

BreezeUDF User's Guide

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Introduction

BreezeUDF enables you to import data into Spire's ["User Defined Fields"](#) directly from Excel.

Spire's UDF feature allows you to create your own custom data fields associated with just about anything in Spire: inventory items, customers, sales orders, employees, salespeople etc. These data fields are shown right alongside Spire's regular fields. You can include them in sort, search, filter, export, and reporting operations.

With BreezeUDF, you can:

- Automatically generate a blank template that includes all your UDF fields.
- Validate your import against the rules established in Spire before you import, with a detailed field-by-field view of any errors.
- Automatically backup your UDF data *before* an import.
- Visually compare your proposed import to current data *before* you import it, with all differences highlighted in color.
- Restore all, or only parts of, your UDF data to exactly how it was before any previous import.
- Save copies of every import/backup dataset for later review, re-import or restore.

Installation

The automatic installation program will install required files into "C:\Program Files (x86)\SpireAssists\BreezeUDF".

It will also create a folder in your "My Documents" folder called "BreezeUDF".

The folder "My Documents\BreezeUDF" will contain the Microsoft Excel XLSM file "BreezeUDF-x.y.z.XLSM" (where x.y.z is the version number). This is the file you open to use BreezeUDF. You are free to copy, move or rename this file. This file can only be used on a computer where BreezeUDF has been installed.

System Requirements

BreezeUDF requires either 32-bit or 64-bit Microsoft Excel (2007 or later). If you are using 64-bit Excel you need to install the [64-bit PostgreSQL database drivers](#).

If you are using 32-bit Excel and already have Spire installed, nothing further is required. If Spire is not installed and your Excel is 32-bit, you can still use BreezeUDF after installing the [32-bit PostgreSQL database drivers](#).

To determine what version of Excel you are using, see [this information](#) from Microsoft.

Configuration

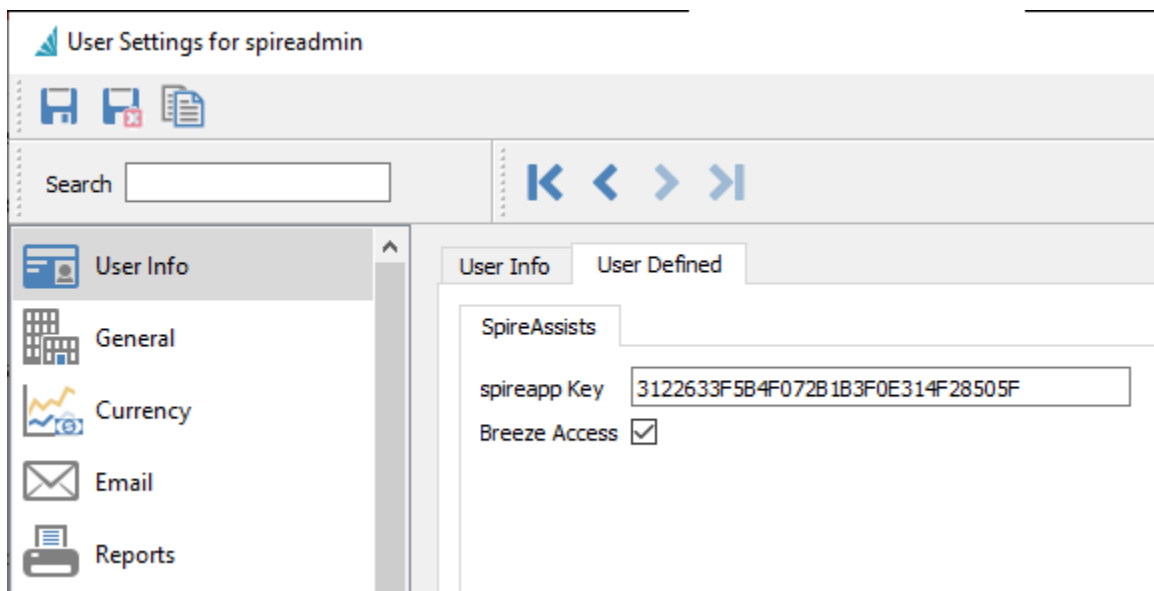
BreezeUDF needs to configure your Spire server and Spire companies before you can use it. This includes:

1. Retrieving the spireapp password.
2. Ensuring the pg_hba.config file is appropriately configured for access by PostgreSQL.
3. Configuring a Spire company.

This configuration is done with the included application “SpireAssists Configuration”. The simplest method is to run this application on the server. It is not necessary to install this or any other application on the server itself. If this is not possible or desirable, you can run this from a client PC but you will need to provide the spireapp password, and ensure that the pg_hba.config file is configured to allow database access from the client PC’s in question, using the spireapp user id.

The configuration is only required once per server per company.

