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Letter from the Editor

by Howard Callif

This is another edition packed with useful and important information. For example, an article on Predictive Modeling discusses how this process can be used to transform insurance decisions. The article was written by Barry Senensky, who is the president and co-founder of Claim Analytics, located in Toronto, Canada. Innovative predictive tools can provide a critical competitive advantage, and hopefully the article will stimulate some interest in this topic. Claim Analytics and the SOA are co-sponsors of an upcoming seminar on predictive modeling. Visit www.soa.org for more information.


We also have an article on "Temporal Issues," discussing how companies can use systems to manage and report on data, especially on how it changes over time. This article is about software provided by "Insight Decision Solutions," a company co-founded by Kevin Pledge (the current president of the Technology Section).

As promised, we also have a book review by Mary Campbell on the topic of spreadsheet checks and controls. Please consider submitting a book review if you have read anything recently that would be relevant to fellow technology section members!

We have an article from the Gartner group highlighting some of the insurance related research they have done. If you are involved in any of these areas, please provide some feedback on how we can cover these topics in more detail. Could you share your experiences (good or bad) or give any advice?

The council has been working hard to develop materials to help evaluate software and technology platforms. The Technology section contracted with Matthew Josefowicz, of Novarica, to develop and conduct a market survey of illustration software vendors. The article in the newsletter summarizes the findings, but the full report can be purchased from Novarica. There is a significant discount provided for Technology section members, so be sure to verify you are paying the member price for the report. The council is hoping we will be able to provide more detail and materials to help evaluate all types of actuarial software, and this report is a great first step.

I'd also like to repeat my request from the last newsletter: if you are looking for Pricing, Valuation, Cash Flow Testing, or other actuarial software, **please e-mail the editor!** We want to be able to provide a resource to help with the selection process, such as features charts, user reviews, and other detailed information. However, that requires feedback and information from you!

I am excited to report that I am receiving feedback from readers, and it is much appreciated!! Please forward your suggestions, remarks on programs or tools you've found useful, and other questions to howard@callif.org, or one of the section council members. Thanks! 

Howard Callif



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Insurers Grapple with Temporal Issues

by Fred Gehm (a freelance writer for WFS magazine)



In the insurance industry time-based data is especially important as an insurance contract is a relationship over time.

The following article is reprinted from "Windows in Financial Services" - www.windowfs.com.

"Max," a business consultant and software engineer was recently flown to Nevada to upgrade one of his clients' databases. Shortly before he completed the job, he fell violently ill and had to go to a hospital. He recovered, finished the job and then left Nevada, which is when his real problems started. The hospital kept calling him and sending him bills, which he would have only been too happy to pay, but each time the hospital called or faxed or emailed him, the amount he owed them changed. The amount he owed would go up and then down and then up again without reason, as far as Max could tell. Eventually, he paid the hospital what they told him was the

entire amount he owed, but he still got letters telling him that he owed them money, that he hadn't paid the entire amount.

A big part of the hospital's problem was the way its software kept track of time or, rather, didn't keep track of time. This is a big problem in the insurance industry, where managing time-based data is especially important – an insurance contract is a relationship over time.

Most insurance companies get around this problem manually. Insight Decision Solutions' software, specifically designed for the insurance industry, is built on data warehouse technology, contains a full range of analytic tools (management information, financial analysis, sales and operations) and, most important, a unique temporal model that insures that their

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customers, regulators and actuaries get the right information.

Neil Lund, senior vice president and chief actuary of Universal American Financial Corp., says the solution improved the firm's functionality in a couple of ways.

"First is through management reporting. In our management reporting areas we are now able to examine claims information, persistency and sales information almost instantaneously and be able to slice and dice and take that down to a very detailed level, if needed and when needed," he says. "And the second point is it has allowed us to change our relations with the regulators. We are able to dive deeply on questions that regulators have. More thoroughly answer their questions. And also provide them ancillary information."

Considering that most software engineers can use a clock and a calendar, even if they can't always meet a deadline, it is odd to find that most software handles time so badly. The hospital's software was built to answer questions such as, "What does Max owe us?" It was not

built to answer questions such as, "What did we think Max owed us the last time we talked?" These questions are the same if and only if we never change our mind. Unfortunately, even in relatively simple cases, such as a single bill, these questions are not always the same. In more complex cases, such as where someone lives, the facts can change, stay stable for a while and then change rapidly again and again.

