LISTSERV® Maestro 5.0 Installation Manual for Microsoft® Windows

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This document describes the installation of the "**Version 5.0 Build 29**" release of LISTSERV® Maestro for Microsoft® Windows with a **build date of April 18, 2013** in form of an **Individual Setup**.

The individual setup allows you to install only LISTSERV Maestro (without also installing LISTSERV itself), and it also gives you the option of choosing which LISTSERV Maestro components to install, so that you can distribute the components over several servers.

(For the alternative option of performing an "Express Setup", which installs all LISTSERV Maestro components and LISTSERV itself on one server, please see the Setup-Suite Manual for LISTSERV Maestro instead.)

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 before initiating an installation, please see the LISTSERV Maestro Administrator's Manual (available at http://www.lsoft.com/manuals.html).

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1 Quick Installation Guide

For a complete installation of LISTSERV Maestro 5.0-29, several components are required that may be installed on one server, or distributed over several servers. The following sub-sections give a quick overview of how to install each of these components when doing a fresh installation of LISTSERV Maestro. For more in depth information, or for information on upgrading an existing LISTSERV Maestro installation, please see the later sections of this document.

1.1 Install LISTSERV

LISTSERV Maestro 5.0-29 requires an instance of **LISTSERV 16.0** or later.

If you already have such a LISTSERV instance installed, you may use it for LISTSERV Maestro.

If you do not have a LISTSERV instance installed, or want to use a freshly installed instance, you can install a new LISTSERV 16.0 directly from the LISTSERV Maestro 5.0-29 Setup-Suite. The Setup-Suite allows you to either install the LISTSERV instance on a separate server (by performing a “Custom Setup”) or together with all other LISTSERV Maestro components on a single server (by performing an “Express Setup”). Please see the Setup-Suite Manual for LISTSERV Maestro for details.

1.2 Install External Database (optional)

Only necessary if you do **not** want to use the internal database that is deployed together with LISTSERV Maestro 5.0-29 (an instance of MySQL 5.5.16, see Appendix B for details). In this case, you need an external database that LISTSERV Maestro can use as its system database.

Supported databases are:

- **Microsoft® SQL Server 2000, 2005 and 2008**
- **MySQL™ 4.1, 5.0, 5.1 and 5.5**
- **Oracle® 8i, 9i and 10g**
- **IBM DB2® V8.2 or later**

If you already have an instance of such a database installed, you may use it as the LISTSERV Maestro system database.

If you do not have a database installed, or want to use a freshly installed database, install the database of your choice with the corresponding installation package provided by the database vendor.

Important: See the LISTSERV Maestro Administrator’s Manual for details about each database, and the specific requirements made by LISTSERV Maestro.

1.3 Install LISTSERV Maestro 5.0-29

LISTSERV Maestro 5.0-29 itself consists of three components:

- The **Maestro User Interface** component is the actual user interface for mail jobs, tracking data, and recipient lists.

- 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 both for the Maestro User Interface and for Maestro Tracker.

For a complete LISTSERV Maestro 5.0-29 installation, each of the above components must be installed, and each of them only once. However, the components do not have to be installed on the same server, they can be distributed over several servers.

On each server where you want to install one or several of the components, execute the LISTSERV Maestro installation package:

On a 32-bit Windows, install the 32-bit version of LISTSERV Maestro.

On a 64-bit Windows, you can install either the 64-bit or the 32-bit version of LISTSERV Maestro[1].

Log in as a Windows administrator and execute the setup file "`LISTSERVMaestro5.0-29-SetupSuite-x86.exe`" (for 32-bit) or "`LISTSERVMaestro5.0-29-SetupSuite-x64.exe`" (for 64-bit). If necessary, select "Custom Setup", then on the Individual Products Setup page click the button for the LISTSERV Maestro product to start the custom setup wizard.

(Alternatively, if you want to make a default installation with all LISTSERV Maestro components together with LISTSERV itself on a single server, you may perform an "Express Setup", which is however not described in this manual but in the "Express Setup" section of the Setup-Suite Manual for LISTSERV Maestro.)

Once started, the Setup wizard will guide you through all the necessary setup steps. During this process, you will be queried for the target folder into which LISTSERV Maestro shall be installed.

You will also be asked which kind of setup you want to perform:

- **Standard Setup:** When performing a Standard Setup, all three LISTSERV Maestro components plus the internal MySQL database (but not LISTSERV) will be installed on the current server. Default values will be assumed for most of the configuration settings.

  In addition, if an instance of LISTSERV is already installed on the current server, then the Standard Setup will automatically configure the freshly installed LISTSERV Maestro to use this LISTSERV instance as the default LISTSERV. For this, Setup will also perform any necessary changes to the configuration of the existing LISTSERV.
  If no existing LISTSERV is found, you will be asked to supply the connection information for the default LISTSERV manually.