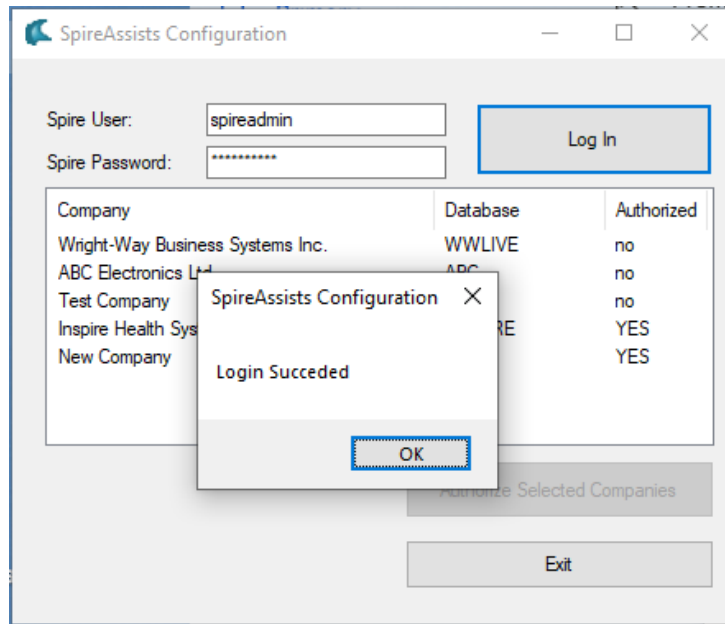
Once configured, the Spire company will have new UDF fields in the User module. These contain an encrypted version of the spireapp password, and a checkbox for each user. The checkbox is used to control which Spire users can use BreezeUDF on this company. By default, only the user who ran the “SpireAssists Configuration” program will have access. Check this box for any other users to allow access to BreezeUDF. Other users do not need to have the spireapp Key in their profile.



Configuring from the Server.

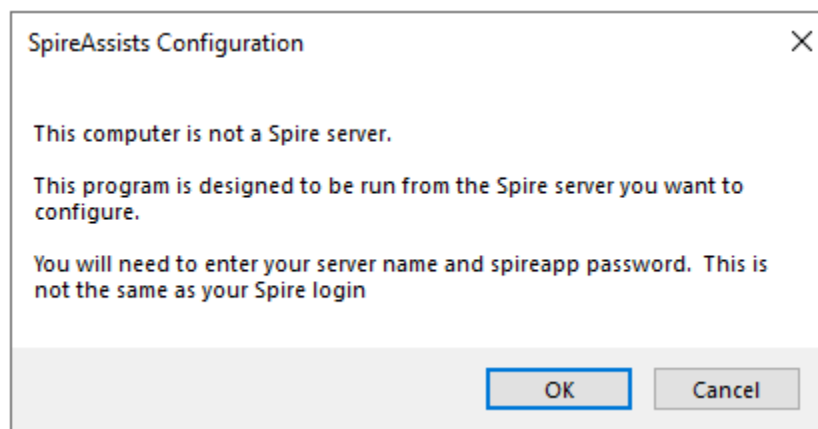
1. Run the program “SpireAssists Configuration.exe” from the server logged in as an administrator.
2. Enter a Spire admin user id and password, click “Log In”.

3. Select the company, or companies, you want to authorize to use BreezeUDF.
4. Click “Authorize Selected Companies”.



Configuring from a Client PC.

When you run the SpireAssists Configuration from a PC that is not running the Spire server, you receive the following message:



You will then be prompted to enter the name/ip of the Spire server, and the spireapp password for that server. The spireapp password is not a Spire user password. This password is found in a configuration file on the Spire server. After providing this information, the configuration will proceed as outlined above.

Note: Running SpireAssists Configuration from a client PC means the program will not be able to make changes to the pg_hba.config file on your Spire server. It may be that your Spire server is already accessible using PostgreSQL from your client computers, and this will not be necessary. If this is necessary, you can find [more information here](#).

You are now ready to use BreezeUDF.

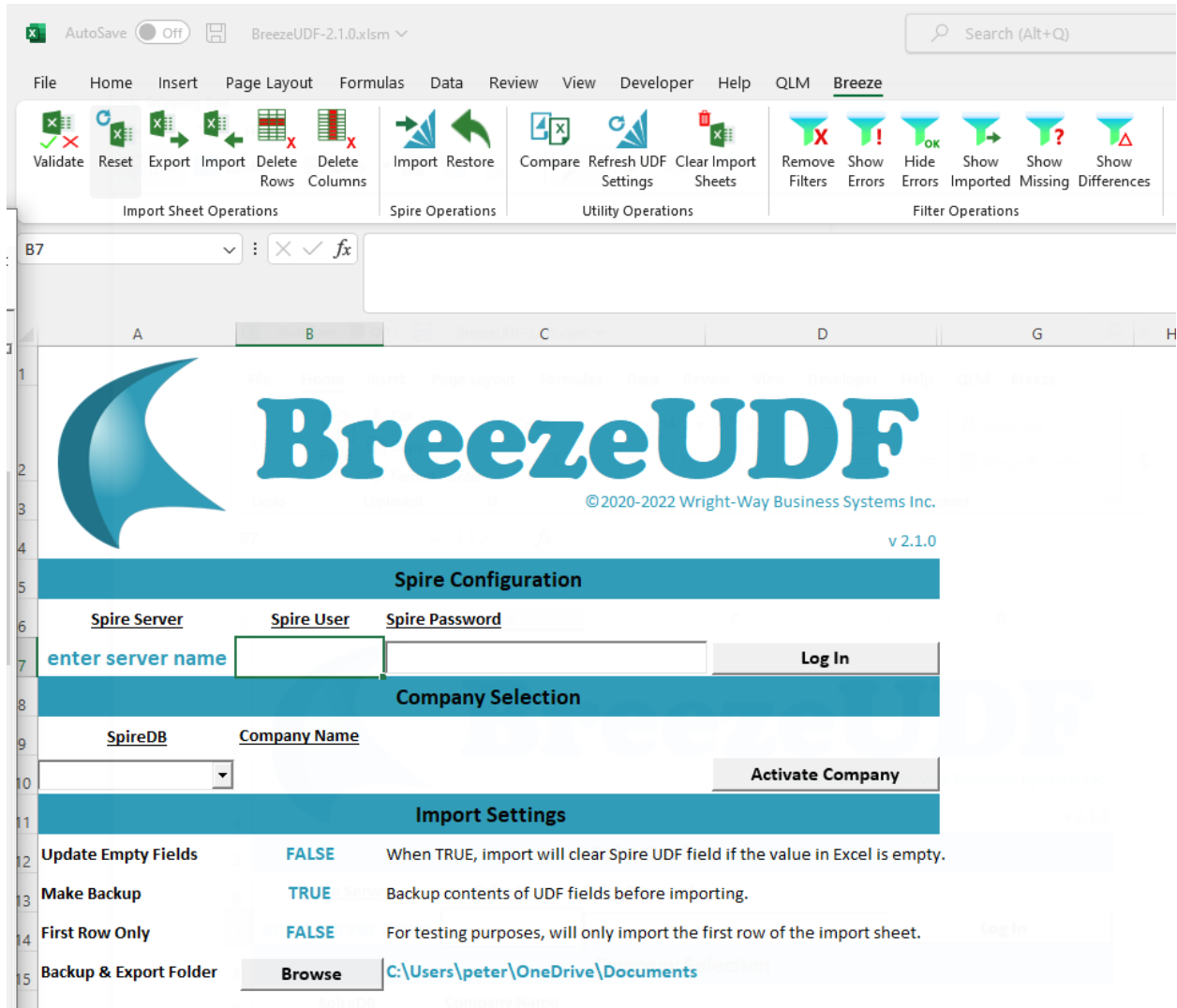
Note:

