OPERATIONAL MANUAL

Risk Services – Margin and Risk Simulator

TABLE OF CONTENTS

This is a free translation offered only as a convenience for English language readers and is not legally binding. Any questions arising from the text should be clarified by consulting the original in Portuguese.

DISCLAIMER

- The CORE 0 module, a system to which the Margin Simulator is connected through an API, does not provide additional margin call information.
- Simulated portfolios can present different margin calls throughout the day, as they consider all the settlement windows described at the following link http://www.b3.com.br/en_us/products-and-services/clearing-and-settlement/clearing/timetables-and-windows/;
- In order to obtain the correct value of the margin call simulation, the user must complete the fields with all the characteristics and values corresponding to the position registered at B3;
- The required margin that is calculated in the opening of the day following the simulation may have relevant variations due to the end-of-day (EoD) process, in which prices are updated and risk factor stress scenarios can also be updated;
- The clearance of collateral may be subject to other obligations of the final investor with the Clearinghouse (eg, debtor settlement value in the financial window) that are not considered in the margin calculation;
- The Broker responsible for the final investor may adopt a policy that results in the requirement of additional collateral at the request of the Clearinghouse.

1 INTRODUCTION

This document presents the operational procedures for the use of the Margin Simulator. Descriptions on how to install the digital certificate and add-in and how to use the tool will be presented on the items below.

The result of the simulation will be described in detail, as well as the types of instruments used, with the explanation of each field and its parameters.

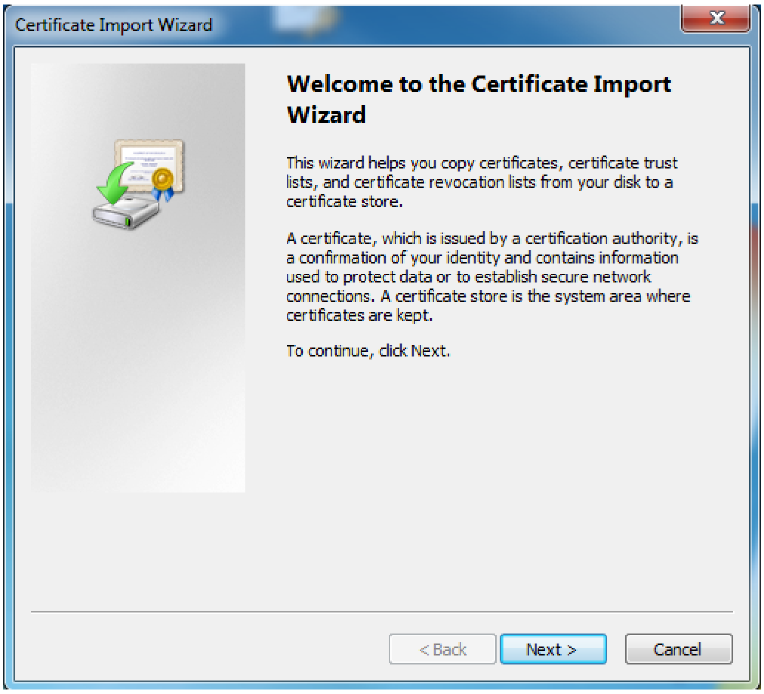
2 DIGITAL CERTIFICATE SETUP

A digital certificate for accessing the Margin Simulator APIs (Application Programming Interface) will be provided by B3.

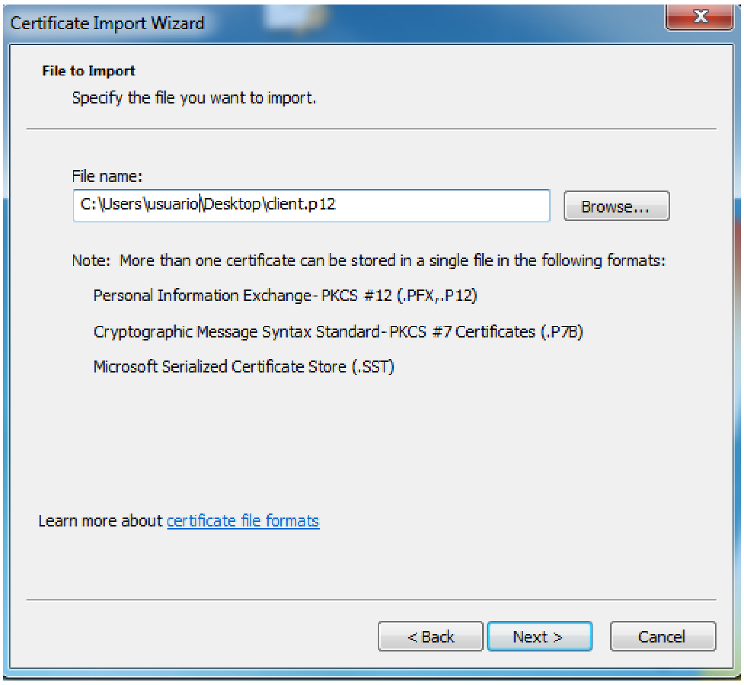
To install the digital certificate, follow the steps below:

Step 1: Execute, with an admin profile, the digital certificate provided by B3;

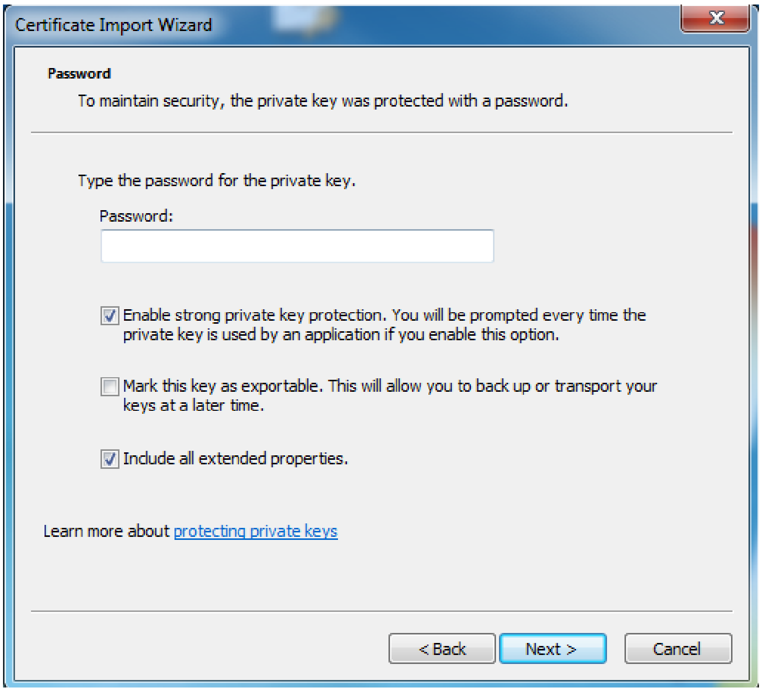
Step 2: On the screen will be displayed the option to click the "Next" button.



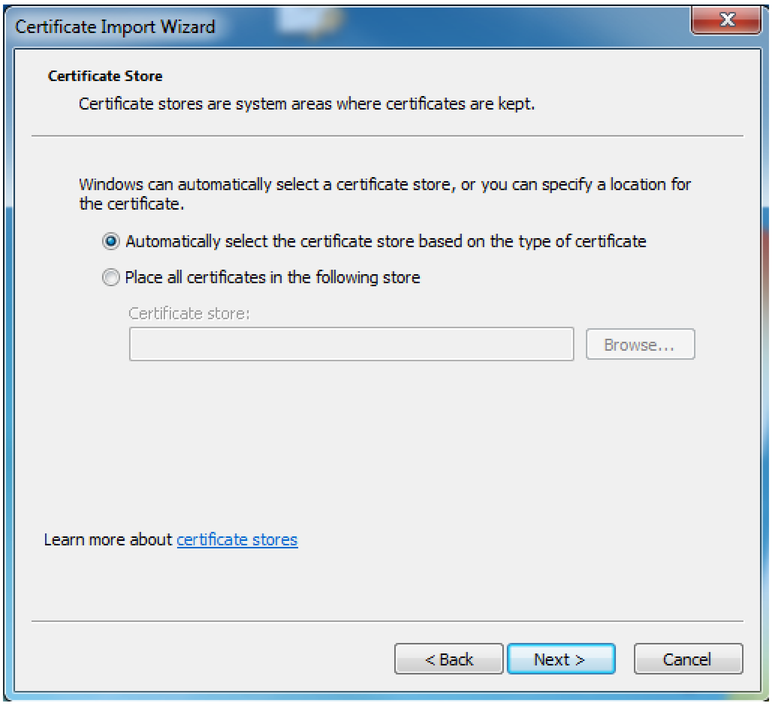
Step 3: Click on the button "Next" again;



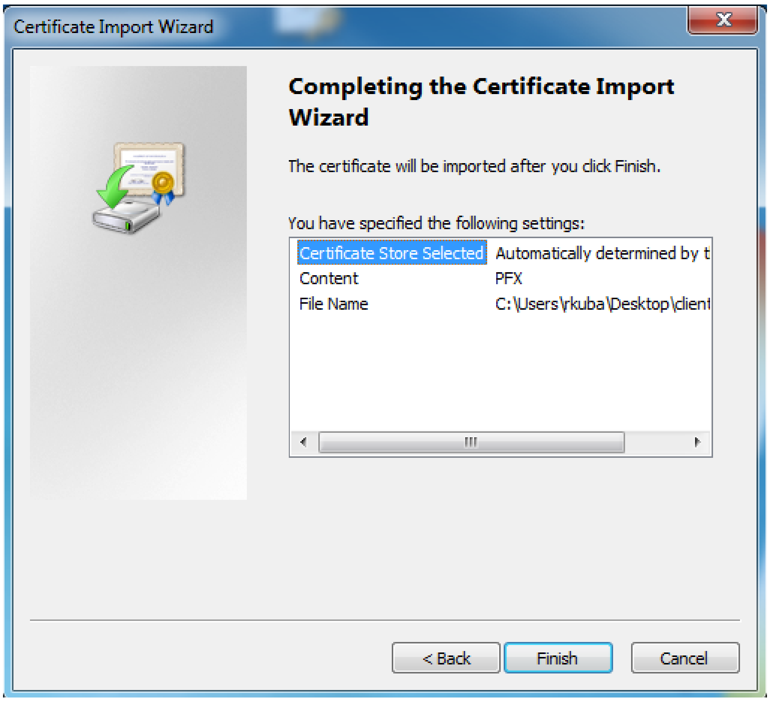
Step 4: The user must enter the password provided by B3 and click on the “Next” button;



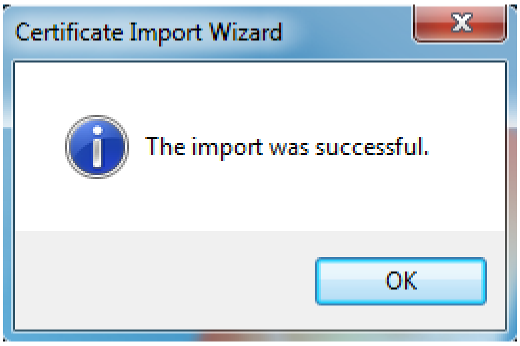
Step 5: Keep the first option selected and, after, click on "Next"



Step 6: To finish the setup, click on "Finish"



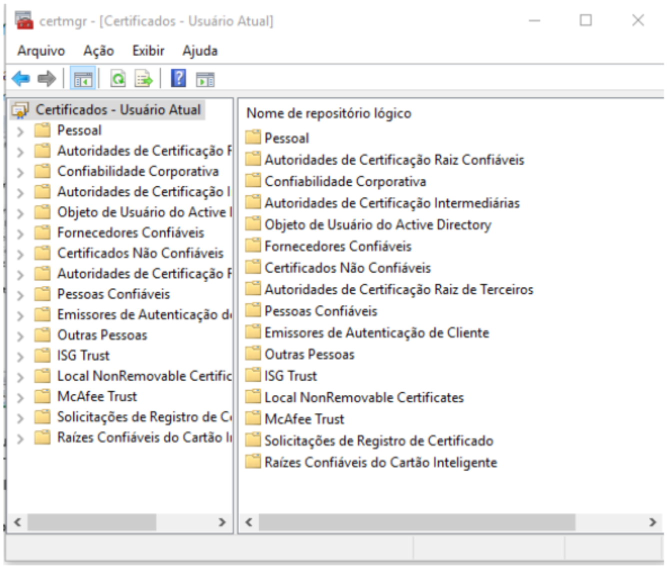
Step 7: The following confirmation screen will be displayed:



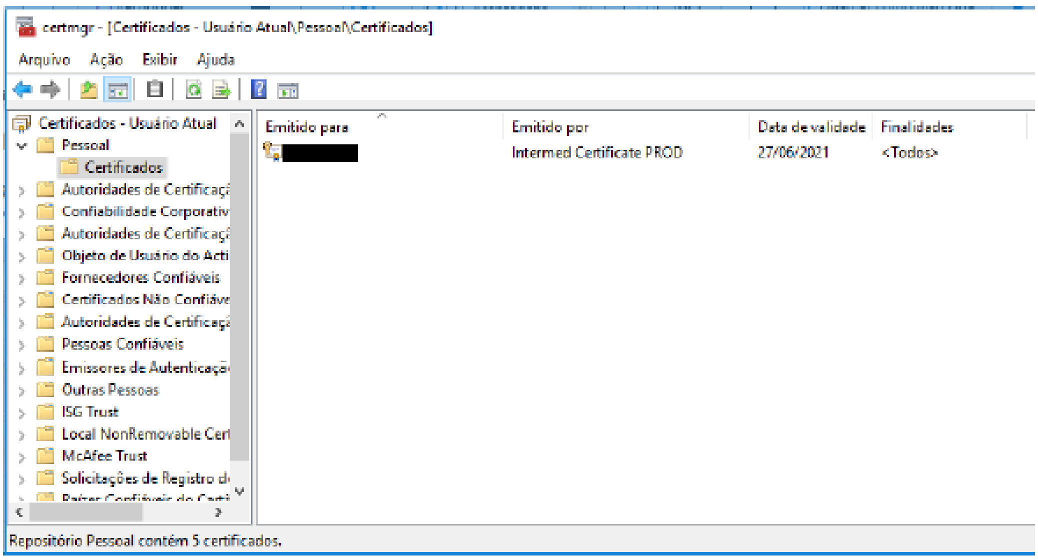
3 UNINSTALLING THE CERTIFICATE

Step 1. Execute the command “certmgr.msc”;

Step 2. The certificate management screen will appear, as shown below:



Step 3. Go to “Personal” – “Certificates”;



Step 4. Select the digital certificate with the characteristic “Issued by: Intermed Certificate PROD”.

Step 5. The selected digital certificate will be marked in blue. Click on the "X" button as below.

Step 6. A screen will appear to confirm the deletion of the digital certificate. Click "Yes”.

Step 7. The digital certificate will be removed from your list of certificates.

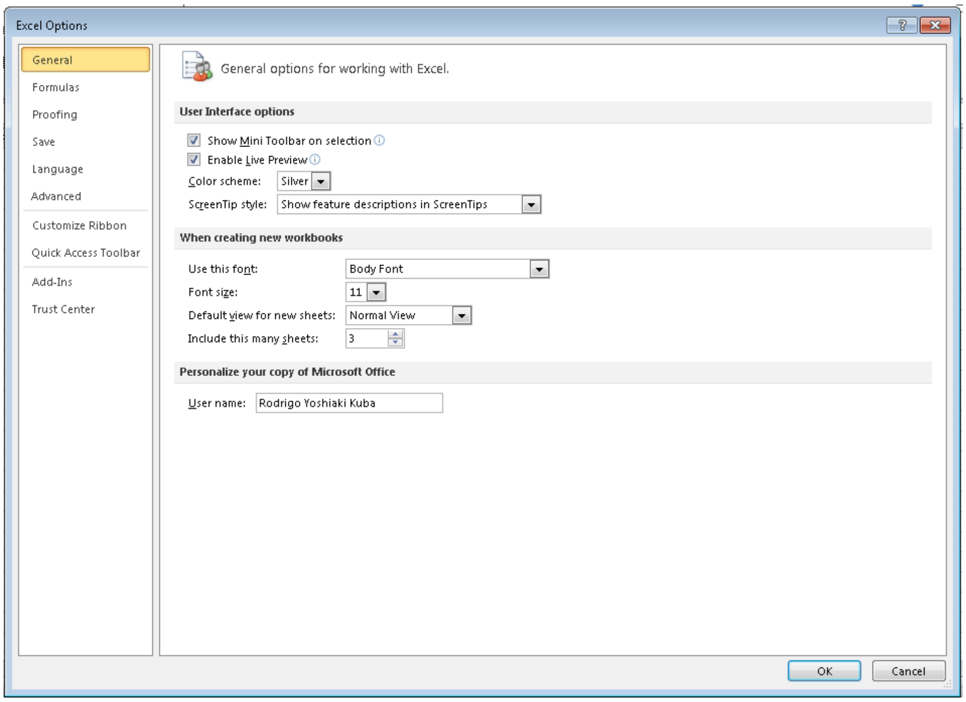
4 EXCEL CONFIGURATION AND ADD-IN SETUP

For the correct operation of the B3's Margin Simulator, it is necessary to change some settings in Excel and also to install the Excel add-in, which will be provide by B3.

