# Margill Loan Manager

# **Salesforce Connection**

### Content

- Important
- General concept
- Loan versus Borrower concept
- Borrower creation versus Borrower data update
- Salesforce connection configuration
- Automatic Borrower import/data updates in MLM
- First import / Update Data from Salesforce to Margill
- Import logs
- Export data to Salesforce Automatically via Background Night tasks
- Common errors and troubleshooting
- Consult a Salesforce specialist

#### MLM version 5.4 and later

### Important

The following text is based on the Salesforce documentation and/or tests that were made by the Margill programmers/analysts who are not Salesforce experts. It is up to the user to ensure that data import and export is done properly between systems. A change in the Salesforce software could lead to some of the information in this document to become invalid and could lead to issues in the data exchange between Margill and Salesforce.

It is highly recommended to consult a Salesforce expert in order to establish the Margill/Salesforce connection.

The user uses this API at his own risk and Jurismedia assumes no responsibility for any loss of data, unwanted gain of data, problematic exchanges of data and corruption of data.

If Salesforce is the primary data source, never change the Borrower's data directly in Margill without the same data being updated in Salesforce since at the next import, the old Salesforce data will be imported into MLM.

# **General concept**

This Application Programming Interface (API) allows the automatic import (creation and update) of the Borrower's data from Salesforce (SF) to Margill. The creation and updating of data is done via a Windows Service in almost real-time.

It is also possible to export data from Margill to Salesforce. Usually, data from Margill is very limited since the Borrower data is entered into Salesforce. Exporting towards SF is often a summary of a few loan data

(and not the Borrower data) such as current balance and next payment date and amount, for example. Hundreds of other data could be extracted from Margill and exported to SF.

### Loan versus Borrower concept

Margill Loan Manager (hereinafter MLM or Margill) is a "relational" database in which the focus is the Loan, not the Borrower, as it is typically the case in Salesforce. So, even if a Borrower has three loans, only one Borrower account should be present in Margill. Therefore, the software simply creates a link (relation) between the Borrower and each of the loans.



Relational database

"Flat file" database

There is no issue with importing SF data to MLM because at the moment, only the Borrower data can be imported into MLM.

However, to export from MLM to SF, the data may relate to the Borrower or to the loan. When the Borrower has only one loan, there are no issues since the relation is one to one. But what happens if the Borrower has more than one loan? In SF, usually, only one account exists, that of the Borrower. If a custom field exists in SF for the loan amount (or balance, or whatever), what about the second loan? This would have to be discussed with a Salesforce expert if data was to be imported for this Borrower from MLM to SF. MLM can export all data for all loans with Borrower ID and Loan ID as needed. It is then a matter of discussing with the SF expert on how to configure SF in order to have access to this data by loan.

# Borrower creation versus Borrower data update

If a Borrower is not already created in MLM, it will automatically be created with the Salesforce import. Conversely, if a Borrower already exists in the MLM, its data will simply be updated according to the SF export but on the condition that it has what is called a "Key". This key comes from SF.

If the Borrower already exists in MLM but does not include the key, a new Borrower will be created, which would be the wrong thing to do. The same Borrower would be listed twice in Margill, one with the key and the other without the key. This, of course, is to be avoided.

# Notion of "Key"

A Key allows the creation of a link between two systems or more in order to specifically identify this person, this entity, this loan, etc. In Margill, three fields can be used as Keys:

<ol> <li>Borrower ID, automatically generated by MLM (this ID can be used as key only for exporting towards Salesforce but not to import from SF since this ID will exist in MLM only once the Borrower is created).</li> </ol>
Borrower ID: 10085
2) Borrower Unique Identifier 1 that can be renamed
3) Borrower Unique Identifier 2 that can be renamed
Unique Identifier 1
Unique Identifier 2
A key must always be unique; otherwise there will be a conflict. Two Borrowers cannot have the same key.
Salesforce Key
The SF Key could be the "Id" field or a new custom field. This Id is found in the address of the page (and there are queries to get the Ids in SF – see explanation below):
/orking with Dates and × № Inbox (26) - testaaaaaa12345@g × > Lyne Lemay   Salesforce × + ad5w000006t5kgeak-dev-ed.lightning.force.com/lightning/r/Accourt/0015w00002Y3VQrAAN/riew
If a custom field were to be used as the Key, this field must have the characteristic of being "unique" (no Borrowers could share the same "number" (or alpha-numeric code)). SF allows you to give this particular characteristic to a custom field in Object Manager > General Options:
Concert Options
General Options
External ID Zet this field as the unique record identifier from an external system
Using a Key other than the SF "Id" can be useful when this Borrower is present in many systems.
If you have a great volume of Borrowers in SF, it is possible that the same Id is given to two Borrowers but with a different case (upper and lower case). In Excel (and other software), case is often ignored resulting in two contacts having, for third-party software, the same key. An "Account ID18" could be used which adds three more characters to the 15 existing (total of 18) so that the case doesn't matter anymore. You must create a custom field with a formula (consult the SF Help section).

1.24	
Show All customer contacts	
Save As Printable View Export De	tails
ID	
t	
	Show [All customer contacts [Save As] [Printable View] [Export De ID 4

#### Salesforce Key and its import into Margill

If a Borrower already exists in Margill, the SF Key must be imported manually into MLM for each Borrower. We suggest importing via the Borrower "Global changes" in Margill via an Excel sheet.

The SF Key will first have to be extracted from SF. Unfortunately, it is not that simple to extract the SF Id. A SF expert should assist in this regard in order to extract the data from the field which will serve as the Key and other data such as name, company, etc., in order to find the right Borrower in MLM.

To extract several contact data in SF, do a "Data Export".



