

Using `gnverify` on MS Windows 10

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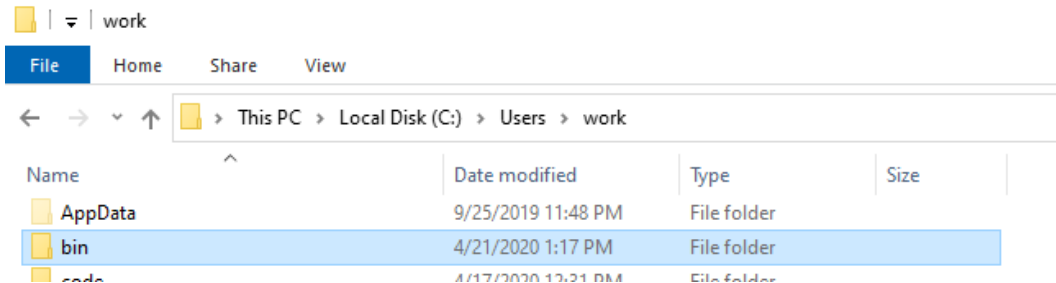
Installation

1. Go to <https://github.com/gnames/gnverify/releases/latest> and download zip file for windows (it will have a version higher than on the picture).

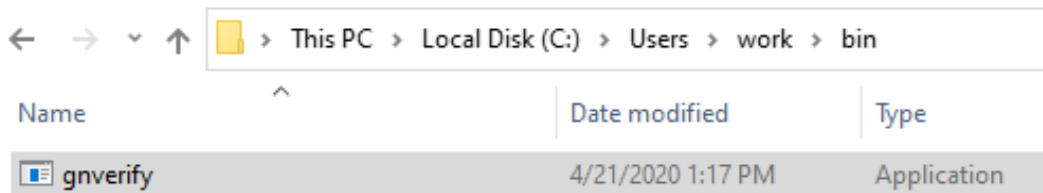
This zip file contains just one compressed executable file.



2. Create a folder called `bin` in your home folder (This is the folder with Downloads, Pictures, Desktop folders).



3. Unzip `gnverify.exe` file from the zip and place it into the `bin` folder.

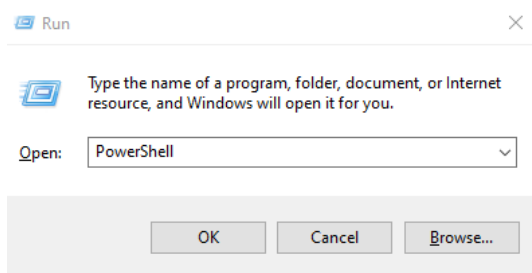


4. Create `data` folder in your home folder.
5. Open your data in Excel or Word and save scientific names, one per line or per row in a text file or tab-separated (TSV) file. Place this file into `data` folder. In our example, we will call the file `my-checklist.tsv`.

- Note the position of the field that contains name-strings to verify. If you have it as the first/only field, no action is needed, but if it is the second, or the third etc. field in your tab-separated value, remember the number of the field. You will need to enter it for the `name_field` option.

Usage

- Push `Win+R` buttons on your keyboard to get a command prompt. Type there “PowerShell” and press `Enter` [Fig 4].



- You will see the PowerShell terminal window. Type the following commands:

```
cd ~\bin
gnverify "Plantago major"
```

After a short delay, you should see a result printed on the screen as a comma-separated value output. For the next step, we will read data from a file and save the resulting output into a new file.