A temporal database is a relational database with a built-in temporal model, a model designed to handle changes concerning time. In fact, Insight Decision's perspective is that in insurance, simply having a time dimension will not necessarily support temporal queries. The firm identifies four types of temporal queries in insurance: A state duration query, for example, would look for the number of policies of a particular type that have been in force for a particular duration. A temporal selection query might look for the number of policies of a particular type that were active at a particular time. A transition detection query would look at policies that have changes, such as from premium paying to non-premium paying, during a particular year or time period. Finally, there is a multi-state identification query, which could, for example, find policies disabled in 1999 that have been disabled in the past and recovered. Insight Decision can handle all four of these queries.

Back to the Max example, "temporal model" sounds like it means that each observation has a time stamp. But most people who have thought about this issue believe that each observation must have four date-time attributes. Max walked into the hospital on, say, February 2, 2005 at 8pm. He walked out of the hospital on February 2, 2005 at 11pm. His bill was \$800. The first two attributes are the start time and end time of his visit and bill. These attributes are called valid-time start-time and valid-time end-time. These times represent when the observation was represented in the real world. In Max's case, the database had only one time attribute which recorded the date as February 2, 2005. This wouldn't have been a problem except each time the hospital changed the amount he owed them, they overwrote the amount they last recorded. To make this problem go away, most experts on temporal databases believed the hospital needed a second set of time

**"In our management reporting areas we are now able to examine claims information, persistency and sales information almost instantaneously and be able to slice and dice and take that down to a very detailed level, if needed and when needed."
-Neil Lund**

attributes, transaction-time start-time and end-time. Transaction-time records the time span during which the system's user believes an observation is true.

Coping with Regulators

More industries have this problem than do not have it, typically in any form of CRM analysis. In insurance, relationships are complex, changing and, in some products, the time periods need to be measured in decades. The insurance industry is heavily regulated. For many lines of business, insurance companies have to request permission from state agencies before they can introduce new products or change rates on old ones. Before these agencies will give their permission, they want to see statistical reports of various kinds from the companies. Government agencies being run by people and people being what they are, the agencies will often request modifications or additional reports. If a report lacked a breakdown by age or sex or race, for example, the agency may ask for just such a breakdown. Every day that it takes the insurance company to prepare such a report costs them money. Less obviously, every day it takes the insurance company to prepare such a report, the database changes more. Every moment it takes to prepare such a report, it becomes more difficult to reconcile with the original.

Insurance companies have ways of producing such reports, of course—typically quite clumsy, time consuming and, worst of all, approximate. The fact that the numbers on the subsequent reports only approximates the numbers on the original reports may well produce more questions from the regulations and more reports and more delays.

Moving to Insight Decision Solutions' temporal database means that subsequent reports can be produced faster and that there are no reconciliation problems. The regulators get the

reports they want, reports they can now trust – almost instantaneously – and the insurance companies get to adjust their rates quickly.

Recall that Max's problem with his hospital was with a single data point. But insurance companies and insurance regulators rarely work with single data points; they work with statistics, where the problems are greater by orders of magnitude. In the case of the additional breakdown above, it is a matter of making sure that the statistics are based on what was known at a specific time. More complex cases are typical. For example, insurance companies naturally want to understand the sources of their earnings. That means explaining earnings in terms of events and strategies.

Life Insurance Challenges

In the life insurance industry, this is a particularly nasty problem. A life insurance company receives premiums from their customers and then has to set up reserves to cover future payments to the beneficiaries. When someone dies, the benefit paid is offset by the reserve held on that policy; if someone surrenders their policy, reserves are released. A life insurance company's actuaries determine the reserves needed to cover expected future liabilities. If more people die, lapse, than expected, then reserves will change. Unfortunately, reserve changes can swamp other sources of earnings.

Most life insurance companies use software that relies on brute force calculations, internal components of the reserves and, much worse, temporal data that the users have to add. As a result, their reports can only explain earnings on an aggregate basis and, even then, have large balancing items that cannot be explained. This is the financial equivalent of 'Here be Dragons!' These balancing items typically come from adjustments made in the




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general ledger, administration or computational errors, and flaws in the reserve methodology. But knowing that doesn't help.