If the PC you are using IS a Spire server, but not the one you want to configure, temporarily stop the “Spire API Server” service on your local PC before running SpireAssists Configuration. You will be prompted to provide the remote server information. You can then restart this service after completing the configuration.

Running BreezeUDF

The BreezeUDF application is contained within an Excel XLSM workbook. The installation creates a “BreezeUDF” folder in your “My Documents” folder containing this workbook and this User’s Guide.

Open the spreadsheet BreezeUDF-x-y-z.XLSM (where x-y-z is the version of BreezeUDF).



You must first log into a Spire company that has previously been authorized using the “SpireAssists Configuration” program.

1. Enter the name of the Spire server to connect to. This will be stored if the workbook is saved.
2. Enter a Spire user ID (stored) and the associated Spire user password (not stored).
3. Click “Log In”.

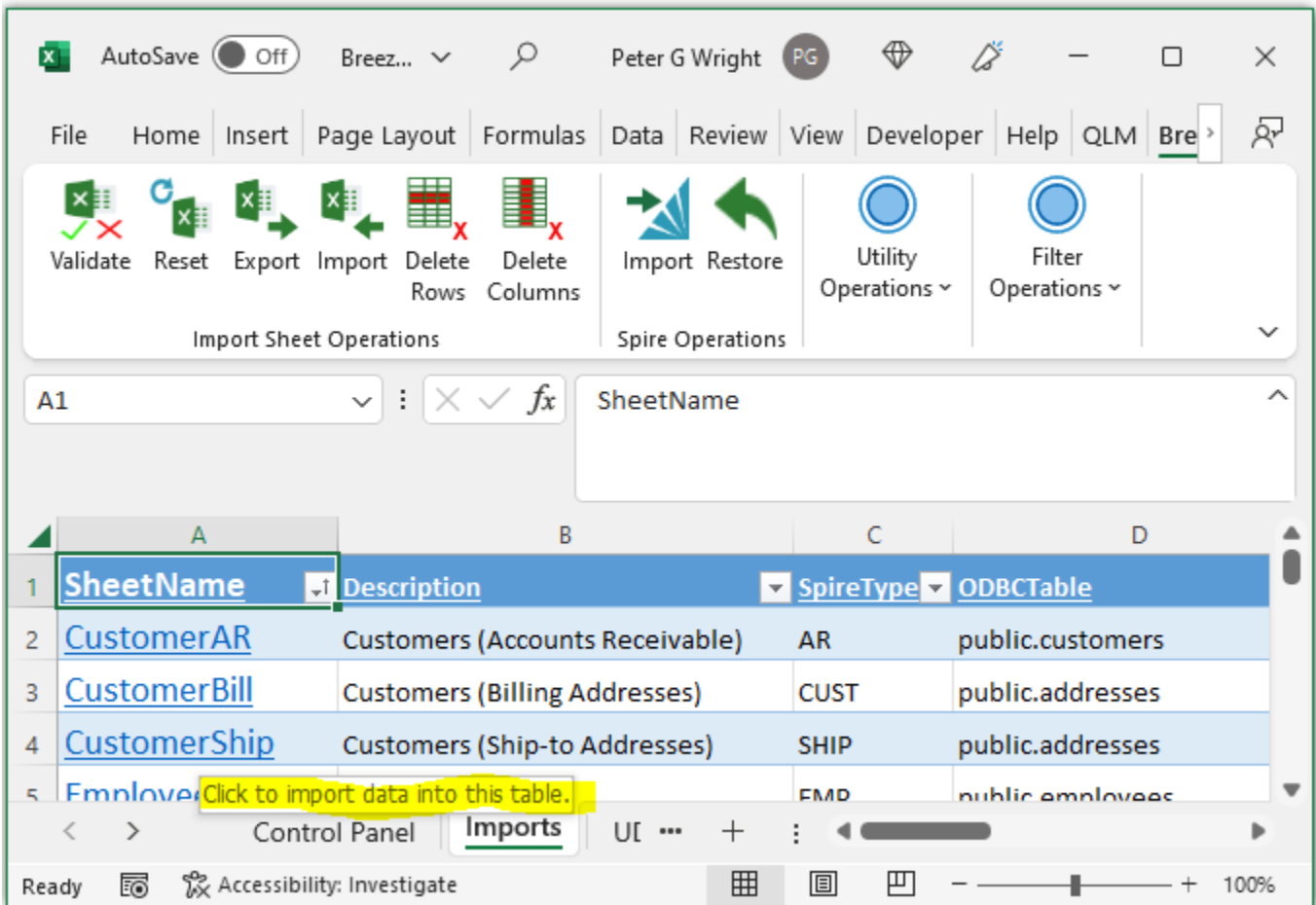
This will populate a list of authorized Spire companies on that server.

