



Synchronizing A Subscriber List With An External Source

Whitepaper

June 28, 2018

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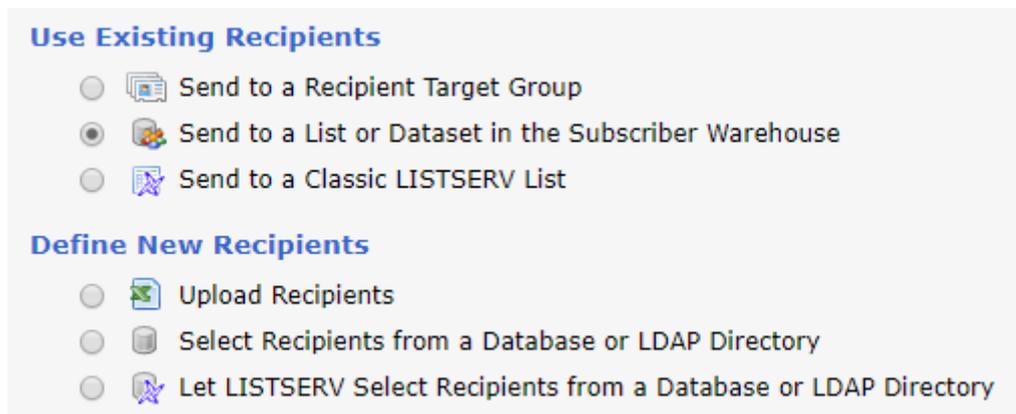
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Introduction

LISTSERV Maestro is able to import email addresses and other data, which can be used to generate and send mail jobs. This data can originally reside on a variety of source systems, such as an external SQL database (e.g. provided with a large CRM system or maintained via a custom on-premise system) or a corporate LDAP directory.

This document describes how to use a custom Subscriber List in the LISTSERV Maestro Subscriber Warehouse and to automatically synchronize the data of the external source system with this Subscriber List. With such a subscriber list available, you no longer have to manually re-import data each time a mail job is defined. In other words: instead of defining your recipients with the options “Upload Recipients” or “Select Recipients from a Database or LDAP Directory”, you will use “Send to a List or Dataset in the Subscriber Warehouse”:



This offers the following benefits:

- Easy point-and-click definition of mail job recipient subsets of your subscriber list, allowing for better targeting of your message to the correct audience.
- Automatic and safe handling of user unsubscribes, employing the `{{*UnsubscribeURL}}` system drop-in and the List Protection feature. This dramatically simplifies the process of giving your recipients an obvious and easy method to unsubscribe. A straightforward, reliable unsubscribe feature is more than just a best practice for email marketing: in many cases, it is often required to comply with recent privacy laws.
- Detailed subscriber-level reporting on opens, clicks, bounces available with a single click
- With the `{{*SocialMedia}}` system drop-in, the ability for subscribers to actively share your message with their email contacts or their followers on social media sites. Employing this drop-in instead of using manually defined social media links has the huge advantage that the sharing activity can be reported on, similar to standard open-up and click tracking activity.
- The ability for subscribers to manage their subscription settings either with the password-free `{{*ExternalProfileUpdate}}` system drop-in or by using the password-protected link provided with the `{{*LoginURL}}` system drop-in.

Before You Begin

This document assumes that you have basic knowledge of LISTSERV Maestro and how to define mail jobs. Additionally, your LISTSERV Maestro user account must have the “Administer Subscriber

Datasets, Subscriber Lists and Lookup Tables” right activated in the “User Right Settings” of the account in the LISTSERV Maestro Administration Hub.

If the external source system you are planning to synchronize with is an SQL database, then you will need the necessary database host/port settings and the user account credentials. For an LDAP directory, you will need to know the DN and password of a suitable entry in the LDAP directory.

(Note: This DN does not need full administrator privileges in the directory, read access to the necessary portions of the directory structure is sufficient.)

