

How good is your current loss reserving process?



Milliman ReservePro Enterprise

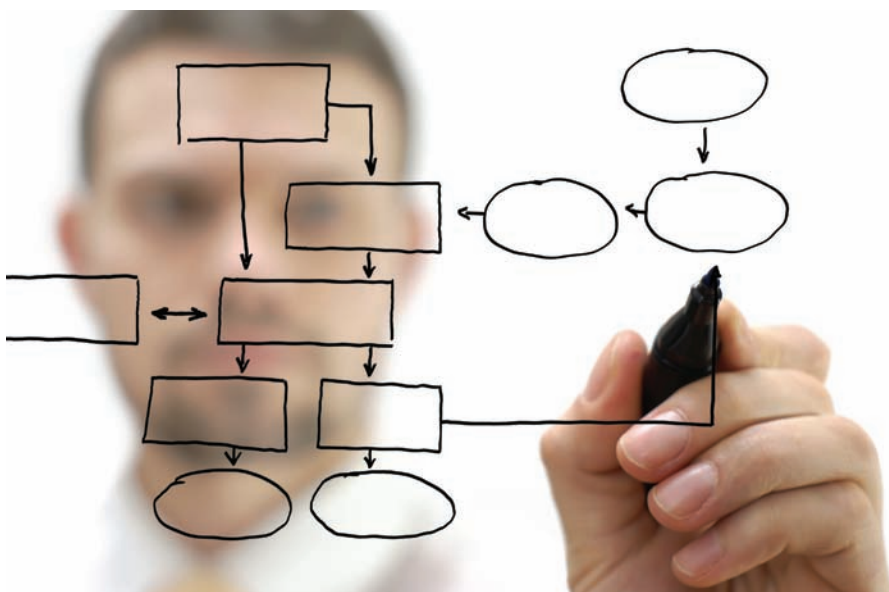


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## How good is your current loss reserving process?

- Has your company grown or evolved? Do you analyze more lines of business more frequently and in more detail?
- Are you frustrated by a rigid or fragmented reserving process? Can you get the answers you need, when you need them?
- How reliable are the internal controls, the data, and the calculations that support your mission-critical estimates?

### The financial stakes couldn't be higher.



Chances are your business has changed since your current reserving process was set up. If you're like most actuaries and analysts, you started doing loss reserving with spreadsheets. Over time, as needs have grown, those spreadsheets have grown too; different Excel power-users have tinkered with them and then moved on. And now these spreadsheets are an inherent risk, the weakest link in a serious quest to carefully estimate the largest liability on your balance sheet.

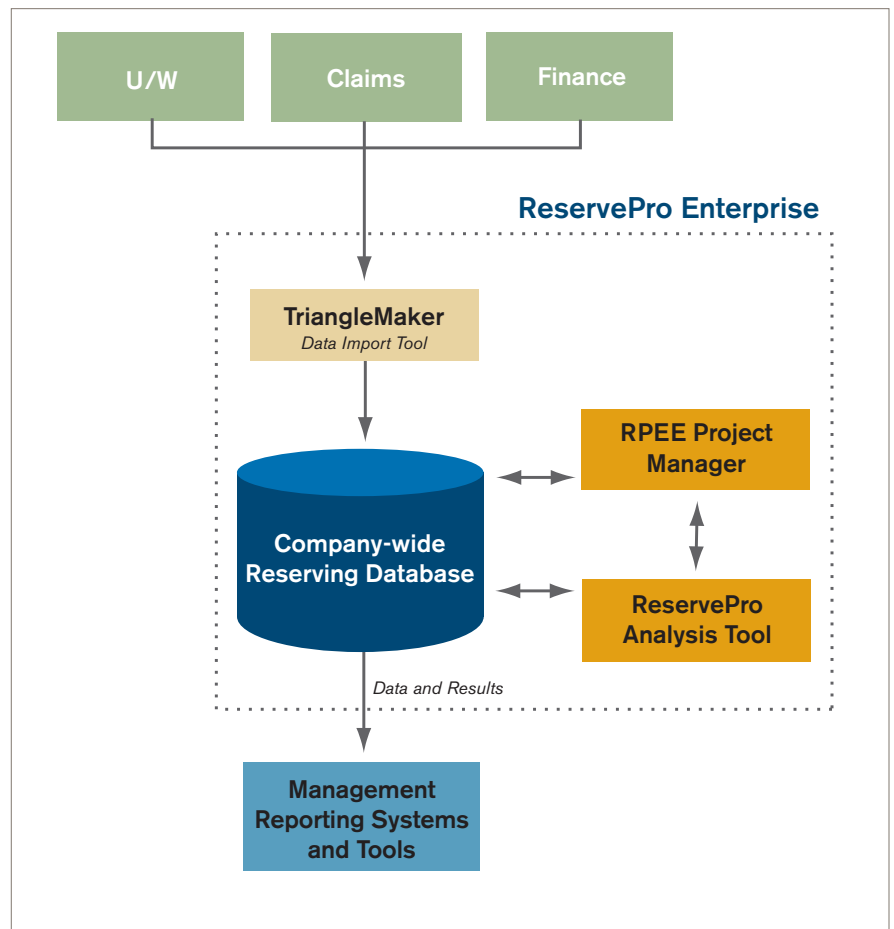
Or perhaps you rely on one of our desktop analysis systems and, while it provides a great actuarial toolkit for estimating your company's reserves, the demand for these results has outpaced your department's capacity. To effectively deal with these increased business pressures, integrated data systems and advanced processes need to be a top priority.

