

PANDAA Software

ReFocus Assistant and EpiFocus Assistant:
automated qualitative results analysis tools

Where to get the software

GitHub

[aldatubio/PANDAA-qPCR-Results: Development of a script to auto-analyze qPCR results from tsv / csv files. \(github.com\)](#)

- Visit “Releases” for downloads

The screenshot displays the GitHub repository page for `aldatubio/PANDAA-qPCR-Results`. The left sidebar shows a list of recent commits, including "er conflict issue in changelog" (34 minutes ago), "ita_analysis testing, moving tests folder" (last month), and "ed files, dev.txt to prepare for ReFocu..." (last month). The main content area features the repository's star, watch, and fork counts (0 stars, 0 watching, 0 forks), a "Report repository" link, and the "Releases" section. The "Releases" section shows 6 releases, with the latest release, "ReFocus Assistant v1.0.0", highlighted by a red box. This release was published 20 hours ago and is marked as the "Latest" version. Below the releases, the "Packages" section indicates that no packages have been published, and the "Languages" section shows a bar chart for the repository's language distribution: Python (90.2%) and Inno Setup (9.8%).

Release Name	Version	Published	Label
ReFocus Assistant	v1.0.0	20 hours ago	Latest

Workflow Overview


Choose tool based on
product family:

ReFocus Assistant
HIV drug resistance

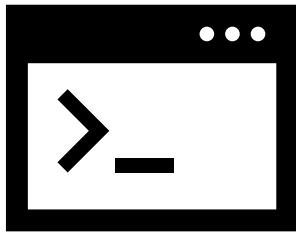
EpiFocus Assistant
Viral hemorrhagic fevers


PANDAA Assay


qPCR Machine


Raw results file
(XLSX, CSV, text)