[1] On a 64-bit Windows, the 32-bit version of LISTSERV Maestro is slightly faster than the 64-bit version, but it has a limit of how much memory it can address, so it should only be used for small LISTSERV Maestro instances. For a large LISTSERV Maestro instance, on a 64-bit Windows system with memory of 4GB or more, it is therefore recommended to use the 64-bit version, so that LISTSERV Maestro can make use of this additional memory.

- **Custom Setup:** When performing a Custom Setup, you will have the choice of which LISTSERV Maestro components you actually want to install on the current server. You will also have to specify more configuration settings than during a Standard Setup.

  If an instance of LISTSERV is already installed on the current server, then during Custom Setup you can choose to either use the existing LISTSERV as the default LISTSERV for the freshly installed LISTSERV Maestro (for which Setup will also perform any necessary changes to the configuration of the existing LISTSERV) or to supply the connection information for the default LISTSERV manually (which you will be asked for in any case if no existing LISTSERV is found).

Please read section 5 Prepare LISTSERV Maestro for First Use for further steps you might have to execute after a successful installation.

Note: All settings can be changed at a later time either in the Administration Hub or by editing the corresponding configuration file. Please see the LISTSERV Maestro Administrator's Manual for details.

Note: Setup will query only those settings which it can not determine automatically, depending on the current configuration of the server and the choices you make in the wizard. Therefore, during different installations you may be queried for different values and generally you will be queried for more values during a Custom Setup than during a Standard Setup.

2 Upgrading an Existing Installation

To upgrade an existing installation of LISTSERV Maestro to the current version 5.0-29, do as follows:

On a 32-bit Windows, upgrade the existing installation with the 32-bit version of LISTSERV Maestro.

On a 64-bit Windows, upgrade the existing installation either with the 64-bit or the 32-bit version of LISTSERV Maestro, depending on what version is already installed.
Important: Do **not** upgrade an existing 64-bit installation with the 32-bit version or vice versa!

Log in as a Windows administrator and execute the setup file "`LISTSERVMaestro5.0-29-SetupSuite-x86.exe`" (for 32-bit) or "`LISTSERVMaestro5.0-29-SetupSuite-x64.exe`" (for 64-bit) on all hosts to be upgraded.

Once started, the Setup wizard will guide you through all the necessary upgrade steps. It will automatically recognize the existing installation and will give you the option to upgrade it to the current version of LISTSERV Maestro 5.0-29.

Also, depending on the current installation, the setup wizard may offer the option of an "Express Upgrade" (which will upgrade all installed products) and/or an upgrade via a "Custom Setup", where you can individually select the products to upgrade on the Individual Products Setup page.

Note: Under some circumstances, the upgrade process may abort with a message like "Unable to delete file `Tomcat.exe`, file is in use" or similar. In this case, restart the computer and rerun the Setup wizard to reapply the upgrade.

The Setup wizard will upgrade exactly the components that are already installed on this server. Setup will upgrade the installation in the folder where it is currently installed.

Please read the section 5 Prepare LISTSERV Maestro for First Use for further steps you might have to execute after a successful upgrade.

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, computer crash, other error), there is a potential for an unexpected and incomplete termination of the upgrade process that could 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 before you run the upgrade.

3 Modifying or Uninstalling an Existing Installation

This section explains how to modify an existing installation of LISTSERV Maestro 5.0-29 on a certain server by either adding new components that had previously not been installed on this server, or by removing some of the installed components.

Important: If you modify an existing installation in the course of moving a component from one server to a different server, please do first consult the LISTSERV Maestro Administrator's Manual about other important steps that need to performed when moving components!

To perform a modify or uninstall of LISTSERV Maestro (but not LISTSERV, if a LISTSERV instance is also installed), log in as a Windows administrator and start the LISTSERV Maestro Setup wizard by executing the file:

```
[Maestro installation folder]\setup-data\Setup.exe
```

(Alternatively, start the setup wizard via the Windows Control Panel.)

The LISTSERV Maestro Setup wizard will recognize the existing installation and will allow you to add or remove LISTSERV Maestro components.

The wizard will also allow you to completely uninstall LISTSERV Maestro from the server.[2]

Note: The above procedure applies only to LISTSERV Maestro itself. If an instance of LISTSERV is also installed on the server, then you need to modify or uninstall it separately by running the individual LISTSERV setup wizard.
To do so, start the LISTSERV setup wizard via the Windows Control Panel. Alternatively, if the LISTSERV instance was initially installed via the LISTSERV Maestro Setup-Suite, then you can also start the individual LISTSERV setup by executing the same Setup-Suite again, and selecting the "LISTSERV" button on the Individual Products Setup page. For details about uninstalling or modifying LISTSERV, please see the LISTSERV manuals.

