



Labfolder Tecan Connector Manual

v1.0.4.5

The Labfolder Tecan connector app is a Windows executable that allows the bidirectional transfer of data between Labfolder servers and Tecan plate readers via the Magellan software.

The Labfolder Tecan connector app is for research purposes only.

The Labfolder Tecan connector allows to use a plate layout designed in Labfolder directly to define a measurement and analysis in Magellan, and storing the measurement result file of an instrument run directly in the Labfolder entry in which the plate layout was defined, closing the full loop between plate design in Labfolder, running the analysis on a Tecan plate reader and storing the data back in the ELN.

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Requirements

The Labfolder Tecan connector has the following requirements:

- > Operating system: Windows 8 or 10
- > RAM: min 4 GB, recommended 8 GB
- > Magellan 7.2 or higher, Magellan for Spark 3.0 or higher
- > A stable https connection to a Labfolder server, version 1.28.8 or higher

Installation

The Labfolder Tecan connector app can be installed by string the installer executable 'Labfolder Tecan installer.exe'. After accepting the license agreement, the app can be installed at a location of your choice. You can also set Desktop and Start Menu shortcuts.

Uninstallation is possible via the Windows utilities for installed software.

Running the Labfolder Tecan connector app

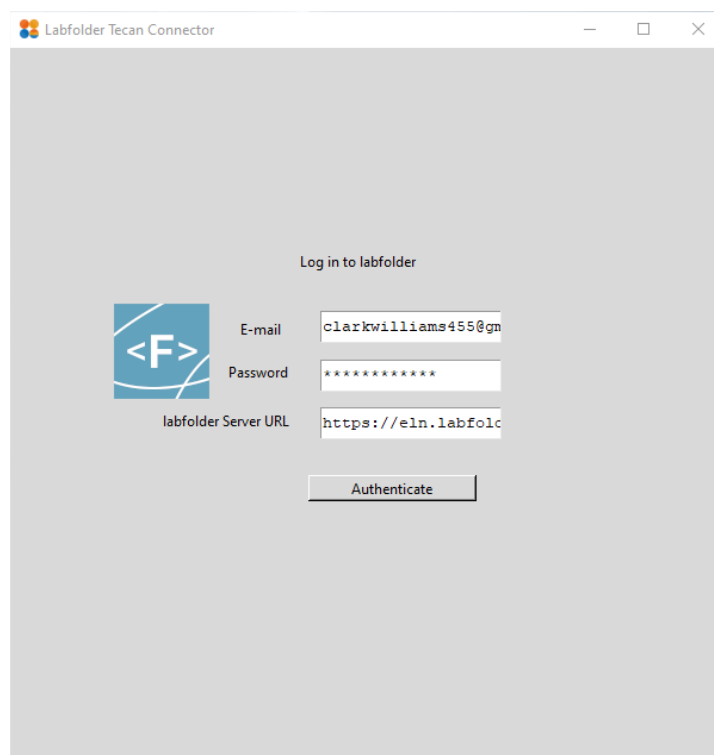
The Labfolder Tecan connector app can be started by double-clicking the desktop icon or start menu icon, or by double-clicking the file 'Labfolder Tecan connector.exe' in the install file location.

Authentication

The Labfolder Tecan connector requires a login to the Labfolder server, and, if Magellan Tracker is installed, a login to Magellan.

Labfolder authentication

In the first screen of the application that loads after application startup, you will be prompted for a username and a password for Labfolder as well as an URL for the Labfolder to which the Labfolder Tecan connector app should connect.



