Cowichan Parallel Study Deliverables

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We plan to deliver two complete source code implementations of the Cowichan program set as described in [Wilson 95], with the change from an elastic net to a convex hull implementation. One implementation will use the data parallel paradigm through Intel's Threading Building Blocks library in C++. The other implementation will use Boost.MPI in C++ as a wrapper over the standard MPI library for message passing.

In addition, our program sets will feature the chained model described in the paper to link inputs to outputs of different problems, in order for the observer to compare the speed of both implementations.

Finally, we will create a presentation to showcase experimental observations (e.g. parallel speed-up and overall running time comparisons), differences in program structure emergent between the two approaches, and other empirical or personal observations related to the usability of both paradigms (TBB/MPI).

We will deliver the above before or on the presentation date for this course.

Signed,

Andrew Borzenko Cameron Gorrie