Old and New Features of XTREMES

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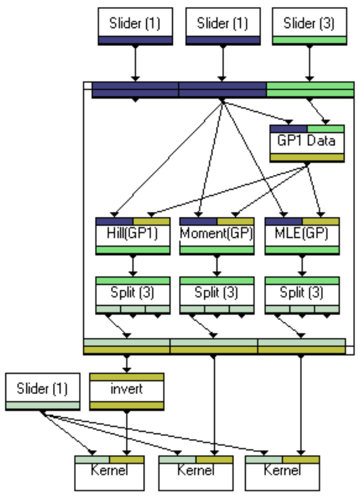
After a short overview of the XTREMES system we give an outline and a demonstration of the new graphical programming facility XGPL.

Statistical software systems consist of a menu system or a textual programming language or a combination of both including input and output facilities. Examples of such a combination are systems like XTREMES or a newer version of S–Plus. In this talk, a new beta version of XTREMES—called XPrimer—is presented. Besides a menu system and the integrated Pascal-like programming language XPL, the XPrimer system contains a prototype of the graphical programming language XGPL. We believe that such a graphical, statistical programming constitutes a major innovative step forward in statistical computing.

Within a graph editor of XGPL, one may program a certain diagram of nodes and edges (the dependence graph) where

(a) the nodes represent the input of data and parameters, the data processing or statistical procedures and the output of results,

(b) the edges connect the input and output ports of the nodes and pass the data, specified parameters and results to dependent nodes.



The active data set in XPrimer, stored data sets, options in the menu system, sliders, dialog boxes and output facilities (such as plot windows) can be edited as nodes. Because XPL–programs can also be included as nodes in the graph, the user is enabled to built a graphical program which is adjusted to his/her necessities.