4 Running LISTSERV Maestro

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 running silently in the background (it cannot be stopped accidentally by closing the console window), that it will

[2] If you choose to completely uninstall LISTSERV Maestro, the whole installation folder will be deleted, with all files in it. Therefore, if you want to keep some of the files (for example log files or custom files in the "`webapps`" subfolder), you must copy or move them to a location outside of the installation folder **before** you perform the uninstall.

start automatically when the server is booted up, and that it will continue running when the current user logs off. 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 just indirectly by looking at the log files. This run mode is normally used only when trying to diagnose problems with the server.

Note: The sections below deal only with how to start and stop LISTSERV Maestro itself. Of course you will also need to start and stop the LISTSERV instance (or instances) that are used by LISTSERV Maestro. Please see the LISTSERV manuals for details.

4.1 Starting LISTSERV Maestro

You can find the shortcuts for the different run modes (service or console) in the Windows Start Menu, under **Programs → LISTSERV Maestro**.

Remember that if you start LISTSERV Maestro in a console, then it will automatically stop running when you log out. If you want LISTSERV Maestro to continue running even after you log out, then you must start it as a service.

After starting LISTSERV Maestro, you can send a remote version query to each component to verify that your installation is up and running. Open a compatible browser and type each of the URLs listed below into the address field (where you replace the correct server name in each URL). The result of the query will be displayed in the browser.

- To query LUI: `http://LUISERVER/lui/build`
- To query LUI's "list" context: `http://LUISERVER/list/build`
- To query HUB: `http://HUBSERVER/hub/build`
- To query TRK: `http://TRKSERVER/trk/build`

4.2 Stopping LISTSERV Maestro

Always stop LISTSERV Maestro with the shortcut from the Windows Start Menu, under **Programs → LISTSERV Maestro** (even if LISTSERV Maestro is running as a service).

If you are running LISTSERV Maestro in a console, do not shut it down by simply closing the console window. If you attempt to "kill" LISTSERV Maestro in this way some processes that belong to LISTSERV Maestro may continue to run in the background. If you happen to close the console window by accident, then you can still run the **Stop** command shortcut from the Windows Start Menu – this will stop the processes that may still be running in the background.

4.3 Accessing LISTSERV Maestro

To access LISTSERV Maestro, open a web browser and access the URL:

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

This URL provides access both to the Maestro User Interface (for normal users and the administrator) and to the Administration Hub (for the administrator only).

On the server where the Maestro User Interface component (LUI) is installed, you will find a convenient shortcut to this URL in the Windows Start Menu, under **Programs → LISTSERV Maestro**.

In the URL above, you need to replace "`<YOUR_USER_INTERFACE_HOST>`" with the hostname of the server running the Maestro User Interface component (LUI). In addition, if the server uses a different HTTP-port than the standard port "80", then you need to include this different port with the host name, separated with a colon "`:`", like this: "`http://HOSTNAME:PORT/lui`".

4.3.1 Supported Browsers and Client Operating Systems

Access to the Maestro User Interface and Administration Hub requires a web browser running on the client computer[3]. For this, only the browser versions listed below are supported. Other browsers are not officially supported and should not be used.

- **Microsoft Internet Explorer 7.0** or later
- **Google Chrome 14** or later
- **Apple Safari 2.0 Build 412** or later
- **Mozilla 1.0.0** or later

  and any other browser which is based on a compatible Mozilla version, such as:

- **Firefox 1.0** or later
- **Netscape 7.0** or later

5 Prepare LISTSERV Maestro for First Use

The following subsections discuss steps that you need to perform in order to prepare a fresh installation of LISTSERV Maestro for first use. If you have already provided values for certain settings during the installation process, or if you have upgraded an existing installation, some of these steps may not be necessary. Read through the sections anyway, because some steps may deal with new features that were not previously available and therefore must be performed even after an upgrade of an existing installation.

5.1 First Steps with the 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`" (no group name) and the password that you supplied for the sample account during the setup wizard (if you did not supply a password during the setup wizard, then you first have to login with the administrator account – see below – and assign a password to the sample account before you can login with the sample account).

The sample account contains two example jobs in the list of delivered jobs, one plain text and one HTML mail job, along with the collected tracking data from these jobs, viewable with three pre-defined tracking reports. Feel free to browse through these jobs and their tracking

[3] The client does not necessarily have to use the same operating system as the LISTSERV Maestro server. You may for example use a Linux client to access LISTSERV Maestro on a Windows server or any other combination.

data and to create some “test-jobs” of your own by using the sample jobs as starting points (making copies of the sample jobs).