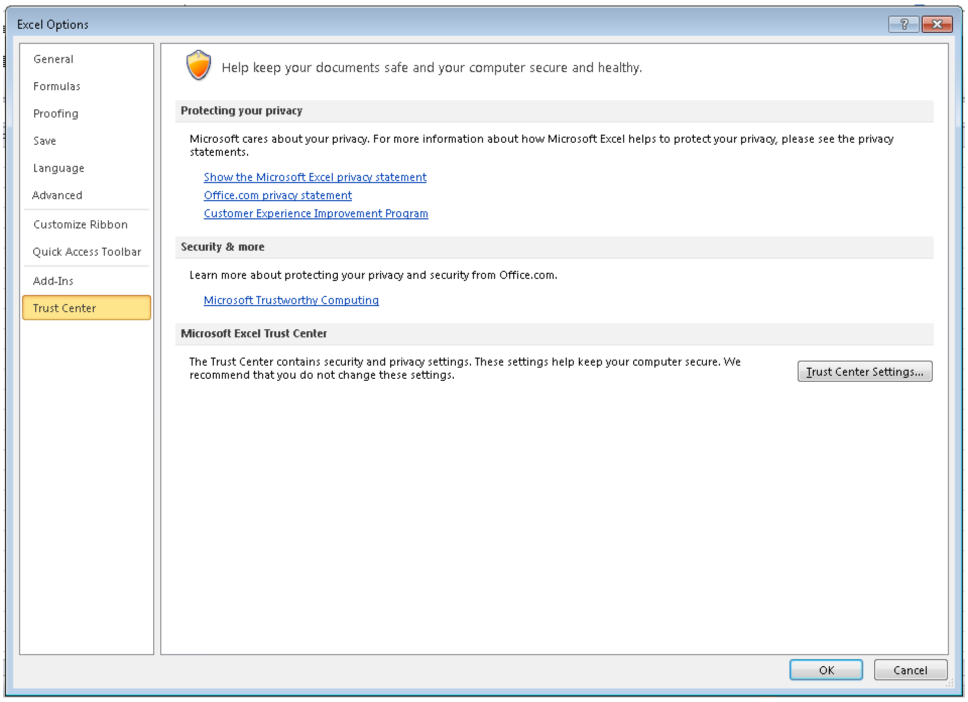
4.1 EXCEL SETUP

To set up Excel, follow the steps below:

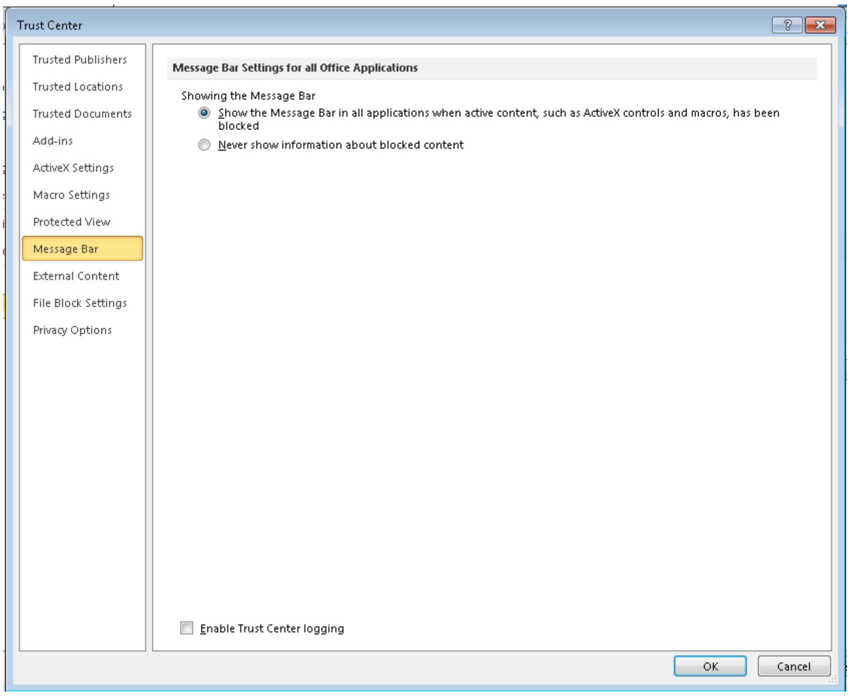
Step 1: In Excel, go to "File" → "Options." The following screen will be displayed:



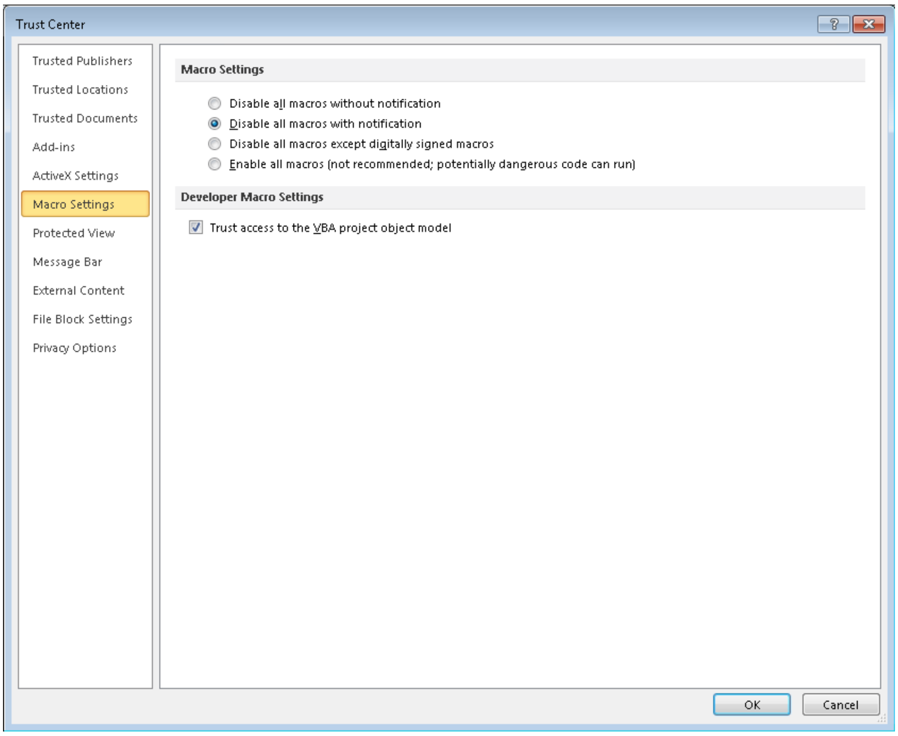
Step 2: Go to “Trust Center” as described below:



Step 3: Click on “Trust Center Settings…” and the following screen will be displayed:



Step 4: Go to "Macro Settings" option and enable the option "Trust access to the VBA project object model" and click on "Ok":



4.2 EXCEL ADD-IN SETUP

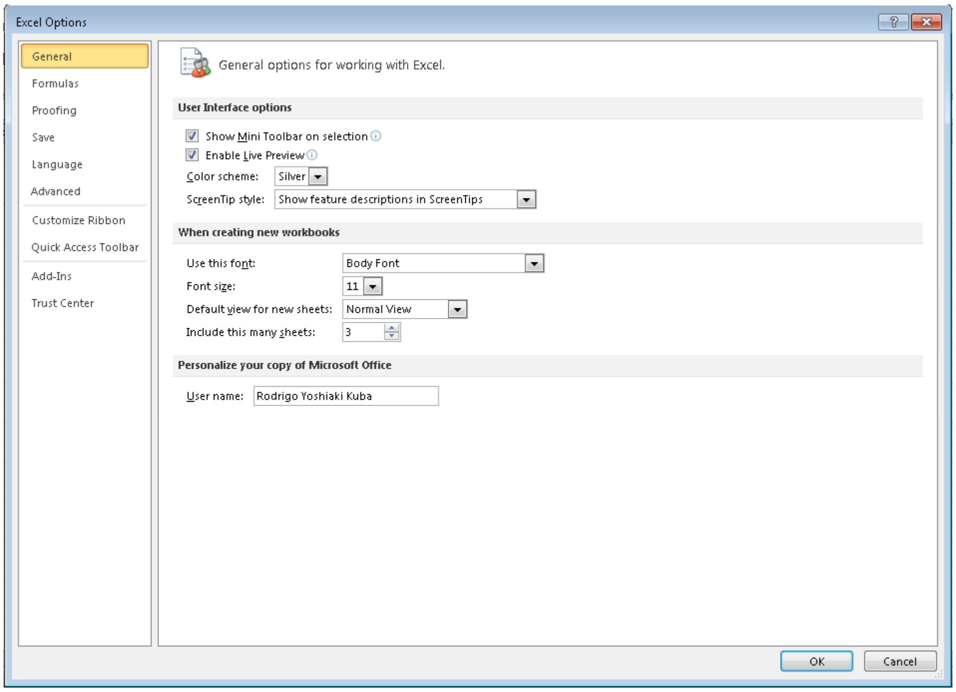
B3 will provide an add-in to be installed in Excel. It is important to note that the add-in installation is supported for Windows only on Microsoft Office versions 10 or higher and the file name cannot be changed under any circumstances.

To install the add-in, follow the steps below:

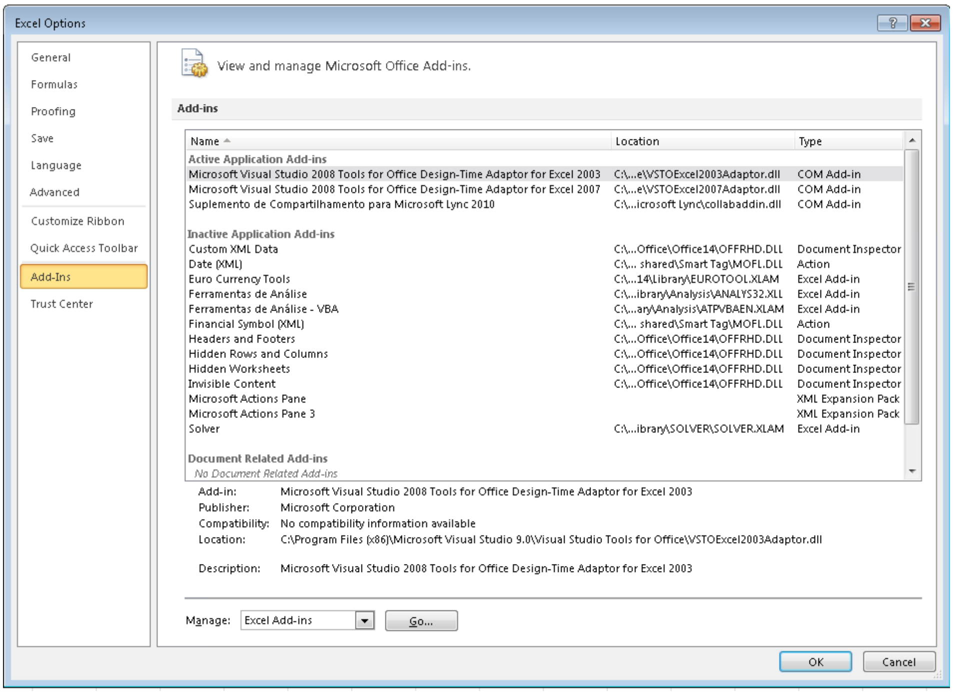
Step 1: Copy the add-in B3_CORS.xlam to the following directory:
C:\Users\{user}\AppData\Roaming\Microsoft\Excel\XLSTART
where {user} is you network user. The file AppData is a hidden file in Windows.

Step 2: Open Excel;

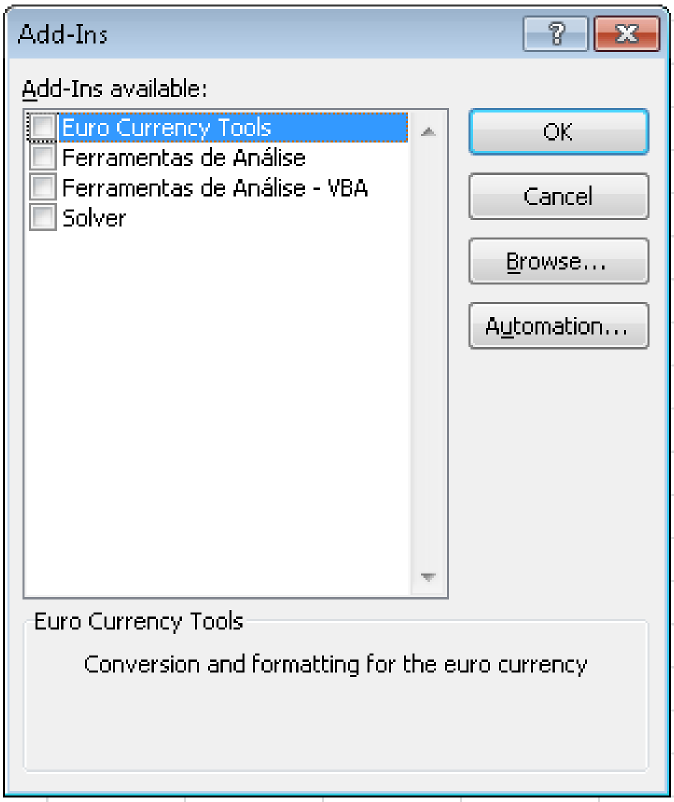
Step 3: Go to "Files" → "Option." The following screen will be displayed:



Step 4: Go to “Add-Ins”. The Following screen will be displayed:



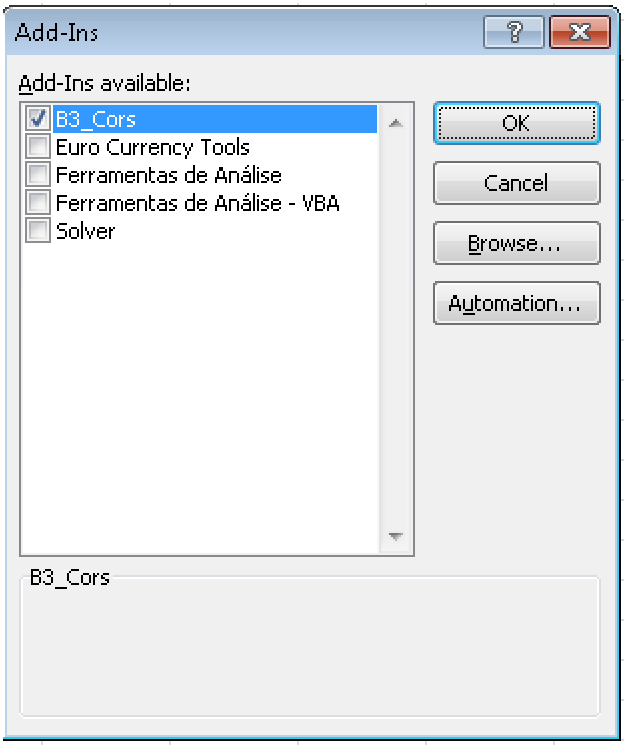
Step 5: In “Manage”, select the option “Excel Add-Ins” and click on the button “Go…”. The following screen will be displayed:



Step 6: Click on the “Browse…” button:

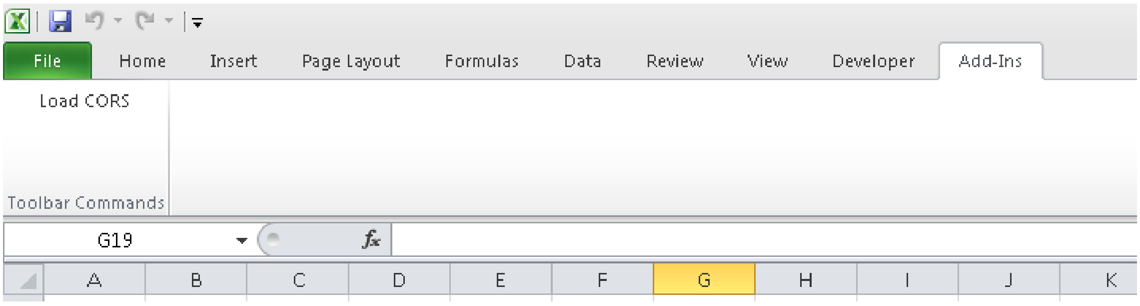
a. Search for the “add-in” in the file: **C:\Users\{user}\AppData\Roaming\Microsoft\Excel\XLSTART** where {user} is your network user.

b. Select the file “B3_CORS.xlam” and click on “OK”. The following screen will be displayed.



Step 7: Select the "B3_Cors" and click on "OK" button.

The option "Add-Ins" will be enabled in Excel, with the functionality "Load CORS", as the picture below:



5 PROXY CONFIGURATION FILE

In addition to installing the Excel add-in, you also need to include a configuration file.

