

BATTLEFIELD
1942

SELECT(bf)

A Battlefield 1942 & Vietnam XML log parser and statistics generator

Installation Documentation

BATTLEFIELD
VIETNAM

0

Copyright & License

select(bf) is published under the conditions of the General Public License (GPL). Therefore this program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

select(bf) makes use of some other projects that are believed to be freely available. They are either packed with select(bf) as a library or integrated with the code.

There to mention:

- Connector/J available under GPL (<http://www.mysql.com/>)
- JDOM available under Apache-style open source license (<http://www.jdom.org/>)
- JZLIB available under GPL (<http://www.jcraft.com/jzlib/>)
- Jakarta Commons/Net available under Apache Software License, Version 1.3 (<http://jakarta.apache.org>)
- Jakarta Commons/ORO available under Apache Software License, Version 2.0.8 (<http://jakarta.apache.org>)
- vLib Template (<http://vlib.activefish.com> [Dunno where that page has gone])
- jpcache v2 for PHP available under GPL (<http://www.jpcache.com/>)

Please see the appendix for license information regarding the above products!

NOTICE: No license harm is intended with select(bf) so, if you don't agree with how select(bf) does things, please contact tim@s-h-i-n-y.com.



Preface

This document is written by a user, for users. I don't profess to be an expert in every operating system, nor every version of MySQL, nor every version of PHP, or any version of Java. It is an attempt at trying to explain the way select(bf) works, the requirements to run it, and how it has successfully been set up.

This document also assumes that you have a working knowledge of how to setup and configure your Battlefield server, your web server, and your FTP server (if you need it depending on your installation). To include all that extra setup and configuration information would turn this document into more of a novel than it is already. ☺ Though setup and configuration hints may be given along the way to help out a little.

If you have problems that are outside the scope of this document the best place to ask questions is on the select(bf) forums at <http://www.selectbf.org/forum>. Heck even if you don't have problems you may want to try and stay active in the forums and help out other users.

This is open-source software, distributed under the conditions of the General Public License (GPL), and as such depends on community involvement to help the software mature and build a strong support base. The changes you'd like to see are probably changes that others would like to see too, so mention it in the forums and it may be incorporated into future releases! As well if you wish to contribute code to select(bf) the forums are the best place to do that.

2

Architecture

select(bf) has three major components. Figure 2-1 shows how these components are arranged in order for select(bf) to function.

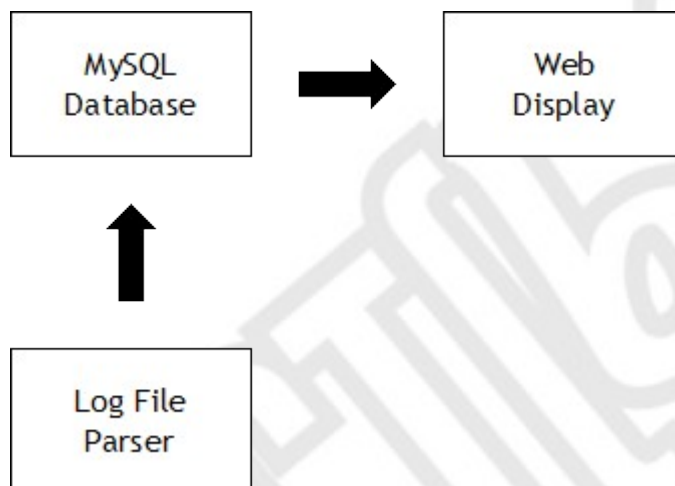


Figure 2-1: select(bf) components

1. The parser component.

This component does most of the work in select(bf). The job of the parser is to download (if required) the XML log files generated by your Battlefield server, then examine those log files and save statistical information about events that took place in the game(s) to a database. Finally (if configured to do so) the parser will archive or delete the log files that it has examined.

2. The database component.

The job of the database is to hold all the statistical information that the parser extracts from the XML log files generated by your Battlefield server.

3. The web displaying component.

This component does the second most amount of work in select(bf) and it is the only component that is visible by the public. The job of the web displaying component is to display the statistical information stored in the database to people that visit your web site.

The way select(bf) works is that the parser downloads (if required) and examines the XML log files that are generated by your Battlefield server. The parser then stores information about players and events that occurred in the Battlefield game in the database. This information is then available to be viewed by visitors to your web site. Visitors have the ability to “drill-down” and get more details about players, rounds, vehicles, weapons and a slew of other details just by clicking on any of the links on the web page. select(bf) provides a great way for you to offer a tracking and ranking service to players on your Battlefield server. Nothing like a stats to generate healthy competition between your players to see who will be first.

3

Requirements

This documentation will not show you how to install all the required software, but it will run you through how to check to see if you have it installed and where it can be obtained if you don't.

The requirements for select(bf) are:

- J2SE Java Runtime Environment (JRE) v1.4 (or higher)

The parser is written in Java, so the JRE is required to run it's code.

The JRE is freely available from Sun at <http://java.sun.com>. Be sure to download the entire offline installation package. The online installation one is a bit sketchy. You can also download the Java SDK v1.4 or higher as it also contains the JRE.

You may already have the JRE installed. To check and see do the following,

Windows	Linux
<p>Open a Command Prompt and type,</p> <pre>java -version</pre> <p>If the JRE is installed you should see something displayed similar to that shown below,</p> <pre>java version "1.5.0_02"</pre> <pre>Java(TM) 2 Runtime Environment, Standard Edition (build 1.5.0_02-b09)</pre> <pre>Java HotSpot(TM) Client VM (build 1.5.0_02-b09, mixed mode, sharing)</pre> <p>If the JRE is not installed you should see an error displayed similar to that shown below.</p> <pre>'java' is not recognized as an internal or external command, operable program or batch file.</pre>	<p>Open a shell and type,</p> <pre>rpm -qa grep j2re</pre> <p>If the JRE is installed you should see something displayed similar to that shown below,</p> <pre>j2re-1.4.2_07-fcs</pre> <p>If the JRE is not installed you will not see anything returned by the locate command and you will be presented with another shell prompt.</p>

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

- A functioning web server with PHP v4.3.2 (or higher) installed

The web displaying components are written in PHP so the PHP interpreter is required on your web server for those web pages to display your Battlefield server statistics. PHP is known to function with both IIS (Windows) and Apache (Windows & Linux).



The web server needs to be configured to run PHP in CGI mode.

Windows users of PHP v4 make sure that your `php.ini` `doc_root` variable is commented out (put a `;` at the beginning of the line) and also that `cgi.force_redirect = 0` and `error_reporting = E_ERROR`.

Windows installation files for PHP are freely available from the PHP web page at <http://www.php.net>. For Linux users you have a choice of downloading the source code from the PHP web site and compiling your own PHP, using a PHP binary installation package that came with your Linux distribution, or downloading a binary installation package from the RPMfind.net web site at <http://rpmfind.net/linux/rpm2html/search.php?query=php>.

You may already have PHP installed on your web server. If you're running other applications on your web server like PHP-Nuke or phpBB these have a requirement for PHP also and so would already have PHP installed.

To check and see if you already have PHP installed you can do the following,

Windows	Linux
<p>On your web server open a Command Prompt and type,</p> <pre>php --version</pre> <p>If PHP is installed you should see something displayed similar to that shown below,</p> <pre>PHP 4.3.10 (cgi-fcgi) (built: Dec 14 2004 17:47:59) Copyright (c) 1997-2004 The PHP Group Zend Engine v1.3.0, Copyright (c) 1998-2004 Zend Technologies</pre> <p>If PHP is not installed you should see an error displayed similar to that shown below.</p> <pre>'php' is not recognized as an internal or external command, operable program or batch file.</pre>	<p>On your web server open a shell and type,</p> <pre>php --version</pre> <p>If PHP is installed you should see something displayed similar to that shown below,</p> <pre>PHP 4.3.10 (cgi) (built: Dec 21 2004 10:27:48) Copyright (c) 1997-2004 The PHP Group Zend Engine v1.3.0, Copyright (c) 1998-2004 Zend Technologies</pre> <p>If PHP is not installed you should see an error displayed similar to that shown below.</p> <pre>-bash: php: command not found</pre>



Windows users of PHP v5 should note that the MySQL extension is not enabled by default. They need to be enabled before select(bf) will work properly. Refer to the PHP installation documentation for how to do this.

- A functioning MySQL database server

The database is the place that all information about the players on your server is stored. Pretty much any version of MySQL should work for this. It's been verified to run on versions as low as 3.32.58.

Installation files for MySQL are freely available from the MySQL web page at <http://dev.mysql.com>. For Linux users you have a choice of downloading the binaries from the MySQL web site, using a MySQL binary installation package that came with your Linux distribution, or downloading a binary installation package from the RPMfind.net web site at <http://rpmfind.net/linux/rpm2html/search.php?query=mysql>.