The sample account also contains one example dataset with an example newsletter recipient list, which you may browse through and experiment with to try out the recipient warehouse features. (Note, that the recipients on the sample list are dummy recipients with addresses that will all bounce back to the sender, should you actually try to deliver a mail job to these recipients.)

5.2 Configuring LISTSERV Maestro for First Use

If you used the “**Express Setup**” option when installing LISTSERV Maestro, then all settings have already been configured automatically, according to your input in the setup wizard. In this case, you can skip this section 5.2 and also section 5.3, as you are already ready to run LISTSERV Maestro.

If however you installed LISTSERV Maestro with the “Custom Setup” option (or after an upgrade), you may still have to execute a few initial configuration steps in the Administration Hub before you can fully use LISTSERV Maestro. Access the Administration Hub with a browser, using the LISTSERV Maestro access URL (see above), and log in with the user name “`admin`” (no group) and the administrator password that you supplied during the setup wizard.

Note: The LISTSERV Maestro login page is used for login both to the Maestro User Interface (LUI) and to the Administration Hub (HUB). Once logged in, you can switch freely between the two by clicking on the **[Switch to LUI]** or **[Switch to HUB]** links at the very top of the window.
The configuration steps described below are all performed in the Administration Hub, so after the initial login, you may have to click on **[Switch to HUB]** to reach these settings.

Note: The following sub-sections describe only a small subset of the available configuration settings in the Administration Hub. Please see the LISTSERV Maestro Administrator’s Manual for a complete description and for more details.

If you have already supplied defaults for some of the settings during the installation process itself, then some of the configuration steps below are no longer necessary.

5.2.1 Maestro User Interface Runtime Settings

Before you can fully use all features of the Maestro User Interface, you need to configure some basic settings, which you can do either on account/group level or as application wide defaults:

- To configure the **application wide defaults**: Go to the Administration Hub, then access the defaults via the **Global Settings** menu.
  These settings apply to all accounts and groups which do not override them with individual settings.

- To configure the settings of a **non-group account**: Go to the **Accounts and Identities** page in the Administration Hub, click on the account name and access the account settings via the **User Account** menu.
  (If the **Accounts and Identities** page is not already being displayed, select **Accounts and Identities -> Accounts and Identities Overview** from the menu. If necessary, change the selection in the **Displayed Accounts** drop-down list to make the required account visible.)

- To configure the settings of a **group**: Go to the **Accounts and Identities** page in the Administration Hub, click on the group name and access the group settings via the **Group** menu.
  These settings apply to all accounts in the group which do not override them with individual settings.
  (If the **Accounts and Identities** page is not already being displayed, select **Accounts and Identities -> Accounts and Identities Overview** from the menu. If necessary, change the selection in the **Displayed Accounts** drop-down list to make the required group visible.)

- To configure the account-specific settings of a **group account**: Go to the **Accounts and Identities** page in the Administration Hub, click on the account name and access the account settings via the **User Account** menu.
  Note, that for group accounts, only a few selected settings are definable on an account level. Most settings are only definable on the group level for the associated group (see above) and therefore apply to all accounts in that group.
  (If the **Accounts and Identities** page is not already being displayed, select **Accounts and Identities -> Accounts and Identities Overview** from the menu. If necessary, change the selection in the **Displayed Accounts** drop-down list to make the required account visible.)

The following sub-sections describe the most important settings that you need to define in order for the Maestro User Interface to work properly. You can define all of these settings on the account/group level or as application-wide defaults.

5.2.1.1 LISTSERV Connection

The LISTSERV connection settings are necessary to make the Maestro User Interface aware of the LISTSERV instance with which it is supposed to collaborate.

Since this setting can be defined individually for accounts/groups, you can connect the Maestro User Interface to separate LISTSERV instances (even in parallel), depending on which account is currently logged in and using the Maestro User Interface. You do so by defining each account's/group's individual LISTSERV connection settings.

If, on the other hand, you have only a single LISTSERV instance that you want to share among all accounts, then it is easiest to configure this LISTSERV instance as the application-wide default and leave the settings of the individual accounts and groups empty.

To configure the default LISTSERV connection: Select **Global Settings -> Maestro User Interface -> Default LISTSERV Connection**.

To configure the LISTSERV connection of a specific account: On the **Accounts and Identities** page, click on the account, then select **User Account -> LISTSERV Connection**.

To configure the LISTSERV connection of a specific group: On the **Accounts and Identities** page, click on the group, then select **Group -> LISTSERV Connection**.

Enter information for the following parameters:

- **LISTSERV Host:** The host name of the server running the LISTSERV component. This LISTSERV host will be used for the following purposes:

  - Delivery of all mail jobs sent with the account(s) to which this setting applies.

    - Bounce reporting for all jobs sent with the account(s) to which this setting applies (unless a dedicated bounce handling server is defined – see the LISTSERV Maestro Administrator's Manual for more details).

