Galaxy Genome Annotation project: integrating Galaxy and GMOD for genome annotation

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Project Website: https://galaxy-genome-annotation.github.io/
Source Code: https://galaxy-genome-annotation.github.io/
License: MIT or GPL-3 depending on modules

Main Text of Abstract

GMOD projects have long provided powerful open-source tools to the bioinformatics community for managing genomic data. However, they have historically been hard to configure and integrate due to heterogeneous technical platforms and implementations. The Galaxy Genome Annotation (GGA) group provides a highly integrated set of Dockerized GMOD projects allowing for more widespread use of these tools in new contexts for system administrators wishing to deploy any subset of the suite.

Our projects include maintenance of the Galaxy-Apollo bridge tools, Galaxy-Tripal and Chado tooling, and containerized versions of various GMOD projects which are configured to easily integrate with the rest of the suite.

We also develop Galaxy tools and workflows allowing automatic annotation of genomes, or the integration of manual annotations to curated reference gene sets. Training material is also provided in the frame of the Galaxy Training Network (http://training.galaxyproject.org).

This talk will explore the latest developments of this suite in the context of real life use-cases, including its use on the European Galaxy instance (https://usegalaxy.eu) and the annotation of insect genomes (https://bipaa.genouest.org).