PANDAA Software

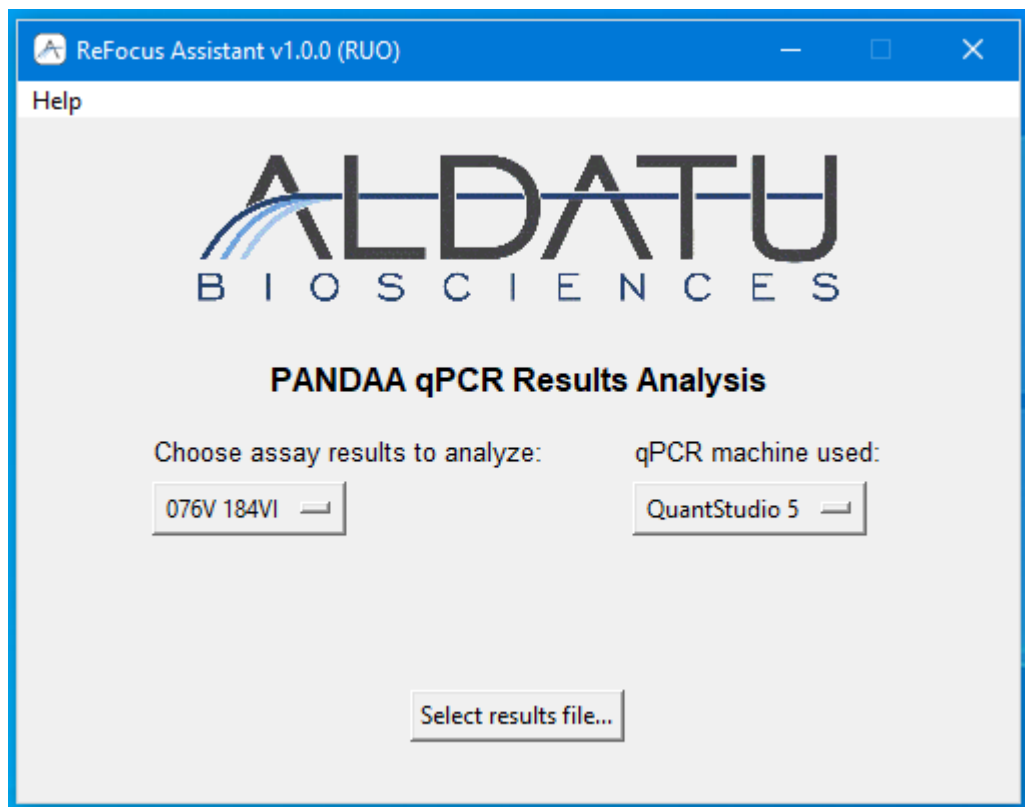



CSV summary

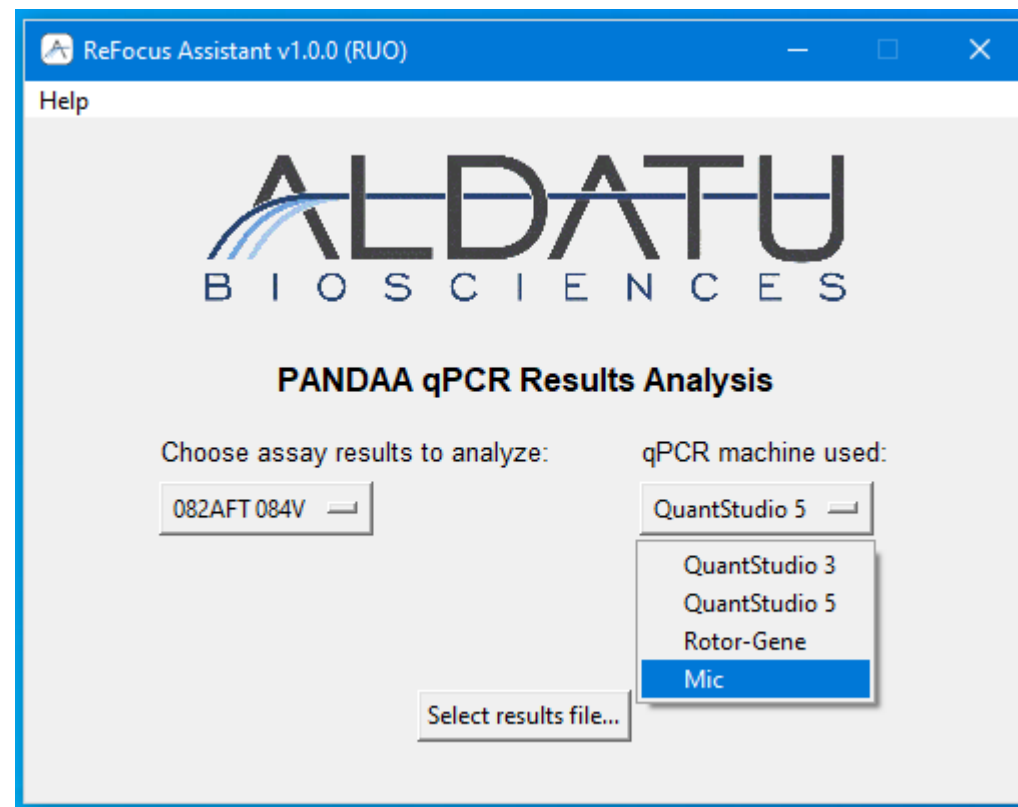

PDF summary

Workflow

Double-click icon to start app and open main window

