

# Wheel 'O Yum<sup>®</sup>

*Answering the age-old question, "Where do you want to go today?"*

*User Guide  
2006 April 10*

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# 1.0 End User License Agreement (EULA)

## 1.1 Definitions

The following definitions apply to the terms and conditions included in this Agreement.

Software

means Wheel 'O Yum, all program and information files and other documentation which are part of the Wheel 'O Yum Software package.

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## 2.0 Document Conventions

This user guide uses several conventions to distinguish documentation levels and references.

Normal documentation is displayed in a true-type font:

This is documentation text.

Commands that are to be used in a console are displayed in a mono-spaced font:

```
This is a console command
```

Menu items are displayed in a mono-spaced font with arrows used to separate menu names from menu items:

```
File->Open...
```

This denotes the menu item labeled, "Open..." under the menu labeled "File".

Warnings, alerts, and other important notices are displayed in an italicized true-type font with an exclamation point icon in the left margin:

*This is an example of a warning or notice.*

## 3.0 Introduction

Hungry? Can't decide where to eat? Let the Wheel 'O Yum decide for you!

The Wheel 'O Yum is a program to assist in deciding where to eat. All too often, excess time is spent among groups trying to decide. The Wheel 'O Yum allows one or more people to vote on their favorite restaurants and spin the wheel for a random--but educated--restaurant.

*The Wheel 'O Yum utilizes Java™ technology. You need the Java platform (v 1.4 or higher of Sun's Java) setup on your computer to use the Wheel 'O Yum. Java can be obtained free at <http://www.java.com>. Mac OSX should come equipped with a suitable version of Java. Information and upgrades are available at <http://www.apple.com/java>.*

## 4.0 Features

The Wheel 'O Yum is a multi-faceted, feature-rich system. Following is a brief overview of its features.

- Client/Server network architecture
- Full featured server including user and restaurant management
- Unique login for each user
- Customizable user profiles (each user can set his/her name, password, and icon)
- Option for each user to vote for a restaurant by preference, distance, cost, and duration
- Group and private chatting with emoticons
- User-friendly graphics and customizable layout
- Variable power meter for spinning the wheel
- Java Applet available for a no-install option (entire client application is delivered through a web browser)
- Software written with Java technology allows users to run on different hardware and software platforms (PC, Mac®, Windows®, Linux, etc) as well as through a web browser
- Software is internationalized to allow translation to other languages

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## 5.0 Minimum System Requirements

- Java Runtime Environment (JRE) version 1.4 or above  
(available free at <http://www.java.com> for Windows, Linux, and Solaris;  
<http://www.apple.com/java> for Mac OSX)
- Java-enabled web browser to use the client applet
- 32 MB free system memory (64 MB preferred)
- 16 MB video card (32 MB with hardware acceleration preferred)
- 300 MHz processor (500 MHz preferred)
- Connection to the network and/or Internet

## 6.0 Compatibility

Wheel 'O Yum version 3.6.x of the client, applet, and server is not backwards compatible with any previous version of Wheel 'O Yum. Both the client/applet and server must be version 3.1 or later.

## 7.0 Installation

### 7.1 Client and Server Installation

To install the Wheel 'O Yum Client and/or Server, just extract the file to the desired location.

Before extracting, you should confirm the MD5 sum (provided on the [wheelo yum.com](http://wheelo yum.com) download page) matches that of the file on your system. If the MD5 sum does not match, delete the file and re-download it.

Extracting the file will produce a new sub-directory named `wheelOYum_x.x.x` where `X.X.X` corresponds to the version number (for example: 3.6.0).

#### 7.1.1 Installing the Client or Server on Unix/Linux

Decompress the file and extract the archive.

Recent versions of GNU tar can perform this in one step:

```
tar xzvf WheelOYum_xxx.tar.gz for the gzip version
tar xjvf WheelOYum_xxx.tar.bz2 for the bzip2 version
```

Other versions of tar may need to extract the file separately:

```
gunzip WheelOYum_xxx.tar.gz for the gzip version
bunzip2 WheelOYum_xxx.tar.bz2 for the bzip2 version
tar xvf WheelOYum_xxx.tar
```

#### 7.1.2 Installing the Client or Server on Windows

Unzip the file. A graphical program like WinRAR<sup>®</sup> (<http://www.rarlab.com>) or WinZip<sup>®</sup> (<http://www.winzip.com>) may help.



