



Steve Tagger 1.0 Install Guide

10/2006

By C. Borkowski and Matt Morgan

cborkowski@guggenheim.org

matt.morgan@metmuseum.org

<http://steve.museum>

steve@steve.museum

Table Of Contents:

1. FOREWORD	3
2. CONVENTIONS USED IN THIS DOCUMENT	3
Additional Formatting Conventions	3
Samples	3
3. PRE-INSTALLATION	4
General Requirements	4
Operating Systems	4
Web Server Software	4
Additional Server Software	4
Email Setup	4
Checking Your Server Config	4
Pre-installation - database set up	5
Create the database and database user	5
Install steve tagger files in the html folder path and set file permissions	6
4. INSTALLATION	7
Filling in the required fields	9
Site Configuration	9
Database configuration	9
Admin Configuration	9
Completing the Install	9
Security Caution	10
Start Tagging	10
5. REINSTALLATION	10
Reinstallation with existing data	11
Reinstallation with new data	11
6. GETTING HELP	11
Steve-related Email Lists	11
Server Software Help	11
Apache Tips	11
PHP tips	11
MySQL tips	12
7. CREDITS	12

1. Foreword

"Steve" is a collaborative research project exploring the potential for user-generated descriptions of the subjects of works of art to improve access to museum collections and encourage engagement with cultural content. We are a group of volunteers, primarily from art museums, who share a common interest in improving access to our collections. We are concerned about barriers to public access to online museum information. Participation in steve is open to anyone with a contribution to make to developing our collective knowledge, whether they formally represent a museum or not.

This guide will assist in installing steve tagger software. Steve tagger is open source software released under the GNU General Public License (GPL). Steve tagger is written in the PHP programming language in a database-backed, Web-based architecture. That means that steve relies upon several other layers of related software, including a Web server (such as Apache or Microsoft IIS) and a Database Management System (MySQL). This guide does not cover the installation and configuration of this related software. System integrators unfamiliar with Web and database servers should check with the manufacturer of their operating system software on the proper installation, configuration, use and limits of the additional software requirements for steve tagger. End users should have a basic working understanding of running a Web server before proceeding with the steve tagger installation.

2. Conventions Used in This Document

Steve tagger is designed to work under many operating systems and in both local and hosted environments.

In general, this document is written as if steve tagger is being installed on a Linux server, and examples of window display, etc. are taken from Linux. Also, most instructions assume that the user installing steve tagger has full administrative access over the server being used.

Commands will often be identical in Mac OS X and in Windows, and whether steve tagger is being installed by an admin or as a user of a shared hosted server.

When deviations occur, they are noted with blockquoting and special type styles, as in this paragraph.

When user entry is indicated, it is assumed that the enter key will be struck at the end of a line, except within fields on Web-based forms.

Additional Formatting Conventions

This guide uses standard formatting to represent different forms of text throughout. Some samples follow.

Samples

`Code and terminal/command prompt text appear in a smaller, monospaced font, slightly indented`

Text that the user is expected to enter appears in the same font as code, but bold

Representative text that may change for different users, like server names and passwords, is often italicized for clarity

Instructions for the user to follow look like body text, but bold

3. Pre-Installation

General Requirements

Operating Systems

Steve tagger has been tested and is known to work on:

- Recent varieties of RedHat-derived Linux distributions
- Ubuntu Linux 6.06
- Windows NT-based operating systems such as Windows 2000 and XP
- Macintosh OS X Desktop and OS X Server

Steve tagger is likely to work on other varieties of Linux, Unix, and Windows as well, providing they meet the additional following requirements.

Web Server Software

Steve tagger is Web-based software that runs inside of your Web server. You will need for your Web server software:

- Apache 1.3 or greater
- Microsoft IIS

Additional Server Software

- PHP 5.1 or greater
- MySQL Server 4.1 or greater (steve tagger may work on other database servers, but has been tested only on MySQL 4.1+)
- GD version 1 or greater

Users should check with installation requirements of their operating system in reference to the particular build and version for proper installation, configuration, and startup of the software listed above.