Creating A Subscriber List

To prepare LISTSERV Maestro to synchronize with your external source, you first need to create or specify an existing Subscriber List with profile fields that correspond to the data you have available in your source system. Technically, the minimum requirement is a single field: the email address. But in most use cases, you will want to store and use other information about your subscribers. For example, if you want your mailings to address subscribers by name, you may want to store first and last names in separate text fields – or store full names as a single field. Additional information to help coordinate and personalize your messages is also often available, e.g. fields describing certain preferences or geographic information.

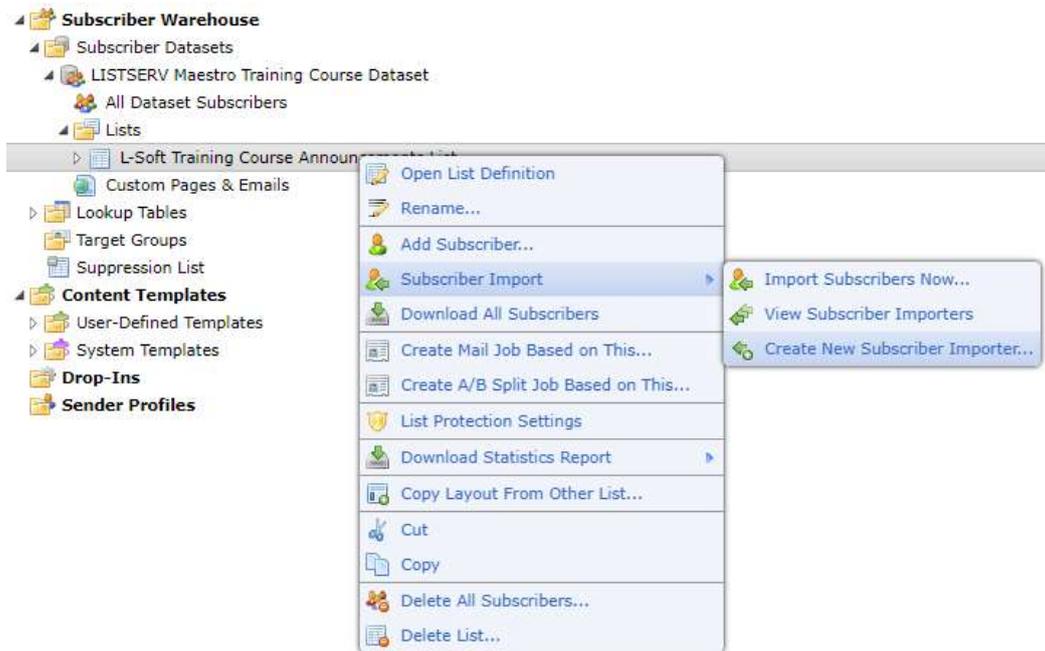
Subscriber lists are located in the LISTSERV Maestro Subscriber Warehouse, which is described here:

<https://maestro.lsoft.com/help/howTo/storeAddresses.jsp>

In this section of the online help, you also learn how to create a Subscriber List, which is required for the remainder of this document.

Defining a Subscriber Importer

A subscriber importer is a preconfigured collection of settings that tell LISTSERV Maestro how to access an external source to pull subscriber data and how to use this data to properly add, update or even remove records from the subscriber list that the importer is associated with. To create a subscriber importer, select your subscriber list and use the right-click context menu as shown below (alternatively, you can use the “New” menu instead once you have selected the list):



This opens the subscriber importer definition wizard, which is described in more detail on the following help page:

<https://maestro.lsoft.com/help/hosted/upload/importer/general.jsp>

The most important setting regarding how the importer works is defined on the “Type” page, described here:

<https://maestro.lsoft.com/help/hosted/upload/importer/type.jsp>

Once you have defined all settings and finish the wizard, you are forwarded to the list of importers for your list, which will look similar to the following:

Synchronize with CRM System [Edit](#) [Enable](#) [Delete](#) [Launch](#)

Import Type: Update existing list subscribers subscribers, add new list subscribers

Import Source: Database connection: SQL:rgw_v60_instance_0/LUI(brick.lsoft-germany.de:3306)
SQL Statement: select * from lui_1csubse

Description: Pulls data from our CRM system.

