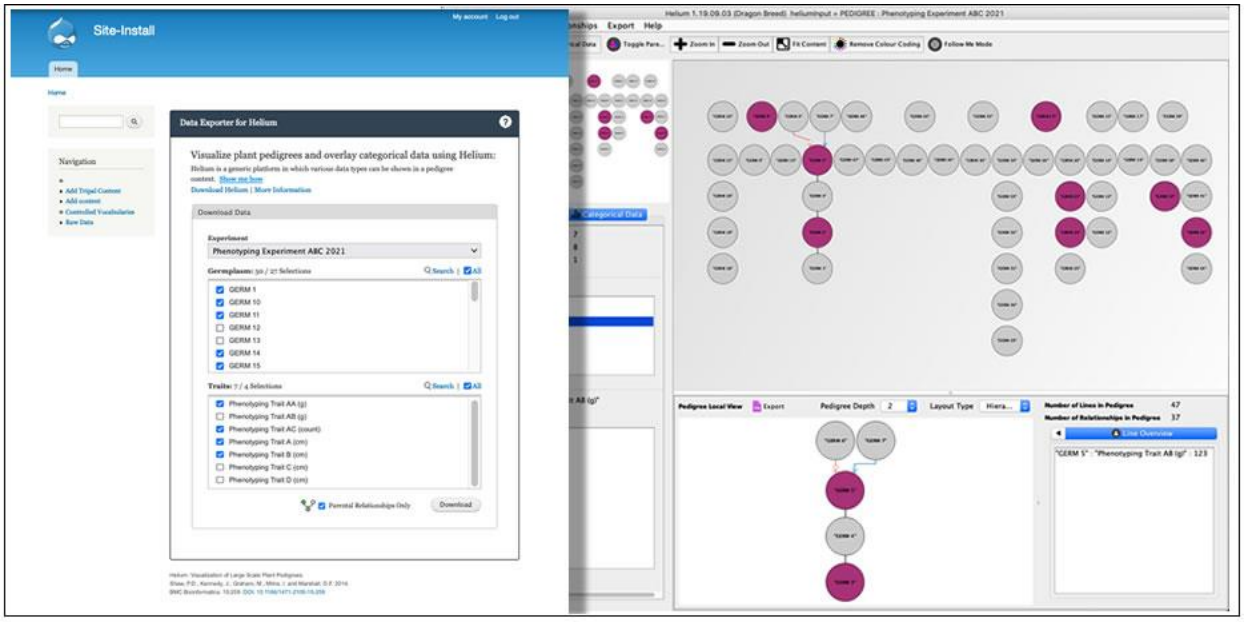


Data Exporter for Helium Pedigree Visualization Framework

Helium Exporter for Helium Pedigree Visualization Framework is custom data exporter that will transform germplasm and phenotypic data into format fully compatible with Helium Pedigree Visualization application.

Helium Pedigree Visualization Framework: Shaw, P.D., Kennedy, J., Graham, M., Milne, I. and Marshall, D.F. 2014. Helium: Visualization of Large Scale Plant Pedigrees. BMC Bioinformatics. 15:259. DOI: 10.1186/1471-2105-15-259

DEPENDENCIES

Drupal 7

Tripal 3.x

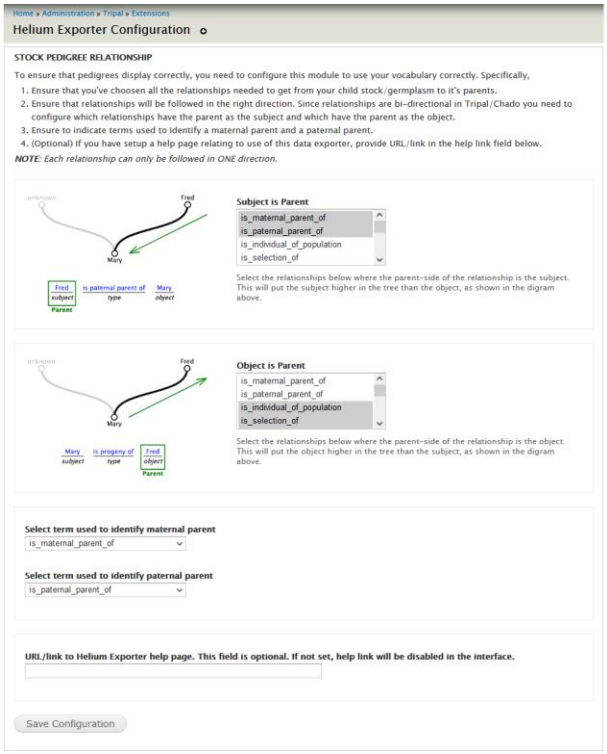
PostgresSQL 9.3

RAWPHENOTYPES MODULE

INSTALLATION

1. Install all dependencies (please note to install all dependencies directly related to RAWPHENOTEYPES MODULE)
2. Install and enable this module as you would any other Drupal Module.
3. Configure module using configuration page. Link is displayed next to the enabled module in the modules page.