    - Creation and maintenance of all Hosted LISTSERV Lists created with the account(s) to which this setting applies (in case the Hosted LISTSERV Lists feature is used – see section 5.3 Preparing LISTSERV Maestro for Hosted Lists for more details).

- **External Host Name:** If the LISTSERV host is known externally with a different host name than the one above, enter this external host name here (see the LISTSERV Maestro Administrator's Manual for more details).

- **LISTSERV TCPGUI Port:** The port number on the LISTSERV host on which the LISTSERV component accepts TCPGUI connections (the standard port is `2306`).

- **Client Address for Mail Delivery and Bounce Reporting:** The address you configure here is used by the Maestro User Interface when transferring a mail job to the LISTSERV host configured above and when retrieving bounce information from that LISTSERV host.

    - **Address:** An e-mail address that is known to the LISTSERV host configured above either as a postmaster address or as an address that is listed under the LISTSERV configuration parameter "`DIST_ALLOWED_USERS`", meaning an address that has the `DISTRIBUTE` right.

    - **Password:** The address' password, associated with it at the LISTSERV component. 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, and the e-mail address to which you want to assign the password as the sender address of the message.)

- **Client Address for LISTSERV Server Administration:** The address configured here is used by the Maestro User Interface to communicate with the LISTSERV host to perform server administrative tasks.

    - **Address:** An e-mail address that is known to the LISTSERV configured above as a postmaster address.

    - **Password:** The address' password, associated with it at the LISTSERV component. (See above for details about how to set a password for an address.)

5.2.1.2 Tracking URL

The tracking URL is necessary to enable the mail tracking functionality of LISTSERV Maestro. Without a tracking URL, you can still create and send mail jobs, but you cannot enable tracking for them.

Since this setting can be defined individually for accounts/groups, you can make LISTSERV Maestro use different tracking URLs (even in parallel) depending on which account is currently logged in to the Maestro User Interface. You do so by defining each account's/group's individual tracking URL settings.

If, on the other hand, you have no reason to use different tracking URLs for different accounts or groups, then it is easiest to configure the tracking URL as an application wide default and leave the settings of the individual accounts and groups empty.

To configure the default tracking URL: Select **Global Settings -> Maestro User Interface -> Default URL Settings**. Then enter the **Default Tracking URL** on the settings page.

To configure the tracking URL of a specific account: On the **Accounts and Identities** page, click on the account, then select **User Account -> URL Settings**. Then enter the **Tracking URL** on the settings page.

To configure the tracking URL of a specific group: On the **Accounts and Identities** page, click on the group, then select **Group -> URL Settings**. Then enter the **Tracking URL** on the settings page.

The tracking URL consists of the protocol, hostname and HTTP port (the port can be omitted if it is the default port for the given protocol). For example:

http://www.mycompany.com
https://www.mydomain.com
http://www.sample.net:8080

Note: In a proxy environment, the **Tracking URL** 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 Manual for details about a proxy environment or when using host name aliases.

5.2.1.3 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. Select **Accounts and Identities -> New Account**. Next, enter the account name (and, optionally, group) and the password. Click on **[OK]**.

If you do not want the account to use the default LISTSERV connection settings and/or default tracking URL settings, (or if you have not configured such defaults) you need to configure individual connection and tracking URL settings for the account. See the previous sub-sections on how to configure these settings on the account/group level.

5.3 Preparing LISTSERV Maestro for Hosted Lists

The recipient warehouse of LISTSERV Maestro allows you to store and maintain your recipient lists (and all recipient profile values) directly inside of LISTSERV Maestro, without the need for additional software.

The recipient warehouse allows you to created hosted lists of two types:

- **Hosted Recipient Lists**
- **Hosted LISTSERV Lists**

Each of these recipient list types has its own set of special features. Please see the documentation for LISTSERV Maestro for more details.

To use hosted lists in general, you will have to perform the following steps (or confirm that they have been performed earlier). For each of the steps below, see the following sub-sections for details:

1. **Enable Usage of Hosted Lists**
   In a freshly installed LISTSERV Maestro, usage of Hosted Lists is already enabled by default. However, after an upgrade from an older version, where this feature may have been disabled or was not yet available, it may be necessary to enable their usage in the Administration Hub.

2. **Grant "Data Administrator" Right**
   Even after usage of hosted lists has been enabled in general, only accounts that are granted the right to **administer hosted recipient datasets** are actually allowed to use the feature.

If you want to use hosted lists of the type **Hosted LISTSERV List**, you will also have to perform an additional step (or confirm that it has been performed earlier). Again, see the following sub-sections for details about this step:

3. **Define Database Server in LISTSERV**
   If Hosted LISTSERV Lists are to be used, then the LISTSERV host configured in the LISTSERV connection settings of the corresponding account/group needs to be connected to the system database of LISTSERV Maestro.

