

River Channel Profiler

A Handheld Tool for River Channel Surveys

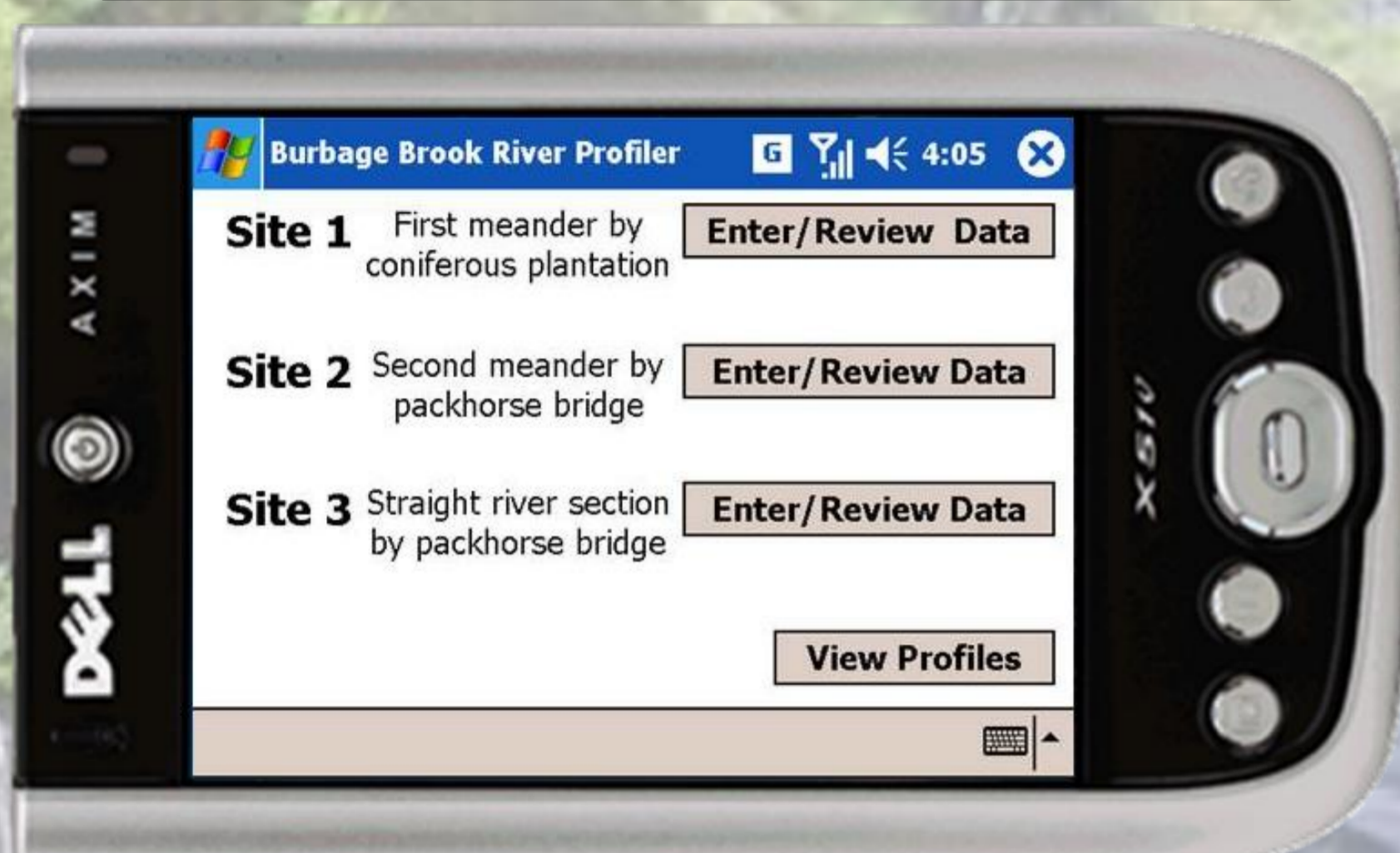
Running on Windows Mobile based devices such as PDAs (Personal Digital Assistants) and Smartphones, this application allows students to log and visualise river channel data in the field.