1. Use the “SpireDB” drop down to select the company you want to work with.
2. Click “Activate Company”.

BreezeUDF will now populate the two tabs “Imports” and “UDFFields”

Imports Tab

This is a list of all the modules where this Spire company has UDF fields configured. The first column “SheetName” contains a highlighted link. Clicking this link will initiate a new import session for that module. The rest of the information in this tab is primarily used by the application. Of note to the user are the Key1Name, Key2Name and Key3Name columns. These can be helpful when creating your import sheets as these columns must be specified for every record imported. You cannot modify this tab in BreezeUDF.



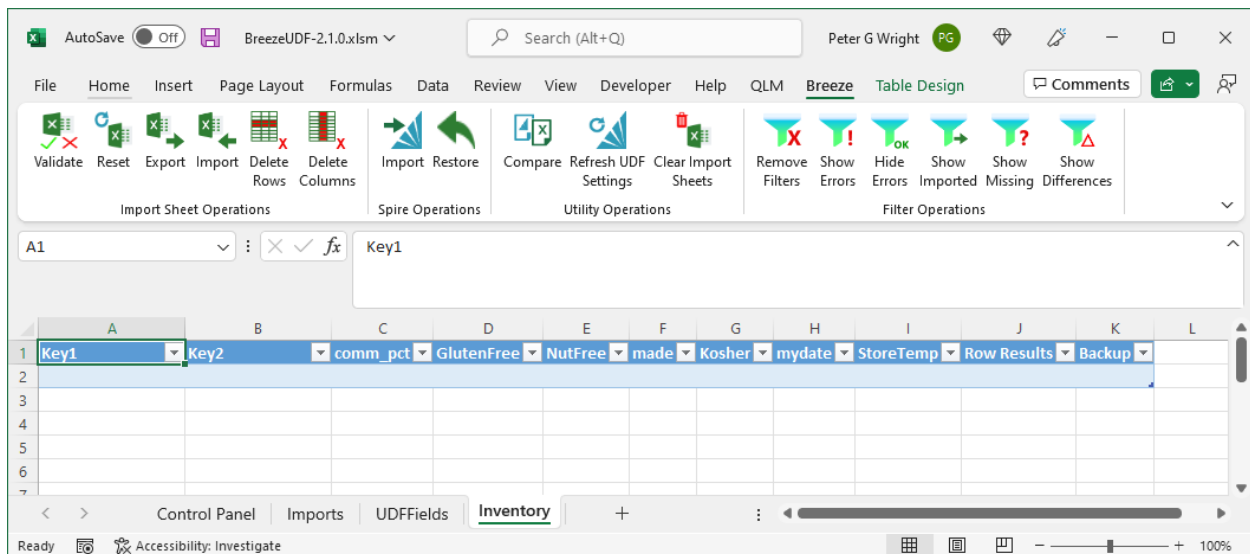
UDFFields Tab

This is a list of every UDF field, in every module, that is configured in this Spire company. The full configuration information is shown for all UDF fields, including the data type, validation rules etc. This information is configured using Spire and used by BreezeUDF, but the user may find it helpful to check things here without having to go to Spire. You cannot modify this tab in BreezeUDF.

If changes are made to Spire UDF settings after running BreezeUDF, you can refresh these two tabs by clicking the “Refresh UDF Settings” button in the Breeze ribbon.

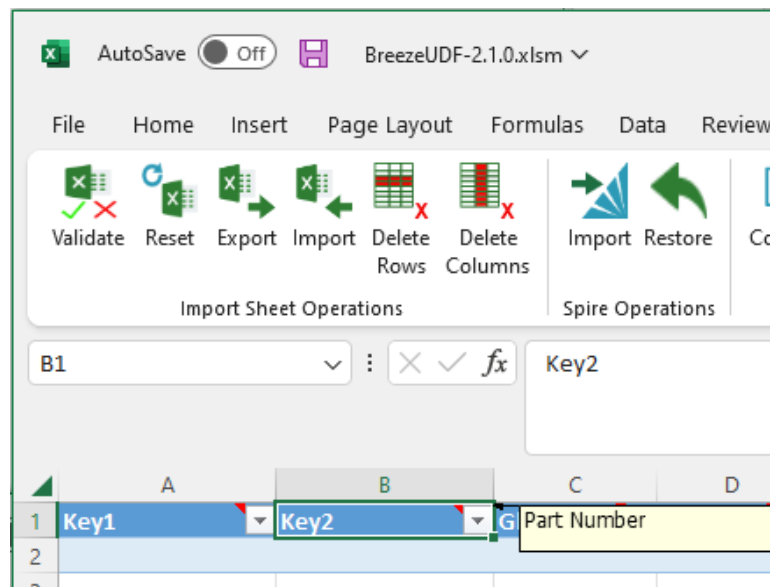
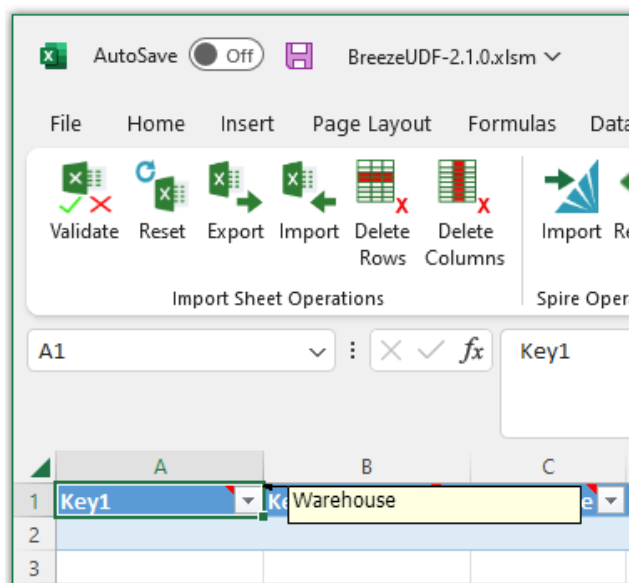
Creating an Import