You may already have MySQL installed on your web server. If you're running other applications on your web server like PHP-Nuke or phpBB these have a requirement for MySQL also and so would already have MySQL installed.

To check and see if you already have MySQL installed you can do the following,

Windows	Linux
<p>The easiest way to check is on your web server open the Control Panel and double-click on the Add/Remove Programs applet.</p> <p>If MySQL is installed you should see MySQL listed in the installed programs.</p> <p>If MySQL is not installed you will not see MySQL listed in the installed programs.</p>	<p>On your web server open a shell and type,</p> <pre>mysql --version</pre> <p>If MySQL is installed you should see something displayed similar to that shown below,</p> <pre>mysql Ver 11.18 Distrib 3.23.58, for redhat-linux-gnu (i386)</pre> <p>If PHP is not installed you should see an error displayed similar to that shown below.</p> <pre>-bash: mysql: command not found</pre>

- A functioning Battlefield server

It kind of goes without saying that you need a Battlefield server, and you probably already have it installed. **Make sure that you have your Battlefield server's game event logging enabled.**

Windows users can download the dedicated Battlefield 1942 server directly from the EA website at <http://www.eagames.com/official/battlefield/1942/us/home.jsp>, and a dedicated Battlefield Vietnam server directly from the EA website at <http://www.eagames.com/official/battlefield/vietnam/us/home.jsp>.

Linux users can download the dedicated Battlefield 1942 and Battlefield Vietnam server from the Battlefield Dedicate Server Forum at <http://bf1942.lightcubed.com>.

4

Installation

When it comes to installation you need to evaluate the environment that you are installing into. Typically there are two types of installation. Single-server, and dual-server. A single-server environment is where your Battlefield server and Web server are running on the same machine, and dual-server environment is when your Battlefield server and Web server are running on different machines. Figures 4-1 and 4-2 below illustrate these environments.

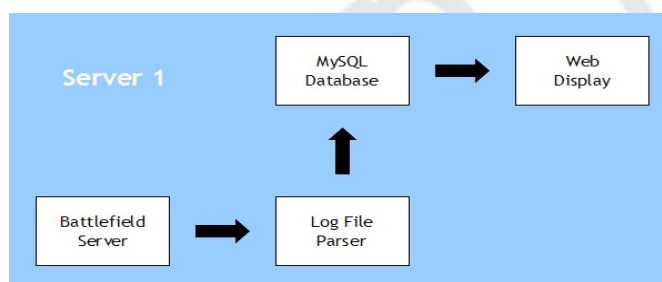


Figure 4-1: Single-server Environment

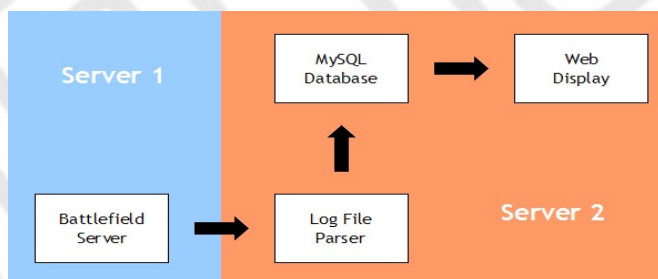


Figure 4-2: Dual-server Environment



In the dual-server environment the machine that the Battlefield server is running on will be required to have an FTP server configured so that the parser can download the XML log files to examine them. Other than this additional requirement for the dual-server environment the installation of select(bf) is the same for both environments.

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

But because of the modularity of select(bf) there are a multitude of alternate installation options. Each of the select(bf) components could be installed onto different servers if you wish. Below are some other environments that select(bf) could be installed into,

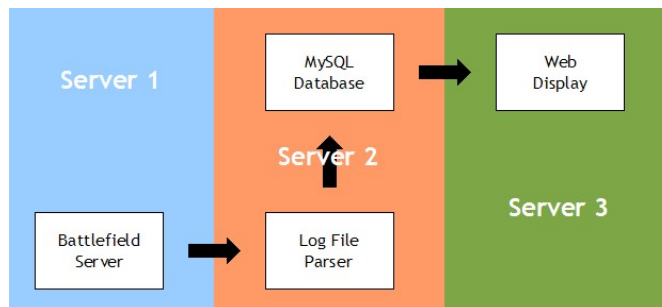


Figure 4-3: Three-Server Environment

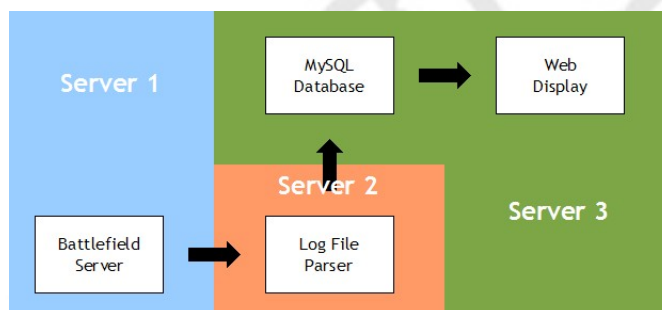


Figure 4-4: Alternate Three-Server Environment

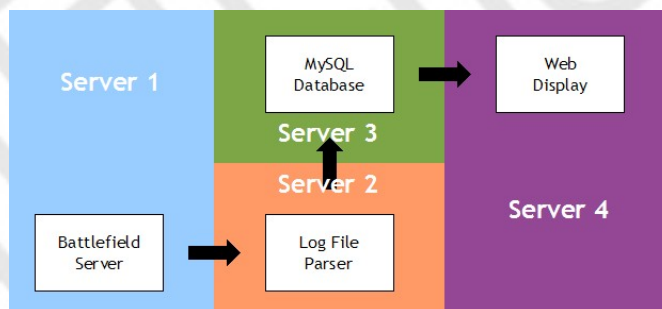


Figure 4-5: Four-Server Environment

You can slice and dice the installation any which way you like. But because three-server and four-server installation environments are pretty unlikely there won't be a lot of time spent detailing their installation. Single-server and dual-server environments are probably the most common so this document will only try to cover the installation of those two environments.

The installation of select(bf) is pretty much the same regardless of operating system, but because the file system syntax and scheduling is different between Windows and Linux it has been broken into two separate sections, one for Windows and one for Linux.

4.1

Windows Installation



The Windows installation will assume that you have a functioning installation of all the required software. It has been tested on Windows Server 2003, but it should also work on Windows 2000 Server and Windows XP (if that's what your server is using as it's operating system).

1. Download the select(bf)-0.5test.zip installation archive from the select(bf) website at <http://www.selectbf.org> to a temporary directory.
2. Unzip select(bf) to a directory where you'd like the software installed. This directory should not be accessible by your web server. For reference purposes in this document we'll use an installation path of C:\Program Files\SelectBF.
3. Create an empty database for select(bf) to use. For reference purposes in this document we'll create a database call `selectbf`. To create the database use the `mysql` command line utility. This utility should be in the bin directory of where your MySQL server is installed, or accessed through Start -> All Programs -> MySQL. Once you have the command line utility opened type,

```
CREATE DATABASE selectbf;
```

You can replace `selectbf` with the name that you would like to call your database.

4. Then we need to create a user to access to select(bf) empty database and assign permissions to that user. This can be done with the `mysql` command line utility and typing,

```
GRANT ALL PRIVILEGES ON selectbf.* TO 'selectbfu'@'winserver';
```

But replace the `selectbf` with the database you created and `selectbfu` with the user you created. This user does not need to have an account to log into the system with. It is just a database account.

5. Then assign a password to the user. For reference purposes the password we will use is `sbfpass`. The password can be set using the `mysql` command line utility and typing,

For MySQL v3

```
SET PASSWORD FOR 'selectbfu'@'winserver' = PASSWORD('sbfpass');
```

For MySQL v4

```
SET PASSWORD FOR 'selectbfu'@'winserver' = OLD_PASSWORD('sbfpass');
```

You can replace the `selectbfu` with the user you created previously, `winserver` with the hostname of your database server, and `sbfpass` with whatever password you wish.

6. Now edit your bin\config.xml file referring to the information below for the configuration file directives. The bin\config.xml file is the configuration file for the parser. Be sure not to mess up the XML structure or the parser will not be able to read it.

DATABASE CONFIGURATION

```
<database user="selectbfu" password="sbfpas" database="selectbf"
port="3306">winserver</database>
```

But be sure to replace the `selectbfu` to the database user you created, `sbfpas` to the password you set for that user, and `selectbf` to the database you created. The default TCP port for MySQL is 3306 so it should be fine to leave the port number alone. Then make sure to change `winserver` to the actual name of your machine where your database is stored. There have been issues with leaving it set to the default `localhost`, so I recommend you change it to your servers name.