Email Setup

On Linux and Unix, PHP requires sendmail or an analog (postfix; qmail) in order to use the mail() function. Steve tagger makes use of the mail() function for feedback email and some error messages. Most versions of Linux and Unix, including Mac OS X, include sendmail in a default installation.

In Windows, PHP allows the use of an external SMTP server for email delivery. See <http://us3.php.net/manual/en/ref.mail.php> for information on proper PHP configuration in Windows.


Checking Your Server Config

The steve tagger installer will perform certain checks when first run, but it will be helpful to know a few things about your system prior to installation. This step insures that steve tagger's additional software requirements are met and that the required server software is up and running.

Locate the root directory of your apache web sever that is running and, with your favorite text editor, create a text file named "info.php" with the following line of PHP code:

```
<? phpinfo() ?>
```

Place this file in the root directory of your web server and open a browser to the "info.php" page – <http://yourhost.yourdomain.org/info.php>. It should return a page that begins something like Figure 1.

PHP Version 5.1.6-0.dotdeb.2	
	
System	Linuxny345steve 2.4.27-2-386 #1 Wed Aug 17 09:33:35 UTC 2005i686
Build Date	Aug 31 2006 17:02:38
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php5/apache2/php.ini
PHP API	20041225
PHP Extension	20050922
Zend Extension	220051025
Debug Build	no
Thread Safety	disabled
Zend Memory Manager	enabled
IPv6 Support	enabled
Registered PHP Streams	php, file, http, ftp, compress.bzip2, compress.zlib, https, ftps
Registered Stream Socket Transports	tcp, udp, unix, udg, ssl, sslv3, sslv2, tls
Registered Stream Filters	string.rot13, string.toupper, string.tolower, string.strip_tags, convert.*, consumed, convert.iconv.*, bzip2.*, zlib.*


This program makes use of the Zend Scripting Language Engine: Zend Engine v2.1.0, Copyright (c) 1998-2006 Zend Technologies	Powered By 
--	--

Figure 1. Sample output from info.php page.

Scroll down the "info.php" page and make sure that MySQL support, zip support and GD support have been enabled. Each has its own section. If everything looks good proceed to the next step of the installation. Otherwise, you may need to reinstall PHP, or contact your ISP if you are on a hosted server.

Pre-installation - database set up

In order for steve tagger to run properly, you will first need to create a database and a database user with sufficient privileges within that database. In MySQL, this is only a few short steps.

Create the database and database user

Steve tagger will need a database to store all of its information. The installer will properly create the tables in the database, provided it has access to do so. In this step, we create the database and a user account with the proper level of access.

Users who are less familiar with command-line interfaces may want to perform these steps with a GUI; there are a number of GUI interfaces available for MySQL, such as phpmyadmin and the Webmin MySQL package. Those interfaces are not covered here.

Log on to your MySQL server and create a blank database.

Instructions in this section are for users with full administrative access to the MySQL server that steve tagger will use for data storage. If you do not have full MySQL access, before you can install steve tagger you'll need to know the name of a database you can use, as well as a username with access to that database and its associated password. Contact your ISP or network administrator for that info, and be sure to substitute those values into the following commands.

In this example we will create a database (DB) called "steve" where "XXX" is your root password. If you like, you can use some other name for the DB, but be sure to use the same name in the commands that follow. **Open a terminal or command window and enter the following command at the prompt:**

```
user@host:~$ mysqladmin -u root -pXXX create steve
```

Create a DB user with full privileges for the new database.

This will be the user which reads and writes to the "steve" database. Do not use the MySQL "root" user account as the "steve" user.

In the following steps we'll locate the MySQL server, log on to the DB and create a DB user for steve tagger.

