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Modeler Q&A With Ryan Krisac

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Ryan Krisac, FSA, MAAA

Ryan Krisac, FSA, MAAA, is director of model controls at Penn Mutual Life Insurance Company in Horsham, Pennsylvania. He graduated from Penn State University in 2008 and attained his FSA in 2013. Ryan has spent his entire professional career at Penn Mutual, including roles in valuation and corporate modeling before assuming his current role. He co-wrote the article "Model Governance: Controls and Culture" that was published in the April 2018 issue of *The Modeling Platform* (*SOA.org/sections/modeling/modeling-newsletter/*).

Q: What kind of modeling work do you do, and what software platform(s) do you use?

A: I lead the Model Controls area at Penn Mutual. I typically do not perform a published modeling function, but instead review existing processes for improvements related to reliability, accuracy, transparency and efficiency. I also manage the company's model inventory, which rates all our models across consistent dimensions of risk and performance.

My company primarily uses MG-ALFA and PolySystems, but we still have a few Excel-based models. Almost all of my coding work is in MG-ALFA.

Q: How do you plan or prepare for a modeling change?

A: In my experience, the most effective approach has been to define the purpose of the change in plain, simple terms. With our model inventory in place, we may find opportunities to leverage existing code in order to address the desired change. Even if a modeling change is a new endeavor, a clear purpose allows more people to participate.

Q: When you find a bug that has an immaterial impact on results, can you let it go or not?

A: Timing has to be considered with any fix, no matter how immaterial. The production modeling environment should be stable and reproducible. Applying changes whenever they come up can make model results volatile and erode trust with management, auditors or anyone else relying on model stability. Because of that, I have learned to let immaterial differences go, at least until the time to apply a fix is appropriate.

Q: Documentation—as you go along or after you're done?

A: The honest answer is that the documentation tends to come at the end. At minimum, if I am changing an existing model, I try to publish a "roll-forward" of impacts that clarify my steps.

Q: Do you have a modeling pet peeve?

A: Yes, when coding lacks enough white space or indentations to make it legible. Also, when large sections of code are commented out, but never actually deleted.

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Q: What's the most frequent piece of code that you can never remember the syntax for?

A: I get crossed up when reviewing commutation functions, usually within formulaic reserves. I never trust my memory on what C, D, L, M and N mean.

Q: What was the last problem you encountered that had an easier-than-expected solution?

A: Our old text-file-based model reports were read into Excel and reformatted with long, clunky formulas. We have replaced these with MG-ALFA report templates, which have been easy to set up and have simplified our processes. These reports are pulled into Excel via an add-in that can be more easily reviewed.

Q: What's something new you picked up recently that you'd like to share?

A: Externalizing valuation reserves into factor files that are fed as inputs into projection models. We have also started using this in pricing activities where we have one run to set the reserves and create these factors, and separate runs for profitability.

This has dramatically increased the speed of our projection runs, because there is no need to calculate reserves directly in those projections anymore. They simply multiply the given factor for a particular cell or policy against projected volumes. ■

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