FILE MANAGEMENT

Below are the tags that you can use to tune how select(bf) handles your Battlefield server XML log files.

Tag	Options	Description
<after-parsing>	remain	Will cause the XML logs generated by your Battlefield server to remain where they are after the parser has examined them.
	rename	Will cause the XML logs generated by your Battlefield server to have ".parsed" added to the end of their filenames.
	delete	Will cause the XML logs generated by your Battlefield server to be deleted after the parser has examined them.
	archive	Will cause the XML logs generated by your Battlefield server to be moved to another directory (as set by the <archive-folder> tag) after the parser has examined them.
<archive-folder>	\dir	The directory location (on the web server that the XML log files will be moved to if the <after-parsing> tag is set to archive.
<after-download>	remain	Will cause the XML log files generated by your Battlefield server to remain where they are after the parser has downloaded them via FTP.
	rename	Will cause the XML log files generated by your Battlefield server to have ".downloaded" added to the their filenames after the parser has downloaded them via FTP. This will require special permissions set on your FTP server for the account the parser uses to download the XML log files.
	delete	Will cause the XML log files generated by your Battlefield server to be deleted after the parser has downloaded them via FTP. This will require special permissions set on your FTP server for the account the parser uses to download the XML log files.
<delete-decompressed-xml-files>	true	Will cause the files that were extracted from the compressed XML log file (.xmls) generated by your Battlefield server to be deleted after the parser has examined them.

Tag	Options	Description
	false	Will cause the files that were extracted from the compressed XML log file (.zxmls) generated by your Battlefield server to remain after the parser has examined them.
<rename-at-error>	true	Will cause ".error" to be added to the filenames of the XML log files generated by your Battlefield server which the parser considers to have errors.
	false	The opposite of above. For XML log files generated by your Battlefield server which the parser considers to have errors, they will not be renamed.

DATA MANAGEMENT

Below are the tag that you can use to help tune select(bf)'s handling of the information in extracts from your Battlefield server XML log files and the information it stores in the database.

Tag	Options	Description
<log-bots>	true	Will cause select(bf) to keep stats on bots as well. But be aware, select(bf) only logs bots if they have a createPlayer event in the servers XML log files, which is not the case at the moment, at least with a vanilla Battlefield 1942 installation. This option came in with the tracking down of changing Player-IDs during a round.
<log-bots>	false	Will cause bot statistics to not be tracked by select(bf).
<trim-database-days="#" keep-players="?">	false	Will cause select(bf) not to trim the database at the end of parsing, keeping all information in the database intact.
	true	Will cause select(bf) to trim the database and keep only # days of information. Replace # with the number of days to keep in the database. Setting ? to true will keep player information even if they haven't played within the trimmed database time, setting ? to false will cause players to be removed that haven't played since the database trim time.



If you plan to keep the database trimmed to a certain amount of days it's highly recommended that you reset your stats first, then choose a very small interval for adding new logs. Deleting information from the database can be as time consuming as adding information to it. So if there many games in the database it could take a long time.

<skip-empty-rounds>	true	Will cause select(bf) to not import the logs of empty rounds.
	false	Will cause select(bf) to import all rounds, including empty ones.

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Tag	Options	Description
<lan-mode>	true	Will cause select(bf) to track players by their nickname.
	false	Will cause select(bf) to track players by their CD-KEY



Don't mix both modes, it can get sketchy!

OTHER STUFF

Below are the tags that will help in tuning the select(bf) parser optional features.

Tag	Options	Description
<consistency-check>	true	Will enable the select(bf) consistency checker which will check your Battlefield server XML log files for problems with the XML structure. It will modify your Battlefield server XML log files and add comments to them so that you can find the problems if you wish to try and correct them manually. Using the consistency check will cause the parser to take a little more time than if it were disabled.
	false	Will disable the select(bf) consistency checker.
<memory-safer>	true	Will cause select(bf) to clear up unused allocated memory after every file. This will cause the parser to take a little longer.
	false	Will disable the memory saving feature. Select(bf) will keep all it's allocated memory until the parser has finished examining all log files and terminates.

LOG SOURCES

All log sources are contained within the <log></log> tags. Below are the tags you can use to specify where the parser can find your Battlefield server XML log files.

Tag	Options	Description
<dir live="?">	\dir	Will cause select(bf) to examine the specified \dir for your Battlefield server XML log files. The \dir must reside on the same machine that that parser is running on! Setting the ? to true will cause select(bf) to consider the directory is for a "live" server and will assume that the most recent XML log file is still being written to by the server and so the parser will ignore it until the Battlefield server is finished writing to it. Setting the ? to false will cause select(bf) to parse all available log files. Be careful that your Battlefield server isn't actively logging to the directory otherwise you could have problems.

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Tag	Options	Description
<pre><ftp host="ftpserver" " port="21" user="ftpuser" password="ftppa ss" live="?"></pre>	<code>/dir</code>	Will cause select(bf) to connect to your Battlefield server and download the XML log files from the specified <code>/dir</code> using FTP. The <code>/dir</code> is a directory on your FTP server which points to your Battlefield server XML logs files. This directory is also relative to your user's starting directory when they connect through FTP. Set the <code>ftpserver</code> to the hostname or IP address of your FTP server, which is probably the same hostname or IP address of your Battlefield server itself. The default port for FTP is 21, so unless you're changing the port that your FTP server is running on you can leave it alone. Change the <code>ftpuser</code> to the user name you've configured on your FTP server to access your Battlefield server XML log file directory. Change the <code>ftppass</code> to the password that you've set on your FTP server to access your Battlefield XML log file directory. Setting the <code>?</code> to <code>true</code> will cause select(bf) to consider the directory is for a "live" server and will assume that the most recent XML log file is still being written to by the server and so the parser will ignore it until the Battlefield server is finished writing to it. Setting the <code>?</code> to <code>false</code> will cause select(bf) to parse all available log files. Be careful that your Battlefield server isn't actively logging to the directory otherwise you could have problems.

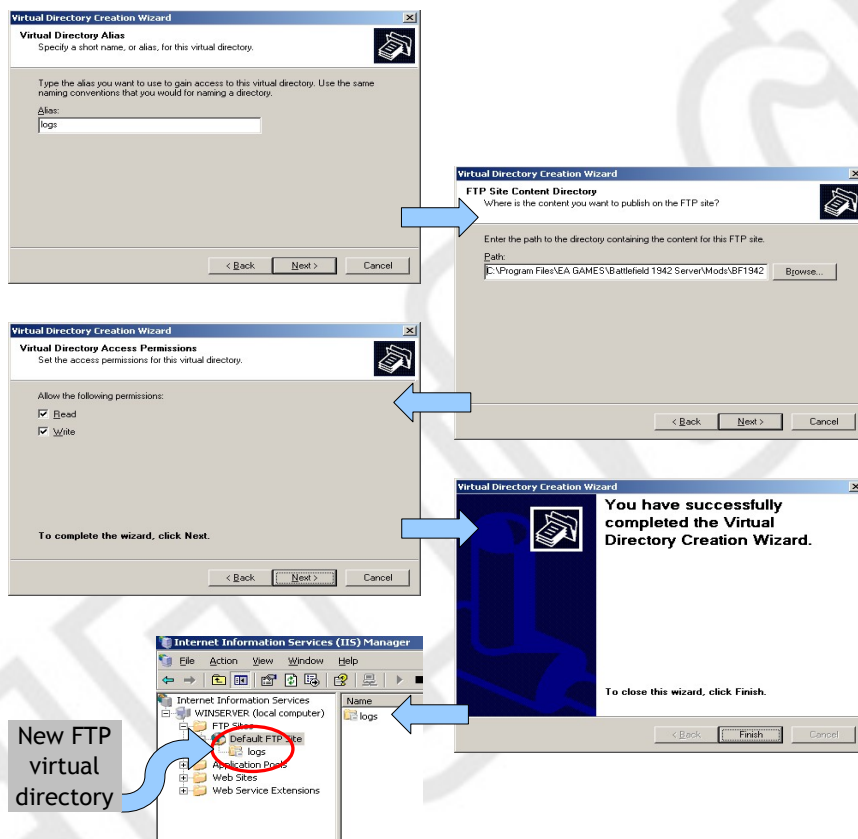


You can add `<dir>` and `<ftp>` tags for every location that you need to gather log files from.

When downloading Battlefield XML log files with FTP you need to make sure that the user account that you have setup has the correct privileges to be able to read and write to directory location that your log files are in. This permission has to be granted in both your FTP server software and on the file system of the Battlefield server.

IIS FTP Helpful Hints

If you're using the IIS FTP server, an easy way to setup the FTP directory would be to make a Virtual Directory called logs and then set the path to the actual path to your Battlefield server XML log files. The process is show below,



Then /logs will be the path that you would use in your <ftp> tag.