Log on to the MySQL server:

```
user@host:/usr/bin$ mysql -u root -p
Enter password: [enter MySQL root password]
Welcome to the MySQL monitor.
```

Select the database

```
mysql> use steve;
Database changed
```

Create a full privileges user named "steve" for the "steve" database.

```
mysql> GRANT ALL ON steve.* TO 'steve'@'localhost'
-> IDENTIFIED BY 'some_pass' WITH GRANT OPTION;
```

some_pass will be the password you wish to use.

Flush the DB privileges and quit the MySQL session

```
mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)
mysql> quit
Bye
```

Install steve tagger files in the html folder path and set file permissions

Follow the download links from

<http://sourceforge.net/projects/steve-museum>

to download the latest steve tagger release to your web server. The release comes in the form of a zip file. The zip file contains web pages and configuration files for expansion directly into the web server document root. If you are unsure of the location of your web server's document root, consult your local network administrator or your operating system documentation. If neither source provides help, contact the steve.tech email list (see **Getting Help**, below).

Many operating systems in the RedHat Linux family use /var/www/html as the web server document root. We'll use that folder for our example.

```
user@host:~$ cd /var/www/html/
user@host:/var/www/html$ unzip /path/to/steve-tagger-version.zip .
```

where *path/to* represents the folder to which you saved the zip file, and *version* represents the zip file version number and name. For example, as of this writing the current *version* is *1.0-multi*.

Don't forget the final "." in the unzip command!

Most Linux distributions and Unix flavors, including Mac OS X, come with the unzip command built-in. Windows, however, does not, and you must install an unzipping tool such as pkunzip or WinZip in order to unzip the downloaded steve tagger zip archive. Many of these tools do not have command-line options as above. In that case, simply unzip the zip file to any convenient location, and copy or move it to your web server document root.

This will result in a folder in your Web server document root called "steve-tagger." **Change the name of that folder to "steve":**

```
user@host:/var/www/html$ mv steve-tagger steve
```

Finally, verify that your web server user has write access to steve's config files. This user is often "apache" or "nobody"; check with your local network administrator to be sure.

```
user@host:/var/www/html$ chown -R apache config
```

where *apache* is the name of your web server user.

In Windows operating systems, permissions are set not with the chown command, but in the security tab of the Properties context menu for the folder (right-click on the folder to find the option).

4. Installation

The steve tagger installation runs within the web browser, from a script placed in the main "steve" folder you just created.

Open a web browser and navigate to your server's steve tagger "install.php" page (example: <http://yourhost.yourdomain.org/steve/install.php>). You should see a page like Figure 2.