	Convert Text to Columns Wizard - Step 2 of 3 ? X
	This screen lets you set the delimiters your data contains. You can see how your text is affected
	In the preview below.
	Tab
	Semicolon Treat consecutive delimiters as one
	☐ <u>Comma</u> Text gualifier: ▼
	☐ <u>&gt;pace</u>
	Data preview
	Id IsDeleted MasterRecordId Name
	0015w00002Che6TAAR 0 Edge Communications 0015w00002Che6UAAR 0 Burlington Textiles C
	0015w00002Che6XAAR 0 Grand Hotels & Resort: 0015w00002Che6YAAR 0 United Oil & Gas Corp v
	<pre></pre>
	Cancel CRick Nexts Einich
Once the file is sa	aved in Excel, it will have to be reworked in order to have only two columns:
Column	A: Borrower ID from MIM (automatically generated by MIM) (or one of the
	orrower ID if already present – other than the one that will be used for the SE
Id of cou	rece )
	rse)
	Borrower ID: 40007
Column I	3: SF Id
If hundreds or th	nousands of Borrowers already exist in MIM, it is suggested to export these
Borrowers from	MIM and to use the Excel function "VI OOKIP" by using the name of the
Borrowers nom	will and to use the Excertainction veboxor by using the name of the
Borrowerasa III	ik (in fact, acts like a key) in order to link the exported extersheet to the MLW
sheet.	
Exporting Borrow	ver data from MLM to an Excel sheet done like this: File > Borrowers >
Borrower selection	on > right mouse click:
	Borrower Indate
	ID 🗞 Business 🔍 First Name 🔍 🔍 Last Name
	10034 Abo Co
	10025 Androw & Ass Iulia Androws Global changes
	10036 Kristin Thomson
	10037 Vincent Cheng
	Copy the column
	Borrower File Borro 💥 Export table to Excel
	Select columns >

Once the Excel sheet is completed (with Borrower ID from MLM and SF Id)...

		А	В	С	
				Borrower Name (will be	
		MLM Borrower ID	Salesforce ID	ignored in import - for	
	1			informational purposes)	
	2	40001	0015w00002ac6r0AAA	ABC Bakery	
	3	40002	0015w00002ac6pjAAA	Jean-Claude VD	
	4	40003	0015w00002abNvjAAE	VBC Industries	
	5	40004	0015w00002ac6mtAAA	Hotel Dreams	
	6	40005	0015w00002ac7MTAAY	Karl Robertson	
use the Globa	l ch	anges and the Exc	el button in order to	import the SF Id to the	right Borrow
use the Globa	I chan	anges and the Exco ges Isx file	el button in order to	import the SF Id to the	right Borrow
Borrower Global	l chan I chan I xio/ x	anges and the Exco ges Isx file C Unique Identifie	el button in order to	2 Borrower various Borrower Unique I	Fields / Options
Borrower Global	l chan	anges and the Exco ges Isx file C Unique Identifie	el button in order to er 1 C Unique Identifier	2 Borrower Various Borrower Unique I	right Borrow
Borrower Global	l chanı Any XISA X	anges and the Exco ges Isx file C Unique Identifie	el button in order to	2 Borrower various Borrower Unique	Fields / Options

# Salesforce connection configuration

Only a Margill Administrator can configure the Margill/Salesforce API. Only a Salesforce user with access to the "Console Service" should configure the Salesforce synchronized automated import /export service.

In Margill, go to System Settings (Administrators) > Special section, "Automated Imports" > "Borrowers (Create and Update)" tab > select "Salesforce Synch" > Salesforce Settings:

Loans and Borrowers (Create and Update)	Borrowers (Create and Update)	Transactions (Create only)	
C Automatic Impo	rt Folder Structure (csv):	? 🖲 Salesforc	e Sync
API Object	Structure (csv).	ACCOUNT	
Conditions			
Salesforce Setting	<u>gs</u>	Update Exis	ting Borrowers Only

This window will appear:

🛃 Salesforce API		—	×
? 🗹 Enable Application I	Programming Interface (API) Features for Salesforce		
Mode:	Normal Mode 👻		
Username (Email) :	asmithe@margill.com		
Password :	•••••		
Token :	HwNWBMFC8SsRtXnvNwJR3b4		
Conne	ection Test Save 🕢 Close	$\Theta$	
How it works			

Check "Enable Application Programming Interface (API) Features for Salesforce". This way, the import and export functions will be activated in MLM.

If you are in Test mode in Salesforce (Sandbox), choose the Sandbox mode, otherwise, choose Normal mode. Beware, even in Sandbox mode, if you're in live version of Margill, *test* data will be incorporated into the live version, which is something that is not necessarily desired. It is suggested to create a separate Margill Sandbox instance as well (contact Margill support).

Mode:	Normal Mode 🗸 🗸
	Normal Mode
	SandBox Mode

Enter the Email address and/or the user name and password usually used to log into Salesforce, and the Salesforce login token and press the "Save" button.

By clicking on the "Connection test" button, you will get the confirmation, or not, that you have correctly entered the Salesforce account information.



Troubleshooting and possible solutions for failed connection:

1- Try to connect directly into the Salesforce account. If that works, validate that the username and password entered in the MLM configuration window are identical to those used for the direct connection to Salesforce.

2- Ask a Salesforce Administrator to Refresh the Security Token: Under Service > My personal information > Reset security token. Once the new token is received by email, modify the Salesforce API configuration window in MLM.