Also make sure that you've disabled anonymous access to your FTP server and create an account for select(bf) to use. If you don't it's a quick way to become a warez server!

7. Edit your php\include\sql_setting.php file and only adjust the following values:

```
$SQL_host = "winserver";
```

Replace winserver with the IP address or hostname of your database server.

```
$SQL_user = "selectbfu";
```

Replace selectbfu with the user name that you secured your select(bf) database with.

```
$SQL_datenbank = "selectbf";
```

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Replace `selectbf` with the name of the database you created to store the select(bf) information.

```
$SQL_password = "sbfpas";
```

Replace `sbfpas` with the password that you used for the database user to access the select(bf) database.

8. Edit your `php\include\jpcache\jpcache.php` file and adjust the following value:

```
$includedir = "c:/program files/selectbf/php/include/jpcache";
```

Replace `c:/program files/selectbf/php/include/jpcache` with the directory that JPCache is actually located.



Notice the slashes are forward slashes (/) and not back slashes (\) for the directory path.

9. Create a temporary caching directory for JPCache. You may want to make this a subdirectory of your `php\include\jpcache` directory. For reference purposes in this document we'll create a directory called `cache` in the `php\include\jpcache` directory.
10. Edit your `php\include\jpcache\jpcache-config.php` file and make sure that the line `$JPCACHE_TYPE = "file";` is uncommented by removing the leading double slashes (//) if they are there. Also make sure that the `$JPCACHE_DIR` value is set to the directory that we just created. Your `$JPCACHE_DIR` value should look similar to,

```
$JPCACHE_DIR = "c:/program files/selectbf/php/include/jpcache/cache";
```

Replace the `c:/program files/selectbf/php/include/jpcache/cache` with the directory that you created.



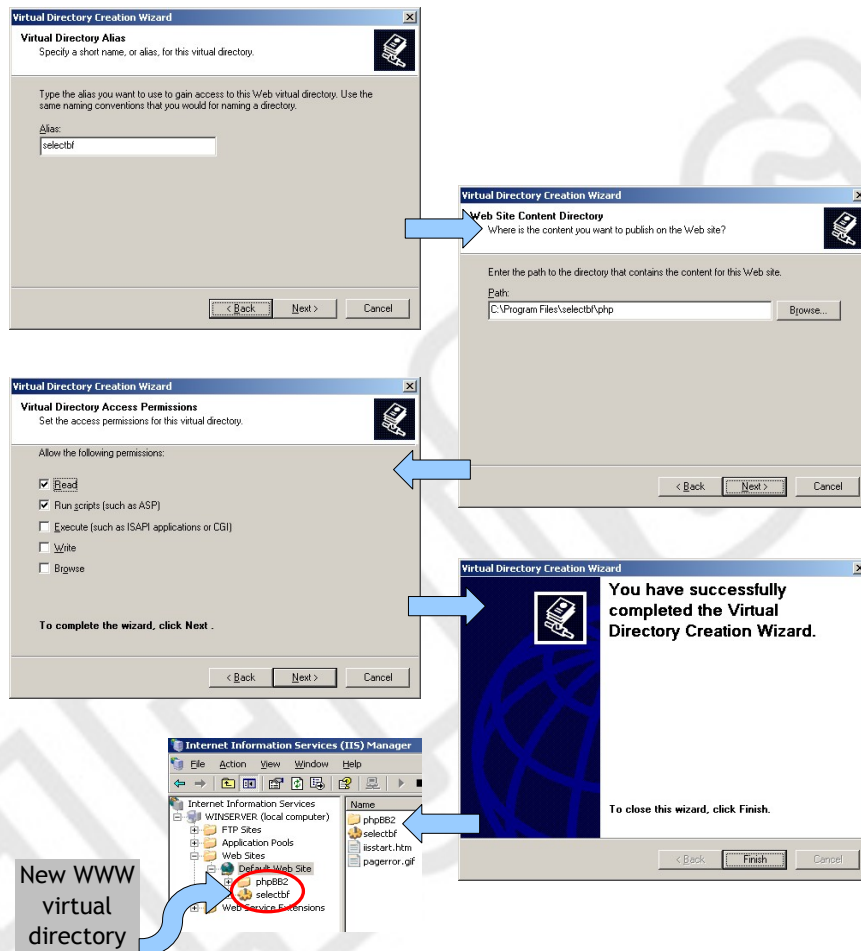
Notice the slashes are forward slashes (/) and not back slashes (\) for the directory path.

11. Copy the `php` directory to a subdirectory of your web server root. For example you could copy the `php` directory to `C:\inetpub\wwwroot\selectbf` if you IIS document root for your web server is `C:\inetpub\wwwroot`.

Optionally, instead of copying the `php` directory to your document root you can create a virtual directory on your web server which points to the select(bf) `php` directory.

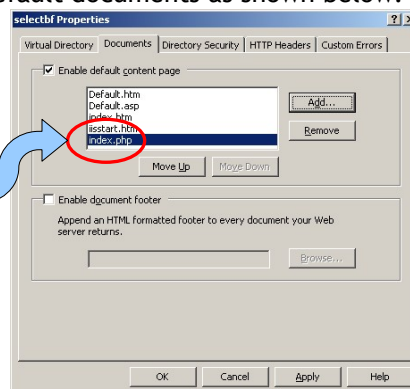
IIS WWW Helpful Hints

IIS users can create a virtual directory to the select(bf) php directory as shown below,



Once the virtual directory is created, you need to make sure that IIS will attempt to load index.php if no file is specified in the requested URL. This is done by right-clicking on the virtual directory you created and select the Properties option. Click on the Documents tab and add index.php to the list of default documents as shown below.

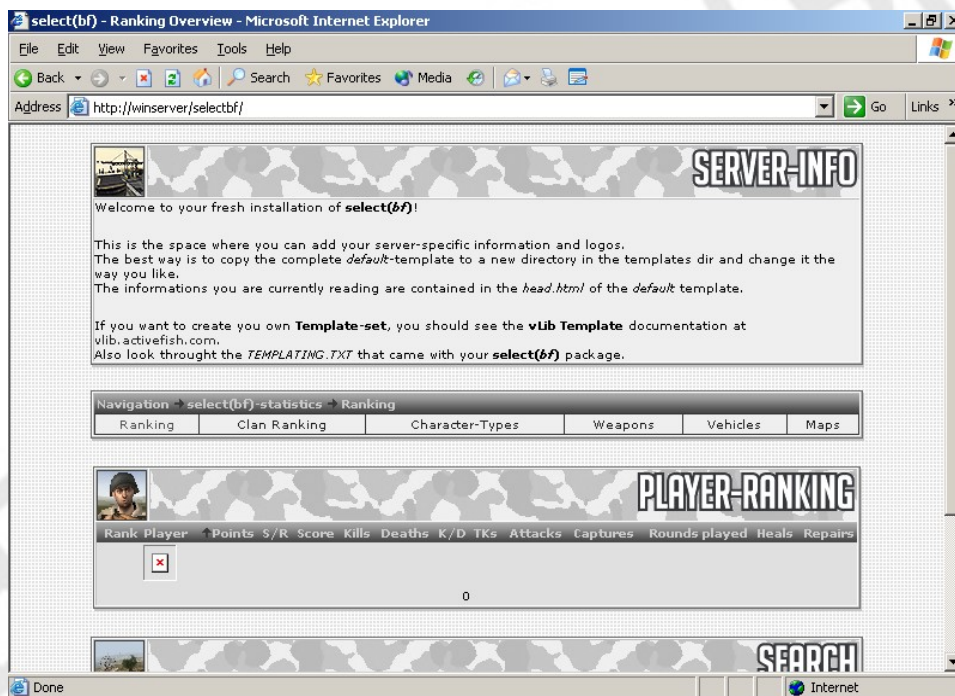
Adding the index.php file as a default document



SELECT(bf) Installation Documentation

<http://www.selectbf.org>

12. Open your web browser and point it to http://winserver/selectbf/_setup.php, but change the `winserver` with the hostname of your web server, and `selectbf` with the directory that you just put the `select(bf)` php files in under your web server document root.
13. Choose a desired admin password and type it into the fields that are shown on the `_setup.php` page. This password will be how you can access the Admin-Mode of `select(bf)`.
14. Click on the “install datamodel” button to create all the MySQL tables that are needed by `select(bf)`. The “remove the datamodel” button is used to delete all the MySQL information and tables that are in the `select(bf)` database, which is probably something you don't want to click on since you're just installing `select(bf)` right?
15. Once the tables are created if you click on the “Please, klick here to continue to your stats!” you should see an empty `select(bf)` stats page, as shown below,



And yes, the broken image link just below the “Rank Player” column is normal.