Status: **Complete** [Show Launch Security Token](#)

Last Run: <none> [View History](#)

When you first create an importer, it is not yet enabled. This gives you a chance to review and edit your importer before it can be run. To enable the importer, click the “Enable” link:

Synchronize with CRM System [Edit](#) [Disable](#) [Delete](#) [Launch](#)

Import Type: Update existing list subscribers subscribers, add new list subscribers

Import Source: Database connection: SQL:rgw_v60_instance_0/LUI(brick.lsoft-germany.de:3306)
SQL Statement: select * from lui_1csubse

Description: Pulls data from our CRM system.

Status: **Enabled** [Show Launch Security Token](#)

Last Run: <none> [View History](#)

Now that you have defined your importer settings, the subscriber importer is ready to be launched manually while being logged in. Clicking the “Launch” link will prompt LISTSERV Maestro to use the settings of the importer to connect to the source system, to execute the configured SQL statement (as shown above, but if your source system is an LDAP directory, the associated LDAP search would

be executed) and to apply the data pulled from the source to your subscriber list, again following the settings you supplied when defining the importer.

Automatic Synchronization

Once you are satisfied with the importer settings, the next step in arriving at an automatically synchronized subscriber list is to employ the External Triggering functionality of LISTSERV Maestro. External Triggering exposes registered actions in the form of HTTP(S) URLs, allowing them to be called from an external process, such as a batch file or cron job. To respond to external triggering, LISTSERV Maestro requires that you supply a security token that is used for authentication and identification. Details about how this feature works in relation to subscriber importers can be found here:

<https://maestro.lsoft.com/help/hosted/upload/importers.jsp#externalLaunch>

Example: Scheduling the Importer as Task on Windows 10

Recent versions of Windows 10 contain an official build of the open source tool “curl”, which allows you to call an HTTP(S) URL from a batch command script. Such a script would for example contain a command like the following:

```
curl -k https://SERVER_NAME/loi/externalAction.do?token=SECURITY_TOKEN
```

(See the online page linked to above for details about the actual URL that you have to use.) Saved as a batch command file, this creates an executable command on Windows 10, which can then be called from a task registered with “Schedule tasks” on any Windows server in your network that would have remote (or local, if you schedule the task on the server running LISTSERV Maestro) HTTP(S) access to LISTSERV Maestro. (Note the `-k` switch to the curl command, which is necessary if LISTSERV Maestro is accessed with an HTTPS URL and not plain HTTP.).

On Unix-based operating systems, the curl command (or a similar tool) is also frequently available and you would typically register a call to this URL as a scheduled cron job.

In any case, the result is a setup with a subscriber data importer running under a preconfigured repetitive schedule and performing all necessary work in the background.

