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THE ISCM NEWSLETTER

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Cat Modeler's Lament: Will the changes never end?

Contributed by:

Maria Kovas – Toa Re

Several months ago I was attending a cat modeling conference when a colleague vented that the whole process had become extremely complicated. Between the model changes, the technology upgrades and the hardware requirements, the support was more than the Cat Modeling Team could manage without Information Technology Department support and management intervention. After a few seconds a few more attendees joined the conversation and so began the Cat Modeler's Lament.

Why do the models keep changing?

"If we knew what we were doing, it wouldn't be called research, would it?"-
Albert Einstein

The modeling firms use a composite of data provided by government or centralized resources, internal and external experts, and actual claim figures. The data or the assumptions generated by interpreting the data are incorporated into the model using the modeling techniques they have selected.

The data is always evolving based on ongoing research into prehistoric, actual, and simulated events. When a "Eureka!" moment occurs, it is hard, if not unethical, for the modeling firms not to incorporate the new conclusions into the models as soon as possible.

If the models remain unchanged, the results will likely become less accurate over time in light of the evolving research, and if the models do change, the modeling firms have a lot of explaining to do. See you at the client conferences.

Fine, but then why are the data formats changing?

The data formats are changing in response to the need for more accurate results and the segmentation of perils. For example, once there is new vulnerability information in the model, data must be collected, reported and loaded that will respond to the new peril information. Breaking the data down into peril segments allows the peril software to run only the information that it needs without scanning the entire length of the record. This can improve runtime, but assuming the data can be collected and reported in the first place, there is a further cost to this: Data Storage. In addition, industry calls for the use of detail level data with secondary modifiers and high resolution geo-data further increases the amount of storage required.

Storage is cheap, right?

Compared to other technological components, storage is cheap. However, connecting to the stored data, backing up the data and maintaining and updating the servers where data is stored - not so cheap.

Control of these functions is not necessarily in the hands of the Cat Modeling Team. Client firms have protocols, budget constraints, and compliance issues that can make uniformity in hardware, software and execution platforms a corporate goal.

While the client firms must evolve with the technology platforms they have selected, the rate of evolution may not match that of the catastrophe modeling firms' requirements. One case in point: moving to 64-bit servers and workstations may not be in the short term plans of some client firms, although these updates are just a few months away for some modeling companies.

Does the Information Technology Department really need to be involved?

In the past, modeling software could be loaded onto workstations which functioned as both client machines and servers. That still works, but it may not be the most efficient method of processing. Opening up communication between the cat modeling firm and the client IT department is the key to determining the best configuration of the software, services, hardware, and shared functions, among other parameters. Developing reasonable expectations for performance, support and process management on both sides is the purpose of these communications. This may not be smooth going and the IT folks may have to adjust by formally incorporating Cat Model support into their workload.

How can these expectations be properly managed?

Cat Modelers are a pretty independent group. They seem to work in areas with nicknames. Some are dignified like the Lab or R&D; others are more descriptive like the Cave or the Pit. Still others won't be repeated here.

As the model results affect decision making and even company ratings, the need for better and more detailed data from the client firms becomes crucial. More detailed data means more complicated data records and more run time. The Cat Modeling Teams are charged with collecting accurate data, prompt turnaround of the data modeling runs, and accurate interpretation of results. In addition, they are now also charged with comprehending the technology that wraps around all of the processing and communicating their needs to IT, management and users of the modeling results. It's time to come out of the Cave.

What's the best way to get started?

1. Get educated. It's great that the Modeling Team understands what the models are supposed to do, but that is no longer enough. Someone on the Team should understand the technology demands of the modeling software and the impact the installation of this technology has on your organization. Understanding database management, connectivity and protocols is a necessary part of the Cat Management team's function. Not everyone has to know the detail, but someone in the group needs to be able to translate those details into a management plan or even a budget document, and to work with IT to create a robust structure and maintenance schedule.
2. If you can't get educated, arrange for support from your IT team and inform that support person of the significance of the software to management.
3. Make sure that IT knows what the peak times are and can provide support during these periods.
4. Be aware of IT's peak times if the Cat Modeling processes are integrated with the company technical infrastructure. Coordination is necessary to avoid Cat Modeling competing with the production of quarterly financial reporting, especially if there's no plan for running both processes at the same time and there is a hurricane landfall on September 24.
5. Create a database backup plan that makes sense and is properly scheduled.

Be sure that technical solutions proposed by the modeling firms fit within the guidelines of the IT department or within known exceptions. Technology monitoring systems are designed to identify exceptions and either correct, overwrite or disable activity outside the norm.

7. Be sure that technical solutions proposed by IT fit within the guidelines of the modeling software. Modeling firms' Tech Support may not be able to handle hardware exceptions or unsupported software (this is the other side of the monitoring systems coin discussed above).

Will this process get easier?

It probably will not get easier, but it can become a defined process, with change management guidelines, standard contacts and communications and a timeline that can be understood and supported within an organization.

Cat Modeling Teams in client firms cannot control the effect of research on the models, the model release dates or even the decisions the modeling firms make in terms of technology choices. The teams can provide insight and guidance to their internal resources to prepare for the next round of changes.

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RAA Cat Modeling 2011
Catastrophe Management: Road Map to the Future of Modeling and Technology
February 8-10, 2011, Orlando, FL

Click on the following link for the current agenda:

<http://www.reinsurance.org/i4a/pages/index.cfm?pageID=3301>

Check Out the New ISCM Website: www.catmanagers.org

Enhanced News, Blogs and Links:



The screenshot shows the ISCM website interface. At the top is the ISCM logo and navigation menu (Home, Features, Job Board). The main content area includes 'About the ISCM' (Board of Directors, ISCM Bylaws, Sponsors), 'ISCM on the Web' (LinkedIn, Facebook), and 'Latest News' with several articles including 'Sarasota Herald-Tribune Article on Catastrophe Models' and 'Bringing more credibility to the ISCM'. A large banner image shows a hand holding a globe with the ISCM logo. The right sidebar contains 'Welcome to catmanagers' with a sign-up link, 'Events' listing the 'ISCM Annual US Golf Outing' and 'RAA - Cat Modeling Conference Orlando, 2011', and 'ISCM: Fifth Annual Meeting of Members'. The bottom section shows 'Latest Activity' with a recent blog post by Nicholas DiMuzio.