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*Whitepaper*

# Orchestrating a Symphony of Email with LISTSERV® Maestro

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L-Soft invites comments on its documentation. Please feel free to send your comments by email to: [manuals@lsoft.com](mailto:manuals@lsoft.com)

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# Introduction

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By using email, companies and institutions can quickly and cost-effectively deliver thousands, even millions, of direct communications rapidly over the Internet. Having the right tools to create and send targeted opt-in email to customers, investors, patrons, constituents, distributors, sponsors, alumni, and employees is a critical part of any organization's communications strategy.

LISTSERV Maestro is a highly sophisticated solution for just this purpose. It can easily integrate information from a database into email, creating personalized messages, based on each recipient's demographic information and preferences. LISTSERV Maestro can be used to analyze recipient responses, giving organizations valuable insight into customer interests and the effectiveness of their electronic mailings. These measurable results can then be used to tailor future communication, improving customer relations and increasing customer acquisition and retention rates.

This document uses a musical theme as an analogy to explain how LISTSERV Maestro works. LISTSERV Maestro acts as the conductor, leading, organizing, and delivering email communications. The musicians are the people who take direction from the conductor in order to produce the messages. The instruments are the different parts of the hardware and software that are used by the musicians to blend all the pieces together to make a "symphony of email".

## The Conductor

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LISTSERV Maestro is an advanced server software application for creating, managing, distributing, and tracking opt-in email communications. Using an intuitive Web interface, it leads users through the sequences used to produce and send personalized email messages. Incorporated into this powerful solution is a tracking component that can collect data every time a recipient opens an email message or clicks on a link contained within the message.

### LISTSERV Maestro can:

- Retrieve a targeted group of recipients from wherever customer data is stored.
- Save and reuse database queries as predefined recipient definitions.
- Define email messages in multiple formats.
- Schedule email messages for a single delivery or for recurring delivery on any date, at any time, within any time zone.
- Save and reuse recipient lists, content, and sender information.
- Track recipient open-ups and click-throughs at differing levels of detail.
- Produce template-based and custom reports from collected tracking data.
- Produce bounce reports tabulating the number and type of bounce.
- Delegate various tasks related to a campaign to defined team members.

LISTSERV Maestro combines a recipient email list with message content, sender information and any other data from a database (optional) to produce and deliver customized email messages. Tracking reports become available after the message is delivered.

**E-mail List**

EMAIL	NAME
Xavier@maestro-demo.lsoft.com	Xavier Xero
Ursula@maestro-demo.lsoft.com	Ursula Underhill
Toby@maestro-demo.lsoft.com	Toby Tuttle
Quod@maestro-demo.lsoft.com	Quod Quartermaster
Lisa@maestro-demo.lsoft.com	Lisa Lopez
Evelyn@maestro-demo.lsoft.com	Evelyn Eavensong
Darren@maestro-demo.lsoft.com	Darren Donagel

**Optional Recipient Data**

FIRSTNAME	STATE	MODEL_NO	MODEL_NAME	PRICE
Xavier	NY	5454	Clean Air Machine	29.99
Ursula	NY	5454	Clean Air Machine	29.99
Toby	MD	5454	Clean Air Machine	29.99
Quod	AK	5454	Clean Air Machine	29.99
Lisa	FL	5454	Clean Air Machine	29.99
Evelyn	CA	5454	Clean Air Machine	29.99
Darren	FL	5454	Clean Air Machine	29.99

**Schedule Delivery**

Deliver immediately when authorized

Deliver at the following time

Date: [11/01/2003] [mm/dd/yyyy]

Time: [13:00] [hh:mm]

**Advanced Scheduling Options**

Deliver only once. Do not auto-repeat. (If the system is down at the scheduled delivery time, delivery will commence immediately after next system restart.)

Auto-repeat delivery of this job. (If the system is down at a given delivery time, no deliveries will happen at that time. After a restart, delivery will commence at the next delivery time according to the repeat schedule. It will be failed if the delivery threshold time has been reached.)

Repeat interval between repeated deliveries: [1] Months

Repeat until stopped manually.