16. For security reasons, remove the `_setup.php` file from your web server so that people from the Internet don't try to run it and erase your database on you!
17. Assuming you have Battlefield XML log files already waiting to be processed, it's time to run the parser. This can be done by opening a Command Prompt, changing to your `select(bf)` bin directory and type `run-selectbf.bat`. You should see something returned similar to what is shown on the next page.

select(bf) Installation Documentation

<http://www.selectbf.org>

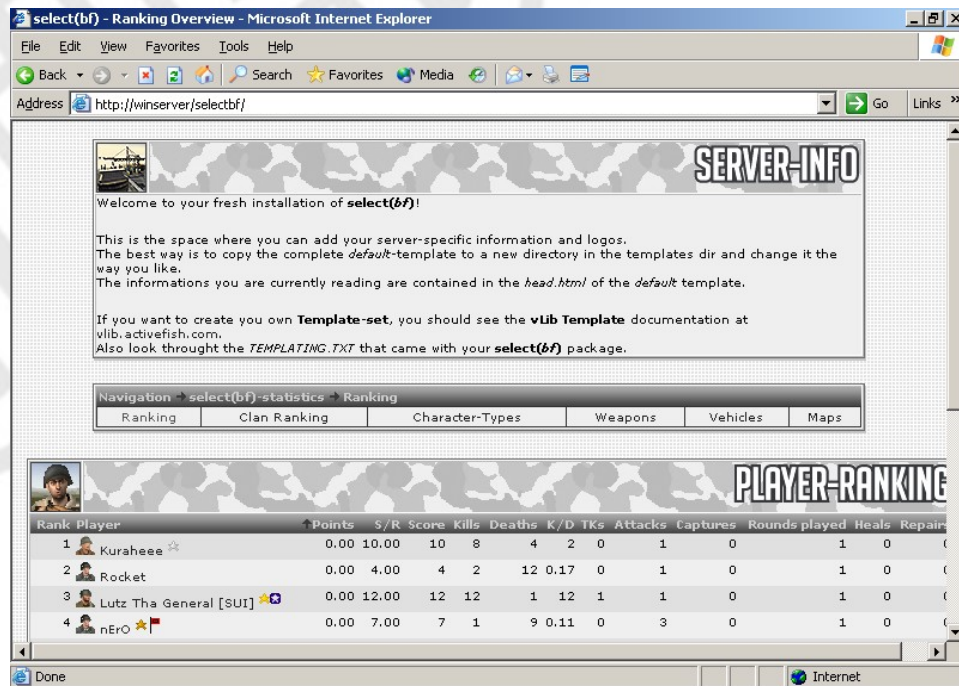
```

C:\Program Files\selectbf\bin>run-selectbf.bat

C:\Program Files\selectbf\bin>java -cp .\selectbf.jar;..\lib\commons-net-1.3.0.jar;..\lib\mysql-connector-java-3.1.7-bin.jar;..\lib\jdom.jar; org.selectbf.Selectbf

select(bf) 0.5 - A Battlefield XML Log File Parser
-----
Copyright (C) 2005 Tim Adler
Published under GPL http://www.gnu.org/licenses/gpl.txt
This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY
without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.
Available at http://www.selectbf.org
-----
Using Database-Config as follows:
selectbf@winserver:3306
User: selectbfu Password:sbfpas
-----
Logs-Directory: c:\program files\ea games\battlefield 1942 server\mods\bf1942\logs
-> processing File 'ev_14568-20050322_1349.xml' <1/1> FINISHED
-----
DONE-----
-----PRECACHING DATA-----
Please wait this takes a while
-> Caching 'Character-Type Usage' FINISHED <14.009 sec>
-> Caching 'Vehicle Usage' FINISHED <0.03 sec>
-> Caching 'Weapon Kills' FINISHED <0.04 sec>
-> Caching 'Player Ranking' FINISHED <0.08 sec>
-> Caching 'Map Statistics' FINISHED <0.03 sec>
-----
Process FINISHED
Thx for using select(bf)?
-----
C:\Program Files\selectbf\bin>
```

Assuming everything ran without any problems and you revisit your select(bf) stats web page you should see information in there similar to the one shown below.



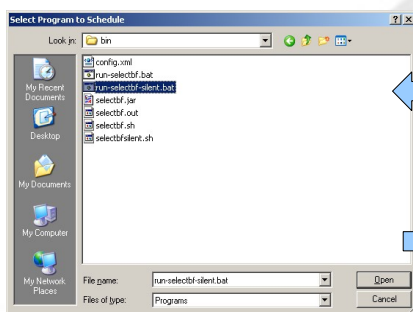
18. Now it's time to schedule the `run-selectbf-silent.bat` batch file to run automatically (unless of course you want to manually run `run-selectbf.bat` all the time). This can be done by clicking on your "Start" button, then highlight the "Control Panel" option, then highlight the "Scheduled Tasks" option, then highlight and click on the "Add Scheduled Task" option. The follow the screens below to add the new task,



Click on the Next button.



Click on the Browse button.



Choose the `run-selectbf-silent.bat` batch file.



Type in a task name and set it to perform the task Daily.



Set the Start time to midnight (12:00AM), have the task repeat Every Day and set the Start date to today.

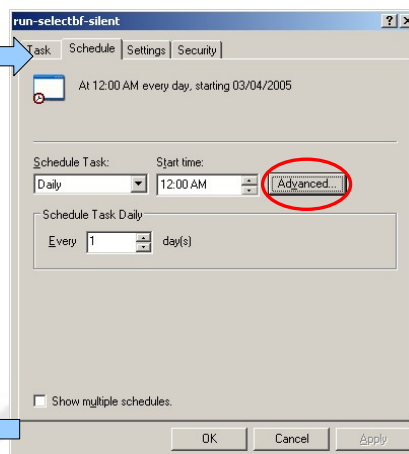


Set the user name and password for the scheduled task to use.

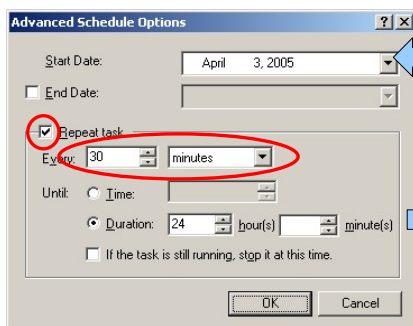
Continued on next page



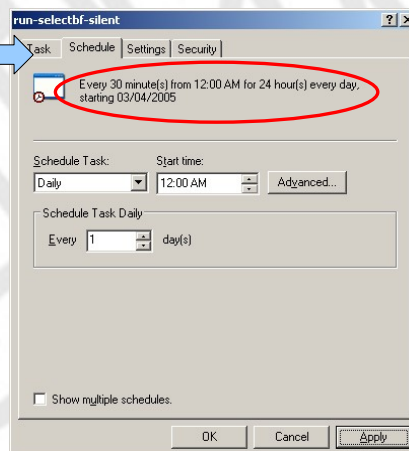
Make sure to put a check mark in "Open advanced properties..."



Click on the Schedule tab and then the Advanced button.



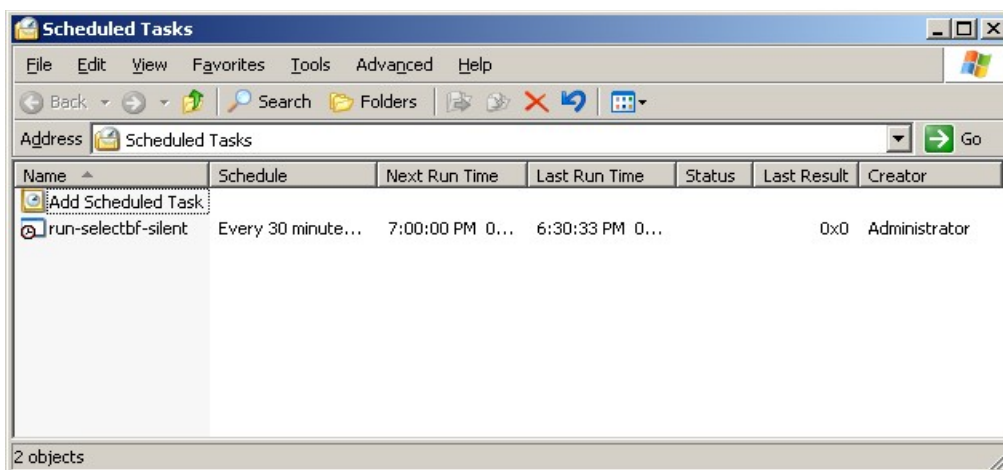
Put a check mark in the "Repeat task" box. Repeat the task every 30 minutes, or at whatever rate you want. Then set the duration to 24 hours since we're repeating the task daily.



Notice the task description has changed. Click OK and the task will be scheduled.

