ICRFS-PLUS™ contains the unique PTF and MPTF modelling frameworks. These frameworks provide the flexibility to create a model that reproduces the trends and variability in real triangles of data and the correlations between them.

Information on trends and variability in the data allows you to make informed projections into the future.

Using these modelling frameworks, you design a model that reproduces the features in the data. In traditional actuarial terminology, it is like creating a special “method” that is the best method for that particular data.

A PFT model is described by four pictures that give you instant information on what has been happening in that line of business. Communication is in terms of pictures.

Assumptions about future trends and volatility are explicit and can be related to the historical experience.

The models provide probability distributions for loss reserves by accident year, calendar year and total, which include parameter uncertainty and process variability.

Predictive aggregate loss distributions can be simulated at lightning speed. From these probability distributions, risk-based capital requirements can be assessed and the Value@Risk determined.

Reinsurance calculations allow you to quickly assess options for Adverse Development Cover, Finite Reinsurance and Stop Loss. Find out how your risk-based capital requirements change under different reinsurance structures.

Understand relationships between Case Reserve Estimates, Paid Losses, Number of Claims Reported, Number of Claims Closed and Number of Claims Open. Each can be modelled using the wizard in seconds and their corresponding models (pictures!) compared.

Forecast distributions for future underwriting years, critical to pricing, can be produced.

ICRFS-PLUS™ also contains the Link Ratio Techniques (LRT) module and the Extended Link Ratio Family (ELRF) modelling framework. The latter allows you to test whether the assumptions behind link ratio techniques are satisfied by your data. Very often you will find that link ratios will give misleading results.
ICRFS-PLUS™

The New Paradigm provides information and benefits you have never imagined at warp speed

Unique interactivity between the user and the software
Model creation and testing is based on a point and click graphical user interface and a warp speed modelling wizard.

COM automation of data input, updating and database manipulation
The COM open interface allows automated importation of large amounts of data from any other database. Objects in the database can also be operated on from within any other COM-enabled product.

A.M. Best and NAIC Schedule P and S&P SynThesys
Schedule P or S&P SynThesys data can be converted using COM into an ICRFS-PLUS™ relational database by Line of Business, Company Name etc. A few mouse clicks allows you to compare companies to each other and the industry.

Unique data management facilities
You will never have to search through spreadsheets again to find your data, models and reports.

Fast report generation
Create reports for all lines of business and aggregates from pre-defined templates in just a few clicks.

Effortless database updating that includes model updating and trend monitoring
Add the next year’s data and check that the existing model is still valid in just a few minutes.

Regression extensions of the standard link ratio techniques
Mack’s regression formulation of chain ladder, Murphy’s extension and much more are all included in the unique ELRF modelling framework.

Benefits of Modelling Multiple Lines of Business, Segments or Layers

One Composite Model for all Long Tail Liability Lines of Business
One double click loads the composite model and reveals pictorially the volatility structure of each long tail LOB in your company and their inter-relationships (correlation structures). All the critical financial information is computed at warp speed. A company-wide report can be created effortlessly with a single report template.

Company-wide picture
Produce distributions for each line and the aggregate of all lines, by accident year, calendar year and total, that incorporate correlations between the lines determined from the data.

Dynamic Financial Analysis
Assess and quantify the degree of diversification between lines of business, segments and layers and allocate capital optimally both for reserve risk and underwriting risk. COM Automation can be used to transfer information directly into DFA software.

Optimal Outward Reinsurance
Design an optimal outward reinsurance program that ensures that the coefficient of variation of net reserves is lower than that of gross reserves.

Risks for Reinsurers
Understand the correlations between business already on your books and potential new business so you can properly assess the risks you are taking on.

Pricing Outgoing and Inward Reinsurance
Price outgoing and inward reinsurance including adverse development cover, both retrospective and prospective.