5.3.1 Enable Usage of Hosted Lists

If you want to use hosted lists, confirm that their usage has been enabled in the Administration Hub (this is by default the case in a freshly installed LISTSERV Maestro):

To enable hosted lists by default: Select **Global Settings -> Maestro User Interface -> Default Hosted Data Settings**.

To enable hosted lists for a specific account: On the **Accounts and Identities** page, click on the account, then select **User Account -> Hosted Data Settings**.

To enable hosted lists for a specific group: On the **Accounts and Identities** page, click on the group, then select **Group -> Hosted Data Settings**.

The Hosted Data Settings screen allows you to selectively enable or disable creation of Hosted Recipient Lists and/or Hosted LISTSERV Lists. Only accounts to which one of the enabled creation rights apply will be allowed to create the corresponding type of hosted list[4].

5.3.2 Grant Right to Administer Recipient Datasets

Once usage of hosted lists has been enabled for a group (specifically in the group settings or as an inherited default setting), it is still necessary to define which accounts from the group are actually granted the right to use this feature.

To define the right for a specific account: On the **Accounts and Identities** page, click on the account, then select **User Account -> User Right Settings**.

The User Right Settings screen allows you to grant or revoke the right to **administer hosted Recipient Datasets** for the selected account[5].

[4] The applicable right may also be inherited from the default level, if not overridden on the individual account/group level.

[5] If the **administer hosted Recipients Datasets** user right is granted, then the right to **administer Target Groups** is also always granted by default. Any user who is allowed to administer datasets will always also be allowed to administer target groups.

5.3.3 Define Database Server in LISTSERV

Hosted lists of the Hosted LISTSERV List type are based on classic LISTSERV lists, as described in the previous sub-section.

The LISTSERV list created by LISTSERV Maestro will be an actual LISTSERV list, but one that is “database backed” by a table in the LISTSERV Maestro system database (also called “DBMS-backed list” or simply “DBMS list”). This means that the subscribers on the list are not stored in LISTSERV itself, but in a table in the database backing the list (in this case, the LISTSERV Maestro system database). With such a DBMS list, LISTSERV must have access to the backing database in order to be able to retrieve the subscribers during delivery.

To enable LISTSERV to access the LISTSERV Maestro system database, you need to configure a **specific** database server name in the LISTSERV instance.

You need to do so for **every** LISTSERV instance that is configured in the LISTSERV connection settings of any account/group for which the feature to create Hosted LISTSERV Lists is enabled.

In other words, if for an account/group you have enabled the feature to create Hosted LISTSERV Lists, then you **must** configure the LISTSERV instance that this account/group has defined in its LISTSERV connection settings (or inherited from the default settings) to be able to connect to the LISTSERV Maestro system database[6].

The following instructions describe how to configure a LISTSERV instance on a Windows XP host so that it is correctly enabled to connect to the LISTSERV Maestro system database. For other Windows operating systems, the procedure is very similar. For LISTSERV on a non-Windows host, please refer to the LISTSERV documentation on how to create a database server name. Use the description below as a guideline and modify it to apply to your operating system.

On Windows, LISTSERV’s database connection happens by way of ODBC. You must first create a system-wide ODBC data source on the host where the LISTSERV instance is installed. This may or may not be the same host where LISTSERV Maestro or its system database is installed.

For example on Windows XP: Open the **Control Panel**. Next, open **Administrative Tools**, then open **Data Sources (ODBC)**. Select the **System DSN** tab, and then click **[Add…]**. Select the appropriate driver and fill out the driver-specific form with the database specific values, using the same values as you supplied for the system database connection in the Administration Hub of LISTSERV Maestro (the same database host name, port and any additional settings required by the driver). L-Soft does **not** recommend supplying a user name and password in a system-wide DSN (if offered by the driver at all). Instead of supplying these values in the DSN, you will supply them in the LISTSERV configuration (see below). Give the DSN a meaningful name.

Now you need to configure this DSN as a database server name in LISTSERV. You can do so by using the LISTSERV Configuration tool or by editing the `SITE.CFG` file directly:

- Use the “LISTSERV Configuration” tool:

  Start the tool. Click on **Advanced Configuration** and then **DBMS…**, then on **More Servers**. Fill out the **Server** field with the specific server name (see below for details) and

Also, if this user right is granted but usage of hosted lists is still disabled (see the previous sub-section), then the account will still not be able to administrate hosted lists until hosted lists are enabled as described above.