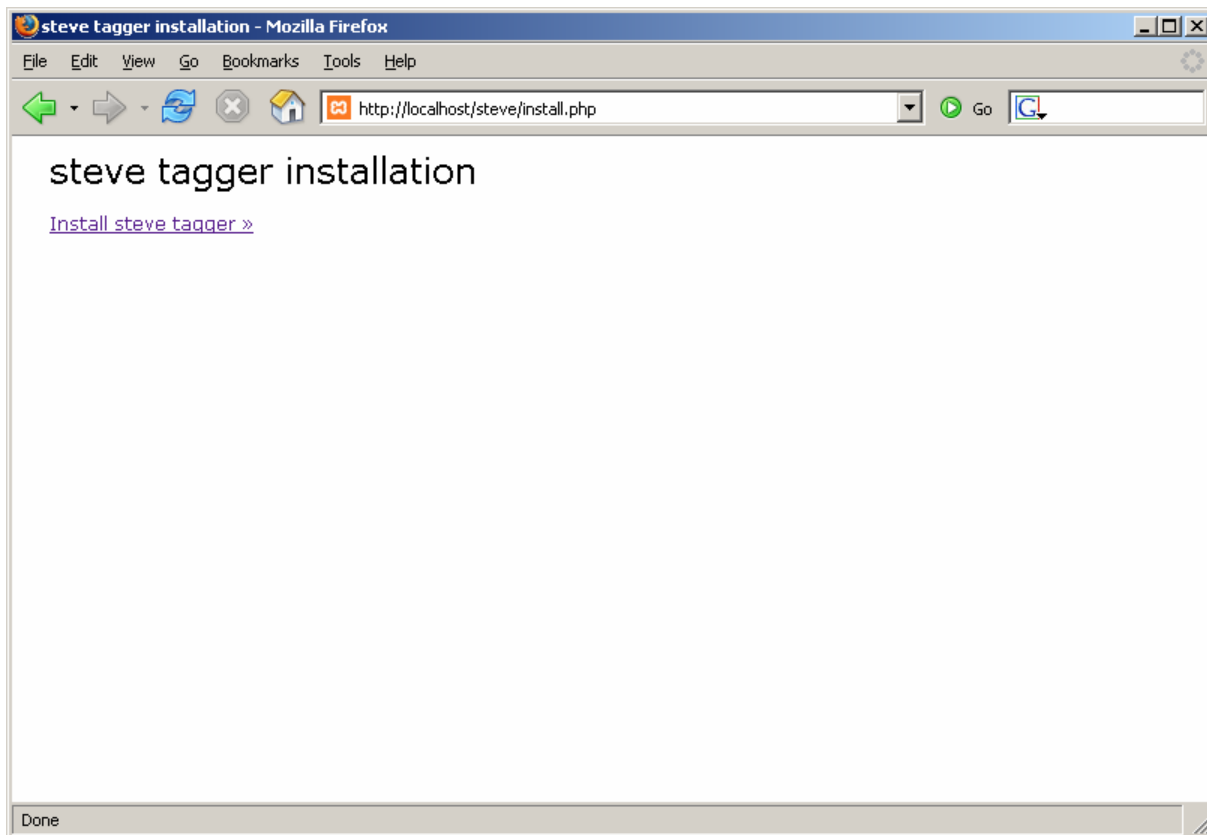


Figure 2. Sample steve tagger initial installation page.

Click on the "Install steve tagger >>" link to begin the online setup. You should see a page like figure 3. Don't be alarmed by errors regarding the connection to the database. However, errors in the "Checking environment" section are fatal and will prevent you from installing. Note them and read again through the guide up to here; if you can correct them, reload the install.php page and try again.