*Currently, the Wheel 'O Yum installation on Windows does **not** add shortcuts to the Start menu or desktop.*

## 7.2 Client Applet Installation

### 7.2.1 Installing the Client Applet on the Server

Before installing the Wheel 'O Yum Client Applet, read the section *Wheel 'O Yum Client Applet* for the advantages and disadvantages.

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To install the Wheel 'O Yum Applet on the server, start by extracting the file as described in [7.1.Client and Server Installation](#).

Inside the `wheelOYum_X.X.X` directory will be a subdirectory named, `applet`. This directory contains sample files to assist in installing the Wheel 'O Yum Client Applet. Copy the `applet` directory into the directory which the web server serves pages from. For the Apache web server, this is typically a directory named `public_html` or `htdocs`. Consult your web server's documentation for more information on where it serves pages from.

There are three JAR files inside the `wheelOYum_X.X.X` directory: `wheeloyum.jar`, `pics.jar`, and `l10n.jar`. Copy the last two files—`pics.jar` and `l10n.jar`—into the `applet` directory previously established on the web server.

Ensure that all files in the `applet` directory have the appropriate permissions to be accessed by the web server. On Linux/Unix, this is typically 0755. On Windows, the files should be readable and executable by everyone. Consult your web server's documentation for more information on the appropriate file permissions and how to set them.

That's it! The client applet is installed with the default/sample web pages. To try the applet, make sure the Wheel 'O Yum server is running on the same computer as the web server and visit the web page with a Java-enabled web browser. If you copied the `applet` directory into the top-level directory that the web server publishes, then you should point your browser to the `applet/index.html` page.

Example 1 – Web server machine has a registered domain name:  
If your domain name is `mydomain.com`, then point your browser to  
<http://www.mydomain.com/applet/index.html>

Example 2 – No domain name registered, but DNS is setup:  
If your web server's host name is `mickey`, then point your browser to  
<http://mickey/applet/index.html>

Example 3 – No domain name registered and no DNS available:  
If your web server's IP address is `192.168.1.131`, then point your web browser to  
<http://192.168.1.131/applet/index.html>

The provided samples use three HTML files to access the Wheel 'O Yum Client Applet: `index.html`, `wheeloyum.html`, and `wheeloyum_raw.html`. All files are provided as samples and can be modified as desired. If you're upgrading to a newer version of the Wheel 'O Yum, be sure to incorporate any changes to these files into your own otherwise the Applet may not function properly.

`index.html` is used as an entry/welcome page with general information and instructions. This page is useful for relaying the Wheel 'O Yum requirements to users and possibly the ID and passwords of *guest* accounts. It provides a link or button for users to proceed onto the Wheel 'O Yum. It can also be used as a download page for users to download the local client version of the Wheel 'O Yum.

wheeloyum.html contains the HTML tags necessary to launch the Wheel 'O Yum client applet. This file will attempt to detect the presence and version of Java when browsed. If Java is not available, or an invalid version of Java is found, the page will automatically download and install a valid version of Java after prompting the user. There is one set of parameters that may be adjusted in this file pertaining to the initial startup behavior of the Wheel 'O Yum Client Applet.

wheeloyum\_raw.html contains the raw HTML tags necessary to launch the Wheel 'O Yum client applet. Unlike wheeloyum.html, this file does not attempt to detect the presence of Java. This file is provided for admins who want the barest HTML necessary.

- `InitiallyDetached` – Set to `true` to have the applet automatically detached from the web page upon startup. Set to `false` to start the Applet embedded in the web page.
- `InitialDetachedLeft` - If `InitiallyDetached` is true, this value will control the initial horizontal position of the detached Applet. The value should be a number to indicate the number of pixels between the left side of the screen and the application. The special value `CENTERED` will automatically center the application horizontally.
- `InitialDetachedTop` - If `InitiallyDetached` is true, this value will control the initial vertical position of the detached Applet. The value should be a number to indicate the number of pixels between the top of the screen and the application. The special value `CENTERED` will automatically center the application vertically.
- `InitialDetachedWidth` - If `InitiallyDetached` is true, this value will control the initial width of the detached Applet. The value should be a number to indicate the initial width of the application in pixels.
- `InitialDetachedHeight` - If `InitiallyDetached` is true, this value will control the initial height of the detached Applet. The value should be a number to indicate the initial height of the application in pixels.