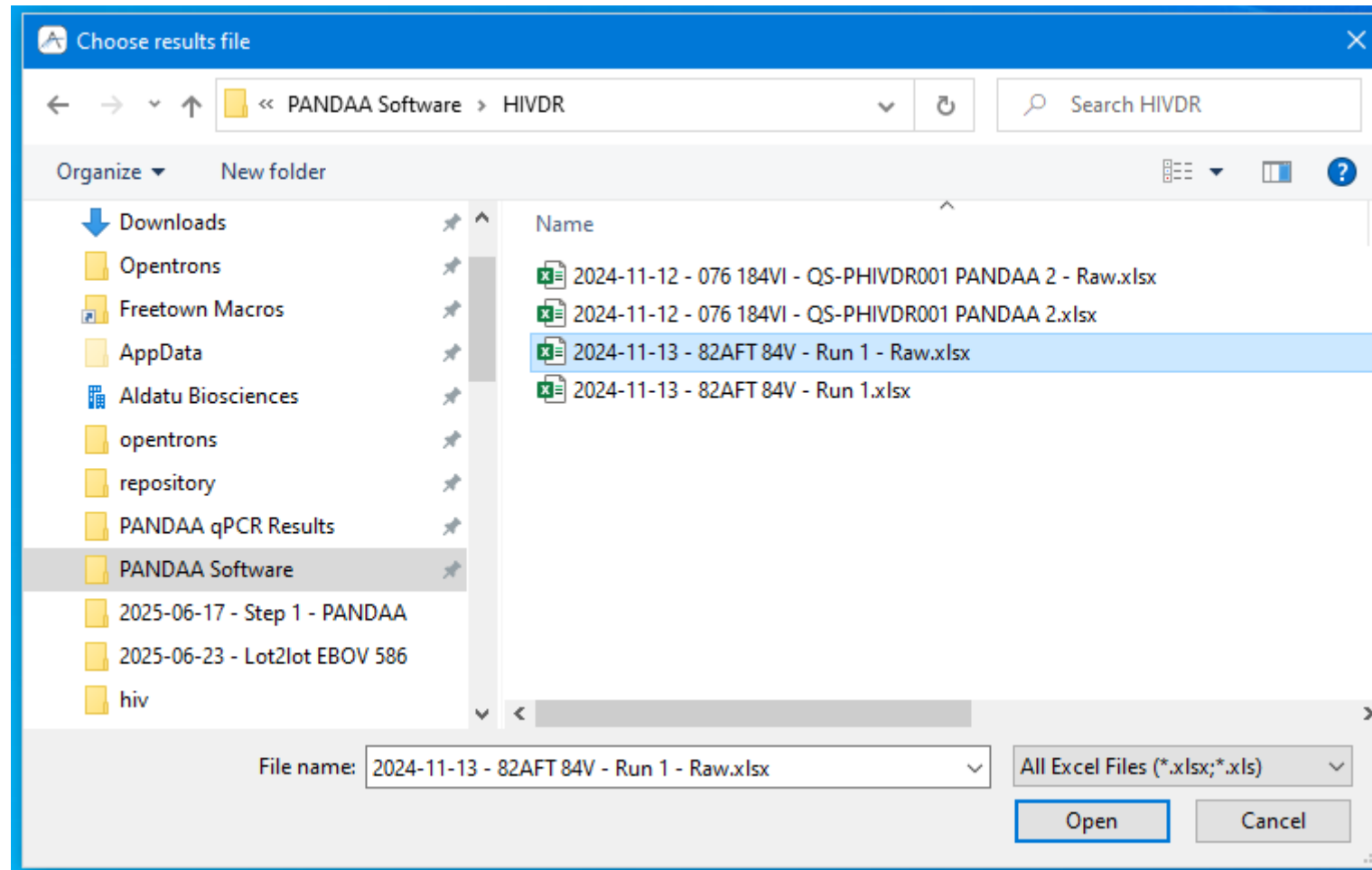


Choose assay and qPCR machine from menus



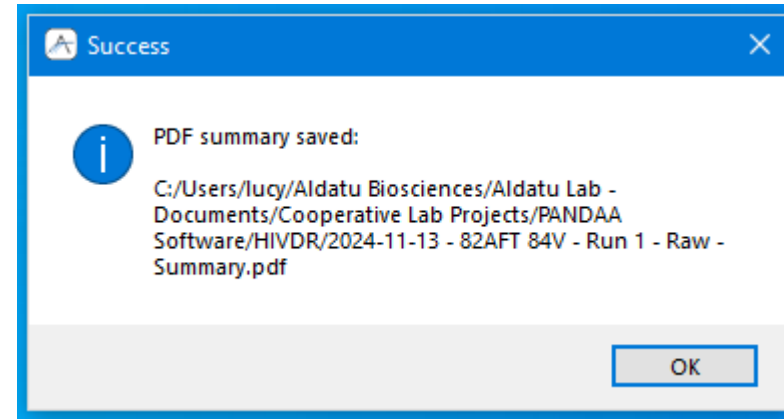
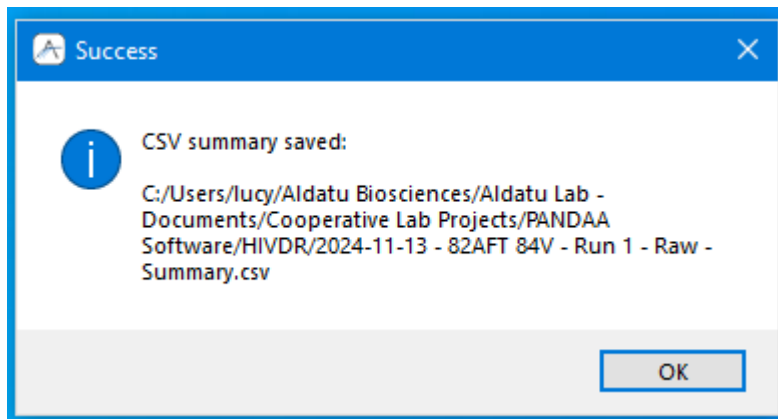
Workflow