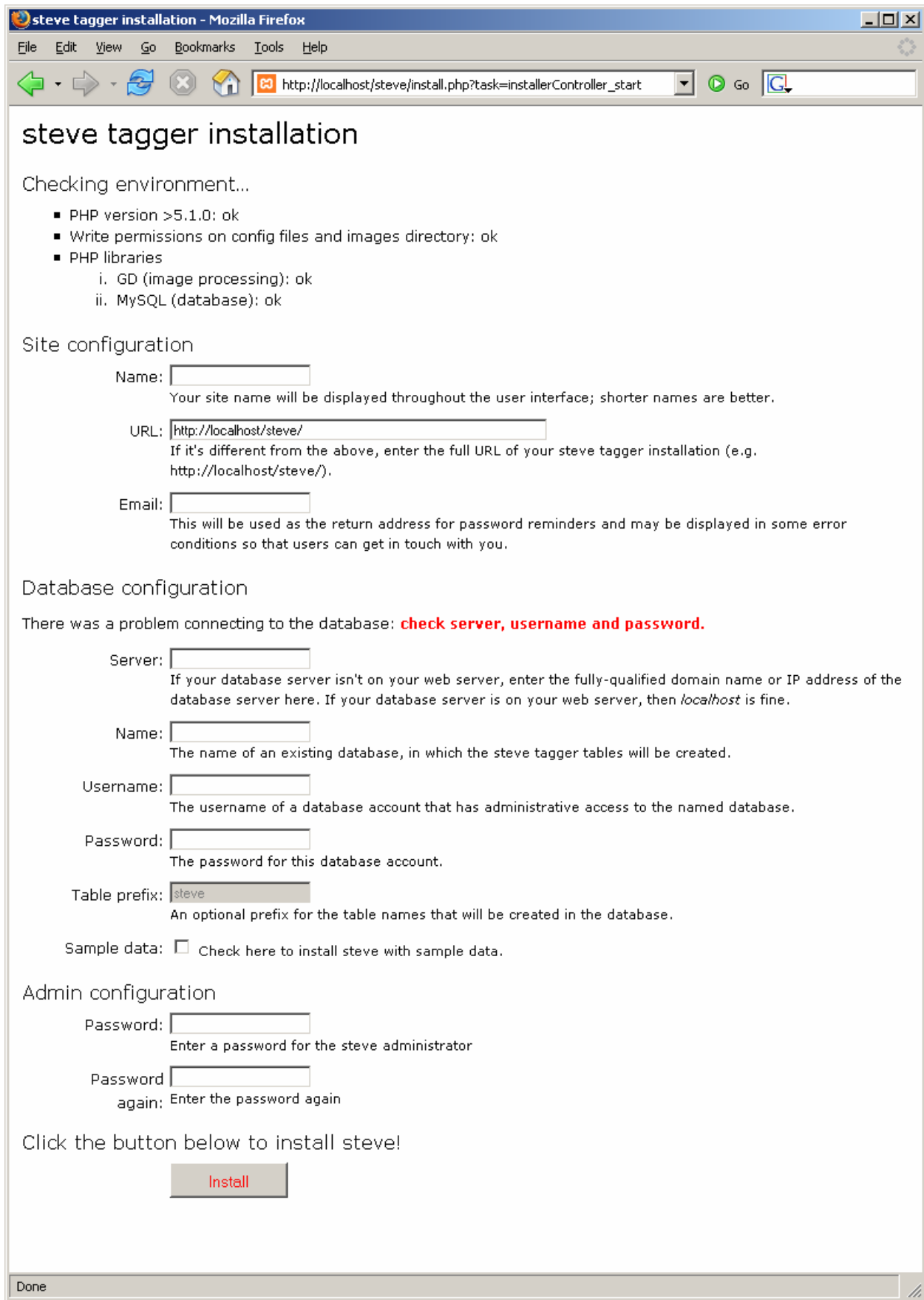


Figure 3. Sample steve tagger setup page.

Filling in the required fields

The Installer will make an attempt to auto detect and locate the versions of your software. It will also add default values for user names and passwords. You may want to change these values depending on your configuration. Here are the fields, with a description of how to use each.

Site Configuration

Name: Your *site name*

Your site name will be displayed throughout the user interface; shorter names are better.

URL: *http://yourhost.yourdomain.org/steve/*

Enter the full URL of your steve tagger installation.

Email: *admin@yourdomain.org*

This will be used as the delivery address for user feedback and the return address for password reminders, and may be displayed in some error conditions so that users can get in touch with you. Be sure to use a valid address.

Database configuration

Server: *localhost*

If your database server isn't on your web server, enter the name or IP address here, otherwise enter localhost.

Name: *steve*

The name of the database you created (or that was created for you) earlier, in which the steve tagger's tables will be created.

Username: *steve*

The username of the database account.

Password: *password*

The password for the database account.

Table prefix: *none*

This field is currently unused, but will be activated in future releases. It's for an optional prefix for the table names that will be created in the database. Use this option if your steve tagger database tables belong to a larger database used for other purposes as well.

Sample data:

Check here to install steve with sample data

Check this box if you want to install sample images. If you plan to add some of your own images, you might not want to do this.

Admin Configuration

Password: *adminpassword*

Password again: *adminpassword*

Enter the password you'd like to use for steve tagger administration, and confirm it.

Completing the Install

After you've entered all of the information, **click the "Install" button to proceed**. The results of the installation will be appended to the bottom of the same page and should read:

Installing...

- Configuration options written to file.
- Steve tagger database installed.
- Sample data installed.

- Steve administrator password set.

You have successfully installed steve tagger!

For security reasons we strongly advise that you now delete the install.php file from the steve/ directory.