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/powershell

PS C:\Users\work> cd ~\bin
PS C:\Users\work\bin> gnverify "Plantago major"
Kind,MatchType,SuppliedId,ScientificName,MatchedName,MatchedCanonical,TaxonId,CurrentName,EditDistance,DataSourceId,Data
aSourceTitle,ClassificationPath
BestMatch,Exact,,Plantago major,Plantago major,Elliott,Plantago major,53918411,Plantago rugelii Decne.,0,1,Catalogue of
Life,Plantae|Tracheophyta|Magnoliopsida|Lamiales|Plantaginaceae|Plantago|Plantago rugelii
PS C:\Users\work\bin>
PS C:\Users\work\bin>
PS C:\Users\work\bin> gnverify ..\data\my-checklist.tsv -s 1 -p > ..\data\my-checklist-col.csv
PS C:\Users\work\bin>
PS C:\Users\work\bin>
```

- To map data from your checklist to, for example, Catalogue of Life data, type:

```
gnverify ..\data\my-checklist.tsv -s 1 -p > ..\data\my-checklist-col-map.csv
```

This command will verify your names against data in Catalogue of Life and send resulting output to a new file. Now this file can be opened in Excel or Google Doc.

If the name-string field, often labelled as `ScientificName` is not the first/only field in your data file, you have to enter the the number for that field using `-name_field` option. For example, if you have `ScientificName` as the third field in your file, enter:

```
gnverify ..\data\my-checklist.tsv -n 3 -s 1 -p > ..\data\my-checklist-col-map.csv
```

or

```
gnverify ..\data\my-checklist.tsv --name_field=3 --sources=1
--preferred_only > ..\data\my-checklist-col-map.csv
```

- To learn more about options of `gnverify` type

```
gnverify --help
```

```
Windows PowerShell
PS C:\Users\work\bin> gnverify --help
gnverify 0.2.1
Verifies scientific names agains many sources.

USAGE:
  gnverify.exe [FLAGS] [OPTIONS] [INPUT]

FLAGS:
  -h, --help           Prints help information
  -p, --preferred_only Ignores best match, returns only preferred results (if any).
  -V, --version        Prints version information

OPTIONS:
  -f, --format <format> Format of the output: "compact", "pretty", "csv".
                        compact: compact JSON,
                        pretty: pretty JSON,
                        csv: CSV (DEFAULT)
  -s, --sources <sources> IDs of important data-sources to verify against (ex "1,11").
                        If sources are set and there are matches to their data,
                        such matches are returned in "preferred_result" results.
                        To find IDs refer to "https://resolver.globalnames.org/resources".
                        1 - Catalogue of Life
                        3 - ITIS
                        4 - NCBI
                        9 - WORMS
                        11 - GBIF
                        12 - Encyclopedia of Life
                        167 - IPNI
                        170 - Arctos
                        172 - PaleoBiodB
                        181 - IRMNG