**Token**: In order to get a connection Token in Salesforce, follow the steps in "Generate an initial Access Token".

# Automatic Borrower import/data updates in MLM

Start with the installation and configuration of the Windows MLM Service. An installation file separate from the MLM installation file must be used to install the Service called: "MLM Import Service". To find out more on this topic, please consult this document which explains the installation and configuration of the Service in detail: <u>https://www.margill.com/margill-loan-manager/win\_service-api.pdf</u>

Once the Service is installed correctly, go to Tools > Settings > "Special" section > Automated Import. This window will appear, allowing the configuration of the import from SF to MLM:

mated Import Status	Leans and Borrowers Transactions (Create and Update) (Create and Update) (Create only)	
indows Service 8 Stop 🕕	C Automatic Import Folder ? C Salesforce Sync (Beta) 1	?
itatus Running	Salesforce Object Structure (csv): 5 🗸	C
installation Path (Import.ini)	API Object 3 ACCOUNT	
ogram Files (x86)\MLM-5.4\	Conditions 9 6	10
	Salesforce Settings 7 Update only existing MLM Borrowers Manual Import Add Conditions	Active
mplementation Mode	MLM Fields available   Column Column Header Name MLI	M Field Name
	Borrower 1 Account_JD18_c Borrower Unique	identifier 1
ans or porrowers	2 PersonBirthdate Borrower Birth Da	ste
mport Folder	Borrower Unique Identifier 2 Borrower First Na Borrower First Na Borrower First Na	ime
/alid Mapping	Berrower Social Security aumher	st Name
	Remove Bith Date	
arrowers	Bernard Reviser (Company) Name	
interferen Connection Info	Borrower - Marital Status	
Connection into 24	Rorrower Title (Mr. Mr. Mc. Dr.)	
Valid Mapping 3	Borrower First Name	
	Borrower Middle initial	
nsactions	J Borrower Last Name	
nport Folder	Borrower Address 1	
	Borrower Address 2	
	Borrower City	
	Borrower State, Province	
	Borrower Country	
	Borrower Zip / Postal code	
	Borrower Phone number	
	Borrower Fax number	
	4	•

The numbers hereafter correspond to the red numbers in the image above:

- 1. Choose the "Borrowers (Create and update)" tab. Select the option "Salesforce Sync".
- 2. Click on the file icon on the right and select the .csv file that contains the variable names for the Salesforce Object Structure. The .csv file must be closed in order to be used for the SF and MLM field mapping.

Tip: In Salesforce, it is possible to export a file in .csv format containing all the data, by "Object" (see the definition of "Object" below). This file contains, in the header, the names of all fields. This method avoids transcription errors since even the upper and lower case is important in the field names This is a fast and efficient method!

To export the list from Salesforce: Go to Setup > Home > Data > Data Export and click on "Export Now" (ignore the Monthly Export Service):



Choose the Object to export, click on "Start Export" (in our example: "Account"):

Strue Data Export						
Monthly Export Service						
Export File Encoding	ISO-8859-1 (General US & Western European, ISO-L	ATIN-1) V				
Include images, documents, and attachments						
Include Salesforce Files and Salesforce CRM Content document versions						
Replace carriage returns with spaces	2					
	Start Export Cancel					
Exported Data Select what type of information you would like to	include in the export. The data types listed below use the Apex API	names. If you are not familiar with these names, select include all data for your export				
Contract	- Order	Orderffere				
Contract		Condensem				
Entitybirton	Eaddhistory	EmailPortingliddraes				
LinkReference	Campaion	Gampain/Member				
Account	Contact	Lead				
Opportunity	OpportunityContactRole	OpportunityHistory				
OpportunityLineItem	OpportunityCompetitor	Partner				
Fiscal/earSettings	Period	PricebookEntry				
Product2	Asset	Case				
CaseComment	CaseContactRole	CaseHistory2				
CaseSolution	Solution	Content/version				
-	-	-				

An email will then be send with the link to the Salesforce page containing the .zip file with the exported data. Click on "Download" under "Action":

bolle de leception x					
support@salesforce.com À moi 👻		0:12 (il y a 2 minutes)	☆	*	:
☆ anglais - > fran	çais 👻 Traduire le message	Désactive	r pour : a	nglais	×
The export of your organizatio 48 hours to receive the export	n's data has been completed. Please	click on the following li	nk within	the ne	ext
https://na172.salesforce.com/	ui/setup/export/DataExportPage/d				
Thank you,					
salesforce.com					
onthly Export S a Export lets you prepare a ort process manually or scl vive an email containing a l his page for 48 hours, after	Service to copy of all your data in salesforce hedule it to run automatically. Whe ink that allows you to download th r which time they are deleted.	e.com. From this pag n an export is ready e file(s). The export i	Help f le you c for dow files are	or this I an sta nIoad also a	Page art the you avail
onthly Export S a Export lets you prepare a ord process manually or sci ove an email containing a l his page for 48 hours, after page for 48 hours, after None	Service copy of all your data in salesforcr hedule it to run automatically. Whe ink that allows you to download th which time they are deleted.	e.com. From this pag n an export is ready e file(s). The export i	Help f le you c for dow files are	or this I an sta nload also a	Page art the you avail
onthly Export S a Export lets you prepare a ord process manually or sca wie an email containing a his page for 48 hours, after None	Service copy of all your data in salesforchedule it to run automatically. When this that allows you to download th rwhich time they are deleted.	e.com. From this pag n an export is ready e file(s). The export i	Help f	or this I an sta mload also	Page art the you avail
onthly Export S a Export lets you prepare a ort process manually or sci ive an email containing a his page for 48 hours, after None	Service a copy of all your data in salesforc hedule it to run automatically. Whe ink that allows you to download th which time they are deleted. Export Now Schedule Ex	e.com. From this pag n an export is ready e file(s). The export i port	Help f	or this I an sta nload also	Page art thu you avail
Conthly Export S a Export lets you prepare a of process manually or sci order oncess manually or sci order on the sci order on the sci net scheduled export: None Scheduled By	Service a copy of all your data in salesforchedule it to run automatically. Who in that allows you to download th r which time they are deleted. Export Now Schedule Ex	e.com. From this pag in an export is ready e file(s). The export i port	Help f	or this I an sta nload also a	Page art tho you avail
Scheduled By         Scheduled By         Scheduled Date         2021-08-1	Service a copy of all your data in salesforce hedule it to run automatically. When ink that allows you to download th which time they are deleted. Export Now Schedule Ex and 3	e.com. From this pag in an export is ready e file(s). The export i port	Help f	an sta nload also a	Page art tho you avail
Scheduled By Scheduled Page 1900-1901 Scheduled By Scheduled Date 2021-08-11 Export File ISO-8859-Encoding ISO-8859-	Service a copy of all your data in salesforc: hedule it to run automatically. Whe link that allows you to download th rwhich time they are deleted. Export Now Schedule Ex Balance 3 1 (General US & Western European,	e.com. From this pag in an export is ready e file(s). The export i port ISO-LATIN-1)	Help f	an sta nnload also a	Page art the you avail
Scheduled By Scheduled By Scheduled Day Scheduled Day Scheduled Day Scheduled Day Schedule Date Scheduled Day Schedule Date Scheduled Day Schedule Date Scheduled Day Schedule Date Scheduled Day Schedule Date Scheduled Day Scheduled Day Schedule Date Scheduled Day Scheduled Day Sche	Service a copy of all your data in salesforc: hedule it to run automatically. Whe ink that allows you to download th which time they are deleted. Export Now Schedule Ex- a 1 (General US & Western European.	e.com. From this pag n an export is ready e file(s). The export i port ISO-LATIN-1)	Help f le you c for dow files are	or this l an sta nload also a	Page art tho you avail