### *7.2.2 Client Applet for Users*

One of the benefits of using the Applet version of the client is that it doesn't need to be installed on each user's computer. The entire application is delivered through a Java-enabled web browser. To run the Wheel 'O Yum through a web browser, simply navigate to the web page specified by your Wheel 'O Yum host. For more information on the Wheel 'O Yum Applet, refer to the section *Wheel 'O Yum Client Applet* below.

## 8.0 Overview

The Wheel 'O Yum utilizes a client-server architecture. The client is used by end-users to connect and interact with the system and other users. The server acts like the *brain* of the system; it provides the central knowledge base to control the clients.

### 8.1 Client Overview

The client program is available in two forms: an application which is installed on each user's local computer and an Applet which is *delivered* (no installation necessary) through a Java-enabled web browser. The advantages and disadvantages of using the Applet version of the client are specified in the section *Wheel 'O Yum Client Applet*. Both versions perform the same tasks. The client allows users to vote on restaurants, spin the wheel, chat, and change his/her profile. People will access and interact with the Wheel 'O Yum software through a client. Note that you can only use the Applet client if your administrator set it up.

### 8.2 Server Overview

A server must be running before any clients can connect or log in. Once running, the server application provides options to control the Wheel 'O Yum for users. It also provides status on the users which are connected to the system.

## 9.0 Wheel 'O Yum Server

### 9.1 Background

A Wheel 'O Yum server is required to be running and *listening* (described below) for a group session. It acts as the central brain for a group of users to connect and interact.

Only one server is needed for one or more users to log in; but it must be running before any users can log in. The server holds all the information for a group like restaurants, user accounts, users who are logged in, chat messages, restaurant voting, etc.

The person who runs the server is referred to as the *host*. Each person who logs in to the server is referred to as a *user* or *client*. Once the host starts the server, users with an account can connect, log in, and use the program.

The graphical Wheel 'O Yum server provides all functionality to administer restaurants and users.

The Wheel 'O Yum server can be run from any computer which meets these criteria:

1. The computer must be connected to the network\* (broadband Internet service such as cable or DSL is recommended for the host if serving clients across the Internet).
2. The computer must have its listening port open to the network\* for new connections. This is described in more detail below.
3. If the host resides on a LAN which assigns non-routable IP addresses (192.168.x.x) and the host intends on serving clients across the Internet, the host must have a public Internet address mapped to it. This may require firewall and/or NAT server configuration adjustment. Contact your network administrator and/or Internet service provider (ISP) for assistance.

\* The network may be a LAN (such as a home or office network) or the Internet.

There are several configuration options for the server. Most of these options can be accessed from the *Server* menu and its sub menus. All options will be saved when the server is shutdown and loaded the next time the server is started. These options are described in the following sections.

### 9.2 Server Types

There are two types of Wheel 'O Yum servers: graphical and non-graphical (headless). Both forms provide the same functionality from a server perspective. The difference is in the user interface and ability to configure the server while it's running.

Unless otherwise specified, all references in this manual to the Wheel 'O Yum server are to the graphical server.

#### 9.2.1 Graphical Server

The graphical server is very similar in user interface to the Wheel 'O Yum client. It

contains a graphical wheel, and optionally a chat window, user and restaurant list, and logo. It's also the only method of administering the server. This includes adding/removing/modifying users and restaurants. If frequent administration is required, it's advised to use the graphical server.

Unless otherwise specified, all references in this manual to the Wheel 'O Yum server are to the graphical server.

### *9.2.2 Non-Graphical/Headless Server*

The non-graphical--or headless--server does not have a graphical user interface. It's a server daemon which can run in headless environments (such as a UNIX/Linux server without an X server running).

The headless form of the Wheel 'O Yum server currently has no method of administering the server. It's simply a daemon to provide the Wheel 'O Yum service. The headless server consumes less resources and does not require a graphical system to be running—making it ideal for servers.

This version of the headless server does not include a method for administration. The recommended usage, therefore, is to configure the server (users, restaurants, etc) using the graphical server first. Once the settings are saved, the headless server can be run and will use the previously-saved settings.

A future version will include the ability to connect to the headless server for administration.

To stop the headless server, enter `quit` or the letter `q` at the console and press enter.

Unless otherwise specified, all references in this manual to the Wheel 'O Yum server are to the graphical server.

## *9.3 Starting the Server*

To start the graphical server, execute the `runServerGui` file. To start the non-graphical/headless server, execute the `runServer` file.

