LO-CRM Connector Installation and Upgrade Guide

LO-CRM Connector Installation

LO-CRM Connector Assemblies

The files and configuration tasks listed in this document are necessary for the complete installation and configuration of the Luminate Online/Blackbaud CRM sync.

Blackbaud CRM Package Name	File Name	Install Folder
LO Sync - Advocacy Package **LO Sync - Center Package** **LO Sync - Core Package** **LO Sync - Constituents Package** **LO Sync - Events Package** **LO Sync - Revenue Package** **LO Sync - Survey Package** **LO Sync - Constituents BBDW Package**	Blackbaud.LOSync.Advocacy.Catalog.dll Blackbaud.LOSync.Center.Catalog.dll Blackbaud.LOSync.Constituent.Catalog.dll Blackbaud.LOSync.Constituent.UIModel.dll Blackbaud.LOSync.Core.Catalog.dll Blackbaud.LOSync.Core.UIModel.dll Blackbaud.LOSync.EmailInteraction.Catalog.dll Blackbaud.LOSync.EmailInteraction.UIModel.dll Blackbaud.LOSync.Events.Catalog.dll Blackbaud.LOSync.Revenue.Catalog.dll Blackbaud.LOSync.Revenue.UIModel.dll Blackbaud.LOSync.Survey.Catalog.dll	bbappfx\vroot\bin\Custom
EventLogger	Blackbaud.CustomFx.EventLogger.dll Blackbaud.CustomFx.EventLogger.bbMetalWeb.dll Blackbaud.CustomFx.EventLogger.Catalog.dll Blackbaud.CustomFx.EventLogger.Configuration.dll Blackbaud.CustomFx.EventLogger.Provider.dll Blackbaud.CustomFx.EventLogger.SpWrap.dll Blackbaud.CustomFx.EventLogger.UIModel.dll	bbappfx\vroot\bin\Custom
Query Import Package	Blackbaud.CustomFx.QueryImport.Catalog.dll Blackbaud.CustomFx.QueryImport.UIModel.dll	bbappfx\vroot\bin\Custom
Custom Solutions Version Information Package	Blackbaud.CustomFx.CSVersionInfo.Catalog.dll Blackbaud.CustomFx.CSVersionInfo.UIModel.dll	bbappfx\vroot\bin\Custom
HTML files	All folders and the files contained within below: blackbaud.customfx.batchdataexchange.catalog blackbaud.customfx.queryimport blackbaud.losync.constituent blackbaud.losync.emailinteraction blackbaud.losync.revenue CSVersionInfo eventlog	browser\htmlforms\custom
API Sync Files	LuminateOnlineSync.bbMetalWeb.dll LuminateOnlineSync.ClassLibrary.dll LuminateOnlineSync.wsdl.dll	bbappfx\vroot\bin\Custom

Data Warehouse Extensions	Blackbaud.LOSync.BBDW.Revisions.dll	bbappfx\MSBuild\Datamarts\BBDW\Extend\Revisions

Assembly Installation Instructions

The following steps should be followed in the order provided to ensure proper installation of the customization.
Load the following packages in the Catalog Browser.

1. Log into CRM
2. Select the Administration Functional Area
3. Click Application
4. Select Catalog Browser
5. Load the following files in this order

Source	Type	Name
Blackbaud.CustomFx.EventLogger.Catalog.dll	Package	Event Log Package
Blackbaud.LOSync.Core.Catalog.dll	Package	LO Sync - Core Package
Blackbaud.LOSync.Constituent.Catalog.dll	Package	LO Sync - Constituents Package
Blackbaud.LOSync.Events.Catalog.dll	Package	LO Sync - Events Package
Blackbaud.LOSync.Revenue.Catalog.dll	Package	LO Sync - Revenue Package
Blackbaud.LOSync.Survey.Catalog.dll	Package	LO Sync - Survey Package
Blackbaud.LOSync.Constituent.Catalog.dll	Package	LO Sync - Constituents BBDW Package
Blackbaud.CustomFx.QueryImport.Catalog.dll	Package	Query Import Package
Blackbaud.LOSync.EmailInteraction.Catalog.dll	Package	LO Sync - Email Interactions Package
Blackbaud.LOSync.Advocacy.Catalog.dll	Package	LO Sync - Advocacy Package
Blackbaud.LOSync.Center.Catalog.dll	Package	LO Sync - Center Package
Blackbaud.CustomFx.CSVersionInfo.Catalog.dll	Package	Custom Solutions Version Information Package

You do not need to load any objects included in the above dlls that are not already loaded by the packages. Anything not included in the package is for additional functionality to be activated on a case by case basis, outside of an upgrade or install.

Data Warehouse

Version 2.7+ of the LO/BBCRM integration requires installation of the Blackbaud Datawarehouse (BBDW). To include the integration extensions, the BBDW setup must be run with Blackbaud.LOSync.BBDW.Revisions.dll placed in the bbappfx\MSBuild\Datamarts\BBDW\Extend\Revisions directory. If you are upgrading from 2.7+ to a higher version of the sync and have deployed the revisions dll before, you can skip this step.

Event Logger Configuration

Version 2.7+ ships with an event logger configurable from the web.config file. To configure the event logger, add the following XML to your web.config file:

```
<!-- Under -->
<configuration>
  <configSections>
    <!-- Add -->
    <section name="EventLogger"
type="Blackbaud.CustomFx.EventLogger.Configuration.EventLoggerSection,
Blackbaud.CustomFx.EventLogger.Configuration" />


<!-- Under -->
<configuration>


  <EventLogger
  enabled="true"
  logLevel="Info"
  maskParams = "true"
  maskValue = "********"
  paramsToMask="login_password, password"
  />
```

CONFIGURATION OPTIONS

- enabled - true, false
- logLevel - Info, Warning, Error, Failure
- maskParams - true, false (masksParams of a logged URL)
- maskValue - text
- paramsToMask - comma separated list of parameter names

GetWebResponse Timeout Configuration (Optional)

In version 4.0.24+, you can add a parameter to the web.config file to control the GetWebResponse timeout used by the sync. This is primarily used while the sync is waiting for CRM to add and save records to batch. You do **NOT** have to set this value unless your organization specifically wants or needs to. If this is not set, the default used is 300 seconds. You can set this value to a minimum of 100 seconds and a maximum of 3600 seconds.

To set the GetWebResponse timeout, add the following XML to your web.config file and set the value to the desired setting.

```
<!-- Under -->
<appSettings>
   <!-- Add -->
   <!--Setting for the LO Sync to use for GetWebResponse timeout in seconds. If
this value isn't set, it defaults to 300 seconds. Minimum is 100 and Maximum is
3600.-->
   <add key="LOSYNC_GETWEBRESPONSE_SECONDS_TIMEOUT" value="300"/>
```

Configuration - New Installs (Required)

The LO-CRM Connector requires the associated steps to be completed prior to using the customization. These instructions are only for **first time installations** of the sync on an environment. For upgrades, see the "Configuration – Upgrades (Required)" and "Configuration – Upgrades (Optional)" sections.

Run SQL Scripts

Run the script "setup.sql" and then "setup40.sql" scripts on the target database in that order. The setup.sql script will insert the necessary code table records and other types of records required for the configuration import and other sync functions. The setup40.sql edits existing CRM forms to add sync related tabs.

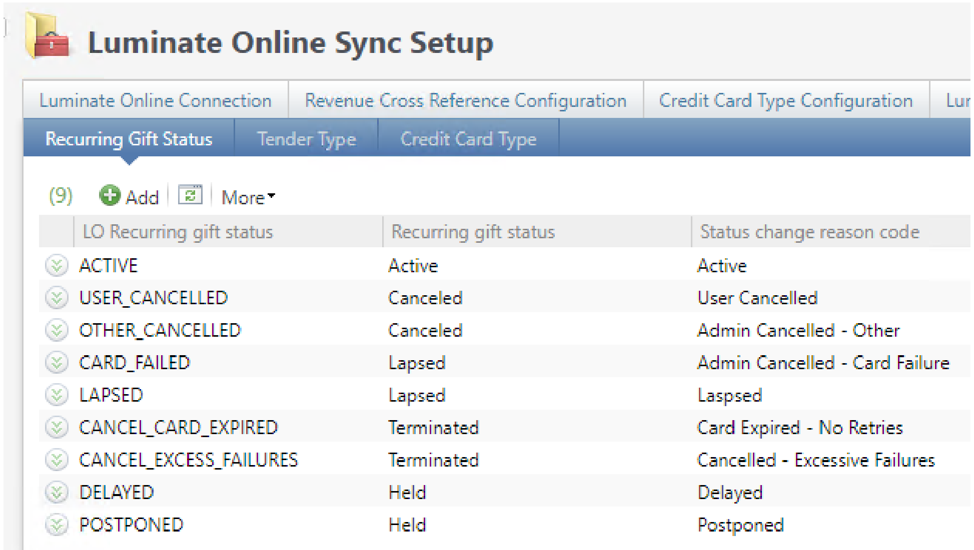
Configuration Import - New installs only!

Warning: You should **ONLY** do the Configuration Import with LO Sync Configuration.xml if this is the first time installing the sync on the current environment. If you are just upgrading from one version to the next, do NOT run the Configuration Import with this file as it can overwrite customized settings to batch templates, export definitions, and imports.

The majority of the Luminate Online/BBCRM Sync settings can be imported via the configuration tool in Blackbaud CRM under Administration->Configuration Data->Configuration Import. The sync install files contains a large XML file named LO Sync Configuration.xml in the Configuration Data > Export Files folder. Open that file under the Configuration Import tool and press Save. Note: The import can take up to 15 minutes

Configure Recurring Gift Status Mappings

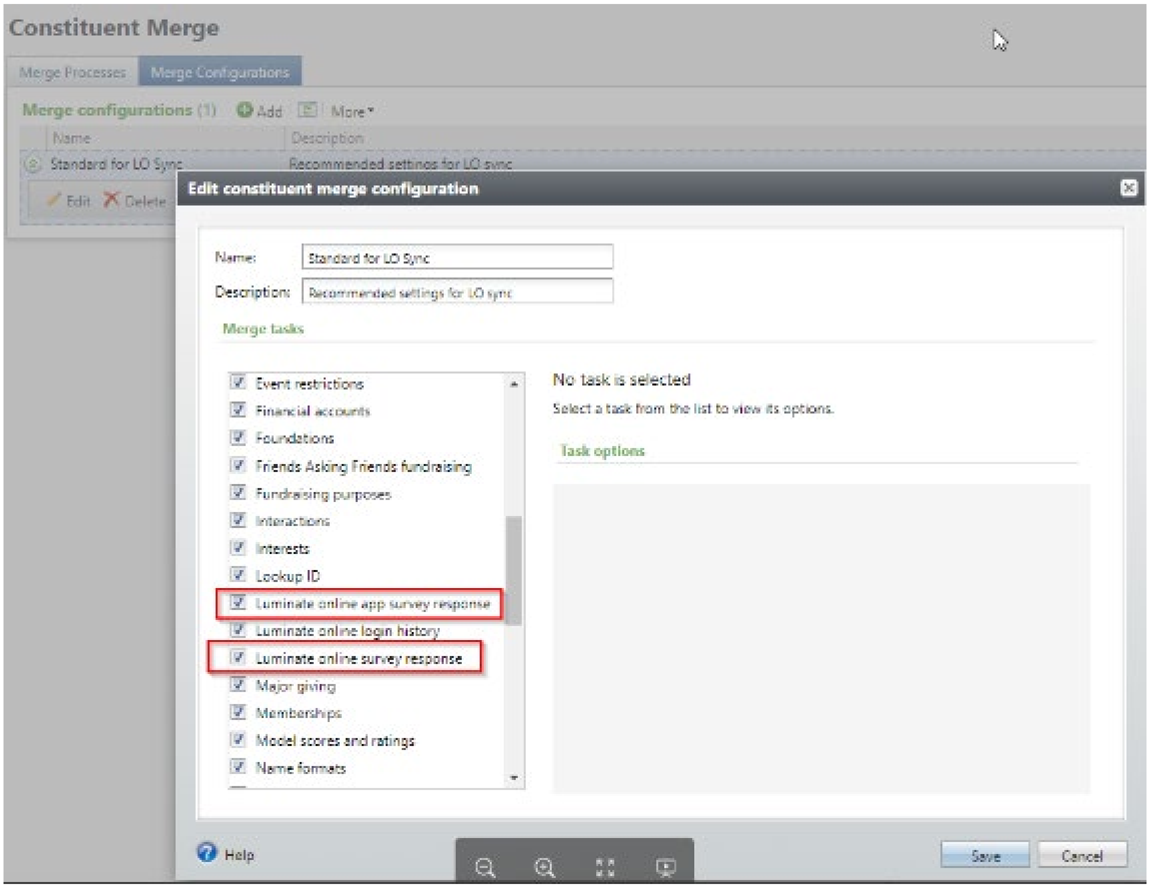
For updates of recurring gifts to work, you must map CRM recurring gift status change codes to the LO recurring gift statuses. Recurring Gift Status Mappings can be found in Administration > Sync Setup Options > Mappings > Recurring Gift Status. To do this, you must already have Recurring Gift Statuses codes configured (Reason Codes > Revenue > Recurring gift status change). If you do not map these, updates of both recurring gift status and amount will fail and return an error in the sync history log indicating that the status needs to be mapped.



LO Recurring gift status	Recurring gift status	Status change reason code
ACTIVE	Active	Active
USER_CANCELLED	Canceled	User Cancelled
OTHER_CANCELLED	Canceled	Admin Cancelled - Other
CARD_FAILED	Lapsed	Admin Cancelled - Card Failure
LAPSED	Lapsed	Laspsed
CANCEL_CARD_EXPIRED	Terminated	Card Expired - No Retries
CANCEL_EXCESS_FAILURES	Terminated	Cancelled - Excessive Failures
DELAYED	Held	Delayed
POSTPONED	Held	Postponed

Add new merge task to merge configuration

Edit the merge configuration for the LO sync merge process to include "Luminate online app survey response" and "Luminate online survey response".
You can reach the constituent merge configurations by going to Constituents > Duplicates > Constituent merge > Merge Configurations then edit the merge configuration(s) you use for BBCRM merges.


Constituent Merge
Merge Processes
Merge Configurations
Merge configurations (1)
Add
More
Name
Description
Standard for LO Sync
Recommended settings for LO sync
Edit
Delete
Edit constituent merge configuration
Name:
Standard for LO Sync
Description:
Recommended settings for LO sync
Merge tasks
Event restrictions
Financial accounts
Foundations
Friends Asking Friends fundraising
Fundraising purposes
Interactions
Interests
Lookup ID
Luminate online app survey response
Luminate online login history
Luminate online survey response
Major giving
Memberships
Model scores and ratings
Name formats
No task is selected
Select a task from the list to view its options.
Task options
Help
Save
Cancel

Configuration - Upgrades (Required)

The Luminate Online/BBCRM Sync require the associated steps to be completed prior to using the customization. These instructions are only for **upgrades** of the sync on an environment. For new installs, see the previous section.

Run SQL Scripts

Run the script "setup.sql" and then “setup40.sql” scripts on the target database in that order. The setup.sql script will insert the necessary code table records and other types of records required for the configuration import and other sync functions. The setup40.sql edits existing CRM forms to add/edit sync related tabs. These must be run after every upgrade. Do **NOT** skip this step.

The below steps only need to be completed once, and won't have to be done again after subsequent upgrades. However make sure to review for any that you have not done before.