The file must be copied in the following folder: C:\Users\{usuário}\AppData\Roaming\Microsoft\Excel, where {user} is the network user and the AppData folder is a hidden folder in Windows. Note that the configuration directory is at an earlier level than the add-in.

Below is the file configuration and example:

CERTIFICATE_CN = (certificate user). Example: s-999-1

PROXY_SERVER = include_proxy_server_and_port (if applicable).

6 HOW TO ADD AND DELETE ASSETS VIA EXCEL

The Margin Simulator worksheet allows the user, through adding financial assets and securities traded in the markets managed by B3, to create a hypothetical portfolio and send the data for margin calculation.

6.1 ADDING ASSETS BY ITS TYPE

To add securities in the portfolio, the user shall select the desired type of position:

i. Derivative;

ii. Equity;

iii. Equity option;

iv. Equity forward;

v. Collateral;

vi. Security Lending;

vii. Currency Swap (CBA);

viii. Swap;

ix. Flexible Option;

x. NDF;

xi. Security Lending Corporate Event;

xii. Gold Forward;

xiii. Equity Buy-in.

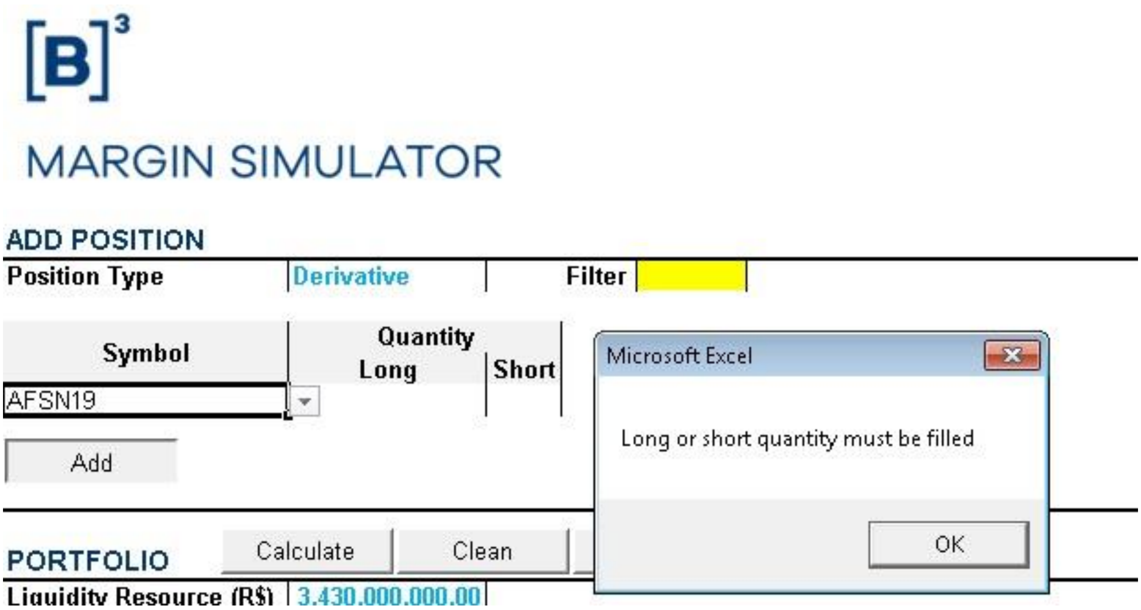
The features of these asset types will be described in item 12 of this document.

There will be a “Filter” field where it will be possible to enter part of the negotiation code and the worksheet will search an alphabetically approximate value for the user to find the chosen security.

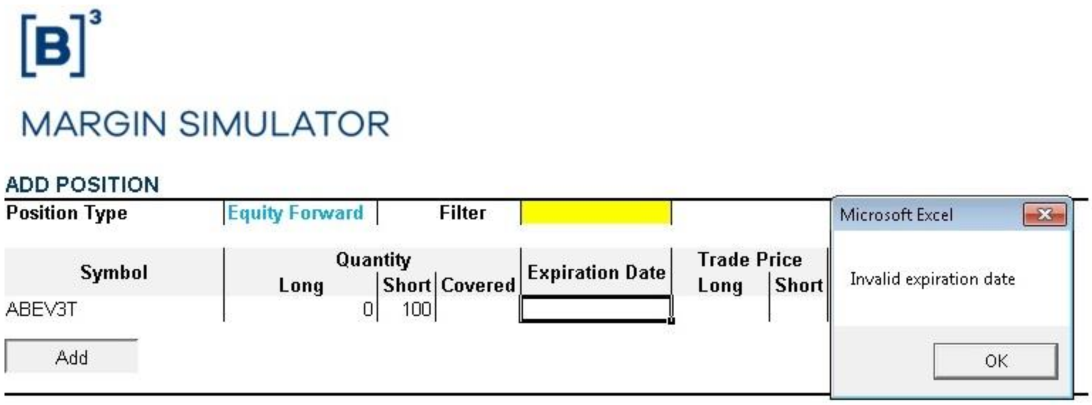
Warning: for users that have the Excel in Portuguese, they must use comma as a decimal separator (e.g 15,10). For users that have Excel in English, they must use a dot “.” as a decimal separator (e.g 15.10). For users using API, they must use a dot “.” as a decimal separator.

For each type of entered security, the worksheet will present the fields that the user should fill with their respective value. In case a mandatory field is not filled in, the worksheet will display a message informing that there are fields missing.

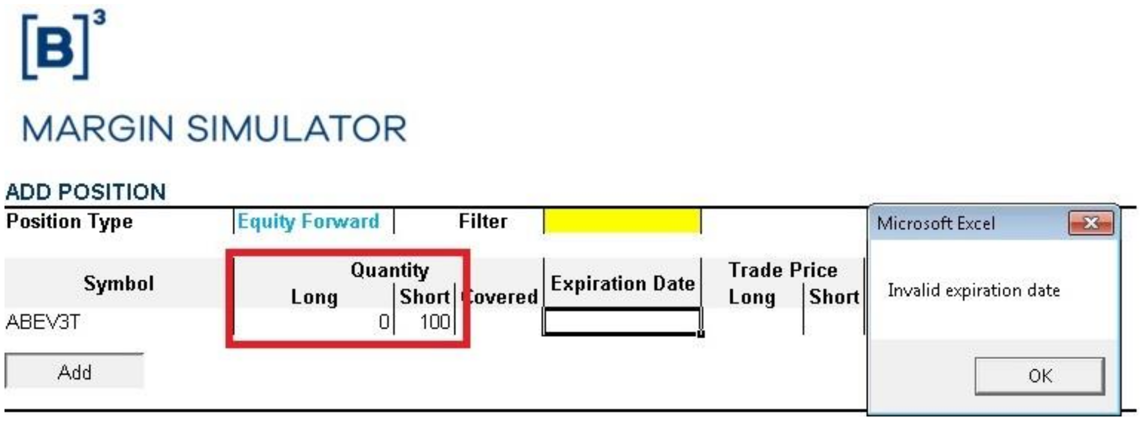
Whether the field is incorrectly filled, the system will display an error message of invalid field. E.g.: in case a field is filled with a letter.



If a user does not fill a mandatory field, the system will display the following error message:



When adding a security that has a short or long position, the user must enter the value in the specific field and the other field must be filled with zero “0” or be left blank. It is not mandatory to inform the value “0” (zero) on the side (short/long) that there is not security position, the system will consider the value zero “0” (zero) when left unfilled. E.g.: when entering a naked position of ABEV3T, it is enough to add the amount of securities in the “sale” field. The “short” field can be filled with zero or be left blank.



6.2 ADDING AN ASSET DIRECTLY INTO THE PORTFOLIO

When adding an asset by its type, the informed asset will be added directly to the portfolio once you click in the “add” button.

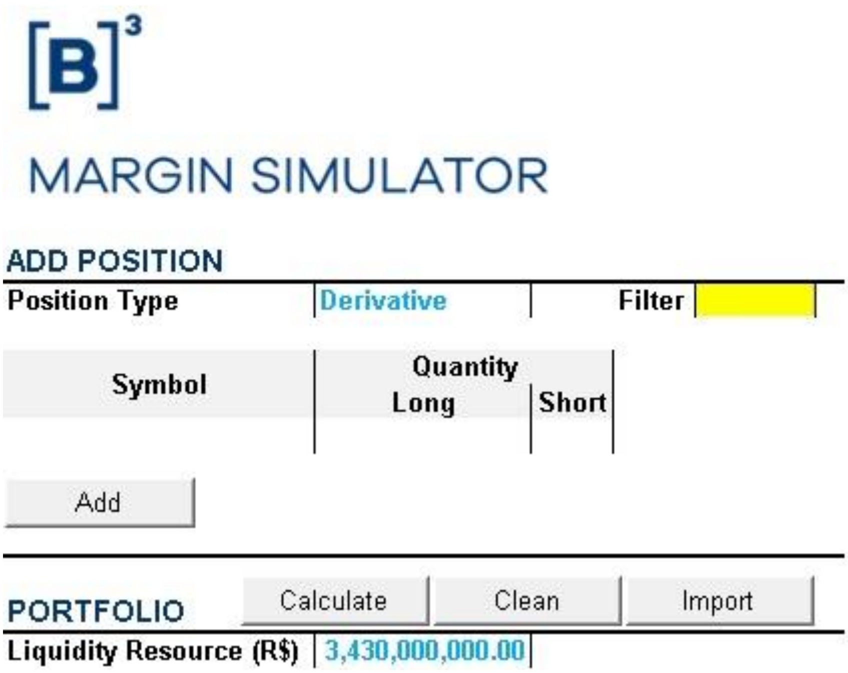
Another way to add an asset would be by manually adding it directly to the portfolio. It is important to highlight that in this case there is no validation of the mandatory fields by the system as the previous model described above. That is, it is important to verify if all the information need for the calculation is correct – the specific features for each asset type will is described in item 12 of this document.

6.3 IMBARQ001 ARQUIVE UPLOAD

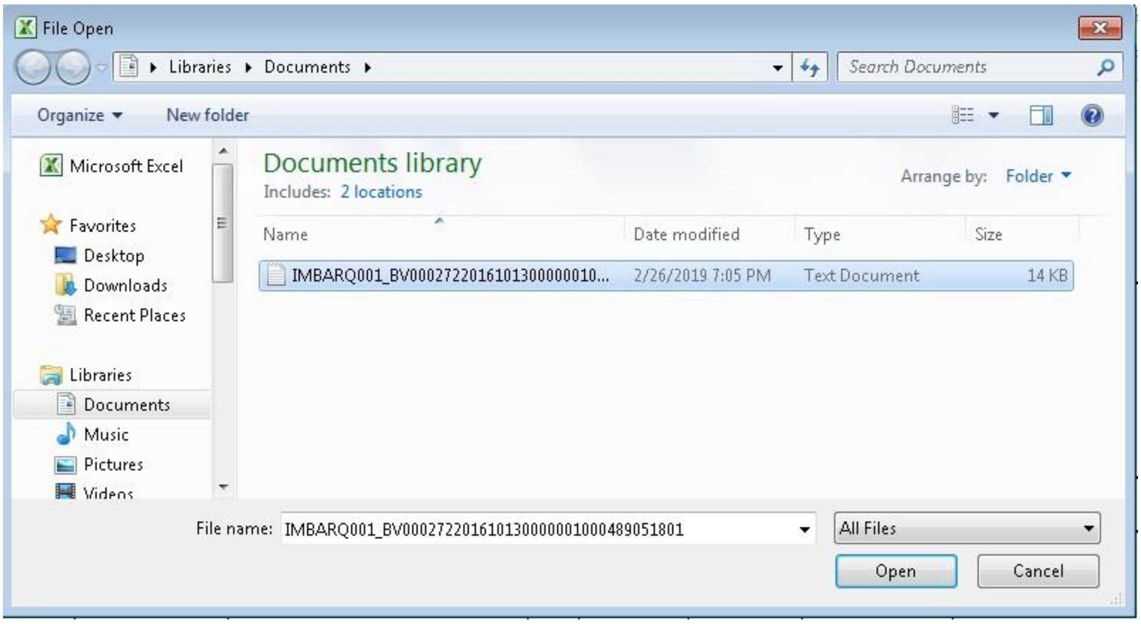
Through integration with the IMBARQ001 file, the user is able to import your end-of-day (EoD) positions and manipulate this data accordingly to the simulations it wants to do. The information for contracting IMBARQ001 is available at: http://www.b3.com.br/en_us/solutions/platforms/middle-e-backoffice/imercado/aboutimercado/.

To upload the file, follow the steps below:

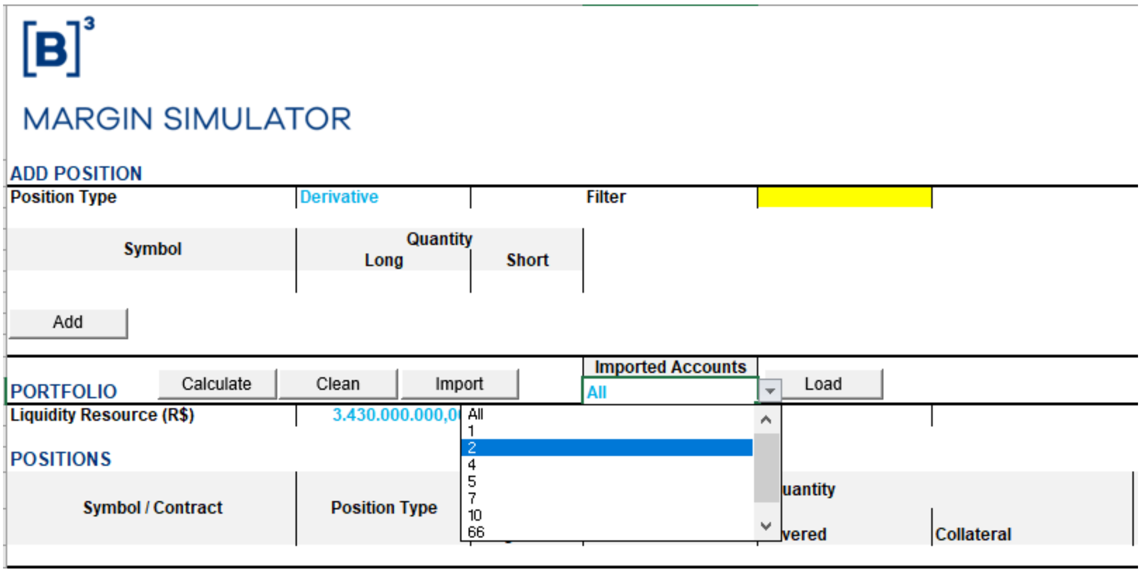
Click the item "Import."



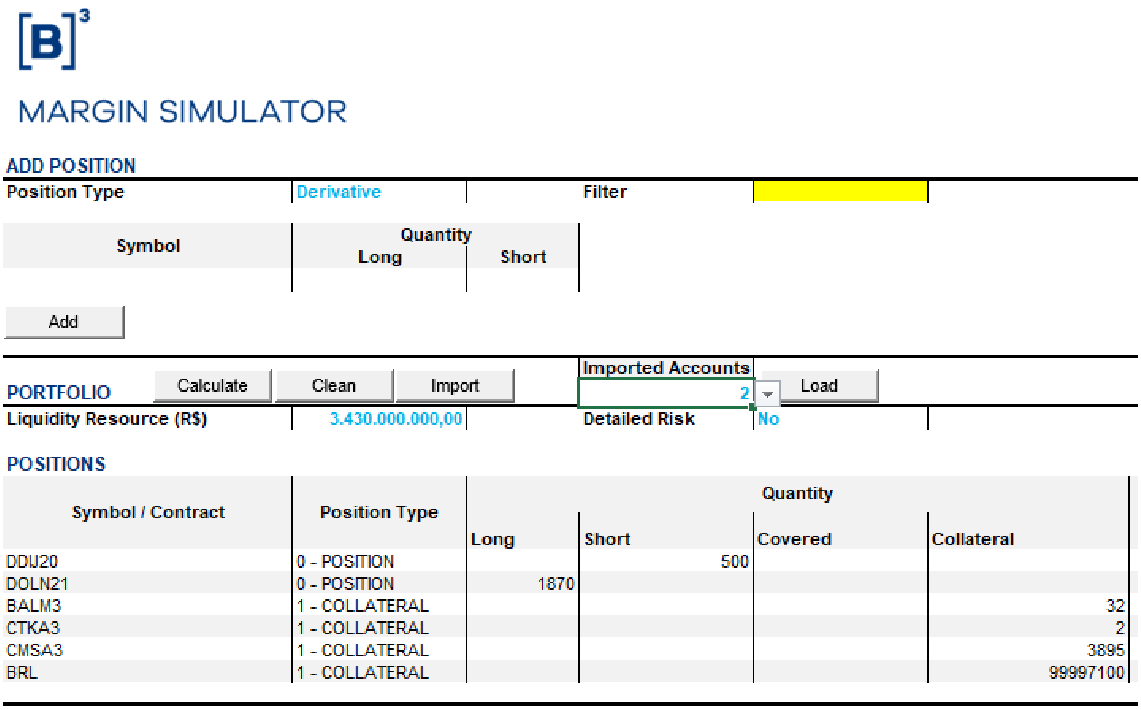
Afterwards, Excel will open a screen for the user to search the file. After selecting it, click in "Open."



