Tutorial - WebStamp2Excel

This tool is designed to create a collection in Excel from websites that do not offer this option, and optionally to retrieve stamp images to build your albums.

The advantage of maintaining a collection in an Excel file, besides its evaluation, is its independence from proprietary databases and its portability; it can be viewed on all spreadsheet software.

The software integrates assistance in the form of a central text field and information bubbles when hovering over fields.

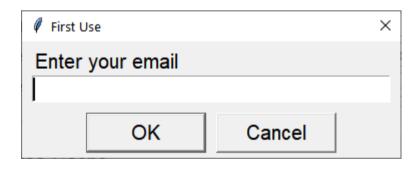
The generated Excel files are editable; if columns are deleted, as long as the column titles are preserved, they will remain compatible with this software.

This software is a Python program, and the executable is provided for PC; it will be possible to produce it for MAC.

The provided executable is "safe"; it has been checked by antivirus software, it does not write to the disk under its installation tree, and it of course requires access to the Internet. It is signed with a self-signed certificate, however, it may generate a warning for restrictive antivirus programs that only allow published certificates; in this case, simply bypass the warning to use it.

Startup Screen

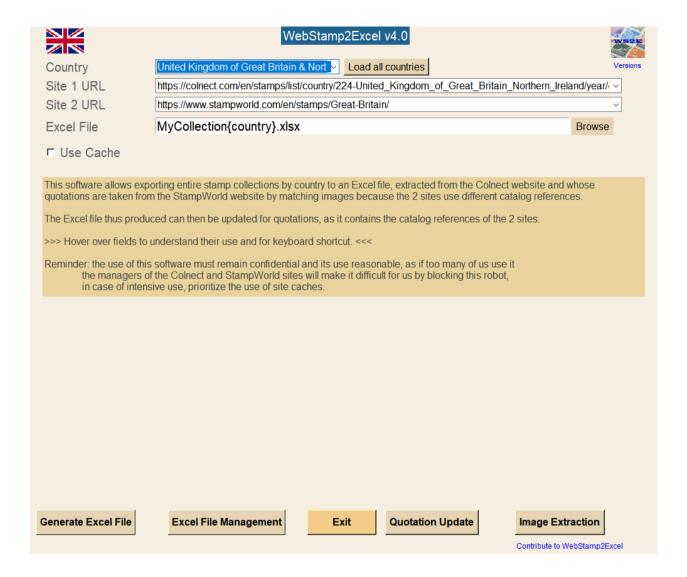
An email will be requested upon the first startup, it will only be used to register you to keep you informed of product updates, and it will not be requested again afterwards.



If you already have a previous version, you will receive a warning at startup:



Main screen



To load a new version, click on the blue link "Versions" to go to the download page where you will find the version history and a contact link. If you know of any websites or have ideas that would enhance this software, please feel free to communicate them through the contact link.

Download webpage

WebStamp2Excel



manage your stamp collections in Excel files

Download the latest version V 3.3

Access the Tutorial

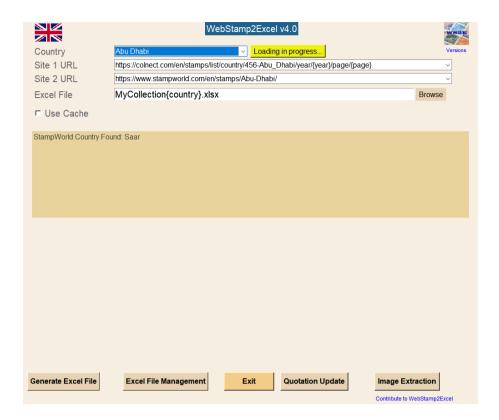
Send an email to webstamp2excel@free.fr to report errors or suggest improvements

