Sockeye How-to: <u>Adding New EnsEMBL Connections</u> Author: Stephen Montgomery Date: August 21th, 2003

Sockeye allows a user to connect to multiple EnsEMBL MySQL servers. By default, Sockeye connects to <u>ensembldb.ensembl.org</u> and <u>db01.bcgsc.bc.ca</u>. However, the most powerful way of connecting to data is via your own local EnsEMBL MySQL mirror. This tutorial contains step-by-step instructions to pointing Sockeye at different data sources.

- 1. Locate an EnsEMBL MySQL mirror that you want to point to. This is an EnsEMBL formatted database that is visible to your version of Sockeye. If you want to create your own EnsEMBL MySQL database, read the EnsEMBL Installation tutorial pages 4, 10, 11 and 12 (http://www.ensembl.org/Docs/EnsemblInstall_16_1.pdf).
- 2. You have two options in installing the new database. To permanently add the connection, you must edit your user_config.xml file located in your Sockeye root directory.
- 3. Find the <connection> tag

```
<connection>
<name>Ensembl (BCGSC Internal)</name>
<type>Ensembl</type>
<host>ensemb01.bcgsc.bc.ca</host>
<user>mysql</user>
<pass>mysql</pass>
<port>3308</port>
</connection>
```

- 4. Copy this tag and fill in your parameters to add a new connection.
 - 1. The **<name>** tag specifies the name of the database (this shows up in the EnsEMBL query panel). Required tag.
 - 2. The **<type>** tag specifies that we are connecting to an EnsEMBL server (use the value of "EnsEMBL" minus the quotes). Required tag.
 - 3. The **<host>** tag specifies where the MySQL server exists on the network (it can be a machine name or an IP address). Required tag.
 - 4. The **<user>** tag specifies the MySQL user name you would like to use (this needs to have read access to the EnsEMBL databases). Required tag.
 - 5. The **<pass>** tag specifies the password for the user.
 - 6. The **<port>** tag specifies the port that MySQL is running on. If not specified, it assumes that the port is 3306.

5. You should have a new tag that at a minimum looks like (except with your own values for <name>, <host> and <user>)

```
<connection>
<name>My Ensembl</name>
<type>Ensembl</type>
<host>ensembl.host.ca</host>
<user>anonymous</user>
</connection>
```

6. When you start Sockeye, this should appear in the EnsEMBL query panel. First select, Query EnsEMBL server from the Data menu



7. Then the Query EnsEMBL panel should appear with your new <connection> tag listed as an EnsEMBL server.

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	Ensembl-kak	a (EBI)		
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8. Alternately, you can set-up connections in EnsEMBL or edit current configurations on a per-session basis from the Edit->Options menu.

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9. When clicked, the options menu should appear. Select the DataSources tab.

Connections	
Ensembl	Display
	Server
	Port
	User
	Pwd
	Add Update Remove
	Test Reset defaults

10.From here, you can alter the properties of individual connections and test whether or not they are valid (using th Test button)

Connections	DataSource configuration		
Ensembl	Display Ensembl (BCGSC Internal)		
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P I Ensembl (BCGSC Internal)	Port 3306		
- D ensembl	User ensembl		
- []) ensembl - []) 3306	Pwd ensembl		
 Ensembl (BCGSC 'Coast') Ensembl (BCGSC Internal) 	Add Update Remove		
🕶 🛄 SM localnost (Ensembl)	Test Reset defaults		
💁 🛅 SM localhost (Ensembl)	Test Reset defaults		

11. If you click the Test button, this message will appear if your connection is valid.



12.To add a connection from the dialog. Simply edit an existing connection and click add.

Connections	DataSource configuration		
Ensembl	Display New Server		
👁 🛄 Ensembl-kaka (EBI) 👁 📑 My Ensembl	Server ensemb01.bcgsc.bc.ca		
Ensembl (BCGSC Internal) Ensembl (BCGSC 'Coast')	Port 3306		
🗣 📑 Ensembl (BCGSC Internal) 👁 🗂 SM Jocalhost (Ensembl)	User ensembl		
• C New Server	Pwd ensembl		
	Add Update Remove		
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13. The new server should appear in the Query Ensembl Server dialog. Congratulations!

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	Ensembl-kaka (EBI)	
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	Ensembl (BCGSC Internal)	
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