

Mobile App Supports Expert Avalanche Risk Assessment

Competitive Advantages

- ☑ Offers professionals and consumers remote avalanche decision support.
- ☑ Combines real-time data with multiple snowpack stability factors.
- ☑ Adaptable to wide range of mobile devices, including iPhone and BlackBerry.
- ☑ Interface prompts user for inputs; provides simple, visual result.

Every year, backcountry skiers and hikers suffer serious injury or death from avalanches. Many of these incidents could be avoided if the individuals had accurate, timely information about current conditions and risks.

Now the Stabilitron, a software tool for mobile devices, brings expert-level avalanche decision support to researchers and recreational users. It features remote retrieval of regional forecast data displayed in the standard, easily understood "Avalanche Rose" format, and computation of decision procedures based on user input of multiple risk factors.

Convenient & Accurate

With the introduction of the Stabilitron, computational decision support is available in avalanche-prone backcountry areas. The tool integrates remote data retrieval over the internet with the stand-alone functionality of a handheld in areas without cellular or wireless coverage.

Installed on a mobile device such as an iPhone, BlackBerry, or other smartphone, the Stabilitron can be easily carried into remote locations for convenient data access at any time.

Optimized for Mobile Devices

The Stabilitron provides recreational and professional users with the data needed to assess avalanche danger levels and avoid excessive risk.

The software and hardware also work together to offer a user-friendly interface, automated decision procedures, and measurement of slope angles through the mobile devices' built-in accelerometers.

Leverages Data Standards

A proposed XML standard provides low-bandwidth transmission, retrieval, and graphical output of danger ratings. In addition, a JSON standard encodes the decision trees into text documents for retrieval from any web server.

Commercialization

A Stabilitron proof-of-concept demo is available as a web application. Commercial versions could be distributed as downloadable software through online channels such as the iPhone App Store and BlackBerry App World.

Patent/Licensing Status

Patent pending. Exclusive rights available.

Learn More

Stabilitron article (includes software demo link)
www.cems.uvm.edu/~skalka/stabilitron/decisiontree/promo.php

Primary Investigator

Christian Skalka
www.cs.uvm.edu/~skalka/

Case Manager

Steve Wernicki
 802/656-9037 (tel) 802/656-8782 (fax)
swernicki@uvm.edu
 Given Building C108, Burlington, VT 05405

UVM Innovations
 The University of Vermont

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