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iPg2p Steering Committee Minutes
February 9, 2010; 1 to 2 pm CST

Present: Dan Kliebenstein, Chris Myers, Dan Stanzione, Jeff White, Matt Vaughn, Steve Welch, Tom Brutnell, Karla Gendler, Steve Goff, Chris Jordan, Greg Abram, Ed Buckler

The meeting was convened at 1pm CST and there was some general discussion to allow time for late arrivals to dial in.

Item 1: Review Action Items from San Diego Meeting

- A discussion is needed to establish communication mechanisms between the CI Development Team and rest of the working groups
  Vaughn and Gendler will be the pipeline for communications between the CI Development Team and the working groups. Gendler works everyday with the group at the University of Arizona and is constantly updated. Vaughn and Gendler will be up-to-date on the project as a whole and will pass this information on to the working groups. Vaughn added that he and Gendler both attend the "Planning and Retrospective" that happens every two weeks and will report back to the Steering Committee what is happening in these meetings. Stanzione stressed that he has one CI Development Team with different sub-managers and that Vaughn and Gendler are who to communicate with.
  In response to the idea proposed at the meeting in San Diego of having Sonya Lowry and members of her team join this meeting, Jordan said that it seems more like Vaughn and Gendler are taking the responsibility of communicating what is being developed within iPlant. As there are more releases, the perception of iPlant from the group should change.
- Matt V and Karla G will start communicating CI development the individual working groups
  See discussion from above
- Education, Outreach, and Training proposals due next meeting (Feb 23) by Tom Brutnell and Ed Buckler
  - Buckler talk to Pam and Doug (iPToL incorporation) and Justin (phone app)
  - Brutnell to provide proposal incorporating Buckler's scenario in Brachy project (extending Brachy project)
    Bruntell has started to expand the Brachy component to incorporate the phone app discussions and to also tighten up some of the outreach. He has a telecon schedule with Erin to discuss adapting what she has developed at Virginia Tech to Brachy (website for Arabidopsis phenotyping).
- ASBP minisymposium writeup
  A proposal for a mini-symposium was submitted February 1st with provisional speakers listed as Dan Stanzione, Steve Goff, Sheldon McKay and Matt Vaughn. It has not been decided as to what is going to be done in the sessions but there may be demonstrations and tutorial type discussions. Vaughn will circulate this to the group.
  Vaughn also added that iPlant will be submitting a workshop proposal to ISMB which meets in July. The focus will be on the API and how someone who is a developer can build and integrate with the iPlant infrastructure. This abstract goes in Feb 12 and Vaughn will distribute once submitted.
  Goff reported that Bill Beavis wanted a workshop at Iowa State on iPlant and what it is doing and how it is affect plant breeding. Currently, the workshop will be held in early May, right before the year 3 conference.
  White added the "Biologists Systems Simulation" group is hosting their 40th anniversary in Maricopa April 13-15th. There is a lot of interest in iPlant and Welch will be there to give an overview of it. There is also an all day symposium with the morning session dedicated to high throughput phenotyping and the afternoon session to high throughput genotyping at ??? and it would be good if the group was made aware of iPlant.
  Goff commented that next week is the Gates kickoff meeting for molecular breeding and he will meet with Graham McLaren after the meeting to discuss collaborating with iPlant.
- Draft white paper describing iPlant and DE architecture (Narro, Stanzione)
  There are currently two versions of this white paper, a 2-pager that is aimed for the plant biologist and an in-depth technical paper. By the next meeting, the 2-pager should be available for discussion.

Item 2: Press Release StatusWelch send out the latest draft of the press release this morning with the advisory that the local people involved would need to be contacted and the release modified for each institution. HE has highlighted in green the areas that need to be changed. He will get the press release out to the media people by the end of the week.

Item 3:Update on CI Development - Matt/KarlaStanzione reported that the first release of code is more focused on the Trait Evolution working group needs. The developers are going to start moving prototype code to production code and then will begin to work on authentication and authoring.

Item 4: Working Group Updates

- UHTS: Gantt chart
- DI: Universal Data Model and UHTS needs
  Jordan reported that after talking with various working groups, he had proposed a universal data model on how to handle data and metadata in the context of the DE. After meeting in San Diego, he wanted to talk with Sonya to understand the architecture to ensure overall idea was a) not crazy and b) would work. Jerry Lu, Christos, Sonya, Damian Gessler, Matt Vaughn and Chris Jordan met and they came up with the same basic solution as to shuffling data around and carrying the metadata with it. The DI group will break into two subgroups with one focused on data formats (Ware and Lu) and the other on Provenance/metadata (Jordan and Christos). The working group will not meet as a whole but will continue with the small meetings/discussion based on what is needed.
- StatInf
  Kliebenstein stated that the group is largely at a computational stage and have been in discussions about the XQTL prize but have not moved beyond that stage. Vaughn commented that he had just heard from Stanzione that there are now resources at TACC to help port

the code from JAVA to C. Once that port is in place, MPI can then be used for parallelization. Narra and Goff are going to talk to the GPU group to discuss the biology behind the problem. Stanzione added that the deliverable for this group will be the code and also a service available to run the code. It will be enabled on the big machines at TACC.

- Modeling
White stated that from the meeting in San Diego, he thought that perhaps the NAM data set looked good to run a simulation on for parameter estimation. He was looking at two parameters in the model that control phenology (intrinsic rate of development and flowering time). As of today, he had just finished the analysis and reports that simulations explain 91% of the variation but as a caution, only 20% of the variation is explainable in terms of genetic or environmental factors. The basic objective of this exercise was to get togehter a workflow with the next step to be QTL analysis. Buckler commented that once he has the parameters that they can run them through the standard model for QTL analysis.
- Visual Analytics
Vaughn and Gendler met with Abram last week to discuss moving the group forward. Two action items arose from this: 1) Abram and Vaughn will do a tech evaluation of ENVISION and 2) Vaughn and Gendler will begin to set up an operational work-through of the modules needed to support the 2 workflows identified by Ruth and Tom.

<u>Item 5: Identify Action Items</u>

- Vaughn will circulate ASBP proposal to group
- Welch to send press release to media by end of the week
- Buckler and Brutnell will present on EOT activities for next meeting

*Next meeting time: February 23, 2010; 1pm CST

Adjournment: The meeting ended at 2:05pm CST