To begin an import, go to the “Imports” tab and click a highlighted link for the module in the first column. This will create a new tab named after the module that was selected.



In this tab:

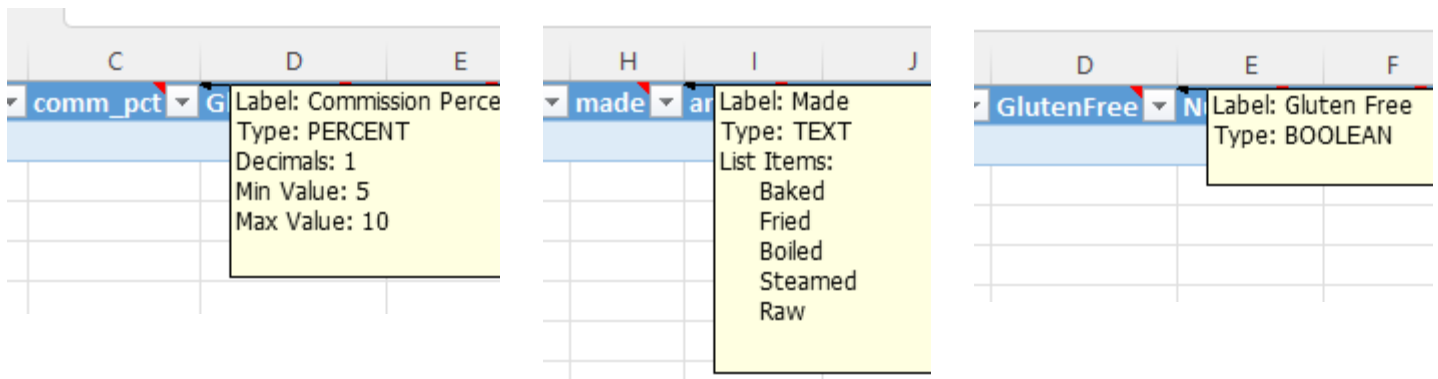
Key1, Key2, Key3 (when shown) are the required columns to uniquely identify a record in this module. You can hover your mouse over a Key column to show the field name in Spire.



You must always specify a value for every Key column for every import.

UDF field columns, in this case columns C to I, are the UDF fields configured in inventory. This is where you put the values you want to import. It is recommended that you remove any columns you do not want to import by highlighting the column(s) and clicking the button “Delete Columns” on the ribbon.

You can hover over the column heading to show details of each field.

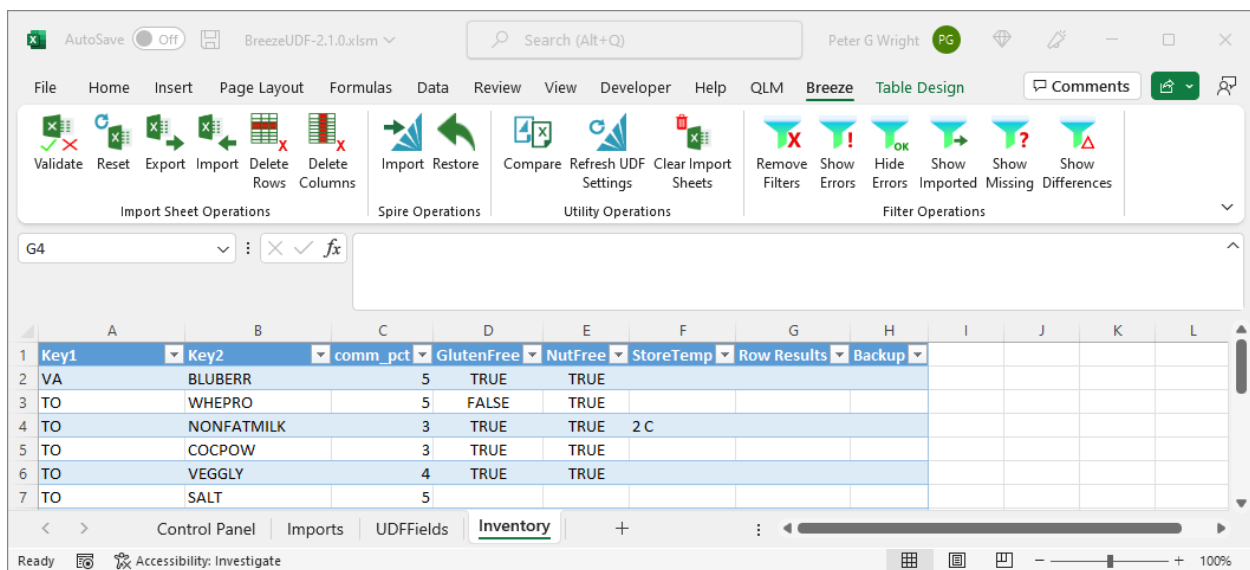


The "RowResults" column shows the results of an import, validation or restore procedure.