Devices can be housed in waterproof pouches, eliminating the problems of soggy survey sheets. Inputted data can be easily modified if necessary, and the digital format allows for direct export as a file readable in spreadsheets such as Microsoft Excel.

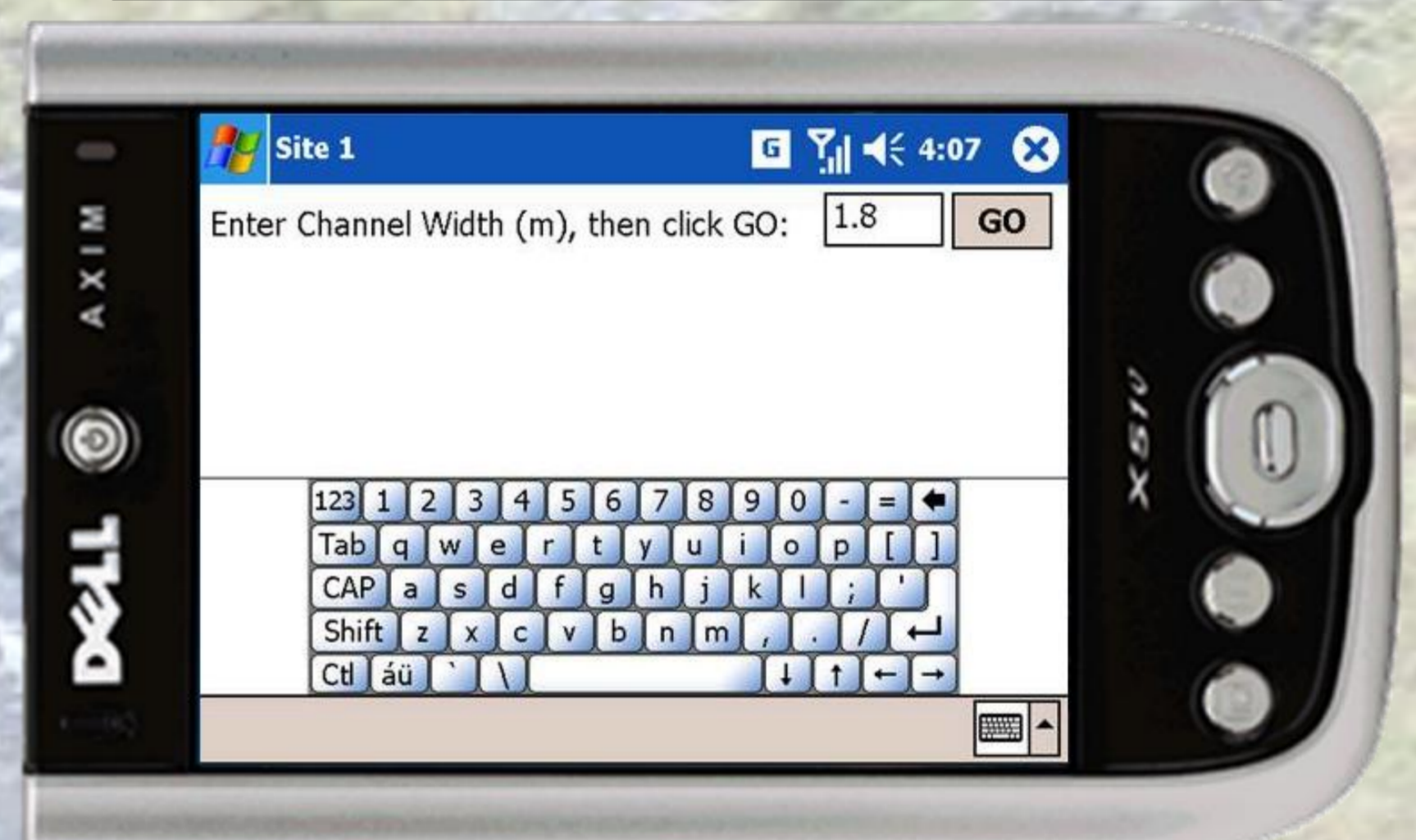
Immediate visualisation of river profile data means errors can be easily identified while out in the field, rather than discovering mistakes when constructing profile diagrams back in the classroom. On-the-fly visualisation of river sections may also enrich understanding and encourage the identification of patterns while fieldwork is actually taking place.

