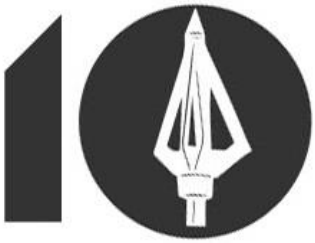


SIMPLE IMAGING. TACTIAL TRIAGE. ZERO CLICKS.

IO USER MANUAL

CIPHER TECH SOLUTIONS, INC.
WWW.CIPHERTECHSOLUTIONS.COM
IO@CIPHERTECHSOLUTIONS.COM

Contents

About IO

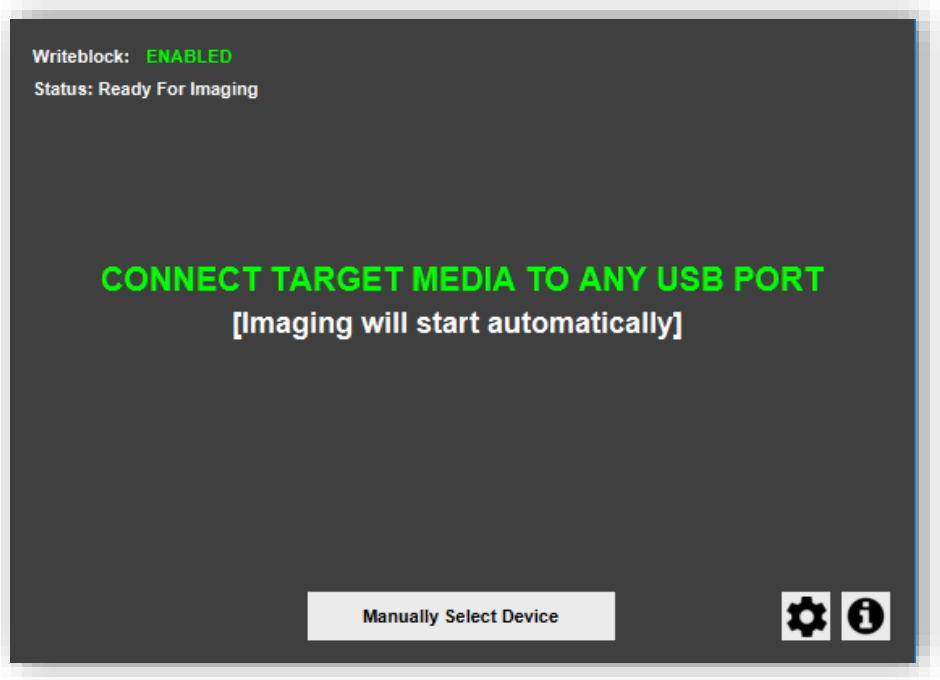
Imaging for Operations (IO) is a zero-click forensic imaging tool designed for use in high-stress environments. IO automatically enables a software write-block, detects changes to attached devices, and begins producing E01 images from connected target media without any user interaction. Furthermore, IO logs include critical device information that MEDEX (forensic) examiners require such as device type, model, name, size, geometry, MD5 and SHA1 hashes, the hardware serial number, the volume serial number for each partition, and the device VID/PID.

Additionally, IO was designed from the ground up to enable concurrent data processing and analysis alongside imaging. Without impacting total imaging time, IO produces triage reports that include total file counts and extracted geo-location information from JPEGs. Developers can expand IO's capabilities through the API.