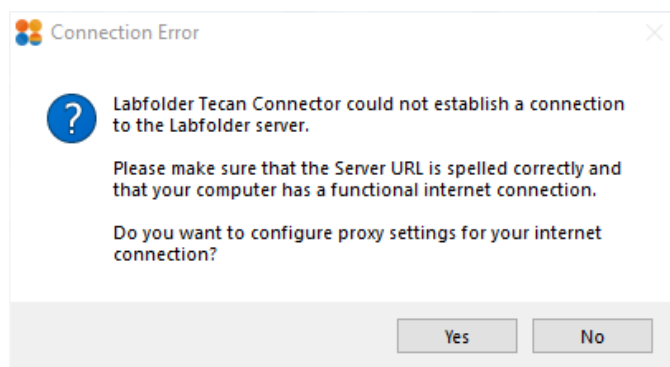
The username corresponds to your registered email address. If you have LDAP authentication activated on your Labfolder server, your username corresponds to the username within your organisation.

The server URL designates to which server the application connects. The default URL is set for Labfolder's cloud server, which has the URL <https://eln.Labfolder.com>. If you would like to connect to a different server, you need to enter the server URL in the format '<http://>' or '<https://>' plus your server domain (e.g. '[Labfolder.your-organisation.com](https://eln.Labfolder.com)'). The application will remember the last server to which a connection was attempted.

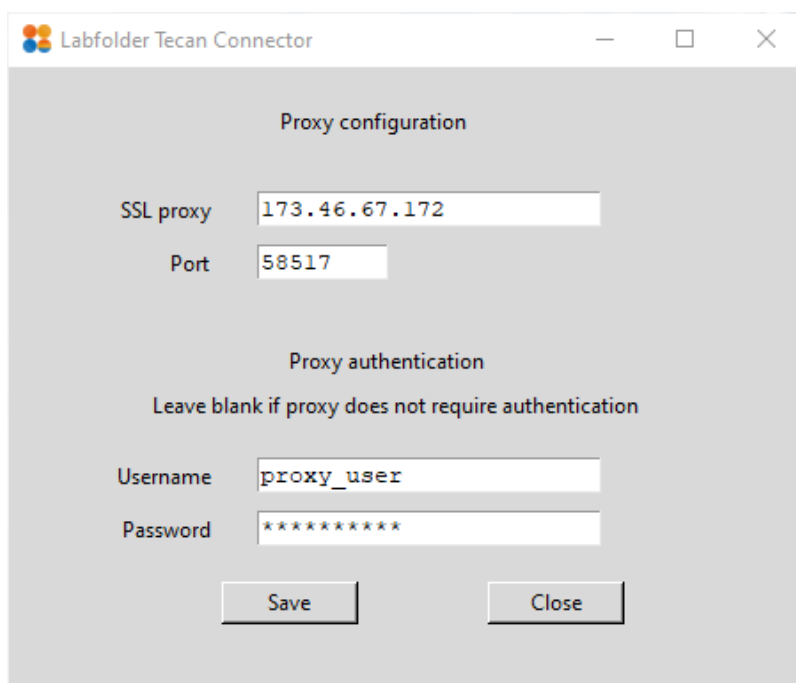
To be able to authenticate against the Labfolder server, the Tecan Magellan Connector App must be activated in the Labfolder Apps collection. An error message will occur if the Tecan Magellan Connector App in Labfolder is not activated and the software will terminate. To activate the Tecan Magellan Connector App in Labfolder, contact our sales team.

Proxy configuration

Labfolder Magellan Connector will attempt to connect to the Labfolder server using either no proxy or the proxy settings of the operating system. If your network requires proxy configurations to be set on an application level, the first connection to the Labfolder server will fail and an error message will appear:



You can configure the proxy settings for the application selecting the option 'Yes' in the dialogue shown above. A new window will open in which you can set your proxy settings. If you are unsure of the required proxy settings, please contact your network administrator.

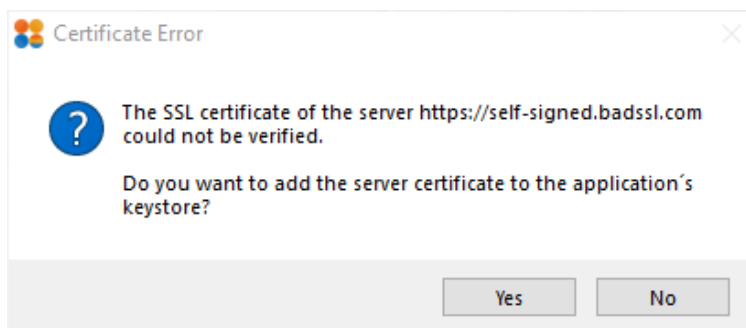


In the proxy configuration window, enter your SSL proxy and the port the SSL proxy uses. If your proxy requires authentication, provide your username and password for the proxy server, otherwise, simply leave the authentication fields blank.

