A tool for designing radar data processing schemes

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The Finnish Meteorological institute (FMI) has developed an application for designing radar data processing schemes. A complete radar processing scheme usually consist of multiple phases, where radar data is at first quality controlled and then processed to products that can be even further processed to higher level products. The implementation of different processing algorithms varies and in many cases the order, in which the algorithms are applied is not unambiguous. As a result, designing radar processing schemes can become very complicated task.

In our application, processing schemes are presented as graphs that consist of data nodes and data processing nodes that are connected with directed lines referred to as edges. The application contains a graphical interface for controlling and displaying the graph elements and their parameters.

The general view of the graph shows only small amount of information on each processing step. More detailed description can be accessed by clicking the node of interest. Edges can be categorized so that essential connections between the processing steps can be highlighted or showed exclusively. In addition, the interface contains a variety of selection tools that make it possible for the user to inspect only small parts of the entire scheme at a time.