ReservePro Enterprise Edition (RPEE) is a proven system with the flexibility to fit your particular business while offering data access and integrity, and the analytical power you need to succeed today.

## RESERVEPRO ENTERPRISE

ReservePro Enterprise streamlines the P&C reserving process across your organization. It combines our industry-leading ReservePro analysis tools with automated processing and a robust database, resulting in more timely and accurate reserving information necessary to support today's crucial business decisions. This solution gives you:

- Immediate access to your triangles whenever you need them
- Clear, full-featured, complete analyses, for a higher comfort level about your estimates
- Consistent reporting across all your users and groups, ensuring easy management review
- Fast and easy rollups for more timely consolidated reporting
- A solution that is easy to use and learn, for rapid startup and quick payback
- Automated processing of your routine so you can spend more time in those areas where your expertise is truly needed



## DATA STORAGE & RETRIEVAL

### Increase efficiency with a more centralized approach

RPEE relies on a database specifically tailored to contain all of the data relevant to how your company analyzes reserves. This single source increases management's confidence in the accuracy of the data.

- A central database provides the reserving team with instant access to all data and eliminates the need to manage hundreds of files
- Data can be extracted or read by MS Office applications such as Excel and Access or other database tools for a valuable flow of information across the organization

### Improve analysts' control over data and reduce reliance on IT resources

Wouldn't it be great if you could easily aggregate your data into Schedule P lines, or roll up all of your state data into countrywide totals? Along with saving time and effort, RPEE's rollup capabilities assure that no data slips through the cracks.

- The system allows you to manipulate data and analyze any size triangle—monthly, quarterly, semiannual, or annual
- Automatic aggregation facilitates more efficient analysis, review, and reporting
- It's now feasible to look at data at a finer level of detail for enhanced drill-down and allocation purposes

## ANALYSIS CAPABILITIES

### Provide more in-depth analyses and apply additional reserving methods

For many people, the system's pre-defined actuarial techniques and reports open new opportunities to consider additional diagnostics and employ new methods. And if RPEE's hundreds of exhibits are not quite right, you can tailor the system to suit your special needs.

- More than 40 actuarial methods are offered to calculate IBNR and ultimates, including development, Bornhuetter-Ferguson, Cape Cod, Berquist-Sherman, frequency and severity, and ratio techniques
- A tail factor analysis tool helps you extrapolate and graphically visualize trends
- Interpolation algorithms help with stub periods and unusual cut-offs
- Comparison of ultimate reports help you consolidate results and make final selections
- More than 50 management reports are available, including actual vs. expected and cash flow reports
- Easy-to-use customization tools allow you to create company-specific exhibits, methods, and reports

The screenshot illustrates the data management capabilities of ReservePro Enterprise. It shows the 'Query Builder' window where a query named 'CMP Lines - All States' is being configured. The 'Available Classes & Types' pane shows a tree structure including Company, Division, Line of Business, State, and Version. The 'Selected Classes & Types' pane shows the selected hierarchy: Company (Acme), Division (Commercial), Line of Business (CMP), State (CA, GA, MA, NY), and Version (Draft). The 'Query part 1 of 1...' section shows the 'Add' and 'Delete' buttons.

The 'Navigator' window shows the 'Template - CMP Template' with a list of data sources. The 'Paid Loss' category is selected, and the 'Paid Loss' sub-item is highlighted. The 'Paid Loss' sub-item is further expanded to show 'Paid Loss' and 'Paid Loss'.