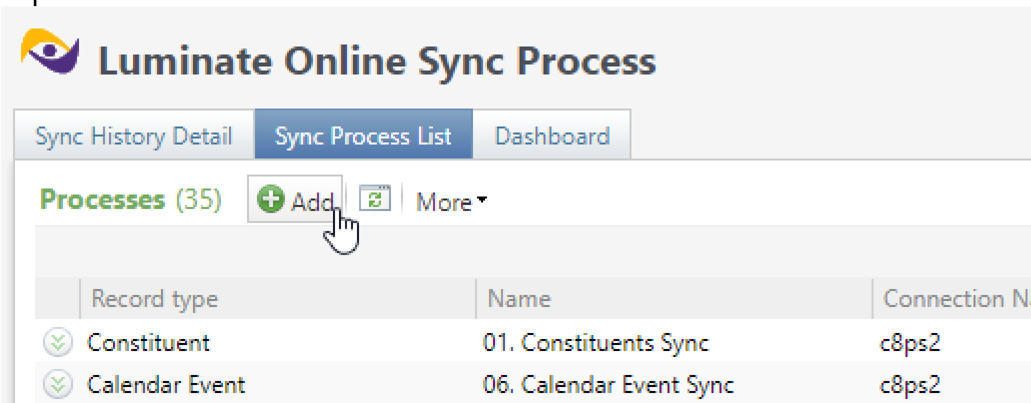
Configure LO users and sync connection

If this is your first time upgrading to version 4.0.22+, then see the "Required Configuration after Upgrade to Version 4.0.22" section for necessary configurations. **These configuration changes are required for the syncs to work correctly in version 4.0.22+.**

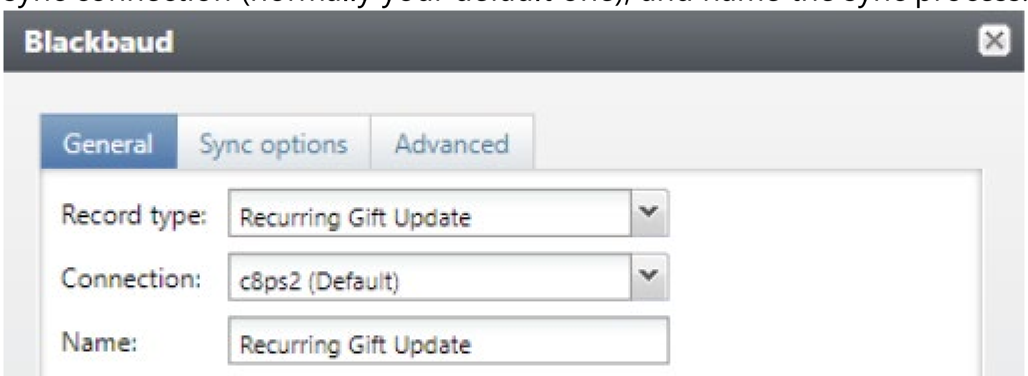
Configure Recurring Gift Update Sync

In sync version 4.0.30+, Recurring Gift updates are now handled in their own separate sync process. Previously these were done as part of the Donation sync, but now if you want to continue receiving updates of status or amount for sustainer recurring gifts, you must do the following:

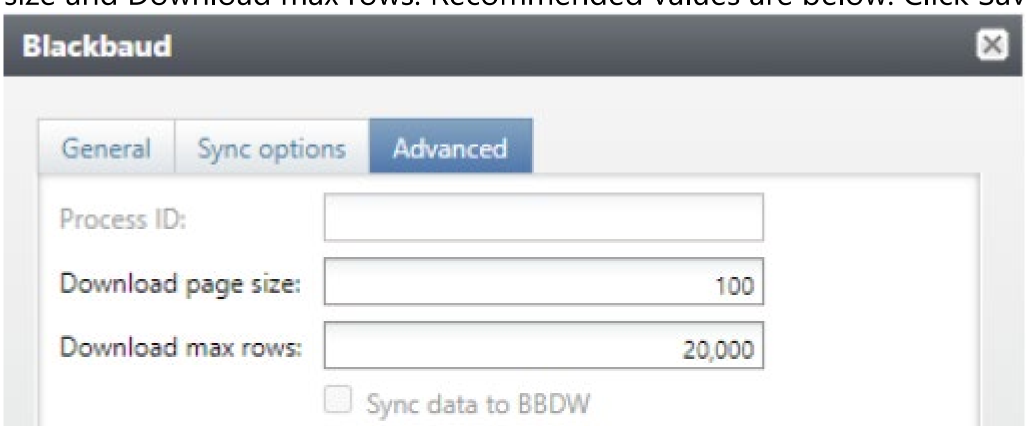
1. Go to Administration > Luminate Online Sync > Sync Process List, then select "Add" at the top.



2. On the General tab, select the Recurring Gift Update sync from the list of syncs, select your sync connection (normally your default one), and name the sync process.

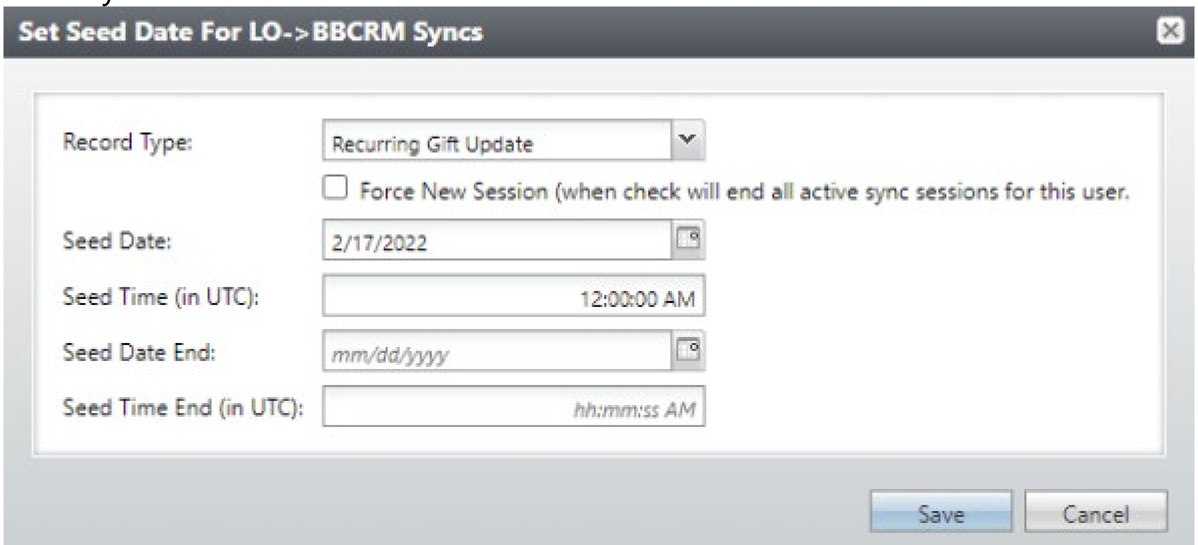


3. There's nothing on the Sync options tab, but on the Advanced tab, set the Download page size and Download max rows. Recommended values are below. Click Save.



4. While still on the page with the Sync Process List, click "Set seed date" in the tasks in the upper left, select "Recurring Gift Update" for the record type and set the seed date/time to the last time the Donation sync ran. Going back a little further is normally safer to make sure you don't miss any new data. **You only need to set the seed date for this sync the**

first time it's run, after that it will just run based on the last time it completed like the other syncs do.

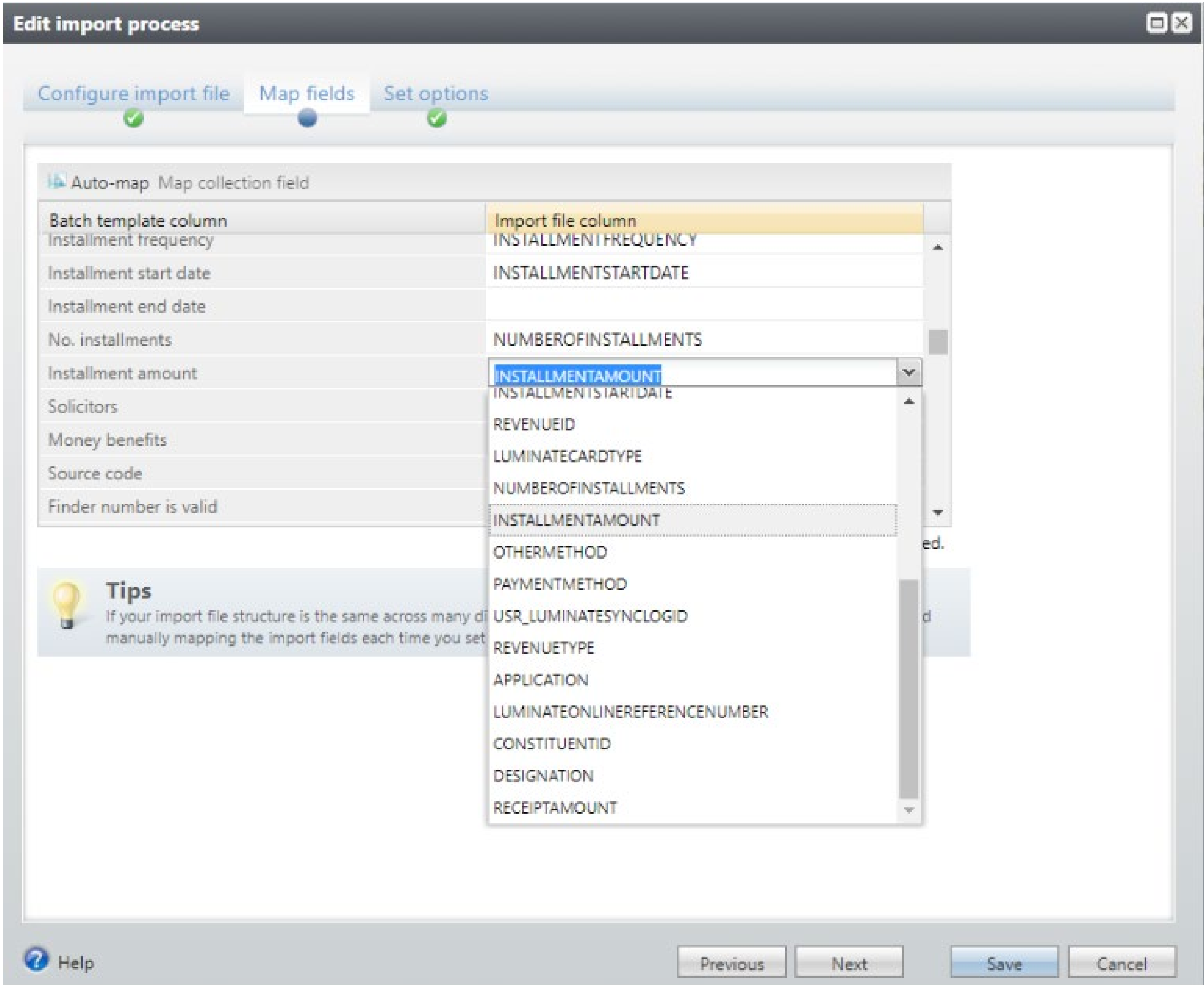


5. Go to Administration > Queue. Add the newly configured Recurring Gift Update sync to the LO Sync Full Queue. It is recommended to have it run AFTER the query import processes.

Configure Query Import for Installment Pledges

When upgrading to 4.0.29+, if your organization syncs installment pledges from LO to CRM, do the following:

- Update the "Luminate Online Staged Revenue - Recurring Gifts" ad-hoc query to include the "Installment amount" field in the output fields.
- Go to Administration > Business process connectors > Query Import and edit the "Recurring Gift Master Record Query Import - Query Import". On the Map Fields tab, map "Installment amount" field to "INSTALLMENTAMOUNT" from the dropdown. Note that this list isn't alphabetical so "INSTALLMENTAMOUNT" may be at the bottom of the list.
- If your organization has any other queries/imports that import installment pledges, then update them similarly to map the installment amount.
    - Note that this field should NOT be mapped for query imports that handle payments, only for ones that handle pledges or recurring gifts.


Edit import process
Configure import file
Map fields
Set options
Auto-map
Map collection field
Batch template column
Import file column
Installment frequency
INSTALLMENTFREQUENCY
Installment start date
INSTALLMENTSTARTDATE
Installment end date
No. installments
NUMBEROFINSTALLMENTS
Installment amount
INSTALLMENTAMOUNT
Solicitors
Money benefits
Source code
Finder number is valid
INSTALLMENTSTARTDATE
REVENUEID
LUMINATECARDTYPE
NUMBEROFINSTALLMENTS
INSTALLMENTAMOUNT
OTHERMETHOD
PAYMENTMETHOD
USR_LUMINATESYNCLOGID
REVENUETYPE
APPLICATION
LUMINATEONLINEREFERENCENUMBER
CONSTITUENTID
DESIGNATION
RECEIPTAMOUNT
Tips
Help
Previous
Next
Save
Cancel

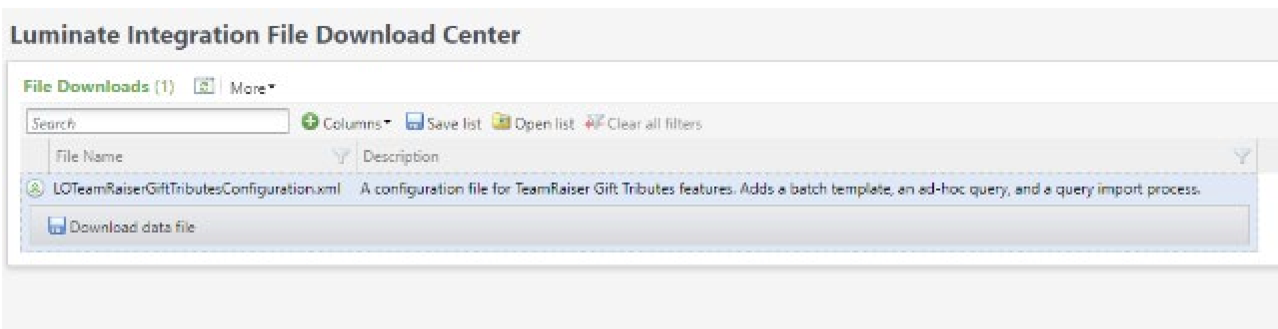
Configuration - Upgrades (Optional)

These are configurations for optional features after an upgrade.

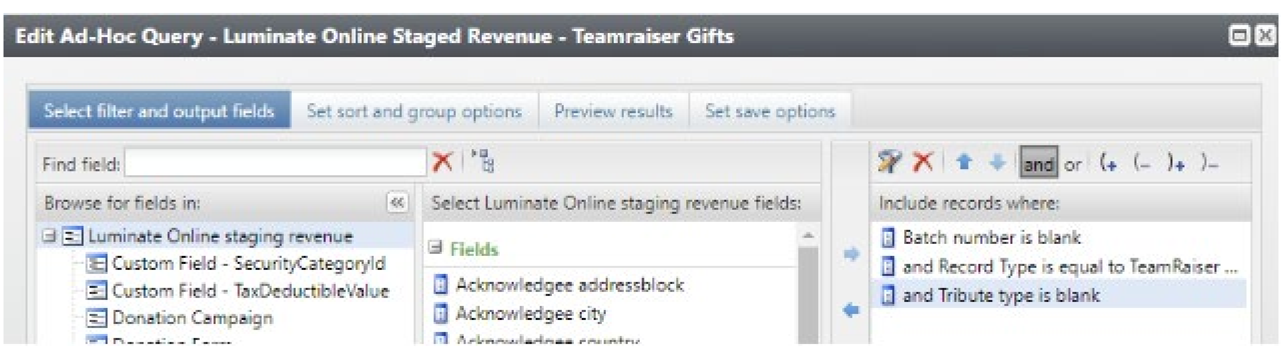
Configure TeamRaiser Gift Tribute functionality

In sync version 4.0.25+, if you wish to be able to sync TeamRaiser Gift Tributes, do the following steps.

1. Go to Administration > Luminate Integration File download Center
2. Download the LOTeamRaiserGiftTributesConfiguration.xml



3. Go to Administration > Configuration data > Configuration import and select to load the LOTeamRaiserGiftTributesConfiguration.xml you downloaded. This will create the following 3 items:
   1. Batch template "LO Sync - TeamRaiser Gift Tributes"
   2. Ad-hoc query "Luminate Online Staged Revenue - Teamraiser Gift Tributes"
   3. Query import process "TeamRaiser Gift Tributes Query Import"
4. Edit the existing ad-hoc query "Luminate Online Staged Revenue - Teamraiser Gifts" to include the criteria "and Tribute type is blank".



5. Add any custom fields your organization has for TeamRaiser Gifts that you also want for TeamRaiser Gift Tributes to the new batch template/ad-hoc query/query import process.

6. Add the new query import process "TeamRaiser Gift Tributes Query Import" to the "LO Sync Full Queue" and any other relevant queues your organization has.

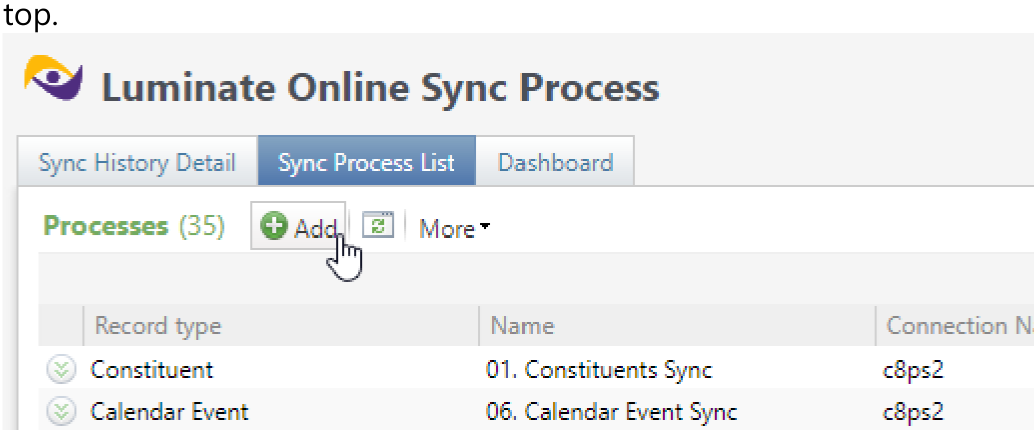
Configure CRM Reconciliation with LO transactions

In version 2.10.1+, in order to use reconciliation in CRM with LO transaction, you will need to setup the Merchant Account sync and map the Merchant Account ID and Processor Transaction ID in all your payment related query imports except imports. You do not need to map the fields for the Recurring Gift Master query import(s) as those are pledges rather than payments and are not reconciled.

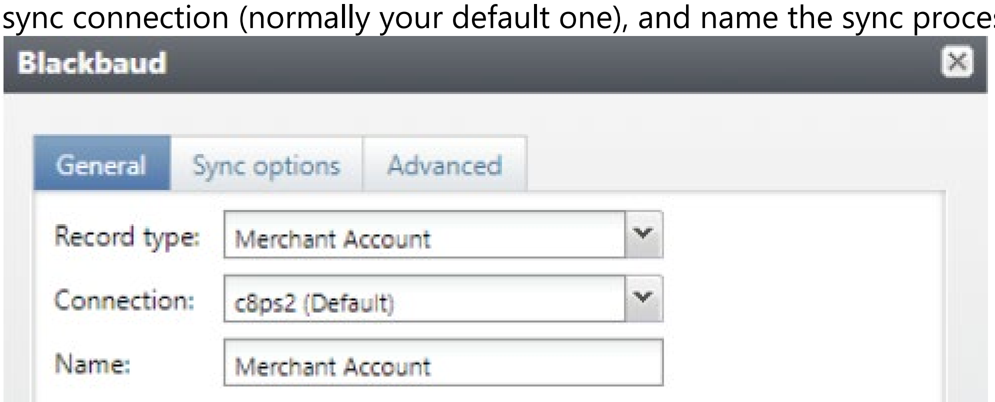
Note that if the LO connector was newly installed for you with version 2.10.1 or higher, the config file would have included all of these configurations by default. But if you are **upgrading** to 2.10.1+ or if you've added any additional query import processes, you will need to add these manually.

