OpenMP 4.0 and CCE

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Status

● SIMD
  ● Loop directive mapped to autovectorizer
  ● Declare directive mapped to inline directive

● Affinity
  ● This is becoming more and more important
  ● May libraries use “helper” threads, maybe should rename them as “performance killer” threads – least on machines that offer node binding outside of the app

● Device constructs
  ● Mapping target directives onto our OpenACC infrastructure
  ● Basic implementation was easy
  ● Still more work to do
  ● Some issues were found

● UDRs
  ● Implementation has been started

● Completion
  ● Plan to release with next major release of CCE

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