Geophysical Research Abstracts, Vol. 7, 10575, 2005
SRef-ID: 1607-7962/gra/EGU05-A-10575

GRAPHICAL COMMANDS FOR MODELLING A RIVER NETWORK

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In order to model many sub-basins of a river network, in a conceptual modelling framework, it is necessary to investigate many possibilities about the processes taken into account, the space domain studied at one time, the way parameters are distributed or lumped, and their calibration. This is a reason to design an adequate user-friendly interface for the software. The solution proposed is to command the model from a graphical display of the river network. This system must have functionalities to edit (that is build and modify) the network, navigate within the network, and mark reaches or sub-basins, on which some special actions of modelling are to be done. Each of these function activates a request to geographical data, parameters of models, or observed time series data. The modelling itself can be done either along the tree of reaches, or separately on different reaches and sub-basins, with independent data but possibly shared parameters. An implementation of this principles is presented in a software composed of classical dialogs activated by navigation on the network. The system is used on real rainfall, discharge and water quality data.