**Someone in the group must start and host a Wheel 'O Yum Server to use the Wheel 'O Yum.** Without the server, users cannot connect with a client to vote and spin the wheel.

### *9.3.1 Windows*

Open Windows Explorer and navigate to the directory where you installed the program in the previous step.

Open the `wheelOYum_x.x.x` directory.

Double-click the `runServerGui.bat` file to run the graphical server. Double-click the `runServer.bat` file to run the headless server.

Currently, the installation does **not** add shortcuts to the Start menu or desktop.

### 9.3.2 Unix/Linux

Navigate to the `wheelOYum_X.X.X` directory. Execute the `runServerGui.sh` file to run the graphical server. Execute the `runServer.sh` file to run the headless server.

```
cd <WheelOYum_X.X.X>
./runServerGui.sh or ./runServer.sh
```

Important: You must be in the `wheelOYum_X.X.X` directory when executing the start script. Relative environment variables are set and won't work from other directories.

The `runServer` script assumes there is a shell interpreter at `/bin/sh`. If not, you must change the first line of the script accordingly.

If enabled, the server will automatically start listening for incoming client connections. Note that the headless server will automatically start listening for incoming client connections regardless of the setting.

If this is the first time running the server, you will be prompted to add users and restaurants to the system.

To add users, use the User Manager by clicking `Server->User Manager...` Refer to the User Manager section below for more details.

To add restaurants, use the Restaurant Manager by clicking `Server->Restaurant Manager...` Refer to the Restaurant Manager section below for more details.

The restaurants and users will automatically be saved as changes are made. If an external copy of the restaurants or users is desired, use the `File->Export restaurants...` and `File->Export users...` menu items respectively.

## 9.4 Stopping the Server

To stop the graphical server, use the `File->Exit` menu item or close the window.

To stop the headless server, enter `quit` or the letter `q` at the console and press enter.

The Wheel 'O Yum server saves the restaurants, users, and settings as they are changed. This means that even if this procedure is not followed, and the server is closed unexpectedly (intentionally or by accident), the data will be preserved.

## 9.5 Listening for Connections

By default, the Wheel 'O Yum server automatically starts listening for client connections when the program starts. This feature can be adjusted in the Server tab of the Server Settings dialog. The Server Settings are described below.

The host can manually start and stop the server from listening for incoming client connections. To start or stop the server listener, use the `Server->Start server` and `Server->Stop server` commands.

The headless server automatically starts listening for client connections regardless of the setting.

## ***9.6 Obtaining Server Connection Information***

Once the server is running, you may need to provide the connection parameters to clients who wish to connect (such as the server's IP address and port number). Users need four pieces of information to log in to the Wheel 'O Yum server:

- Server IP address
- Server port number
- User ID
- User password

### ***9.6.1 Server IP Address***

Use the Server Information dialog by selecting `Server->Connection Info...` to obtain the server's connection settings. Refer to the Connection Info figure.

Note: The server IP address may not be correctly identified if the host resides on a LAN which uses non-routing (private) IP addresses (192.168.x.x). If the host will only be serving users on the same LAN, the IP address reported in the Connection Info dialog is suitable. However, if the host will be serving users across the Internet, a public IP address must be obtained for the host. This may require firewall and/or NAT server configuration adjustment. Contact your network administrator for assistance.

### ***9.6.2 Server Port Number***

Use the Server Information dialog by selecting `Server->Connection Info...` to obtain the server's port number.

### ***9.6.3 User ID***

To obtain a user's ID, use the User Manager by selecting `Server->User manager...`. Locate and select the user from the list on the left-hand side. Once selected, the user's ID will be displayed on the right-hand side. You can use the User Manager to create a new user account if necessary. Refer to the instructions below on Managing Users for detailed information.

### ***9.6.4 User Password***



The user's password is hidden for security concerns. Once a user account has been created, the host cannot determine the password. Instead, the password can only be changed. If a user forgets his/her password, the host should reset the password temporarily so the user can log in. Once the user logs in, he should immediately change the password for security.

## ***9.7 Managing Users***

The Wheel 'O Yum server stores all user accounts. The host can add, modify, and remove user accounts at any time while the server is running.

### 9.7.1 User Accounts

The user accounts are administered through the User Manager dialog, which can be invoked by selecting `Server->User manager...`

#### 9.7.1.1 Adding User Accounts

To add a user account, invoke the User Manager and click the `New` button under the list of users. This should reset the fields on the right-hand side.