There is scope for extending the application to log extra attributes, integrate GPS (Global Positioning System) data and incorporate interactive mapping. It could also be modified to work on standard Windows devices such as laptops and tablet PCs.

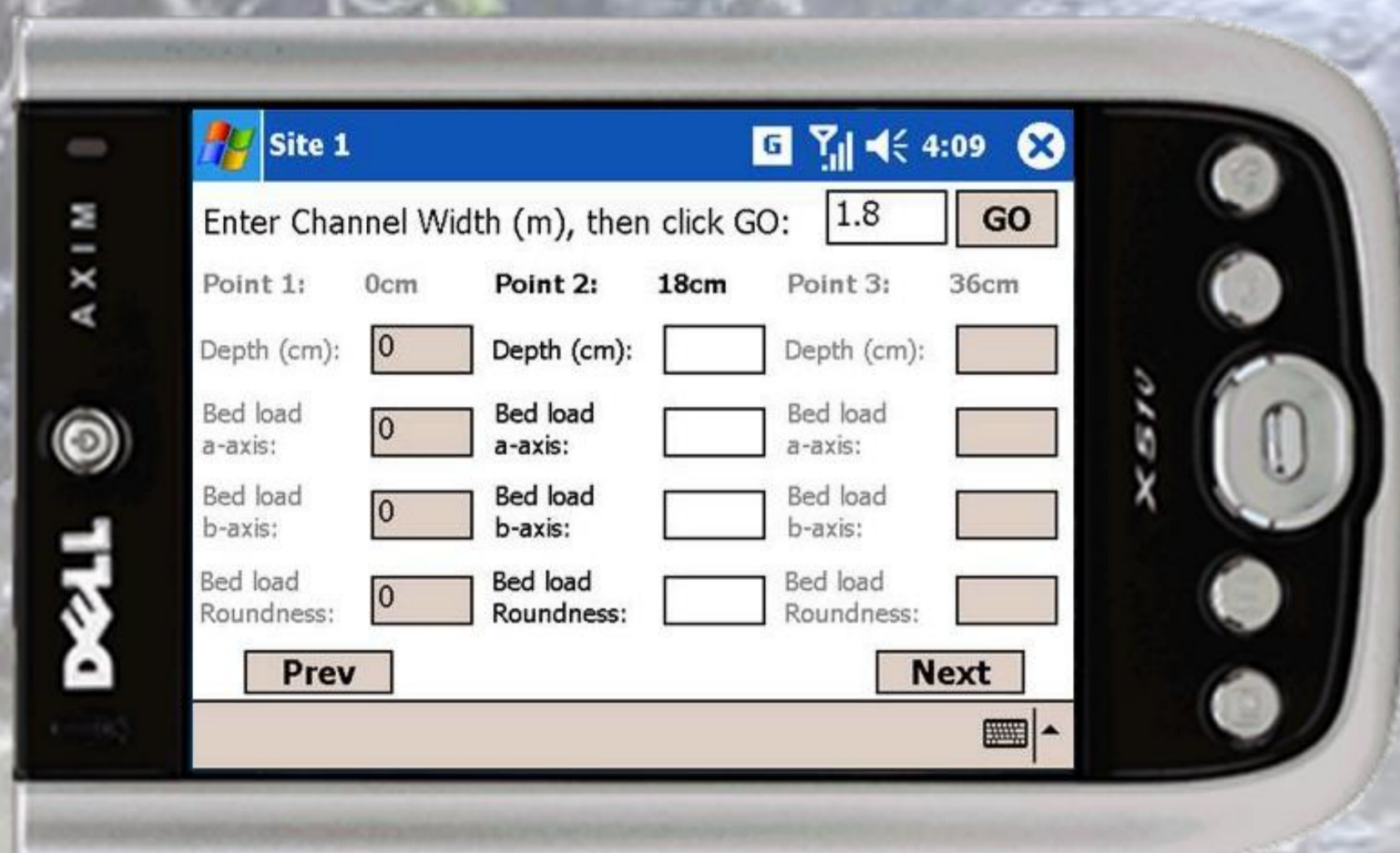
1. Control Screen: Choose to Enter Data, or View Profiles if data has already been entered.