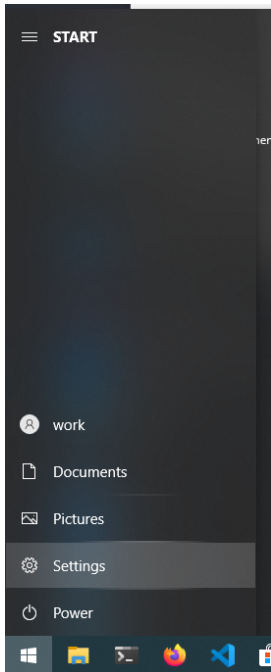
ARGS:
  <INPUT> A name-string or file to verify
```

You can also read about gnverify at its github site

Making gnverify available from any folder

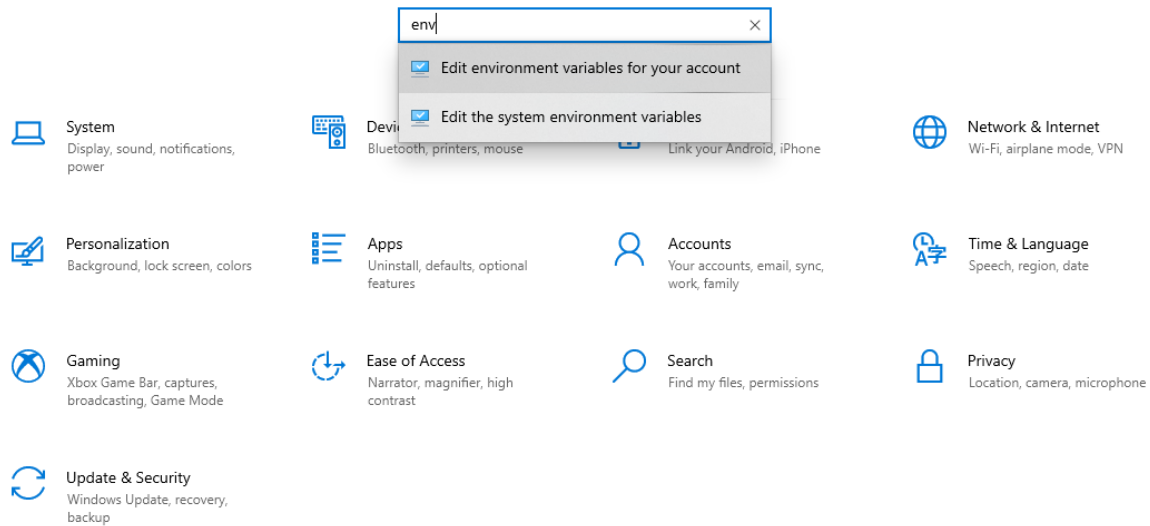
You can always run gnverify from the bin folder, but it is not very convenient. For example, you might like to run it from your data folder.

1. To make gnverify available from any folder press the Win button and choose settings.

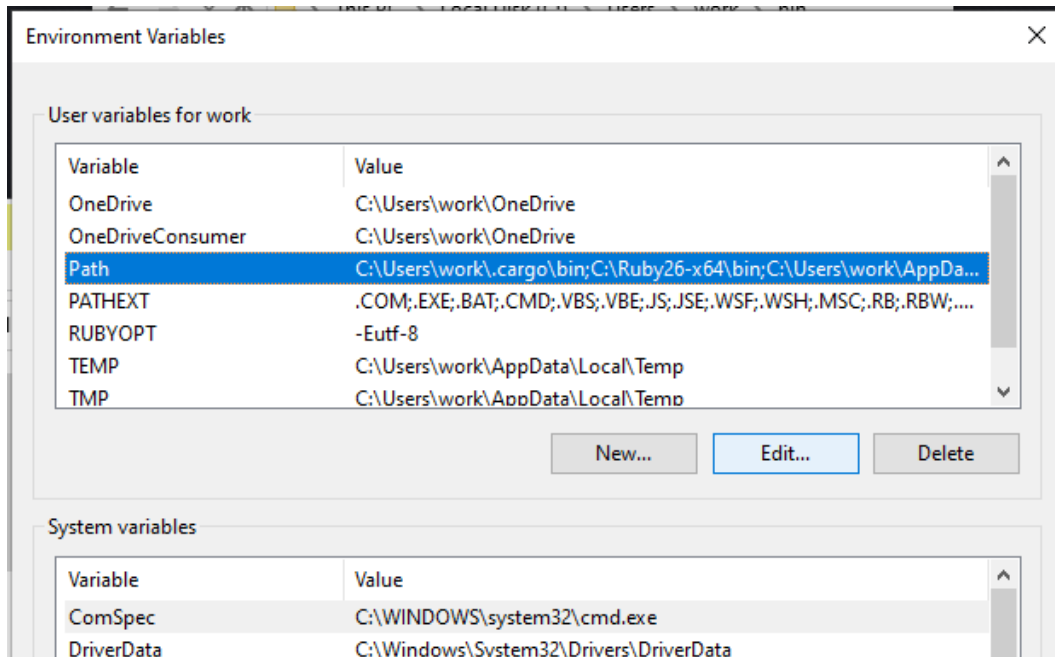