In contrast, Insight Decision Solutions uses a database architecture that centers on customers, rather than transactions, which allows it to end-run the unsolved problems that inhibit temporal database architectures. This architecture allows them to capture events and policy changes when the data is entered. Microsoft's Business Intelligence stack, includ-

ing SQL Server 2005, PerformancePoint 2007, Excel Services and the latest component of PerformancePoint, is the backbone of Insight Decision Solutions' system. Changes to a contract or even an administrative error can impact reserves and may have a change event to explain it. Insurance executives now not only have a report; they have information they can use to plan. 

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Illustrations Systems Market Overview

by Matthew Josefowicz

The illustrations systems market is maturing and changing, and it can be difficult for actuaries, distribution executives, and technologists to have a clear picture of the relative positions and attributes of the providers in the marketplace.

While many insurers still use disconnected or stand-alone homegrown illustration solutions, market demands are increasingly moving towards integrated solutions that are seamlessly linked to an agent portal and electronic application submission capability on the front-end and a policy issuance and administration system on the back end.


Integrated illustrations systems (whether parts of a suite or stand-alone packages that share data and logic effectively with other systems) can offer significant advantages in time-to-market for new products and time-to-issue for applications that can flow straight through in electronic form.

In addition, the old code-based model of integration systems where product logic and calculations were instantiated deep in computer code is giving way to a more rules-based model where product logic is managed through a rules-engine-like interface, which allows actuaries and product modelers to make, and more importantly to test, changes without burdening IT.

The illustrations software market has been relatively quiet compared to other sectors of insurance IT. The two biggest changes in recent years have been in 2006 when

Accenture acquired Navisys and AdminServer launched IllustrationServer (Oracle announced its intention to acquire AdminServer earlier this month). At present, the market is mixed between solutions that are components of broader underwriting and policy administration suites and those that are stand-alone, illustrations-only or illustrations-and-agent-portal components. More than half the market by number of companies is still made up of smaller, independent firms.

In order to help its members understand this space better and how newer solutions can improve time-to-market and distributor satisfaction levels, the Society of Actuaries technology section worked with research and advisory firm Novarica to facilitate a report that makes sense of this marketplace. The report, *Novarica Market Navigator: US Life/Annuity Illustrations Systems 2008Q2*, was published at the end of May, and is available at a special discount rate of \$975 (35 percent off regular price) to Society members. A summary of the report is online at http://www.novarica.com/report_illustrations_nmn.shtml

The report will be discussed in a special webinar open to SOA members only, which will be held on Monday, July 14th at 2 p.m. EDT. SOA members may register at <https://www1.gotomeeting.com/register/372663748> 



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Predictive Modeling

by Barry Senensky

Recently I attended the 4th annual conference on predictive modeling for property and casualty insurers. There were approximately 300 casualty actuaries in attendance. Many, to my surprise, were experienced predictive modelers, eagerly looking for new ideas to enhance and expand their capabilities. From being used by almost no one six years ago, I learned, predictive modeling is now being used for pricing by many property and casualty companies.

Yet in the life insurance industry, almost no one uses it. Why?

Further discussions with my P&C colleagues revealed that there had been a critical catalyst, only a few years ago. The catalyst was an innovative P&C firm, who discovered that an individual's credit score was highly predictive of their likelihood for filing an automobile claim.

They discovered this by experimenting with predictive modeling.

Incorporating credit scores into their underwriting and pricing of automobile insurance immediately, measurably, and visibly increased this firm's profitability. They had an instant, significant advantage over their competitors. Of course, their advantage did not last long. Other P&C insurers leapt to incorporate predictive modeling in their pricing—eager to re-level the playing field.

After the conference I began to wonder why life insurers—specifically life insurance actuaries—have yet to take to predictive modeling with the same vigor as their P&C counterparts. I thought back to when I had begun my own predictive modeling company ...

In 2001, along with another actuary, Jonathan Polon, I started Claim Analytics, a company dedicated to bringing modern predictive modeling to the life insurance industry.