[6] If the only hosted list type you have enabled is Hosted Recipient List, then you do not have to do this.

the **DSN**, **User ID**, and **Password** fields with the name of your DSN and the same database user name and password that you have also supplied for the system database connection in the Administration Hub of LISTSERV Maestro. Then click **[Add/Replace]** and then **[OK]**.

OR

- Edit `SITE.CFG`:

  Add the following lines to the `SITE.CFG` file of the LISTSERV instance:

  ```
  ODBC_DSN_SERVERNAME=DSN_NAME
  ODBC_UID_SERVERNAME=USERNAME
  ODBC_AUTH_SERVERNAME=PASSWORD
  ```

  where you replace "`SERVERNAME`" with the specific server name (see below for details), "`DSN_NAME`" with the name of your DSN and "`USERNAME`" and "`PASSWORD`" with the same database user name and password that you have also supplied for the system database connection in the Administration Hub of LISTSERV Maestro.

The "`SERVERNAME`": The value for the specific server name to be used in the above configuration is a special value that you can find on the LISTSERV Connection screen in the Maestro Administration Hub:

Default LISTSERV Connection: Select **Global Settings -> Maestro User Interface -> Default LISTSERV Connection**.

LISTSERV Connection for a specific account: On the **Accounts and Identities** page, click on the account, then select **User Account -> LISTSERV Connection**.

LISTSERV Connection for a specific group: On the **Accounts and Identities** page, click on the group, then select **Group -> LISTSERV Connection**.

The server name is given as the value labeled **Database Server Name** in the **Hosted LISTSERV Lists Settings** section. This name always starts with "`MAESTRODB_`", followed by a unique string of characters. For example, "`MAESTRODB_dtn7nzn3`". So the entry in the `SITE.CFG` might look like this:

```
ODBC_DSN_MAESTRODB_dtn7nzn3=DSN_NAME
ODBC_UID_MAESTRODB_dtn7nzn3=USERNAME
ODBC_AUTH_MAESTRODB_dtn7nzn3=PASSWORD
```

On your own server, you would replace "`dtn7nzn3`" with the correct value for your `SERVERNAME`.[7]

Important: LISTSERV requires that if you are using a database server name, the "default database interface" must also always be defined, even if it is not used. If you do not already have the default database interface defined, you need to do this now. Otherwise, the above configuration of the database server name for Maestro will be ignored by LISTSERV. However, for the default database interface, you may supply dummy values as shown below.

[7] It is important to use exactly the same server name as given on the LISTSERV Connection screen of the Administration Hub, using the exact spelling (all letters must be in lowercase, which is also useful to discern between the letter "O" and the digit "zero": The letter is shown in lowercase as "`o`" while the digit is shown as "`0`").

Again, you can edit your LISTSERV configuration either by using the LISTSERV Configuration tool or by editing the `SITE.CFG` file directly:

- Use the LISTSERV Configuration tool:

  Start the tool. Click on **Advanced Configuration** and then **DBMS…**. Enter "Dummy" into the **DSN**, **User ID**, and **Password** fields in the **Default Interface to Database** section, and then click **[OK]**.

OR

- Edit `SITE.CFG`:

  Add the following lines to the `SITE.CFG` file of the LISTSERV instance:

```
ODBC_DSN=DUMMY
ODBC_UID=DUMMY
ODBC_AUTH=DUMMY
```

Note for Users of the Internal System Database: LISTSERV Maestro comes with an out-of-the-box version of MySQL as the internal system database. If you use this internal database as the system database and need to connect LISTSERV to it as described above, do this as follows:

- If LISTSERV is installed on the same host as the internal database – that is the host where the Maestro User Interface (LUI) component is installed – then you need an ODBC-driver for MySQL on that host, and when creating the DSN you need to supply the host name "`localhost`", the port "`3306`" and the database name "`LUI`". Also, in the LISTSERV Configuration tool (or the `SITE.CFG`, see above), supply "`luiuser`" as the user name and "`lui`" as the password.

OR

- If LISTSERV is installed on a different host than the internal database, then you need an ODBC-driver for MySQL on that host, and when creating the DSN you need to supply the host name where the internal database is installed (the host where the Maestro User Interface component is installed), the port "`3306`" and the database name "`LUI`". Then in the LISTSERV Configuration tool (or the `SITE.CFG`, see above), supply a database user name and password of your choice (and of course remember which ones you chose).

  As a second step, you need to grant the right to access the internal database to this user that you have defined. Do so here:
  On the server where the Maestro User Interface component is installed, start the MySQL client program

```
[Maestro installation folder]\lui\database\bin\mysql.exe -u root
```

  Then enter the following command:

```
grant all on lui.* to 'USERNAME'@'LISTSERVHOST' identified by 'PASSWORD';
```

  where you replace "`USERNAME`" with the database user name you have defined (this is your self defined user name, see above), "`LISTSERVHOST`" with the name of the host where LISTSERV is running and "`PASSWORD`" with the database password you have defined (again, your self defined password, see above).