CONFIGURATION



Configuration Variables

SUBJECT IS PARENT
The parent-side of the relationship is the subject

OBJECT IS PARENT
The parent-side of the relationship is the object

TERM USED TO IDENTIFY MATERNAL PARENT
Term used to indicate a germplasm is a maternal parent of another germplasm.

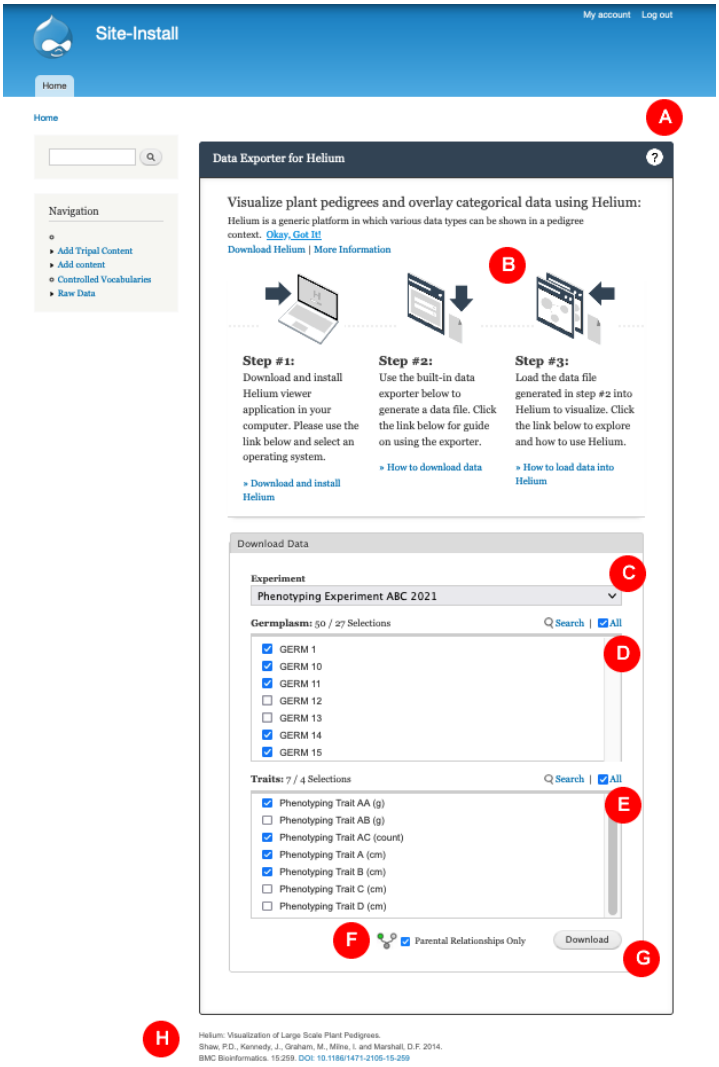
TERM USED TO IDENTIFY PATERNAL PARENT
Term used to indicate a germplasm is a paternal parent of another germplasm.

HELP PAGE URL/LINK
If a help page relating to the use of this module has been setup, this configuration field will enable help links in the interface to direct user to this help page.

Data Exporter requires vocabulary terms used to relate germplasm to one another namely, Subject is Parent, Object is Parent and Parental Relationships (to determine male and female parents) variables.

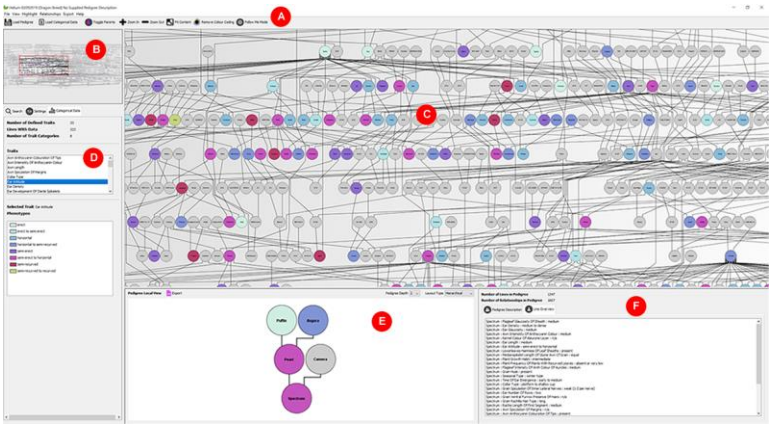
Note: A warning message is shown on both configuration page and exporter page when this module is not configured correctly.

