

Chado - Getting Started

From GMOD
(Redirected from Chado)

Chado is a relational database schema that underlies many GMOD installations. It is capable of representing many of the general classes of data frequently encountered in modern biology such as sequence, sequence comparisons, phenotypes, genotypes, ontologies, publications, and phylogeny. It has been designed to handle complex representations of biological knowledge and should be considered one of the most sophisticated relational schemas currently available in molecular biology. The price of this capability is that the new user must spend some time becoming familiar with its fundamentals.

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Status

Mature release
Active
development
Active support

Resources

Introduction
Manual
Tutorial
Modules
Mailing List
(<https://lists.sourceforge.net/lists/listinfo/chado-users>)
Tagged
2008 Survey
(<http://gmod.org/wiki/Chado>)

Documentation

- Introduction to Chado
- Chado paper in Bioinformatics (<http://bioinformatics.oxfordjournals.org/cgi/content/abstract/23/13/i337?ijkey=QYeUct9uLSzefgk&keytype=ref>)
- Chado Tutorial
- Chado Manual
- FAQ for Chado
- Chado Tables
- Chado Best Practices
- Sample Chado SQL
- PostgreSQL Performance Tips

Modules

Chado is a modular schema, designed in such a way as to allow the addition of new modules for new data types. The existing modules are:

- Audit - for database audit trails
- Companalysis - for data from computational analysis
- Contact - for people, groups, and organizations
- Controlled Vocabulary (cv) - for controlled vocabularies and ontologies
- Expression - for summaries of RNA and protein expression
- General - for identifiers
- Genetic - for genetic data and genotypes
- Library - for descriptions of molecular libraries
- Mage - for microarray data
- Map - for maps without sequence
- Natural Diversity (ND) - for multiple experiments, such as phenotyping and genotyping
- Organism - for taxonomic data
- Phenotype - for phenotypic data
- Phylogeny - for organisms and phylogenetic trees
- Publication (pub) - for publications and references
- Sequence - for sequences and sequence features
- Stock - for specimens and biological collections
- WWW -

Installation

First you will need database software, or Relational Database Management System (RDBMS). The recommended RDBMS for Chado currently is Postgres (<http://www.postgresql.org/>). Postgres is free software, usually used on a Unix operating system such as Linux or Mac OS X. You can also install Postgres, and Chado, on Windows but most Chado installations are found on some version of Unix - you'll probably get the best support by choosing Unix. (See Databases and GMOD for more discussion.) Once you've installed your RDBMS you can install Chado.

Download a Stable Release of Chado

See Downloads

Chado From SVN

```
svn co https://svn.code.sf.net/p/gmod/svn/schema/trunk
```

Once the package has been downloaded `cd` to the `trunk/chado` directory.

Follow the instructions in the `INSTALL.Chado` file, including the installation of the prerequisites. Or read `INSTALL.Chado` (<http://gmod.svn.sourceforge.net/viewvc/gmod/schema/trunk/chado/INSTALL.Chado>) online.

Loading Data

After completing these steps, you can load your chado schema with data in a number of ways:

- Load RefSeq into Chado HOWTO
- Load GFF into Chado HOWTO
- Using XORT

You can also use the application Apollo to curate data in Chado.

Mailing Lists

	Mailing List Link	Description	Archive(s)
Chado	gmod-schema (https://lists.sourceforge.net/lists/listinfo/gmod-schema)	All issues regarding Chado, Chado::AutoDBI, and Bio::Chado::Schema	Gmane (http://dir.gmane.org/gmane.science.biology.gmod.schema), Nabble (2010/05+) (http://gmod.827538.n3.nabble.com/Chado-f815597.html), Sourceforge (http://sourceforge.net/mailarchive/forum.php?forum_name=gmod-schema)
	gmod-schema-cmts (https://lists.sourceforge.net/lists/listinfo/gmod-schema-cmts)	Chado code updates.	Sourceforge (http://sourceforge.net/mailarchive/forum.php?forum_name=gmod-schema-cmts)

Pronunciation

Chado is usually pronounced like this.

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Categories: Chado Modules | Chado | Database Tools | GMOD Components

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