Choose **raw, unedited** results file from file selection menu (can be Excel file, CSV, or text file)



Workflow

Dialog box shows location of analyzed results files (CSV and optional PDF), then program closes



Workflow

Results files

	A	B	C	D	E	F	G	H	I
1	Experiment Barcode								
2	Experiment Experiment 588 FAM Threshold - 50,000 VIC Threshold - 20,000 Cy5 Threshold - 20,000 ROX Off Thermocycler program: RT: 50C for 15 min Activation: 95C for 2 min								
3	Experiment C:\Users\lucy\Aldatu Biosciences\Project Freetown - Documents\2. Research and Development\3. Performance EvalstAnalytical Inclusivity\SUDV - Boniface\2024-06-17 - Inclusivity SUDV Boniface r1.ed								
4	Experiment 2024-06-17 - Inclusivity SUDV Boniface								
5	Experiment 2024-06-17 16:15:50 PM EDT								
6	Experiment Standard Curve								
7	Instrument Aldatu-QS5								
8	Instrument 2.73E+08								
9	Instrument QuantStudio™ 5 System								
10	Passive Reference								
11	Post-read Stage/Step								
12	Pre-read Stage/Step								
13	Quantification Ct								
14	Signal Sm TRUE								
15	Stage whe Stage2								
16	Stage/ Cyl Stage3, Step2								
17									
18									
19	Well	Sample Name	Internal Control	EBOV Cq	MARV Cq	Result			
20	A1	SUDV.Boniface	11.8	4.6	35	EBOV Positive			
21	A2	SUDV.Boniface	11.7	4.7	35	EBOV Positive			
22	A3	SUDV.Boniface	11.8	4.7	35	EBOV Positive			
23	A4	SUDV.Boniface	11.7	4.7	35	EBOV Positive			
24	A5	SUDV.Boniface	11.8	6.6	35	EBOV Positive			
25	A6	SUDV.Boniface	11.9	6.6	34.5	EBOV Positive			
26	A7	SUDV.Boniface	11.9	6.8	33.4	EBOV Positive			
27	A8	SUDV.Boniface	11.9	6.6	35	EBOV Positive			
28	A9	SUDV.Boniface	12.1	8.8	35	EBOV Positive			
29	A10	SUDV.Boniface	12.3	8.9	19.2	EBOV Positive			
30	A11	SUDV.Boniface	12.2	8.9	17	EBOV Positive			
31	A12	SUDV.Boniface	12.4	9.1	35	EBOV Positive			
32	B1	SUDV.Boniface	11.6	10.9	18.6	EBOV Positive			
33	B2	SUDV.Boniface	12.3	11.2	21.2	EBOV Positive			
34	B3	SUDV.Boniface	12.1	11.3	35	EBOV Positive			
35	B4	SUDV.Boniface	12.1	11.4	35	EBOV Positive			



Report

Run Information

Experiment Comment	Experiment 588 FAM Threshold - 50,000 VIC Threshold - 20,000 Cy5 Threshold - 20,000 ROX Off Thermocycler program: RT: 50C for 15 min Activation: 95C for 2 min Adaptation (10x): 90C for 3 sec; 55C for 30 sec; 60C for 30 sec Amplification (35x): 90C for 3 sec; 60C for 1 min Ramp Rate: 1.6C/sec
Experiment File Name	C:\Users\lucy\Aldatu Biosciences\Project Freetown - Documents\2. Research and Development\3. Performance EvalstAnalytical Inclusivity\SUDV - Boniface\2024-06-17 - Inclusivity SUDV Boniface r1.ed
Experiment Name	2024-06-17 - Inclusivity SUDV Boniface
Experiment Run End Time	2024-06-17 16:15:50 PM EDT
Experiment Type	Standard Curve
Instrument Name	Aldatu-QS5
Instrument Serial Number	272510135
Instrument Type	QuantStudio 5 System
Quantification Cycle Method	Ct
Signal Smoothing On	true
Stage where Melt Analysis is performed	Stage2
Stage/ Cycle where Ct Analysis is performed	Stage3, Step2