List Protection: Excluding Unsubscribed Addresses From Automatic Import

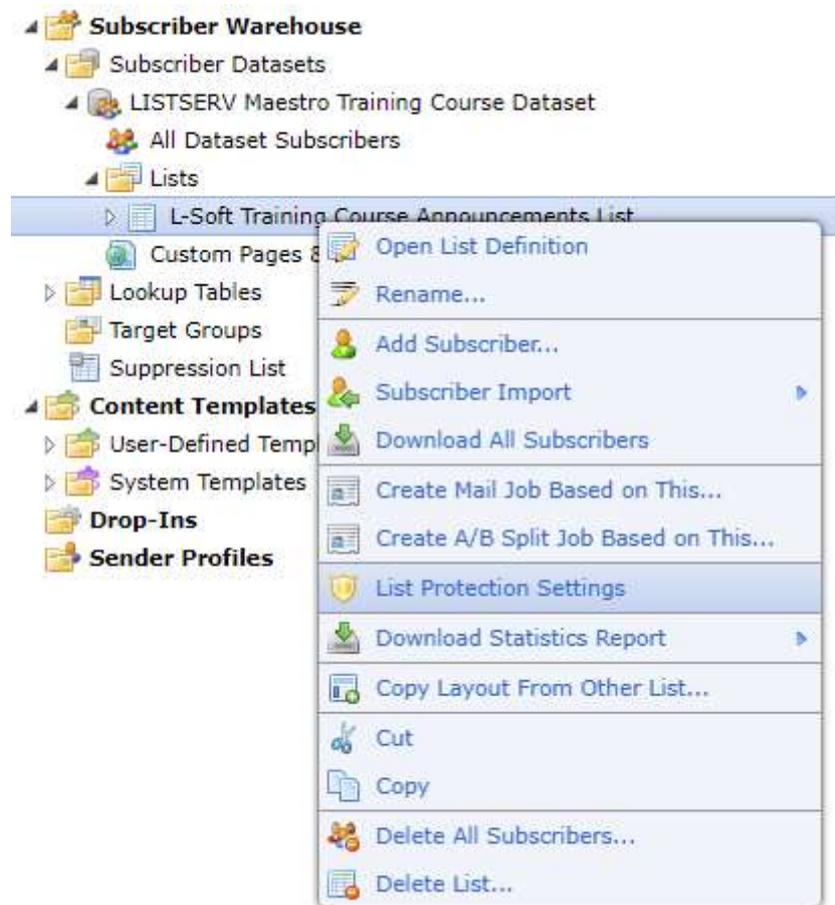
With the setup described above, your subscriber list is repeatedly refreshed with data from your external source system. Without further involvement, this could have a very important, undesirable consequence: subscriber records that have been deleted from your subscriber list will be re-imported at the next scheduled importer run.

Fortunately, LISTSERV Maestro has a built in feature called “List Protection”, which is specifically designed for subscriber lists that are synchronized with data import from external systems: When List Protection is active, each time an import runs (be it through a manual launch or through a remote call to the external trigger HTTP(S) URL), all imported data is checked against a list of addresses which have unsubscribed. LISTSERV Maestro stores this list internally. Addresses which have registered an unsubscribe are not re-added to the subscriber list but are instead skipped. (**Note:** If a data

administrator manually re-adds a subscriber who previously has unsubscribed, this action is protected with an additional confirmation checkbox that the administrator has to select in order to actually re-add the subscriber.)

LISTSERV Maestro allows you to make a distinction between a record that was deleted in response to an **unsubscribe request by a subscriber** and one that was **deleted by a data administrator** (i.e. a user having logged in to LISTSERV Maestro and having deleted the record from the list of subscribers shown for a subscriber list). LISTSERV Maestro will handle these records in two different ways: A record corresponding to a subscriber who has previously unsubscribed (i.e. is found on the list mentioned above) is not re-added to the list but is skipped. If instead a subscriber record was previously deleted by a data administrator (and is therefore not found on the list of unsubscribed addresses), then such a record is re-added to the list.

To open the list protection settings, you can use the list's context menu:



This opens the following screen:

This screen shows the List Protection Settings for the "L-Soft Training Course Announcements List" list.

Subscriber List "L-Soft Training Course Announcements List" - List Protection Settings

List Protection is **Enabled**. There are 0 unsubscribed addresses registered for List Protection. [Click here to change.](#)

List protection is enabled by default. However, given the importance of respecting recipients' right to unsubscribe, you should verify that list protection is enabled for your list before setting up an import from an external source.

Email Address Data Report & Deletion And Subscriber Imports

Recent privacy laws often contain the requirement to honor requests to fully delete all data that has been stored about a natural person. To facilitate such requests, you use LISTSERV Maestro's feature "Email Address Data Report", described in more detail here:

<https://maestro.lsoft.com/help/userSettings/emailAddressDataReport.jsp>

Forced by the strict mandate contained in such regulations, when you click the Delete button in this report, LISTSERV Maestro not only deletes all subscriber data, tracking reporting data, **but also the unsubscribe record(s)** associated with the supplied email address. In other words: the fact that the address was previously stored in LISTSERV Maestro is **forgotten with all its consequences**.

For your setup with an automatically synchronized subscriber list, this means that you **must also delete all data associated with the email address from your source system**, otherwise the import will once again re-create a subscriber record for this email address during the next importer run. Since LISTSERV Maestro has no write authority over your external source system, you must perform this task manually.