After clicking on "Open", the positions of the accounts will be imported into Excel memory and a list of accounts and the "Load" button will be displayed, as follows:



The user should select the account that contains the position he wants to simulate and click on “Load.”



It is also possible to load all the positions contained in the file. For that, the user should select the option “All” and, after that, click on “Load.”

6.3.1 ADJUSTMENTS FOR THE IMBARQ001 UPLOAD

i. Flexible Option

There is no rebate value, user should input manually if there is;

ii. iSwap OTC

There is no “start value” field, user should input manually;

There is only one field for the rate, being necessary the rate information on both sides. On the present version, we are using this rate value;

iii. Equity Buy-in

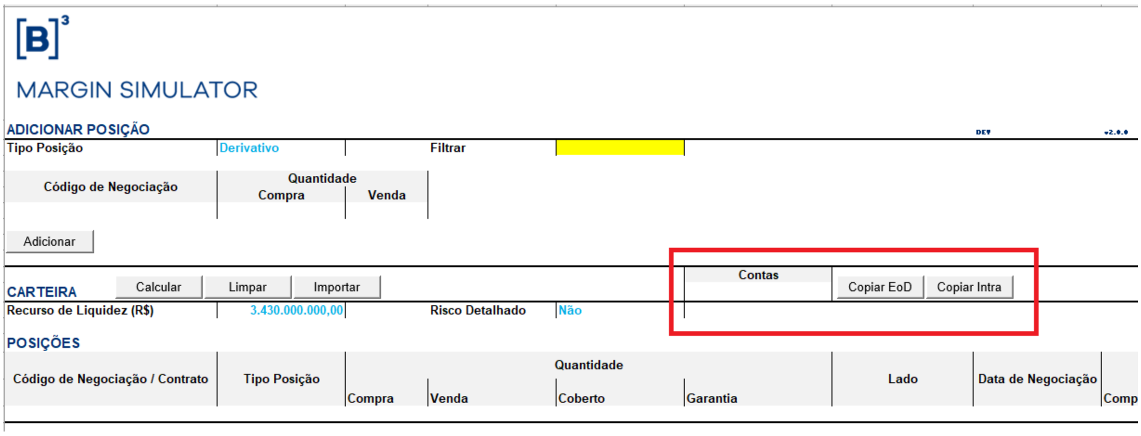
There is no field for the stock trading code, insert manually;

iv. CBA Trade

There is no field for the stock trading code, insert manually.

6.4 REQUEST EOD (END OF DAY) AND/OR INTRADAY PORTFOLIO

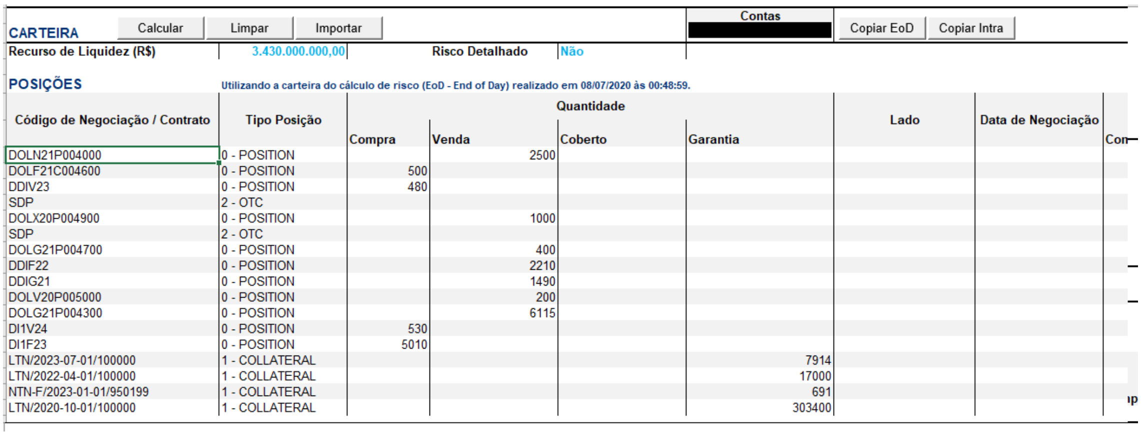
If the customer is enabled for the copy of portfolios functionality, when loading the spreadsheet, the following screen will be displayed:



The Combo box “Accounts” is a list with all the accounts enabled for the client to copy the portfolio.

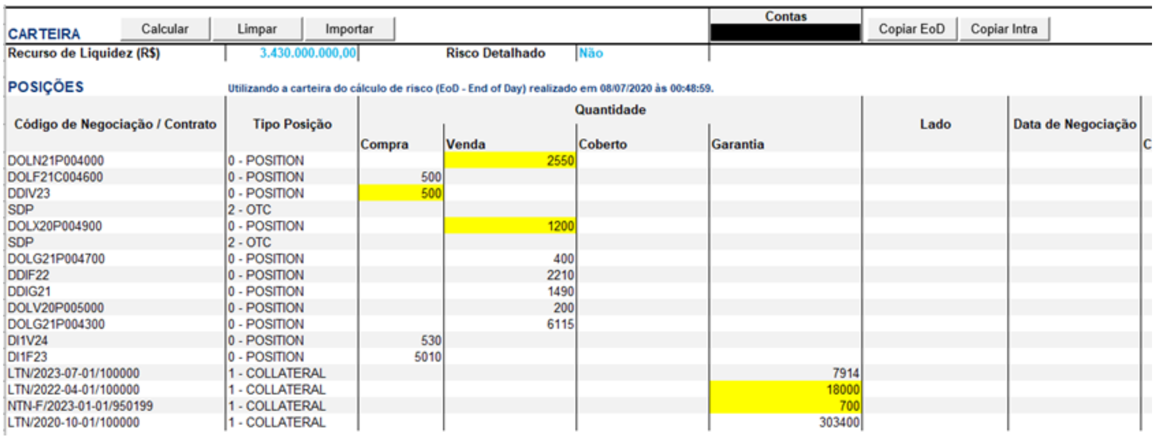
When selecting an account, the customer has the option to copy the EoD wallet - “End of Day” (Copy EoD button) or “Intraday” (Copy Intra button).

When you click on one of the buttons, the wallet will be loaded in the list of POSITIONS in the spreadsheet:



Código de Negociação / Contrato	Tipo Posição	Quantidade Compra	Venda	Coberto	Garantia	Lado	Data de Negociação	Con
DOLN21P004000	0 - POSITION		2500					
DOLF21C004600	0 - POSITION	500						
DDIV23	0 - POSITION	480						
SDP	2 - OTC							
DOLX20P004900	0 - POSITION		1000					
SDP	2 - OTC							
DOLG21P004700	0 - POSITION		400					
DDIF22	0 - POSITION		2210					
DDIG21	0 - POSITION		1490					
DOLV20P005000	0 - POSITION		200					
DOLG21P004300	0 - POSITION		6115					
DI1V24	0 - POSITION	530						
DI1F23	0 - POSITION	5010						
LTN/2023-07-01/100000	1 - COLLATERAL				7914			
LTN/2022-04-01/100000	1 - COLLATERAL				17000			
NTN-F/2023-01-01/950199	1 - COLLATERAL				691			
LTN/2020-10-01/100000	1 - COLLATERAL				303400			

To change a position in a copied portfolio, just update the field value in the POSITION list. The change will be marked in **yellow**.



CARTEIRA | Calcular | Limpar | Importar | Contas: [redacted] | Copiar EoD | Copiar Intra

Recurso de Liquidez (R$) | 3.430.000.000,00 | Risco Detalhado | Não

POSIÇÕES — Utilizando a carteira do cálculo de risco (EoD - End of Day) realizado em 08/07/2020 às 00:48:59.

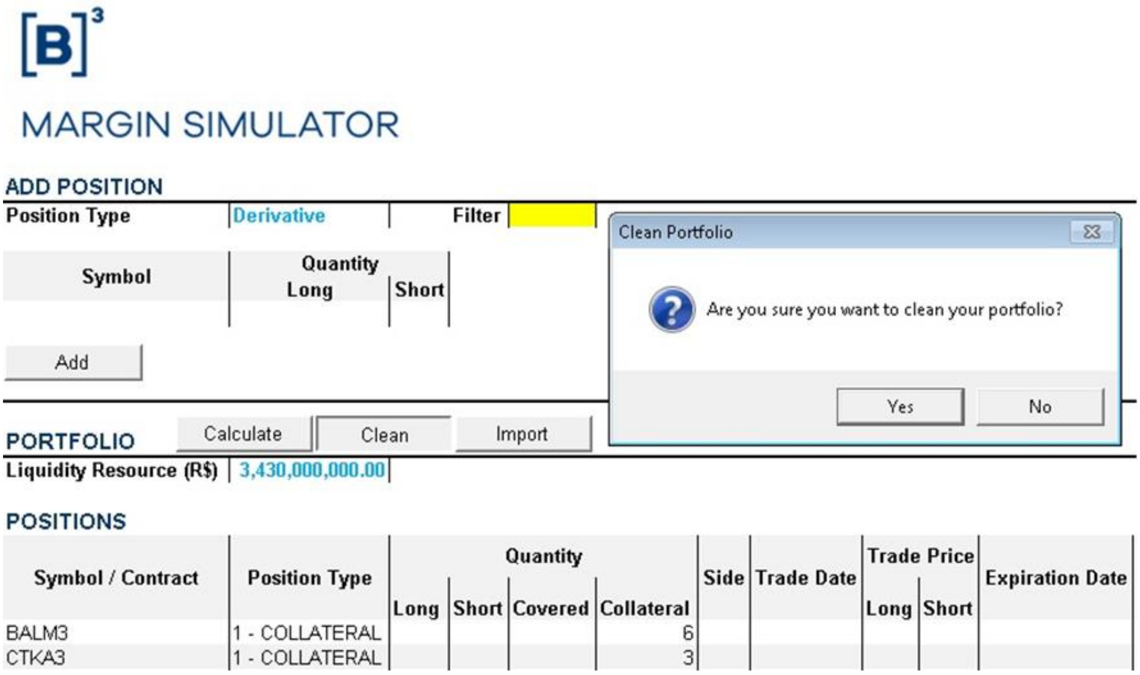
Código de Negociação / Contrato	Tipo Posição	Quantidade: Compra	Quantidade: Venda	Quantidade: Coberto	Quantidade: Garantia	Lado	Data de Negociação
DOLN21P004000	0 - POSITION		2550				
DOLF21C004600	0 - POSITION	500					
DDIV23	0 - POSITION	500					
SDP	2 - OTC						
DOLX20P004900	0 - POSITION		1200				
SDP	2 - OTC						
DOLG21P004700	0 - POSITION		400				
DDIF22	0 - POSITION		2210				
DDIG21	0 - POSITION		1490				
DOLV20P005000	0 - POSITION		200				
DOLG21P004300	0 - POSITION		6115				
DI1V24	0 - POSITION	530					
DI1F23	0 - POSITION	5010					
LTN/2023-07-01/100000	1 - COLLATERAL				7914		
LTN/2022-04-01/100000	1 - COLLATERAL				18000		
NTN-F/2023-01-01/950199	1 - COLLATERAL				700		
LTN/2020-10-01/100000	1 - COLLATERAL				303400		

6.5 DELETING SECURITIES

There are two ways of deleting securities or portfolios:

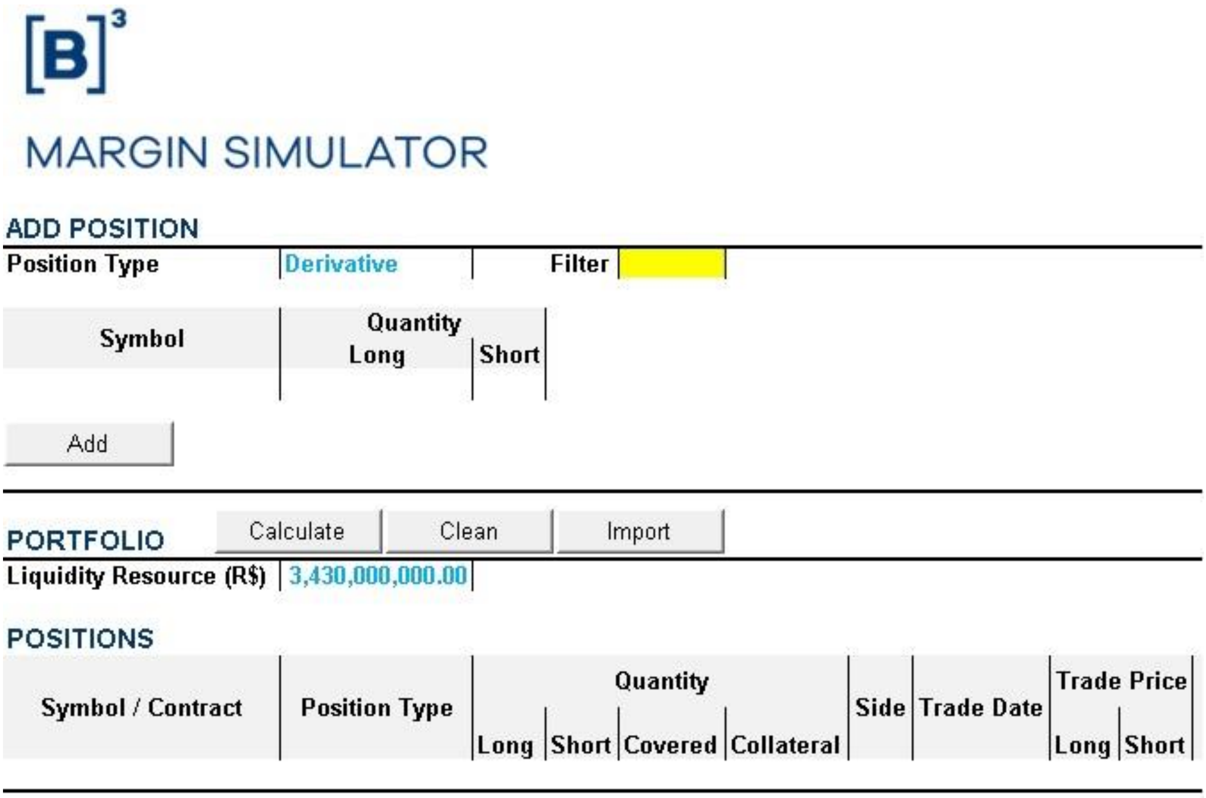
i. **Excluding the entire portfolio**

By clicking in the “Clear” button, the system will exclude all the securities previously added. The user needs to confirm the required action as described below:



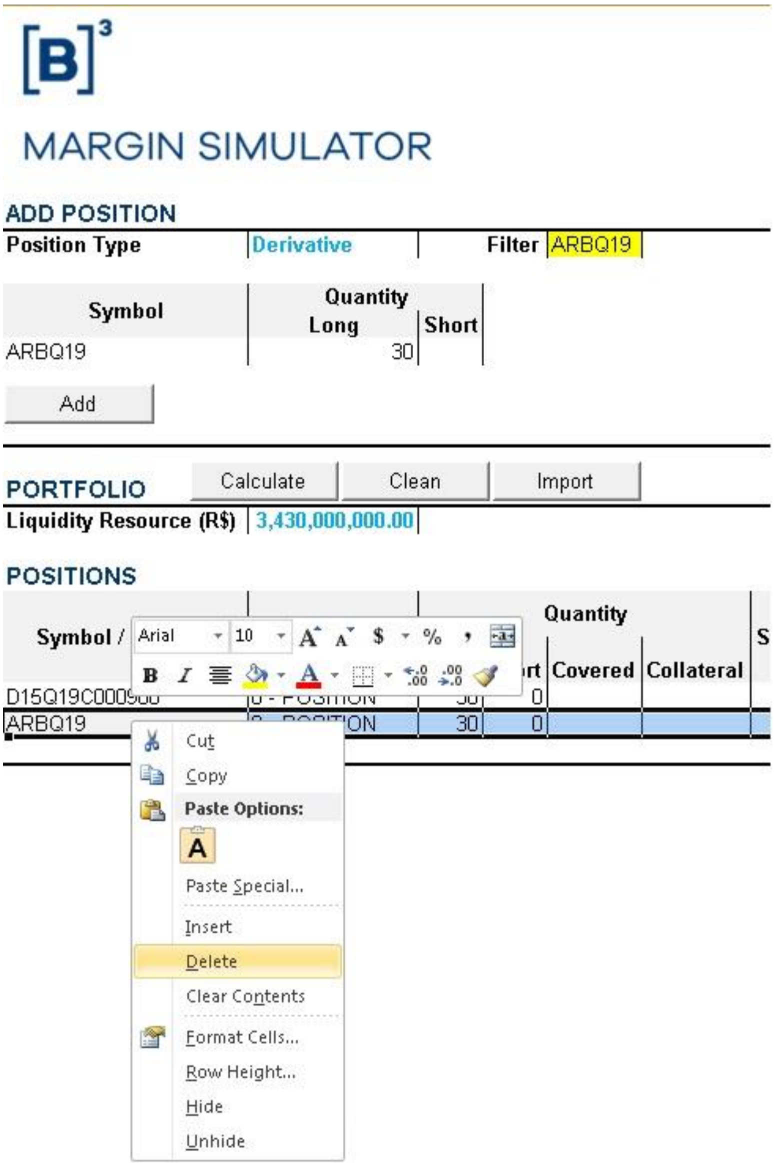
Symbol / Contract	Position Type	Quantity: Long	Quantity: Short	Quantity: Covered	Quantity: Collateral	Side	Trade Date	Trade Price: Long	Trade Price: Short	Expiration Date
BALM3	1 - COLLATERAL				6					
CTKA3	1 - COLLATERAL				3					

By doing that, the portfolio will be emptied and will be available for the user to add a new position.



ii. Deleting specific securities

Through the standard MS Excel action, it is possible to exclude a particular security from the portfolio. To do so, the user has to click with the right button directly on the security line that he/she is willing to delete and confirm the action by clicking in the “Delete” button. The other securities will remain in the portfolio, allowing the user to add new securities to execute the chosen simulation. E.g.: how to delete 100 units position on the sell side for the EMAEOM19.