Repeat until the following threshold time

Date: [11/01/2004] [mm/dd/yyyy]

Time: [13:00] [hh:mm]

**Sender**

E-mail Address: [editor@widgets.com]

Sender Name: [Gordon James]

Reply-To Address: [feedback@widgets.com] (optional)

Bounce Handling:  Handle bounced messages automatically (optional)

Send bounced messages to: \_\_\_\_\_

**Message Content**

HTML | HTML Source | Text Alternative | Attachments

**Schedule Delivery**

Deliver immediately when authorized

Deliver at the following time

Date: [11/01/2003] [mm/dd/yyyy]

Time: [13:00] [hh:mm]

**Advanced Scheduling Options**

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Repeat until the following threshold time

Date: [11/01/2004] [mm/dd/yyyy]

Time: [13:00] [hh:mm]

**Customized E-mail Messages**

**Your Monthly Newsletter from Widget Company**

Dear Toby,

Thank you for your continued interest in the Widget Company. It is our pleasure to announce the new product line for Fall of 2004. You will be delighted with all the new features and ease of use. To get a sneak peek, visit [www.widgets.com](http://www.widgets.com). To place an advance order, point your browser to [www.order\\_widgets\\_now.com](http://www.order_widgets_now.com)

**Recall Update**

We wanted to remind all our customers who purchased the Clean Air Machine number 5454 that the recall is still in effect. To receive your new product, please ship the old product to:

**Tracking Reports**

Report: Monthly Sum of Events Report

Event Data Sources Summary:	Count
All open-ups	170
Company Home Page	66
HTML click-throughs	342
All text click-throughs	342

Legend:

- Opened mails (HTML) Sum: 6,317
- Clicks on any link in the mail Sum: 2,303
- Clicks on links in HTML body Sum: 1,961
- Clicks on links in alternative text Sum: 342

**The Musicians**

The people who interact with LISTSERV Maestro can be split into three broad categories, defining their areas of responsibility: regular users, data administrators, and system administrators. Because every organization has different needs and resources, the categories and their respective responsibilities are adaptable. For example, a single person can fulfill all three roles, or the roles and their responsibilities can be split among a number of individuals.

Depending on the type of "music" being played, a soloist or small group may be all that is required. To make symphonic music, an orchestra is needed. Similarly, if an organization's email

## The Musicians



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Depending on the type of "music" being played, a soloist or small group may be all that is required. To make symphonic music, an orchestra is needed. Similarly, if an organization's email

communication needs are simple, a single person or small group might take on all responsibilities. On the other hand, if an organization's communication strategy involves sending millions of messages per day, retrieving recipient data from many sources, or adhering to a structured editorial process, the responsibilities of each of the three roles can be further divided, much like the sections in an orchestra.

The **LISTSERV Maestro Users** are the people who use the application to compose, test, send, and evaluate the success of email communications. Users work on the various parts of assembling and delivering email messages to recipients. A team of users can collaborate on a mailing, each working on a different part simultaneously or at different times.

Account privileges are determined by the system administrator and give individual users the right to perform certain aspects of a job, such as message definition or message testing. Users can have a full set of rights, giving them permission to work on all aspects of a job, or they can have limited rights, allowing them to work only on certain parts of a job. **LISTSERV Maestro Users** can [\[1\]](#):

- Define recipients for an email message from a variety of sources including **LISTSERV** lists, databases, uploaded text files, and past jobs.
- Define the body of an email message using plain text, HTML, or a combination. Attachments can be added to the message.
- Save and reuse predefined content elements such as headers and footers.
- Define the sender of an email message.
- Schedule the delivery time and date for a message.
- Set the type of tracking behaviors to be recorded – open-ups and/or click-throughs.
- Set the level of information to be recorded by tracking events, from a blind aggregate count of all events to an identifiable individual's precise actions.
- Test messages to make sure they appear as expected to the recipients.
- Authorize a message to be delivered to recipients.
- Produce dynamic reports on the behavior of recipients in reaction to the delivered messages.

The **LISTSERV Maestro Data Administrator** role is fulfilled by a person who is formally in charge of setting up recipient data for access by the regular users of **LISTSERV Maestro**. The data administrator needs to understand the way recipient data is organized and have access to it in order to set up the necessary functionality within **LISTSERV Maestro**. The data administrator can work on other parts of an email job, can also act as the system administrator, or all three roles can be filled by different people [\[6\]](#). The **LISTSERV Maestro Data Administrator**:

- Manages the Recipient Warehouse by designing and creating datasets and lists – Hosted Recipient Lists (HRLs) and Hosted **LISTSERV** Lists (HLLs) – for collecting, storing, and managing recipient information within **LISTSERV Maestro**.
- If desired, enables and optionally customizes the subscriber web pages related to the datasets, HRLs, and HLLs, allowing members to manage their own subscriptions.
- Creates “target groups” (pre-defined sets of recipients) for regular users to employ when selecting recipients for jobs [\[5\]](#).
- Removes target groups from availability, or deletes them from the system [\[5\]](#).