History

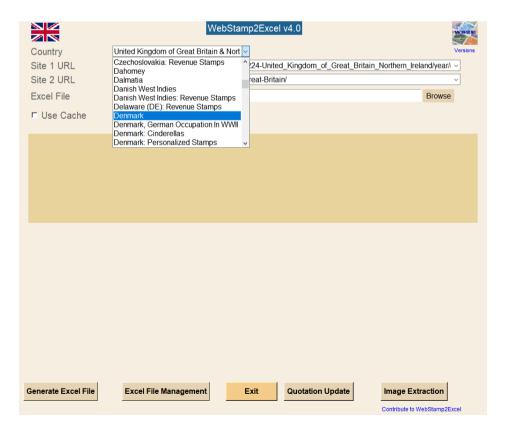
· V3.3 # installation on an old directory possible without affecting the data # no more Zip, standardized installation, default directory on C:\WS2E # Excel file management, filter improvement · <u>V3.2</u> # added a convenient filter on Type in Excel file management V3.1 # Version link fix on Web page # fix on French quotation in market value which was not working anymore · <u>V3.0</u> # digitally signed executable since 5/09/2023 # version control and access to the download page # added Menu for managing the Mancoliste # added "Market Value" option for French collection, no image matching in this case # reduced window height # improved country loading # improved window movement # simplified input, pages removed · V2.3

000382 Visits

fix to complete the list of countries # added Menu for editing the Excel file To start, if you collect stamps from countries other than France, load the list of countries.



Dropdown list of countries: country names are also accessible by typing the first 3 letters of the country when in the [Country] field.



Once loaded, it will be stored in memory in the "config.ini" file along with most common options.

Now, we can proceed to generate Excel files.

<u>In any case, it is recommended to create a cache of the websites</u> on your machine to avoid saturating the used sites with repeated requests, which may render these sites inaccessible.

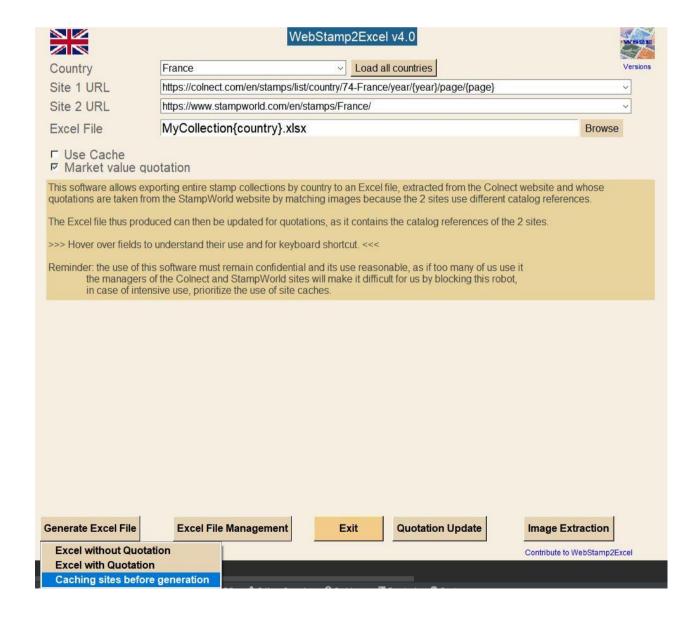
The caches are organized by site and country. If you want to build a collection from a particular country, create its cache by specifying a year interval that completely covers your collection.

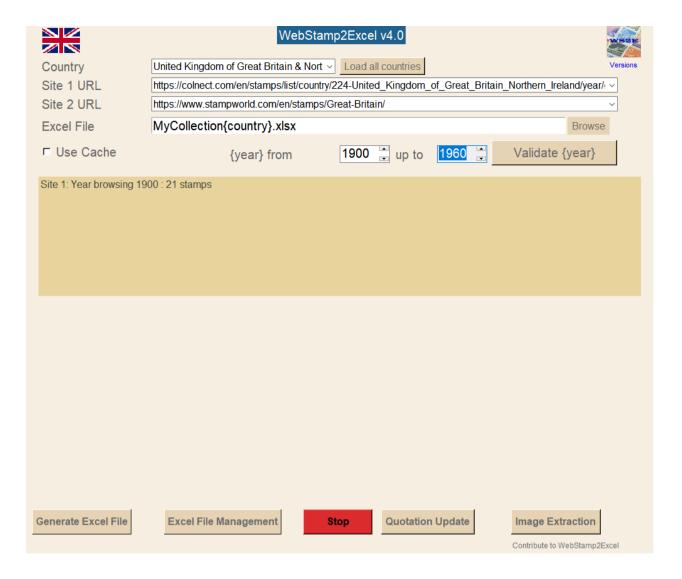
Subsequently, you can generate your Excel files at your leisure without needing to connect, allowing for quick generation and easier adjustment of parameters according to the final output.

Furthermore, if you wish to use the images to build your own albums, you won't need to go through the image extraction process, as you will find them all in the "**cache**" directory.