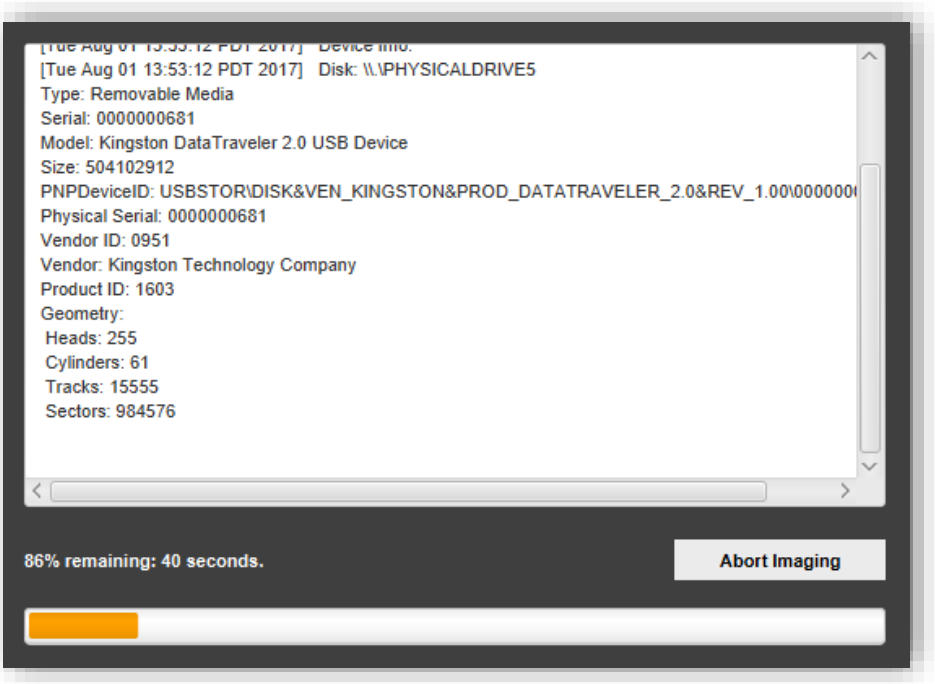
Automatic Imaging

IO will automatically image devices connected after launch.