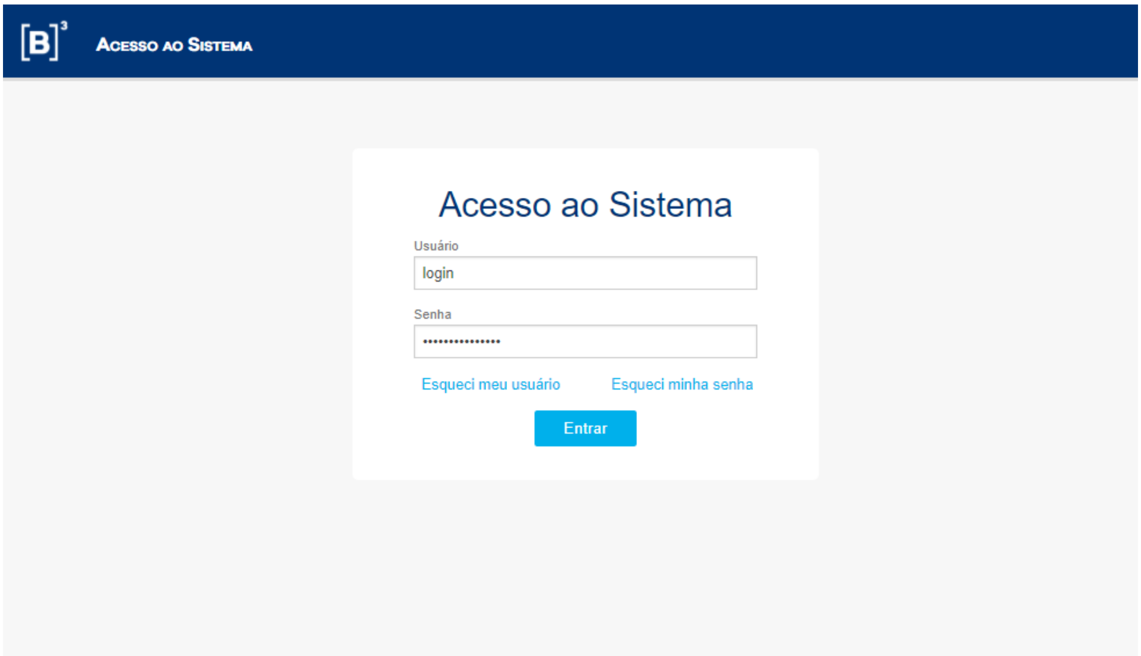

MARGIN SIMULATOR
ADD POSITION
Position Type
Derivative
Filter
ARBQ19
Symbol
Quantity
Long
Short
ARBQ19
30
Add
PORTFOLIO
Calculate
Clean
Import
Liquidity Resource (R$)
3,430,000,000.00
POSITIONS
Symbol
Quantity
Covered
Collateral
ARBQ19
30
0
Cut
Copy
Paste Options:
Paste Special...
Insert
Delete
Clear Contents
Format Cells...
Row Height...
Hide
Unhide

7 HOW TO ACCESS REAL TIME PORTFOLIOS

The Margin Simulator provides the option of importing real time positions, directly from CORE. For that, it is necessary to ask for authorization from your broker/custodian to access your portfolio. This process is made through a platform called CIP, also used for iMercado, with the SiRi functionality. Users previously registered to access iMercado cannot enable the SiRi functionality, requiring the registration of a new user of the institution.

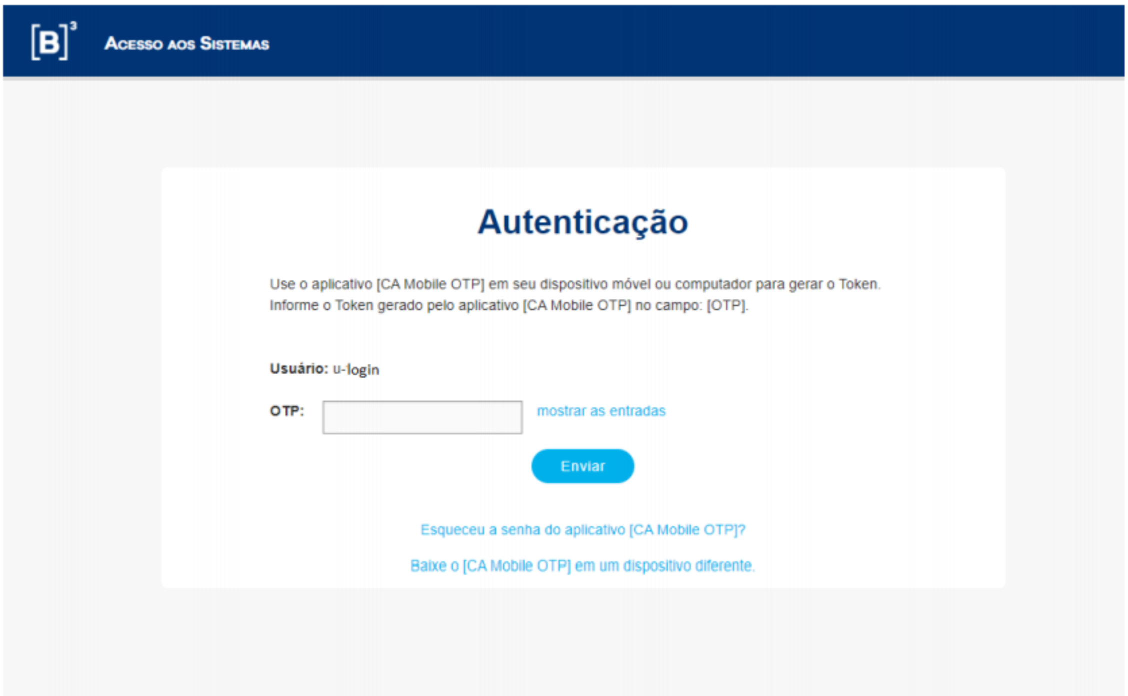
7.1 HOW TO ACCESS CIP

The user with an internet profile will access the iMercado Portal at the URL defined (http://imercado.bmfbovespa.com.br/iMercado) with his login and password and must have installed the security device (Token) on his mobile device. The Access Manual According to Authentication Factor will be sent by the delivery and services area to the participants, via e-mail. The screen below will open and the fields “user” and “password” must be filled in:



The Login field must be filled in with the user code previously provided by B3. The password field must be filled in with the password of the respective user code informed in the previous field. The password is case sensitive, so it accepts uppercase, lowercase letters, numbers and special characters.

After validating the login and password information, the user will be directed to the page below to enter the double authentication factor:

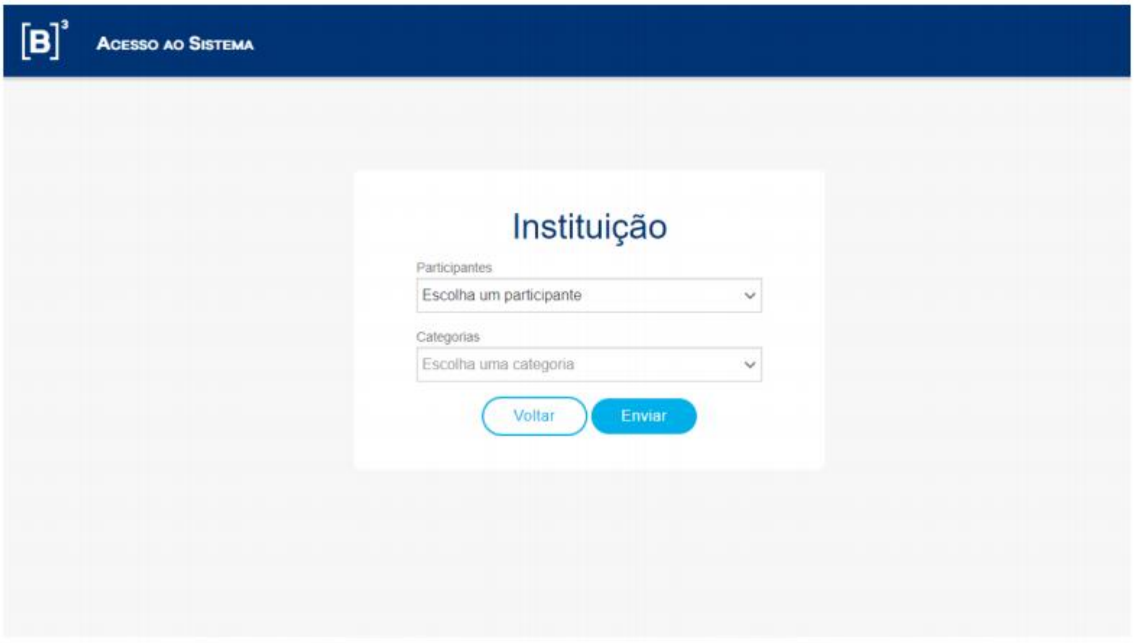


To access the system, the logged in user must fill in the mandatory data, as description shown in table 2:

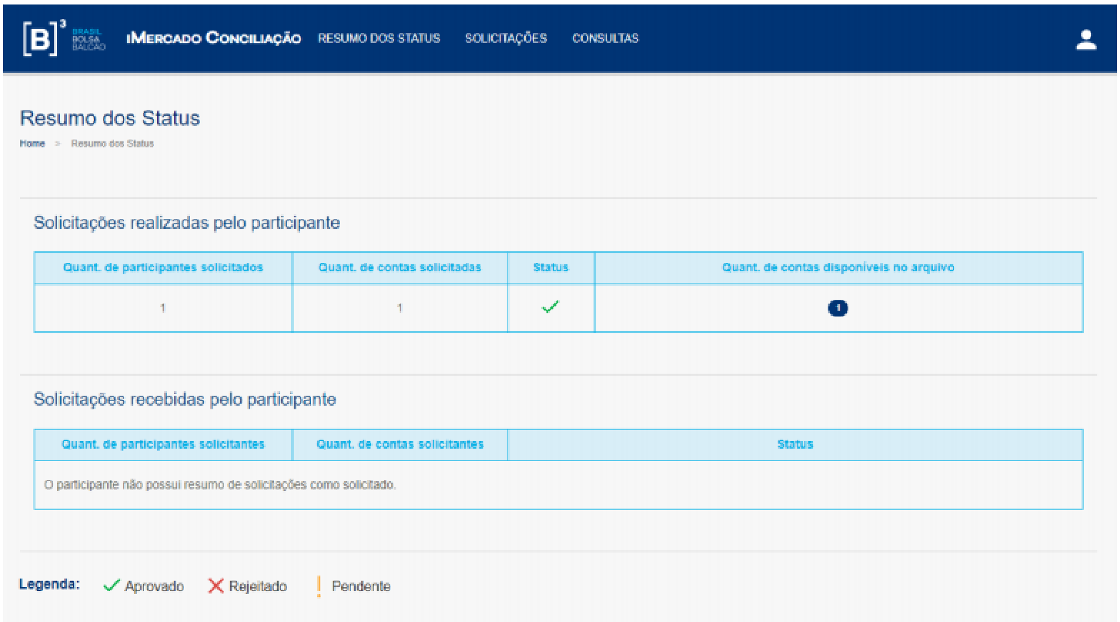
Table 2 - Mandatory fields for accessing the iMercado on the Second Factor screen Authentication:

Field Name	Description
OTP	Numbering available in the installed token, according to procedures of the Access Manual According to Authentication Factor.

Once the OTP has been validated, the user must select the institution code and its category, as shown below.



When you click the Submit button, the iMercado system page will open.



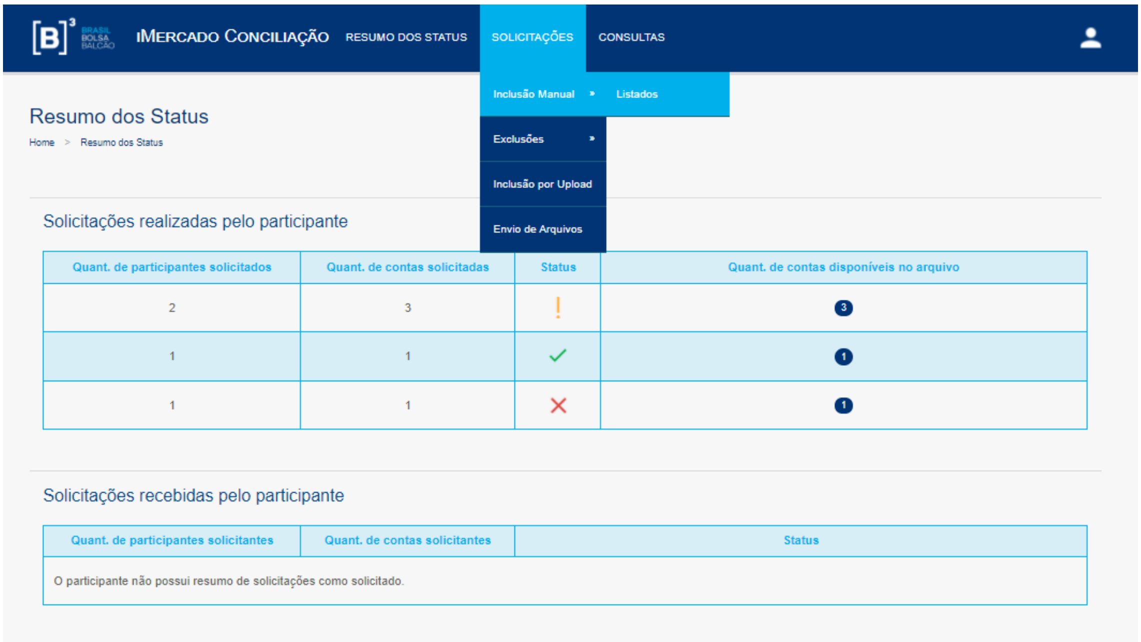
The access to system functionality is different for each user according to their registration in B3 system. Thus, not all menus and screens presented in this manual will be viewed by everyone.

7.2 REQUEST FOR AUTOMATED PORTFOLIO IMPORT (EoD – end of day and INTRADAY)

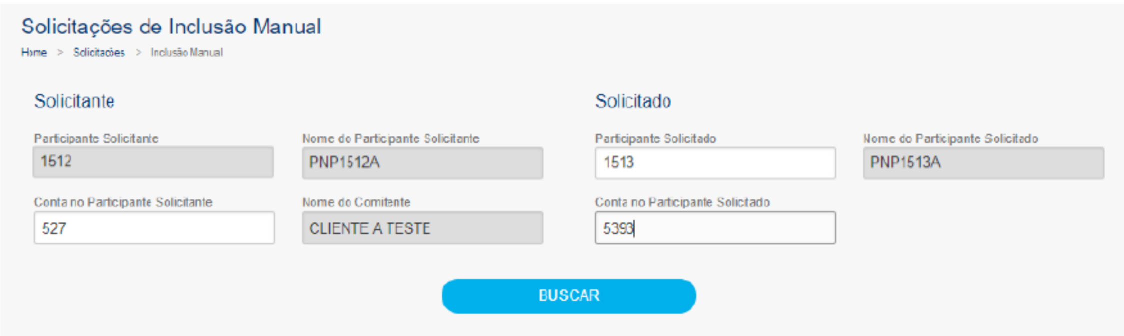
The inclusion request is made by participants who would like to request data for Risk simulation for a specific account code. In all requests for inclusion, the following must be informed:

- Requestor's account.
- Participant requested.
- Account requested.