ADDING THE MERCHANT ACCOUNT SYNC

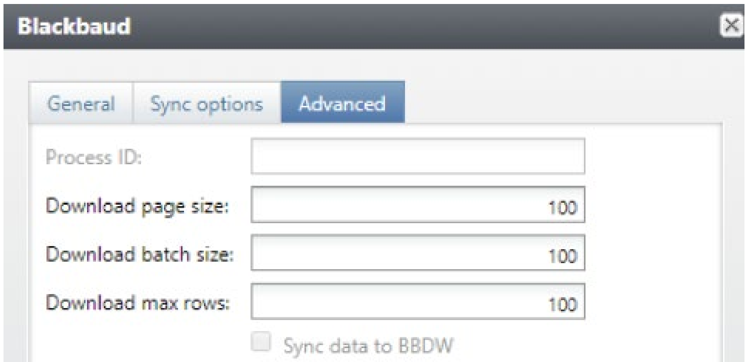
1. Go to Administration > Luminate Online Sync > Sync Process List, then select "Add" at the top.



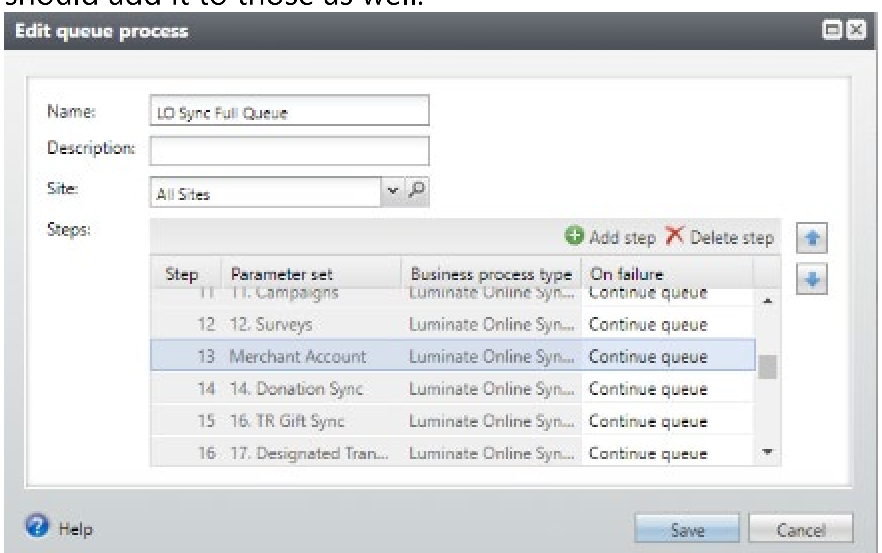
2. On the General tab, select the Merchant Account sync from the list of syncs, select your sync connection (normally your default one), and name the sync process.



3. There's nothing on the Sync options tab, but on the Advanced tab, set the 3 fields to 100. Click Save.



4. Now that the sync is added, you need to add it to the full sync queue. Go to Administration > Queue and edit the "LO Sync Full Queue". Add the Merchant Account sync to run right before the Donation sync. If you have any other queues involving the transaction syncs, you should add it to those as well.

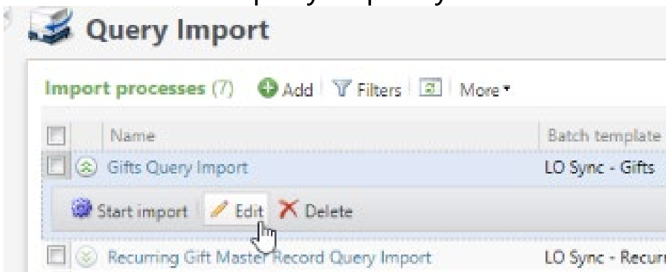


MAPPING THE MERCHANT ACCOUNT ID AND PROCESSOR TRANSACTION ID FIELDS

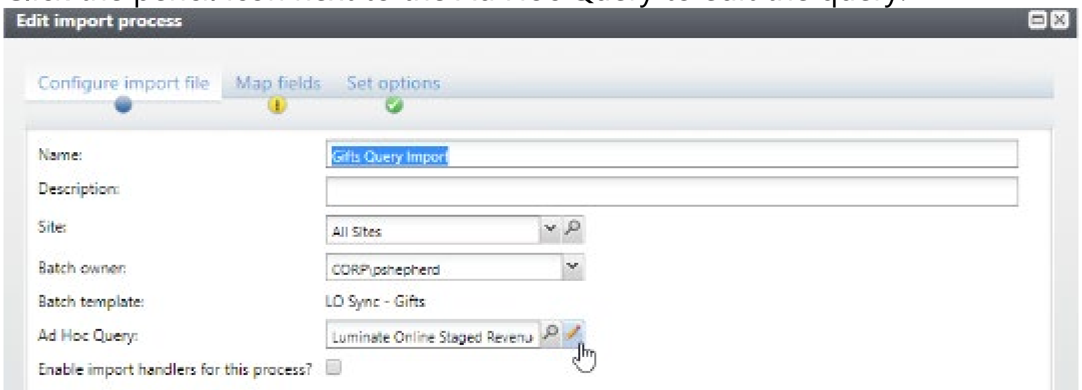
The following steps should be followed for every query import except ones for Recurring Gift Master, as those are pledges rather than payments and are not reconciled.

1. Go to Administration > Business process connectors > Query Import.

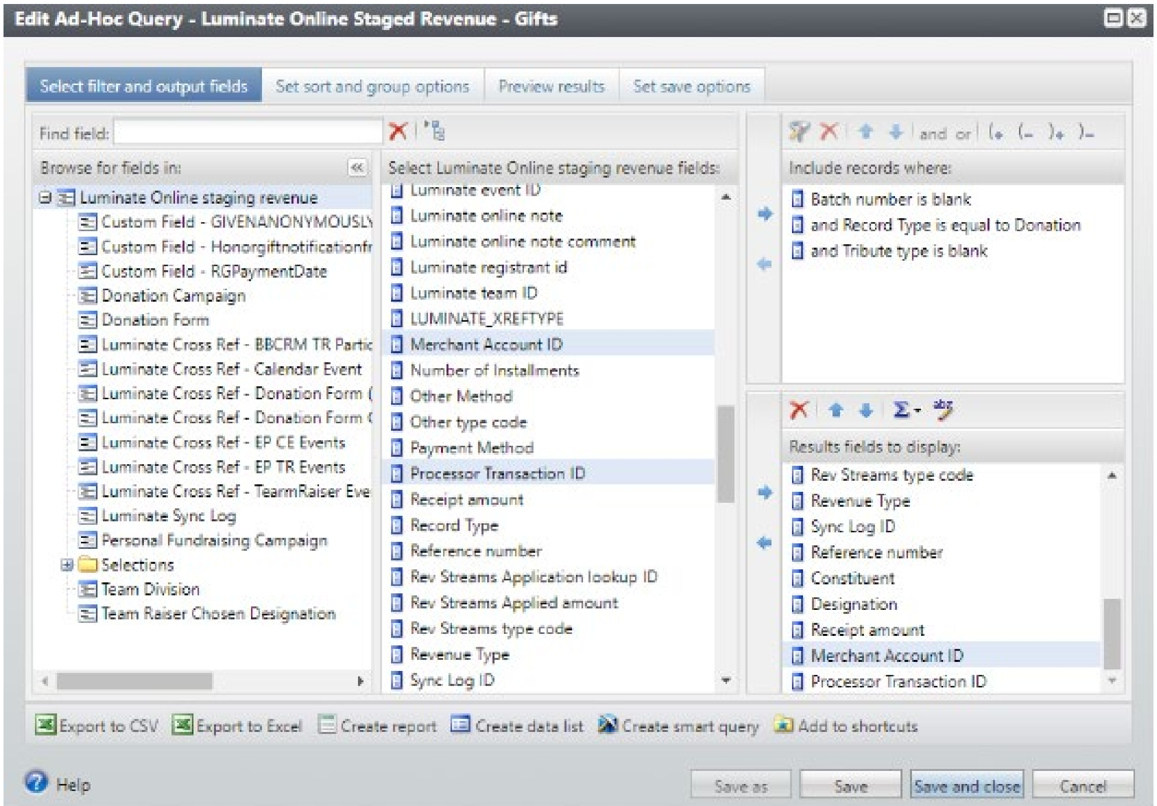
2. Click edit on the query import you want to edit.



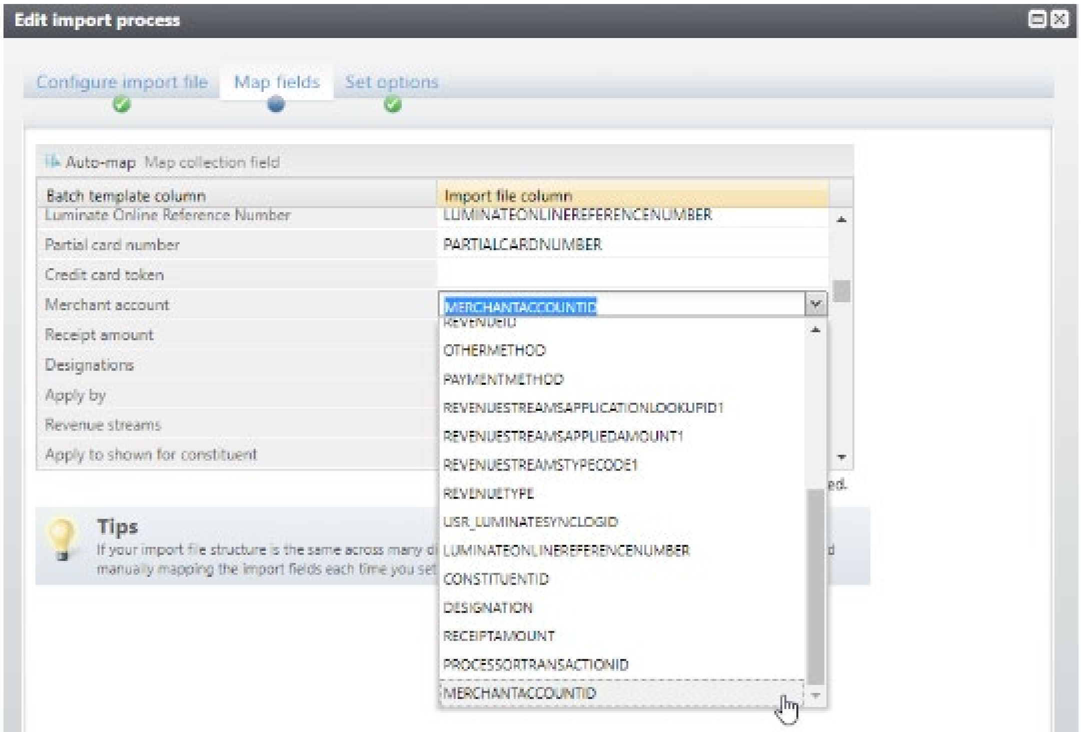
3. Click the pencil icon next to the Ad Hoc Query to edit the query.

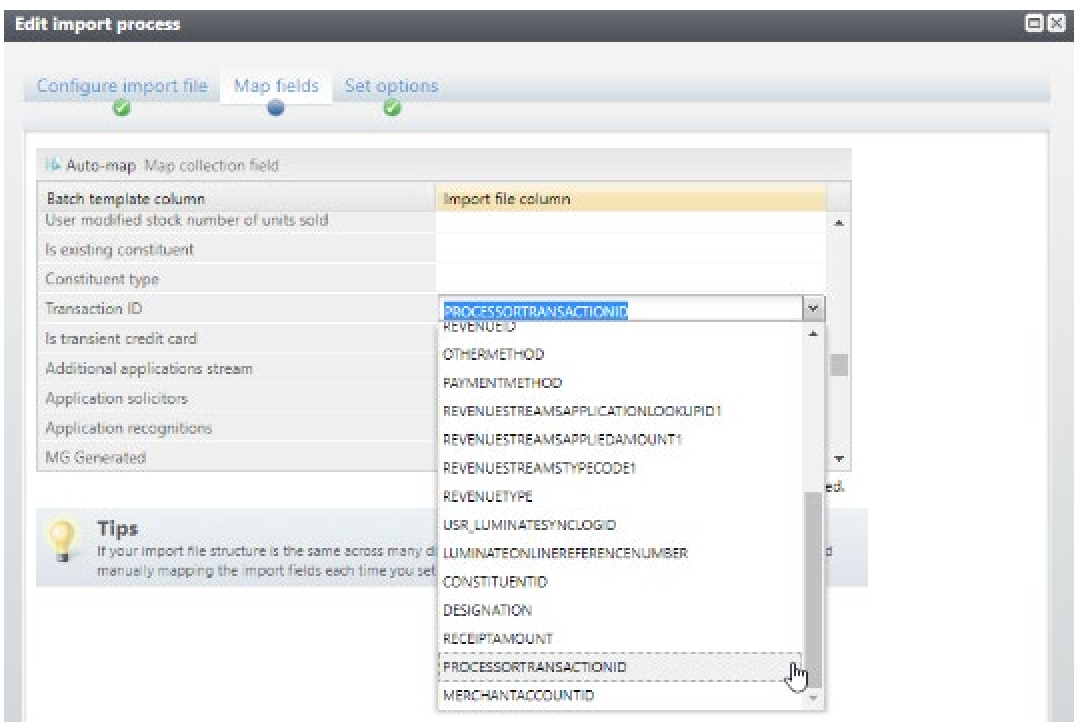


4. Add the Merchant Account ID and Processor Transaction ID to the result fields. Save and close.



5. You must close out of the Edit Import Process window, then go in to edit the same import again for the new query fields to show up in the next step.
6. Go to the "Map fields" tab, find the "Merchant account" field and map it to MERCHANTACCOUNTID from the drop down. Then find "Transaction ID" further down and map it to PROCESSORTRANSACTIONID. Click Save.



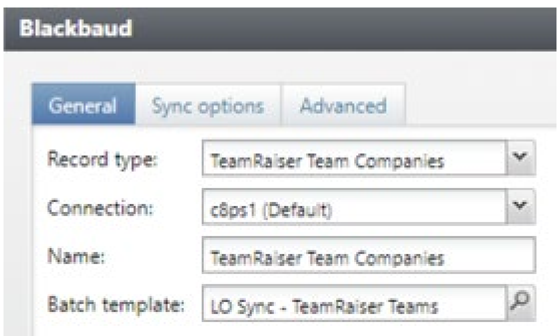


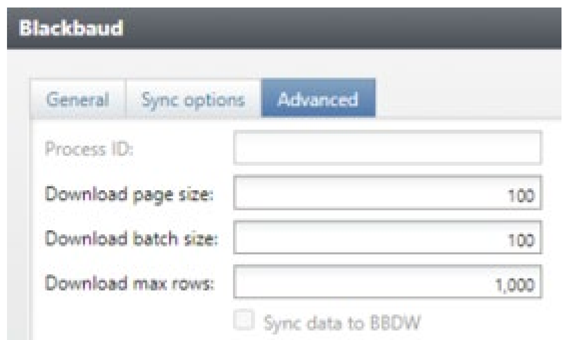
7. Repeat this for every query import, aside from ones for Recurring Gift Master, as those are pledges rather than payments and are not reconciled.

Configure syncing and surfacing TeamRaiser Team Company

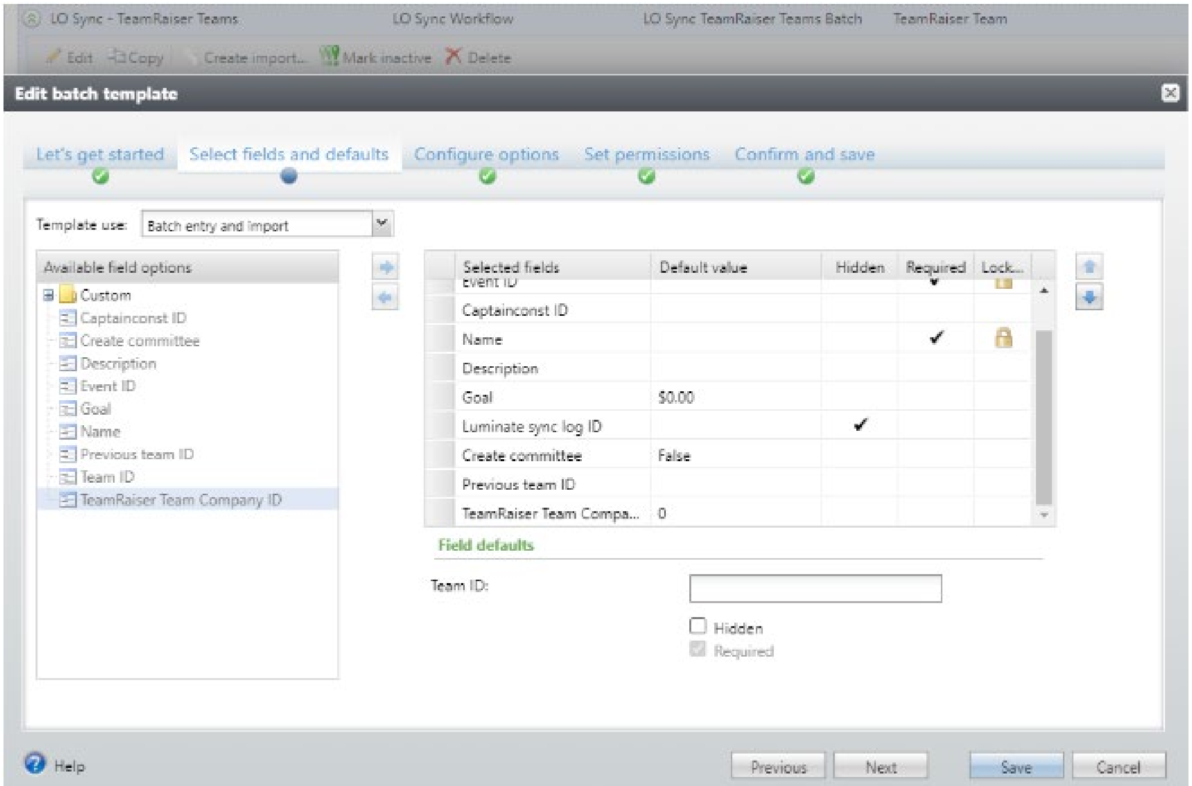
This is an optional process for displaying the TeamRaiser Team Company associated with a TeamRaiser Team in CRM.