Press the 'save' button to save the proxy settings. Afterwards, press the 'Close' button to close the proxy configuration window and return to the Labfolder login screen.

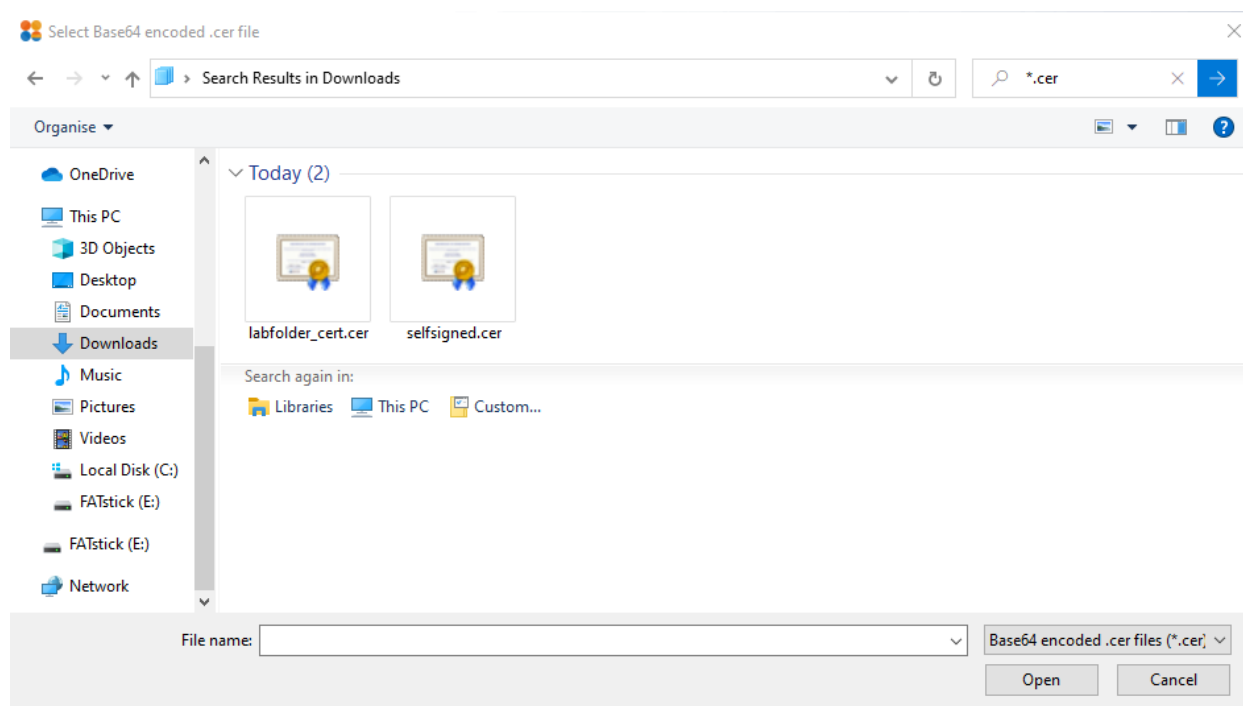
Adding SSL certificates

In case the SSL certificate of the Labfolder server cannot be verified, the application will return an error. This error can occur if the certificate is invalid or expired, or because the certificate is self-signed or because the root certificates of your proxy server are not known to the keystore of the Labfolder Tecan Connector application. In the latter cases, you can add the certificate of the Labfolder manually to the keystore of the application:



You should do this only when you trust the Labfolder server you want to connect to. You can download the certificate of the server as a Base64-encoded .cer file from your browser as described [here](#).