Take care to use the same upper/lowercase spelling of the username and password as you have defined them in the LISTSERV Configuration tool (or the `SITE.CFG`). Also take care to type "`lui.*`" in lowercase and to use the apostrophe quotes as shown above.

5.4 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 a bit slower (it takes longer for the page to appear) 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).

5.4.1 Pre-Compiling All Pages

The slower page loading during the 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.

The command can be found in the "`commands`" subfolder of the LISTSERV Maestro installation folder. The command is named "`CompileAll.cmd`". Simply execute the command (for example by double-clicking on the command file).[8]

Note: Compiling all pages may take a few minutes. 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 to compile the remaining pages.

Executing the command is **completely optional**. If you do not execute the command, or if you interrupt its execution, all pages that are not pre-compiled will be compiled in the background when they are accessed by a user for the first time. This 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 ... pages`", then there was a problem. If all pages failed to compile, then LISTSERV Maestro was probably not running on the server on which you executed the command. If LISTSERV Maestro actually was running,

[8] LISTSERV Maestro must be running on the server while the command is being executed.

or if only a few pages failed to compile, then you most likely have a corrupted installation. Try to re-install or, if 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 same 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. In this case the command should also be run on the server(s) where other components are installed.

Appendix A: Required Resources

This manual assumes that you have access to the setup file of **LISTSERV Maestro 5.0-29**:

`LISTSERVMaestro5.0-29-SetupSuite-x86.exe` (for 32-bit)
or
`LISTSERVMaestro5.0-29-SetupSuite-x64.exe` (for 64-bit)

LISTSERV Maestro requires a computer running Windows XP, Windows Vista, Windows 7, Windows Server 2003, Windows Server 2008 or Windows Server 2008 R2. Both 32-bit and 64-bit Windows versions are supported.

For the installation, you will also need to have **Administrator login access** to the computer(s) where the LISTSERV Maestro components will be installed

When installing the components on 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 such 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, as well as with the host of any optional database(s).

- The host where the Maestro Tracker component is installed must have a registered DNS host name and the HTTP port (typically port "80") on that host must be available to external users from the Internet.

- The host where the Maestro User Interface component is installed must be accessible on the HTTP port for all intended users of the Maestro User Interface. If there are only internal users, then the host may be protected by a firewall. However, if external users are also supposed to access the Maestro User Interface, then the host must to have a registered DNS host name and the HTTP port must be available to external users from the Internet, even through a firewall.

  Note: If the Recipient Warehouse feature is to be used in such a way that subscribers will be able to use the subscriber access pages to independently subscribe to and unsubscribe from lists, as well as to edit their subscription profiles, then the Maestro User Interface **must** be accessible to external users as described above.

- The host where the Administration Hub component is installed must be accessible on the HTTP port for all intended users of the Administration Hub interface. If there are only internal users, then the host may be protected by a firewall. However, if external users are also supposed to access the Administration Hub, then the host must to have a

registered DNS host name and the HTTP port 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 however share one host and the same HTTP port. The standard port for HTTP is port “80”. However, a different port may be 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 at a later time).

- Other restrictions may apply to the LISTSERV host, depending on LISTSERV’s setup requirements. See the LISTSERV manuals for details.

Remember that if any of the components share a host, then **all** restrictions from **all** components on that host apply.

Appendix B: The Internal MySQL Database

By default, LISTSERV Maestro 5.0-29 is installed with an instance of MySQL 5.5.16 as the internal system database.

Using this internal system database is optional. You may decide during setup not to install the internal system database at all, in which case you have to install a separate external system database. Alternatively, you may choose to install it during setup, but then switch to a different external system database at a later time.

Please see http://www.mysql.com for details about MySQL 5.5.16 and its features to determine if it meets your requirements and expectations for a production database. Reviewing the features will help you decide if you want to use the internal database or if you prefer to install a different external system database.

With LISTSERV Maestro, the internal MySQL database is installed on the same server as the Maestro User Interface component (if installation of MySQL was not deselected during setup). You can find the database binaries, including some selected server and client tools, in the folder

```
[Maestro installation folder]\lui\database
```

on that server.

Upgrade Note: LISTSERV Maestro 4.0 (and older) was installed with an internal MySQL database of an older version than 5.5.16. When upgrading such an existing older installation to version 5.0-29, the internal MySQL database will **not** automatically be upgraded to 5.5.16. Instead, the upgraded LISTSERV Maestro 5.0-29 will continue to use the older internal MySQL database version.

If you are upgrading from such an older version of LISTSERV Maestro (4.0 or older) and are using the internal MySQL database, then please contact L-Soft support for help on how to also upgrade the internal database.