1. Add the TeamRaiser Team Companies sync process. Go to Administration > Luminate Online Sync > Sync Process List, then click Add and fill it out like below. You should add this sync to your sync queues to run before the TeamRaiser Team sync. This sync brings over the list of TeamRaiser Team Companies into a sync table. The first time it's run should be with a seed date set back to pull in past TeamRaiser Team Companies.

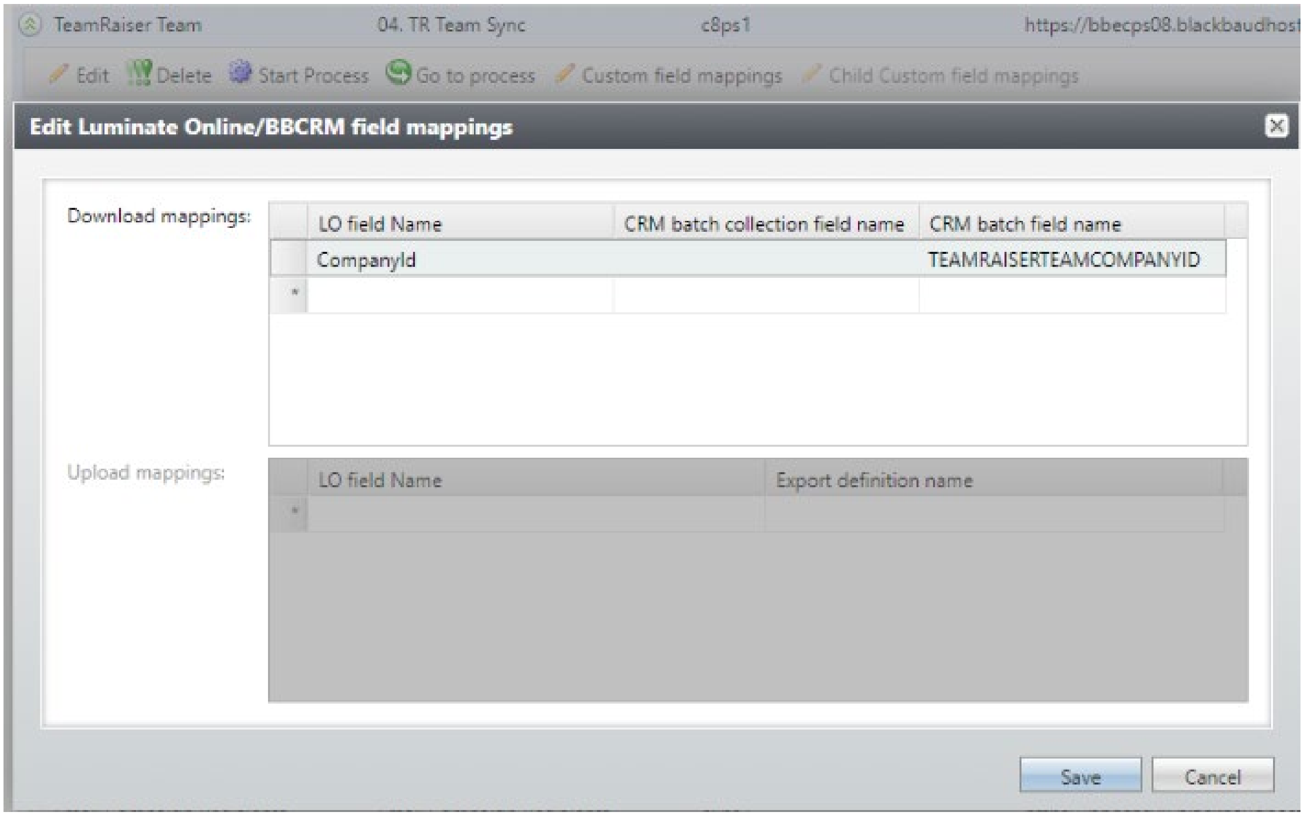




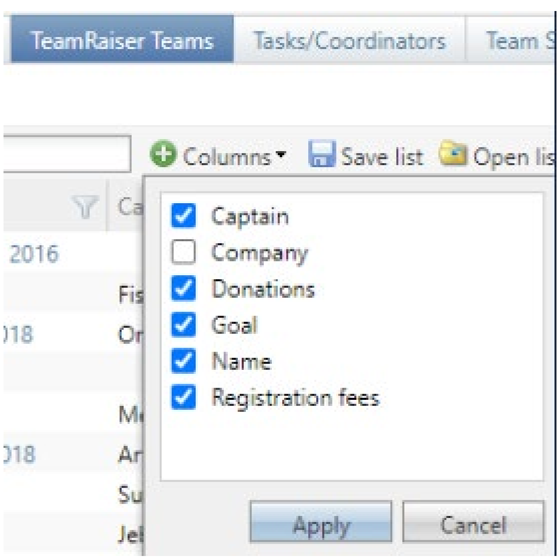
2. Edit the "LO Sync - TeamRaiser Teams" batch template (or whatever batch template your organization uses for the TeamRaiser Team sync) to include the field "TeamRaiser Team Company ID".



3. Add a custom field mapping to the TeamRaiser Team sync for the new field. LO field should be "CompanyId" and CRM batch field name should be "TEAMRAISERTEAMCOMPANYID".

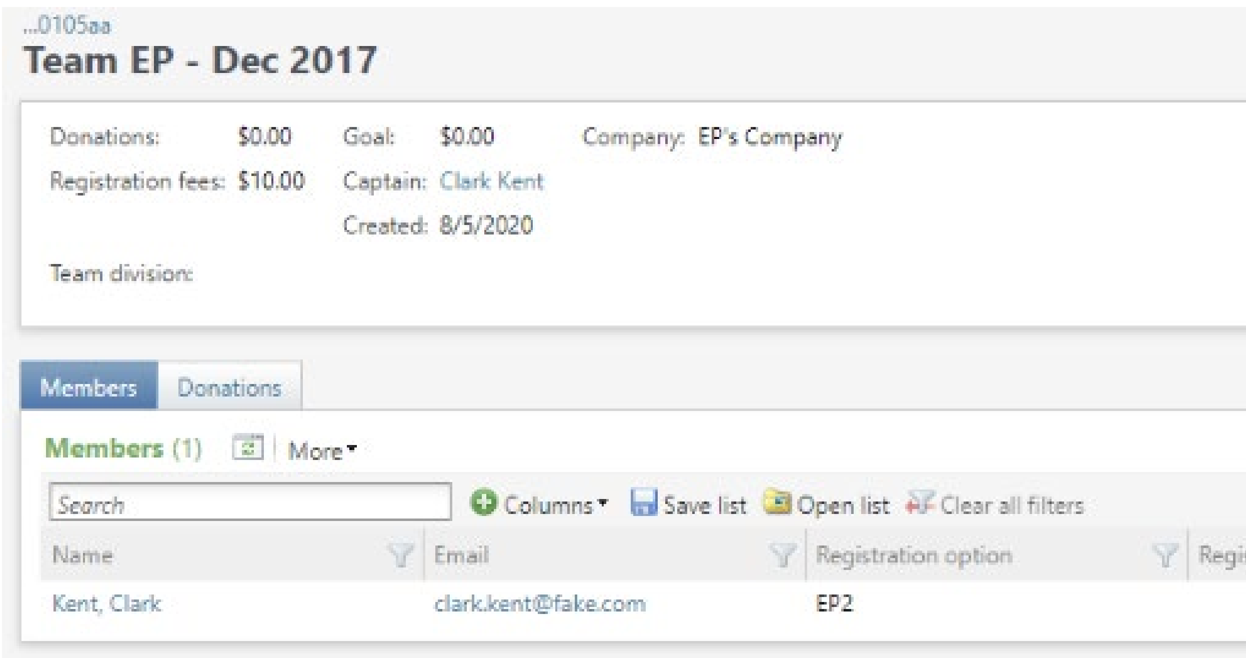


4. Go to any TeamRaiser event in CRM, click on the TeamRaiser Teams tab, and click Columns. Check the "Company" field so it displays.



Now when a TeamRaiser Team associated with a TeamRaiser Company syncs over, that company name will display on the TeamRaiser Teams tab on the event, and if you click on the team to go to the Team Summary Page, you'll see it displayed at the top.

Note — The TeamRaiser Team Company will only display for TeamRaiser Teams synced after upgrading to a version with this feature. If you wish for previously synced teams to display their company association, you will need to mark those teams to reprocess so they sync over again, so the team's connection to a company can be tracked.

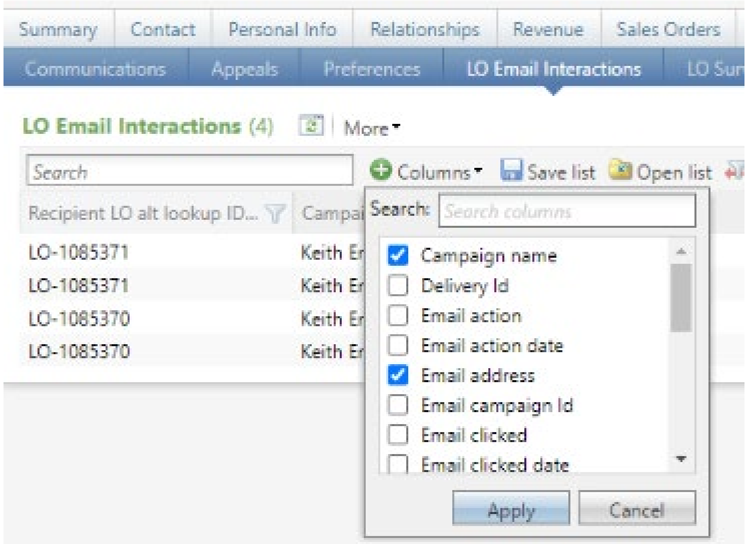


Configure displaying Email associated with Email Interactions

As of version 4.0.26, you can now display the following new fields on the LO Email Interactions tab on a constituent:

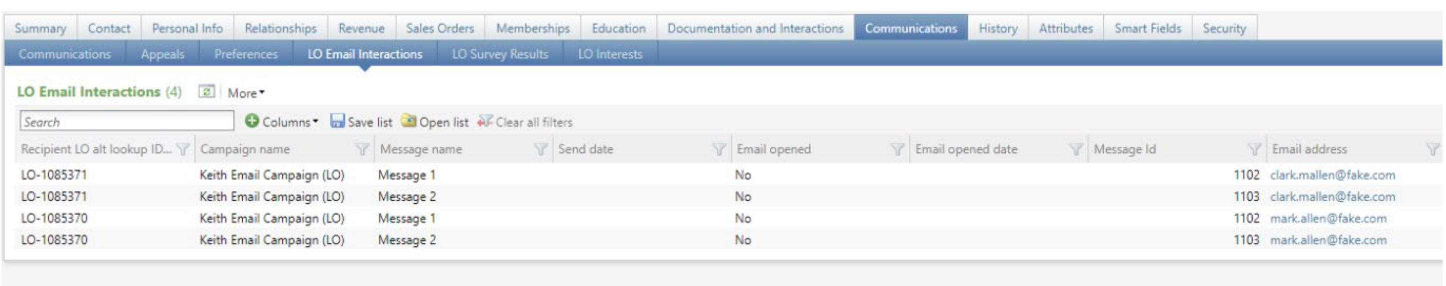
Email Address
Message Id
Delivery Id
Email campaign Id

These are not displayed by default, so must be turned on from the Columns option on the tab.



If multi profile sync is not enabled, then the Email Address displayed will always be the preferred email address for the constituent.

For clients that do have multi profile sync enabled for the constituent sync, the Email Address displayed will be the email associated with the LO constituent it went to. However the connection between email recipients and which email address they have is only tracked as of version 4.0.26, so previously synced constituents will not display their associated email address unless those constituents sync over from LO again.

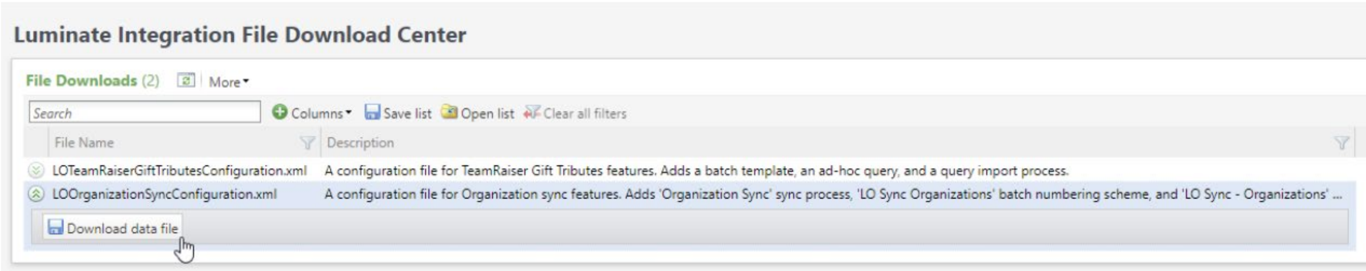


Configure Organization Sync functionality

In sync version 4.0.27+, if you wish to be able to sync Organization Gifts to the organization instead of the organization contact, do the following steps.

1) Go to Administration > Luminate Integration File download Center

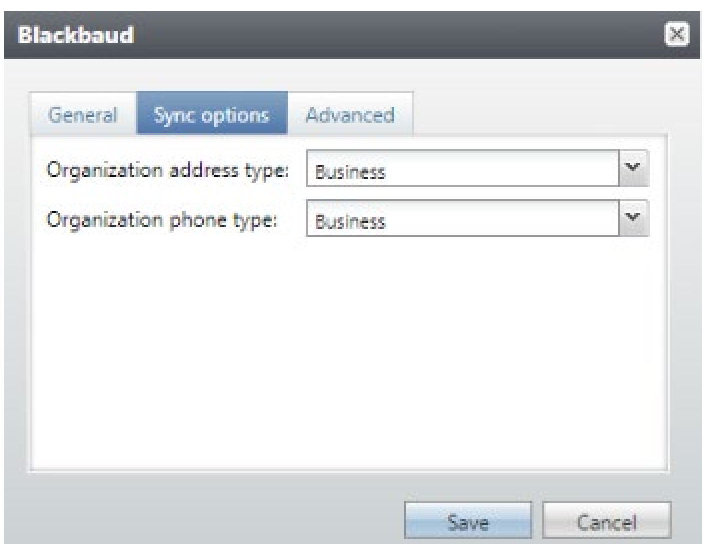
2) Download the LOOrganizationSyncConfiguration.xml



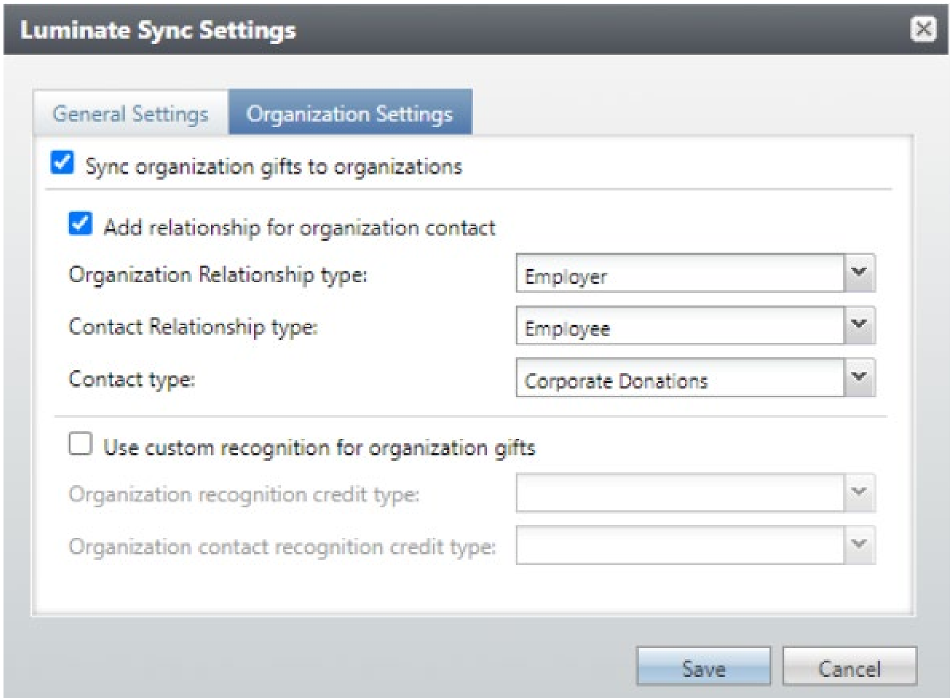
3) Go to Administration > Configuration data > Configuration import and select to load the LOOrganizationSyncConfiguration.xml you downloaded. This will create the following 3 items:
   a) Batch template "LO Sync - Organizations"
   b) Batch numbering scheme "LO Sync - Organizations"
   c) Sync process "Organization Sync"

4) Review the "LO Sync - Organizations" batch template to make sure the settings as are as desired. You likely want to set Constituent matching and Constituent updates settings to the same as the "LO Sync - Constituents" batch template.