Clicking on the 'Yes' button in the certificate error dialogue will open a file dialogue through which you can upload the certificate '.cer' file you downloaded in the previous step:

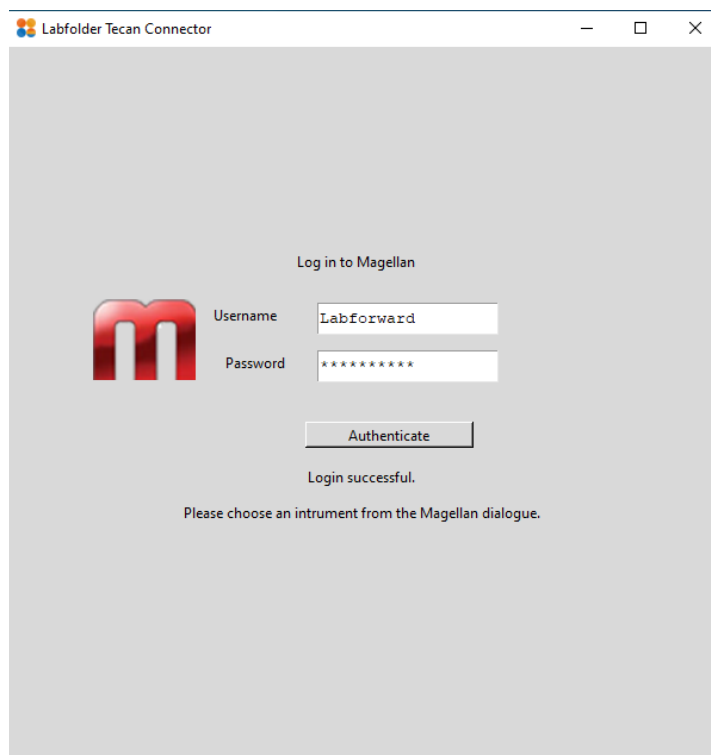


After uploading the file, the authentication window will reload and the SSL certificate will be added to the keystore.

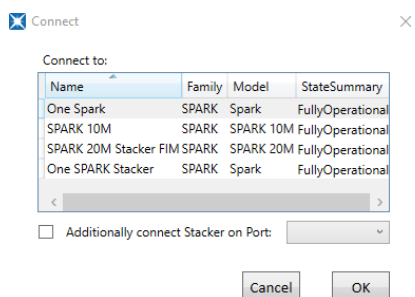
Magellan authentication

If you have Magellan Tracker installed, authentication is required before performing any actions. After Labfolder authentication, you will be prompted a username and password for Magellan. Enter your Magellan credentials and submit them via the 'Authenticate' button.

If Magellan Tracker is not installed, authentication is skipped.



