L-Soft Sweden AB



# Windows Installation Guide LISTSERV<sup>®</sup> Maestro, Version 1.2

Last updated November 21, 2003 Build 3 Release

This document describes the installation of the "Version 1.2 Build 3" release of LISTSERV Maestro for Windows.

The information furnished in this document is meant as an introduction to installing and administering a LISTSERV Maestro installation. For further in-depth information that may be helpful <u>before</u> initiating an installation, please see the LISTSERV Maestro Administrator's Guide (available at http://www.lsoft.com/manuals.html).

Information in this document is subject to change without notice. Companies, names and data used in examples herein are fictitious unless otherwise noted. L-Soft Sweden AB does not endorse or approve the use of any of the product names or trademarks appearing in this document.

Permission is granted to copy this document, at no charge and in its entirety, provided that the copies are not used for commercial advantage, that the source is cited and that the present copyright notice is included in all copies, so that the recipients of such copies are equally bound to abide by the present conditions. Prior written permission is required for any commercial use of this document, in whole or in part, and for any partial reproduction of the contents of this document exceeding 50 lines of up to 80 characters, or equivalent. The title page, table of contents and index, if any, are not considered part of the document for the purposes of this copyright notice, and can be freely removed if present.

Copyright © 2003, L-Soft Sweden AB All Rights Reserved Worldwide.

LISTSERV is a registered trademark licensed to L-Soft international, Inc. L-SOFT and LMail are trademarks of L-Soft international. Inc. LSMTP is a trademark of L-Soft international, Inc. CataList and EASE are service marks of L-Soft international, Inc. UNIX is a registered trademark of X/Open Company Limited. AIX and IBM are registered trademarks of International Business Machines Corporation. Alpha AXP, Ultrix and VMS are trademarks of Digital Equipment Corporation. OSF/1 is a registered trademark of Open Software Foundation, Inc. Microsoft is a registered trademark and Windows, Windows NT, Windows 2000, Windows XP and Windows 95 are trademarks of Microsoft Corporation. HP is a registered trademark of Hewlett-Packard Company. Sun is a registered trademark of Sun Microsystems. Inc. Solaris is a registered trademark of Sun Microsystems, Inc. IRIX is a trademark of Silicon Graphics, Inc. PMDF is a registered trademark of Innosoft International. Pentium and Pentium Pro are registered trademarks of Intel Corporation. All other trademarks, both marked and not marked, are the property of their respective owners. Some portions licensed from IBM are available at http://oss.software.ibm.com/icu4j/ This product includes code licensed from RSA Security, Inc. This product includes software developed by the Apache Software Foundation (http://www.apache.org/).

All of L-Soft's manuals for LISTSERV are available in ASCII-text format via LISTSERV and in popular word-processing formats via ftp.lsoft.com. They are also available on the World Wide Web at the following URL:

URL: http://www.lsoft.com/manuals.html

L-Soft invites comment on its manuals. Please feel free to send your comments by e-mail to: MANUALS@LSOFT.COM

## Contents

1 Understanding LISTSERV Maestro	4
2 Required Resources	6
3 Performing the Installation	7
3.1 Installing LISTSERV Maestro	7
3.1.1 Fresh Installation of LISTSERV Maestro 1.2-3	7
3.1.2 Upgrading an Existing LISTSERV Maestro Installation to 1.2-3	8
3.1.3 Modifying an Existing Installation of 1.2-3	9
3.2 The Maestro System Database	10
3.3 Starting LISTSERV Maestro	10
3.4 Stopping LISTSERV Maestro	10
4 Accessing LISTSERV Maestro	11
4.1 Page Compilation	11
4.1.1 Pre-Compiling All Pages	12
4.2 LISTSERV Maestro Sample Account	13
4.3 Configuring the Administration Hub for First Use	13

# 1 Understanding LISTSERV Maestro

LISTSERV<sup>®</sup> Maestro consists of three components:

- The **Maestro User Interface** component is the actual user interface. It is used by individuals who prepare a mail job for sending and then send the job. It is also used by those who access, view, and download the collected tracking data.
- The **Maestro Tracker** component is the component that collects the tracking events that are generated by recipients of mail that was sent with the Maestro User Interface component.
- The **Administration Hub** component is a central component that stores registry and account information. It is accessed both by the Maestro User Interface and by Maestro Tracker to validate login information. It also has its own administrator user interface

In addition to LISTSERV Maestro's three components, LISTSERV Maestro also relies on the existence of two additional external components:

- An installation of LISTSERV 1.8e, build date 20 August 2003 (or later)
- An installation of **LSMTP 1.1b** (or later)

These two components must be configured to work together.

