the brand name.

CEOCFO: How do you determine the right time? For example, if a machine is supposed to get the equivalent of an oil change every 5,000 miles why would that not be the same for everyone?

Mr. Benak: That is a good analogy - the selection of that interval for changing the oil every five thousand or ten thousand miles. I think when it comes to passenger cars, everybody pretty does it the same time but when it comes to industrial equipment that decision is greatly based on how that piece of equipment is being used. We define how it is used by what is called its operating context. Those are things like how critical is this piece of equipment is (e.g. how critical is my vehicle to me), what sort of duty cycle am I running my vehicle as well as what sort of service conditions am I putting my vehicle through. For example, if my livelihood depends on me getting to work every day in my car, that car is very important to me, and I do not want it to break down because I have to drive several hours to my office. I may want to change the oil more frequently because it is that important to me. I am driving it a lot so it is a high duty cycle situation and I am driving on dirt roads through the mountains (i.e. severe service conditions). The likelihood my car is going to break down is higher because I am stressing it, and since this car is valuable to me and important to my profession, I may want to shorten that interval for the maintenance and in this case, change the oil more frequently (e.g. every 2500 miles). But say, for instance, I have a cheap car and am just driving around the block. If it breaks down, I could still walk to my destination. And if it breaks down I am just going to throw it away anyway because it is passed its useful lifetime, then I probably am not going to change the oil that frequently because I care less about that. That is a simplified way to look at the types of decisions. Industrial assets, however, are fairly complex and have lots of different ways in which they can fail.

CEOCFO: Do people need to be educated in the overall concept?

Mr. Benak: There are some that are that are starting to do it on their own but they need better tools to assess the technical and financial basis for their maintenance. Power generation, for example, is a rather sophisticated industry - very high reliability but now more concerned with cutting costs (without affecting reliability). We take for granted that I flip the switch and the lights go on. I do not have to worry about the power not being on - at least out here in Albuquerque.

CEOCFO: Do most companies know what downtime costs them or will you help them figure that out as well?

Mr. Benak: We ask the customer what value we should use for that and some of them have it in their heads, others can get it quickly, and others have no idea. That speaks to the maturity and sophistication level of the organization when it comes to maintenance reliability and probably, at some, level the types of software systems that are installed at the enterprise.

CEOCFO: How are you able to put all the variables together?

Mr. Benak: The magic is in the algorithms. We have proprietary algorithms to accurately estimate the meantime between failure (MTBF) of the equipment based on your current or anticipated maintenance plan. We benchmark our results against industry data to show that they are indeed accurate. We can predict when the equipment is going to fail based on what type of equipment it is, its criticality, its duty cycle, and its service conditions (what sort of environmental stressors to which the equipment is exposed). That proprietary method is based strongly on the content in our Asset Strategy Library (ASL). I alluded to the library earlier and talked about the maintenance recommendations, which are also mapped back to all the ways in which the equipment can fail in any operating condition. Since we have the deep knowledge of first principles on how the equipment fails, we can feed that into our algorithms and accurately predict when the equipment might fail on average.

CEOCFO: How are you able to reach out to companies specifically with your service and are you involved in education, in general, so that companies are aware of the topic?

Mr. Benak: One way we do that is having a presence at public conferences. We try to ensure that we have a speaking role at those conferences. We do some contact marketing and education by email. Our website that was recently redesigned is getting more and more content to help educate the customer. We had a major breakthrough in thinking earlier this year. There is a reliability roadmap model that was developed by Dupont back in 2002; it shows the different cultural domains of reliability starting from a regressive or reactive mode and progressed toward planned and then precision modes of maintenance. It allows us to educate our customers that they are not alone with their reliability challenges and to better understand what level of solution they really need.

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CEOCFO: Do you find that when a customer has your service and they set it up and get some results do they continue to put in new equipment or make changes if their production changes? Who in the company is typically handling this?

Mr. Benak: Generally, the person using our software is typically a maintenance engineer or reliability engineer. Yes, the customers continue to help us make changes and add new equipment types to our library. The web version allows us to be much more aggressive with our pricing. Instead of licensing our intellectual property upfront for a given site and asking for a big upfront price, we offer user licenses at the three different levels in the web version. We can target the levels to the user’s needs (per the DuPont model above). This allows us to engage a new customer more quickly; they can easily and cheaply start to match their equipment information with ours and start analyzing and optimizing their maintenance plans.

CEOCFO: Why pay attention to APT?

Mr. Benak: APT offers niche intellectual property, the content and software algorithms (called Preventance) to assist asset-intensive industries in improving their asset reliability and, hence, profitability. We have unique tools to quickly allow you to determine the right maintenance at the right times for your business. That coupled with the fact that this template-based approach has a twenty-year history of development in the electric power industry, I think makes for a compelling sales proposition.

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