To us, the time seemed ripe. Predictive modeling had been successfully used for years, in an ever-widening range of industries. The ability of modern computing to crunch massive amounts of data had radically changed analytical methodology. The traditional methods of statistics, constrained by the fact that they were developed in the days when all computations had to be done by hand, were beginning to look limited—maybe even dated.

What exactly is predictive modeling? Where better to find a definition than Google, which itself is powered by predictive models:

*"Predictive modeling is a process used in predictive analytics to create a statistical model of future behavior. Predictive analytics is the area of data mining concerned with **forecasting probabilities and trends**. A predictive model is made up of a number of predictors, variable factors that are likely to influence future behavior of results. In marketing, for example, a customer's gender, age and purchase history might predict the likelihood of a future sale.*

To create a predictive model, data is collected for the relevant predictors, a statistical model is formulated, predictions are made, and the model is validated. The model may employ a simple linear equation or a complex neural network or genetic algorithm."

Jonathan, an actuary who had followed a non-traditional career path, had worked in the credit

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card industry building predictive models. I had many years experience working in the life insurance industry doing a range of traditional actuarial work. We thought we had an ideal fit for a new company, building predictive models. We would take the life insurance industry by storm.

That was seven years ago. We now have clients throughout North America. Our flagship product, a predictive model that “scores” disability claims on the likelihood of recovery in a given timeframe, has produced terrific results. We have built predictive models for pricing, reserving, and fraud detection, all of which have been received extremely favorably by our clients.

Yet, while we are very pleased by our progress, we wonder why predictive modeling hasn’t “rocked” the industry. Why isn’t every life insurance company using predictive modeling?

Predictive models are everywhere! Financial

institutions use them to determine your credit score when you want a loan; the post office uses them to decipher your handwriting; meteorologists use them to predict weather; retailers use them to decide what to put on their shelves; marketers use them to improve their products; concessionaires use them to figure out how many hot dogs they need for the “big game.” They are even used by sports teams to pick player personnel.

Is it just chance that the P&C actuaries found predictive modeling first? Is it inevitable that life insurance actuaries will soon starting using it? Or is there something fundamentally different in the two businesses that makes predictive modeling a fit for P&C insurance, but not for life?

On reflection I came up with a greater understanding of how life actuaries operate. And why they have been reluctant to adopt predictive modeling.

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Actuaries are trained in mathematical techniques developed by mathematicians and statisticians. Predictive modeling, which was born in the realm of computer science, is not part of an actuary's natural toolkit.

Take the example of a mortality study. Life actuaries will use the tools and techniques they learned studying for actuarial exams. They are unlikely to use a new predictive modeling technique such as "Boosted Trees," even though the new technique may produce a better result.

Predictive modeling, by contrast, was developed by computer scientists, schooled in the methods of if/then/loop analysis and massive data-crunching. The methods of analysis they have developed, rather than using elegant complex mathematical shorthand to reveal trends, are, in concept, more primitive. These methods look at every bit of data, using the brute-force power of modern computing.

The insight yielded by predictive modeling are impressive and daily more respected. Yet the method is foreign to the classically-trained actuary.

Still—this was at one point true of the P&C industry. But then came the catalyst, the one innovative firm that used predictive modeling. The visibly profit-generating discovery they came up with made all the difference.


It put me in mind of the early 1980s, when some bright spark came up with the idea of offering lower life insurance rates to non-smokers than smokers. The benefits were

immediate. Life insurance actuaries adjusted their approach almost overnight.

So what will the future bring?

It is only a matter of time before life actuaries make predictive modeling tools (generalized linear models, neural networks, genetic algorithms, classification and regression trees, etc.) best practice for pricing, underwriting, experience studies, underwriting and many other applications. These new tools are just too powerful to stay on the shelf forever. Life insurance will come around to predictive modeling, as have other industries dealing with statistics and prediction.

Will there be the one sudden catalyst, as there was for P&C Insurance? Or will there be a steady increase over time—more like a snowball effect—as life actuaries gradually discover the advantages of predictive modeling?

I don't know. But I am confident that the change will come. And my advice to ambitious actuaries is, find out as much as you can about predictive modeling. You might find it comes in handy—over time, or immediately. 