The 'Paid Loss (Net) - Cumulative' data table shows the following data:

| Accident Year | 12     | 24      | 36      | 48      | 60      | 72      | 84      | 96      | 108     | 120     | 132     |
|---------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Prior         | 0      | 0       | 90,894  | 94,049  | 146,616 | 171,745 | 173,678 | 196,176 | 213,396 | 239,262 | 264,309 |
| 1999          | 45,477 | 107,231 | 146,173 | 170,503 | 186,110 | 196,654 | 203,586 | 207,316 | 210,366 | 213,325 |         |
| 2000          | 47,673 | 109,898 | 143,723 | 166,546 | 181,793 | 191,700 | 197,762 | 202,911 | 206,323 |         |         |
| 2001          | 42,236 | 111,333 | 142,816 | 162,888 | 175,302 | 183,654 | 189,999 | 194,326 |         |         |         |
| 2002          | 51,734 | 108,260 | 137,048 | 155,136 | 167,033 | 174,863 | 181,810 |         |         |         |         |
| 2003          | 48,575 | 100,420 | 128,646 | 145,107 | 155,602 | 163,868 |         |         |         |         |         |
| 2004          | 48,048 | 96,408  | 121,844 | 139,710 | 150,705 |         |         |         |         |         |         |
| 2005          | 47,840 | 101,066 | 129,718 | 146,331 |         |         |         |         |         |         |         |
| 2006          | 52,186 | 113,474 | 144,301 |         |         |         |         |         |         |         |         |
| 2007          | 58,313 | 124,126 |         |         |         |         |         |         |         |         |         |
| 2008          | 72,292 |         |         |         |         |         |         |         |         |         |         |

The 'Paid Loss (Net)' line graph shows the cumulative paid loss over 132 months of development for various accident years from 1999 to 2008. The Y-axis represents the amount of loss (0 to 100,000), and the X-axis represents the months of development (12 to 132). The graph shows that the cumulative loss increases rapidly in the first 24 months and then levels off, with later accident years generally showing higher cumulative losses.

Data management capabilities allow you to query the data you need in the format you want.

## AUTOMATED WORK PROCESSES

### Increase communication and information sharing

Our clients report tremendous improvements in speed and productivity. With RPEE you simply create a new exhibit, print list, or factor library and you can share it immediately across your entire organization. Better yet, settings can be stored in a template and reused in many different analyses.

- Shared platform and analysis templates standardize the reserving process
- Consistent methodologies and reports ease staff transition and streamline your peer review process

### Enhance productivity

Whether you have a handful or hundreds of reserving segments, RPEE's scripting capabilities make it a snap to perform the same action across all segments. You can run scripts to append diagonals of new data, transform quarterly data to annual, and print large batches of reports. And the system can help you quickly update an analysis by applying default selections to derive new ultimates. RPEE's automation helps you analyze your business in greater frequency while also freeing up time so you can focus attention on the exceptions.

- Formulas automatically update as triangles expand with new data
- Scripting capabilities handle routine tasks
- Data is stored separate from analytical templates so changes to methods and reports can be made in one central location

Automation capabilities allow you to quickly update analyses using historical assumptions.

The screenshot displays the ReservePro Enterprise software interface. A central dialog box titled "Choose an action to perform..." is open, showing user and group information. Below it, a "Paid Loss Development (Net)" table is visible, with columns for accident years and various development periods. A "Flood Fill Options - Paid Loss Development" dialog box is also open, with the "Historical Selection" option set to 1. A bar chart at the bottom right shows "Actual vs Expected Incremental Paid Loss (Net)" for accident years 1999-2008.