A .csv file is automatically saved. Open in Excel and note that only the first line will be used for mapping. You will have to delete all data in the following lines.



Afterwards, select the desired fields that should be imported to Margill. Delete the fields that are not to be included in the automatic import. Keep the very important "Id" (with or without the quotation marks) at the beginning of line 1 which will serve as the "Key" or the unique identifier between SF and MLM.

A1	-	$\pm$ $\times$	$\checkmark f_x$ Id,	"Name","Custo	om_field_c","e	mail_c","Billing	gCity","BillingSt	reet"
	А	В	С	D	E	F	G	F
1	Id,"Name","C	ustom_field_	c","email_c","B	illingCity","Billin	ngStreet"			
2								

.CSV file ready for MLM (5 data only will be imported/updated on top of the essential ID

3. For "API Object", enter which database table the import data comes from. Make sure to enter the Object name exactly as it appears in Salesforce, in the "Service Setup".

**Definition of the "Object" concept in Salesforce:** Objects are the database tables that store specific data of your business in Salesforce. The list is available under Service Setup > User interface > Objects and Fields > Object Manager.

Example:

			Q, Search	rserup
Service Setup	Home	Object Manager 🗸	C. 2992 - M.C.L. ANNA DITO	e nasona ent
SETUP Object Man 51+ Items, Sorted by	ager Label			
LABEL		*	API NAME	TYPE
Account			Account	Standard Object
Activity			Activity	Standard Object
Alternative Payment Method			AlternativePaymentMethod	Standard Object
API Anomaly Event Store			ApiAnomalyEventStore	Standard Object
Appointment Topic Time Slot			AppointmentTopicTimeSlot	Standard Object
			Asset	Standard Object
Asset				
Asset Asset Action			AssetAction	Standard Object

#### Mapping

In the table to the left of the window, choose the variables and carry out the mapping between the MLM fields and SF fields on the right by using the central blue arrows. It is critical to take into account the format (text, currency, etc.) in order to match variables of the same type thus avoiding import errors.

oans and Borrowers Create and Update)	Borrowers (Create and Update)	Tran (Cre	sactions ate only)								
C Automatic Impo Salesforce Object	rt Folder Structure (csv):	e	Salesforce Sync					בח			
API Object ACCOUNT Conditions			ACCOUNT								
Salesforce Setting	15	Update Existing B	orrowers Onl	У		Add Conditions	ins				
Borrower	MLM Fi	elds i	wailable	-	Column	Column Header Name	MLM Field Name	Format			
J Borrower Un	ique identifier 1				2	la Name	Borrower Unique Identifier 1	lext			
Borrower Uni	que identifier 2				3	IDSalesForce_c					
Borrower Soci	al Security number				4	emailc					
Borrower Birth	n Date										
Borrower Busi	ness (Company) Name										
Borrower - Ma	arital Status										
Borrower Little	MIL MIS. MS. DL			. <							
Borrower First	Name										
Borrower First Borrower Mid	Name dle initial										

Make sure that the variables appear correctly in the left column. In this example, with a .csv in UTF-8 format, we obtain bad characters for the "Id" (left image) whereas in the right image, the "Id" appears correctly.

umn	Column Header Name	Colum	n Column Header Name	MLM Field
	id 🔨	1	id	Borrower Unique identifier 1
	Name	2	Name	Borrower Last Name
	Emailc	3	Emailc	Borrower Email
	Billing_City	4	Billing_City	Borrower City
	CSV UTF-8			CSV

Corresponding field names are in the "Field Name" column, not "Field Label":

SETUP > OBJECT MANAGER Customer Conta	ct	
Details	Fields & Relationships 47+ Items, Sorted by Field Label	
Fields & Relationships		
Page Layouts		
Lightning Record Pages	# of Attempts	of_Attemptsc
Buttons, Links, and Actions	Account Email	Account_Emailc
Compact Layouts	Account ID18	Account_ID18c
Field Sets		
Object Limits	Account Source	AccountSource
Record Types	Admin grouping field	Admin_grouping_fieldpc
Related Lookup Filters	Age	Agepc
Canada Lauranda	101 DV1 DD1	

#### First Name and Last Name Fields

Usually, in Salesforce, only one field exists for the first and last name (variable "Name"). This is unfortunate, as it is difficult to sort either by first or last name. A SF expert could help you create two separate fields as it is the case in MLM.

