Cook Legacy September eNews

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Tell us About Your Project

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Tell us About Your Project

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Tell us About Your Project

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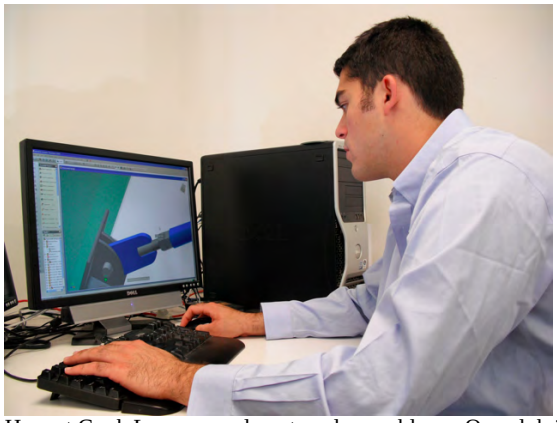
Tell us About Your Project

Other Information

Cook Legacy Project Questionnaire

Featured In This Issue:

Expert Interview Series



Here at Cook Legacy, we love to solve problems. One club in our bag as we help customers is 3D computer modeling. It not only helps flesh out our initial engineering on projects, but also serves a crucial role in problem solving as we push a project forward.
I recently sat down with Cook Legacy's chief 3D modeler, AJ Johns. In his time with the company, he has become the resident expert on the subject.

Randy Surface: First, what is the point of 3D computer modeling?
AJ Johns: It's the best way to present our approach to a problem to the customer. That way they can see every angle and see that everything matches specifications.

RS: Tell me about a time that a 3D model really helped solve a problem for a customer
AJ: For Fitzsimmons Creek (a hydropower project in Canada), we were able to show the customer how certain variables had a significant impact on the design and size of the product. We had concerns with some of the design assumptions and were able to address those quickly.

RS: In general, How does Cook Legacy use 3D models?
AJ: It helps us storyboard an entire job. We use it to communicate initial design to the customer quickly. We use it to fine-tune design. We use it to support fabrication. We use it to get more precise flow analysis.

RS: What is the most interesting model you've ever built?
AJ: Fitzsimmons Creek. It was around the time we entered the Coanda market. The 3D model helped communicate the complexities of the Coanda design process.

RS: What types of analysis do you do with these models?
AJ: Aside from flow analysis, 3D helps in structural analysis. We can make sure that all the pieces of a product are where they need to be. We simulate the distribution of forces and weights on different parts of the model. It would be hard to drop a giant boulder on a tee screen in physical testing. Modeling simulates that for us.
Also, we use it to communicate and represent the interaction between an operator and one of our built products. You can see how an AirBurst system exists in physical space.

RS: What are the advantages over two-dimensional drawings?
AJ: You can catch a lot of possible mistakes by being able to see the entire assembly. It helps us visualize what we're trying to do. It can be shared. It can help communicate with those outside the project better...anyone who's involved.

RS: This helps because we live in a 3D world.
AJ: Exactly.

RS: How is Cook Legacy's approach to this unique?
AJ: The same things that makes Cook Legacy unique: that we really try to concentrate on what the customer is trying to do and find solutions customized to their problem. 3D modeling enhances our problem solving abilities. But without a good solution it is pretty worthless. 3D modeling isn't the solution; it is part of how we communicate the solution. 3D modeling is just the icing on the cake of our design process.

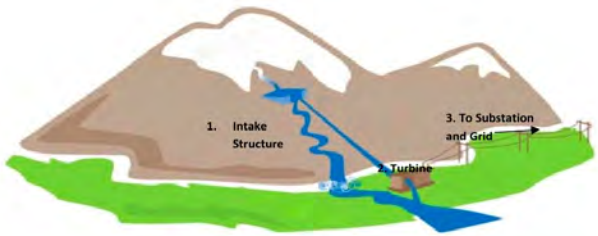
AJ's five best practices for 3D modeling:
1. Have direction for where you're going (and idea of *what* you're modeling before you sit down and model.)
2. Take breaks. Don't look at the same thing too long. Your head might blow up.
3. Automate some the things that are done in each project to save time.
4. Define things in parameters — parameters that relate to each other.
5. Use subassemblies within the larger assembly. These can be tweaked without affecting the entire assembly.

If you have a problem that Cook Legacy can help with, contact us.

Thank you,
Randy Surface, Communications Director

Featured Product: Coanda Power

The world needs power. Particularly in developing nations, there is untapped potential for small hydropower to match these growing demands. Costs, environmental concerns, and reaching remote job sites all make implementing small hydro difficult. To help meet these needs and minimize barriers, Cook Legacy, together with Elgin National Industries, has developed Coanda Power — a simple, small hydro solution. Like all small hydro, a Coanda Power system catches water, routes it through a penstock and then to a powerhouse to generate power.

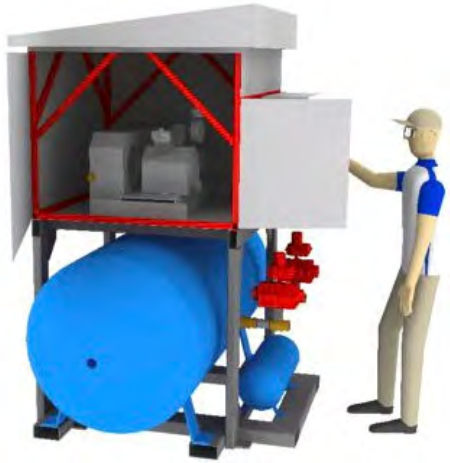


Coanda Power systems are modular and consist of proven technologies. They use Coanda intake screens that catch only the bottom layer of water — allowing clean water to pass through and fish and debris to pass over. The systems can be built in remote areas with limited civil structure and little or no existing power supply. Coanda Power is an achievable, sustainable, and simple solution to meeting energy needs.

If your company is interested in partnering in Coanda Power solutions around the world or have questions about Coanda Power, please contact Cook Legacy or visit CoandaPower.com.

Case Study: West Basin Intake and AirBurst System

When the West Basin Municipal Water District wanted to establish a pilot study to determine the viability of ocean water desalination facilities, Cook Legacy stepped in with a customized solution for the project. Cook Legacy worked with the client to select from various screen geometries to support the pilot study and to address excessive noise at the site.



The result was an AirBurst with a specially engineered sound-attenuating enclosure and tee screens made from an anti-biofouling copper-nickel alloy.
The West Basin Municipal Water District established the project as a pilot study for similar systems to be built up and down the California coast. It will also function as an educational outreach program to inform the public of the benefits of desalinated ocean water. Students and other visitors can watch the process that turns ocean water to drinking water at the facility in Redondo Beach, CA.

If you have any questions about Cook Legacy intake solutions, please contact Cook Legacy.

www.waterscreen.com
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