2. You will see settings windows with a search prompt in the center. Type "env" in the search prompt, and you will see a couple of returned results. Choose "Edit environment variables for your account".

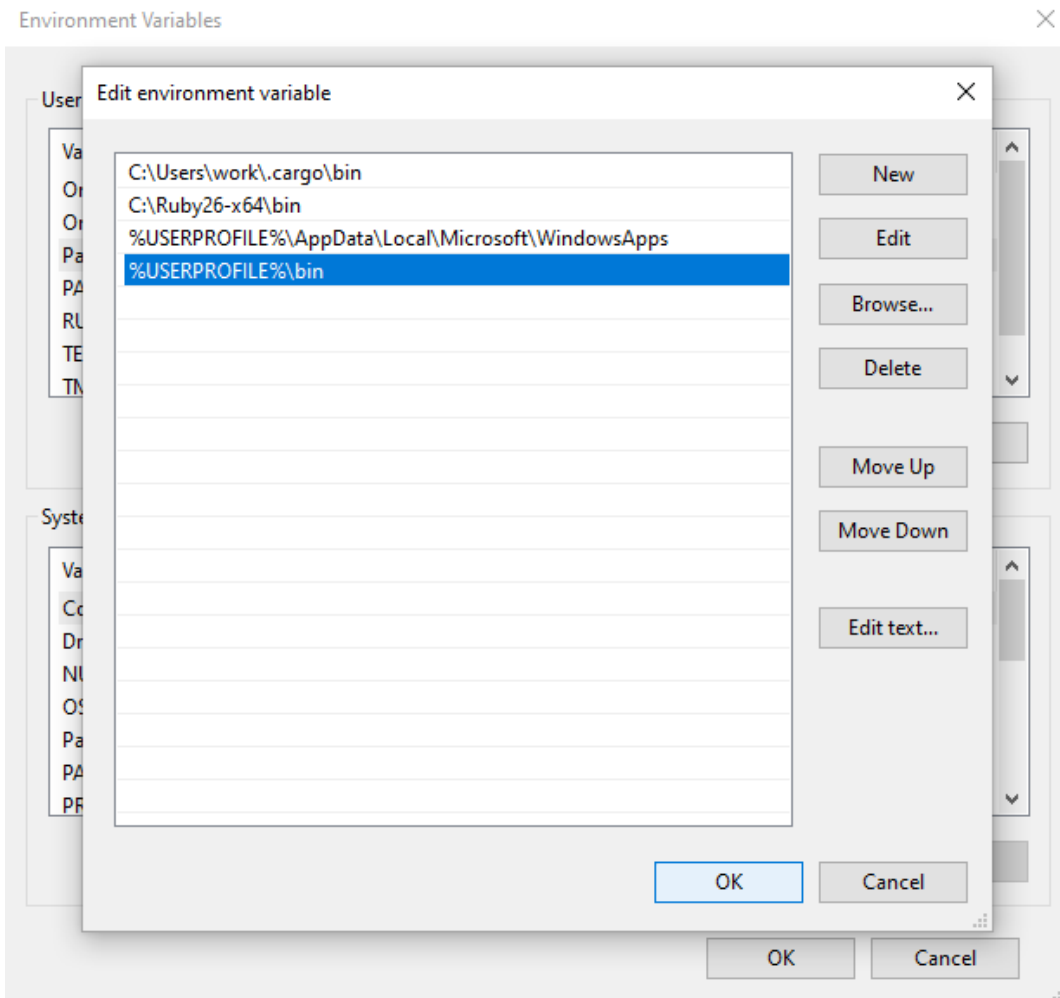
Windows Settings



3. Now we need to find **Path** variable in the first window, select it and push the “Edit” button



4. When you see Edit window, push the “New” button and type in either a full path to the bin folder (Something like C:\Users\my-user\bin) or %USERPROFILE%\bin



5. Now you can use `gnverify` from any folder in PowerShell or cmd terminal window.

```
cd ~\data
gnverify my-checklist.tsv
```