If you cannot export the First and Last Names into MLM from SF, it is suggested to import the SF variable "Name" into the MLM "Borrower Last Name" field and then to split the Name imported from SF to First and Last Names via an Excel sheet. This operation would need to be carried out only when new Borrowers are imported into MLM. The name splitting operation becomes cumbersome so it is probably better to add First and Last names in SF or to keep the full name in one MLM field, even if less "search friendly".

If you still wish to split ...

To do this mass split, export the list of Borrowers (File > Borrowers) to Excel and re-import the split column Excel sheet (use the Excel "Convert" function) with Margill's "Global changes".

It is important to keep the Borrower ID (the Key) in column A of the Excel sheet and then import, one at a time, Last Name, First Name and Initials (which could be used to import the middle name).

In the example below, the 2 first Borrowers could be divided. The other two are properly entered in Margill:

~					
ID 🔍 E	Business 🔍	First Name	×	Last Nan	ne 🔍
10216			Élizabeth Lee		<u></u>
10215			Mike Powers		Global changes
10214	S	usan	Larson	<b>F</b>	Copy the selected rows
10213	L	uke	Walberg		
•					Copy the column
		Borrower Fi	le Borrower - Oth	ne 🗶	Export table to Excel
					Calant as human A

4. The "Automated Import Status" on the left of the window allow you to see if all the required components are operational. The green check mark indicates that the Salesforce connection information is present in the configuration window. If a red "X" appears instead, then click on the "Salesforce Settings" link and the configuration window will appear allowing you to enter the required connection information.



5. When all fields from the .csv file have been mapped, a green check mark will appear next to "Valid Mapping" and to the right of "Salesforce Object Structure (csv)" even if the mapping file is no longer displayed since it is no longer relevant once the mapping is complete.

Salesforce Object Structure (csv):	$\checkmark$
API Object	ACCOUNT

6. The Salesforce API allows you to add Conditions to the queries to be sent to Salesforce in order to import only a subset of Salesforce database into Margill. Configure these Conditions by clicking on the

Add Conditions button. This window will then appear and will allow up to 5 Conditions:

? If only	a subset of the database is to be	imported, you can enter up	o to five (5) logical Conditions.	
	Field Name *		Condition(s)	
		= 🔻		Add
-		<b>v</b>		Add
Ŧ		<b>v</b>		Add
-		<b>v</b>		Add
-		<b></b>		

Enter the Salesforce field names as they appear in the Object Manager including the "\_\_c" if it is a custom field and including capitals. The conditions entered must be numeric or date types. For text fields, only an "=" operator can be used. You cannot use operations such as > or < on text fields because the tool does not support the "Contains" or "Begins with" constraints for the moment.

There is no notion of parentheses (for the moment). The SQL operation priorities are taken into consideration here; that is, AND takes precedence over OR. For example, if you enter: Condition A or Condition B AND Condition C, the query will be executed as follows: Condition A or (Condition B AND Condition C).

Once the Conditions are entered, press on "Save and Exit". To cancel all conditions, press on "Cancel" and then "Save and Exit".

🥩 Salesforce	Import Conditions		— C	ı x
? If only	a subset of the database is to be in	nported, you can enter up to five (5) log	jical Conditions.	
	Field Name *	Conditio	n(s)	
	IDSalesforcec	>= • DOS-100	00 A	bt
AND 🔻	IDSalesforcec	<= 💌 DOS-199	19 Ai	bt
•		<b>•</b>	A	id
-		<b>_</b>	A	bt
-		<b>_</b>		
*Do not forg	et "c" if it's a custom field.	Clear	Save and Exit 🖉 Ca	incel 😑

A preview of the query will be visible in the "Conditions" field:

C	Automatic Import Folder	? 🕫	Salesforce Sync		
	API Object		ACCOUNT		
	Conditions		WHERE IDSalesforcec >= 'DOS-1000' AND IDSalesforcec <= 'DOS-1999'		
	Salesforce Settings		Update Existing Borrowers Only	Add Conditions	

7. The "Update Existing Borrowers Only" option must be selected when it is required to only update the existing Borrowers in MLM. This way, the number of non pertinent Borrowers are excluded from Margill.

If this option is checked, during the import, a log message will be generated advising that other Borrowers are available in SF. This can become an irritant. Moreover, the mechanism initially imports all Borrowers contained in SF (data added or modified since the last import or in the 29 days preceding the initial import) and then abandons those which are not already present in MLM, thus using more system resources. This can become significant if you have thousands of contacts in SF but only hundreds in GPM. It might be more advantageous to use Conditions (see 6. above) instead of checking this option. A method of identifying MLM Borrowers must be available in SF and this condition added in the MLM SF setup.

- 8. If the Windows Service is active and a green check mark precedes it, you only need to click on "Save and Exit". Every few minutes (10 minutes), a query of the selected Salesforce Object is performed and Borrowers are automatically created or their data updated in Margill without any further intervention.
- 9. It is possible to test the manual import without starting the Import service. The "Manual Import" button will import data in your actual database. The *test* is a real import which will have an impact on your database. It is often suggested to create a "Sandbox" in Margill to test this tool.
- 10. The "On hold / Active" button allows you, especially when first implementing the API, to stop the SF query in order to avoid generating errors every 10 minutes when the API is not fully functional. This stops only the Windows Service for SF, not the Service for other APIs as is the case with the "Stop" button on the left that stops the Service for all APIs:

🖼 Automated Import Configuration								
Automated Import Status								
Vindows Service	Stop 🕕							
Status Running ? MLM installation Path (Import.ini)								

11. Implementation Mode

By checking this box and forcing a restart of the Service, a special temporary Log will be created in the Service installation folder, often in "C: \ Program Files (x86) \ MLMImports", file \_LogDebug.txt.