Samples

Well	Sample Name	Internal Control Cq	EBOV Cq	MARV Cq	Result
A1	SUDV.Boniface	11.8	4.6	35.0	EBOV Positive
A2	SUDV.Boniface	11.7	4.7	35.0	EBOV Positive
A3	SUDV.Boniface	11.8	4.7	35.0	EBOV Positive
A4	SUDV.Boniface	11.7	4.7	35.0	EBOV Positive
A5	SUDV.Boniface	11.8	6.6	35.0	EBOV Positive
A6	SUDV.Boniface	11.9	6.6	34.5	EBOV Positive

ReFocus Assistant vs EpiFocus Assistant

ReFocus Assistant

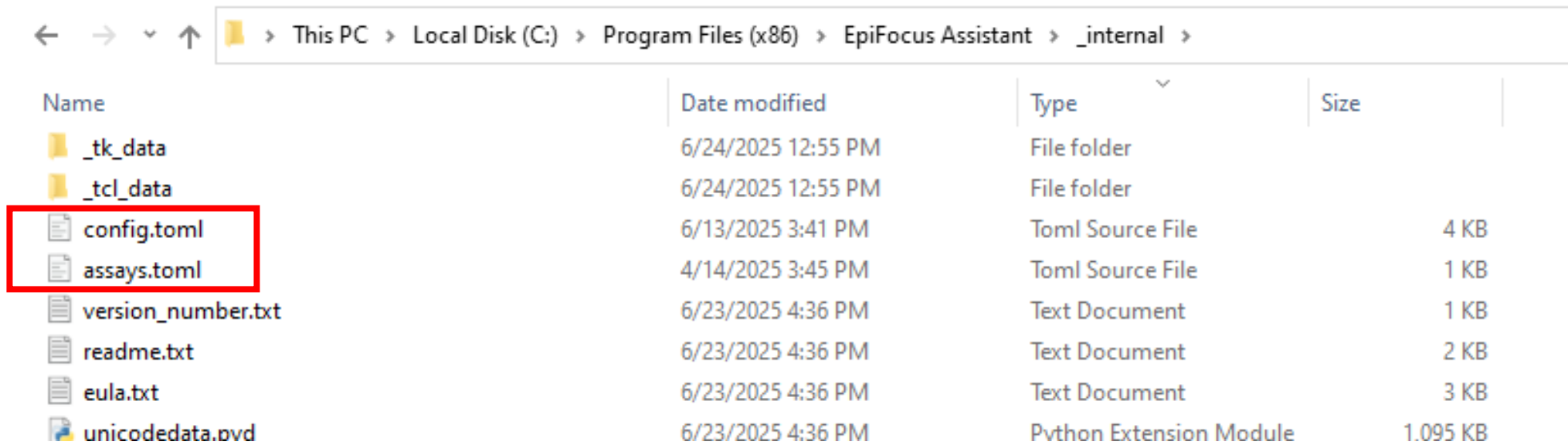
- For HIVDR assays
- Builds standard curve based on wells with specified input quantity
- Cq values in unknown wells are compared to the standard curve to calculate quantity in unknowns
- Qualitative results are given as a percentage of DRM present in a well, compared to the amount of VQ detected

EpiFocus Assistant

- For VHF assays
- No standard curve required; well quantities ignored
- Qualitative results (positive or negative) are given based on Cq value, and whether it is above or below specified cutoffs