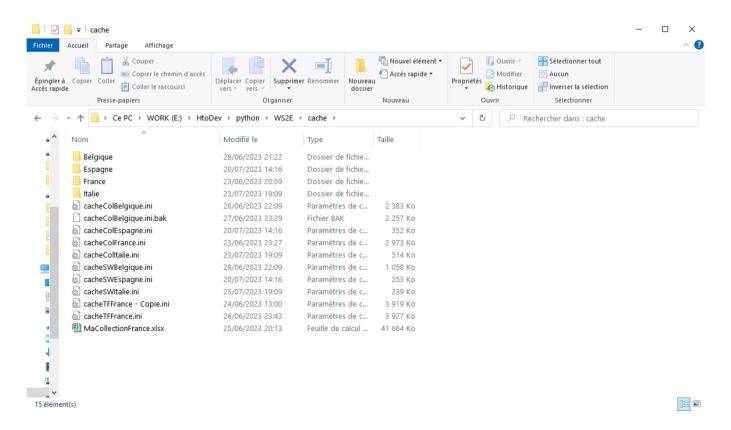
Caching a country:

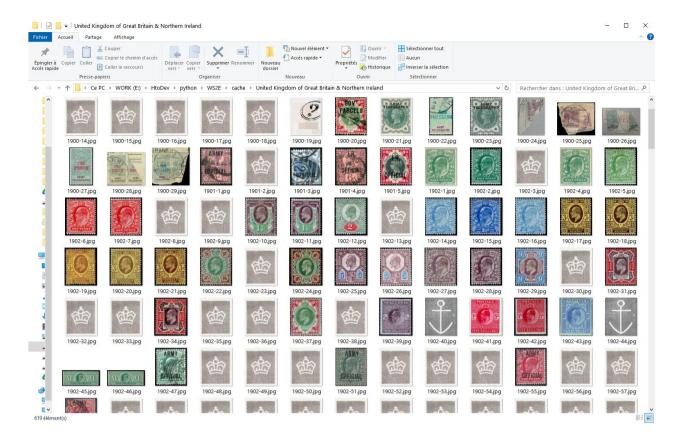
Select [Generate Excel File], then [Cache sites before generation], choose your year interval, and then [Validate {year}].



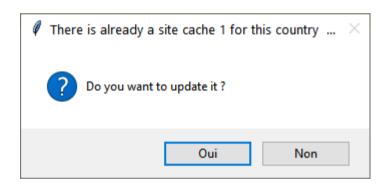


Preview of the cache directory





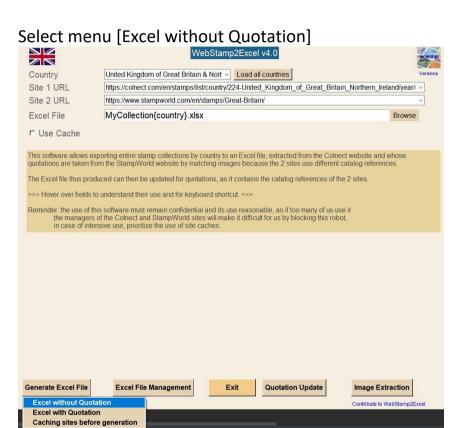
Note that <u>the cache is scalable</u>; if you regenerate it, a dialog box will prompt you to evolve it instead of overwriting it, in case you want to add years.



Generating an Excel file without quotation from the cache

The generation process is the same without using the cache; the only difference will be the speed of generation, which will be slower!

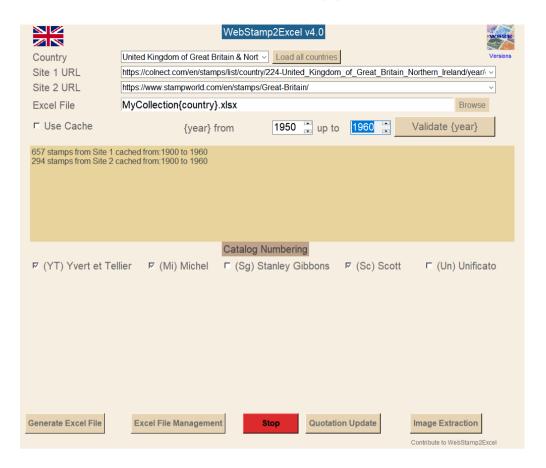
Generation occurs by year intervals, but you can revisit the same Excel file; in this case, a window will prompt you to overwrite the old file or enrich it with a new interval. In this case, the Excel file will remain sortable in Excel in case the chronological order of the years is not respected.