Claim Analytics and the SOA are co-sponsors of a seminar on predictive modeling that will be held Nov. 10-11, 2008 at the Crowne Plaza Chicago O'Hare, Chicago, Ill. This two-day introductory course offers life actuaries a practical, working understanding of predictive modeling tools. Beginning with a discussion of data considerations, the course next provides a review of leading techniques—Neural Networks, General Linear Models, CART, and others. Visit www.soa.org for more information.

Gartner Research Reveals Insights about Technology Trends

Steven Leigh

As part of their ongoing research, Gartner analyzes the significant trends that impact life, health and P&C insurance providers. From changes in consumer attitudes to new technology within the walls of insurers, the following summary highlights several trends that are having significant impact on the future of insurance.

Technology Trends and Insurers

Service Oriented Architecture (the other SOA) continues to promise new flexibility and power to insurers to improve the way their systems interact. While SOA continues to evolve, insurers and vendors both see its promise for improving interconnectivity, modularity and cost reduction.

Customer Intelligence and Communication: Insurers are increasingly pursuing technology that allows them a single view of the customer. This capability gives insurers a common view of the customer facilitating improved service, targeted marketing programs and better business intelligence.

Straight Through Processing: Straight Through Processing is an investment priority for insurers seeking to improve their new business and underwriting processes. There is no single process that all insurers are pursuing, but each pursues their own solution based on their unique products, channels and workflow.

Consolidation and Simplification: The fact that a large percentage of insurance company IT budgets go to system maintenance has caused many insurers to seek ways to shrink

their maintenance requirements. Insurers want to spend more of their budgets on transformational technologies that will help change the competitive ability of their company and the industry. System consolidation, conversion and outsourcing are all strategies that insurers are using to achieve this end.

Continued Interest in Product Configurators and Rules Engines: Insurer's IT departments seek ways to simplify new product installation and maintenance across multiple systems. From product configurations tools, centralized rules engines, and new architectures, insurers continue to try new strategies to build, test and manage products.

Consumer Trends and Insurers

The Growth of Web 2.0: Web 2.0 is a set of Web capabilities that allow users to interact and collaborate with each other more directly. From opinions to posting videos, these technologies will drive insurers to both monitor and influence the opinions on the Web.

Greater Need for Retirement Cash Flow: With the retirement of the baby boomer generation, new strategies and technologies are being created to provide new retirement cash flow strategies for consumers.

Service Demands are Changing: Consumers expect a consistent service experience whether they interact with their agent, log into the Web or contact the company directly. Regardless of the service channel used, there is a growing expectation by customers that their interactions with the company should accommodate their schedule, and reflect



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consistency and ease. These new demands require that insurers improve the technology, information sharing with distribution and customer service availability.

Increased Consumer Involvement: Consumers seem more and more interested in being active in their insurance decisions. From spending more time shopping for the lowest car insurance rate, to taking a more active role managing their own health, customers and prospects are increasingly interested in crafting solutions that are unique to their needs.

Referenced Notes

Service-Oriented Architecture Overview and Guide to SOA Research

Blog Overview for Life Insurance

What Web 2.0 is and why it Matters to Life Insurers

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Key Issues for the Life Insurance Industry, 1H07

Hype Cycle for Life Insurance, 2007

Major Business Disruptions Will Require Insurers to be More Nimble by 2012


The Developing Market for Retirement Cash-Flow Planning Solutions and Annuities

Life Insurance Straight-Through Processing: Lessons Learned and Ongoing Issues

Priorities and Implementation Considerations for Straight-Through Processing in Life Insurance

Note: Depending on your Gartner subscription you may or may not have access to all of these reports.

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Spreadsheet Check and Control: A Book Review

by Mary Pat Campbell

Spreadsheet Check and Control: 47 key practices to detect and prevent errors
Patrick O’Beirne
Systems Publishing, 2005

In these days of Enron, Sarbanes-Oxley, and Société Générale, it would be hard to overemphasize the need to control financial calculations, especially as they are handled in spreadsheets. To that end, I could stand atop a pile of skulls, broadsword in hand, proclaiming: “Take heed – control your spreadsheets or suffer DOOM!” That would be overemphasis...but not by much.