The "Backup" column shows the entire UDF contents backed up for each record when an import is completed.

Preparing the dataset for import

While entering UDF data directly into BreezeUDF is supported, it is recommended that the data set for importing is prepared outside of BreezeUDF where possible. BreezeUDF import sheets have some restrictions that can make normal Excel data manipulation difficult or impossible. But simple Excel entry, pasting, and manipulation within BreezeUDF is sometimes very practical and efficient.



Custom Filters

All columns on an import sheet support implementing your own filters. It is important to note that the Validate, Import and Restore functions are NOT limited by these filters. **These operations will process ALL records in the import sheet, not just the visible records.** The use of custom filters on the import sheets is purely for the convenience of reviewing the data prior to import.

Spire Data Types:

BreezeUDF uses the following rules concerning UDF data types. If BreezeUDF is unable to convert your Excel value to the Spire UDF definition, validation will fail.

Boolean

These are true/false fields in Spire represented as a check box. In BreezeUDF, you can import “Y”, “Yes”, “True”, TRUE, or any non-zero number to represent true. False can be imported as “N”, “No”, “False”, FALSE or 0. These values are case-insensitive. A blank will not be imported, unless “Update Empty Fields” is configured. In that case a blank will be considered FALSE.

Numeric, Currency, Integer

Must be an Excel number. Number will be rounded to the decimals specified in the Spire UDF configuration. A blank will not be imported, unless “Update Empty Fields” is configured. In that case a blank will be considered zero. It is recommended that you do **not** use numeric formatting for display purposes in Excel. BreezeUDF will always consider the actual value of a cell, just as Excel formulas do.

Percent

Percentage values should **not** be formatted as percent in Excel. As such, for 20%, the value should be 20, not 0.2.

Text, Memo

Any Excel value will be converted to a string. For multi-line text boxes, use keyboard Alt-Enter to insert a carriage return between lines. If the value is a number with a leading zero, use the ‘ (single quote or apostrophe) character in Excel to preserve the leading zero.

Date

A valid Excel date should be used. However even strings that Excel does not recognize as dates such as “September 1 1979” will normally get converted correctly.

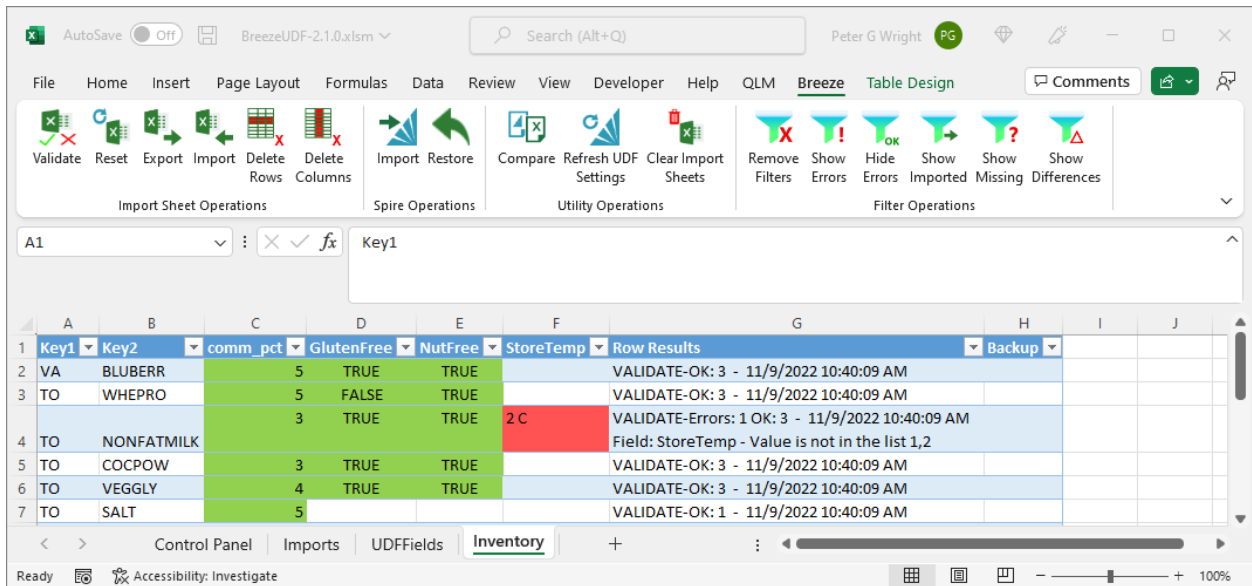
Importing

When the data is ready to import, it is highly recommended that you run a validation on the data before importing. While every import will always validate the data before importing, running the validate before-hand makes the whole process cleaner, especially if you want to later restore the data after importing.

Validation



Validating the data is done by clicking the “Validate” button on the Breeze ribbon.