1. Launch IO executable.

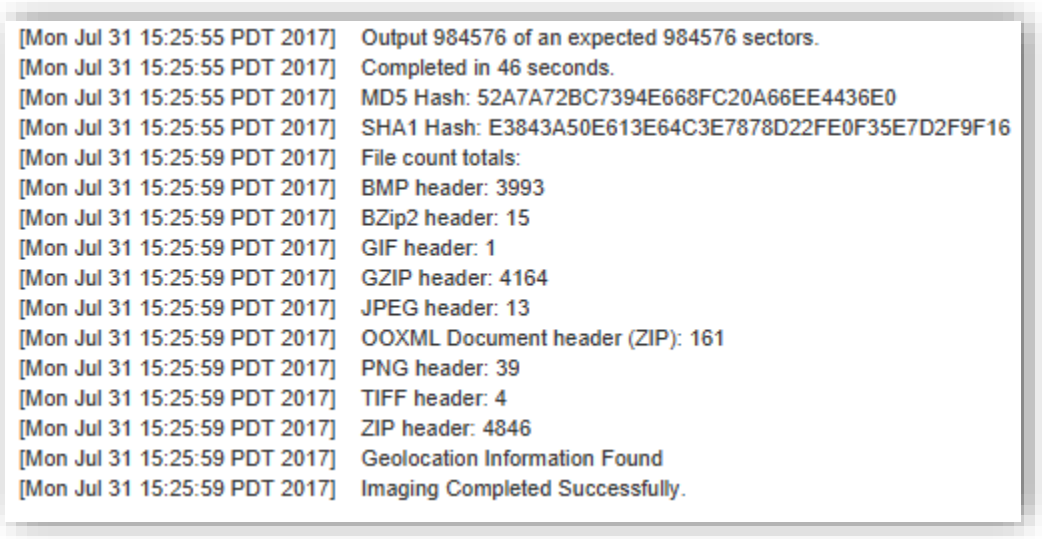


2. Connect media to any USB port to begin imaging.

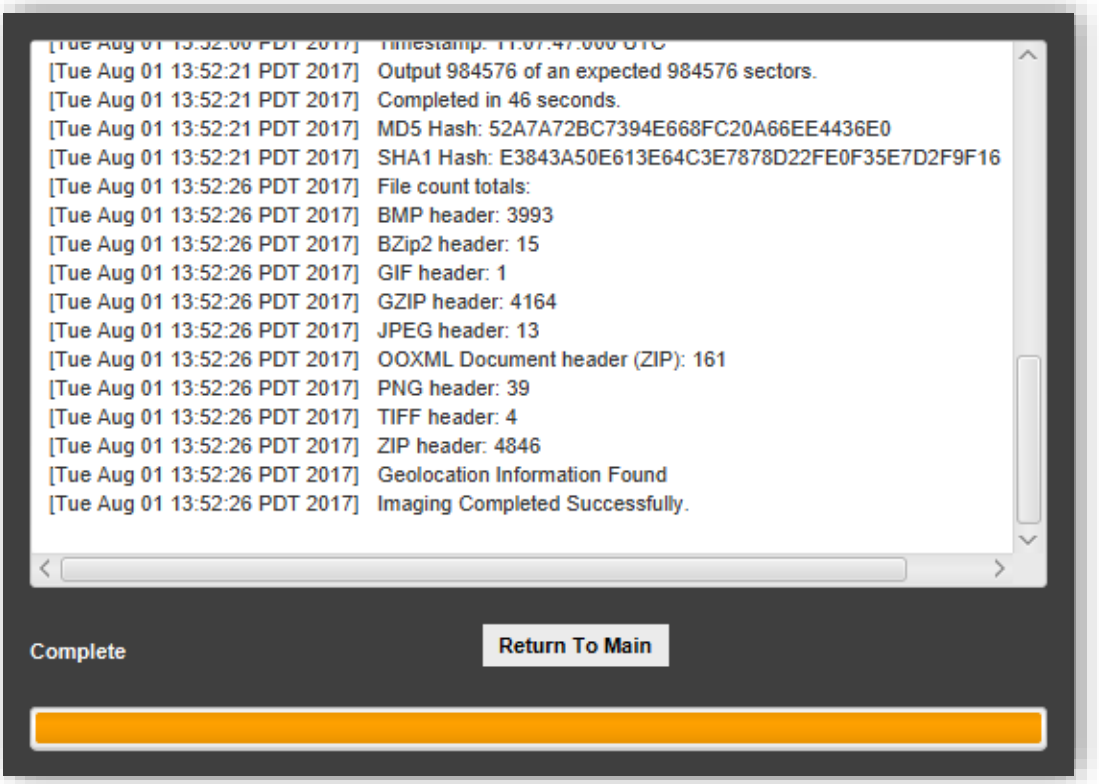


3. IO will immediately and automatically begin imaging all partitions from inserted media disk(s). If several disks are inserted, they will be queued and imaged one after another.

4. Wait for IO to complete. Once *'Imaging Completed Successfully'* prints, media can be disconnected.



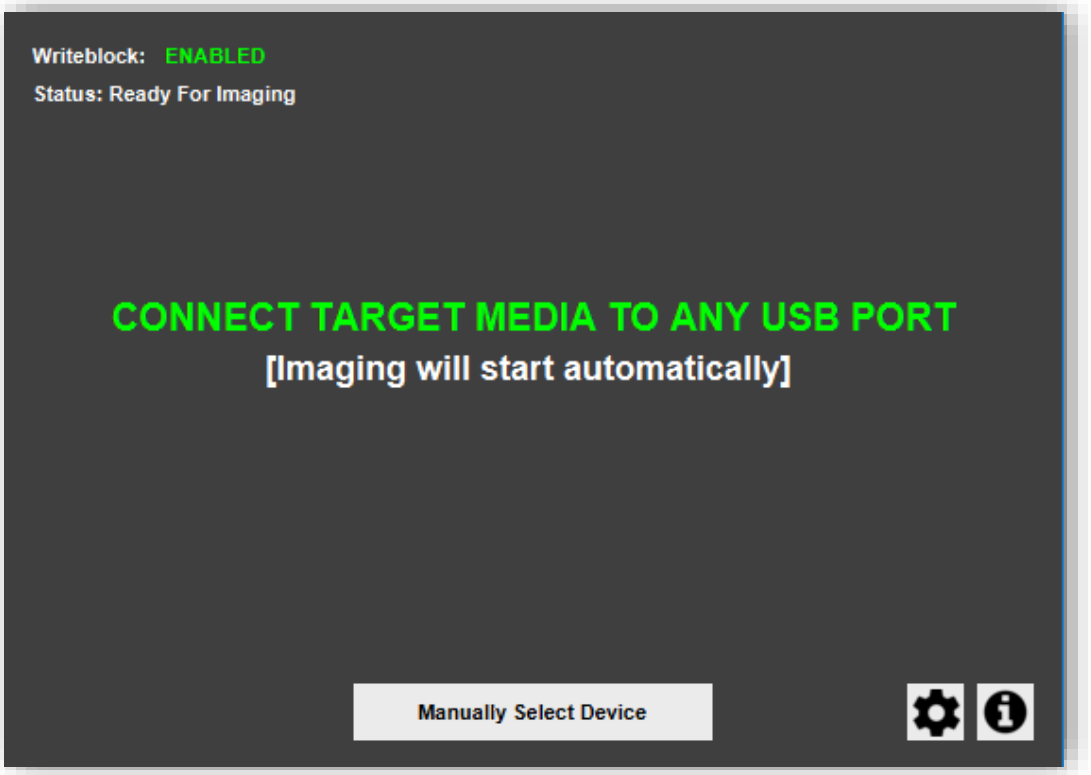
5. Click 'Return to Main'. IO is now ready to image again.