Of course, most of us don’t know exactly where to begin. Few people have had a formal course in spreadsheet style and standards. My own experience in learning to deal with Excel and its attendant problems was to have assignments and other people’s spreadsheets thrown at me on the fly, trying to tease apart what other people had done and trying to get calculations done on a deadline. I learned good spreadsheet techniques slowly and haphazardly, and gained this wisdom the old-fashioned way: by screwing up repeatedly. Clearly, this learning method, while having its effects deeply felt, is inefficient and likely to leave gaps of knowledge.

Patrick O’Beirne’s **Spreadsheet Check and Control** comes to fill in these gaps. Published in 2005 as a supporting text for the Advanced Course of the European Computer Driving License (ECDL), this book takes you through the basics of spreadsheet design to spreadsheet review. The theme is twofold: learning techniques to check other

people’s spreadsheets, and gaining good spreadsheet habits to prevent errors in your own spreadsheets.

The book is eminently practical, peppered with concrete examples to illustrate techniques as well as cautionary tales warning of that DOOM that did actually occur due to the absence of these techniques. As an example, in a section about tracing links to external spreadsheets, O’Beirne highlights stories where improper use of links led to impacts of millions of dollars—in one case, deliberate fraud costing \$700 million, and in another, a link to incorrect information that had an impact of \$2 million.



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of Revenues by Months & Year	
Year 1	Year 2
729,750	2,450,450
387,714	1,081,714
1,117,464	3,532,164
176,608	176,608
176,608	176,608
247,252	247,252
600,468	600,468
11,937	11,937

Taking the reader step-by-step through the techniques, without spending much time on tangential obscurities, this book is perfect for the novice spreadsheet-user, especially as it starts the reader down a path of developing

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good habits. Considering the state of many spreadsheets in active use, this book would come in handy even for the experienced user. I particularly found the sections on techniques to audit other people's spreadsheets highly useful, chock-full of techniques I had not known about. Even Ray Panko, long-time researcher on spreadsheet error at the University of Hawaii remarked, "I kept saying to myself, 'Wow, I didn't know you could do that.'" As a relatively short book (only 194 pages), it packs a wallop in information density.

A little nitty-gritty detail here: the book uses Excel for all its examples ...


A little nitty-gritty detail here: the book uses Excel for all its examples, testing versions 97, 2000, 2002(XP), and 2003,

detailing some of the distinctions between the different versions, but on the whole all the techniques can be used in all versions. I imagine most of the techniques detailed can also be used in the latest version of Excel, but the interface is different. In addition, O'Beirne has a Webpage for those who buy the book (the password is in the book itself) where he posts the sample spreadsheets; each section has a little exercise, whether conceptual or concrete, as a reality check against your knowledge. As well, he has loads of useful links for those who want to develop beyond the material in the book.

Like the guys on infomercials, I have to say: "but wait! There's more!"

In addition to the 47 key spreadsheet practices in the physical book itself, O'Beirne has posted updates and expansions of some of the items. He has 27 additional pages of enhancements and expansions on some of the book material, such as data validation. As the book was constrained to the ECDL syllabus, some topics are omitted, so at his Web site O'Beirne

provides 16 extra pages covering such topics as using VBA to automate Goal Seek or to check inputs.

For all this, this book is not just for the spreadsheet user, but also the policy setter. The book provides a good foundation for the person in charge of financial controls to start in developing their spreadsheet policies. Indeed, this sort of topic should be included in actuarial education, whether as part of continuing professional education, or perhaps as part of basic actuarial education. This topic would fit in well with FAP modules, particularly with regarding the control cycle for actuarial models, given that so much actuarial modeling occurs within spreadsheets. How about it, SOA? 

Welcome to this first edition of Cool Tech. Each quarter I'll be bringing you cool open-source software and projects from the web. There's an entire world out there with some great software and projects that are free or real inexpensive to implement.

Ideally, I plan to expose you to open-source packages that are easy to install and get running. Initially, I'll cover LAMPP: Linux, Apache, PHP and Perl. Don't worry, there'll be plenty of stuff for Windows too.

I've been playing with some of these packages for the last five years. By day I work as an actuary, but by night I'm a Webmaster. I started out as a Microsoft guy who only used Microsoft products, but as their software started getting more and more expensive I started looking for alternatives. I kind of stumbled into the open-source world.