The Log allows, in case of initial problems, to obtain certain parameters that you can send to the Margill team in order to facilitate the initial Service setup.

During this test, if you connect to Salesforce, the time between connections will be reduced to 2 minutes (instead of the usual 10 minutes) in order to facilitate implementation testing.

When exiting the current MLM section: Tools> Settings> Automated Imports, this "Implementation Mode" feature will be automatically canceled and you will need to restart the Service.

# First import / Update Data from Salesforce to Margill

On the very first automatic import only, to reduce the risk of importing too much, possibly irrelevant, data into Margill, only data modified or added in SF within the last 24 hours will be imported into Margill. If this import is conclusive, it is suggested to use the "Manual Import" button which will import the data modified or added in SF 29 days before the current date.

By default, information that has been updated in Salesforce more than 29 days from the current date, will not be updated in MLM. For example: borrower Julie Marks was created on September 1, 2021 in SF. Then, her email address was changed on October 15, 2021.

Scenarios of the <u>original</u> contact import:

- Import to Margill on September 30: Julie will be created and on October 15, the email address will be updated correctly.
- Import to Margill on October 1: no import on October 1 (but creation of Julie during the October 15 automatic operation because of her email changed).
- Import to Margill on October 30: Julie will be created and email will be updated.
- Import to Margill on November 16: Julie not imported because her data dates back to October 16 and thus too old.

Thankfully, for the first import, it is possible to add a "Condition" (see explanation below) according to the "LastModifiedDate" field. The date and time formats are critical for query. The format must be ISO 8601 as shown here:

YYYY-MM-DDTHR:MN:SCz T = Time HR = hour MN = minute SC= second z = Greenwich Time, England or UTC

For example, we wish to import data from SF but only data from January 1, 2021 at 0:00, plus one second:

#### 2021-01-01T00:00:01z

ructure (csv):						
	ACCOUNT					
	Undate Existing F	Sorrowers Only		Add Conditions	Test Imp	ort
and Conditions						~
subset of the data	abase is to be importe	ed you can enter un	to five (5) logical	Conditions.		
		o, jou con chief op	(0) rograd			
Field Name *			Condition(s)	i		
LastModifiedDa	ate	> •	2021-01-017	00:00:01z	Add	
		-			Add	
		-			Add	
		<b>_</b>			Add	
	mport Conditions subset of the data Field Name * LastModifiedDa	Update Existing E update Existing E update Existing E usubset of the database is to be importe Field Name * LastModifiedDate	Update Existing Borrowers Only mport Conditions usubset of the database is to be imported, you can enter up Field Name * LastModifiedDate	Update Existing Borrowers Only mport Conditions usubset of the database is to be imported, you can enter up to five (5) logical Field Name * Condition(s) LastModifiedDate	Update Existing Borrowers Only     Add Conditions   mport Conditions       usubset of the database is to be imported, you can enter up to five (5) logical Conditions.       Field Name •     Condition(s)       LastModifiedDate     > •       v	Update Existing Borrowers Only     Add Conditions     Test Imp       mport Conditions     —     □       usubset of the database is to be imported, you can enter up to five (5) logical Conditions.     Field Name *     Condition(s)       Field Name *     Condition(s)

In SF, when one field in a contact is updated, this date becomes the last update date and so if some changes were not imported to Margill because of the 29-day constraint, the update of any other field for the Borrower in SF would update the entire Borrower data in Margill including the changes older than 29 days.

For the next import, the date and time of the last import will be saved in MLM and therefore the contacts to import or data to update will be made from that date and time to the current date and time of the new import. Everything becomes transparent as long as Margill's Windows Service is running. It is important to receive the activity logs, especially the error messages. One of the errors would be if the Margill Service is not running. You can receive activity by email or SMS (<u>General Settings</u> link at the bottom of the Automatic import configuration window).



# Import logs

The MLM Import log will report errors and/or new imports or updates to MLM.

			Hov (Sal	w it works. lesforce Sync)		M	Iand	Bo Bo Bo Bo Bo Bo	rrower Fax number rrower Mobile number rrower Email rrower Web Site rrower Occupation Formats General Settings		
🚽 In	nport l	.og							- 0	×	<
ID	0	Source	7	Level	7	Timestamp		٩	Message	7	1
	3 857	Borrower API		Information		2021-10-20	11:2	8:54	Salesforce Imports [entry #8] - [Borrower MLM ID: 10320] - Updated		•
	3 859	Borrower API		Information		2021-10-20	11:2	8:54	Salesforce Imports [entry #10] - [Borrower MLM ID: 10322] - Updated		
	3 860	Borrower API		Information		2021-10-20	11:2	8:54	Salesforce Imports [entry #11] - [Borrower MLM ID: 10319] - Updated		
	3 861	Borrower API		Information		2021-10-20	11:2	8:54	Salesforce Imports [entry #12] - [Borrower MLM ID: 10324] - Updated		
	3 862	Borrower API		Information		2021-10-20	11:2	8:54	Salesforce Imports [entry #13] - [Borrower MLM ID: 10325] - Updated		

It is recommended to activate, especially at the start of implementation, the option that allows to receive **all** alerts by email or SMS and once the system works properly, to receive only the errors. This is suggested because "Information" type alerts are not emailed with Errors even if no Borrowers are updated or imported. In this example, the data was more than 29 days old and therefore all ignored, hence the importance or receiving all alerts or at least checking the Import log regularly.