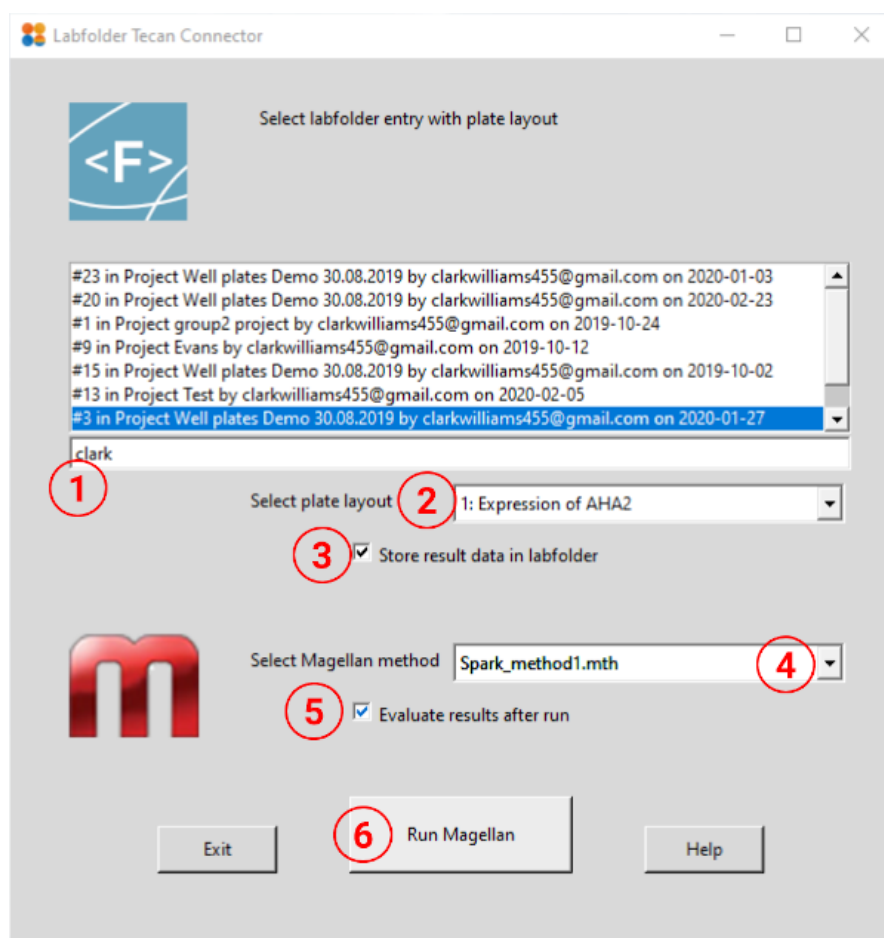
After successful authentication, a dialogue will open, prompting you to select a Tecan plate reader to connect to Magellan. Please refer to the Magellan documentation about details for connecting devices to Magellan.



Please note that the Labfolder Tecan Connector app loads all plate layouts in your ELN in the background after successful authentication to the Labfolder server. If loading of all plate layouts is not completed after your Magellan authentication, an info dialogue will appear.

Selecting the plate layout

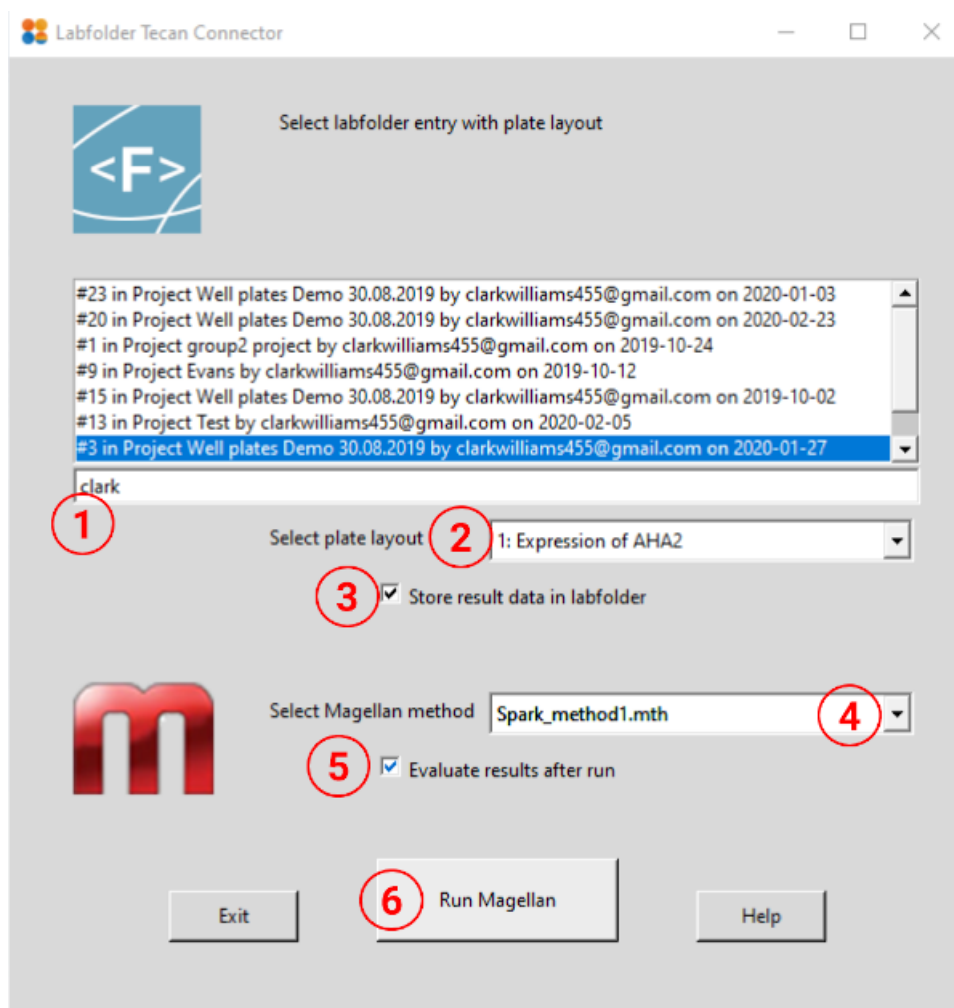
After Authentication, the Labfolder Tecan connector features are available on a single page and can be used as follows:



Please note that currently, only plate layouts with 96 or 384 wells are supported for layout transfer.

1. The entry containing the plate layout is selected first. All entries containing plate layouts to which you have access to are listed in the first window. The entry number, project and author are listed, and entries can be filtered by typing search strings in the text field before the entry list. Please note that hidden entries will be visible according to your account settings on the Labfolder server.

- Double-clicking on an entry populates the dropdown below with all Well Plate Layouts that are available in this entry. By clicking on a plate layout in the dropdown, it can be selected to define the plate layout in the subsequent plate reader run.

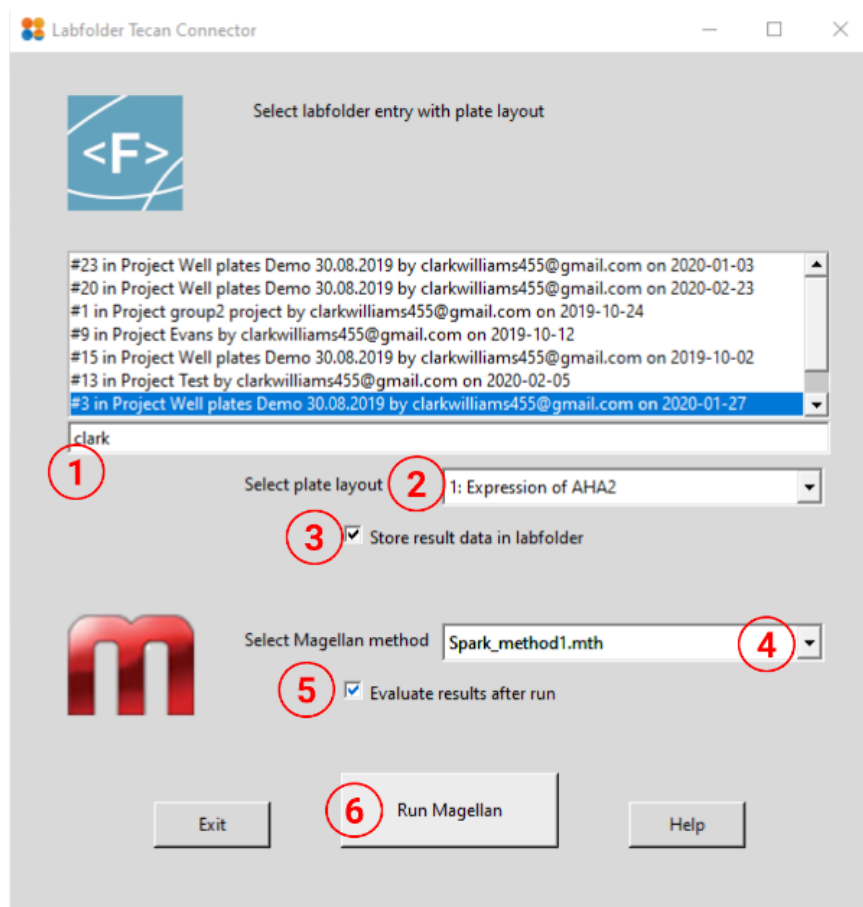


Storing result data in Labfolder

- With the checkbox control, you can define whether the results should be stored in the same Labfolder entry from which the layout is loaded after the run has been completed. Please note that storing the results is possible only when you are the author of the entry selected in the first step.

Please note that when hidden entries are visible based on your account settings on your Labfolder server and a hidden entry has been selected, you cannot store the results back to this entry.

Running Magellan



4. In the dropdown in the Magellan controls, you can select a method file that defines the run and evaluation parameters for Magellan. Please note that only method files stored in Magellan's default location for method files can be selected here. The application will issue a warning if the Labfolder plate layout contains well identifiers that are not defined in the method file. In that case, you will still be able to start the Magellan run, but the plate layout defined in Labfolder will not be used for run parametrisation and evaluation.