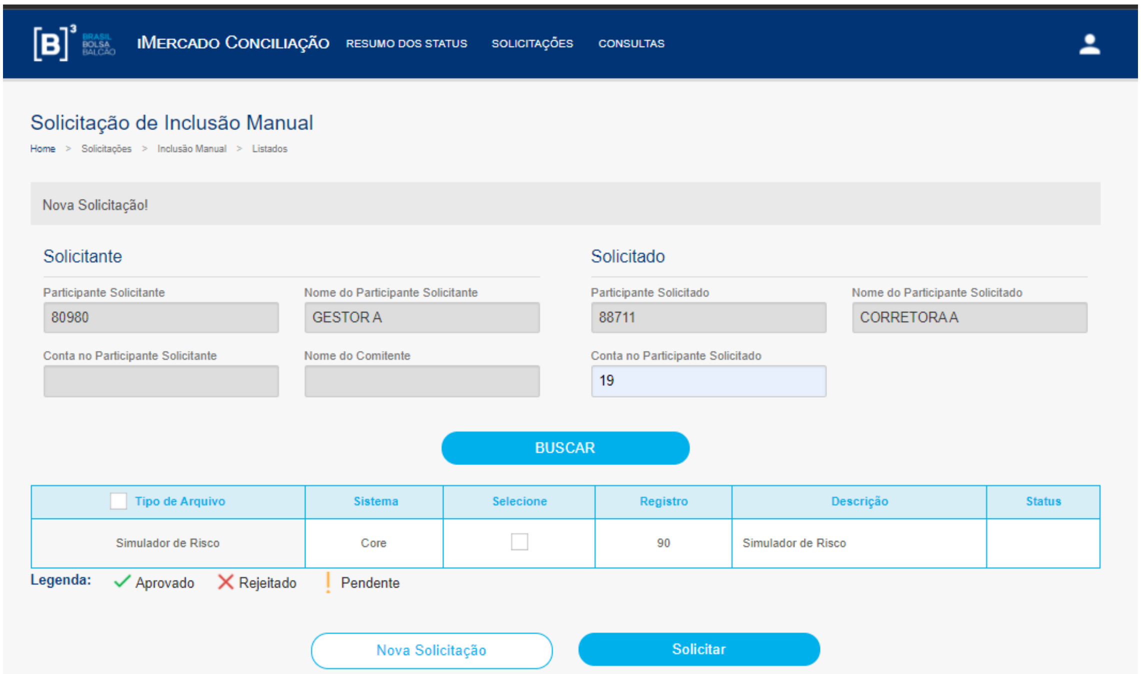
Step 1. From the main Requests menu, select the Manual Inclusion option.



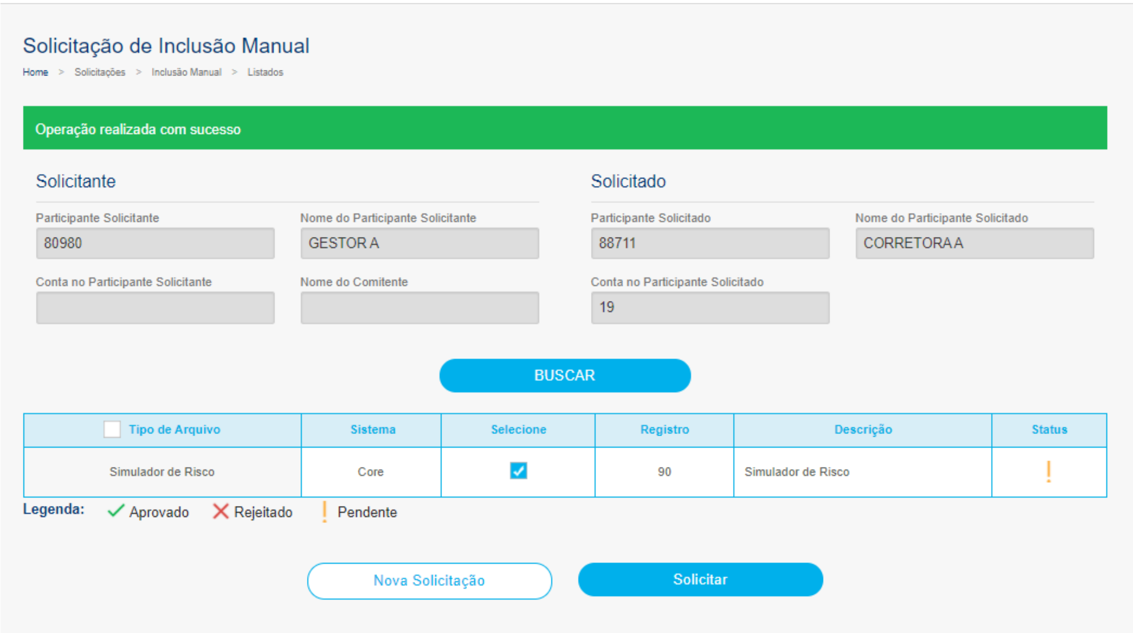
Step 2. Inform the requested data on the screen (Account in Requesting Participant, Requested Participant, Account in Requested Participant) and click on the Search button.



Step 3. The data entered will be validated and a success message will be displayed (New request!).



Step 4. A success message will be displayed (Registration successfully saved) and the request will have a status of Pending approval - !



After that, the Solicitor should get in touch with its broker/custodian, so the request is able to get the necessary approval.

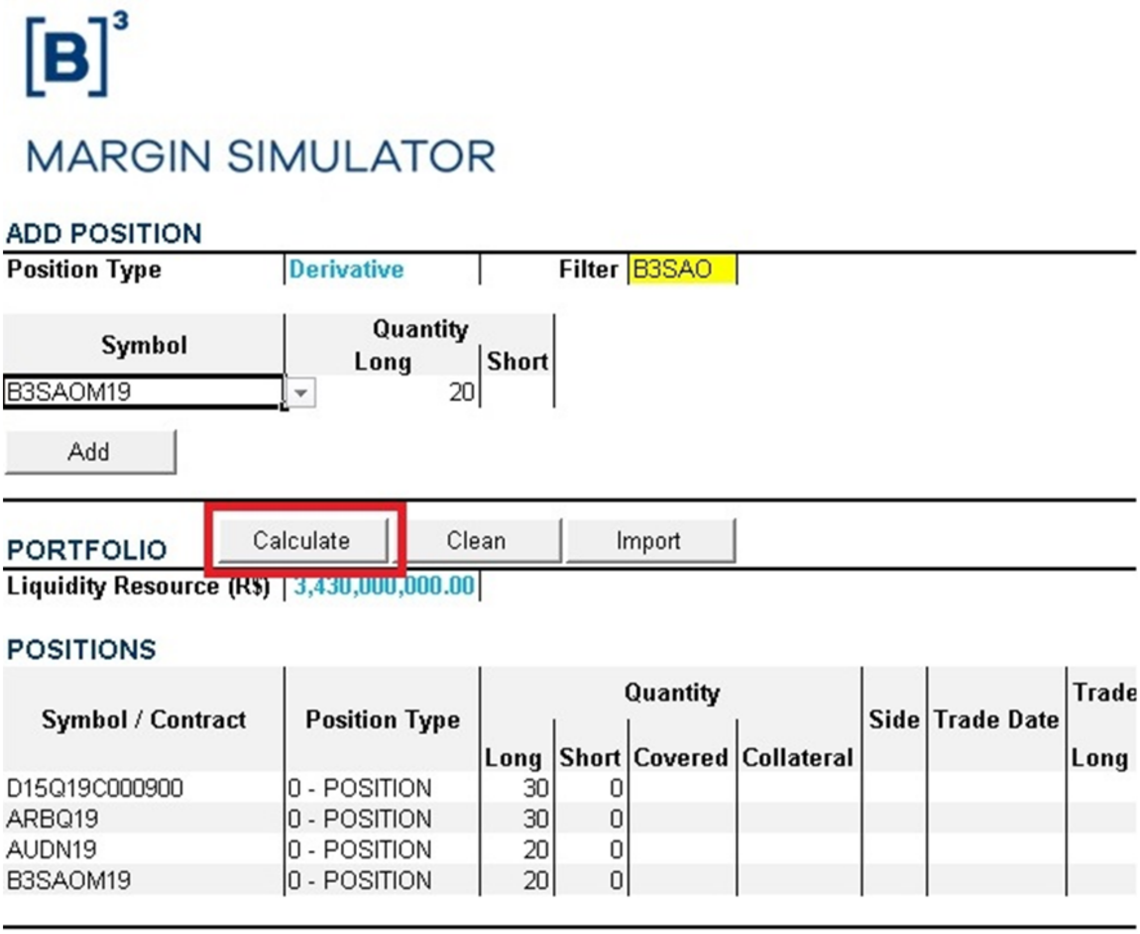
8 LIQUIDITY RESOURCES

Liquidity resources is the used value based on the liquidity lines of the portfolio to cover transitional losses in the portfolio closing process, originated by the risk of principal.

For this field, the user is able to change this value, as long as it is less than the predeterminate maximum value.

9 SENDING A PORTFOLIO FOR MARGIN CALL CALCULATION

After including the assets, the user wants to simulate, click in “Calculate.”



Afterwards, the Excel will open a new worksheet called “marginSimulatorStatus”

The user must click in “Verify Status” for the results to be available, as per below.

MARGIN SIMULATOR

SIMULATIONS DONE Verify Status

Simulations	Status	Link
6_10_2019 12h13m09 PMs,519ms	OK	Open result

Clicking in “Open Result”, another worksheet will be open with the results.

This feature allows that after sending a margin call simulation, even though the system may be still processing the previous portfolio, the user will be able to send new margin call simulations and obtain the results without the need to wait for the results of the first request.

MARGIN SIMULATOR

Initial Calculations	R$
Risk of Positions (A)	476,263.44
Collateral Deposited Value (B)	0.00
Liquidity Resource Usage (C)	0.00

Collateral Balance After Additional Procedures	R$
All Positions (D)	-476,263.44
Exclusion of Asset Delivery Positions in the Day (E) **	0.00
Exclusion of Derivative Positions Close to Maturity (F) **	0.00
Exclusion of Both Types of Positions Above (G) **	0.00

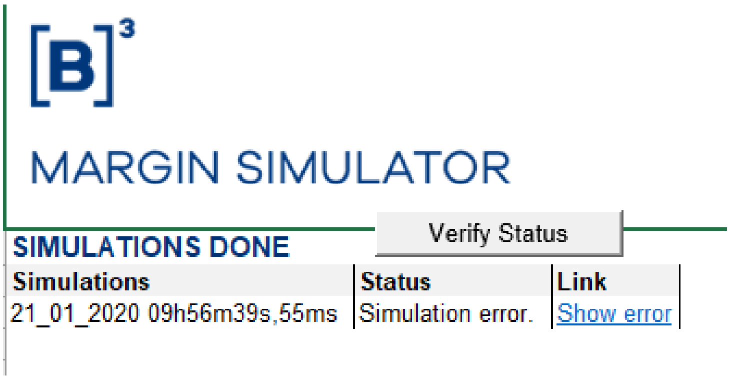
	R$
Collateral Balance (D) *	**-476,263.44**
Potencial Liquidity Resource	**0.00**

* min((B) + (C) - (A) ; (B))
** Simulations with 0.00 value mean that there are no such types of positions or their calculations resulted in 0.00

6_10_2019 12h13m09 PMs,519ms | marginSimulatorStatus | marginSimulator

9.1 SIMULATION WITH ERROR

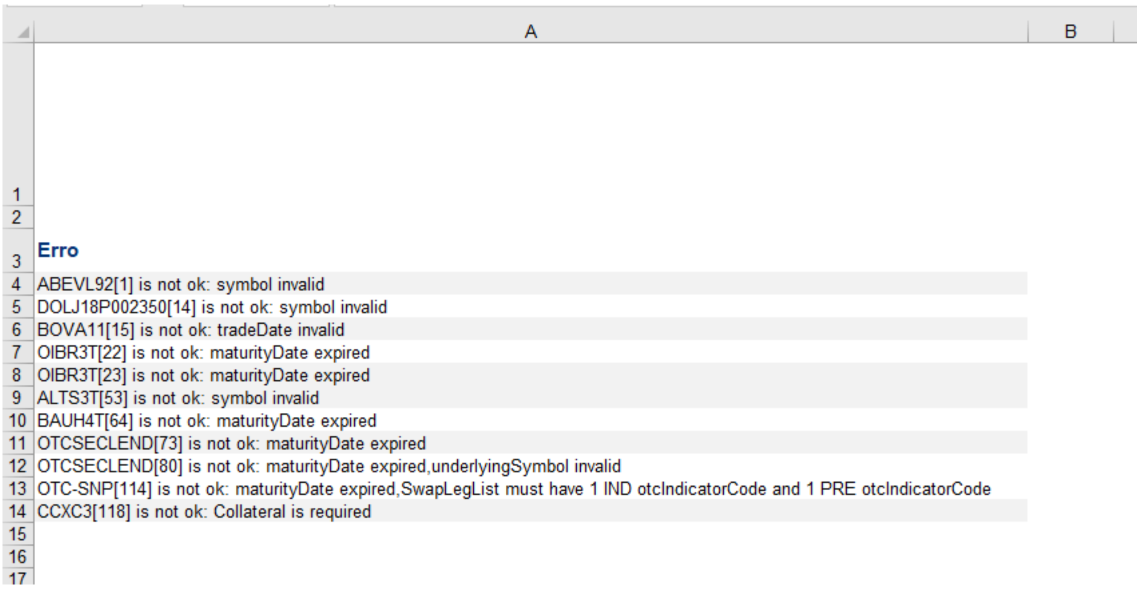
When requesting a simulation, MS Excel will open a new tab called “marginSimulatorStatus” and the system will provide a link to open the result as described in the previous item. However, if there is any inconsistency with the information entered in the portfolio, an “Error” message will be shown, as per below:



SIMULATIONS DONE

Simulations	Status	Link
21_01_2020 09h56m39s,55ms	Simulation error.	Show error

When opening the “Error” message, the system will show the description of each asset that presents any inconsistency for the proposed simulation.



	A
3	Erro
4	ABEVL92[1] is not ok: symbol invalid
5	DOLJ18P002350[14] is not ok: symbol invalid
6	BOVA11[15] is not ok: tradeDate invalid
7	OIBR3T[22] is not ok: maturityDate expired
8	OIBR3T[23] is not ok: maturityDate expired
9	ALTS3T[53] is not ok: symbol invalid
10	BAUH4T[64] is not ok: maturityDate expired
11	OTCSECLEND[73] is not ok: maturityDate expired
12	OTCSECLEND[80] is not ok: maturityDate expired,underlyingSymbol invalid
13	OTC-SNP[114] is not ok: maturityDate expired,SwapLegList must have 1 IND otcIndicatorCode and 1 PRE otcIndicatorCode
14	CCXC3[118] is not ok: Collateral is required

Simulations with an error will not generate any fee. By clicking on the link, the system will inform which assets presented an error so that the user is able to adjust the portfolio and simulate again.

10 SIMULATION RESULTS

10.1 SIMULATION RESULTS FOR MARGIN CALL

After clicking in the "Calculate" button, the system will process the calculation and will display the following screen:

CORE RISK SIMULATOR

Initial Calculations

	R$
Risk of Positions (A)	5,994,087.38
Collateral Deposited Value (B)	0.00
Liquidity Resource Usage (C)	0.00

Collateral Balance After Additional Procedures

	R$
All Positions (D)	-5,994,087.38
Exclusion of Asset Delivery Positions in the Day (E) **	0.00
Exclusion of Derivative Positions Close to Maturity (F) **	0.00
Exclusion of Both Types of Positions Above (G) **	0.00

	R$
Collateral Balance (D) *	**-5,994,087.38**
Potencial Liquidity Resource	**0.00**

* min((B) + (C) - (A) ; (B))
** Simulations with 0.00 value mean that there are no such types of positions or their calculations resulted in 0.00

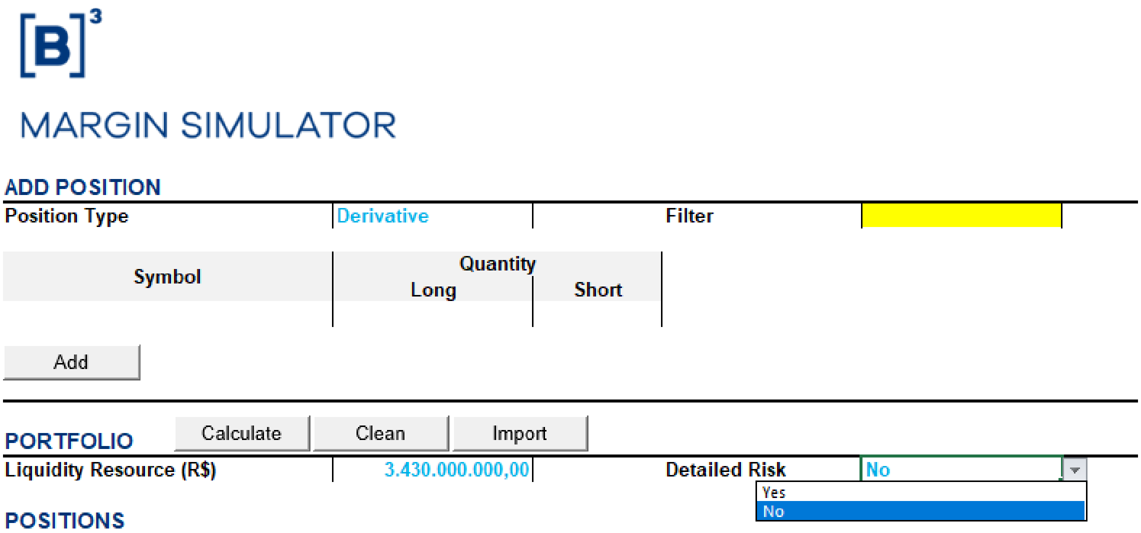
Find below the description of each field:

- **Risk of Positions (A)**: Calculated risk of all the positions, excluding the collateral value already deposited;
- **Collateral Value Deposited (B)**: sum of all collateral values already deposited in the portfolio;
- **Used Liquidity Resource (C)**: value based on portfolio position liquid lines to cover transitional losses in the closeout process originated by the risk of principal;
- **All portfolio position (D)**: Risk of all positions;
- **Exclusion of security delivery position on the day (E)**: risk considering all positions, but the settlements of the day;
- **Exclusion of Derivative positions about to be settled (F)**: risk with all positions, but short maturities;

- **Exclusion of both positions above (G)**: risk with all the positions, but the sub-portfolios 1 and 2;
- **Collateral balance**: final value of the portfolio collateral balance, considering the worst value among what has been calculated in the sub-portfolios and the collateral deposited;
- **Potential Liquidity Resource**: value that the portfolio could take on risk without the need to provide collateral due to positive flows on the close out process, still considering the eligible securities.