Validation of the years to be produced, then [Validate {year}].



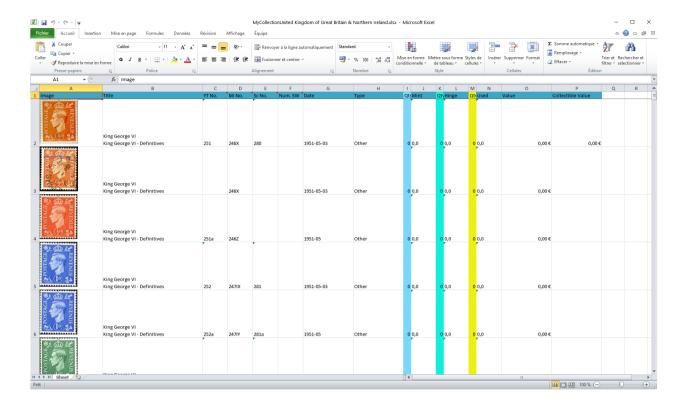
The process remains interruptible during generation by [Stop].



At the end of the generation, you will be informed in the central field.



Generated Excel File



Calculation formulas for the collection value are integrated into the Excel file; simply enter the quantity (Qty) owned for each condition (Mint/Hinged/Used).

Modifying the Excel file

Select [Excel File Management], then [Edit Excel File].



Screen for Excel File Modification after Loading



You can navigate through the collection using the <u>scroll bar, mouse wheel, page up/down</u> arrows, or by searching for a field.

All fields are editable during navigation while preserving focus on the current field; saving occurs at the end of input.

After each modification of the file, a dated copy of the previous file is generated in the following format: MyCollectionItaly_copyOf20230727_19h28m29.xlsx

Checkbox "Protected Valuations":

If this box is checked, the valuations for this stamp cannot be updated by the "Update Valuation" button, but they can still be manually modified. Hovering over the cell in the Excel file will display: Protected Valuations.

Checkbox "Manually Delete in Excel":

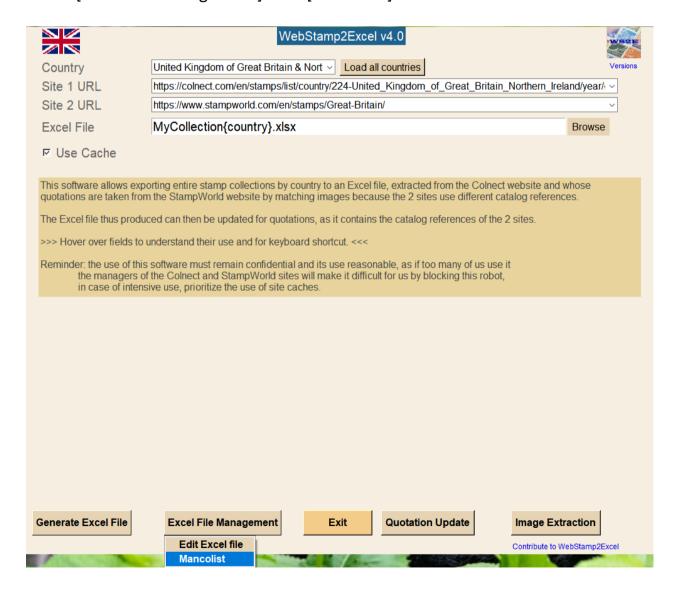
If this box is checked, the stamp will be marked for deletion by highlighting the corresponding Excel rows in red. Deletion is not performed in the software because the Python library used does not allow automatic updating of formulas associated with cells; therefore, you will need to delete these rows in your spreadsheet.