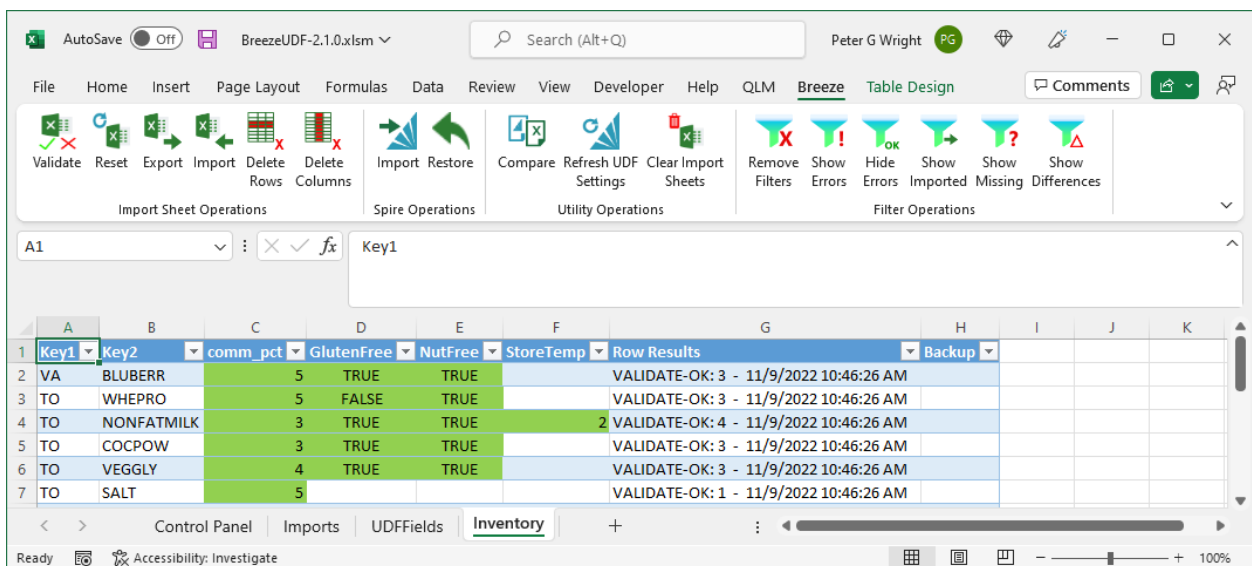
The results of the validation are color coded:

- Green: field passed validation
- Red: field failed validation
- White: field was not validated, as it will not be imported

A reason why each field failed validation is shown in the “Row Results” column.

In this example, BreezeUDF has been configured NOT to import data if a cell is empty. This is a safe option and will prevent you wiping out data that already exists. If you truly want to erase existing data, you need to configure BreezeUDF to “Update Empty Fields” on the main “Control Panel” tab.

You can now fix any validation errors and re-run the validation:



BreezeUDF will import a sheet even if validation errors exist. It will simply only import the values highlighted in green and ignore red or white cells. Although not required, it is good practice to clean up your import sheet as much as possible by:

1. Deleting entire rows you decide not to import.

2. Modifying or deleting the data in red cells so they are not imported.

It is far better to run a single import that is 100% correct than to take several goes at it. This will become clear when considering using a backup to restore a previous import.

To help find and fix any errors in the import sheet, BreezeUDF can filter the results of the validation using buttons in the “Filter Operations” section of the ribbon. Useful operations here are “Show Errors”, “Hide Errors”, and “Remove Filters”.

Validation: **Currently not all validation types supported by Spire UDF fields are implemented in BreezeUDF.** The following validation types are not yet supported:

1. Date validation
2. Text Mask validation eg: (###) ###-####

Importing



Importing the sheet is done using the “Import” button in the “Spire Operations” section of the Breeze ribbon.

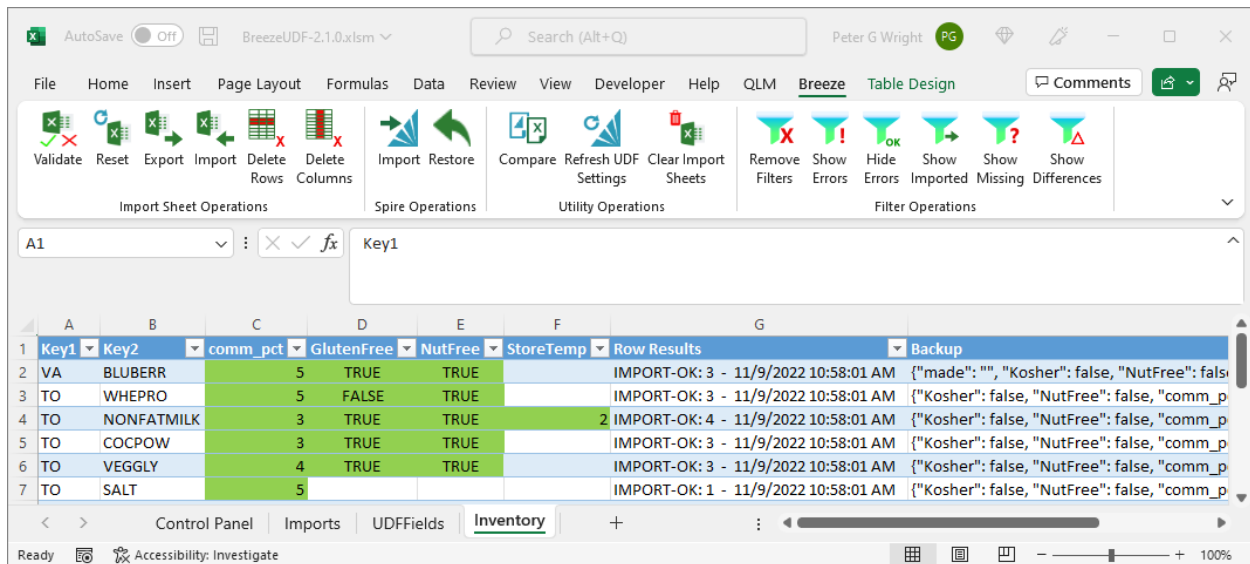
Importing automatically makes a pre-import backup – unless the “Make Backup” option is set to FALSE on the “Control Panel” tab.

There are two types of backups made:

1. The “Backup” column in the import sheet is updated with the values of the UDF fields before the import.
Only columns present will be backed up. If you remove columns as they will not be imported, they will not be backed up.
2. The entire current import sheet, with backup column, is permanently saved to your “BreezeBackup” folder.

The default location of the automatic backups is shown on the main “Control Panel” sheet.

