

First 50 years of Survo: from a statistical program to an interactive environment for data processing

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Survo is an interactive computing environment for creative processing of text and numerical data. Various versions of Survo have existed during the last 50 years. The name Survo originates from the word "survey" or from the Finnish verb "survoa", meaning "to compress" (Mustonen 1992). A recently launched Muste project aims at an open source implementation of the interface and operations of Survo integrated as a part of the R project for statistical computing (<http://www.r-project.org/>).

The author of Survo is Seppo Mustonen, Professor of Statistics at University of Helsinki. Mustonen has developed and programmed the various generations of Survo, and is still responsible for further development of the current version SURVO MM, which was released 10 years ago (Mustonen 2001).

The very first Survo (in the 1960s) was a statistical program SURVO 66 running on Elliott 803 computer. In the 1970s it was followed by a Wang mini-computer version SURVO 76, which was probably the first truly interactive statistical software package in the world. In 1979, its menu-based interface was suddenly superseded by Mustonen's new innovation (which arose rather interestingly – in the context of a musical application!). The new way of working was called *editorial interface*, based on the fact that all the operations were carried out using a text editor (Mustonen 1982).

The successors of SURVO 76, namely, SURVO 84, SURVO 84C, and SURVO 98, each built on a different platform, as well as the current SURVO MM, which runs on Windows, have been based on the unique interface that Mustonen invented over 30 years ago. Through those decades, Survo has expanded in various ways and formed an integrated computing environment (Mustonen 1992, 2001).

A new Muste project (see, <http://www.survo.fi/muste/>) has been recently initiated by Reijo Sund. The aim is to create an open source implementation of the editorial interface and the operations of Survo and make them a part of the R project for statistical computing. Technically, Muste will be implemented as a fairly large R package. Since 1985, Survo has been programmed in the C language, which makes it highly compatible with the technical structure of R. In addition, Mustonen has promised to support the Muste project with all the necessary source code.

Our presentation includes examples of working with Survo and with a preliminary version of Muste. Demonstrations show, for example, how the editorial interface can be used for processing tables and matrices, making calculations, and visualising statistical data.

References

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