5. In the checkbox in the Magellan controls, you can define whether you would like to evaluate the results in Magellan after the plate reader run. Checking the box will open Magellan's evaluation wizard after the run.
6. After all parameters have been defined, you can start the plate reader analysis by pressing the button 'Run Magellan'. A dialogue will appear if Magellan has been started successfully, and status messages will appear under the button as soon as the Magellan run is finished.

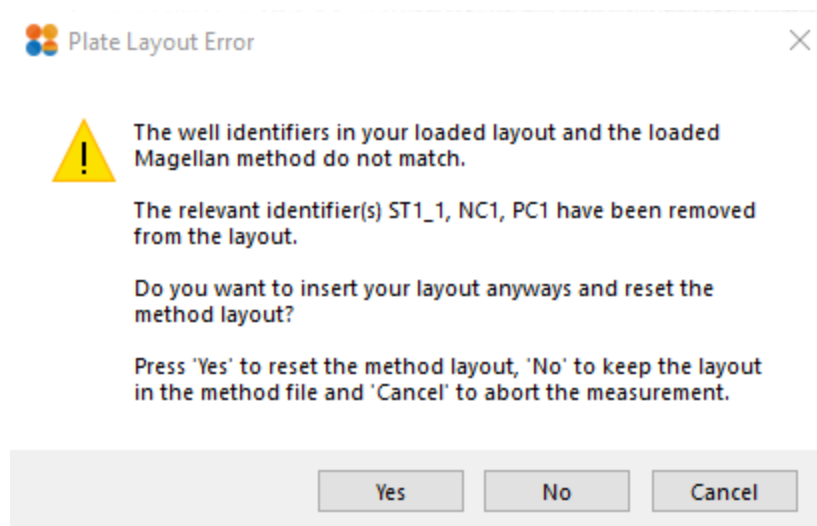
Layout transfer

Labfolder Tecan Connector will transfer the plate layout of the selected well plate to the selected method if the selected well payout and the selected method are compatible and will return an error in case they are not.

Plate layouts are compatible if

- All identifiers which are defined in the plate layout are also defined in the method
- All non-sample (SM) identifiers are defined in the plate layout as many times as they are defined in the method (i.e. 3 x PC1, 2 x NC1 etc.)
- The 'Experiment Group' of all identifiers is equal to 1
- Replicates of identifiers are used.

If the layouts are incompatible, a warning will appear.



In the warning dialogue, you have the possibility to either

- Choose 'Yes' and reset the plate layout of the method with a plate layout that sets all well identifiers to 'Sample' (SM) and discards all data analysis procedures defined in the method.
- Choose 'No' to keep the original layout and the data analysis procedures defined in the method file
- Choose 'Cancel' to abort the measurement.

Help & Exit

You can exit the program any time by clicking the 'Exit' button, or navigate to the support page via the 'Help' button.