Introduction to PATRIC

PATRIC is a framework constructed to support comparative analysis of microbial genomes. It includes four components: *data*, *tools*, *services*, and *interfaces*.

- Data:
- The Data component includes two subcomponents:
  - An integration of publicly available data (including over 200,000 microbial genomes and a growing body of drug resistance data)
  - Workspaces where data and results can be saved and re-used
- Tools:
- PATRIC includes a collection of tools that support
  - Extraction of data that can then be used in a focused analysis
  - Support for processing extracted data in the form of tab-separated tables
- Services:
- A collection of Apps that implement a rich set of bioinformatic algorithms to support comparative analysis
- Interfaces:
- PATRIC supports two primary user-interfaces:
  - The GUI that you can access at the PATRIC website.
  - A command line interface that supports invocation of tools for users wishing to craft more customized requests

Effective Use of the PATRIC Resource

Effective use of PATRIC requires that you understand the basic overview along with a reasonably small set of operations that allow you to extract and process data. PATRIC is a rich collection of data and tools. We are goingt to present you with a sequence of tasks that you can master fairly easily and will leave you with a highly functional (but somewhat limited) set of skills. Then, as you occasionally find you need to expand your abilities, you can use one of the PATRIC tutorials and/or request for help from the PATRIC support team for more help.

Gaining the Basic Set of Skills

Before you start, you will need to install the PATRIC command line tools. There are also a series of tutorials about using the command line tools that

complement the tutorials here.

We have put together a series of short, directed tutorials that will help you get acquainted with PATRIC using the command line.

1. Constructing Genome Sets