Video Chat Link https://meet.jit.si/cwl Chrome/Chromium is highly recommended (Safaris is audio only?)

In attendance: (please add yourself)

- Michael R. Crusoe, CWL Project Lead
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- Peter Amstutz, Veritas Genetics
- Jeff Gentry
- Robert Nica, Alejandro Rocamonde, Stefan Götz (CEO), BioBam
- Dan Leehr, Duke GCB

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Next regular CWL meeting: 2018-03-06, starting 30 minutes earlier (featuring IBM's CWLEXEC for LSF)

Existing agenda (please add items to the end):

- <u>Blast2Go 5</u> from BioBam. Brief presentation from Robert Nica on how they are using CWL.
- Conditionals proposal <u>https://github.com/common-workflow-language/common-workflow-language/issues/494</u>
- V1.1 status
- CWL BMC Bioinformatics paper update
 - https://docs.google.com/document/d/1lk6ZBqVhDZeQKeGQ3RGzHETn3mySCc q1SQC06bTG0Gs/edit?usp=sharing
 - Structure is kind-of-there, good collection of workflows using CWL; now needs more meat (bulletpoint-to-text conversion).
 - Co-authorship still available! Feel free to contribute then add your name to author list.
- Reminder to check out (and answer) some of the open questions on BioStars:
 - Thanks to those who are answering and asking questions!

Presentation from <u>BioBam</u>, developers of Blast2GO, a commercial platform for the functional analysis of genomic datasets. Version 5 released in January has features using CWL.

Motivation: manual execution of individual steps, which could take hours or days each.

They "modelized" the Blast2GO functions to match the CWL model: defined inputs, outputs. They have their own CWL executor (in Java) that executes CWL steps as Blast2GO jobs; not a general CWL executor. It handles their custom types as well.

And their own GUI, based upon the Rabix Composer. Tweaked to handle the Blast2GO CWL extensions.

Blast2GO CWL extensions: permissions, special types, version of Blast2GO itself.

No use of "hints", "requirements", or "secondaryFiles". Just "inputs", "outputs", "steps", and "baseCommand"

Next steps: connecting this local workflow runner to the cloud, specifically Amazon

Audience questions:

- Any interest in exporting the CWL workflows for use outside Blast2GO?
- What is your plan to maintain the BioBam private fork of Rabix Composer?
 - Mostly a few changes to CWL-TS for the Blast2GO CWL extensions, the rest were CSS modifications. They started their use of Rabix Composer 8 months ago, they haven't resynchronized since then.

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Discussion about current state of running CWL on Amazon http://www.commonwl.org/#Implementations

Question: is the base unit of computation a Java method/object or is it a command line tool? A: Blast2GO is a desktop application written in Java. Every Blast2GO action runs a job written in Java. CWL gave them a nice model and the Rabix Compose a nice GUI.

http://www.commonwl.org/v1.0/CommandLineTool.html#Output_binding
Trick for outputting a JSON description of outputs from the tool itself

https://gccbosc2018.sched.com/

https://bioexcel.eu/webinar-cwlexec-a-new-open-source-tool-to-run-cwl-workflows-on-lsf/