| Accident Year                     | 12-24 | 24-36 | 36-48 | 48-60 | 60-72 | 72-84 | 84-96 | 96-108 | 108-120 | 120-132 | 132-Ult |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|
| Prior                             | 0.000 | 0.000 | 1.035 | 1.559 | 1.171 | 1.011 | 1.130 | 1.088  | 1.121   | 1.105   |         |
| 1999                              | 2.358 | 1.363 | 1.166 | 1.092 | 1.057 | 1.035 | 1.018 | 1.015  | 1.014   |         |         |
| 2000                              | 2.284 | 1.320 | 1.159 | 1.092 | 1.054 | 1.032 | 1.026 | 1.017  |         |         |         |
| 2001                              | 2.636 | 1.283 | 1.141 | 1.076 | 1.048 | 1.035 | 1.023 |        |         |         |         |
| 2002                              | 2.093 | 1.266 | 1.132 | 1.077 | 1.047 | 1.040 |       |        |         |         |         |
| 2003                              | 2.067 | 1.281 | 1.128 | 1.072 | 1.053 |       |       |        |         |         |         |
| 2004                              | 2.006 | 1.264 | 1.147 | 1.079 |       |       |       |        |         |         |         |
| 2005                              | 2.113 | 1.283 | 1.128 |       |       |       |       |        |         |         |         |
| 2006                              | 2.174 | 1.272 |       |       |       |       |       |        |         |         |         |
| 2007                              | 2.129 |       |       |       |       |       |       |        |         |         |         |
| Average                           | 2.207 | 1.291 | 1.143 | 1.081 | 1.052 | 1.035 | 1.022 | 1.016  | 1.014   |         |         |
| Average Excluding High/Low        | 2.174 | 1.284 | 1.141 | 1.081 | 1.052 | 1.035 | 1.023 |        |         |         |         |
| Volume Weighted Average           | 2.197 | 1.292 | 1.143 | 1.082 | 1.052 | 1.035 | 1.022 | 1.016  | 1.014   |         |         |
| 3 Year Average                    | 2.139 | 1.273 | 1.134 | 1.076 | 1.049 | 1.035 | 1.022 | 1.016  | 1.014   |         |         |
| 5 Year Average Excluding High/Low | 2.103 | 1.273 | 1.134 | 1.077 | 1.052 | 1.035 | 1.023 |        |         |         |         |
| 2008 Industry - CMP               | 1.571 | 1.173 | 1.098 | 1.070 | 1.043 | 1.031 | 1.017 | 1.013  | 1.009   | 1.026   |         |
| Evaluation as of June 2008        | 2.139 | 1.273 | 1.134 | 1.076 | 1.049 | 1.035 | 1.022 | 1.016  | 1.014   | 1.011   | 1.054   |
| Selected                          | 2.139 | 1.273 | 1.134 | 1.076 | 1.049 | 1.035 | 1.022 | 1.016  | 1.014   | 1.011   | 1.054   |
| Cumulative                        | 4.051 |       |       |       |       |       |       |        |         |         |         |
| Ratio to Ultimate                 | 0.247 |       |       |       |       |       |       |        |         |         |         |

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## SECURITY AND INTERNAL CONTROLS

### Improve your confidence in the accuracy of your data

The advanced security controls in RPEE are designed to meet stringent corporate and SOX requirements. The system allows management to control user permissions, such as who has the right to modify, save, or delete data. Automatic journaling tracks changes in the database and helps satisfy your internal and external auditors.

- Automatic data import and export routines reduce manual processes and associated errors
- Secure formulas ensure consistency and prevent modification
- Managers can assign who has read-only vs. write access
- Additional security allows you to lock down items such as templates, customized methods and reports, queries, etc.

## BENEFITS OF RPEE

**Fast.** RPEE automates the time-consuming parts of your regular reserve analysis process. It manages the data, controls the relationships and links, and formats the output for you. It provides a consistent workflow to aid in managing your analysis and in training new people. The result is that you spend your valuable time evaluating the results rather than manipulating the underlying data and managing files and formulas.

**Flexible.** The system was designed by actuaries to address the needs of our clients, and built by our experienced software professionals. Our

consultants will collaborate with you to develop custom processes to address your particular needs. Just as no two companies are alike, every ReservePro Enterprise installation is unique. We will tailor the system to fit your organization and coordinate with your actuarial, finance, and systems professionals to monitor progress and support you when issues arise. We won't leave anything to chance.

**Reliable.** We have more than 20 years of experience building commercial software specifically for actuaries, which gives you the assurance that the solution is well-designed and professionally tested. We have a track record of successful RPEE implementations at a number of leading insurance companies. Over 900 insurance professionals at 200 companies around the world rely on our actuarial software solutions.

**Supported.** We are experienced at using these tools every day in our consulting practice, so we can provide you the support you need, from basic training to a complete peer review of your work and beyond. Our 1,100 qualified consultants and actuaries around the world regularly provide clients with innovative solutions in all areas of enterprise analysis, including economic capital modeling, operational risk, and general risk management. As with all our solutions, our goal is not simply to license software, but to provide the tools, training, and understanding you need to get better results for your company.

**Affordable.** If you consider the potential time and money required to build your own system, our solutions are the only reasonable investment. Shop and compare. ReservePro Enterprise offers the power of a custom-built solution, but with the price and reliability of a commercial product.

**Analysis based on risky spreadsheets and fragmented processes should be a thing of the past. As more people around the organization are relying on you for timely, accurate analysis, you need a solution you can rely on.**

**Talk to us about ReservePro Enterprise.**

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