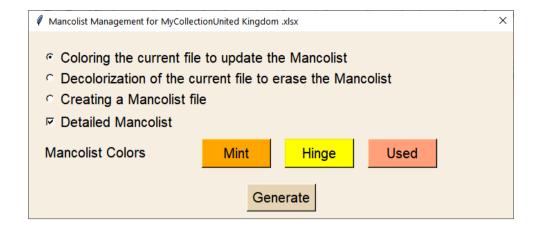
Generation of the Mancolist (Wantlist)

The Mancolist allows you to establish a list of missing stamps in a collection. Two methods are proposed:

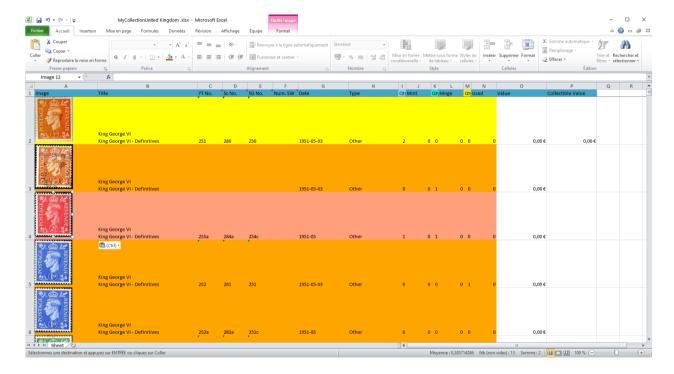
- => <u>Mark with a specific color the missing stamps</u> in the current Excel file according to their condition (Mint/Hinged/Used) if [Detailed Mancolist] is checked, or simply mark missing stamps with a color regardless of their condition if unchecked. In this case, it will be possible to remove the Mancolist markings by decolorizing the Excel file.
- => <u>Create a Mancolist Excel file</u> with only the missing stamps marked with a specific color according to their condition (Mint/Hinged/Used) if [Detailed <u>Mancolist</u>] is checked. If [Detailed <u>Mancolist</u>] is unchecked, the <u>Mancolist</u> Excel file will include the missing stamps without colorization. Note that creating the <u>Mancolist</u> file takes longer than coloring the file.

Select [Excel File Management] then [Mancolist].

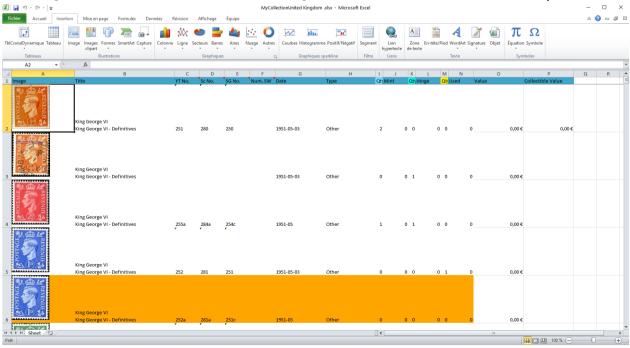




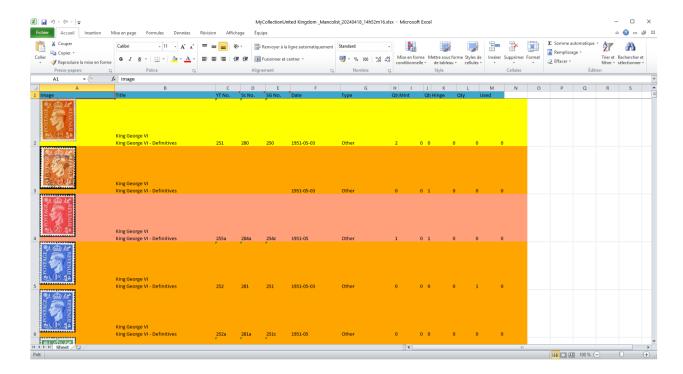
Result [Colorization of the current file...] with Detailed Mancoliste Option



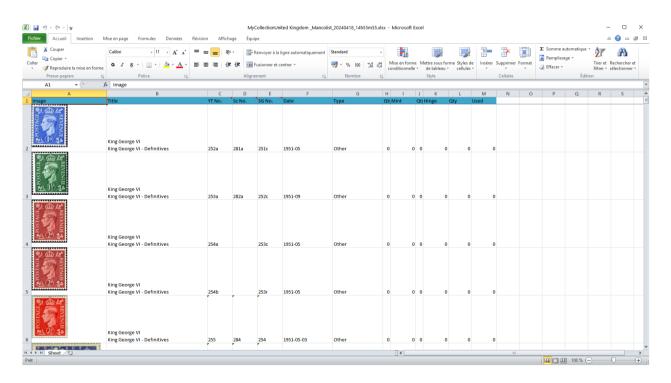
Result [Colorization of the current file...] without Detailed Mancoliste Option



Result [Creation of a Mancoliste file] with Detailed Mancoliste Option



Result [Creation of a Mancoliste file] without Detailed Mancoliste Option



Excel File Generation on the Side

The generation is done by year interval, but you can return to the same Excel file. In this case, a window will prompt you to either overwrite the old file or enrich it with a new interval. In this case, the Excel file will remain sortable under Excel in case the chronological order of the years is not respected.

