Brunnhilde

Last updated: Oct 24, 2024

Brunnhilde is an open-source utility for analysis and file characterization of disk images and file directories. The app was developed and is maintained by Tessa Walsh. The app can be run in a GUI or via command line.

- The command line version is simpler to run than the GUI, which uses a deprecated element (basename) and requires the user to edit settings on different tabs.

SFU Archives uses Brunnhilde in both its digital transfer and archival processing workflows. It is used to analyze transfer packages prior to ingest and support validation and accessioning; and in archival arrangement and description the archivist can use Brunnhilde to better understand the contents of an accrual, identify duplicates, support appraisal, and document file formats.

Installation

See the installation instructions on Walsh's GitHub repo for both brunnhilde and the brunnhilde-gui. Note that various dependencies may also need to be installed.

Usage: command line

Open a Terminal window and run the following command:

```
brunnhilde.py –nz /target/directory /output/directory/
```

Flags:

- -n: skips virus scan with ClamAV (assuming you have already run virus scan as part of the transfer process).
- -z: scans contents of zip, tar, gzip, warc, and arc archive files

To get the target directory, drag the target folder into your Terminal window after typing -nz .

The output directory will be created by the script.

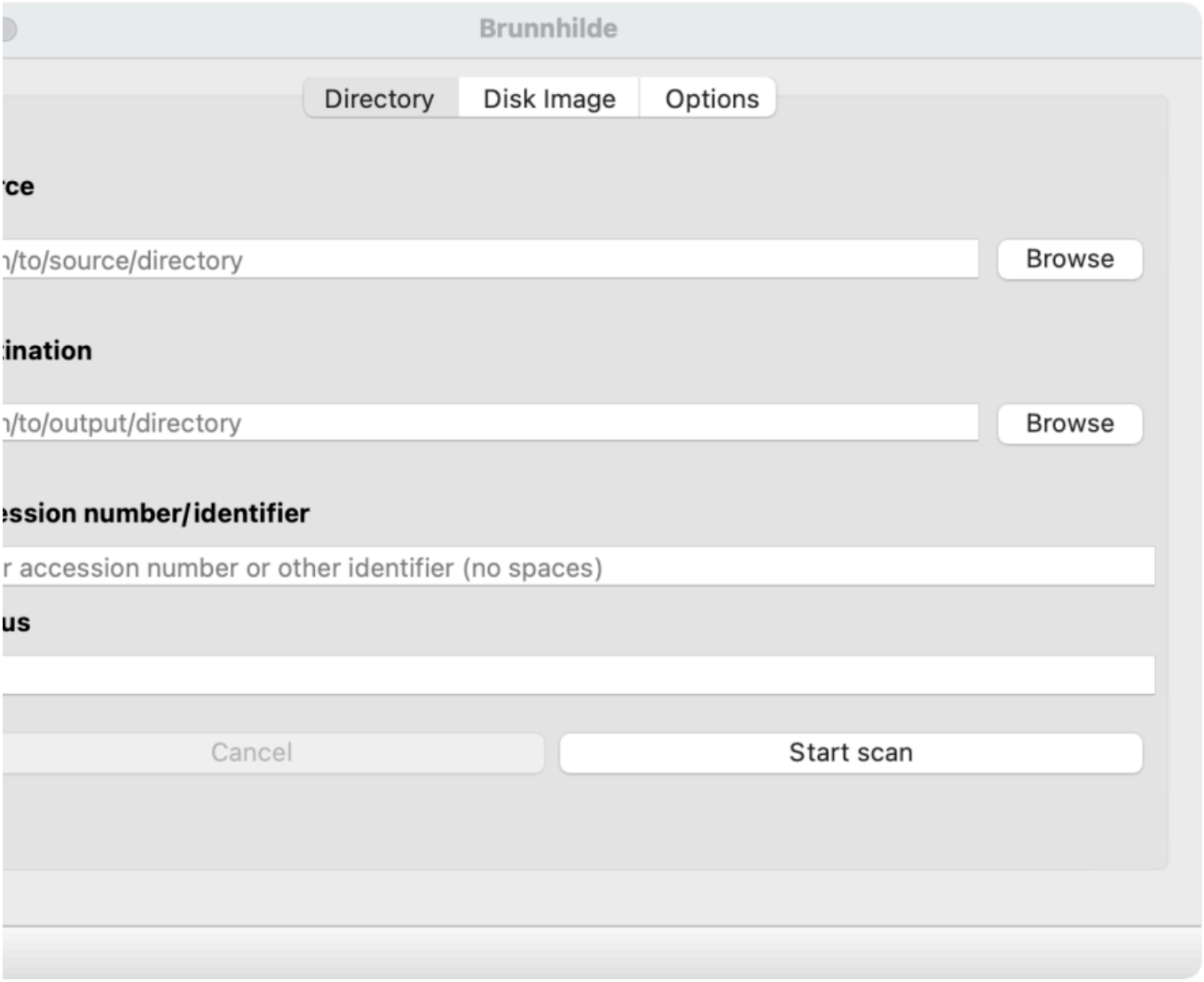
Usage: GUI

Brunnhilde provides a user interface, but it must be launched from the command line in Terminal.

- Open a Terminal window.
- Navigate to the installation folder and run $ python3 main.py.
- You can also just drag the main.py file into the Terminal window after entering $ python3

The Archives' digital transfer procedures typically work with file directories rather than disk images.

On the Brunnhilde interface **Options** tab, initialize the following settings **before** processing the transfer.



Brunnhilde interface

- **Uncheck** the boxes under Virus scanning; the archivist should run ClamAV independently as part of the transfer workflow.
- Select "sha256" under Checksum algorithm.
- Leave **unchecked** the boxes under Disk image options (unless working with disk images).
- Under General options:
  - **Check** the boxes Scan archive files... and Include Siegfried warnings in HTML report.
  - Leave **unchecked** the boxes Run bulk_extractor and Throttle Siegfried.

To process a transfer, use the **Directory** tab.

- Source: navigate to the transfer folder; it should be unzipped.

- Destination: navigate to the output location; this can be anywhere on your computer.
- Accession number/identifier: use the following convention: ACNYYYY-NNN (e.g. ACN2020-041).
- Click the **Start scan** button.
- The **Status** field will show "In progress".

You will receive a desktop notification when Brunnhilde completes processing.

- For large transfers, completion may take some time (e.g. several hours).

Links

For more information see:

- Brunnhilde GitHub site: https://github.com/tw4l/brunnhilde.
- Brunnhilde GUI GitHub site: https://github.com/tw4l/brunnhilde-gui.