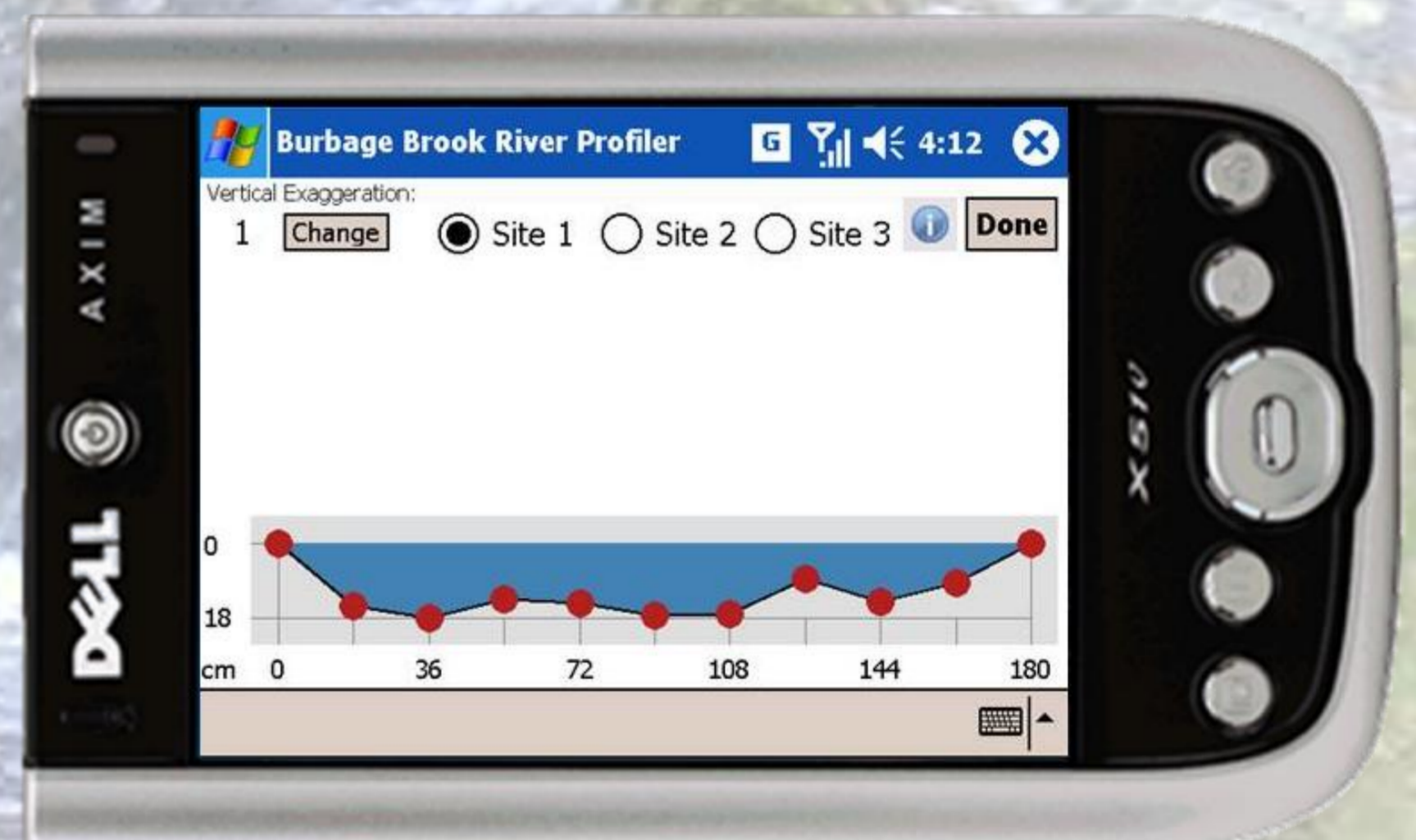
2. Data Entry: Enter channel width for site to automatically calculate survey intervals.