I got started by buying a real cheap Web site on E-Bay. For \$25 I had a website that was up and running. I didn't plan to start programming in PHP, but the person handling my Web site wanted to charge \$50 to write a simple little script. That seemed a little steep to me, so I did some snooping around the Web and found a simple little script that did the job very nicely, for free. That launched me into the world of PHP programming.

Buying a Web site on E-Bay is a good way to get a Web presence fast and inexpensively. Here's a link if you'd like to snoop around: <http://business.listings.ebay.com/Businesses-for-Sale>. Look for the Businesses for Sale sec-

tion. Click on the Internet Businesses & Websites link.

My first rule of programming: Steal as much code as possible before starting a project. Okay, I guess it's not really stealing, you're just freely copying somebody else's code that they've made available. A great place for free scripts is this Web site:

<http://www.hotscripts.com>

Hotscripts has tons of great scripts for PHP, Perl, Python and other programming languages. It's a great place to snoop around.

OK, let's jump in and look at a couple of interesting open-source packages that will instantly (almost) create a Web site for you.

In order to get a Web presence fast, these two open-source packages that are based on PHP and MySQL will do the trick: Wordpress and Joomla. The combination of PHP and MySQL makes these packages very powerful and easy to install. As a general rule, look for packages with this combination when first starting out. PHP and MySQL are generally provided on Linux servers rather than a Windows server.

Just so you can see what these types of Web sites look like, here are links to my Web sites:

Wordpress: <http://www.1913intel.com>

Joomla: <http://www.myseattle.us>

When you go to the race track it's always a little more interesting if you bet a little money.

Matthew Wilson, ASA, MAAA, can be reached at matt_wilson@farmersinsurance.com

(continued on page 16)

So too with working on the Web. In trying to figure out what project I'm going to do, I find it more interesting to try and make a little money. Sometimes it works and sometimes it doesn't. 1913 Intel makes about \$120/month, but the My Seattle site makes almost nothing. I guess I should keep my day job.

These two packages create dynamically generated, database driven Web sites that are fully searchable. They are very popular and well supported by their respective community of developers. Both are Content Management Systems (CMSs), but Wordpress is typically used as a blogging system. Once the packages are installed correctly, all content is stored in a MySQL database. Pages are generated on-the-fly based on the database content. The look and feel of the Web sites is based on themes or templates. You can slap in a new theme and completely change the Web site. The actual content is not affected by the template.

If you haven't worked on the Web before then you'll need a Web host. I use and can recommend Dreamhost (www.dreamhost.com). It provides PHP, Perl and MySQL. It uses Debian (Think Debbie and Ian) Linux on their servers. It's inexpensive and very good. I use GoDaddy (www.godaddy.com) to register my domain names.

Typically, you'll register a domain name. Then you'll go back to your Web host and add the name to your list of Web sites. Your Web host will then provide you a list of two or three servers. You have to go back to your domain name provider to put in the address for these servers. That's how everyone gets pointed to the correct Web site.

You're going to need an FTP program and a text editor to get started. I use FileZilla as my FTP program, and ConText as my text editor. They're free so the price is right. They're for the Windows environment.

I typically edit programs on my PC using ConText, then I FTP the program(s) to my Web site using FileZilla.

One thing you should know about most Web hosts, they typically provide quickie installs of favorite packages. Dreamhost, for example, will install Wordpress and Joomla for you. You will just have to configure them.

Before you install a database-driven Web site package, you need to have a MySQL database. Stop! I know what you're thinking. The thought of dealing with a database causes you to freeze up. Well, I'm here to tell you that dealing with a database is a piece of cake. Once you've created it then you're done. It's the packages that you will be installing that will interact with the database.

Your Web host will usually have some kind of program that creates databases. Just ask them if you can't figure it out. You will need to write down the following items associated with the database:

1. Database (Db) name
2. Host (95 percent of the time this is Local-host)
3. Db User name
4. Db Password

Every host I've used has a program called phpMyAdmin for the administration of MySQL

databases. That means you can mess around in your database without having to know any SQL code. However, I seriously doubt that you will ever have to go into the database to mess around.

Once you've created a database you're ready to install Wordpress or Joomla.