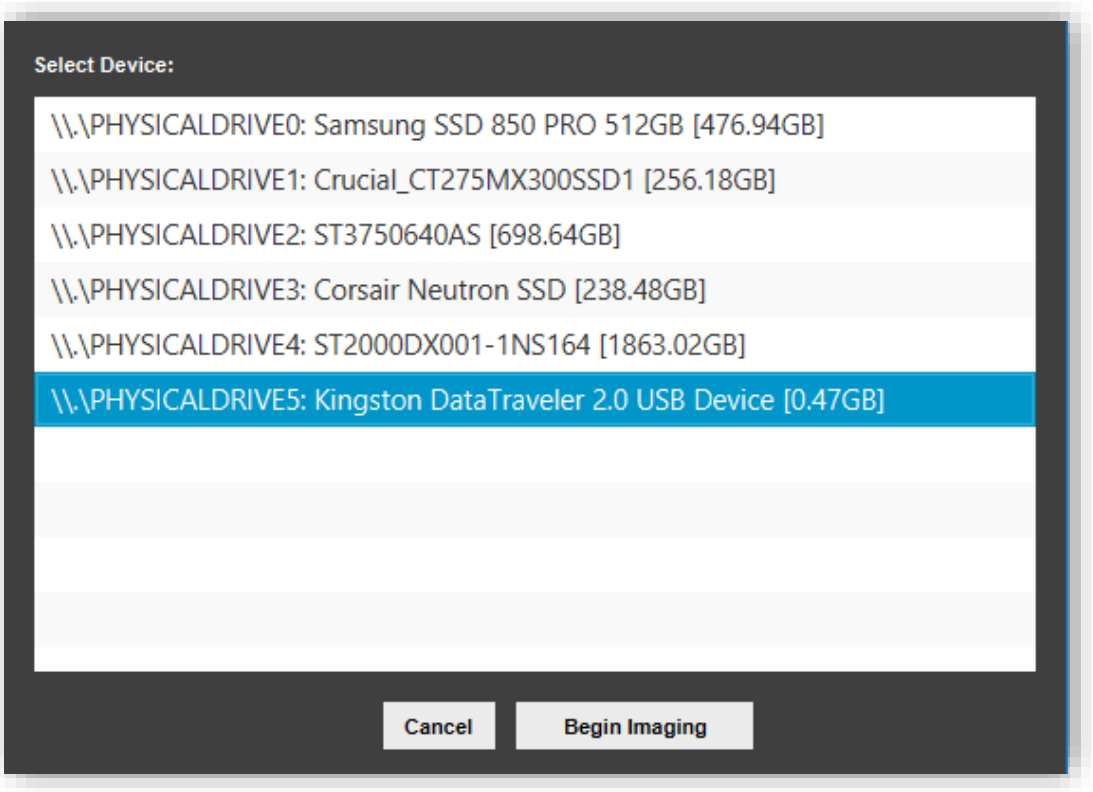
Manual Imaging

IO also allows users to begin imaging by selecting from a list of all connected devices.