**Note**: This installation manual only describes the installation of LISTSERV Maestro's three main components. The LISTSERV and LSMTP external components come with their own installation packages, and their own installation, administration, and user manuals. These external components must be installed separately.

Optionally, you may connect LISTSERV Maestro to a separate database installation. LISTSERV Maestro can use a separate database to store its own internal data as well as to select recipient lists from database tables. LISTSERV Maestro can connect to several databases in this way.

Supported databases are:

- Oracle<sup>®</sup> 8*i* and 9*i* (and compatible versions)
- IBM DB2<sup>®</sup> V7.2 (and compatible versions)
- MySQL<sup>™</sup> 3.23.42 (and compatible versions)
- Microsoft<sup>®</sup> SQL Server 7.0 and 2000

The three LISTSERV Maestro components, the two external components, and the optional database may be installed on any combination of hosts, from one single host shared by all components to six dedicated hosts, one for each component.

When installing the components on the their hosts, the following restrictions must be met:

- All hosts that contain any of the three LISTSERV Maestro components must be interconnected with a network in a way that the components can communicate using TCP/IP ports. In addition, the host where the Maestro User Interface component is installed must be interconnected with the LISTSERV host and the host of the optional database(s) in the same way.
- The host where the Maestro Tracker component is installed must have a registered DNS host name and the HTTP port (standard is port 80) on that host must be available to external users from the Internet.
- For standard installations, the host(s) where the Maestro User Interface and/or the Administration Hub components are installed must be accessible on the HTTP port for all intended users of the Maestro User Interface and/or the Administration Hub interface. If there are only internal users, then the host(s) may be protected by a firewall with only internal network names. However, if external users also must access the Maestro User Interface and/or the Administration Hub, then the host(s) needs to have registered DNS host name(s), and the HTTP port(s) must be available to external users from the Internet, even through a firewall.
- For standard installations, the three LISTSERV Maestro components all require use of the HTTP port. On a host where any of these three components is installed, there may not be any other software running that also requires use of the same HTTP port (such as a Web server, for example).

The three LISTSERV Maestro components themselves may share one host. The standard port for HTTP is port 80. However, a different port maybe configured as the HTTP port during setup or at a later time (see the LISTSERV Maestro Administrator's Manual for details about how to change the port after the initial installation).

• There may be other restrictions applying to the LISTSERV and/or LSMTP hosts, depending on their setup requirements. See the LISTSERV and LSMTP manuals.

<u>Remember</u>, that if any of the components share a host, then all restrictions from all components on that host apply.

After the installation, all LISTSERV Maestro application files will reside in a folder called "Application Server". If components are installed on separate servers, each server will have an "Application Server" folder, but it will only contain those sub-folders and files necessary for the component(s) installed on that server.

# **2 Required Resources**

This manual assumes that you have access to the install file of LISTSERV Maestro 1.2-3:

LISTSERV Maestro 1.2-3.exe

LISTSERV<sup>®</sup> Maestro requires a computer running Windows NT 4.0, Windows 2000 or Windows XP. The type of the operating system (workstation or server) depends on the LISTSERV Maestro component(s) you want to install on the computer.

The **Maestro User Interface** and **Administration Hub** components of LISTSERV Maestro may be installed on Windows NT 4.0 (Workstation or Server), Windows 2000 (Professional or Server) or Windows XP Professional.

The **Maestro Tracker** component should normally be used only on Windows NT 4.0 Server or Windows 2000 Server. It will also run on Windows NT 4.0 Workstation, Windows 2000 Professional or Windows XP Professional, but these operating systems are limited in respect to the number of concurrent socket connections that they accept.

The Maestro Tracker component accepts connections from the "outside" Internet to track the messages that are sent. If you are expecting a heavy load, (if you plan to send mail to a large number of recipients, which in turn will generate a large number of events for Maestro Tracker) then the number of concurrent connections may exceed the limit imposed by NT Workstation / W2000 Professional / Windows XP Professional.