N.B. the administrator username is *steveadmin*.

Steve tagger »

Log in to administer steve tagger »

If the installation fails in some way, save the failure message, error message, or other text and see Getting Help, below.

Security Caution

After installation, **delete the install.php page or move it to a location NOT accessible to the web.** You may replace the file later for subsequent installations. **Also delete the info.php page, if you made it earlier to check on your PHP setup.**

Start Tagging

You may now begin using steve tagger by selecting the "Steve.museum tagger" link!

You will see the login page depicted in Figure 4.

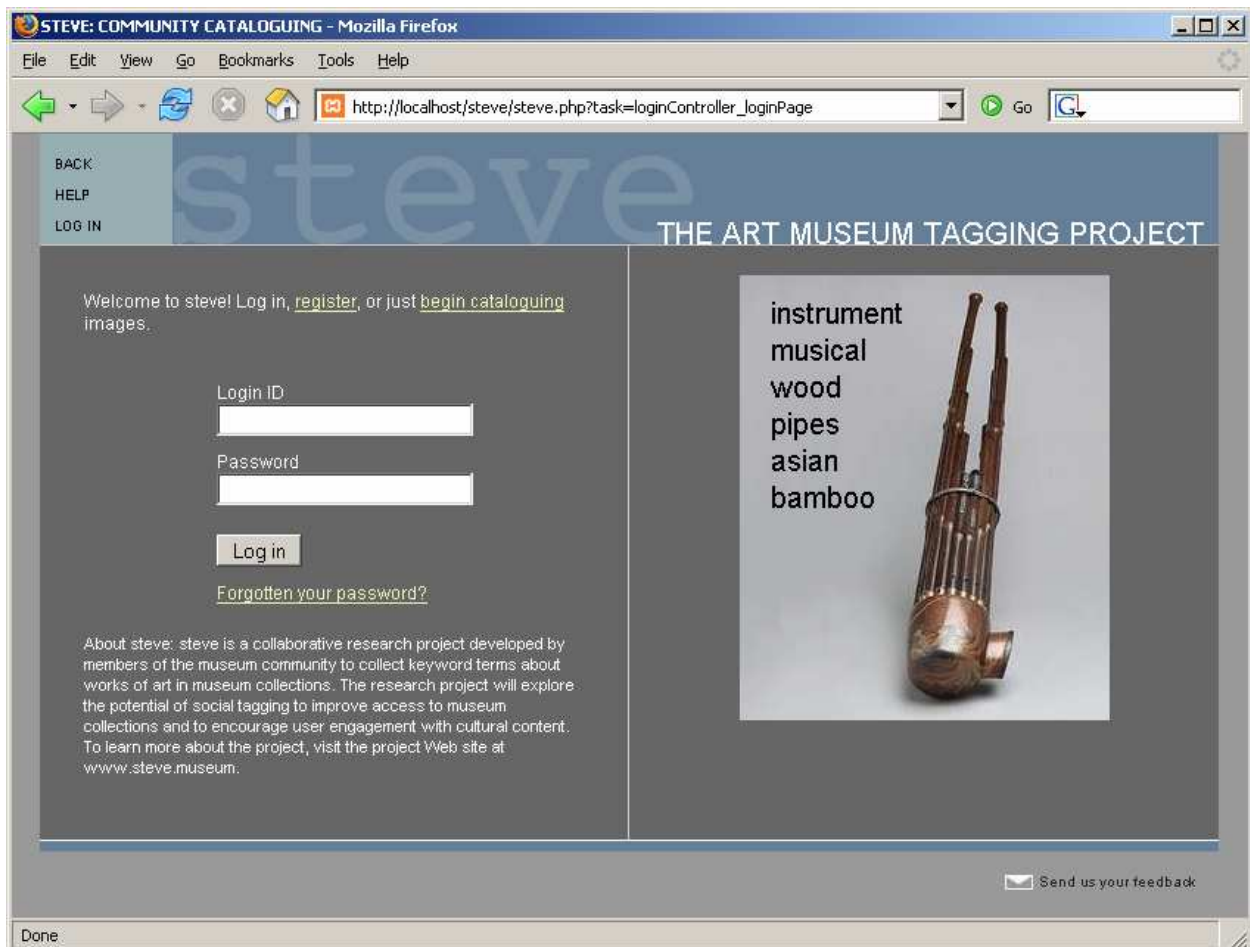


Figure 4. Steve tagger login page.

