Claims Reserve Calculator

Basic information

The Claims Reserve Calculator is a software tool developed in MS Excel. Its goal is to help actuaries with the process of claims reserving that is crucial especially for non-life insurance companies. We believe that this application will make your actuarial work **easier**, **more comfortable**, **faster** and **more complex**.

It is based on the analysis of the aggregated data expressed in the form of a development triangle and the extrapolation of the aggregated values to the future using variety of development factors.
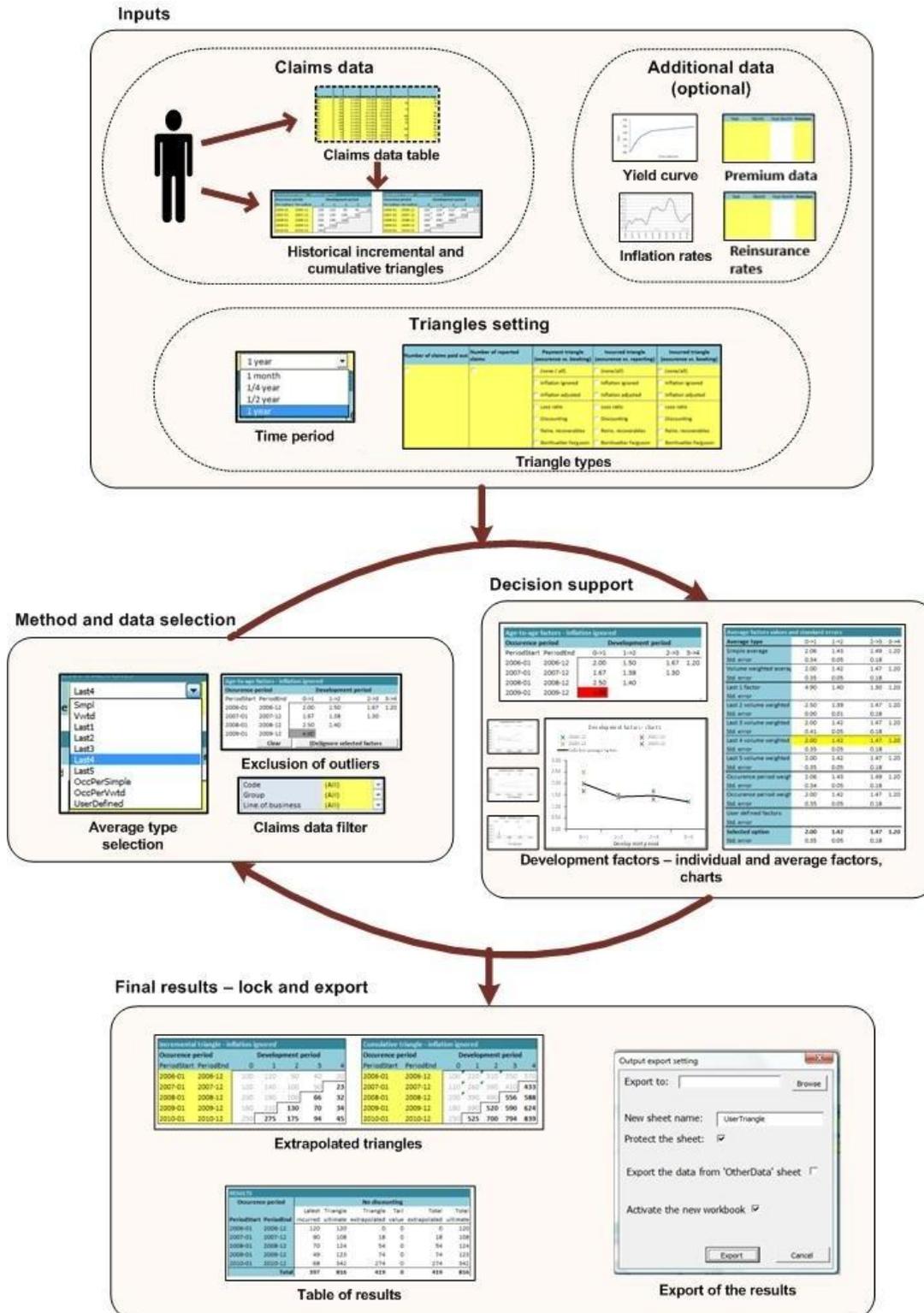
Its main functions are as follows:

- To **extract the appropriate data** from the claims data table and **arrange them in a form of development triangle**, according to the user's requirements. The customization consists mainly in the choice of:

  - the length of the triangle time period – 1 month, 1/4 year, 1/2 year, 1 year;

  - the triangle types to be calculated – 5 different methods of a data aggregation (Payment triangle – occurrence vs. booking, Incurred triangle – occurrence vs. reporting, Incurred triangle – occurrence vs. booking, Number of claims paid out triangle, Number of reported claims triangle).

- To calculate several variants of average development factors with their immediate application to the extrapolation of historical triangles.

Other useful functions of the application:

- inflation adjustment of the data;

- discounting of extrapolated values;

- loss ratio triangles calculation;

- calculation of reinsurance recoverables (as a percentage of claim payments);

- graphical representation of the individual development factors and residuals;

- identification of the extreme values of individual development;

- application of Bornhuetter-Ferguson method.

Process flow diagram