Every user account must contain a unique user ID. Attempting to create a new user account with a user ID that's already assigned to another account will generate an error.

The user's name is displayed in all contexts of the Wheel 'O Yum (chatting, users list, etc.).

Each new user account will be enabled by default. Clear the `Account Enabled` field if you want to lock the user out of the system.

Lastly, an icon can be assigned to the user which is displayed in the users list. Click the `Select...` button to select an icon. Popular image formats like JPG, GIF, PNG, and TIF are supported. The icon cannot be larger than 150x150 pixels.

The User Name, Password, and Icon can be changed by the user while logged on.

The `Reset Votes` toggle button is used to modify a user's account; it doesn't play a role when creating a new one.

After populating all the user account fields, click the `Create New User` button to verify and construct the account. If an invalid user ID was supplied, an error message will be displayed prompting for a correction.

#### 9.7.1.2 Modifying User Accounts

To modify a user account, invoke the User Manager and select the user from the list. This should populate the fields on the right-hand side with the user's respective information.

An existing user's ID cannot be modified. If another ID is desired, a new account must be generated and the old one deleted.

If the selected user is logged in, the `Logged in`, `Leader`, and `Voting complete` fields are enabled. Deselecting the `Logged in` field will log the user out. Toggling the `Leader` and `Voting complete` fields will adjust the user's leadership and voting status respectively. Refer to Quick User Administration for convenient administration methods.

After adjusting the user account fields as desired, click the `Apply` button to verify and modify the account. The changes go into effect immediately; even if the user is logged in. The server will distribute the account changes to all connected clients.

#### 9.7.1.3 Removing User Accounts

To remove a user account, invoke the User Manager, select the user from the list, and click the `Delete` button. A confirmation message will be displayed before the account is

removed. If the user is logged in when the account is removed, he will be logged off and any leadership status will be reassigned if necessary.



*Caution: Once a user account is removed, it cannot be retrieved. Clicking `Cancel` in the User Manager dialog will **not** undo the operation. To restore a removed user account, you must manually recreate the user (see *Adding User Accounts* for more information).*

## 9.7.2 Quick User Administration

The Wheel 'O Yum server provides two menus to expedite determining and adjusting users who are logged on and the current leader.

### 9.7.2.1 Users Currently Logged On

To quickly determine which users are currently logged on, select the `Server->Logged On` menu item. A sub-menu will appear with a checklist of all users who are currently logged on.

To log a user out, simply click their ID from the checklist.

### 9.7.2.2 Current Leader

To quickly determine which user is the current leader, select the `Server->Leader` menu item. A sub-menu will appear with a radio-button list of all users who are currently logged on. The current leader's radio button will be selected. If no user has a selected radio button, it means there is currently no leader. This can happen if only a single user is logged on and he steps down as the leader.

To select a new leader, simply select the ID of the desired user from the radio-button list. To select a random leader, select the `Random` menu item at the bottom of the list.



*Clicking a user's ID from the list will immediately change the leader; you will not be prompted for confirmation.*

## 9.8 Managing Restaurants

The Wheel 'O Yum server stores all restaurants. The host can add, modify, and remove restaurants at any time while the server is running. Any changes made will immediately be reflected in all connected clients.

### 9.8.1 Restaurants

The restaurants are administered through the Restaurant Manager dialog, which can be invoked by selecting `Server->Restaurant manager...`

#### 9.8.1.1 Adding Restaurants

To add a restaurant, invoke the Restaurant Manager and click the `New` button under the list of restaurants. This should clear the fields on the right-hand side.

Every restaurant must contain a name, and the name must contain at least one character. Attempting to create a new restaurant record with a blank name will generate an error.

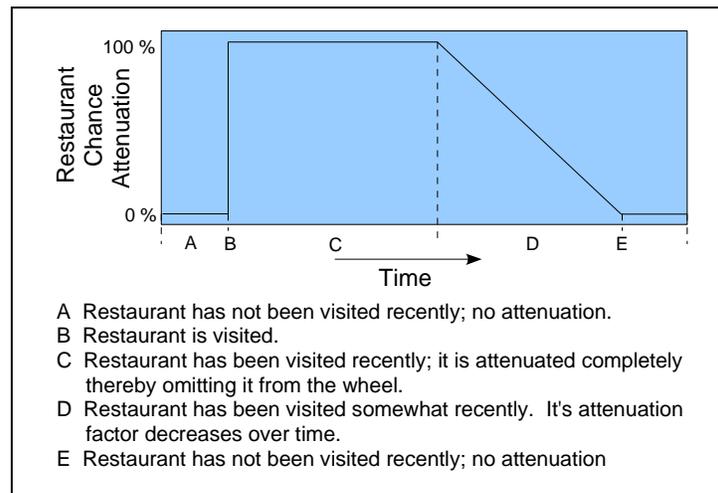
Unlike IDs for users, the restaurant names do not have to be unique.