10.2 MARGIN CALL SIMULATION RESULT WITH CLOSE-OUT CASH FLOW

After creating the portfolio to be simulated, the user must select the option "Yes" in the function "Detailed Risk." Then click on calculate.



The simulation results will display the following features described below:

i. **Consolidated Margins**: it will present within the close-oout cash flow the financial values of collaterals and positions accumulated in the period from T+1 to T+10, i.e., the accumulated balance will consist of the result of the equation Collaterals + Positions = Accumulated Balance. On presentation, the accumulated balance amount is displayed until the last settlement day. Here's an example of this information presented in the tool:

Consolidated Margin	t1	t2	t3	t4	t5	t6	t7	t8	t9	t10
Collaterals	99.997.100,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Positions	0,00	-34.110.447,19	-14.046.677,81	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Accumulated Balance	99.997.100,00	65.886.652,81	51.839.975,00	51.839.975,00	51.839.975,00	51.839.975,00	51.839.975,00	51.839.975,00	51.839.975,00	51.839.975,00

ii. **Positions/Collaterals:** it will present the close-out cash flow, separated by position type of the simulated portfolio. Here's an example below of this information presented in the tool:

Collaterals	t1	t2	t3	t4	t5	t6	t7	t8	t9	t10
Equity	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Cash (BRL)	99.997.100,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Positions	t1	t2	t3	t4	t5	t6	t7	t8	t9	t10
Financial Future	0,00	-34.110.447,19	-14.046.677,81	0,00	0,00	0,00	0,00	0,00	0,00	0,00

The type of positions presented are:

- **Positions**:

  i. Equity;

  ii. Equity Buy-in;

  iii. Equity Option (call);

  iv. Equity Option (Put);

  v. Equity Forward;

  vi. Debenture;

  vii. Agribusiness Forward;

  viii. Financial Future;

  ix. Equity Forward;

  x. Energy Forward;

  xi. Agribusiness Forward Option;

  xii. Financial Forward Option;

  xiii. Financial Future Option;

  xiv. Swap;

xv. Security Lending – Lender;

xvi. Security Lending – Borrower;

xvii. Security Lending – Failure;

xviii. Security Lending – Corporative Event;

xix. Gold Forward;

xx. OTC – Swap;

xxi. OTC – Flexible Option (Call);

xxii. OTC – Flexible Option (Put);

xxiii. OTC – Forward.

- **Collaterals**:

i. Brazilian Government Bonds;

ii. International Bonds;

iii. Equities;

iv. Real;

v. Dolar;

vi. FIC;

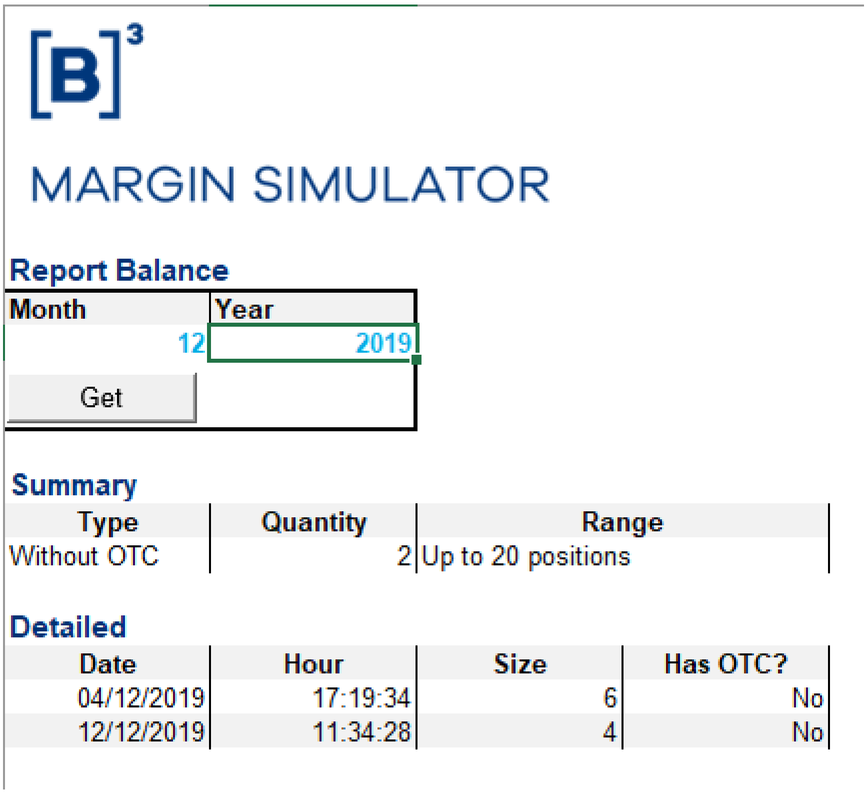
vii. Gold;

viii. ADR.

11 EXPENDITURE STATEMENT

When the user opens the Simulator add-in in Excel, the “SimulatorReport” tab will be available for the participant's monthly usage statement to be consulted.

After entering the month and year you want to consult, just click the "Calculate" button and the results will be displayed as below:



MARGIN SIMULATOR

Report Balance

Month	Year
12	2019

Get

Summary

Type	Quantity	Range
Without OTC	2	Up to 20 positions

Detailed

Date	Hour	Size	Has OTC?
04/12/2019	17:19:34	6	No
12/12/2019	11:34:28	4	No

12 INTRUMENTS TYPES

12.1 DERIVATIVES

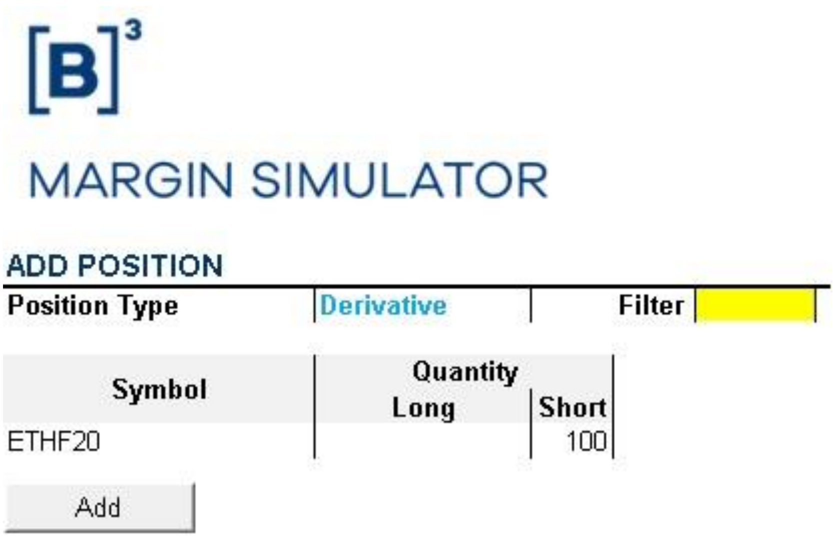
Derivative positions will be represented for securities of the following segments:

i. *Agribusiness: future and options future;*

ii. *Financial: future, options spot, options future and forward;*

iii. *Metal: options spot and forward.*

Parameters	Notes
Symbol	Negotiation code of the position to be added
Long Qty	In case the position it is for long only, inform zero or leave it blank.
Short Qty	In case the position it is for long only, inform zero or leave it blank.

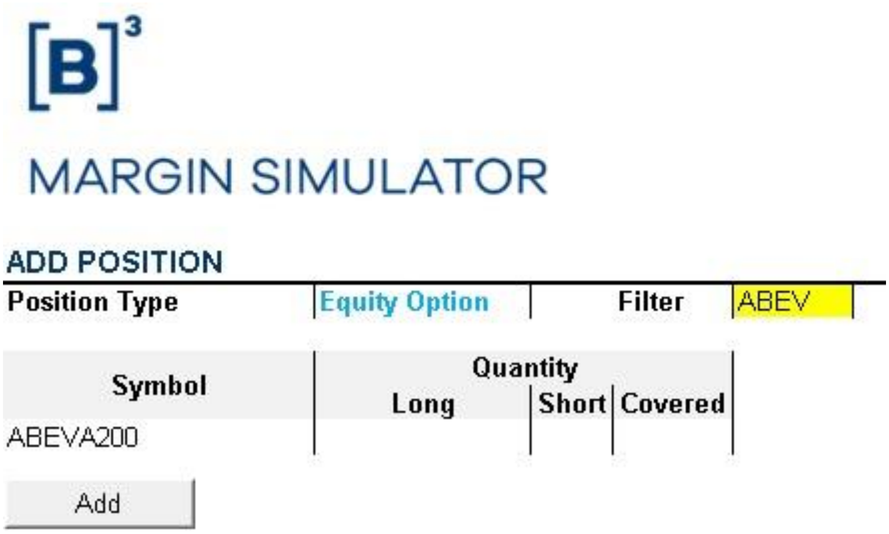


12.2 EQUITY OPTION

Equity Option positions will be represented for securities of the following segments:

- *Equity derivative: Equity call and equity put*

Parameters	Notes
Symbol	Negotiation code of the position to be added.
Long Qty	In case the position it is for long only, inform zero or leave it blank.
Short Qty	In case the position it is for long only, inform zero or leave it blank.
Covered Qty	Optional field for the user. Fill it only if there is covered position.



12.3 CORRENCY SWAP

Currency Swap positions will be represented for securities of the following segments:

- *Financial: Forward*

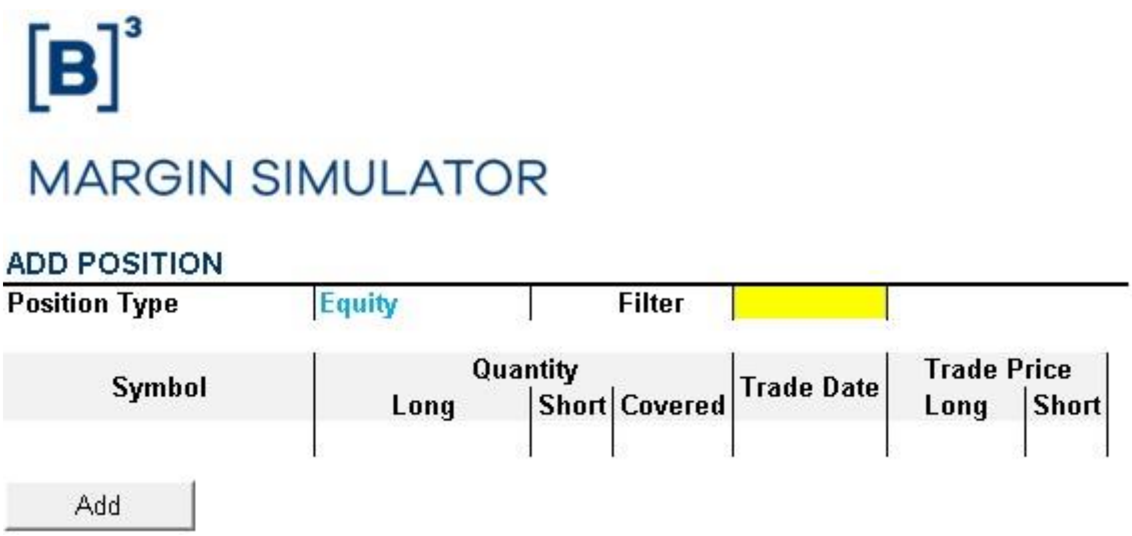
Parameters	Notes
Tradable Instrument	Negotiation code of the position to be added.
Price	Auction price
Long Qty	In case the position it is for long only, inform zero or leave it blank.
Short Qty	In case the position it is for long only, inform zero or leave it blank.
Purchase Price	Security purchase price in BRL.
Sales Price	Security sales price in BRL.
Start of Value Date	Start of Value Date of currency swap.

12.4 EQUITY

Equity cash positions will be represented for securities of the following segments:

- *Equity Cash: ETF primary and cash*
- *Fixed Income: forward*

Parameters	Notes
Symbol	Negotiation code of the position to be added.
Long Qty	In case the position is for long only, inform zero or leave it blank.
Short Qty	In case the position it is for short only, inform zero or leave it blank.
Covered Qty	Optional field for the user. Fill it only if there is covered position.
Trade Date	Not a mandatory field. In case a date is not added, it will be considered the date of the current day.
Purchase Price	In case it is a long position, inform the price. In case it is a short position, inform zero or leave it blank.
Sale Price	In case it is a short position, inform the price. In case it is a long position, inform zero or leave it blank.



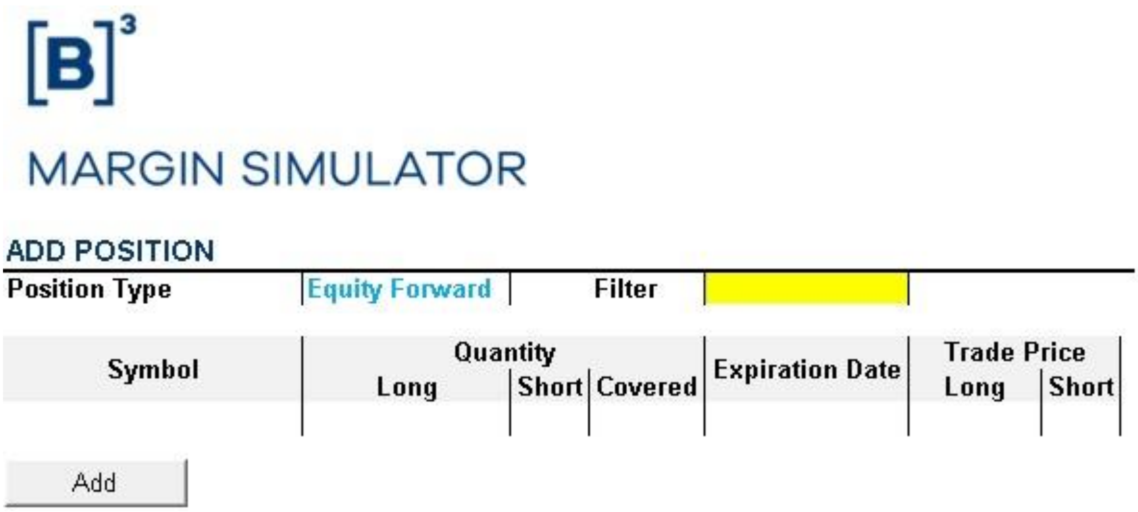
12.5 EQUITY FORWARD

Equity forward positions will be represented for securities of the following segments:

- *Equity Derivative: Equity forward*

Parameters	Notes
Symbol	Negotiation code of the position to be added.
Expiration Date	Mandatory field for the cash equity forward position. Inform expiration date for forward to be simulated.
Long Qty	In case the position is for long only, inform zero or leave it blank.
Short Qty	In case the position it is for short only, inform zero or leave it blank.
Covered Qty	If the information is not added, it will be considered naked position. If added, it will be considered covered.
Purchase Price	Add the Forward Contract price to be simulated.

Sales Price	Add the Forward Contract price to be simulated.