5) Go to Administration > Luminate Online Sync > Sync Process List and edit the "Organization Sync" process. Review the settings and set the Organization address/phone type on the Sync options tab. These are the types that the address/phone for the LO organization will be set to in CRM.



6) Go to Administration > Sync Setup Options and click on the Global Settings under Tasks in the upper left. On the Organization Settings tab, check "Sync organization gifts to organizations" to enable revenue syncs to sync Organization gifts to the organization constituents instead of the contacts that made the gift on behalf of the organization.
   a) If you wish to have a contact relationship created between the Organization and Contact, check the "Add relationship for organization contact" box and set the desired relationship type for each constituent and the contact type. **Note: if any of the 3 relationship settings are not set, then no relationships will be added.**
   b) By default, the only recognition for an Organization gift is a Donor recognition to the organization. If you wish to change the recognition type assigned to the organization or also assign recognition to the organization contact, check the "Use custom recognition for organization gifts" box and set the relevant desired recognition credit types. **If you are fine with the default behavior, you can leave this unchecked.** If you do check it, note the following behavior:
      i) If you set the "Organization recognition credit type" and leave the "Organization contact recognition credit type" setting blank, then it will change the recognition type applied to the organization to what was set.
      ii) If you set the "Organization contact recognition credit type" and leave the "Organization recognition credit type" setting blank, then it will apply the set recognition credit ONLY to the contact, and none will be added to the organization.
      iii) If you set both "Organization recognition credit type" and "Organization contact recognition credit type" settings, then the indicated recognition types will be applied to each.
      iv) If you set neither "Organization contact recognition credit type" or "Organization recognition credit type" settings, then it will return to default behavior of adding a Donor recognition to just the organization.



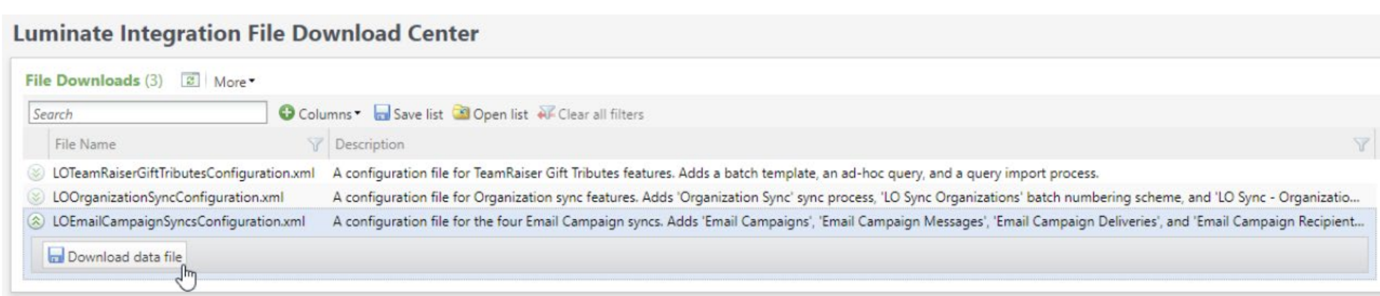
7) Add the "Organization Sync" process to the "LO Sync Full Queue" and any other relevant queues your organization has, setting it to run right after the Constituent sync and before any other syncs.

Configure Email Campaign Syncs

In sync version 4.0.28+, if you wish to add the Email Campaign syncs, do the following:

1. Go to Administration > Luminate Integration File download Center

2. Download the LOEmailCampaignSyncsConfiguration.xml



3. Go to Administration > Configuration data > Configuration import and select to load the LOEmailCampaignSyncsConfiguration.xml you downloaded. This will add the following sync processes:
    - Email Campaigns
    - Email Campaign Messages
    - Email Campaign Deliveries
    - Email Campaign Recipients

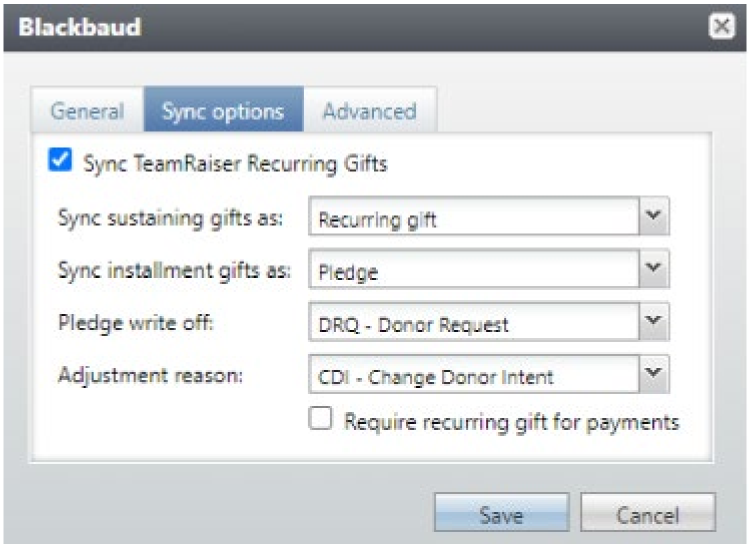
4. Add these 4 syncs to the sync full queue or create a new queue for them. The 4 syncs should be run together and in the order listed above. It is recommended to have them run after all the other sync processes.

Configure syncing TeamRaiser Recurring Gifts

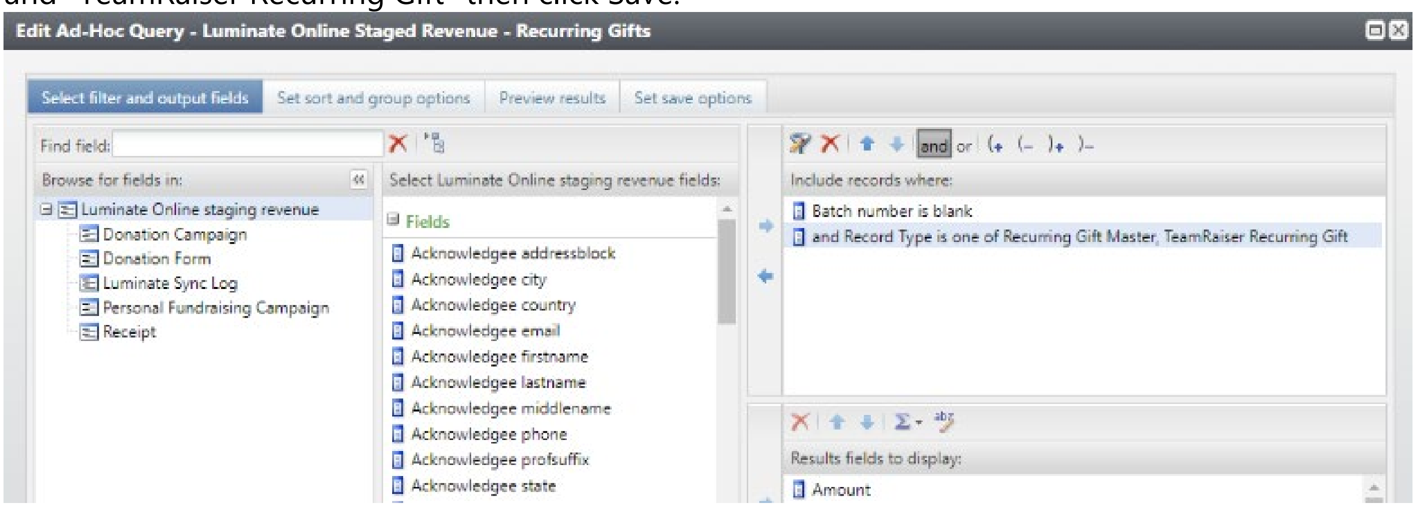
In sync version 4.0.31+, the TeamRaiser Gifts sync now has an option to sync TeamRaiser Recurring Gifts in the same way the Donation sync does. Once enabled, any new TeamRaiser Recurring Gifts will sync over as recurring gifts and payments for them will be applied to them. By default, any payments towards TeamRaiser Recurring Gifts that previously synced over as TeamRaiser Gifts will also come over as stand alone TeamRaiser Gift.

To use this functionality, do the following steps:

1) Go to Administration > Luminate Online Sync > Sync Process List, then Edit the TeamRaiser Gift sync process. On the Sync options tab, check the "Sync TeamRaiser Recurring Gifts" option.
    a) It is recommended to configure the 4 parameters below that the same way the Donation sync is configured.
    b) It is recommended to leave the "Require recurring gift for payments" setting **unchecked** unless you plan to import past TeamRaiser Recurring Gifts. See the user guide for more information.



2) Go to Administration > Business process connectors > Query Import and click Edit on the "Recurring Gift Master Record Query Import". Click the pencil icon next to the Ad Hoc Query to edit the query. Change the include criteria to select both record types "Recurring Gift Master" and "TeamRaiser Recurring Gift" then click Save.

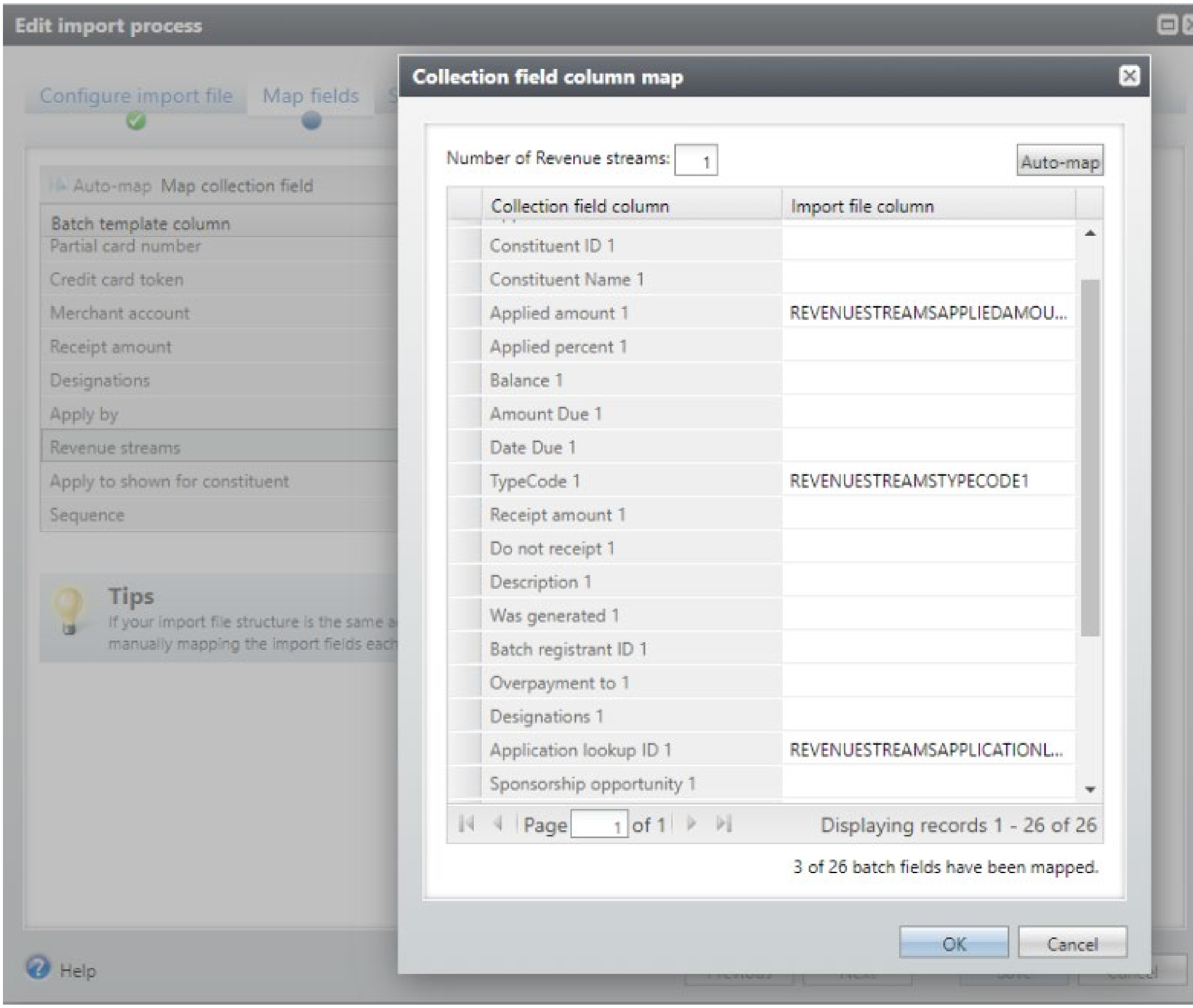


3) While still on the Query Import page, edit the "TeamRaiser Gifts Query Import" and click on the "Map fields" tab. Select the "Revenue streams" field and click "Map collection field" at the top. Map the following fields as indicated below, then click OK and Save.

a) Applied amount 1: REVENUESTREAMSAPPLIEDAMOUNT1

b) TypeCode 1: REVENUESTREAMSTYPECODE1

c) Application lookup ID 1: REVENUESTREAMSAPPLICATIONLOOKUPID1

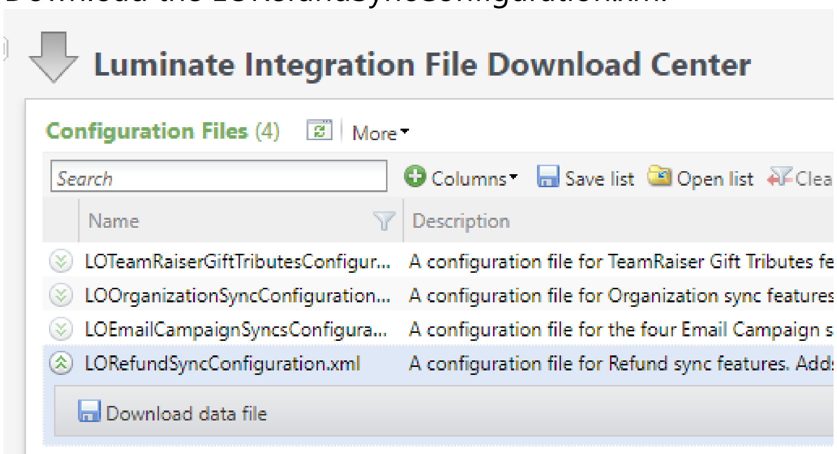


Configure syncing refunds

In sync version 4.0.33+, you can now use the Refund sync to bring LO refunds into a Revenue Update Batch to adjust the CRM transaction. To setup the Refund sync, do the following:

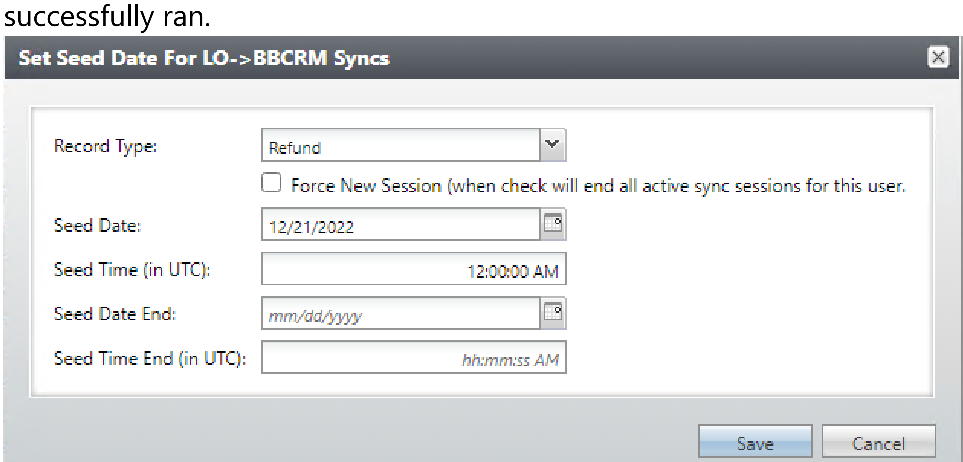
1. Go to Administration > Luminate Integration File download Center

2. Download the LORefundSyncConfiguration.xml



3. Go to Administration > Configuration data > Configuration import and select to load the LORefundSyncConfiguration.xml you downloaded. This will create the following 3 items:
   a. Batch template "LO Sync - Refunds "
   b. Batch numbering scheme "LO Sync Refunds "
   c. Sync process "Refund Sync "

4. Go to Administration > Luminate Online Sync and use the “Set seed date” task to set the seed date on the Refund sync to the date to the date you want to start pulling refund data from. This only needs to be done for the first run of the Refund sync, afterwards it will pull all data since the last time it successfully ran.