5. Reinstallation

The steve tagger installer supports safe reinstallation. If data exists in the specified database it will be detected and most data will be left untouched. Only the admin password will change (to whatever new password is typed into that field on the install page).

Reinstallation with existing data

To reinstall steve tagger with existing data, first **delete the "steve" directory in the Web server document root**, and then **re-unzip the steve tagger zip file** as in "Install steve tagger files in the html folder path and set file permissions" in the "Pre-Installation" section above. **Continue with the instructions from that point forward, and be sure to re-set the admin password.**

Reinstallation with new data

The steve tagger installer will not write over database tables that already exist. In order to reinstall steve tagger with new data, you must first create a new database. **Restart these instructions from the "Pre-installation - database set up" stage, above, creating a new database with a new name.** If you need to delete the existing database, see <http://mysql.org/doc/> for MySQL help. If you aren't able to create a new database (for example, because you don't have MySQL admin rights), contact your ISP or network admin.

6. Getting Help

Steve-related Email Lists

The most important sources of help for steve tagger are the steve project email lists. Two lists are open to public subscription, discuss and steve.tech. Discuss is for general discussion about steve tagger and the steve project; steve.tech is the place for technical discussion of steve tagger and for help with installation and configuration. To subscribe, visit each list's home page at the below links:

Discuss list

<http://steve.museum/mailman/listinfo/discuss/>

Steve.tech list

<http://steve.museum/mailman/listinfo/steve.tech/>

The steve project also maintains help@steve.museum as an email helpline, but the steve.tech list is the primary source of basic technical help for steve tagger.

Server Software Help

Apache Tips

Checking Apache Version:

```
user@host:~$ apache2ctl -v
Server version: Apache/2.0.54
Server built:   Sep  5 2005 11:15:09
```

For additional Apache help and documentation, see <http://apache.org>.

PHP tips

Checking for PHP version:

```
user@host:~$ php -v
PHP 5.1.6-0.dotdeb.2 (cli) (built: Aug 31 2006 17:18:42)
Copyright (c) 1997-2006 The PHP Group
Zend Engine v2.1.0, Copyright (c) 1998-2006 Zend Technologies
```

For additional PHP help and documentation, see <http://php.net>.

MySQL tips

Checking for MySQL version:

Where "XXX" is your MySQL user password,

```
user@host:~$ mysqladmin -u root -pXXX version
mysqladmin Ver 8.4.1 Distrib 4.1.11, for pc-linux-gnu on i386
Copyright (C) 2000 MySQL AB & MySQL Finland AB & TCX DataKonsult AB
This software comes with ABSOLUTELY NO WARRANTY. This is free software,
and you are welcome to modify and redistribute it under the GPL license

Server version          4.1.11-Debian_4sarge7-log
Protocol version        10
Connection              Localhost via UNIX socket
UNIX socket             /var/run/mysqld/mysqld.sock
Uptime:                 3 days 23 hours 12 min 23 sec
```

For additional MySQL help and documentation, see <http://mysql.org>.

7. Credits

This project is made possible, in part, by a grant from the U. S. Institute of Museum and Library Services.

The steve project core team members are listed at <http://steve.museum>. This release of the steve software was developed primarily by

David Ellis and Gavin Foster, ThinkDesign

Doug Hiwiller, The Cleveland Museum of Art

Michael Jenkins, The Metropolitan Museum of Art

Willy Lee, Minneapolis Institute of Arts

Robert Stein, Indianapolis Museum of Art