I would recommend a short interval (between 10 - 30 minutes) because if there is nothing to parse (because you've renamed or moved your already parsed entries right???) the parser will end immediately. But if there is something to parse, with a short interval between parse runs the stats will show up on your web server quicker.

19. To check to see if your new Scheduled Task works, open your Scheduled Tasks applet in the Control Panel and when your `run-selectbf-silent` task runs successfully you should see a Last Result of `0x0`, as shown below.



- If your Last Result is not `0x0` check your Windows Event Log to see what the problem is.
20. That's it! Now point your browser to <http://winserver/selectbf>, but change the `winserver` with the hostname of your web server, and `selectbf` with the directory that you just put the `select(bf)` php files. With your Battlefield server generating log files and your scheduled `select(bf)` parser examining them and updating your database, the stats on your web page will update automatically.

4.2

Linux Installation



The Linux installation will assume that you have a functioning installation of all the required software. It has been tested on the Fedora Core 2 and Fedora Core 3 distributions, but the reference system used in this documentation is Fedora Core 3.

1. Download the select(bf)-0.5test.zip installation archive from the select(bf) website at <http://www.selectbf.org> to a temporary directory.
2. Unzip select(bf) to a directory where you'd like the software installed. This directory should not be accessible by your web server. For reference purposes in this document we'll use an installation path of `/games/selectbf`.
3. Create an empty database for select(bf) to use. For reference purposes in this document we'll create a database call `selectbf`. To create the database use the `mysql` command line utility. This utility should be in your path, or accessed from `/usr/bin/mysql`. Once you have the command line utility opened type,

```
CREATE DATABASE selectbf;
```

You can replace `selectbf` with the name that you would like to call your database.

4. Then we need to create a database user to access the select(bf) empty database with and assign permissions to that user. This can be done with the `mysql` command line utility and typing,

```
GRANT ALL PRIVILEGES ON selectbf.* TO 'selectbfu'@'linserver';
```

But replace the `selectbf` with the database you created, `selectbfu` with the user you created, and `linserver` with the hostname of your server. This user does not need to have an account to log into the system with. It is just a database account.

5. Then assign a password to the user. For reference purposes the password we will use is `sbfpass`. The password can be set using the `mysql` command line utility and typing,

For MySQL v3

```
SET PASSWORD FOR 'selectbfu'@'linserver' = PASSWORD('sbfpass');
```

For MySQL v4

```
SET PASSWORD FOR 'selectbfu'@'linserver' = OLD_PASSWORD('sbfpass');
```

You can replace the `selectbfu` with the user you created previously, `linserver` with the hostname of your database server, and `sbfpass` with whatever password you wish.

6. Make sure that if you're running iptables (the firewall) that you're machine has local access to the MySQL port (default is TCP 3306) through the loopback interface. This is done by typing,

```
/sbin/iptables -A INPUT -p tcp --dport 3306 -i lo -j ACCEPT
```

7. Now edit your `bin/config.xml` file referring to the information below for the configuration file directives. The `bin/config.xml` file is the configuration file for the parser. Be sure not to mess up the XML structure or the parser will not be able to read it.

DATABASE CONFIGURATION

```
<database user="selectbfu" password="sbfpas" database="selectbf"
port="3306">linserver</database>
```

But be sure to replace the `selectbfu` to the database user you created, `sbfpas` to the password you set for that user, and `selectbf` to the database you created. The default TCP port for MySQL is 3306 so it should be fine to leave the port number alone. Then make sure to change `linserver` to the actual name of your machine where your database is stored. There have been issues with leaving it set to the default `localhost`, so I recommend you change it to your servers name.

FILE MANAGEMENT

Below are the tags that you can use to tune how select(bf) handles your Battlefield server XML log files.

Tag	Options	Description
<after-parsing>	remain	Will cause the XML logs generated by your Battlefield server to remain where they are after the parser has examined them.
	rename	Will cause the XML logs generated by your Battlefield server to have ".parsed" added to the end of their filenames.
	delete	Will cause the XML logs generated by your Battlefield server to be deleted after the parser has examined them.
	archive	Will cause the XML logs generated by your Battlefield server to be moved to another directory (as set by the <archive-folder> tag) after the parser has examined them.
<archive-folder>	/dir	The directory location (on the web server that the XML log files will be moved to if the <after-parsing> tag is set to archive.
<after-download>	remain	Will cause the XML log files generated by your Battlefield server to remain where they are after the parser has downloaded them via FTP.
	rename	Will cause the XML log files generated by your Battlefield server to have ".downloaded" added to the their filenames after the parser has downloaded them via FTP. This will require special permissions set on your FTP server for the account the parser uses to download the XML log files.
	delete	Will cause the XML log files generated by your Battlefield server to be deleted after the parser has downloaded them via FTP. This will require special permissions set on your FTP server for the account the parser uses to download the XML log files.
<delete-decompressed-xml-files>	true	Will cause the files that were extracted from the compressed XML log file (.xmls) generated by your Battlefield server to be deleted after the parser has examined them.

Tag	Options	Description
	false	Will cause the files that were extracted from the compressed XML log file (.zxmls) generated by your Battlefield server to remain after the parser has examined them.
<rename-at-error>	true	Will cause ".error" to be added to the filenames of the XML log files generated by your Battlefield server which the parser considers to have errors.
	false	The opposite of above. For XML log files generated by your Battlefield server which the parser considers to have errors, they will not be renamed.

DATA MANAGEMENT

Below are the tag that you can use to help tune select(bf)'s handling of the information in extracts from your Battlefield server XML log files and the information it stores in the database.

Tag	Options	Description
<log-bots>	true	Will cause select(bf) to keep stats on bots as well. But be aware, select(bf) only logs bots if they have a createPlayer event in the servers XML log files, which is not the case at the moment, at least with a vanilla Battlefield 1942 installation. This option came in with the tracking down of changing Player-IDs during a round.
<log-bots>	false	Will cause bot statistics to not be tracked by select(bf).
<trim-database-days="#" keep-players="?">	false	Will cause select(bf) not to trim the database at the end of parsing, keeping all information in the database intact.
	true	Will cause select(bf) to trim the database and keep only # days of information. Replace # with the number of days to keep in the database. Setting ? to true will keep player information even if they haven't played within the trimmed database time, setting ? to false will cause players to be removed that haven't played since the database trim time.



If you plan to keep the database trimmed to a certain amount of days it's highly recommended that you reset your stats first, then choose a very small interval for adding new logs. Deleting information from the database can be as time consuming as adding information to it. So if there many games in the database it could take a long time.

<skip-empty-rounds>	true	Will cause select(bf) to not import the logs of empty rounds.
	false	Will cause select(bf) to import all rounds, including empty ones.

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Tag	Options	Description
<lan-mode>	true	Will cause select(bf) to track players by their nickname.
	false	Will cause select(bf) to track players by their CD-KEY



Don't mix both modes, it can get sketchy!

OTHER STUFF

Below are the tags that will help in tuning the select(bf) parser optional features.

Tag	Options	Description
<consistency-check>	true	Will enable the select(bf) consistency checker which will check your Battlefield server XML log files for problems with the XML structure. It will modify your Battlefield server XML log files and add comments to them so that you can find the problems if you wish to try and correct them manually. Using the consistency check will cause the parser to take a little more time than if it were disabled.
	false	Will disable the select(bf) consistency checker.
<memory-safer>	true	Will cause select(bf) to clear up unused allocated memory after every file. This will cause the parser to take a little longer.
	false	Will disable the memory saving feature. Select(bf) will keep all it's allocated memory until the parser has finished examining all log files and terminates.

LOG SOURCES

All log sources are contained within the <log></log> tags. Below are the tags you can use to specify where the parser can find your Battlefield server XML log files.

Tag	Options	Description
<dir live="?">	/dir	Will cause select(bf) to examine the specified /dir for your Battlefield server XML log files. The /dir must reside on the same machine that that parser is running on! Setting the ? to true will cause select(bf) to consider the directory is for a "live" server and will assume that the most recent XML log file is still being written to by the server and so the parser will ignore it until the Battlefield server is finished writing to it. Setting the ? to false will cause select(bf) to parse all available log files. Be careful that your Battlefield server isn't actively logging to the directory otherwise you could have problems.