- Sets up other database connections between a DBMS (database management system) and LISTSERV Maestro. These may include external customer databases [\[5\]](#) [\[6\]](#) [\[7\]](#), direct queries from databases for recipient definitions in individual jobs, and drop-in content from a database [\[5\]](#).
- Sets up traditional LISTSERV lists that regular users can use as recipients.
- Sets up text files containing lists of recipient and associated data. The files can be uploaded by the users while setting up the mailing or uploaded automatically by LISTSERV Maestro “just in time” when the mailing is sent out [\[5\]](#).

The **LISTSERV Maestro Administrator** role is fulfilled by a technical person or IT staff in charge of the LISTSERV Maestro application on a particular server or servers [\[12\]](#). The LISTSERV Maestro Administrator:

- Installs and configures the application [\[8\]](#) [\[9\]](#) [\[10\]](#) [\[11\]](#).
- Maintains the installation by applying patches and updates.
- Modifies the installation if necessary or desired [\[12\]](#).
- Monitors system resources (CPU, disk space, and so on) and upgrades the server(s) when necessary.
- Upgrades LISTSERV and LISTSERV Maestro when new versions are released.
- Ensures Internet connectivity and security for the LISTSERV Maestro installation.
- Configures the LISTSERV instance(s) that LISTSERV Maestro will use to send mail [\[13\]](#).
- Configures the SMTP server(s) that LISTSERV will use for delivering the mail.
- Backs the system up at regular intervals, and restores it if necessary.
- Oversees LISTSERV Maestro’s daily operations.
- Troubleshoots the installation using system logs and other tools.
- Is the contact person for L-Soft Technical Support [\[15\]](#).
- Handles the administration of user accounts.
- Assists other users.

**Tip:** Organizations are responsible for fulfilling the Administrator and Data Administrator roles when the LISTSERV Maestro solution is installed on their servers. L-Soft staff fulfills these roles when LISTSERV Maestro is hosted from our servers (see the [Small Bands and Solo Performances](#) section of this document for more information).

## The Instruments

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The LISTSERV Maestro solution consists of several pieces that work together, like the instruments that make up an orchestra. In addition to the three components of the LISTSERV Maestro application server, LISTSERV Maestro relies on the presence and special configuration of LISTSERV® in order to function. LISTSERV prepares the messages for efficient distribution and forwards them to an SMTP server for final delivery. LISTSERV also processes delivery errors when automatic bounce processing is requested.

LISTSERV Maestro needs to be installed on a server, or distributed over two or more servers, and configured by a system administrator. The LISTSERV Maestro interface is comprised of three components that work together [\[12\]](#):

- **The Administration Hub (HUB)** – Controls all user and program settings. The HUB is the central component that stores registry and account information.
- **The LISTSERV Maestro User Interface (LUI)** – The actual user interface. Individuals and groups use it to create and distribute customized email messages. LUI is also used to access, view, and download the collected tracking data. LUI also includes the “Data Warehouse” interface used by the Data Administrator.
- **The Maestro Tracker (TRK)** – Receives and compiles tracking data from delivered email messages.

The LISTSERV Maestro package also includes LISTSERV, which is a separate server software application with its own installation and configuration considerations<sup>1</sup>. For information on installing and configuring LISTSERV, see the *LISTSERV Installation Guide* and the *LISTSERV Site Manager’s Operations Manual* [\[13\]](#). For information on how to prepare LISTSERV to work with LISTSERV Maestro, see the *LISTSERV Maestro Administrator’s Manual* [\[12\]](#).

A DBMS (database management system) is necessary for LISTSERV Maestro to store its internal data. A MySQL internal database is automatically installed with LISTSERV Maestro. If an organization requires more control over the database, the system administrator may configure an external third-party DBMS to be used by LISTSERV Maestro instead. Compatible database systems [\[12\]](#) are:

- Microsoft® SQL Server 7.0 and 2000
- Oracle® 8i, Oracle® 9i, Oracle® 10g
- DB2® Universal Database V7.2 and V8.2
- MySQL® 3.23.42, 4.0.22, and 4.1.7

**Note:** Any ODBC compliant database can be used for read-only purposes to retrieve recipient lists and drop-in content elements.

It is also necessary to have an SMTP server available for delivering the email messages produced by LISTSERV Maestro to their final destinations. LISTSERV Maestro works with any standards-compliant SMTP server. If your organization already manages its own email services, you probably already have an SMTP server available. If not, there are many free and low-cost SMTP servers available on the market.

Configuration of a multi-server system is a complex undertaking that requires planning and cooperation among network administrators and systems administrators. All LISTSERV Maestro components, LISTSERV, the external database, and the SMTP server need to be configured to work with LISTSERV Maestro and each other. Proxies, firewalls, and other security measures can affect how a LISTSERV Maestro installation is configured [\[12\]](#).