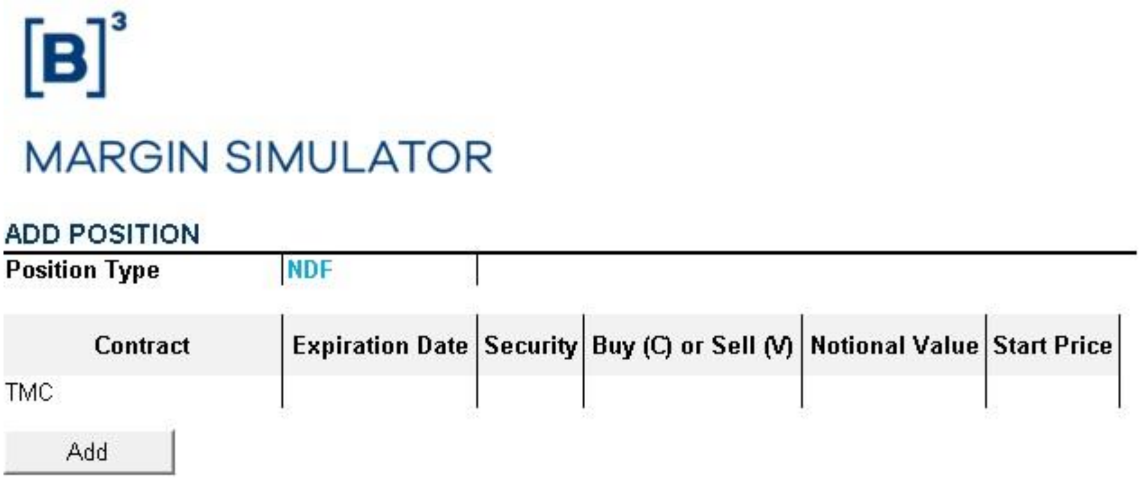


12.6 NDF

NDF forward positions will be represented for securities of the following segments:

- *OTC: forward, flexible put option and flexible call option*

Parameters	Notes
Contract	Forward contract number
Expiration Date	Forward contract number expiration date to be simulated. The expiration date must be at least two working days, from the simulation date.
Underlying Security	Type of forward contract to be simulated.
Purchase/Sale	User must select one of the following options: • C (Long Forward); • V (short Forward)
Notional Value	Notional value/Quantity
Start Price	Start Price of the forward contract.



12.7 FLEXIBLE OPTIONS

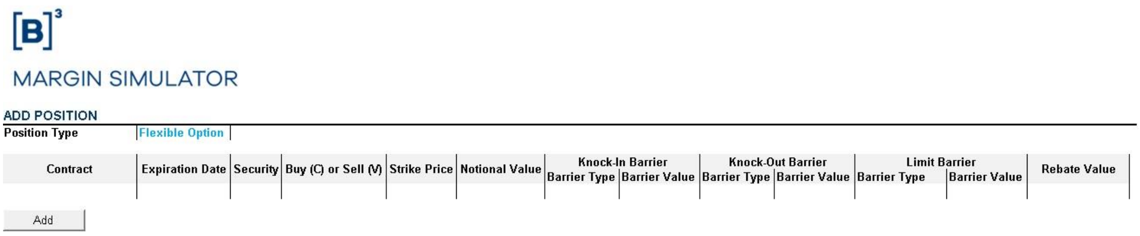
Flexible options positions will be represented for securities of the following segments:

- *OTC: flexible put option and flexible call option;*

Parameters	Notes
Contract	Flexible option contract number.
Expiration Date	Forward contract number expiration date to be simulated. The expiration date must be at least one working day from the simulation date.
Underlying Security	Type of forward contract to be simulated.
Purchase/Sale	User must select one of the following options: • C (Long Forward); • V (shot Forward)
Type of Price	Price of the type of the forward contract to be simulated.
Notional Value	Notional Value/ Quantity (depending on the type of contract)
Type of Barrier 1	Optional Field for the User, if there is barrier, inform the type.
Barrier Value 1	Optional Field for the User, if there is barrier, inform the value.
Type of Barrier 2	Optional Field for the User, if there is barrier, inform the type.
Barrier Value 2	Optional Field for the User, if there is barrier, inform the value.
Type of Barrier 3	Optional Field for the User, if there is barrier, inform the type.
Barrier Value 3	Optional Field for the User, if there is barrier, inform the value.

Rebate Value	Optional Field for the User, if there is barrier, inform the rebate value.

In case the user defines a barrier, it will also be necessary to fill the fields of knock-in, knock-out, barrier limit and rebate value. This information must only be filled if they are characteristics of the contract.



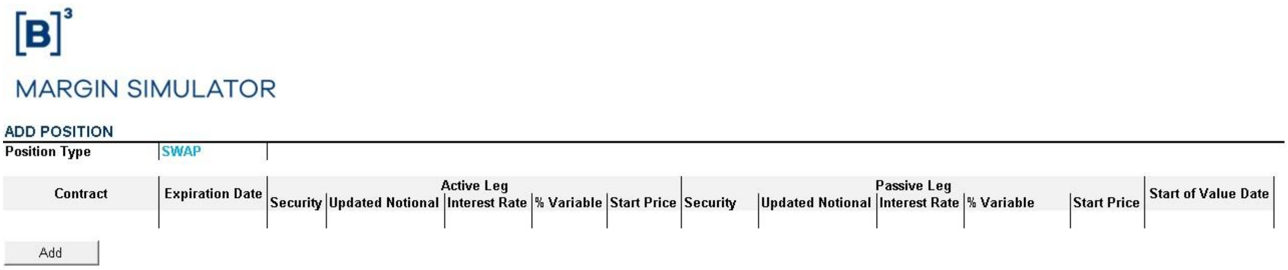
12.8 SWAP

Swap positions will be represented for securities of the following segments:

- *OTC: swap;*

	Parameters	Notes
	Contract	Swap contract number
	Expiration Date	Expiration date must be later or iqual to d+1
	Security	Accordingly, to the selected contract, the indicators available for this contract will be displayed, and the user should define which one he should use.
	Notional	Inform the notional value for the contract.
	Interest Rate	Optional field. User must add only the number related to the percentage. (e.g.: if the interest rate is 2%, then he should inform “2”)
Payer	%Variable Start Price	Optional field. User must add only the number related to the indicator. (e.g.: if the interest rate is 2%, then he should inform “2”) Optional field. User should inform the starting price of the contract.
	Security	Always inform both types of the contract (payer and receiver)

Receiver	Updated Notional	Inform the updated value for the contract.
	Interest Rate	Optional field. User must add only the number related to the percentage. (e.g.: if the interest rate is 2%, then he should inform “2”)
	%Variable	Optional field. User must add only the number related to the indicator. (e.g.: if the interest rate is 2%, then he should inform “2”)
	Start Price	Optional field. User should inform the starting price of the contract.



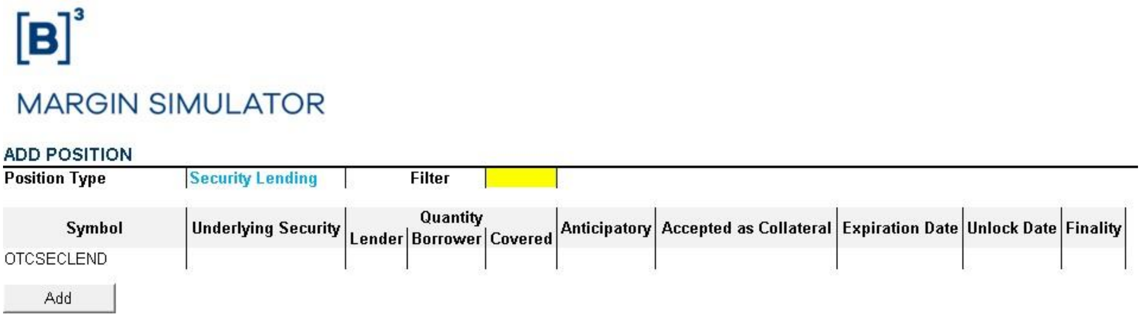
12.9 SECURITY LENDING

Security Lending will be represented for securities of the following segments:

- *OTC traded securities lending: BTB;*

Parameters	Notes
Contract	Security Lending contract number
Underlying Symbol	Underlying Security Lending Code
Long Qty	In case it is a borrower position, quantity should be informed. In case it is a lender, zero should be informed.
Short Qty	In case it is a borrower position, zero should be informed. In case it is a lender, quantity should be informed.
Covered Qty	Not mandatory field for the user, but it will be considered in the risk calculation if informed.
Anticipatory	Option Yes or No.
Accepted as Collateral	Option Yes or No.

Expiration Date	Expiration date should be at least one working day starting in the simulation day.
Unlock Date	Unlock date should be prior to the expiration date and later to the negotiation date.
Finality	Mandatory field. The System only considers for calculation portfolio 22012 and 23906. In case another number is set, the calculation result will consider the portfolio 21016.

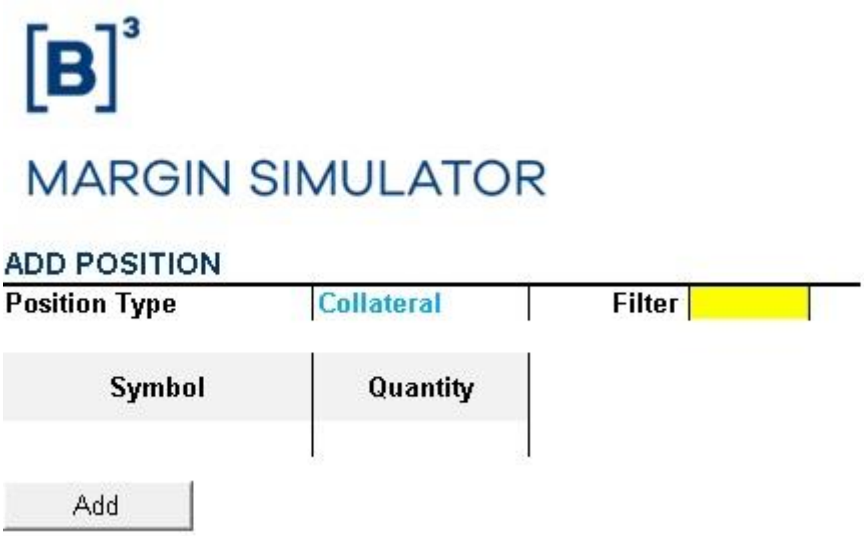


12.10 COLLATERAL

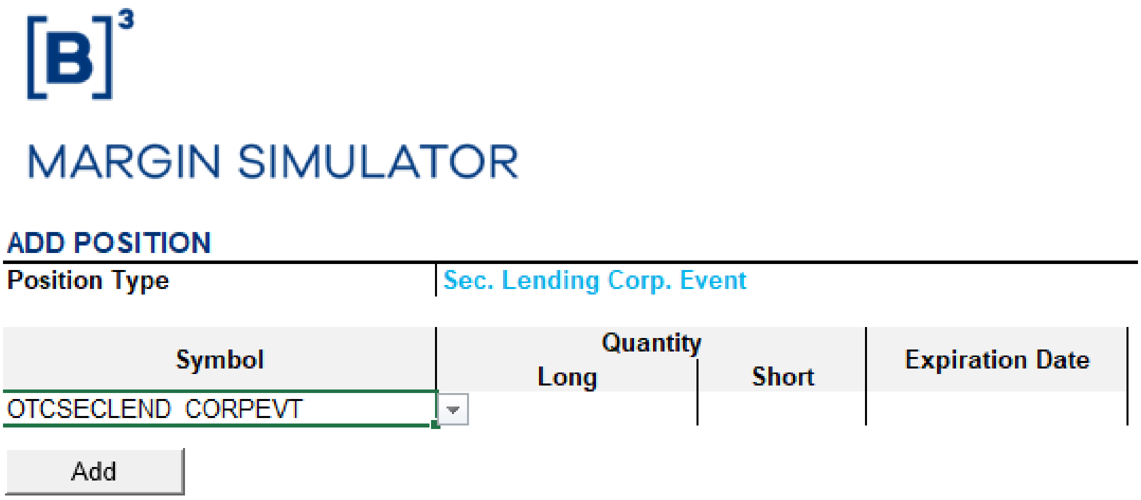
Collaterals will be represented for securities of the following segments:

- Equity cash: cash;
- Financial: spot;
- Metal: spot;
- Gov. Bonds: forward;

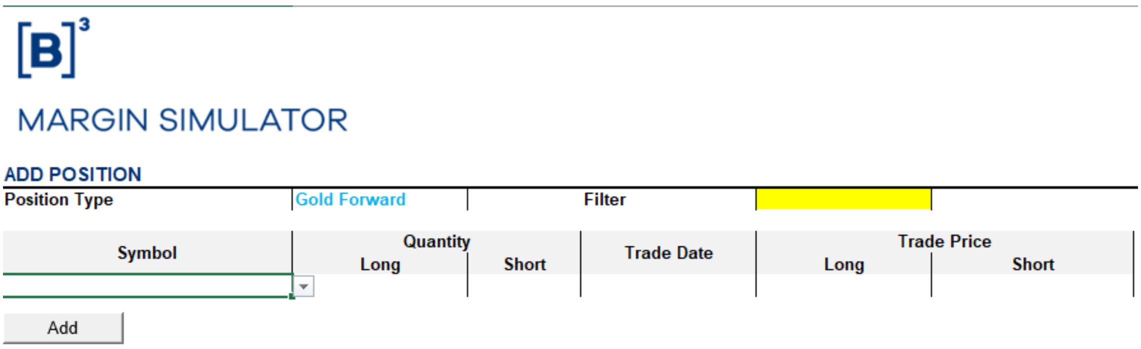
Parâmetros	Observações
Symbol	Collateral symbol
Quantity	Collateral quantity



12.11 SECURITY LENDING CORPORATE EVENT

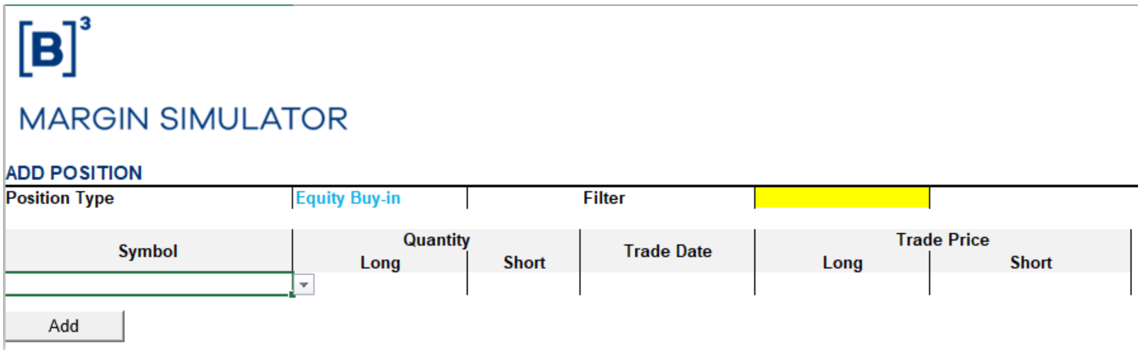


12.12 GOLD FORWARD



Parameters	Notes
Symbol	Mandatory field. It is required for gold forward position instrument selection. Using the "Filter" field improves searching.
Long Qty	Long gold forward quantity. Must be filled only in long case, otherwise, must be 0 or blank.
Short Qty	Short gold forward quantity. Must be filled only in short case, otherwise, must be 0 or blank.
Trade Date	Mandatory field. Refers to initial gold forward trade date.
Purchase Price	Gold forward purchase price. Must be filled only in purchase case, otherwise, must be 0 or blank.
Sales Price	Gold forward sales price. Must be filled only in sales case, otherwise, must be 0 or blank.

12.13 EQUITY BUY-IN



Parameters	Notes
Symbol	Mandatory field. It is required for equity buy-in position instrument selection. Using the "Filter" field improves searching.
Long Qty	Long equity buy-in quantity. Must be filled only in long case, otherwise, must be 0 or blank.
Short Qty	Short equity buy-in quantity. Must be filled only in short case, otherwise, must be 0 or blank.
Trade Date	Mandatory field. Refers to initial equity buy-in trade date.
Purchase Price	Equity buy-in purchase price. Must be filled only in purchase case, otherwise, must be 0 or blank.
Sales Price	Equity buy-in sales price. Must be filled only in sales case, otherwise, must be 0 or blank.

12.14 OTHERS

To simulate collateral (letter of credit or CDB) there is no specific option. These types of collateral can be simulated by selection the EQUITY option and informing the collateral value.

13 IMPROVEMENTS AND ADJUSTMENTS SUGGESTIONS

Any suggestion of improvement or adjustments proposed may be sent to the following e-mail riskservices@b3.com.br .

14 SUPPORT

- Any question regarding how to contract the product shall be directed to the Superintendence of Products of Systems of Front, Middle and OTC by the email riskservices@b3.com.br or by telephone +55 (11) 2565-5996;
- Product or connection functionalities questions shall be directed to the Negotiation Support team via email at risk@b3.com.br or by telephone +55 (11) 2565-5031, option URA 3-1.
- Technical support shall be directed to the Technology Support team by email sat@b3.com.br or by telephone +55 (11) 2565-5120

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