How to configure settings using TOML files

Navigate to the Program Files folder



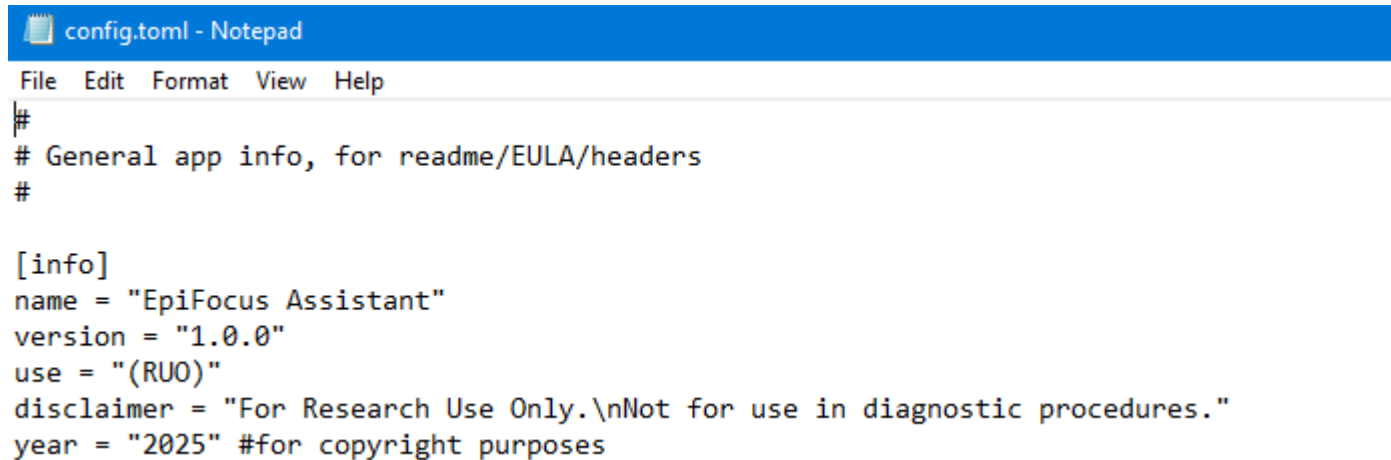
The screenshot shows a Windows File Explorer window with the address bar displaying the path: This PC > Local Disk (C:) > Program Files (x86) > EpiFocus Assistant > _internal >. The file list is as follows:

Name	Date modified	Type	Size
_tk_data	6/24/2025 12:55 PM	File folder	
_tcl_data	6/24/2025 12:55 PM	File folder	
config.toml	6/13/2025 3:41 PM	Toml Source File	4 KB
assays.toml	4/14/2025 3:45 PM	Toml Source File	1 KB
version_number.txt	6/23/2025 4:36 PM	Text Document	1 KB
readme.txt	6/23/2025 4:36 PM	Text Document	2 KB
eula.txt	6/23/2025 4:36 PM	Text Document	3 KB
unicodedata.pvd	6/23/2025 4:36 PM	Pvthon Extension Module	1.095 KB

How to configure settings using TOML files

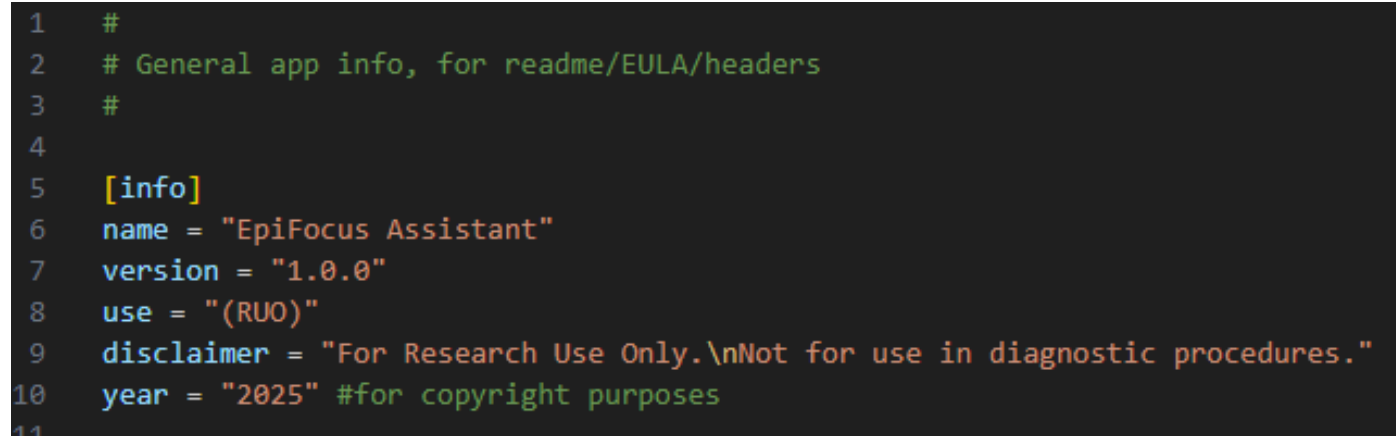
TOMLs can be opened in any text editor, although they can be color-coded in VSCode for easier reading