Experience has shown that if the number of connections per second exceeds approximately 40, then some connections may be refused, and the client will get a "server not found" result. This figure is a rough rule-of-thumb – your experience may vary depending on your hardware and other circumstances. As long as you are not expecting a heavy load (for example during an evaluation period or for a low-end installation), you may use NT 4.0 Workstation, Windows 2000 Professional or Windows XP Professional even for the Maestro Tracker component. However, do so at your own risk, remember the restriction on the number of concurrent connections, and use NT 4.0 Server or Windows 2000 Server instead in a production or heavy-load environment.

For the installation, you will also need to have access to the following:

- Administrator logon access to the computer(s) where the LISTSERV Maestro components will be installed.
- The host name and TCPGUI-port number of the LISTSERV installation that you will be using for LISTSERV Maestro.
- A LISTSERV account and password that is registered as a postmaster or is configured as a "DIST\_ALLOWED\_USER" within the LISTSERV installation that you will be using for LISTSERV Maestro.

# **3 Performing the Installation**

The installation of all LISTSERV<sup>®</sup> Maestro components must be done while logged in as Administrator.

## 3.1 Installing LISTSERV Maestro

Section 3.1.1 is for a fresh installation of LISTSERV Maestro. If you are upgrading an existing installation of an older version, see section 3.1.2. If you are reconfiguring the components of an existing installation, see section 3.1.3.

## 3.1.1 Fresh Installation of LISTSERV Maestro 1.2-3

Log in as the administrator on each host where you want to install any of the LISTSERV Maestro components and run the setup file "LISTSERV Maestro 1.2-3.exe".

The setup wizard will lead you through the installation of LISTSERV Maestro.

LISTSERV Maestro is a Web application and runs inside of the Tomcat application server. When you install a LISTSERV Maestro component, you actually install the Tomcat server with the LISTSERV Maestro component inside. For more details, see the "Tomcat Application Server" box at the end of this section.

If LISTSERV Maestro is the first Tomcat based L-Soft Web application that you install on the computer, then the setup wizard will query you for a target folder. You may accept the suggested choice (recommended) or select a different target folder. During the setup, you can select which LISTSERV Maestro component you want to install on the host where you run the setup.

After you have selected the target folder and the component(s) you want to install, the wizard may query you for some setup values:

- **HTTP-Connection port** Always queried. Enter the port on which the server will listen for HTTP connections. If you want to use the standard HTTP connection port 80, simply leave the field empty. If you do not want to use the standard port 80, enter the number of the port you want to use instead.
- Administration Hub host Queried only if you install the Maestro User Interface or the Maestro Tracker component. Enter the hostname of the host where the Administration Hub component is (or will be) installed.
- Administration Hub HTTP-connection port Queried only if you install the Maestro User Interface component. Enter the port on which the Administration Hub component listens for HTTP connections. If you leave the field empty, the standard port 80 is assumed.
- **Maestro Tracker host** Queried only if you install the Maestro User Interface component. Enter the hostname of the host where the Maestro Tracker component is (or will be) installed.

LISTSERV Maestro can be run either as a Windows Service or as a console application. Running as a service has the advantage that LISTSERV Maestro is always running in the background (and cannot be stopped accidentally by closing a window), and that LISTSERV Maestro will start automatically when the server is booted. This should be the normal run mode for a production environment.

Running in a console window has the advantage that you can see LISTSERV Maestro's output in the window directly, and not only indirectly by looking at the log files. This run mode is normally used only when trying to diagnose problems with the server.

#### The Tomcat Application Server

As a Web application, LISTSERV Maestro runs inside of the Tomcat application server. Depending on your installation, the application server may be shared by several of L-Soft's Web applications (like the different LISTSERV Maestro components: Maestro User Interface, Maestro Tracker and Administration Hub). This means that there will always be only one installation of Tomcat for all these L-Soft Web applications.

If you install LISTSERV Maestro as the first Tomcat Web application, then the setup will not only install LISTSERV Maestro, but also the Tomcat application server. If, at a later time, you install another L-Soft Web application (like another of the LISTSERV Maestro components), the setup of this other application will only add the necessary application specific files to the Tomcat installation that was installed during the LISTSERV Maestro setup. Alternatively, if you already have another L-Soft Web application installed when you install LISTSERV Maestro, then you will already have an installation of Tomcat on your computer. The LISTSERV Maestro setup will then only add the LISTSERV Maestro files to this installation.