Here's a link about installing Wordpress:

http://codex.wordpress.org/Installing_WordPress

Here's how the automatic install works at DreamHost:

<http://www.scriptful.com/2007/05/28/how-to-install-wordpress-22-on-dreamhost/>

Here's a video on the installation of Wordpress:

<http://revver.com/video/179449/how-to-install-wordpress-blog-hassle-free/>

Here are two links about installing Joomla:

<http://www.batractive.com/Joomla/Joomla-Install-small.pdf>

<http://www.joomlatribune.com/joomla-tutorials/how-to-install-joomla-cms.html>

The default theme for Wordpress or template for Joomla is pretty boring, so I would start looking for new ones.

Wordpress (Themes): <http://themes.wordpress.net/>

Joomla (Templates):

<http://www.joomla.org/content/blogcategory/19/51/>

<http://www.joomla24.com/>

How to install a theme or template:

Wordpress (Themes):

http://php.about.com/od/phpbloggingsoftware/qt/wordpress_theme.htm

Joomla (Templates):

(continued on page 18)

<http://www.themestock.com/InstallingJoomlaTemplates.php>

How to use Wordpress/Joomla:

Wordpress: <http://www.siteground.com/tutorials/wordpress/index.htm>

Joomla: <http://www.sitebuilder.ws/tutorials/joomla/joomla-tutorials/>

Before I go I want to give you a link to a cool FREE package that will let you set up a Web server on your PC. You can then run Apache, PHP, Perl and MySQL on your own machine at home. There is a Windows version and a Linux version: Win-AMPP or LAMPP. The name of the package is XAMPP. Here's the link:

<http://www.apachefriends.org/en/xampp.html>

It comes with the following items:

Apache, MySQL, PHP + PEAR, Perl, mod_php, mod_perl, mod_ssl, OpenSSL, phpMyAdmin, Webalizer, Mercury Mail Transport System for Win32 and NetWare Systems v3.32, Ming, Jp-Graph, FileZilla FTP Server, mcrypt, eAccelerator, SQLite, and WEB-DAV + mod_auth_mysql.

This package is the greatest thing since sliced bread. Really! I will talk about it more next time.

Here's some documentation about XAMPP:

<http://www.apachefriends.org/en/faq-xampp.html>

http://andymelton.net/tutorials/xampp_server.pdf 

Let Your Voice Be Heard!

THE SOA 2008 ELECTIONS ARE JUST AROUND THE CORNER! POLLS OPEN ON AUGUST 7 AND CLOSE ON SEPTEMBER 10 AT 11:45 A.M. CENTRAL TIME. ONLINE VOTING FOR THE ELECTION WILL BE OPEN 24 HOURS A DAY.

Visit the SOA Web site at <http://www.soa.org/elections> to learn more about the candidates. You'll find:

- Video recorded campaign speeches by President-Elect candidates.
- President-Elect roundtable discussion moderated by Past President Ed Robbins.
- Photographs and biographies of Board Candidates.
- Biographies of Section Council candidates.
- Entire ballots including the Board, Bylaws amendment and proxy information and Section Council candidates.

This election has a SOA Bylaws amendment proxy to allow Associates—who have been members of the Society for five years or more—to vote in elections for President-Elect, Vice Presidents and elected Board of Directors. Remember: all information—including the suggested Bylaws amendment—can be found at <http://www.soa.org/elections>.

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SESSION 44 | Monday, October 20 | 2:00 – 4:30 p.m.

Where Are Technological Advances Taking the Insurance Industry and its Actuaries?

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This session will include presentations on several leading edge technology applications that could impact the insurance industry and its actuaries. Presenters will also use technology to obtain audience feedback. The last hour will be a reception with the opportunity to visit with presenters and enjoy refreshments.

SESSION 75 | Tuesday, October 21 | 10:30 a.m. – Noon

Actuarial and IT Departments: Making the Marriage Work

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Are there barriers between the actuarial and IT cultures that keep you from collaborating on technology issues? See recent survey results that reveal the current state of the relationship between actuarial and IT departments.

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**Technology Section Newsletter
Issue Number 28
July 2008**

Published quarterly by the
Technology Section of the Society
of Actuaries

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