Notepad



```
config.toml - Notepad
File Edit Format View Help
#
# General app info, for readme/EULA/headers
#
[info]
name = "EpiFocus Assistant"
version = "1.0.0"
use = "(RUO)"
disclaimer = "For Research Use Only.\nNot for use in diagnostic procedures."
year = "2025" #for copyright purposes
```

VSCode



```
1  #
2  # General app info, for readme/EULA/headers
3  #
4
5  [info]
6  name = "EpiFocus Assistant"
7  version = "1.0.0"
8  use = "(RUO)"
9  disclaimer = "For Research Use Only.\nNot for use in diagnostic procedures."
10 year = "2025" #for copyright purposes
11
```

How to configure settings using TOML files

Anatomy of a TOML

The diagram illustrates the structure of a TOML file with the following components and annotations:

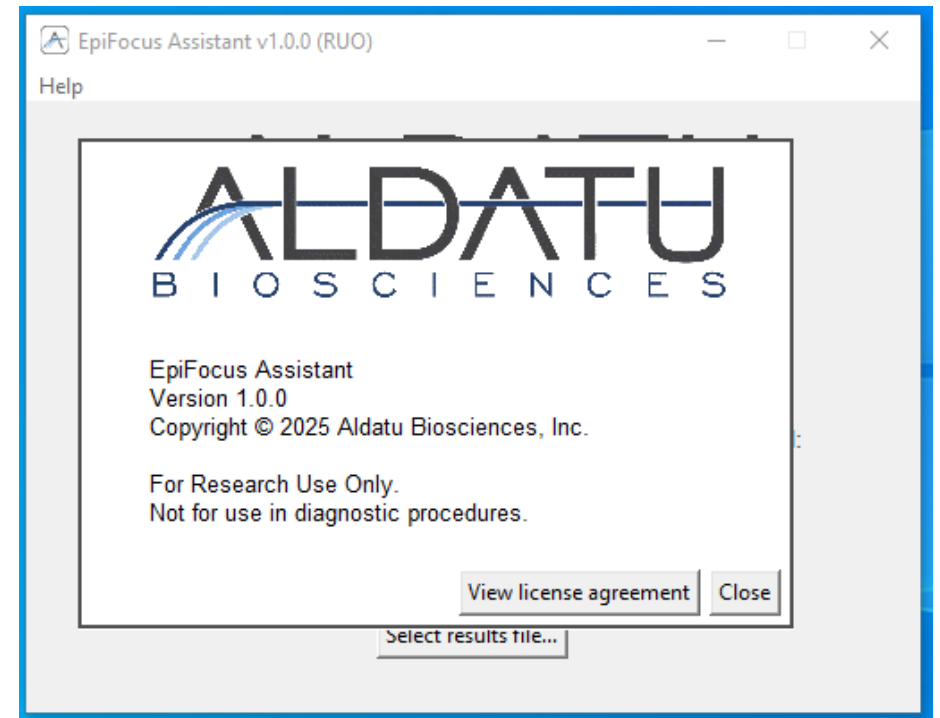
- Comments – not read by software:** Indicated by a green bracket above the first three lines of the code block, which are all preceded by a hash symbol (#).
- Table name – do not edit:** A yellow label with a line pointing to the `[info]` header line.
- Key names – subunits of table. Do not edit:** A blue label with a bracket pointing to the keys `name`, `version`, `use`, `disclaimer`, and `year` within the `[info]` table.
- Values of keys – edit these to configure:** An orange label with lines pointing to the values `"EpiFocus Assistant"`, `"1.0.0"`, `"(RUO)"`, `"For Research Use Only.\nNot for use in diagnostic procedures."`, and `"2025"`.

```
#  
# General app info, for readme/EULA/headers  
#  
[info]  
name = "EpiFocus Assistant"  
version = "1.0.0"  
use = "(RUO)"  
disclaimer = "For Research Use Only.\nNot for use in diagnostic procedures."  
year = "2025" #for copyright purposes
```

How to configure settings using TOML files

How TOML settings show up in the software

```
#  
# General app info, for readme/EULA/headers  
#  
[info]  
name = "EpiFocus Assistant"  
version = "1.0.0"  
use = "(RUO)"  
disclaimer = "For Research Use Only.\nNot for use in diagnostic procedures."  
year = "2025" #for copyright purposes
```



Troubleshooting

In general, errors should be caught and should show up as an error dialog box for the user. Feel free to let me know if I've missed anything!