Should you later uninstall any of the L-Soft Web applications (Maestro User Interface, Maestro Tracker or the Administration Hub), the uninstallation will only remove the files specific to that application. The Tomcat files will be left on the machine. Only when you uninstall the last of the Web applications, will the Tomcat files be removed too. This means that you can install and uninstall different Tomcat based L-Soft Web applications without having to worry about the fact that all the applications actually share the same Tomcat installation.

### 3.1.2 Upgrading an Existing LISTSERV Maestro Installation to 1.2-3

To upgrade an existing installation of LISTSERV Maestro to the current version 1.2-3, do so here:

**If the existing version is already an earlier 1.2 build**, do <u>not</u> use the installation procedure described in this document. Instead, simply apply "Patch 4 for 1.2-2", which will update your current version to 1.2-3 (the patch is available from the same location where you obtained the 1.2-3 installation package).

If the existing version is a 1.1 build or earlier, you can upgrade to 1.2-3 by using the 1.2-3 installation package: Log in as the administrator and run the setup file "LISTSERV Maestro 1.2-3.exe" on all hosts to be upgraded.

The setup wizard will automatically recognize the old installation and will give you the choice of either uninstalling the previous installation or upgrading the existing installation to the current version of LISTSERV Maestro 1.2-3.

If you choose to upgrade, then setup will upgrade only the components that are already installed on this server. Setup will upgrade the installation in the folder where it is currently installed; when upgrading, setup will not query you for the installation folder.

If you choose to uninstall, no instance of LISTSERV Maestro will be left on the host. You can then restart the setup to do a fresh installation, as described in the previous section.



**Important Note:** At the end of the upgrade, the installation wizard will prompt you to restart your computer and log in again with the same Administrator account. <u>It is vital that you restart and log in again</u>. Until you do so, the LISTSERV Maestro services will not be upgraded.

**Upgrade Note:** If you upgrade components on a server where the HTTP-access port is not the standard port 80, then the optional "CompileAll" command, which is used to pre-compile the user interface pages before first use, will not work correctly (see section about "Page Compilation" for details). In that case, you need to edit the files "hub.host" and/or "lui.host" in "\Program Files\L-Soft\Application Server\commands\compile". These files specify the HTTP server contexts where the Administration Hub and the Maestro User Interface are reachable. If those components listen on a non-default HTTP port, this non-default port needs to be specified correctly in the given URL (for example:

"http://yourhost.domain.com:8888/lui"), otherwise the "CompileAll" command will report errors.

**Caution**: Upgrading an installation is an invasive process during which files of the current installation are replaced, removed or modified and new files are added. Since any such operation may potentially abort unexpectedly (power outage, disk/computer crash, other error), there is a potential for an unexpected and incomplete termination of the upgrade process that would leave the data in a partially upgraded state, from which no consistent state could be recovered. It is therefore strongly recommended that you make a backup copy of the old installation folder (which usually has a path like "\Program Files\L-Soft\Application Server") before you run the upgrade.

### 3.1.3 Modifying an Existing Installation of 1.2-3

During the initial installation of LISTSERV Maestro, the components are installed on a certain combination of servers (for example all on the same single server, or all on dedicated servers, or in any combination). At a later time, this installation of the components on different servers may be changed, according to your needs. For example, if initially you installed all components on a single server, and then higher traffic requires you to "move" the Maestro Tracker component to a dedicated server, you would need to modify the existing installation.

When modifying an existing installation, you should always remember that the whole LISTSERV Maestro application, even if distributed on several servers, needs to be seen as one "unit" – data integrity between the components of the unit must always be maintained.

Therefore, you can not simply uninstall a component on one server and then freshly install it on the other server, because the newly installed version of that component would not contain the data that the uninstalled version had.

Instead, please follow the steps described in the "Moving Components" section of the LISTSERV Maestro Administration Guide when modifying an installation.

## 3.2 The Maestro System Database

On a Windows server, the Maestro User Interface is installed with an internal "out-of-the-box" database (a MySQL installation), called the "internal database", that allows you to run LISTSERV Maestro immediately after installation.

This default database comes with a pre-configured tablespace of 300MB. This installation is not meant for production grade / high-end use, but only for evaluation and low-end use.