⇒ For France

Generating a file on the side for France does not require image recognition if the "Market Value" option (default for France) is checked. However, if you uncheck this option, you will opt for a StampWorld catalogue value, and you will need to follow the same procedure as for other countries.

⇒ For countries other than France

This is where things get a little complicated, but it's also somewhat unique to this software because to find a catalogue value on the StampWorld site, you'll need to use image recognition. This site only references stamps by a numbering system unique to it.

3 validation methods for stamps are proposed:

- ⇒ **For the diligent**: manual validation offers you a screen that allows you to visually validate the link between 2 stamps on each site. This screen facilitates your task with keyboard shortcuts, but it requires a bit of patience.
- For the pragmatic: interactive validation is the most recommended method. It suggests using image recognition, but in a restrictive manner when the thresholds set for each image recognition algorithm are not met.
 - Only stamps that fall below these thresholds will be offered for manual validation, which limits the number of manual interventions.
 - Moreover, this input will attempt to propose the stamp with the best similarity as a first option to shorten this phase.
- For the daring: validation can be done completely automatically, but you will need to adjust the image recognition criteria for each country with insight, or risk recognition errors.
 - In this case, the resulting Excel file will help you adjust your settings as it includes a column for close images and a criterion column that specifies the criteria for image matching that validated the image matching.

Image Matching Guide

Automatic image matching relies on 3 algorithms configurable by threshold, which can be combined into one condition.

A list of conditions can be established by country, accessed via the [Image Matching Criteria] button.

For each Colnect stamp to be compared, the list of conditions is compared to a batch of StampWorld stamps whose size varies according to [StampWorld Batch Interval...] and according to the [StampWorld Batch Selection Condition].

The list is traversed sequentially, and as soon as a condition is met, the matching is validated. However, if none are met, the image is not matched, and this stamp will not have a valuation except through manual validation.

A condition is considered met when the comparison thresholds of the selected algorithms are all reached.

Selection condition for the StampWorld lot to compare

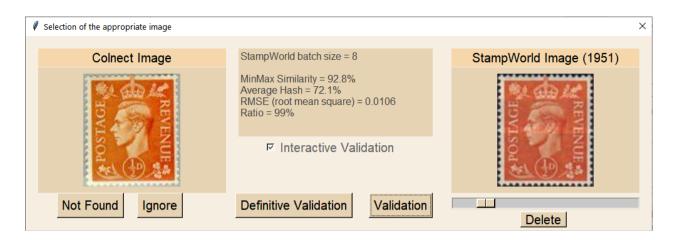
Interval of StampWorld batch relative t	o a year	0 40 4	
☐ Manual Validation Image Ma	tching Criteria		
☐ Ignore uncatalogued ☐ Allow	v duplicates ☑ Intera	active Validation	ons
Selection condition of the StampWorld batch to compare			
Minimum MinMax Similarity %		70	
Minimum Hash Similarity in %		40	
Maximum Root Mean Square Error		0.02	
Minimum Image Ratio in %		70	

Stamp comparisons are made by year batches for a specific Colnect stamp year. The entire StampWorld stamp batch for the corresponding year is compared, enriched by the potential [StampWorld batch interval...].

If the [Validation without Condition] option is checked, the StampWorld lot to compare will be complete.

If the [Validation without Condition] option is not checked, the StampWorld lot to compare will be restricted to the threshold set for each comparison criterion. The more restrictive these criteria are, the smaller the lot will be, which will improve processing speed. However, there will be a higher risk of missing an association if the criteria are too restrictive. The default values aim to be broad enough to simply eliminate stamps with no similarity.

Interactive Validation Screen



At this stage, you can visually validate the equivalence of a stamp between the 2 sites. Navigation within the batch is done through the scrollbar, arrows, or mouse wheel. The underlined letters in the buttons are their shortcuts.