After importing this example, we can see the results:



Restoring UDF Data



Restore

The simplest way to restore UDF data is to run it immediately after import. Simply click the “Restore” button in the “Spire Operations” group on the Breeze ribbon. For this reason, it is advised that you review the data in Spire immediately after your first few imports of a certain type, or if there are any concerns about the import process. Creating a filter in Spire, showing just the UDF fields, then sorting on columns, filtering etc, can help here.

If you need to restore the UDF data from a previous import after closing BreezeUDF, you can do so by importing the backup sheet that is made automatically before every import.

To restore a previous backup:

1. Click the “Import” button in the “Import Sheet Operations” group on the Breeze ribbon.
2. Location the backup file in the BreezeBackup folder.
3. Click the “Restore” button in the “Spire Operations” group on the Breeze ribbon.

It should be noted that backups always include ALL UDF fields in the module, for the records included, regardless of which fields were actually imported. But a restore will only restore the data from the columns that are included in the sheet being restored. This allows a partial or selective restore.

Selective Restore Options

It should be noted that the restore function will only restore UDF fields that are currently showing in the sheet. If the original import had a column removed, restoring that same sheet will only restore the columns that were imported.

This allows you to restore only some of the columns from the backup. For example, if you did an import of 3 fields, A, B and C and sometime later, you want to restore only the values from column A. You can import the backup sheet, remove columns B and C, then run the restore. Columns B and C will not be restored.

Likewise, you can also restore data that was not actually imported at the time. Let's say your original import only imported column A. But since all columns are always backed up, the backup does contain the data from columns B and C. Simply insert blank columns into the backup sheet, change the column title to exactly match the UDF column you want to restore, then run the restore.

You can refer to the "UDFFields" tab in the "field_name" column to ensure you are using the correct name.

Compare Sheet



Compare

Sometimes before an import, or after, you may want to compare the data in your current import sheet to the actual values in Spire. This is done with the "Compare" button in the "Spire Operations" group on the Breeze ribbon. The Compare function will open another Excel window beside your import sheet window that contains the actual values from Spire for the same records and fields.

These values are color coded as follows:

- Green: value in the import sheet matches the value in Spire, or the value that would be in Spire if this sheet is imported (eg: "Y" in the import sheet and "TRUE" in Spire are a match)
- Yellow: value in the import sheet does not match the value currently in Spire.
- White: the value was not tested as it would not have been imported (import value is blank and "Update Empty Fields" is configured as False)

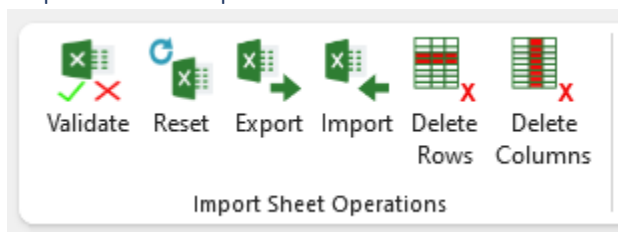
There is a "Show Difference" button in the "Filter Operation" group in the Breeze ribbon to show only rows that have a difference.

It is recommended that you close the comparison window when you have finished with it. The main imports tab will then expand to its original position.

Breeze Ribbon

The Breeze ribbon is divided into 4 sections.

Import Sheet Operations

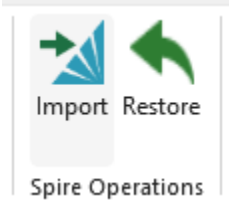


These operations apply to Import Sheets.

Validate: Validates every column on every row in the current sheet to ensure the data is suitable for importing.

- Reset: Discards the current sheet and creates a new, blank one with all columns present.
- Export: Exports the current sheet to a file you specify.
- Import: Imports a previously exported sheet you specify.
- Delete Rows: Deletes the currently selected row(s).
- Delete Columns: Deletes the currently selected column(s).

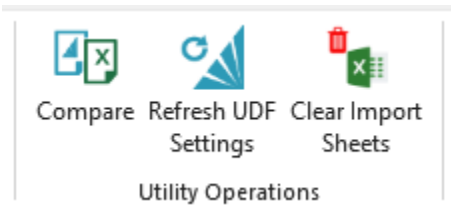
Spire Operations



These operations will interact with Spire data.

- Import: Import all columns for all the records in the current sheet into Spire **including records not visible due to a filter.**
- Restore: Import the "Backup" column into Spire **but only for the columns currently contained in the import sheet.**

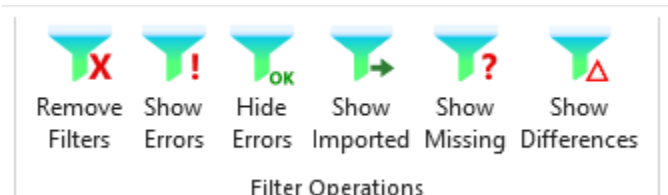
Utility Operations



These are general utilities.

- Compare: Opens a new workbook with the current data from Spire for comparison to the current import sheet.
- Refresh UDF Settings: Re-reads the Spire UDF settings with any changes. Useful if you have just modified a Spire UDF field. Does not reflect changes in existing import sheets.
- Clear Import Sheets: Discards all import sheets.

Filter Operations



- Remove Filters: Remove all filters on the current import sheet.

- Show Errors: Filter to show only rows that failed validation.
- Hide Errors: Filter to show only rows that passed validation.
- Show Imported: Filter to show only the rows where some or all data was imported.
- Show Missing: Filter to show rows where a corresponding record in Spire could not be found.
- Show Differences: Filter a Compare sheet to show only rows where Spire data differs from the Import sheet.

