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Online Decision support tools for avalanche risk management

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The Avalanche Warning Center Tyrol (Innsbruck, Austria) together with the Department of Geography and Regional Research at the University of Vienna have developed a complex and very powerful database driven online decision support system for visualization and analysis of current avalanche relevant factors in the Tyrolean Alps. In order to understand the avalanche situation it is important to have spatial coverage of meteorological and snow pack factors as well as information covering the avalanche danger scale and topographic situation. All information can be interactively made accessible to the user and includes for example current snow depth, amount of snow accumulation within the last 24 hours, temperature, wind speed and direction as well as the regional distribution of the avalanche danger scale including height and temporal dependencies. Spatial depiction of this information can help comprehend the situation. The faster this information is made accessible the more useful it can be. One very efficient way of making use of spatial information is by incorporating GIS functionality (Geographic Information System) and cartographic expertise. This contribution will give an overview of the applications as well as planned extensions and furthermore focus in technical specifications, database design and online Internet access.