Tag	Options	Description
<pre><ftp host="ftpserver" " port="21" user="ftpuser" password="ftppa ss" live="?"></pre>	/dir	<p>Will cause select(bf) to connect to your Battlefield server and download the XML log files from the specified /dir using FTP. The /dir is a directory on your FTP server which points to your Battlefield server XML logs files. This directory is also relative to your user's starting directory when they connect through FTP. Set the ftpserver to the hostname or IP address of your FTP server, which is probably the same hostname or IP address of your Battlefield server itself. The default port for FTP is 21, so unless you're changing the port that your FTP server is running on you can leave it alone. Change the ftpuser to the user name you've configured on your FTP server to access your Battlefield server XML log file directory. Change the ftppass to the password that you've set on your FTP server to access your Battlefield XML log file directory. Setting the ? to true will cause select(bf) to consider the directory is for a "live" server and will assume that the most recent XML log file is still being written to by the server and so the parser will ignore it until the Battlefield server is finished writing to it. Setting the ? to false will cause select(bf) to parse all available log files. Be careful that your Battlefield server isn't actively logging to the directory otherwise you could have problems.</p>



You can add <dir> and <ftp> tags for every location that you need to gather log files from.

When downloading Battlefield XML log files with FTP you need to make sure that the user account that you have setup has the correct privileges to be able to read and write to directory location that your log files are in. This permission has to be granted in both your FTP server software and on the file system of the Battlefield server.

vsftpd Helpful Hints

If you're using the vsftpd daemon on your Battlefield game server, an easy way to setup the FTP directory would be to make the log directory accessible from the home directory of the FTP user. To do this we're remount the Battlefield server XML log directory as a filesystem in the FTP user home directory. First we need to create the directory in the FTP user home directory. This is done by typing,

```
mkdir /home/ftpselectbf/logs
```

Replace the `ftpselectbf` with the user you're planning to log into your FTP server with. Next mount the Battlefield server XML log file directory to that created directory. This can be done by typing,

```
mount --bind /games/bf1942/mods/bf1942/logs /home/ftpselectbf/logs
```

Replace the `/games/bf1942/mods/bf1942/logs` with the actual path to your Battlefield server XML log files. Also replace `/home/ftpselectbf/logs` with the path to the directory you created above. You still need to make sure that the FTP user has access to the Battlefield server XML log file directory.

Then when you `logs` will be the path you would use in your `<ftp>` tag.

Also make sure that you've disabled anonymous access to your FTP server. That's a quick way of becoming a warez server!

8. Edit your `php/include/sql_setting.php` file and only adjust the following values:

```
$SQL_host = "linserver";
```

Replace `linserver` with the IP address or hostname of your database server.

```
$SQL_user = "selectbfu";
```

Replace `selectbfu` with the user name that you secured your select(bf) database with.

```
$SQL_datenbank = "selectbf";
```

Replace `selectbf` with the name of the database you created to store the select(bf) information.

```
$SQL_password = "sbfpass";
```

Replace `sbfpass` with the password that you used for the database user to access the select(bf) database.

9. Edit your `php/include/jpcache/jpcache.php` file and adjust the following value:

```
$includedir = "/games/selectbf/php/include/jpcache";
```

Replace `/games/selectbf/php/include/jpcache` with the directory that JPCache is actually located.

10. Create a temporary caching directory for JPCache. You may want to make this a subdirectory of your `php/include/jpcache` directory. For reference purposes in this document we'll create a directory called `cache` in the `php/include/jpcache` directory.
11. Edit your `php/include/jpcache/jpcache-config.php` file and make sure that the line `$JPCACHE_TYPE = "file";` is uncommented by removing the leading double slashes (`//`) if they are there. Also make sure that the `$JPCACHE_DIR` value is set to the directory that we just created. Your `$JPCACHE_DIR` value should look similar to,

```
$JPCACHE_DIR = "/games/selectbf/php/include/jpcache/cache";
```

Replace the `/games/selectbf/php/include/jpcache/cache` with the directory that you created.

12. Copy the `php` directory to a subdirectory of your web server root. For example you could copy the `php` directory to `/var/www/html/selectbf` if you Apache document root for your web server is `/var/www/html`.

Optionally, instead of copying the `php` directory to your document root you can create an alias on your web server which points to the `select(bf)` `php` directory.

Apache WWW Helpful Hints

Apache users can create an alias directory pointing to the `select(bf)` `php` directory by editing your `/etc/httpd/conf/httpd.conf` file. Add the following line to the base of your web server configuration, or inside your virtual server configuration (depending how your web server is installed),

```
Alias /selectbf /games/selectbf/php

<Directory "/games/selectbf/php">
    Options +ExecCGI +Indexes
    AllowOverride None
    Order allow,deny
    Allow from all
</Directory>
```

Replace `/games/selectbf/php` with the path to the `php` directory of your `select(bf)` installation.

Once the alias is created, you need to that Apache will attempt to load index.php files if no file is specified in the requested URL. This is done by modifying your existing `DirectoryIndex` directive and adding index.php in the list of files. Your `DirectoryIndex` might look something similar to,

```
DirectoryIndex index.html index.php
```

Save your `httpd.conf` file and restart Apache for the changes to take effect.



If you're running SELinux you will need to permit access to the php Alias directory to run scripts. This is done by typing,

```
setsebool httpd_unified true  
chcon -R -h -t httpd_sys_content_t /games/selectbf/php
```

Replace `/games/selectbf/php` with the path to your select(bf) php directory.

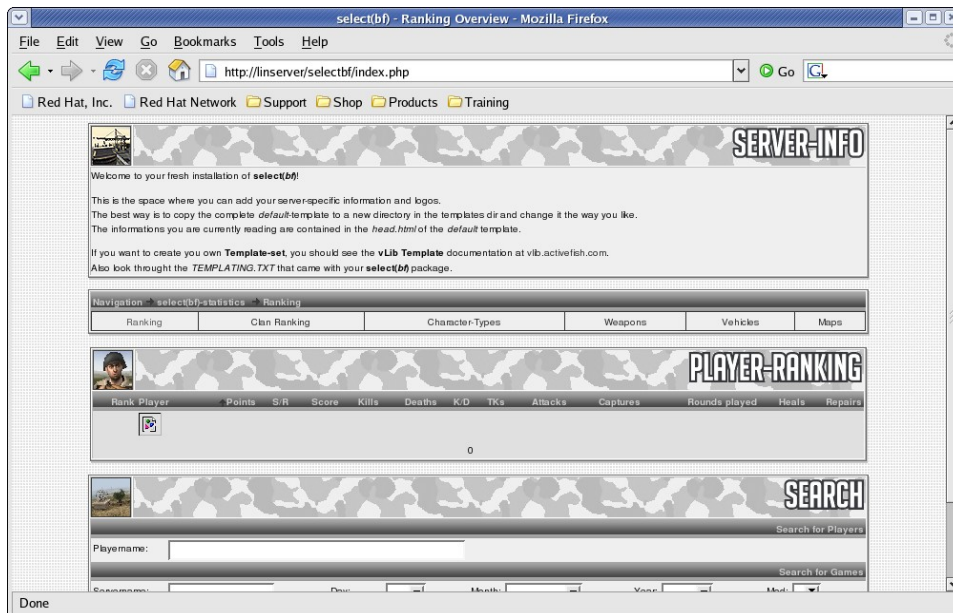
13. Copy the `php/templates/Default` directory and all it's subdirectories to `php/templates/default`. This is done by typing,

```
cp -R /games/selectbf/php/templates/Default /games/selectbf/php/templates/default
```

This is needed because some of the PHP pages are looking for "Default" and others looking for "default" in the path to support files like images and cascading style sheets.

14. Open your web browser and point it to http://linserver/selectbf/_setup.php, but change the `linserver` with the hostname of your web server, and `selectbf` with the directory that you just put the select(bf) php files in under your web server document root.
15. Choose a desired admin password and type it into the fields that are shown on the `_setup.php` page. This password will be how you can access the Admin-Mode of select(bf).
16. Click on the "install datamodel" button to create all the MySQL tables that are needed by select(bf). The "remove the datamodel" button is used to delete all the MySQL information and tables that are in the select(bf) database, which is probably something you don't want to click on since you're just installing select(bf) right?

17. Once the tables are created if you click on the “Please, click here to continue to your stats!” you should see an empty select(bf) stats page, as shown below,



And yes, the broken image link just below the “Rank Player” column is normal.

18. For security reasons, remove the `_setup.php` file from your web server so that people from the Internet don't try to run it and erase your database on you!
19. Next we need to edit your parser scripts. The default ones don't quite work well for scheduling. What we need to do is:
- We need to add a command interpreter to the script (the `#!` line).
 - We need to have the script change to the location of your select(bf) `bin` directory because all the Java classes are referenced relative to this directory.
 - We need to add the full path to your java runtime (just in case it's not in your PATH).

Edit the `bin/selectbf.sh` file so it's similar to the one shown below,

```
#!/bin/sh
cd /games/selectbf/bin
/usr/java/jre1.5.0_02/bin/java -cp ./selectbf.jar:../lib/commons-net-1.3.0.jar:../lib/mysql-connector-java-3.1.7-bin.jar:../lib/jdom.jar:org.selectbf.SelectBf
```

Replace `/games/selectbf/bin` with the location of your select(bf) `bin` directory and the `/usr/java/jre1.5.0_02/` with the location of your version of the Java runtime.