[Validate]: the equivalence is retained

[Final Validation]: the equivalence is retained and the stamp is removed from the batch

[Delete]: the equivalence is not retained **and** the stamp is removed from the batch

[Ignore]: this stamp will not be in the collection

[Not Found]: This stamp is retained in the collection without equivalence and therefore without valuation

[Interactive Validation]: Interactive validation can be interrupted after data entry if the checkbox is unchecked.

If this window is closed by X in the upper right corner, the generation can be interrupted.

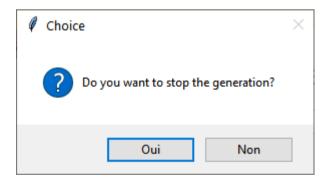


Image Similarity Algorithms

Image similarity algorithms (MinMax, Hash, Rmse) have been chosen based on a compromise related to their processing speed, typically on the order of hundredths of a second for a comparison. By combining them judiciously, we achieve a satisfactory recognition rate but not excluding manual validation.

More discriminating algorithms do exist but are costly in terms of processing time; some take over a minute for a comparison!

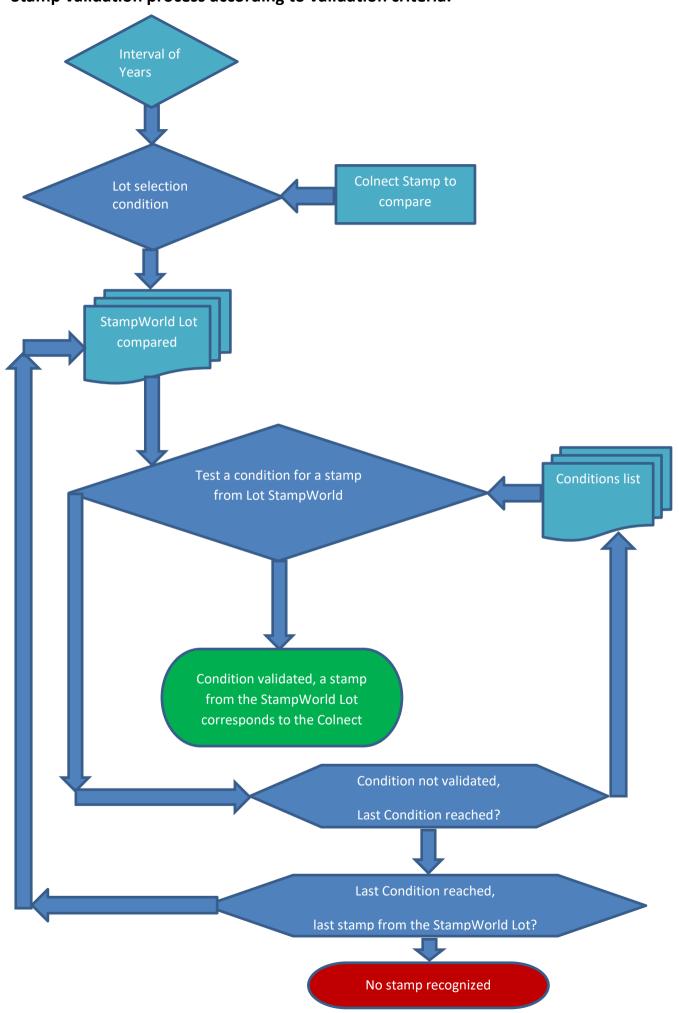
The MinMax similarity is 100% when the images are identical; it is relatively reliable from 92%. At 0%, this similarity will not be tested!

Hash similarity is 100% when the images are identical; it is relatively reliable from 60%. At 0%, this similarity will not be tested!

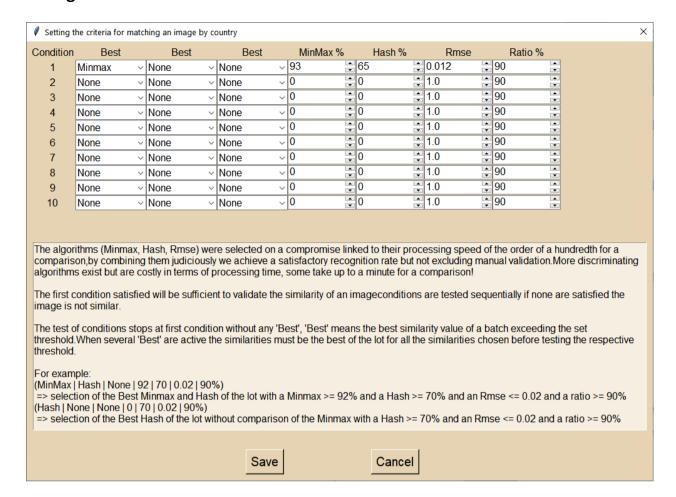
Rmse similarity gives a rate of differences between images. Be careful, the threshold is inverted! It is 0 for identical images and relatively reliable below 0.015. At 1, this similarity will not be tested!