The Level	💎 🔻 Timestamp 🔍	Message
Error	11-11-2021 08:20:31	Import canceled. You must at least enter one of the three: Business name, First Name or La:
Information	11-11-2021 08:09:13	No Records found for the period from date 20211111125911456 to 20211111130913240
Information	11-11-2021 07:59:11	No Records found for the period from date 20211111124909741 to 20211111125911456
Information	11-11-2021 07:49:09	No Records found for the period from date 20211111123907855 to 20211111124909741
Information	11-11-2021 07:39:08	No Records found for the period from date 20211111122906188 to 20211111123907855

To receive the alerts, go to "General Settings":

🚽 Import Email Notifications		-		×
Email Notifications				
C Do not send notifications				
Send only error logs				
C Send all logs				
? Send to mgelinas@margill.com				
Emails will be sent using the Default Email configuration as defined in the Email Connection with	ndow.			
File Management				
Keep an archive of processed files				
<ul> <li>Files will be kept in subfolders "not imported" and "processed".</li> <li>Append date and time to archived files.</li> </ul>				
This can prevent the overwriting of archived import files sharing the same names.				
	Save	$\odot$	<u>C</u> ancel	Θ

# Export data to Salesforce – Automatically via Background Night tasks

Almost any data from MLM can be exported automatically at the desired frequency from MLM to Salesforce. The data to export must be chosen in the report "Record List":

ៅ Margill Loan Manager - 🛛	Reports
File	
Tools	Personalized Reports
Reports	Executive Dashboard
Advanced Queries	Record List     Record List with Period Breaks
+- Equation ×= Management	Transaction Report
Merge/Email Template	Document Merge (Letters, Contracts, Invoices, Statements)     Accounting Entries
	Creditor/Investor Statements

#### Steps:

 Choose the desired fields to be exported to SF. Any data related to the Borrower (Co-Borrowers and Guarantors), to the Loan (amounts, calculations, etc.), to the Creditor, to the Employer and to any Custom fields can be exported from Margill. However, Salesforce must still be able to import this data to the right location. Usually, the Borrower, not the loan, is at the heart of SF while for MLM, the loan is the central focus.

The field selection to be exported is done in the "Record List" in order to create an export template.

				Objec	t name for export via A	ACC ACC	OOM		
All	Fields Available	-	c					Third-part	tv 🚊
Most Popular	Most Popular		¢	Origin	al Description	Width	API Variable Name	Key	1
General	MLM Record Identification		Bor	rower Uniau	ue Identifier 1	100 id		2	
Borrower	Borrower First Name		Bal	ance (at Curr	ent Date)	100 Bal	ance_c	Г	
reditor	Borrower Last Name		Nex Nex	t Due Pmt -	Date (entire Loan)	100 Ne	xt_Pmt_Datec	Г	
ana Data	Principal (Original) (for period)		Ne)	t Due Pmt -	Amount (entire Loan)	100 Ne	xt_due_Pmtc	Г	
Udn Data	Interest Accrued (for period)								
rincipal	Interest Paid (for period)		<u> </u>						
nterest	Principal Paid (for period)								
ayments	Balance at report End Date		$\mathbf{U}$						
ine status	Balance Due Principal at report End Date								
ees/Columns	✓ General								
ates	MLM Record Identification								
alancer	No. Prêt ABC inc.								
	ID comptable								
Jutstanding	Record Status								
Ooubtful/Bad Debt	Active Records - Sub-Status (Current date if AUTO)								
IPR .	Record Owner								
dvanced	Record Creation Date								
ustom Fields	Record Last Updated								
Silv	Number of Records								
any	Total number of files attached to the Record								
naiysis	Size in (Kb) of all files attached to the Record								
quations	Total number of files attached to the Borrower								
	Size in (Kb) of all files attached to the Borrower								
	Metro 2 - Active Records								
	Metro 2 - Record Submitted to Metro 2	•	4						•

2) The correspondence between the MLM fields and the SF fields must be made as well as the definition of the Key and the SF Object.

It is critical to establish the Key (see box higher above) which is used to identify the Borrower in both MLM and SF. The Key in MLM can be "Borrower ID" generated automatically by the MLM or Borrower "Unique Identifier 1 or 2" which can be renamed.

If you look to the right of the table containing the reporting fields, you will see columns that allow you to configure the SF export:

Object name for Export via AF	PI 🛛	CCOUNT	
Original Description	Width	API Variable Name	Third-party Key
Borrower Unique Identifier 1	100	id	V
Balance (at Current Date)	100	Balancec	Г
Next Due Pmt - Date (entire Loan)	100	Next_Pmt_Datec	Г
Next Due Pmt - Amount (entire Loan)	100	Next_due_Pmtc	Г

The "Object name for Export via API" option will appear when the first "API Variable Name" is entered. Usually, the Salesforce "Id" should be checked under "Third-party Key" since the SF Id will be the key and this key will be the MLM Borrower Unique Identifier 1.

As for the "Object name for Export via API", enter which database table the import data comes from (often "ACCOUNT").

Save the export template.

3) Setup of Background Tasks (Overnight Tasks)

Create a new Overnight Task (Tools > Settings > Administrator tab > General Settings tab > Automatic and Overnight Tasks) > Automatic Reports button. Create a new Automatic report.

In the Automatic Report Setup window, the "Export To Salesforce" checkbox will be available once the export template (step 2) is completed. The connection to SF must also be functional.

🔰 Automatic	Report Setup			
Report Identifier:				? ✔ Export To Salesforce
Type:	Record List	▼	Name:	Export to Salesforce

When selecting this box, instead of producing a report, data included in the report will be exported to Salesforce.

Many date options are available depending on your specific needs and the field types (calculated fields or not, how often you need data and for what period of time).

Here are a few examples:

- Balance at current date: no date required since the system will automatically take the balance on the report production date, therefore you can choose Full Report.
- Next Due Payment (Date): same as previous by finding the next "Due Pmt", despite the date.
- Next Due Payment (Amount): same as previous.
- All custom fields: these fields do not take in consideration the dates so Full Report can be used.
- Balance date end of report: a date must be entered in order to obtain the balance on this date.
- Accrued interest (for period): you must choose a period (interest for the day, the previous day, last month?)

