Phylanx Meeting Notes

October 19, 2017

* Adrian, Parsa, Chris, Bibek, Shahrzad, Ali, Rod, Hartmut, Kate, Rod, Stefan, Kevin, Monil, Steve
* From Last Meeting:
  + - Bibek- Basic version of the for loop; Test the current implementation of the Logistic Regression
    - Ali- Implement standard out primitive
    - Shahrzad - Sit with Parsa
    - Rod- Running example of ALS
    - Parsa- Get Phylanx to run
    - Hartmut- Create a functional way of interacting with Phylanx
    - Stefan- Spend fall break on this project
    - Monil- Work on the Buildbot
    - Kevin- Send items for SOW; Approve it; Follow up with Kate
    - Kate- Get a trace of factorial; Get APEX-HPX working; SOW
    - Chris- Draft statement of work by Monday; Finish the remaining space filling curves
* Chris-
  + Proposal
    - Will send an updated version of the SOW tomorrow
    - Start in February and end in September (end of month)
  + Will be shopping around for algorithms to implement
  + Hartmut- I would like to meet with you to firm up the numbers
  + Was able to make some progress on the Hilbert Curve
  + Talked with Klaous
    - Will try to get these curves into his unit tests
* Kate-
  + Have a trace that Kevin gave me
    - Factorial
  + Having issues with installing HPX with APEX
* Kevin-
  + Working on Buildbot script
    - Tried to use a newer version of Python
  + Fixed a few bugs in APEX
  + Need to update HPX to pull the correct version of APEX
* Monil-
  + Found an issue with PyBind
    - We must use a dynamic library version of PyBind
      * Have a way to check this in CMake
    - Learned CMake in the Process
* Stefan-
  + Still planning to look into our problems today and tomorrow
  + Looked over the statement of work
* Hartmut-
  + Have implemented the first level functions
    - Completed the first steps to support higher level functions
    - Plan to work on this next week
      * This will give us a complete infrastructure to do everything
  + Presented the Phylanx Seminar
* Steve-
  + Hadn’t had much time to work on Phylanx this week
  + Looking into the HPX startup issue
    - Hartmut- Could you provide a stack back-trace of all kernel threads
* Parsa-
  + I got Phylanx to run
  + I have gotten the “and” and “add” primitives
    - Waiting for the pull request for the build system to be merged
      * After this is merged I can open the serialization pull request
* Shahrzad-
  + Familiarizing myself with HPX and Blaze
* Rod-
  + Worked on the C++ version of ALS
    - There are a few more features which will be complicated to implement
    - Hartmut- I think we should create more primitives for them
* Ali-
  + Chris suggested a group of file types that should be supported
  + Some are binary and others are CSVs
    - Started looking into the CSV first
* Bibek-
  + Created a pull request for the for\_loop
    - Seeing an error in the while loop
      * I have not touched the while loop
      * Hartmut- I will look into it
  + Got the logistic regression algorithm working
    - Working with bigger data sets
  + Next week I am focusing on getting the algorithm to produce correct datasets
* To-do:
  + Bibek-
    - Logistic Regression Algorithm
    - Migrate Primitive
  + Ali
    - Write and Read primitives
      * CSV
  + Rod-
    - Python Bindings
  + Shahrzad-
    - Help Parsa Migrating to Blaze
  + Parsa-
    - I will finish the migration to Blaze
  + Steve-
    - Gateway 17 Conference
      * Present Agave
  + Hartmut-
    - Will try to finish higher level functions
  + Monil-
    - Work around build problem
  + Kevin
    - Fix CMake file
    - Think about SOW
  + Stefan-
    - Work today and tomorrow on our problems
    - Work on SOW
  + Kate-
    - Install Ravel on Rostam
* Next Meeting: Thursday October 26th at 3pmET/2pmCT/1pmMT/11amPT via Webex