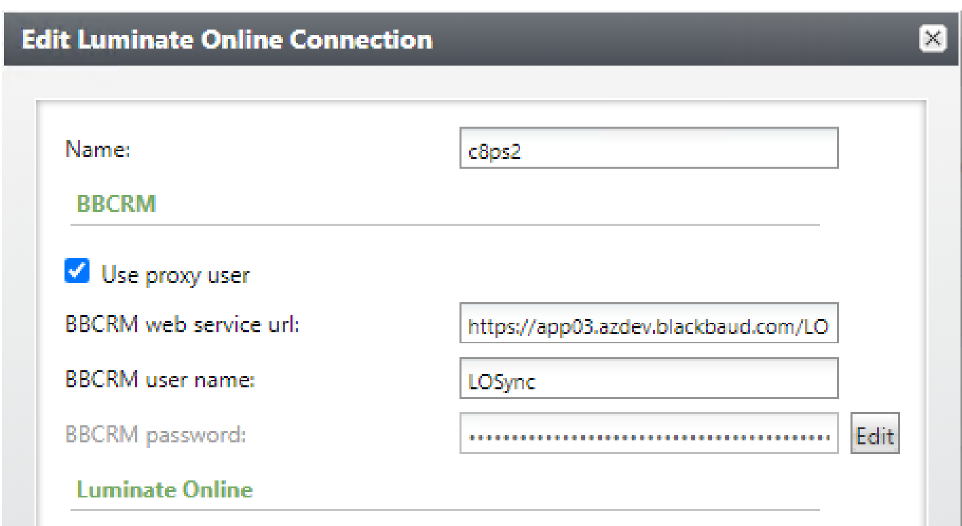


5. Add the “Refund Sync” sync process to your full sync queue to run after the query imports but before the Recurring Gift Update sync.

Configure sync with proxy user

In sync version 4.0.34+, if you are on BBCRM SP32 or higher, you can use a proxy user for the appfxwebservice connection in the sync connection settings. Please note that the Personal Access Tokens for proxy users expire after a year, so a new one will need to be generated and the sync connection settings updated with the new token to continue to operate.

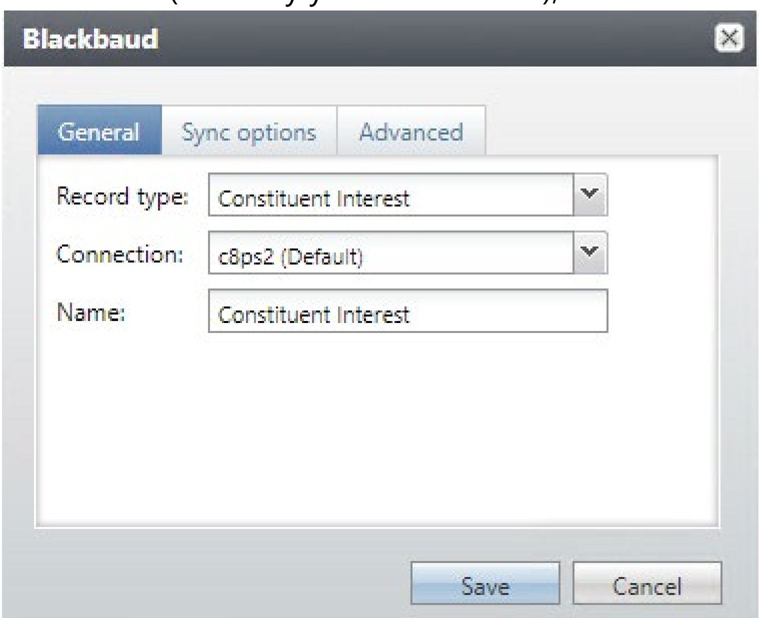
1. Go to Administration > Security > Application Users and create a proxy user. For more details, refer to the “Blackbaud CRM 4.0 New Features Guide” under Service Pack 32.
2. Assign the proxy user the System Role of “Luminate Online Connector”. This role is created during the sync upgrade by the setup.sql script and has all the permissions the sync needs to operate.
3. Generate a Personal Access Token for the proxy user.
4. Go to Administration > Sync Setup Options > Luminate Online Connection and edit the connection being used.
5. Check the “Use proxy user” check box and enter the proxy user login info in the BBCRM section.
    a. BBCRM user name should be the display name of the proxy user you created in step 1.
    b. BBCRM password should be the Personal Access Token generated in step 3.



Configure Constituent Interest sync

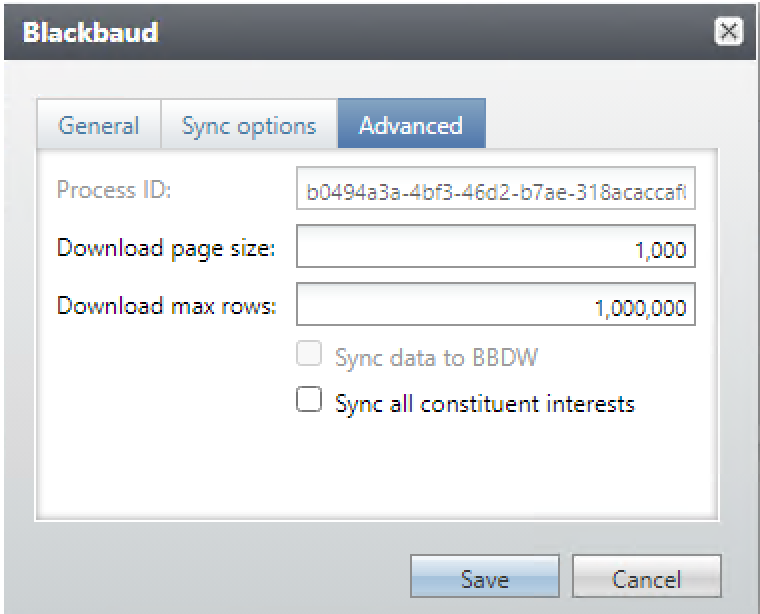
In sync version 4.0.35+, a new method of syncing LO constituent interests to CRM instead of the BBDW is available. This is intended to replace the "Opt-in Email Interest to CRM" option on the Interests sync and is both faster and more reliable. To setup the Constituent Interest sync, do the following:

1. Go to Administration > Luminate Online Sync > Sync Process List, then select "Add" at the top.
2. On the General tab, select the "Constituent Interest" as the record type, select your sync connection (normally your default one), and name the sync process.



3. There's nothing on the Sync options tab, but on the Advanced tab, here are the recommended settings:
    a. Download page size: 1,000
    b. Download max rows: 1,000,000
    c. Sync all constituent interests: check this if you often upload interest opt-in/opt-outs into LO from external sources. Otherwise it can be left unchecked. See the user guide

for more information.

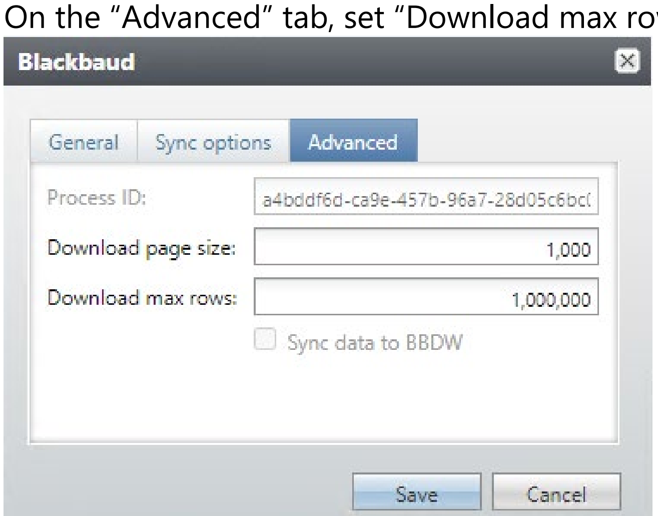


Email Campaign Recipient performance improvements and recommendations

In sync version 4.0.36, performance of the Email Campaign Recipient sync has been increased signficantly. It is now recommended to increase the "Download max rows" setting to 1,000,000.

To edit the download max rows settings in BBCRM:

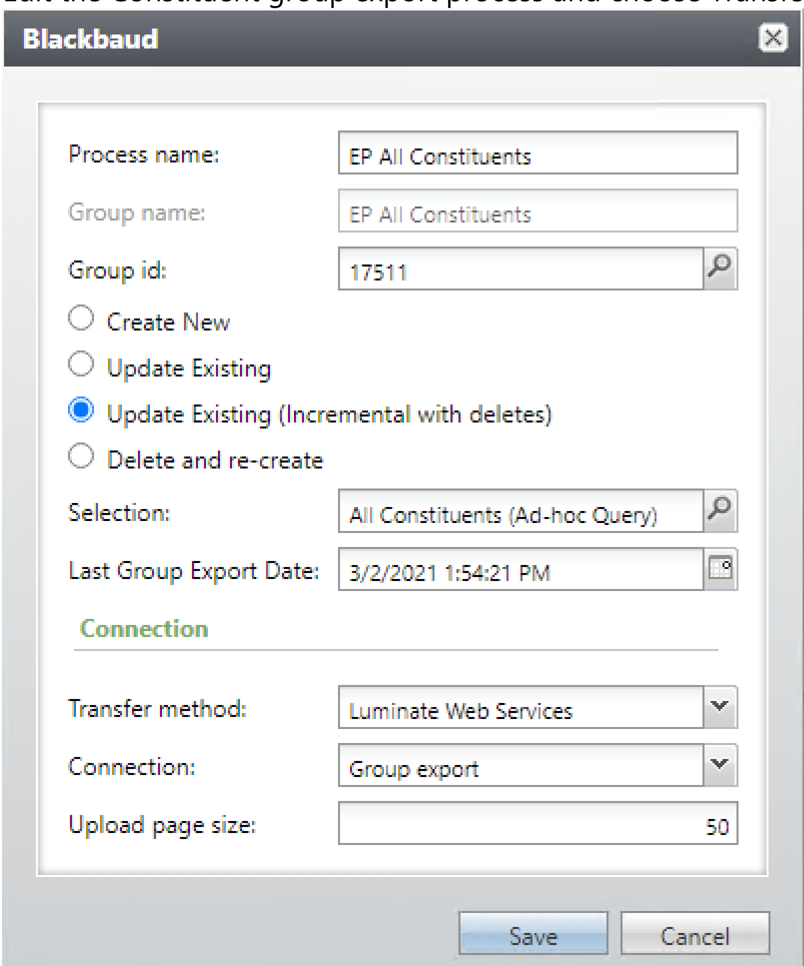
1. Go to Administration > Luminate Online Sync > Sync Process List
2. Select "Edit" on the "Email Campaign Recipients" sync process
3. On the "Advanced" tab, set "Download max rows" to 1,000,000



Constituent Group Export LWS option

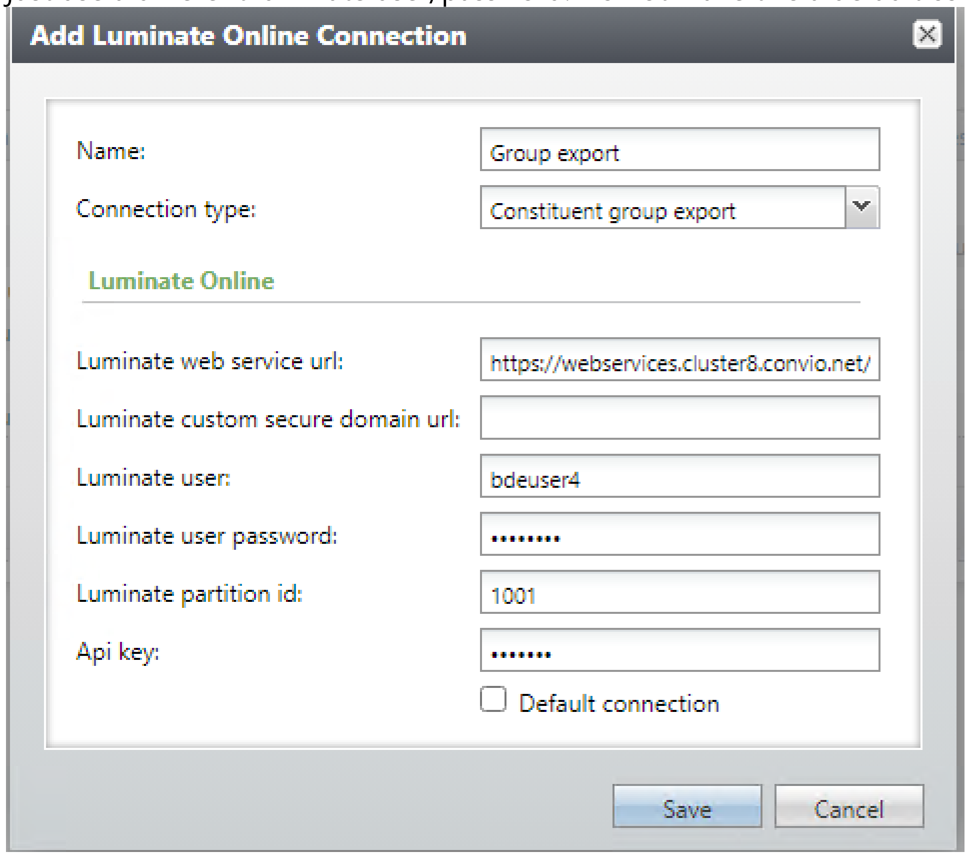
In sync version 4.0.39, an option to make the group export use Luminate Web Services (LWS) instead of the Luminate REST API has been added. Using LWS is much faster than using REST API as it can add records to LO 50 at a time instead of 1 at a time. However, using the LWS option will cause the constituents being added to the group to have their modify date updated, which can prompt the normal Constituent sync to pull them the next time it runs, which may result in a lot of unnecessary volume for the Constituent sync. Here is how to use the LWS setting and other recommended configurations for its use.

1. Edit the Constituent group export process and choose Transfer method "Luminate Web Services".



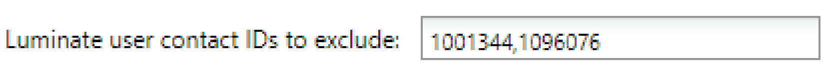
2. For Connection, it is highly recommended to setup a new connection with a new LO user not used by the other syncs. This is to avoid potential session conflicts. Go to Administration > Sync Setup Options and on Luminate Online Connection tab add a new connection. For "Connection type" select "Constituent group export" so you only have to enter the bare minimum information. The url, secure domain url, partition, and api key settings should be the same as your normal connection,

just use a different luminate user/password. Do not make this a default connection.



If you do not want constituents updated by the group export to immediatly sync back to CRM in the Constituent sync, then on the connection used by your Constituent sync, you can add the consid for the LO user used in the group export connection to the “Luminate user contact IDs to exclude.” This way any constituents in LO updated by this user will not be synced. However, if you do this it’s recommended to run the constituent group export immediatly or shortly after a normal Constituent sync runs to minimize the chance of losing any unsynced valid updates.

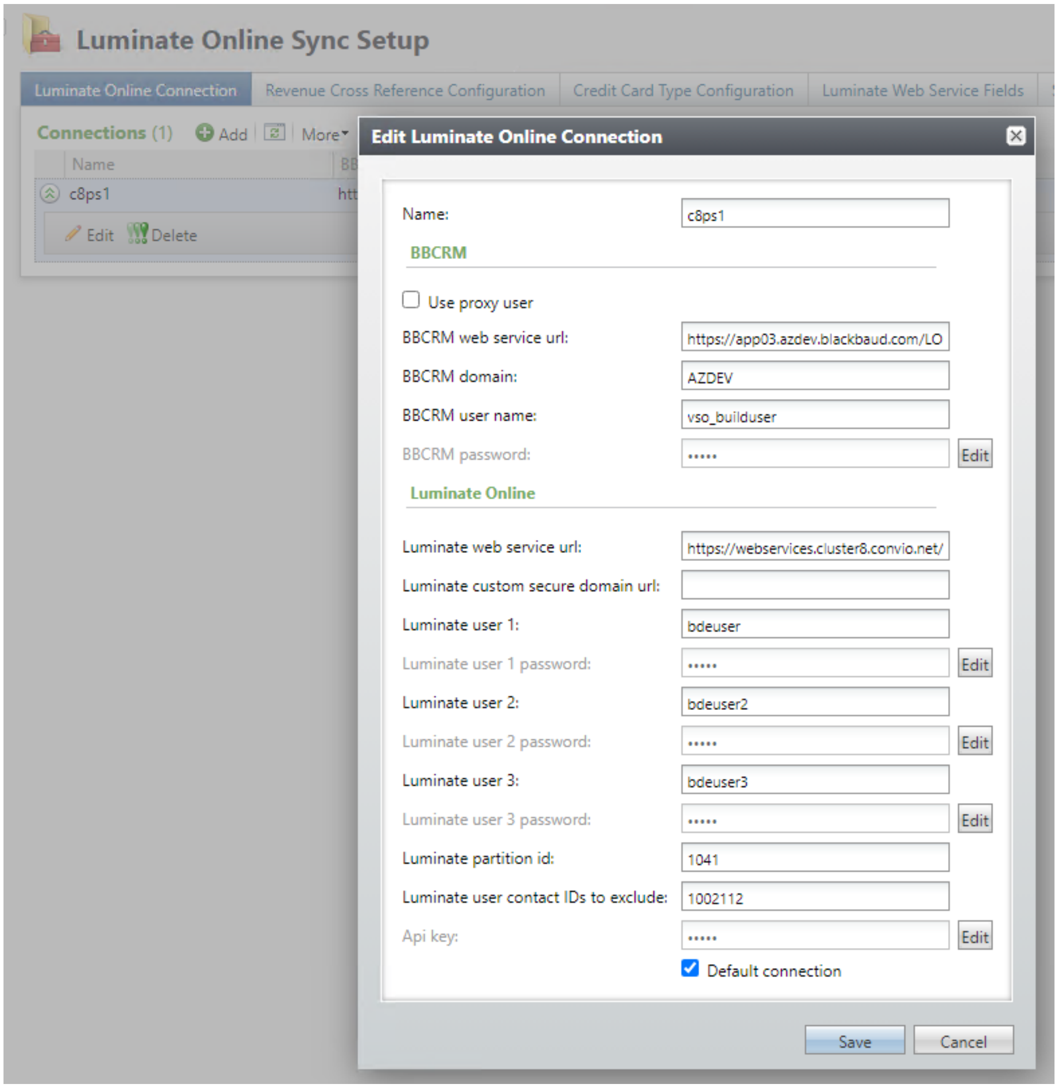
To get the consid for an LO api admin, in LO go to Constituent 360 > Groups > Administrator Group List (tab), search for 'API Administrators', and click 'View members' on it . Find the user in the list and click the Action to go to the constituent record where you can get the Constituent ID. Then in CRM edit the sync connection used by the constituent sync and add it to the “Luminate user contact IDs to exclude” list like so.