The Ratio is not a criterion for image recognition but a selective criterion that allows the elimination of stamps that do not have the same proportions. It is 100% for stamps of the same proportion. However, one must always accept a margin because the images from the two sites are different for the same stamp, and also because in some countries, the stamp has an attached TAB that radically changes its proportion!

Stamp validation process according to validation criteria.



Configuration screen for the list of conditions



Example of conditions:

(MinMax | Hash | None | 92 | 70 | 0.02 | 90%):

This condition is satisfied if the stamp from the StampWorld lot has: the best Minmax and Best Hash of the lot with Minmax >= 92% and Hash >= 70% and Rmse <= 0.02 and a ratio >= 90%

(Hash | None | None | 0 | 70 | 0.02 | 90%):

This condition is satisfied if the stamp from the StampWorld lot has: the best Hash of the lot with

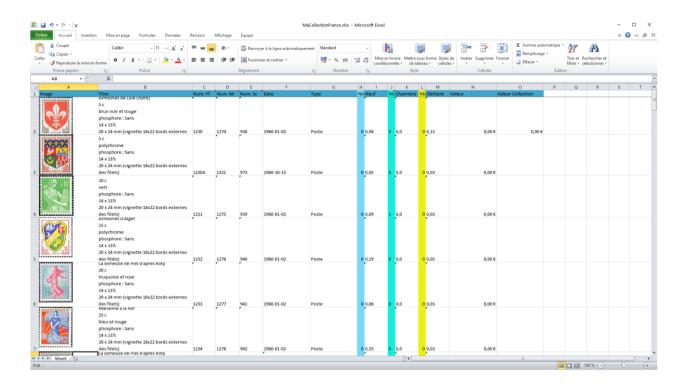
Hash >= 70% and Rmse <= 0.02 and a ratio >= 90%

!!! Note no comparison of Minmax because it is 0!!!

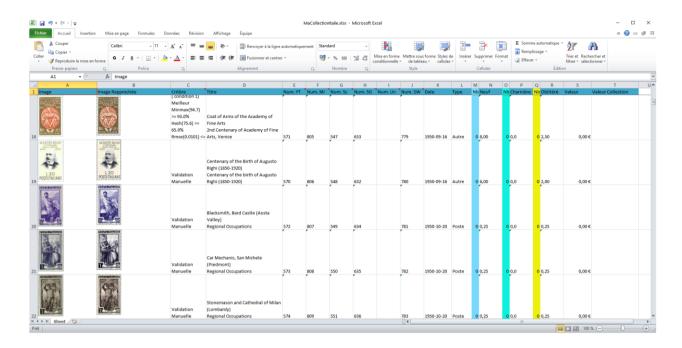
(None | None | None | - | - | - | -):

This condition marks the end of the list of conditions

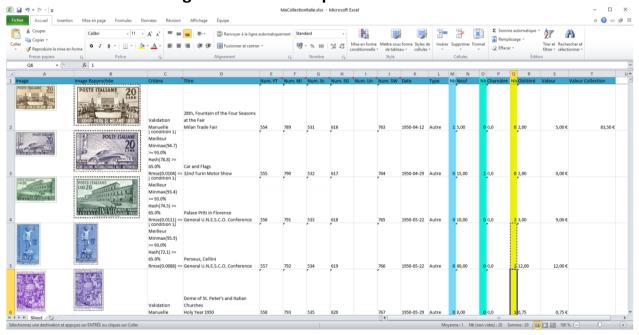
Generation of an Excel File for France



Generation of an Excel File for Italy



The same after entering the owned stamps



Update of valuations

Updating valuations allows updating valuations in an Excel file already generated with valuations. After each modification of the file, a dated copy of the previous file is generated.

The "protected valuations" by the modification of the file will not be changed.

Image extraction

Extraction only of stamp images from the respective 2 sites per country into the directories imgColnect and imgStampWorld according to the specified year interval.

Extractions are cumulative as indexing is done by year.