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Edit the `bin/selectbfsilent.sh` file in the same way. It should look similar to the one shown below,

```
#!/bin/sh
cd /games/selectbf/bin
/usr/java/jre1.5.0_02/bin/java -cp ./selectbf.jar:../lib/commons-net-1.3.0.jar:../lib/mysql-connector-java-3.1.7-bin.jar:../lib/jdom.jar:org.selectbf.SelectBf >> Selectbf.out
```

Replace `/games/selectbf/bin` with the location of your `select(bf)` bin directory and the `/usr/java/jre1.5.0_02/` with the location of your version of the Java runtime.

20. Then we need to make the shell scripts executable. This is done by typing,

```
chmod 755 /games/selectbf/bin/*.sh
```

But replace `/games/selectbf/bin` with the location of your `select(bf)` bin directory.

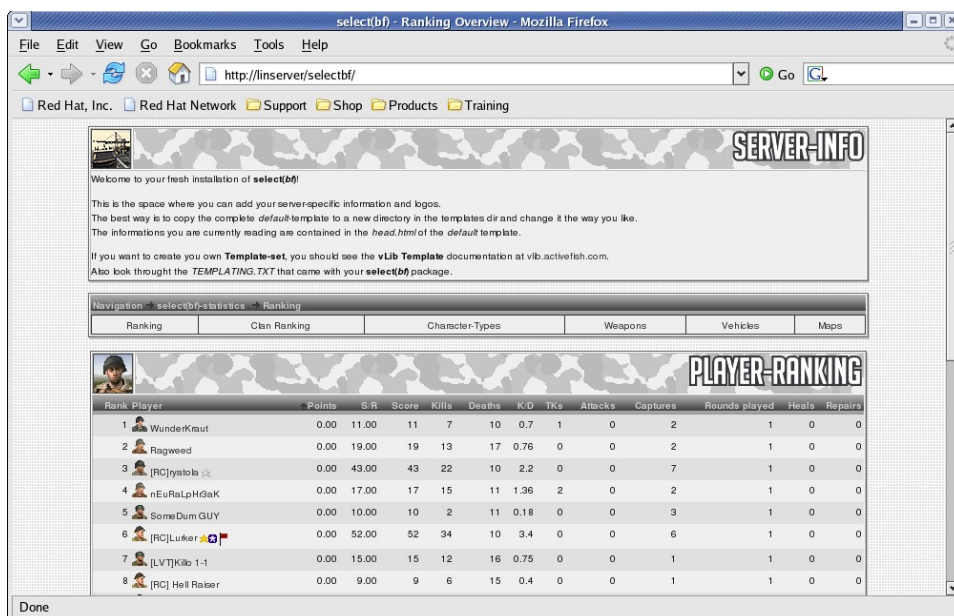
21. Assuming you have Battlefield XML log files already waiting to be processed, it's time to run the parser. This can be done by changing to your `select(bf)` bin directory and type `./selectbf.sh`. You should see something returned similar to what is shown below.

```
[root@linserver bin]# ./selectbf.sh
select(bf) 0.5 - A Battlefield XML Log File Parser
-----
Copyright (C) 2005 Tim Adler
Published under GPL http://www.gnu.org/licenses/gpl.txt
This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY
without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
See the GNU General Public License for more details.
Available at http://www.selectbf.org
-----
Using Database-Config as follows:
selectbf@linserver:3306
User: selectbfu Password:sbfpass
-----
Logs-Directory: /games/bf1942/mods/bf1942/logs
-> processing File 'ev_15567-20050324_2310.xml' (1/1) FINISHED
---DONE---
-----PRECACHING DATA-----
Please wait this takes a while
-> Caching 'Character-Type Usage' FINISHED (0.084 sec)
-> Caching 'Vehicle Usage' FINISHED (0.029 sec)
-> Caching 'Weapon Kills' FINISHED (0.081 sec)
-> Caching 'Player Ranking' FINISHED (0.055 sec)
-> Caching 'Map Statistics' FINISHED (0.04 sec)
-----
Process FINISHED
Thx for using select(bf)!
-----
[root@linserver bin]#
```

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Assuming everything ran without any problems and you revisit your select(bf) stats web page you should see information in there similar to the one shown on the next page.



22. Now it's time to schedule the `selectbfsilent.sh` script to run automatically (unless of course you want to manually run `selectbf.sh` all the time). This can be done editing your `/etc/crontab` file. Add an entry similar to the one below,

```
*/10 * * * * root /games/selectbf/bin/selectbfsilent.sh
```

Replace `/games/selectbf/bin/selectbfsilent.sh` with the location of your select(bf) `selectbfsilent.sh` script. The above example would run `/games/selectbf/bin/selectbfsilent.sh` every 10 minutes. You can replace `*/10` with whatever minute interval you would like the run the parser. For example, if you'd like the parser to run every 15 minutes you could replace the `*/10` with `*/15`. I would recommend a short interval (between 10 - 30 minutes) because if there is nothing to parse (because you've renamed or moved your already parsed entries right???) the parser will end immediately. But if there is something to parse, with a short interval between parse runs the stats will show up on your web server quicker.



Linux admins will notice that the cron job is running with the root account which is a big security no-no. If you wish you can create a new account to run this scheduled job with. You can replace the `root` part of the cron job with whatever account you create.

23. To check to see if your cron job works, after the scheduled time check your cron syslog file. You can do this by typing,

```
tail /var/log/cron
```

You should see an entry similar to the one shown below if the job ran successfully.

```
Apr  5 20:00:00 joust CROND[13647]: (root) CMD  
(/games/selectbf/bin/selectbfsilent.sh)
```

24. That's it! Now point your browser to <http://linserver/selectbf>, but change the `linserver` with the hostname of your web server, and `selectbf` with the directory that you just put the select(bf) php files. With your Battlefield server generating log files and your scheduled select(bf) parser examining them and updating your database, the stats on your web page will update automatically.

5

Troubleshooting

- *When I try to access the `_setup.php` page I get a “No input file specified.” error.*

The problem is that your `php.ini` file has the `doc_root` variable set. Remark the line out by putting a `;` at the beginning of the line and restart your web server.

- *When I try to access the `_setup.php` page I see an error about “Could not connect to the database.....”*

The problem is that you are using MySQL v4 (or higher), and with MySQL v4 (or higher) when you set the password for the database user you need to use the `OLD_PASSWORD` command as shown below,

```
SET PASSWORD FOR selectbfu = OLD_PASSWORD('sbfpass');
```

- *When I try to access the `index.php` page I get an “Page cannot be displayed” error with the title bar set to “Invalid syntax error”.*

The problem is unique to Internet Explorer. Change your `error_reporting` variable in your `php.ini` file to `E_ERROR` and restart your web server.

- *My scheduled jobs are not running.*

On Windows, check to make sure that your Task Scheduler is enabled and running and you've made your scheduled task properly.

On Linux, check to make sure that your `crond` daemon is running and that you've specified the correct location to the script in your `/etc/crontab` file.



Appendix

GPL License

GNU GENERAL PUBLIC LICENSE Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.
59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language.

(Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work,

complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

SELECT(bf) Installation Documentation

<http://www.selectbf.org>

Yoyodyne, Inc., hereby disclaims all copyright interest in the program
'Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Library General Public License instead of this License.

JDOM License Additions

JDOM (<http://www.jdom.org>) is
Copyright (C) 2000-2003 Jason Hunter & Brett McLaughlin.
All rights reserved.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JDOM AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This software consists of voluntary contributions made by many individuals on behalf of the JDOM Project and was originally created by Jason Hunter <jhunter AT jdom DOT org> and Brett McLaughlin <brett AT jdom DOT org>. For more information on the JDOM Project, please see <<http://www.jdom.org/>>.

JZLIB License Additions

JZLIB (<http://www.jcraft.com/jzlib/>) is
Copyright (c) 2000,2001,2002,2003 ymnk, JCraft,Inc.
All rights reserved.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JCRAFT, INC. OR ANY CONTRIBUTORS TO THIS SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Connector/J License Additions

Copyright (C) 2002 MySQL AB

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

Jakarta Commons/Net License Additions

Copyright (c) 2001 The Apache Software Foundation. All rights reserved.

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The end-user documentation included with the redistribution, if any, must include the following acknowledgment:
"This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>)."
Alternately, this acknowledgment may appear in the software itself, if and wherever such third-party acknowledgments normally appear.
4. The names "Apache" and "Apache Software Foundation" and "Apache Commons" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact apache@apache.org.
5. Products derived from this software may not be called "Apache", nor may "Apache" appear in their name, without prior written permission of the Apache Software Foundation.

THIS SOFTWARE IS PROVIDED ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.