First time sync setup

Setup LO Connection

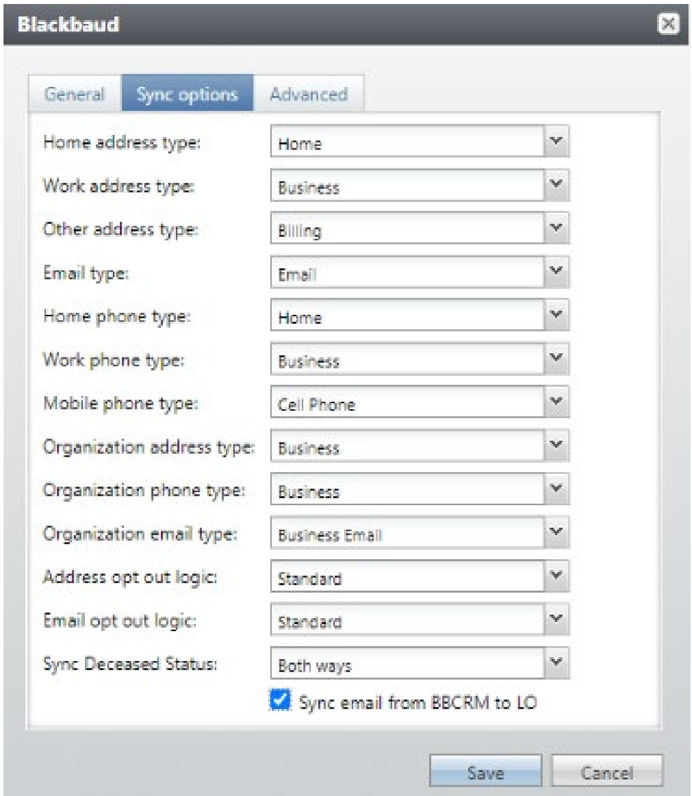
1. Log into CRM
2. Select the Administration functional
3. Select Data Integration
4. Select Sync Setup Options
5. Edit the default LO connection on the Luminate Online Connection tab
    1. Note that 3 **different** LO api users are required for the 3 Luminate users
    2. If this connection is for syncing with a production LO environment, if that site has a custom secure domain url for LO, be sure to set that in the "Luminate custom secure domain url" field in your production environment. If this is for syncing with a staging LO environment (cluster8), or your production site doesn't have a custom secure domain url, leave this field blank.



Setup Individual Sync Options

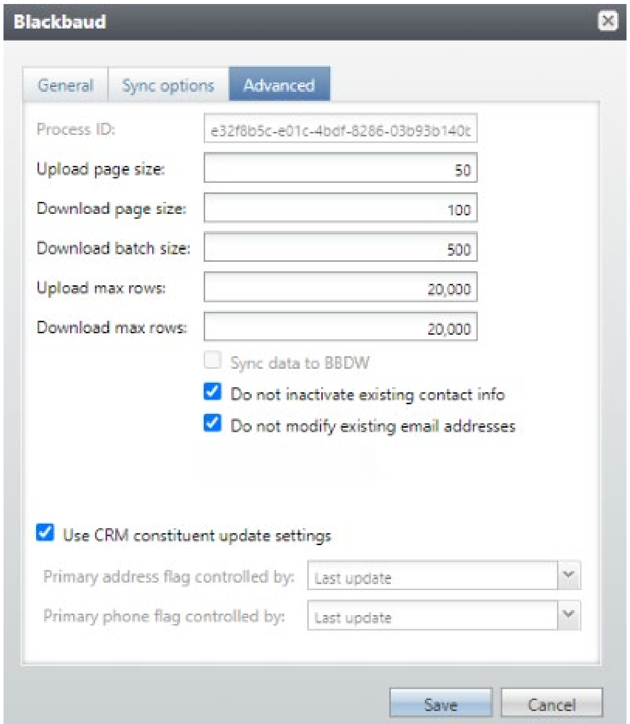
Under Administration->Data Integration->Luminate Online Sync, choose the Sync Processes tab and edit the Constituent Sync process (if the constituent sync is missing, in certain cases upgrading from 2.0/2.1 to 2.7 your sync processes list will be missing the original syncs. This can be fixed by running this SQL statement: update USR_LUMINATESYNCPROCESS set USR_LUMINATE_ONLINE_CONNECTIONID = '5349DE38-233A-488B-A5BF-E4F3D0EF8914')

On the Sync Options tab, enter your organizations preferences for the settings below:



The contact type selections control which types are assigned to inbound values from Luminate Online. For example, if Home address type above is set to "Home – LO", all inbound home addresses from Luminate Online will have a home address type of "Home – LO".

On the Advanced tab, the following values are *recommended*:



Download batch size can be adjusted according to preference. A higher number here may cause errors in the sync if batch commit times exceed 5 minutes. This will cause the LO connection to time out.

Review the other sync processes:

Field	Value
Record Type	Calendar Events
Name	Calendar Event Sync
Batch Template	LO Sync – Calendar Events
Event as auction	client choice – this is the same as clicking the "Event is an auction" choice on a new event
Auto commit batch	checked

Field	Value
Record Type	TeamRaiser Event
Name	TeamRaiser Event Sync
Batch Template	LO Sync - TeamRaiser Events
Event as auction	client choice – this is the same as clicking the "Event is an auction" choice on a new event

Auto commit batch	checked

Field	Value
Record Type	TeamRaiser Participation Type
Name	TeamRaiser Participation Type Sync
Batch Template	LO Sync - Event Options
Auto commit batch	checked

Field	Value
Record Type	TeamRaiser Team
Name	TeamRaiser Team Sync
Batch Template	LO Sync - TeamRaiser Teams
Create teams as committees	client choice – constituent groups that are created for TeamRaiser teams will have a committee constituency if this is checked
Auto commit batch	checked

Field	Value
Record Type	TeamRaiser Registrant
Name	TeamRaiser Registrant Sync
Batch Template	LO Sync - TeamRaiser Event Registrants
Auto commit batch	checked

Field	Value
Record Type	TeamRaiser Gift
Name	TeamRaiser Gift Sync

Field	Value
Record Type	Donation & Sustainer Payment
Name	Donation & Sustainer Payment Sync

Field	Value
Record Type	Cross reference values
Name	Cross reference values Sync

Field	Value
Record Type	Products
Name	Ecommerce Products Sync

Field	Value
Record Type	Ecommerce Revenue
Name	Ecommerce Revenue Sync

Seed Dates

Each individual process must have Seed Dates set to a date in the past in order to bring in prior data. If it is preferred for the sync to start as of today, each sync must be run once to establish the start date for the sync.

Batch Template Designations

If the client is not using Designees in Luminate Online or cross references for designations, default designations should be set in the following batch templates (see Designation Setup for more info on designations):

LO Sync - Ecommerce
LO Sync - Recurring Gift Master Records
LO Sync - TeamRaiser Gifts
LO Sync - Tributes
LO Sync - TeamRaiser Gift Tributes

Batch Template Accounting Systems

Set the client's preferred accounting system in the following batch templates:

LO Sync - Ecommerce
LO Sync - Recurring Gift Master Records
LO Sync - TeamRaiser Gifts
LO Sync - Tributes
LO Sync - TeamRaiser Gift Tributes

To set the default designations:

1. Select the Administration functional area
2. Select Batch
3. Select Batch Templates
4. Edit the batch template
5. Select a default value for the designation
6. Click Save
7. Repeat for each batch template

Queue set up & scheduling

The following settings are recommended as a best practice schedule for the sync:

- Constituent sync: Schedule every 15 minutes from 7am-11pm
- All other processes can be scheduled using the "LO Sync - Full Queue" which typically runs in the morning so batches can be reviewed and committed as necessary.

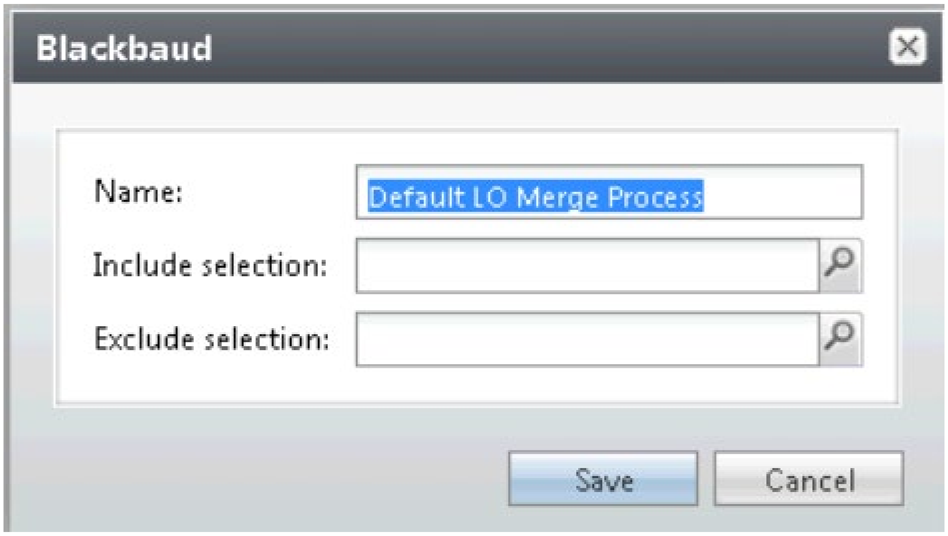
Merge Process

BBCRM has a process that can be run daily to send merge commands to Luminate Online (detailed here). This process is typically scheduled once a day and should run after the constituent sync's schedule has stopped.

1 am is typically a good time to schedule this process.

In sync versions prior to 2.5, this process required a queue and a file exchange. 2.5+ includes a purely API-based merge process so there's no need for a queue, file exports, and FTP uploads.

Create the merge process under Administration->Data Integration->Luminate Online Constituent Merge Process:



No selections are necessary, but if the client wants to exclude certain constituents or only include certain constituents (eg: testing small groups before running it against the whole database) those selections can be chosen here.

After saving, hit "Go To Process" and create a schedule on the Schedule tab.

These sections detail the major changes made to the sync in version 4.0.22, as well as required configurations that need to be done when upgrading to this version or higher for the first time.

Overview of version 4.0.22

Major changes

- To allow clients to select what constituents they want to sync from LO to CRM, we have enabled partitioning with constituents and all revenue syncs by changing certain syncs to use Get Incremental instead of query. By default use of partitioning is turned off, and the syncs will continue to use the normal query method. You can enable partitioning in the sync Global Settings. Once turned on, it cannot be turned off without Blackbaud assistance. When partitioning is turned on, it will apply to all syncs that use it.

- We have combined the Recurring Gift Master sync and Donation sync into one sync which will insert the records into the revenue staging table differently depending on if there's recurring gift information associated with the donation item. This change applies whether partitioning is enabled or not.

- We have combined the TeamRaiser Registration sync and TeamRaiser Registration Payment sync into one sync, which will insert registrations right into batch as normal, and for payments insert them into the revenue staging table as pending, and after the registration batch it committed, will check if the pending registration payment's registration is actually in CRM. If so, it will then mark the payment as no longer pending, and thus able to be selected by query import to put into batch.. This change applies whether partitioning is enabled or not.

- We have combined the Calendar Event Registration sync and Calendar Event Ticket Purchase sync into one sync, which will insert registrations right into batch as normal, and for payments insert them into the revenue staging table as pending, and after the registration batch it committed, will check if the pending registration payment's registration is actually in CRM. If so, it will then mark the payment as no longer pending, and thus able to be selected by query import to put into batch.. This change applies whether partitioning is enabled or not.

- Custom mapping for the 3 syncs merged into other syncs will be handled from the new "Child custom mapping fields" button, found on the combined syncs next to the normal "Custom field mappings" button. If there were existing custom mappings on the now depricated syncs, then need to be copied into the child custom mappings now. See the required configuration steps for more information.

- All transactions, regardless of missing dependencies, are now put into the revenue staging table when processed by the sync. Previously if a registration payment was missing its registration, it would be marked as pending and not actually brought over to CRM yet until the registration was synced over, at which point it would be brought over in the next sync. Now transactions are put into the staging table regardless, but if they're missing dependencies, they will be marked as pending in the table and will not be able to be pulled by the query import. In the sync history detail they will still have a status of "Waiting on dependent record". When the batch with the missing dependency is committed (either a registration or a constituent), then the staging table record will be updated with the required dependent information and then marked not pending. They can then be pulled by the query import.
    - Note that the dependencies are only naturally resolved when a batch with the missing records are committed. If for some reason the missing dependency is manually added in CRM, then the normal sync process will never update the staging record, even if you mark the record to reprocess. In situations like this, you can run the "Recheck Pending Transactions" global change, which will check all pending transactions for if their missing dependencies now exist, and if so update the staging record and remove the pending status.

Limitations and Warnings for Partitioning

- For TeamRaiser Teams, the team will NOT sync over if the team captain is not in CRM, and thus if they're not a member of the partition the team will not sync. When a team is synced, if the team captain is not in CRM, then then the team will be marked with a dependency, waiting for the constituent to sync. If later the team captain's constituent is added to the partition, then the team will sync.

- We can have up to 3 LO sync users with active sessions. By default, one is for the Constituents sync (luminate user 1), one is for the four Email Campaign syncs (luminate user 2), and one is for all the other syncs that user Get Incremental, i.e. the revenue syncs (luminate user 3). All other syncs that don't use Get Incremental use the same user as the constituent sync (luminate user 1). You can change which user is used for which syncs in the Sync Setup Options on the Sync Record Type Settings tab, but it is recommended to only do so at the direction of Blackbaud.

- When partitioning is turned on, any syncs using Get Incremental will only be able to run if the other syncs with the same LO user have finished successfully. So if the Recurring Gift/Donation sync gets an error or hits the max number of records to download, the other

Incremental syncs using the same LO user (e.g. TeamRaiser Gift, Teamraiser Registration/Payment, etc.) will not be able to run. Only after the sync that did not finish successfully finishes and pulls all the data it needs to will the other syncs using that LO user be able to run.

- If a sync with the same LO user hasn't finished (i.e. had an error or hit max download limit), then if you set the seed date back on a different sync with the same user, that sync will not run because of the other active session. However, if it is necessary to run that other sync with a seed date immediately, at the expense of the other sync that hasn't finished, you can run the sync with a seed date and check the "Force New Session" box on the seed date window to force the session of the other sync to end, allowing they current sync to run. However, by doing this, the sync that had its session terminated will have to start again from the beginning of its timeframe. It will not resume from where it was.

- If a constituent that was in the partition has synced to CRM, if that constituent is removed from the partition in LO, then the constituent will NOT be removed from CRM, as the sync does not delete constituents. Furthermore, if the constituent in CRM is updated it will still sync over to LO and update the constituent. The partitioning only applies to downloads of new records and updates where applicable.