In a production environment where the Maestro User Interface is used for a longer period, this tablespace may run full (as any database will at some point). For production use, you should configure the Maestro User Interface to either use an external production grade database of your choice that offers sufficient space and performance for your requirements, or you should use the MySQL administration tools to administrate the internal MySQL database to fulfill your needs.

## 3.3 Starting LISTSERV Maestro

As a last step of the installation, you will be asked if you want the setup wizard to start the LISTSERV Maestro services for you or not. If you let the wizard start the services, then LISTSERV Maestro is immediately available after the wizard completes (after a startup period). If you do not let the wizard start the services, then you have to start LISTSERV Maestro manually before you can access it.

You can start LISTSERV Maestro either as a service or in a console, as described above. You will find the shortcuts for the different start modes in the Windows Start Menu under "Programs  $\rightarrow$  L-Soft Application Server".

## 3.4 Stopping LISTSERV Maestro

You should always stop LISTSERV Maestro with the shortcut from the Windows Start Menu, under "Programs  $\rightarrow$  L-Soft Application Server".

If you are running LISTSERV Maestro in a console, <u>do not</u> shut it down by simply closing the console window. Among other problems that may occur if you "kill" LISTSERV Maestro in this way, some processes that belong to LISTSERV Maestro may continue to run in the background. Do not try to shut down LISTSERV Maestro in this way. If you happen to close the console

window by accident, you can still run the "Stop" command shortcut from the Windows Start Menu – this will then stop the processes that may still be running in the background.

# 4 Accessing LISTSERV Maestro

To test the installation of LISTSERV<sup>®</sup> Maestro components, verify that a login screen appears when accessing the User Interface and Administration Hub. At this time, it is enough just to verify that the screens display properly. The remaining parts of this section will discuss configuring the components.

To access the Maestro User Interface, open a Web browser and access the URL:

```
http://<YOUR_MAESTRO_USER_INTERFACE_HOST>:port/lui
```

To access the Administration Hub interface, open a Web browser and access the URL:

http://<YOUR\_ADMINISTRATION\_HUB\_HOST>:port/hub

The ":port" part can be left out if you have set up LISTSERV Maestro to use the standard HTTP port "80". If you are using a different port, you need to specify that port after the colon ":".

For both addresses, you will find convenience shortcuts in the Windows Start Menu under "Programs  $\rightarrow$  L-Soft Application Server" on the host where you installed the respective component.

Depending on the operating system of the client used for the access, the following browsers are supported when accessing the Maestro User Interface or Administration Hub:

- Client with Windows: Microsoft Internet Explorer 5.5 or later, Netscape 7.0 or later and Mozilla 1.0.0 or later.
- Client with Linux: **Netscape 7.0** or later and **Mozilla 1.0.0** or later. Note: There are a few issues to be aware of when using Netscape or Mozilla on Linux. Please see the chapter in the User Manual about using a Linux client to access LISTSERV Maestro.

We strongly recommend that you use only Windows or Linux with the browsers and browser versions described above, to access the Maestro User Interface or the Administration Hub. Other operating systems, browsers or browser versions are <u>not</u> supported.

The client does not have to have the same operating system as the LISTSERV Maestro server. For example, you may use a Linux client to access LISTSERV Maestro on a Windows server and vice versa.

## 4.1 Page Compilation

To display the pages of the user interface, LISTSERV Maestro uses a technology that compiles each page "just-in-time", that is at the moment a user accesses a page for the first time. This

means that when LISTSERV Maestro is freshly installed, all pages are still un-compiled, existing in their raw state. The moment a page is accessed for the first time, it is compiled automatically behind the scenes, and the result is displayed to the user.

Because of this, the first access to a page is usually noticeably slower (it takes longer until the page appears) because the page is compiled first. Any subsequent access to the same page will happen with normal speed, because it is now pre-compiled (even after a restart of the server).

#### 4.1.1 Pre-Compiling All Pages

The slower page loading during first access after an installation can be avoided by executing the "CompileAll" command after the installation. This will pre-compile all pages of the application, so that page loading will happen with normal speed even during the first access of a page.

By pre-compiling all the pages, the first users accessing a fresh installation will not experience a slower response time because the pages have already been compiled in the background.

The command can be found in the "commands" subfolder of the LISTSERV Maestro installation folder (it is called "CompileAll.cmd"). Simply execute the command (by double-clicking on the command file).