Each restaurant record can specify the restaurant's town for informational purposes.

The `Last Visited` field indicates when the restaurant was last visited. This is taken into account when calculating the restaurant's probability. Leaving this field blank indicates the restaurant has never been visited before. Clicking the clock icon beside the field will automatically insert the current date into this field.

Setting the `Last Visited` field of a restaurant **does** affect it's chances on the wheel. A restaurant will be omitted from the wheel if it has been visited in the recent past. After a few days, a restaurant's chance will "ramp up" to normal after a few more days. The rationale behind this is to avoid visiting the same restaurant on consecutive days. For example, if you ate at Acme Pizza yesterday, you most likely don't want to eat there again today.

Below is a graphical depiction of how the Wheel 'O Yum selectively attenuates a restaurant's chances after it has been visited.



The `Distance` field should specify the distance to the restaurant. It is used in combination with users' voting options when calculating the restaurant's probability.

The `Cost` field should specify the average or approximate cost for a visit to the restaurant. It is used in combination with users' voting options when calculating the restaurant's probability.

The `Duration` field should specify the average or approximate length of time for a visit to the restaurant. It is used in combination with users' voting options when calculating the restaurant's probability.

The `URL` field can optionally specify a Uniform Resource Locator (URL) for the restaurant. If specified, users can access the URL from the restaurant's entry in the list.

Lastly, an icon can be assigned to the restaurant which is displayed in the restaurant list. Click the `Select...` button to select an icon. Popular image formats like JPG, GIF,

PNG, and TIF are supported. Bitmap (BMP) files are not supported. The icon cannot be larger than 150x150 pixels.

After populating all the restaurant record fields, click the `Create new restaurant` button to verify and construct the record. If an empty name was supplied, an error message will be displayed prompting for a correction.

### 9.8.1.2 Modifying Restaurants

To modify a restaurant record, invoke the Restaurant Manager and select the restaurant from the list. This should populate the fields on the right-hand side with the restaurant's respective information.

After adjusting the restaurant record fields as desired, click the `Apply` button to verify and modify the record. The changes go into effect immediately. The server will distribute the record change(s) to all connected clients.

### 9.8.1.3 Removing Restaurants

To remove a restaurant record, invoke the Restaurant Manager, select the restaurant from the list, and click the `Delete` button. A confirmation message will be displayed before the restaurant is removed. Once removed, the restaurant will be removed immediately from the wheel.



**Caution:** Once a restaurant is removed, it cannot be retrieved. Clicking `Cancel` in the Restaurant Manager dialog will **not** undo the operation. To restore a removed restaurant, you must manually recreate the restaurant (see Adding Restaurants for more information).

## 9.9 Server Settings

The Server Settings dialog contains settings specific to the server's operation. To view and adjust the server settings, select `Server->Settings...` All options are automatically saved when the server is shut down, and loaded when the server is started.

### 9.9.1 Display

#### 9.9.1.1 Animate wheel during spinning

This option controls the display of the wheel on the server. After administering the server with user accounts, restaurants, preferences, it's typically not used interactively like the client. To reduce the amount of wasted CPU usage on the host, the server's wheel doesn't have to spin. This option only affects the server's display; it has no impact on the wheel's display on the clients.

#### 9.9.1.2 Display chat messages

This option controls the display of chat messages on the server. Just like disabling the animation of the server's wheel, this option can help to reduce CPU usage on the host and improve response times to clients. This option only affects the server's display; it has no

impact on the chat messages displayed on the clients.

## 9.9.2 Server

### 9.9.2.1 Automatically start server and listen for connections

This option controls the server's listening behavior. When enabled, the server will begin listening for client connections upon startup. If disabled, the host will have to manually start the server. See *Listening for Connections* for details.

### 9.9.2.2 Port

The port number is used for clients to connect to the server. In the event of a port conflict with another software program, the Wheel 'O Yum's server listening port can be adjusted. Upon changing the port and confirming the settings, a confirmation dialog will prompt you to apply the port change before continuing. Any users currently connected will not be affected by this change. Once the port change is applied, new users must use the new port number to connect.