- Users will still be able to mark records to reprocess in the sync log, however these reprocesses will not respect partitioning, so if a constituent is marked to reprocess and that constituent is no longer in the partition in LO, it will still be reprocessed. (note: reprocessing records uses the normal LO query logic, not the get incremental, hence it can't respect partitions)

Syncs using partitioning

- The following syncs support partitioning and the use Get Incremental calls and will subject to the above restrictions when partitioning is enabled:

  - Constituents
  - Donation/Recurring Gift (combined)
  - TeamRaiser Gift
  - TeamRaiser Registration/TeamRaiser Registration Payment (combined)
  - Calendar Event Registration/Calendar Event Ticket Purchase (combined)
  - Personal Fundraising Champion
  - Personal Fundraising Gift
  - Ecommerce Revenue

- The following syncs do not support Get Incremental, but have been modified to only sync a record if the associated constituent is already in CRM:
    - Interest Event
    - Center Member
- The following syncs will remain unchanged:
    - TeamRaiser Event
    - TeamRaiser Participation Type
    - TeamRaiser Team
    - Calendar Event
    - Calendar Event Ticket Type
    - Designee
    - Designated Transaction
    - Donation Campaign
    - Donation Forms
    - Cross Reference Values
    - Products
    - Interests
    - Email Campaigns (already uses Get Incremental)
    - Email Campaign Messages (already uses Get Incremental)
    - Email Campaign Deliveries (already uses Get Incremental)
    - Email Campaign Recipients (already uses Get Incremental)
    - Premium Log
    - Center
    - Merchant Account

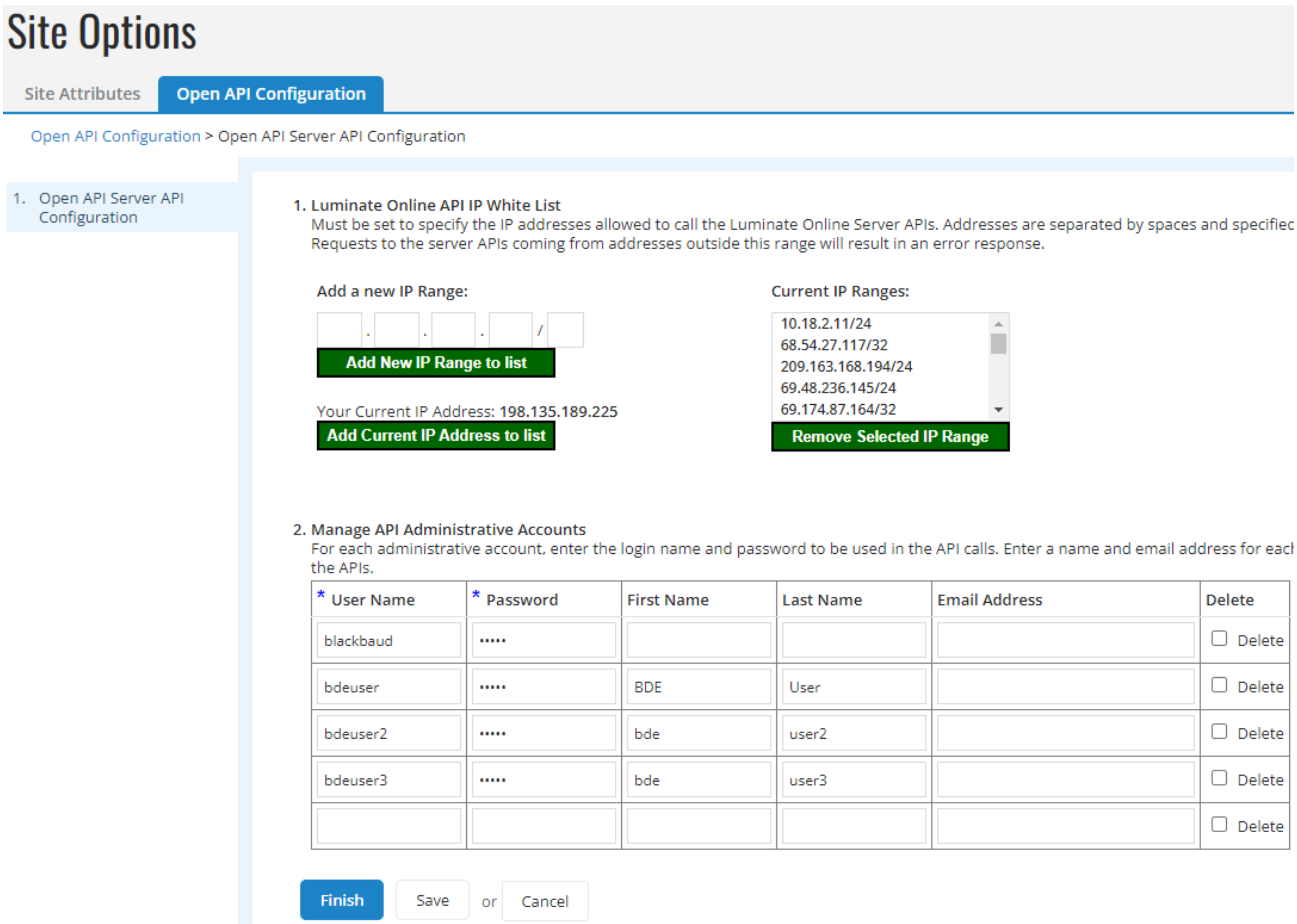
Required Configurations after Upgrade to Version 4.0.22

These instructions lay out the additional configuration changes that must be made to the sync after installing version 4.0.22.
The sync schedule should be completely disabled until these steps have been completed.

1. Create additional LO API administrative users

To function properly, the sync now requires a total of 3 different LO API administrative users. To create a second LO administrative user to use for the sync, you login to LO then go to Setup > Site Options > Open API Configuration > Edit server API configuration. Under "2. Manage API Administrative Account" you can add a new user name and password.

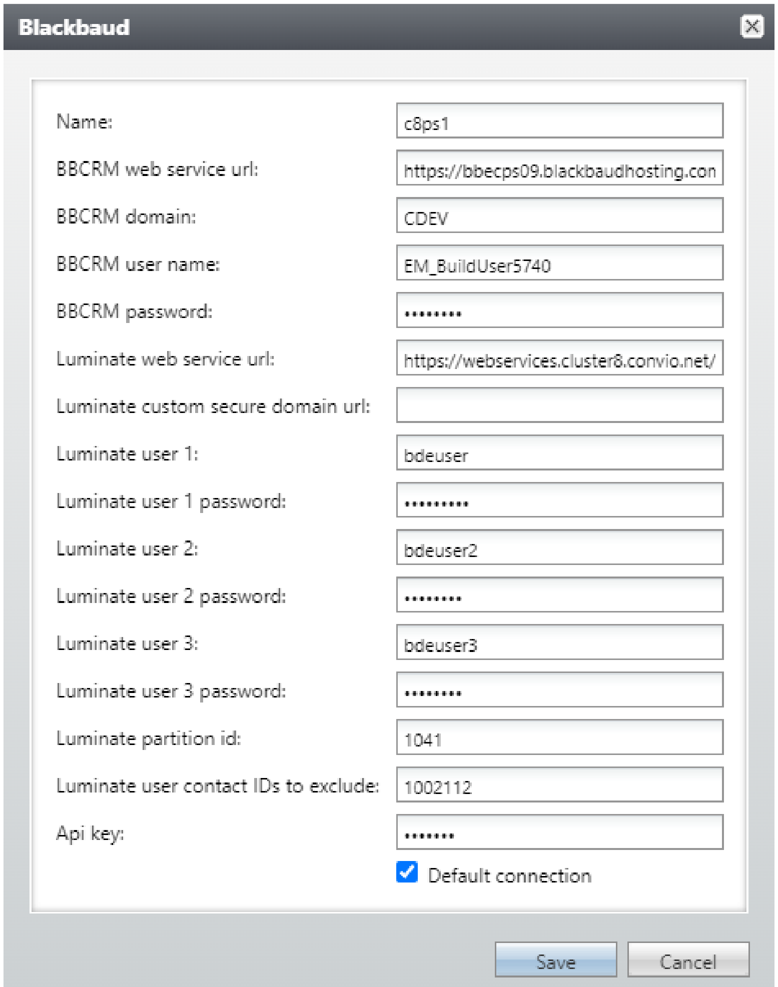
All existing sync clients should already have at least 1 user already configured. If you already have a second user you can opt to just use that, but it is generally better to create a new users that's explicitly for the sync. For example, if your existing sync user is called bdeuser, you can just create a bdeuser2 and bdeuser3. Clients currently using the Email Campaign syncs should already have 2 users for the sync, so they just need to create a third..



2. Add new users to sync connection

Go to Administration > Sync Setup Options > Luminate Online Connection, then edit your existing connection. The sync connection now has 3 places for users. The original sync user for the sync should already be Luminate user 1, so you need to set the 2 new users and passwords for Luminate user 2 and 3.

Note: If you previously had a second sync connection setup with a second user for use with the Email Campaign syncs, that second user should be used for "Luminate user 2" in the default connection, and the Email Campaign syncs should be switched to using the default sync connection along with all the other syncs. There is no more need for multiple connections for different syncs, as all users are managed under one connection now.



3. Have the WEBSERVICE_SESSION_SITE_LIMIT set to 3

In order to make use of all three LO user sessions, in Luminate the WEBSERVICE_SESSION_SITE_LIMIT must be set to 3. To do this, have an admin user go to Setup > Site Options, then select Web Services in the drop down and click "Go". If you see WEBSERVICE_SESSION_SITE_LIMIT in the list, then set it to 3 and click Save. If the WEBSERVICE_SESSION_SITE_LIMIT is not in the list, then please submit a case to Luminate Support requesting that the WEBSERVICE_SESSION_SITE_LIMIT setting be added and set to 3 for your site.

4. Remove deprecated syncs from Full Sync Queue

The following 3 syncs have had their functions merged into other syncs, and should now be removed from the full sync queue and any other queues that include these syncs. Note that if any of these syncs are run, they will end in error, with a message indicating they are now obsolete.

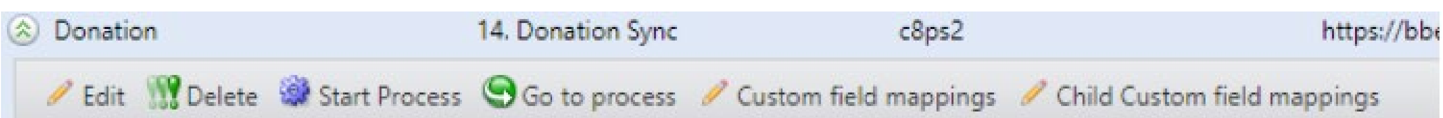
- Recurring Gift Master sync
- TeamRaiser Registration Payment sync
- Calendar Event Ticket Purchase sync

5. Set child custom mappings for combined syncs

In version 4.0.22, the following syncs have been merged.

- Recurring Gift Master sync merged into Donation sync. The Donation sync will now process both donations and recurring gifts, though they will still be logged separately in the Sync History Detail and in the revenue staging table for import purposes.
- TeamRaiser Registrant Payment sync merged into TeamRaiser Registrant sync. The TeamRaiser Registrant sync will now bring over both TeamRaiser registrations and their payments. The registrations will still go into batch and the payments will go into the revenue staging table. They will still be logged separately in the Sync History Detail.
- Calendar Event Ticket Purchase sync merged into Calendar Event Registrant sync. The Calendar Event Registrant sync will now bring over both Calendar Event registrations and ticket purchases. The registrations will still go into batch and the payments will go into the revenue staging table. They will still be logged separately in the Sync History Detail.

These combined syncs now have two buttons for custom mapping, "Custom field mappings" for the mappings of the record type named in the sync, and "Child Custom filed mappings" for the mappings of the record type that was combined into the sync.



Here is a list of the combined syncs, and what record type each of the two custom field mapping buttons are for.

Sync name	**Custom field mappings**	**Child Custom field mappings**
Donation Sync	Donations	Recurring Gifts
TeamRaiser Registrant Sync	TeamRaiser Registrations	TeamRaiser Registration Payments
Calendar Event Registrant Sync	Calendar Event Registrations	Calendar Event Ticket Purchases

If you have any custom mappings for Recurring Gifts Master, TeamRaiser Registration Payments, or Calendar Event Ticket Purchases, then these will need to be re-entered on the combined syncs under the Child Custom field mappings.

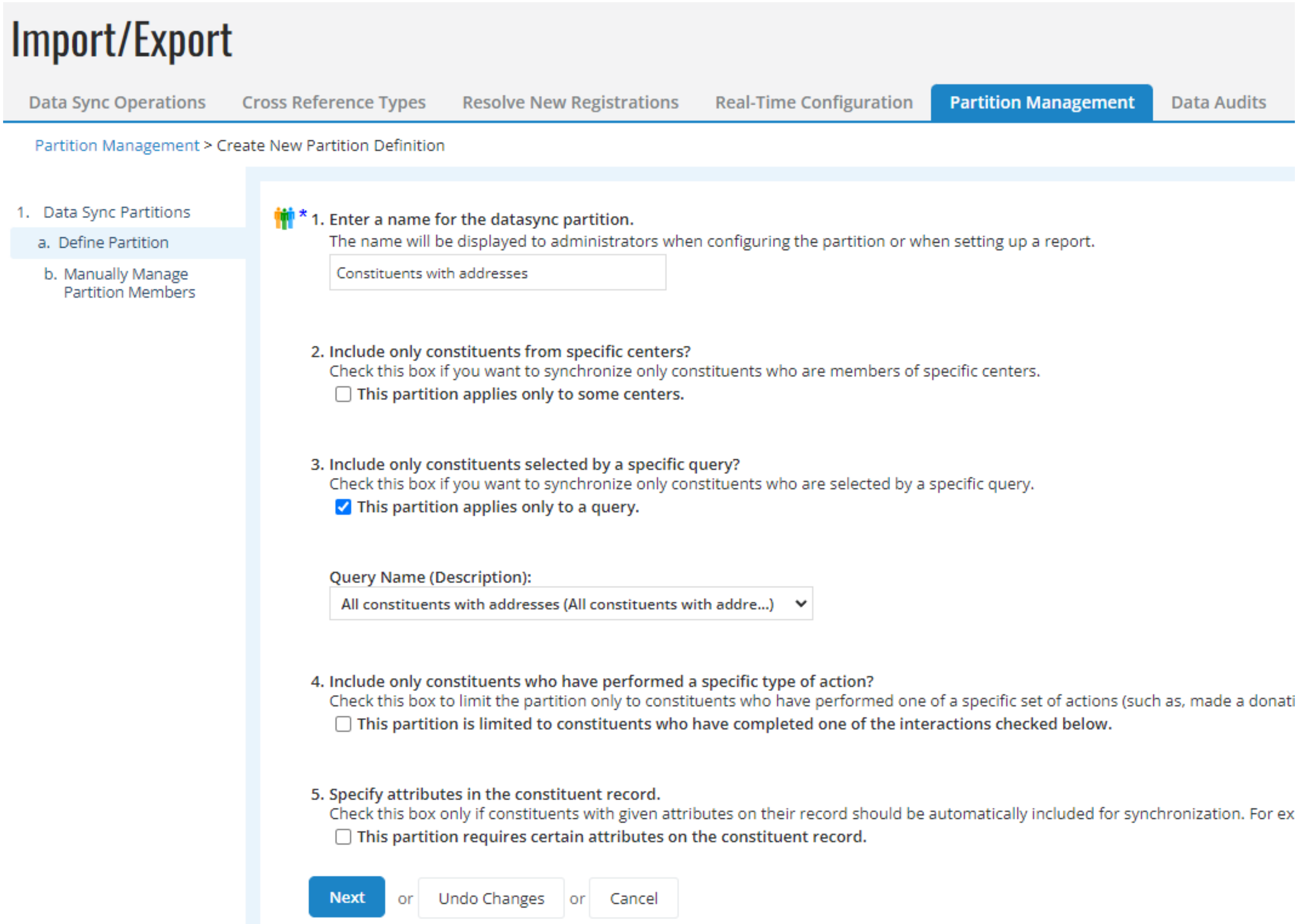
Detailed information about partitioning and incremental syncs

In sync version 4.0.22, the sync now supports using partitions in LO to limit what constituents sync over. By default, use of partitioning in the sync is turned off, so the sync will continue to use the normal query method of getting data from LO. If you wish to enable the use of partitioning with the sync, go to Administration > Sync Setup Options > Global Settings and check the "Use Incremental syncs" box. Note that once you turn on partitioning, it cannot be turned off without Blackbaud assistance.

Creating a partition in LO

A partition in LO is a selection of constituents in the database. By default there is a partition 1001, which contains all constituents in the LO database. This is the partition the sync is currently configured to use. You can create a new partition based on an LO query you create, so that going forward only the constituents you want will be synced over.

After creating an LO query to select the records you want for the partition, you can create the partition by going to Import/Export > Partition Management > Create New Partition Definition.



Once you've created the partition, click Edit on it under Partition Management, then look at the URL. In it you'll see a partition_id, which is what you'll need to configure in the sync connection settings. So in the URL :

https://secure8.convio.net/c8ps2/admin/DataSyncProcess?mfc_pref=T&partition_id=1041&datasync=dsws_edit_partition

you're looking for the partion_id=1041. Whatever number you find there is the id you want.

Once you have that id, you can cancel out of the edit screen.

To configure the sync to use that partition, in BBCRM go to Administration > Sync Setup Options > Luminate Online Connection, then edit the connection you're using. Set the "Luminate partition id" field to the new partition id you have.

Using partitioning with the sync

When partitioning is turned on, the syncs that support it will use the GetIncremental method of getting data from LO, which limit what they pull to what's included with the configured partition. If the incremental syncs have a partial success (i.e. reach the download max rows limit for the sync) then when they next run they will resume the sync session they had with LO previously, to continue where they left off. However, there can only be one active sync session per LO user, so if one sync has to resume, then all the other syncs that use the same user and are incremental syncs will be unable to run, because they cannot disturb that active session.

For this reason, we require the sync to have 3 LO users, so that we can make sure certain syncs having errors or a large volume don't affect certain other syncs. Constituents has its own user, the Email Campaign syncs have their own user, and all the other incremental syncs have the third user. This way a large number of Email Campaign Recipients or Donations won't prevent the Constituent sync from running. However, if the Donation sync hasn't finished syncing all its data, then the other syncs using the same user, like TeamRaiser Registrations and TeamRaiser Gifts, will not run until Donations is complete. Also, even when using the query method, the Constituent sync has to establish a sync session for the upload portion, which is why it needs its own user to make sure it doesn't interfere with, or be interfered with by, the Email Campaign syncs.

When an incremental sync still has an active session to complete, other syncs using the same user will get this error in the event log when they're run, though the syncs will say they are successful with 0 records processed:

"The SyncId from CRM does not match the active SyncId from LO and will stop."

If it is absolutely necessary to get a sync that is being held up by another sync to run, even at the cost of the sync with the active session needing to start over again, you can force a new session for the sync you need run by setting a seed date with the force kill session. See below for more details.

Running incremental syncs with a seed date

When an incremental sync reaches the max download limit and has to continue in the next sync, the session that it had is still considered active in LO. If an incremental sync still has an active session and you set a seed date for that sync, that will cause the sync to end its current session and run with the date you set. The sync will then next run starting from the sync end date of the most recent successful sync. Note that syncs that hit the max download are not considered successful until all pending records are synced, so if you ran the sync with a seed date when it still had an active session, the following sync will resume syncing the dates that the previous sync before the seed date run was processing, but will be starting over from the beginning again. So if the sync had brought over 50,000 out of 200,000 email recipients, then the sync was run with a seed start/end date of a specific day several weeks ago, then after the seed date sync finishes, the sync will start again processing the 200,000 from the beginning, not resuming after the 50,000 it already processed.

If for some reason you need to set the seed date on another incremental sync and need it to run right away when another incremental sync has an active session, you can check the "Force New Session" checkbox on the seed date window. This will terminate any active sessions for that sync user and allow the sync to run with its set seed date. The sync that had its session terminated will have to start syncing its records again from the beginning of the time frame for its former session.