CLC **Bioinformatics** Database

Features & Benefits

Mikael Flensborg, Director of Enterprise Solutions at CLC bio:

Our development team has focused on eliminating classic obstacles such as different operating systems, limited support for database formats, or limited access to a central storage facility. The security and management facilities in CLC bio's Bioinformatics Database can potentially help organizations stop misuse or loss of data, as well as help protect their intellectual property rights.

For Windows, Mac OS X, and Linux

clcbio.com

Features and benefits of the CLC Bioinformatics Database

CLC Bioinformatics Database is a smart and efficient way of managing sequence data in a 3-tier client/server architecture: a server containing one or more databases coupled with CLC workbenches as clients.

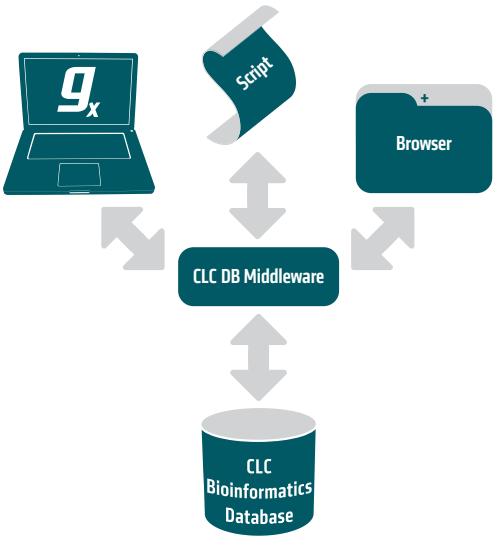
Components of the solution

- A database management system of choice; Microsoft SQL Server, Oracle, PostgreSQL, or MySQL.
- CLC Workbenches (clients) for interacting with the database.
- Thin client for administration and setup. -Upload and download of data.
- CLC Database Middleware to ensure scalability and performance.

Centralized sequence data management

In many bioinformatics organizations, the data is a virtual mess, since data is spread out on several computers in various formats and versions. Even employees' personal computers contain essential company data. The main advantages of the CLC Bioinformatics Database is centralization of data, storage, and management.
Centralized data in combination with restricted user access makes it possible to be in "control" of the data and to share information in different groups across the organization.

Centralized management of sequence data has been proven vital to increase the general knowledge level in an organization and increase productivity, thus adding more value to the business.



Powerful data mining

Data mining is becoming more and more relevant, since the amount of data in organizations is growing dramatically. The data mining features of CLC Bioinformatics Database are very fast and easy to use.

Using a GUI to search

With the special search GUI, you can build an arbitrary complicated search expression. The concept is easy to use, since the user does not need to know about technical details like "*" or "~". GUI searches can be stored in the database for later use or sharing with other users.

Metadata management

CLC Bioinformatics Database includes the option of attaching an extra layer of data to all data objects in the database, e.g. primers, reports, alignments, etc.

This extra layer of data metadata can be defined by the database users; examples could be physical location of

primers, LIMS identifier, research project ID, freezer location, etc.
Metadata management and data mining can be done through a workbench or a web interface.

Access control & privilege management

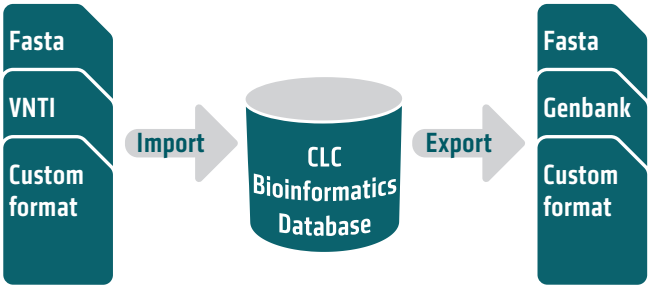
The CLC Bioinformatics Database solution includes traditional support for access permissions. Each user has a unique user name and password. Basically, users can have "no access", "read access" or "write access" to specified areas of data. From an administrative point of view this is very important, since it gives even more control of the data and of who can edit it, making it possible to plan and support bioinformatics workflows in a secure environment.
The access privilege model is based on users and user groups and privileges attached to "directories" in the database. Each user can belong to several user groups. The user directory can either be CLC Authentication Directory, LDAP or Microsoft Archive Directory.

User-friendly data structure

In the database solution, data is organized using the "Folder/File" metaphor, known from Microsoft Windows/Mac OS/Unix/Linux. This means you can make folders that contain data objects and other folders on any level in the database.

Upload & download of data

With the CLC approach of importing data to the database, it has never been easier. You simply drag a folder of data of almost any format directly from your desktop to a database "folder" in your Workbench, and that's it. Exporting data in almost any format is just as easy, thus making it easy to migrate data for other purposes.



Thin client access (web access)

CLC Bioinformatics Database can be accessed through an internet browser, giving the users full flexibility in how and when to access data. View and edit metadata attributes like freezer position, number of samples. You can also upload/download data in supported formats.

Choice of database platform

Different organizations have different platform needs, depending on type/size of the organization and department IT-infrastructure. CLC bio offers a solution for major database management systems (DBMS):
Microsoft SQL Server, Oracle, PostgreSQL and MySQL.

Customization and integration

Integrating custom database schemes can be done by implementing a plug-in in the CLC Database Middleware.
Customizations are either developed by the customer, by CLC bio, or by a team of CLC bio / customer employees.

The SOAP API

CLC Bioinformatics Database Middleware enables an Application Programming Interface (SOAP API) that makes it one of the most flexible database solutions in the market. It enables the following features that can all be implemented outside a CLC Workbench:

- Import/export of data to/from the database by creating your own client scripts or applications.
- Access and modification of any data structure and data content in the database
- Powerful data mining
- Migration of data from existing databases to CLC Bioinformatics Database
- Integration of third party technologies/tools with the database
- Metadata management

The CLC Workbenches also comes with an API (the Software Developer Kit). This ensures the option of full integration of the CLC Workbenches with existing databases.
These features can be used "command line"/scripting or directly from a program, or script making it possible to carry out batch operations and to integrate the database with almost any other system.

Contact your local sales representative or send an e-mail to sales@clcbio.com if you would like to try Bioinformatics Database.

CLC bio · Finlandsgade 10-12
Katrinebjerg · DK-8200 Aarhus N
Denmark
Phone: +45 70225509
www.clcbio.com · info@clcbio.com

CLC bio LLC · 10 Rogers St. # 101
Cambridge · MA 02142
USA
Phone: +1 617 945 0178
www.clcbio.com · info@clcbio.com

MORE INFORMATION
SCAN TO VISIT OUR WEBSITE
www.clcbio.com/barcode

1.10.2010 CLC bio