**Tip:** L-Soft can provide a wide range of consulting services to assist with planning and implementing any size installation [\[16\]](#) [\[17\]](#). Please contact the Training and Consulting Group [\[14\]](#) for more information, including access to planning check-lists and diagrams.

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<sup>1</sup> If LISTSERV and LISTSERV Maestro are installed on a single Windows server, the LISTSERV Maestro “Setup Suite” installation kit will install and configure both LISTSERV and LISTSERV Maestro so that they work together. Separate installations and configurations are necessary only in cases where LISTSERV is on a separate server from the other LISTSERV Maestro components, or on unix platforms.

## Small Bands and Solo Performances

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Like staffing and buying all the instruments for a full orchestra, maintaining hardware, installing software, and configuring complex networks is not for everyone. However, many talented people sing or play in small bands or solo, and similarly, not all organizations need a multi-server, fully staffed “orchestra”. L-Soft offers many different LISTSERV Maestro solutions to fit a wide variety of needs. And, when a band or solo performer starts producing big hits, LISTSERV Maestro can easily scale to meet larger needs.

Organizations with moderate delivery needs can easily install the entire LISTSERV Maestro package on a single server [8]. Organizations with delivery needs that exceed the capabilities of their in-house IT resources can use L-Soft’s ListPlex Maestro hosting services [3].

L-Soft Consultants are available to help customize LISTSERV Maestro installations to achieve precisely the right architecture to fulfill any requirements [14]. Training courses are available on a variety of topics [2].

Using L-Soft’s comprehensive hosting services involves no software installation, no investment in hardware, and no need to maintain an IT staff to configure and watch over the servers [3]. The only responsibilities are composing the message and gathering the audience. A complimentary one hour training session is included with all hosted accounts [2].

## A Final Note

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Remember that listening to music is a subjective experience. Imposing musical tastes on unwilling ears leads to negative feelings that can hurt an organization’s reputation. It can also be against the law. Play only for the guests who have agreed to attend the performance. A willing audience is much more receptive, and is more likely to ask for an encore.

For more information on the best practices for email marketing, see Successful E-Mail Marketing Practices [4].

## References for Users

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- [1] The LISTSERV Maestro User’s Manual  
<http://www.lsoft.com/resources/manuals.asp>
- [2] L-Soft Training  
<http://www.lsoft.com/products/training.asp>
- [3] ListPlex® Maestro Email Marketing Hosting Service  
[http://www.lsoft.com/products/listplex\\_maestro.asp](http://www.lsoft.com/products/listplex_maestro.asp)
- [4] Successful E-Mail Marketing Practices Whitepaper  
<http://www.lsoft.com/resources/whitepaper.asp>

## References for Data Administrators

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- [5] The LISTSERV Maestro Data Administrator’s Manual  
<http://www.lsoft.com/resources/manuals.asp>
- [6] Importing Data from Microsoft® Access into LISTSERV® Maestro Whitepaper  
<http://www.lsoft.com/resources/whitepaper.asp>

- [7] Importing Data from Microsoft® Excel into LISTSERV® Maestro Whitepaper  
<http://www.lsoft.com/resources/whitepaper.asp>

## References for the Administrators

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- [8] The LISTSERV Maestro Setup-Suite Manual  
<http://www.lsoft.com/resources/manuals.asp>
- [9] The LISTSERV Maestro Installation Guide for Windows  
<http://www.lsoft.com/resources/manuals.asp>
- [10] The LISTSERV Maestro Installation Guide for Linux  
<http://www.lsoft.com/resources/manuals.asp>
- [11] The LISTSERV Maestro Installation Guide for Solaris  
<http://www.lsoft.com/resources/manuals.asp>
- [12] The LISTSERV Maestro Administrator's Manual  
<http://www.lsoft.com/resources/manuals.asp>
- [13] The LISTSERV Site Manager's Operations Manual  
<http://www.lsoft.com/resources/manuals.asp>
- [14] L-Soft Consulting  
<http://www.lsoft.com/products/consulting.asp>
- [15] L-Soft Technical Support  
<http://www.lsoft.com/resources/support.asp>
- [16] Recommended Architecture for LISTSERV Maestro: Sizes S (Small), M (Medium), and L (Large)  
Contact your L-Soft sales representative or the Training and Consulting Group for this document
- [17] Recommended Architecture for LISTSERV Maestro: Sizes XL (Extra Large) and XXL (Extra Extra Large)  
Contact your L-Soft sales representative or the Training and Consulting Group for this document