DATA EXPORTER INTERFACE



A. Link to Data Exporter for Helium Pedigree Visualization application knowledgebase/help.
B. Graphical step by step guide showing you how to export data and setup Helium Pedigree Visualization application.
C. Experiment selector.
D. Germplasm/lines selector with search functionality.
E. Trait/categorical data selector with search functionality.
F. Parental Relationship option.
G. Submit or export button.
H. Helium Pedigree Visualization Framework citation information.

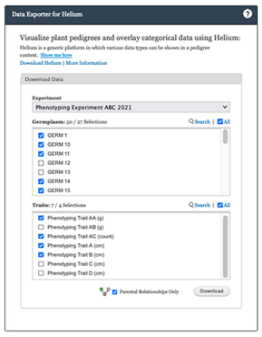
HELIUM PEDIGREE VISUALIZATION INTERFACE



https://bmcbioinformatics.biomedcentral.com/articles/10.1186/1471-2105-15-259

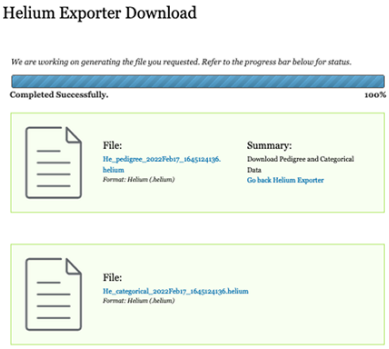
A. Control Panel – Load data file buttons are in this section.
B. Overview Panel - contains a high-level overview of the entire pedigree.
C. Main Pedigree Visualization Panel - is where most manipulations happen.
D. Data Selection Panel - contains phenotypic data that you can click and select to overlay.
E. Local View Panel - contains local view of the selected line with less clutters associated with the main pedigree.
F. Detail Panel - contains overview statistics of the selected line.

EXPORT DATA AND VISUALIZE USING HELIUM PEDIGREE VISUALIZATION

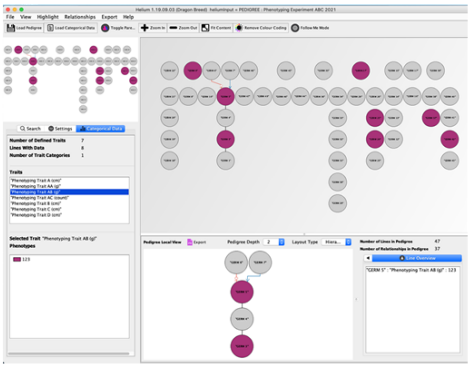


my Tripal site/helium-exporter

1 Select Experiment, Germplasm and Trait

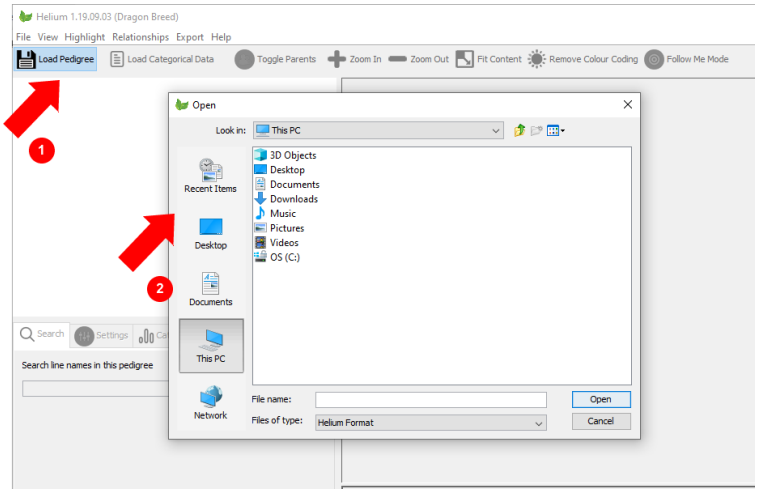


2 Download 2 .helium files - pedigree and categorical data files



3 Load pedigree and categorical data files into Helium

LOADING PEDIGREE AND CATEGORICAL DATA INTO HELIUM



1. Click Load Pedigree button or if available (enabled) Load Categorical Data button.
2. Browse and locate pedigree or categorical data file (.helium files are in downloads directory for most setup). Depending on which button was activated, Load Pedigree button expects pedigree data file and Load Category Data button expects categorical data file.
3. Helium Main Pedigree Visualization Panel will load pedigree when file has been selected.