LISTSERV Maestro must be running on that server while the command is being executed.

**Note:** Compilation is a processing intensive and lengthy task, which may take a considerable amount of time, during which the server will be working to capacity. Please be patient and wait until the "Compilation complete" message appears in the console (see below). You may safely interrupt the command at any time, which will then leave all the remaining pages in the un-compiled state. You can then re-execute the command at a later time.

Executing the command is <u>fully optional</u>: If you do not execute the command, or interrupt its execution, then all pages that are not pre-compiled will simply be compiled in the background when they are accessed by a user for the first time. Also, the command needs to be executed only once, since running it again when all pages are already pre-compiled has no additional benefit.

When executed, the command displays its output in a console, similar to the following:

```
Compilation started at Thu Aug 08 09:56:14 CEST 2002
http://yourhost/hub/index.jsp: success
http://yourhost/hub/JSP/applicationList.jsp: success
...etc...
http://yourhost/lui/JSP/userSettings/preferences/report/collaboration.jsp: success
http://yourhost/lui/JSP/userSettings/preferences/report/report.jsp: success
Compilation complete
All pages compiled successfully
```

The last line of the output must read "All pages compiled successfully". If that line instead reads "There were compilation errors on N pages", then there was a problem: If all pages failed to compile, then LISTSERV Maestro was probably not running on the server you executed the command on. If LISTSERV Maestro was actually running, or if only a few pages failed to compile, then you most probably have a corrupted installation. Try to re-install or, when in doubt, contact L-Soft support.

The "CompileAll" command only pre-compiles the pages of the local server. If both the Maestro User Interface and the Administration Hub components are installed on the server, then "CompileAll" will pre-compile the pages of both these components. If only one of the components is installed, then the command will pre-compile only the pages of that component. If necessary, the command must be run once on both servers where these components are installed.

## 4.2 LISTSERV Maestro Sample Account

LISTSERV Maestro is installed with a pre-defined example account. You can access this account by opening the Maestro User Interface and logging in with the user name "sample", password "sample" (no group name). The sample account contains two example jobs in the list of delivered jobs (one plain mail and one HTML mail job), with the collected tracking data of these jobs viewable with three pre-defined tracking reports. Feel free to browse through these jobs and their tracking data and to create some "test-jobs" of your own by using the sample jobs as starting points (making copies of the sample jobs).



Important Security Note: Since the existence of this example account is well known to most users of LISTSERV Maestro, you should <u>change the password</u> of this account before making your Maestro User Interface accessible to the public (or you may want to simply delete the account. After deleting the account you may then log in as an Administrator to assign the sample jobs to a different account that you create yourself – please see the manual for more details).

## 4.3 Configuring the Administration Hub for First Use

After installation you will have to execute a few initial configuration steps in the Administration Hub before you can fully use LISTSERV Maestro. Access the Administration Hub as described above and log in with the administrator password. The default password after a fresh installation is "admin".

Execute the following configuration steps:

### 1. Change the Administrator Password

It is recommended that you change the administrator password to something other than the default "admin" <u>immediately after installation</u>. Do not forget the password, it is not recoverable.

#### 2. Define Default LISTSERV Connection

Optionally, define a default LISTSERV connection. This connection is used for all accounts that do not have their own connection parameters configured. If you have only a single LISTSERV connection that you want to share between all accounts, then it is easiest to simply configure this connection as the default connection and leave the configuration parameters of the individual accounts or groups empty (see below).

You can mix account/group settings with the default settings in any way you like. Whenever you leave a LISTSERV related entry of an account or group empty, that account or group will use the setting configured in the default connection. In that case, the corresponding setting in the default connection may not be empty.

To configure the default LISTSERV connection click on "Global Component Settings". Then click on "Maestro User Interface" and on "Default LISTSERV Connection".

Enter information for the following parameters:

- **LISTSERV Host**: The host name of the server running the LISTSERV component.
- Host Name for Return Path/List Addresses: If LISTSERV is known externally with a different host name than the one above, enter this external host name here (see manual or help pages for more details).
- **LISTSERV TCPGUI Port**: The port number on the LISTSERV host, where the LISTSERV component listens for TCPGUI connections. The standard port is 2306.
- LISTSERV Client Address: An e-mail address that is known to your LISTSERV instance either as a postmaster address or as an address that is listed under the LISTSERV configuration parameter "DIST\_ALLOWED\_USERS", that is an address that has the DISTRIBUTE right. This address will be used by the Maestro User Interface when transferring a mail job to LISTSERV.