**Be sure to notify all users of the new port number, otherwise they will not be able to connect. See *Obtaining Server Connection Information* for more information.**

## 9.9.3 Chat

### 9.9.3.1 Permit private messaging

This option control users' ability to exchange private messages. When enabled, users can send private messages to another user without broadcasting it to everyone. See *Sending Private Messages* for more information. When disabled, users can only broadcast messages to the whole group.

## 9.10 Factors that Affect a Restaurant's Chances

Each restaurant's overall chance (or probability of being selected) is represented as a *slice* on the wheel. The size of the slice corresponds to the restaurant's chance, with bigger slices corresponding to a greater chance and vice versa. Thus, popular restaurants will have a larger slice on the wheel. If a restaurant's chance is less than or equal to zero, the restaurant will be removed from the wheel. This will be the case when more users vote negatively for the restaurant than those who vote positively.

Several factors affect the chances of each restaurant in the system. Some are server-specific while others are a combination of client and server characteristics. The different factors are: votes, properties, last visited, and server override.

### 9.10.1 Votes

Each user's vote plays a part in the restaurant's overall chance. Note that all users are voting on the same set of restaurants, so votes can cancel each other out. By voting on the same restaurants, the votes from all users for a particular restaurant are averaged

together. For example, if Acme Pizza receives a vote of 🍕 from one user, and 🍕 from another user, the restaurant's chance based on votes is 🍷 which corresponds to neutral or unbiased. Each restaurant's average vote is only one factor in its overall chance (or *slice*) on the wheel.

### 9.10.2 Properties

Each restaurant has properties associated with it: cost, duration, and distance. In addition to voting for particular restaurants, a user can also submit a vote for each of the properties. A user's vote for each property applies to all restaurants.

- Cost - The average cost for a visit to the restaurant.
- Duration - The average length of time spent during a visit to the restaurant.
- Distance - The approximate distance to the restaurant.

The properties are not intended to sway the votes heavily. They are used as a fine adjustment to the normal voting system. The property vote from each user is cross referenced to the properties of each restaurant when calculating the chance.

### 9.10.3 Last Visited

The last visited property of each restaurant can greatly affect the restaurant's chance. If the restaurant has been visited recently, it will be omitted from the wheel. Refer to the *Adding Restaurants* section for a diagram of the attenuation factors. While the restaurant has been visited in the immediate past, it will be omitted from the wheel regardless of the users' votes. After a few days, it will be included in the wheel, but with its chance heavily attenuated. As time progresses, the attenuation factor will decrease and eventually cease.

### 9.10.4 Server Override

The server has the ability to dynamically (at runtime) remove restaurants from participating in the wheel. The restaurant list in the server provides a checkbox in each restaurant item labeled, "Included in wheel" which allows the server to unconditionally omit a restaurant from the wheel. The server can also control this behavior from the Restaurant Manager (see *Modifying Restaurants* for more information). Note that the restaurant will **not** be removed from storage; it's simply not a candidate.

## 10.0 Wheel 'O Yum Client

### 10.1 Background

The Wheel 'O Yum client is used by all users to connect and interact with the wheel and other users. The user provides the client application with user and connection information. This information is used to connect and authenticate the user on the server. Once logged in, the client application allows users to vote on restaurants, spin the wheel, chat with other users, customize his/her profile, etc.

### 10.2 Starting the Wheel 'O Yum Client

Starting the client is straightforward: just execute the `runClient` file and provide the connection values.

#### 10.2.1 Windows

Open Windows Explorer and navigate to the directory where you extracted the file.

Open the `wheelOYum` directory.

Double-click the file `runClient.bat`

Currently, the installation does **not** add shortcuts to the Start menu or desktop.

#### 10.2.2 Unix/Linux

Execute the file `runClient.sh` from within the `wheelOYum` directory.

Important: You must be in the `wheelOYum` directory when executing the start script. Relative environment variables are set and won't work from other directories.

The `runClient` script assumes there is a shell interpreter at `/bin/sh`. If not, you must change the first line of the script accordingly.

The client will automatically display a connection dialog. Enter the connection parameters for the server and your login information and click Ok. If you are unsure about the connection parameters, contact your system administrator or the person running the Wheel O Yum server.

