

History of the ecWizard

7-17-15

This has been an amazing, sequence of events with extreme highs and lows, a virtual roller coaster ride of emotions.



I was issued US Patent 9,080,783 on July 14, 2015.

The ecWizard brochure was distributed at the ASHRAE convention in Chicago 2009. We received an enthusiastic response from everyone.

At the ASHRAE convention Jim Hardeman VP of KMC controls was very excited and suggested that they develop and manufacture the ecWizard. Because they were not charging for development they wanted an exclusive manufacturing agreement. We were to be picked up in their private Lear jet and flown from San Francisco to their factory in Indianapolis to consummate the deal.



After two weeks I asked Jim when the Lear jet would be picking us up. He explained that the CEO was not moving forward because they had a \$10 million investment in their existing VAV DDC control module which the ecWizard would be competing with.



James R. McGlone, Vice President of Tridium was eagerly looking forward to seeing the ecWizard developed and manufactured utilizing their Sedona software and Jennic radio. He contacted Adem Erturk of Solidyne Corp. We signed an exclusive development/manufacturing agreement with Solidyne and they agreed to pay for the complete cost of development.

Sedona Framework

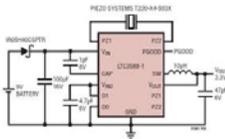


Lower R&D Costs and Accelerate Time to Market

We contacted a manufacturer in China to develop and manufacture the unique latching solenoid valves. The price for this solenoid valve in 2010 was approximately \$4.00 Ea. They did struggle with quality control which was corrected.



We were able to come up with energy harvesting from the ductwork. At first we used a fan/generator to create power but it was too expensive and a larger detached battery pack could extend the batteries from 2 years to 7/10 years. The simplicity of an optional battery pack beat out the fan generator recharging system.



A vibration device in the ductwork was the most inexpensive energy harvesting opportunity at only one dollar each and a simple installation. This could keep the batteries recharged for years or possibly eliminate batteries.

At the Tridium summit in 2010 Solidyne and Energy Controls introduced the ecWizard. We distributed literature and received an enthusiastic reception from hundreds of people attending.



At the time of the summit we had one prototype ecWizard. It worked great except for when it hibernated, it would wake up with memory issues. The Tridium engineers that Solidyne was working with said that it was an easy fix and they would complete it right after the summit. Since we had a sincere promise in e-mails etc. about the Sedona software fix, Adem and I decided to produce 200 ecWizards.

We were surprised while at the summit to see so many Honeywell Presidents, Vice Presidents etc. at this Tridium event. I later found out that Tridium was a subsidiary of Honeywell.

Remember the story about KMC picking us up in the Lear jet. Honeywell did not want their subsidiary to move forward with the development of the ecWizard. They also invested millions in their VAV DDC control module. The ecWizard would be direct competition with their products and their subsidiary Tridium was supporting the development and possible demise of Honeywell's DDC control modules investment.

The Tridium engineers were instructed by upper management to put all work on the Sedona software fix for the ecWizard on the back burner. Through e-mails they kept telling Adem that the fix would be completed next month or in three months etc. We were very frustrated with the engineer's enthusiasm and lack of support from upper management. We did not want to complain to Tridium because of their importance to the development and marketing of the ecWizard.

I was not just sitting around waiting for the guaranteed fix of the Sedona software. We easily generated three reps for the ecWizard, two in the Bay Area and one in Los Angeles. The marketing plan of having **50 reps throughout the nation was a reality!** In a three-month period we generated several proposals totaling 11,000 ecWizards in the San Francisco Bay Area. We demonstrated a unique approach to marketing. (Quote "I love this new/unique marketing plan for distributing controls.")

(LA sales rep, sales manager & customer in picture)



We had a booth at the ASHRAE show in Las Vegas 2011. The ecWizard Sales Rep from Los Angeles, and the National Sales Manager received an overwhelming response from visitors from around the world at the show.

We were extremely excited with the marketing plan and the future of the ecWizard. The Vice President of Honeywell stopped by my booth and was very skeptical at first and then enthusiastically said that in two or three years after development he could see the ecWizard selling 1 million units a year. We were overwhelmed from the VP's statement.

Based upon the overall enthusiasm from the show I was wondering what color Learjet I should buy. The Los Angeles Sale Rep and National Sales Manager were both sky-high \$\$\$\$.



An e-mail from Tridium was sent to Adem at Solidyne, it stated that after all this time that upper management was no longer going to support the Sedona fix for the ecWizard. In this e-mail Tridium's Director of Corporate Sales questioned the integrity and ethics of Honeywell's upper management.

I put two and two together and realized that Honeywell was holding back their subsidiary Tridium from developing the ecWizard. (Honeywell didn't want the competition?)

I wrote a letter to Honeywell's code of ethics. This changed everything. I was invited to meet with Tridium's President Steve Fey. Steve called in three of his top engineers and said that he would provide complete support for the ecWizard. He wanted it tested in a building and then he wanted to sell it through the Vykon channel of distribution owned by Tridium. He also compensated Solidyne for their loss from continuous delays of Sedona software development.

Once again Tridium and the president of this one billion-dollar subsidiary were enthusiastic about the sales of the ecWizard. **Tridium's President concurred with Honeywell VP's statement of 1 million in sells per year for the ecWizard!!!!** (*I was only going make 15 Million a year.*)

"The ecWizard is the most exciting DDC control to be introduced in the last 25 years."

The memory loss after hibernation was easily fixed and we were looking forward to testing the ecWizard in a 44 story building in San Francisco, with a 1000 thermostats.

Some additional problems were discovered with the Sedona software while the ecWizard was in hibernation. The software was not turning off all nonessential items and unnecessarily using a battery power. Again, the engineers at Tridium were eager to make the repairs but they needed to delay because of internal management concerns.

The President of Tridium Steve Fey and his vice presidents were fired. The industry was shocked and could not rationalize the phony excuse that Honeywell gave for their dismissal. I can't help but believe that Steve Fey's decision to support the ecWizard got him fired?

The new President and Vice President came in and promptly said that they were not going to support the Sedona software/hibernation issues with the ecWizard.

My company Energy Controls lost over \$1 million and could not take on the \$42 billion Honeywell for compensation. I would like to mention that all the personnel at Tridium were supportive and ethical. Tridium's efforts to compensate Energy Controls were shot down by the head Council of Honeywell. Tridium people and their products are the best in the industry.

The patent pending prevented other manufacturers from development and my loss of funding prevented my opportunities.

It's time to move forward with the development of this exciting control module.

Sincerely

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