**Note**: This address is only used internally for the communication between the Maestro User Interface and LISTSERV, to transfer mail jobs to LISTSERV for sending. This transfer happens in form of a so called DISTRIBUTE transfer, which includes an authentication of the sender of the DISTRIBUTE job, using the sender's e-mail address and his password (also, the e-mail address must have the associated right to send such DISTRIBUTE jobs, see above).

- It will work sufficiently well to have only a single such LISTSERV Client Address and use it in the default LISTSERV connection parameters or even to always use the same client address in all individual user or group level connection parameters. However, configuring different addresses (each with the DISTRIBUTE right and with a different password) and using them for different users and groups will allow you to discern between who submitted which job when looking at the LISTSERV log files.
- LISTSERV Client Password: The password associated with the "LISTSERV Client Address" at your LISTSERV instance (see above). Please see the LISTSERV

documentation about how to set a personal password for an e-mail address. (In short: Send a plain-text mail to "listserv@LISTSERV HOST", with

"PW ADD your\_password" in the mail body, with the address you want to associate the password with as the sender address of the mail.)

#### 3. Define Default Tracking URL

Optionally, define a default tracking URL. This URL is used when inserting tracking information into mail sent with an account that does not have its own tracking URL configured. If you have no reason to use different tracking URLs for different accounts or groups, then it is easiest to simply configure the default tracking URL and leave the tracking URL settings of the individual accounts or groups empty (see below). If you do not configure a default tracking URL, then all accounts that do not have their individual tracking URL settings will not be able to use tracking in their mail; for those accounts the users will only be able to send untracked mail.

You can mix account/group settings with the default settings in any way you like. Whenever you leave a tracking URL related entry of an account or group empty, that account or group will use the setting configured in the default tracking URL. In that case, the corresponding setting in the default tracking URL may not be empty or otherwise that account or group will not be able to send tracked mails.

To configure the default tracking URL, click on "Global Component Settings". Then click on "Maestro User Interface" and on "Default Tracking URL".

Enter the following parameters:

- **Tracker Host**: Enter the host name of the server running the Maestro Tracker component. This must be a DNS-registered host name that can be used by external clients to access the server from the Internet.
- **HTTP Port**: Enter the HTTP port used by the server running the Maestro Tracker component. This must be the port that external clients from the Internet must use for HTTP connections to the server.

**Note**: In a proxy-environment, the "Tracker Host" and "HTTP Port" as seen by external clients may be different from what the actual Maestro Tracker component server uses internally. Please see the LISTSERV Maestro Administrator's Guide for details about a proxy-environment or when using host name aliases.

#### 4. Create User Accounts

This step is usually only executed after you are done testing the system with the predefined sample account (see above) and are ready to use the system with your own accounts. Create at least one user account that you can then use to access the Maestro User Interface. Click on "Administer User Accounts" and then on "Add User Account". Then enter the account name (and optional group) and the password. Click on "OK".

As the next step, if you do not want the account to use the default LISTSERV connection settings and/or default tracking URL settings (see above), you need to configure individual connection and tracking URL settings for the account:

- If the account is not member of a group, configure the LISTSERV connection and tracking URL settings on the configuration page for the individual account. Click on the account name in the account list, then on "Maestro User Interface" and either "LISTSERV Connection" or "Tracking URL".
- If the account belongs to a group, then specify the LISTSERV connection and tracking URL for all accounts in the group (accounts that belong to a group always share the same LISTSERV connection and tracking URL). In the account list, click on the group name instead of the account name (appears only if the account belongs to a group), then either on "Default LISTSERV Connection" or "Tracking URL".

<u>Exception</u>: The LISTSERV client address and its associated password can be different even for accounts in the same group. To set these individual settings for an account that belongs to a group, click on the account's name in the account list and then on "Maestro User Interface" and "LISTSERV Connection".

When configuring the LISTSERV connection for newly created user accounts please see the section "Define Default LISTSERV Connection" above for parameter descriptions. For each parameter, there may already be a default defined. If so, then the default is shown beside the edit field of the parameter. In this case, you may leave the edit field empty to accept the default.