### 10.3 Connecting to the Wheel 'O Yum Server

Upon startup, the Wheel 'O Yum client will display a Connect dialog. (The `File->Connect` menu item will also bring up the Connect dialog if no connection is established). Supply the connection and user information and click Ok to log in to the server. Contact the Wheel 'O Yum server host for help with connection and login values.

- Host name/IP: The host name (ie. `wheeloyum.com`) or dotted-decimal IP address (ie. `24.187.48.99`) of the Wheel 'O Yum server.
- Port: The port number of the Wheel 'O Yum server.

- User name: The user name or login ID of the user for authentication on the server.
- Password: The password of the user for authentication on the server.



*Note: The Password is **not** the same password used to log into your computer.*

Contact the Wheel 'O Yum server host for help with connection and login values.

The Wheel 'O Yum client will remember the connection values and user name for the next session. The password is **not** stored; it must be entered each time.

## 11.0 Wheel 'O Yum Client Applet

### *11.1 Background*

The Wheel 'O Yum Client Applet allows users to use the Wheel 'O Yum Client from a web browser. The user simply navigates to a web page and the client applet is loaded. The Applet version has advantages, disadvantages, and restrictions when compared to the Wheel 'O Yum Client application.

### *11.2 Advantages*

The Wheel 'O Yum Client Applet offers several advantages.

#### *11.2.1 No Installation Required*

The Client Applet doesn't need to be installed on the user's machine. The user points his web browser to the web page when he wants to use the Wheel 'O Yum.

#### *11.2.2 No Version Conflicts and Simple Upgrading*

Since the applet is loaded from the web server each time the web page is browsed instead of being installed, the same version is provided to all users. This eliminates version conflicts and localizes upgrading to a single installation (on the web server).

#### *11.2.3 Accessibility*

The Wheel 'O Yum Client Applet is accessible from any Java-enabled web browser. This offers flexibility for users with multiple computers and diverse offices. User's can connect from different hardware and software platforms.

### *11.3 Disadvantages*

There are also a few disadvantages with the Wheel 'O Yum Client Applet; most of which are present for enhanced security. For security purposes, Java Applets are not permitted to read from or write to the user's hard drive. While this is a great security feature, it prevents the Wheel 'O Yum from loading and saving files for each user.

#### *11.3.1 Local Preferences Don't Persist*

The Wheel 'O Yum Client saves each user's preferences (such as display settings) and restores them the next time the program is run. This enhances the program's useability by saving the user from adjusting the program each time. Each time the Wheel 'O Yum Client Applet is loaded, however, it will reset all options and settings to their default state. Note that this does **not** apply to each user's profile characteristics (such as user name and password) as they are stored on the server.

### 11.3.2 Icon/Avatar Cannot be Changed

Since unsigned Java Applets cannot read from the local hard drive, users cannot change their profile icon/avatar via the Wheel 'O Yum Client Applet.

## 11.4 Requirements

The Wheel 'O Yum Client Applet has some requirements associated with it.

### 11.4.1 Java Enabled Web Browser

The first and foremost requirement to use the Wheel 'O Yum Client Applet is a Java-enabled web browser. If not already, most popular web browsers can become Java-enabled by installing the Java Runtime Environment (JRE) available for free from Sun Microsystems at <http://www.java.com>.



**Important:** The Java platform used **must** be compliant with the Java specification. Some third party implementations (such as Microsoft's J++) are **not** compliant and therefore will not work.

### 11.4.2 Web Server (Wheel 'O Yum Server Only)

Java Applets must be served by a web server. For security reasons, Java Applets can only connect back to the server where they were loaded from. This means the Wheel 'O Yum server must run on the same machine as the web server to support connections from Applets. If you don't intend on making the Client Applet available, the Wheel 'O Yum Server can be run on any machine (see Wheel 'O Yum Server for details).

Refer to the section *Client Applet* under *Installation* for instructions on installing the Wheel 'O Yum Client Applet on a web server.

## 11.5 Starting the Wheel 'O Yum Client Applet

To start the Wheel 'O Yum Client Applet, simply navigate to the web page provided by the Wheel 'O Yum Server Host in your favorite Java-enabled web browser. Note that you **must** use the web page provided by your host. Accessing the Wheel 'O Yum Client Applet on another web page (such as [wheelo yum.com](http://wheelo yum.com)) will **not** provide access to your desired host. Once the Client Applet loads, refer to the instructions for the Wheel 'O Yum Client above for more information.