It is strongly recommended to read the ? in order to understand the dates, including the "Current Date Mode".

Dates		
● Full report	Current Date Mode:	Today, end of day
<ul> <li>From Origination date to Current* Date</li> </ul>		-
? 🔿 Last 🔹 🖉 Day(s) 💌 to Current* Date		C Yesterday, end of day
<ul> <li>Current* date only (0:00 to midnight)</li> </ul>		
? O Next day(s), O days(s) after Current* Date	? 🗌 Include all Records	as selected no matter the date(s)
? 🔿 Preceding Calendar Month		
* Current Date = Transactions, Interest and Balances, Today at the end o	f the day, depending on th	ne "Current Date Mode"
Current Date transactions and interest are always included except when day's interest is always excluded.	Current Date is the last lin	e of the payment schedule in which case the
	Other impor	tant information about these reports

Once the Dates are chosen, you need to select the Records (not the Borrowers) to be included in the report. Either include All Records or choose based on an Advanced Querry.

All Records     Advanced Query	Records -		
C Advanced Query	ι 🧿 Α	II Records	
	C A	dvanced Query	

It is imperative to understand that a Record (loan) is not a Borrower. The Unique ID of the Record should be a different ID than the one of the Borrower unless the Borrower has only one loan. In this case, the Unique ID (the Key) of the Record could be the same as the one of the Borrower (usually the "Id" in Salesforce). If a Borrower has several loans, then you have to be more imaginative in SF since in SF, the Borrower, and not the loan, is at the center of everything, unlike Margill.

#### Frequency of data export to SF

The user chooses the frequency of exports to SF. This export is done by the Windows Task Scheduler. This Windows tool launches the "MLM\_Overnight\_tasks.exe" file without the need of human intervention and at the desired time.

See the text pertaining to the Overnight Tasks on margill.com: <u>https://www.margill.com/margill-loan-manager/overnight-tasks.pdf</u> and for more precise information, see the full User Guide > Automatic background Tasks (overnight tasks) > Automatic Reports.

Export task details performed in the Overnight Tasks are available in the Automatic / Overnight Tasks LOG. It is highly recommended to verify these on a regular basis (especially at the start of implementation) to make sure that the data are exported to SF. To consult the log, click on Open LOG.

🛃 Automatic / Overnight Tasks	_		×
Automatic Tasks			
<ul> <li>? Automatic change of "Due Pmt - Unpaid" to Unpaid payment on scheduled payment date.</li> <li>Default Line status to change to:</li> </ul>			
Overnight Tasks	<u>Oper</u>	n LOG	]
This section allows to activate features/calculations that will be executed via the Windows Task launched every night, after midnight.	Scheduler,	and usual	lly
The program to be launched is called: MLM_Overnight_tasks.exe			

These details can also be included in an extern log file (Tools > Settings > Security tab – accessible to ADMIN only), when the checkbox "Log Overnight Task Events" is selected.

User settings	System settings (A	dministrators) Security		
? <u>Log Fil</u> e	<u>e</u>			
🖌 Log Log	an Events	✓ Log User Management Events	Log Overnight Task Events	
🖌 Log Re	port Events	✓ Log User Session Events	Log Automated Imports	
Log folder:		C:\Users\marcp\OneDrive\Bureau\log\		] <b>c</b> r

It is also critical to make sure in SF, that the proper data is imported as it should be.

# **Common errors and troubleshooting**

Here is a list of potential problems. Depending on your needs, several solutions are available to you, and the examples below are provided for illustration purposes only:

• The first and last name of the Borrower is in one unique field, while in MLM, they are separated.

 Possible solution: Create a custom field in Salesforce via the "Service Setup console" called "Firstname\_\_c".

FirstName_c Text(100)	FirstName	FirstNamec	Text(100)
-----------------------	-----------	------------	-----------

 Since you must enter a value in at least one of these 3 fields in MLM: Name, First name or Company, by creating a custom field "Firstname\_\_c", by selecting the option "Always require a value in this field in order to save a record", potential errors in the future will be avoided (this could probably be done for Name instead in SF).

New Custom Field	
Step 2. Enter the details	
Field Label	FirstName
	Please enter the maximum length for a text field below.
Length	100
Field Name	FirstName
Description	
Help Text	
Required	Always require a value in this field in order to save a record
Unique	Do not allow duplicate values
	Treat "ABC" and "abc" as duplicate values (case insensitive) Treat "ABC" and "abc" as different values (case sensitive)
External ID	Set this field as the unique record identifier from an external system
Auto add to custom report type	Add this field to existing custom report types that contain this entity 1
Default Value	Show Formula Editor
	Use tormula syntax; cholose text and picklas value Hr in ames in double guotes: ("the_text"), include humbers without guotes (25), show percentages as decimals: (0.10), and express date calculations in the standard format: (Today() + 7). To
	reference a new normal concern measure type record care. Constraintenante, type_mot.Record.reame.red_c

- The Borrower's address is not imported.
  - It is probably because of the Salesforce format:

Billing Address 200, Universal Avenue Calgary, Alberta GOX 1V8

- The complete address seems to be grouped in one single field in Salesforce, while in MLM, separate fields are available in order to enter the address, the city, the state or province and the zip or postal code. Use these fields instead: "MailingStreet", "MailingPostalCode", etc., to import these data separately.
- Other reasons why some fields are not imported:
  - $\circ$   $\;$  The SF field is Read-only. You must change this attribute in SF.

### **Consult a Salesforce specialist**

Salesforce is highly evolved software with countless functions. It is strongly suggested to consult a Salesforce expert to help with the integration with the Margill Loan Manager.

Last updated: February 14, 2022