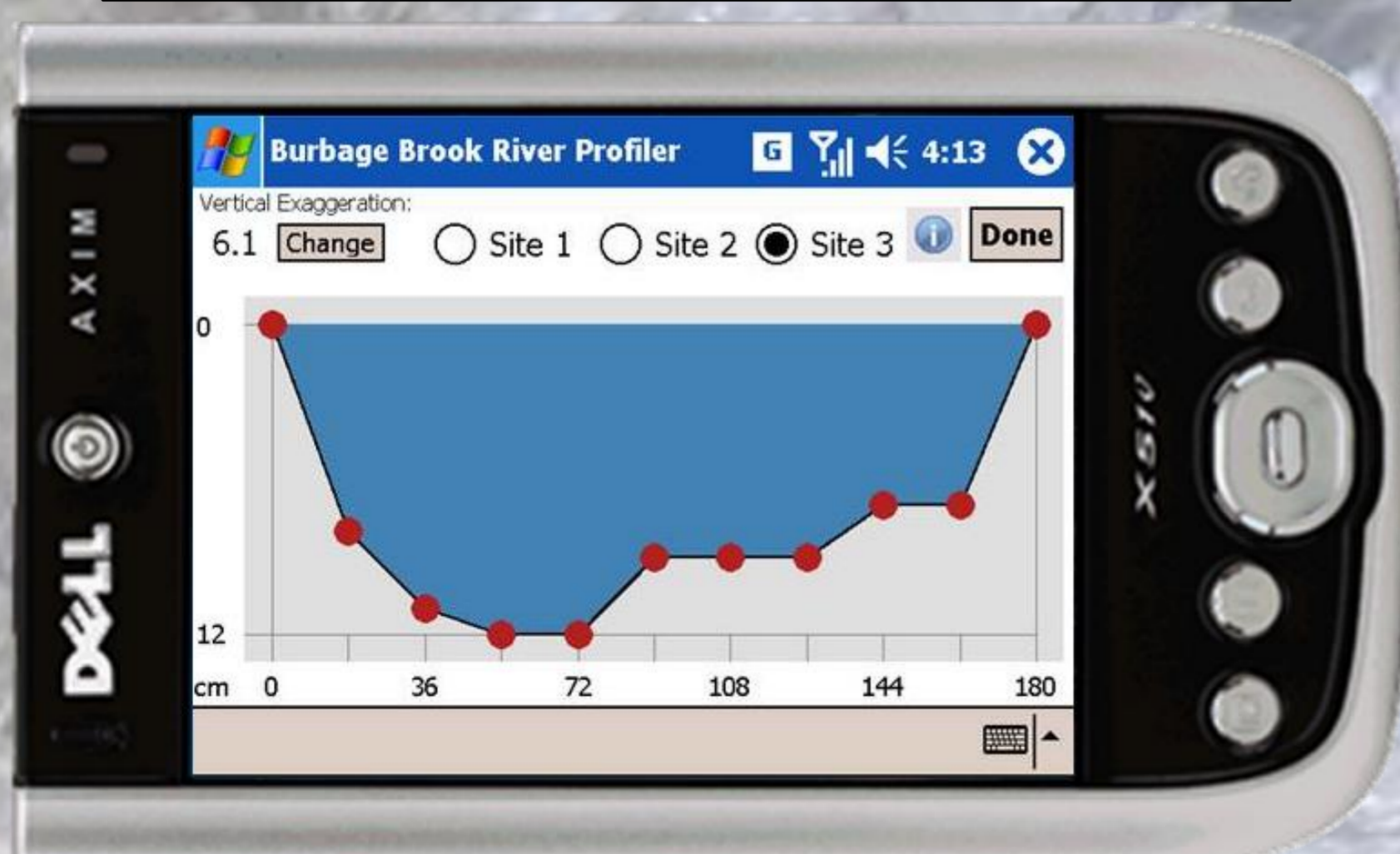
3. Data Entry: Enter data for each point along river channel.



4. Profile Viewer: Once data have been entered, profiles for each site can be viewed and compared



5. Profile Viewer: Vertical Exaggeration can be adjusted to view profile larger on screen.



6. Profile Viewer: With Info Button highlighted, each red point can be queried.