1. Launch IO executable.

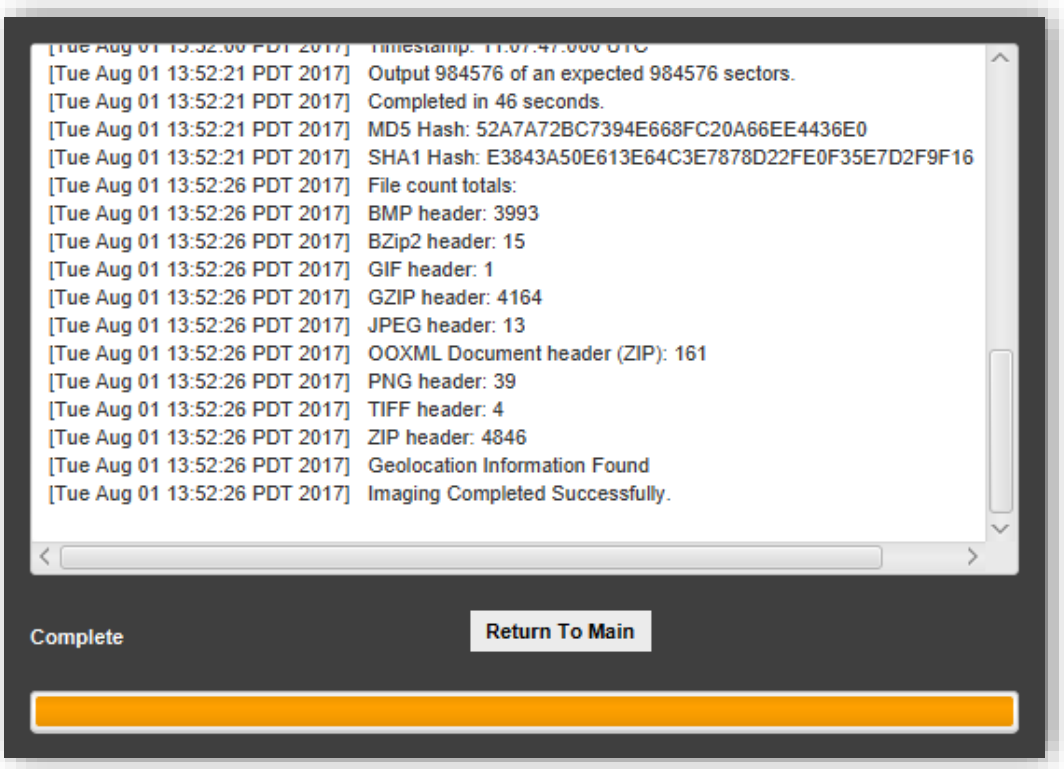


2. Click *'Manually Select Device'*.



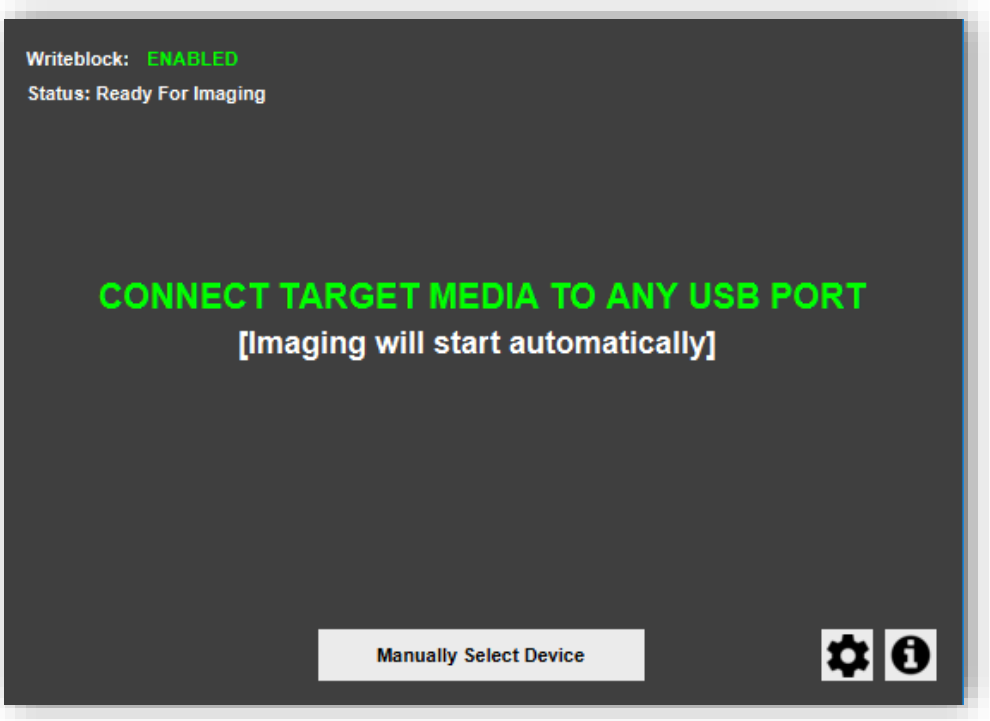
3. Select a device from the list and click *'Begin Imaging'*. IO will then image the selected disk and all partitions.

4. Wait for IO to complete. Once *'Imaging Completed Successfully'* prints, media can be disconnected.



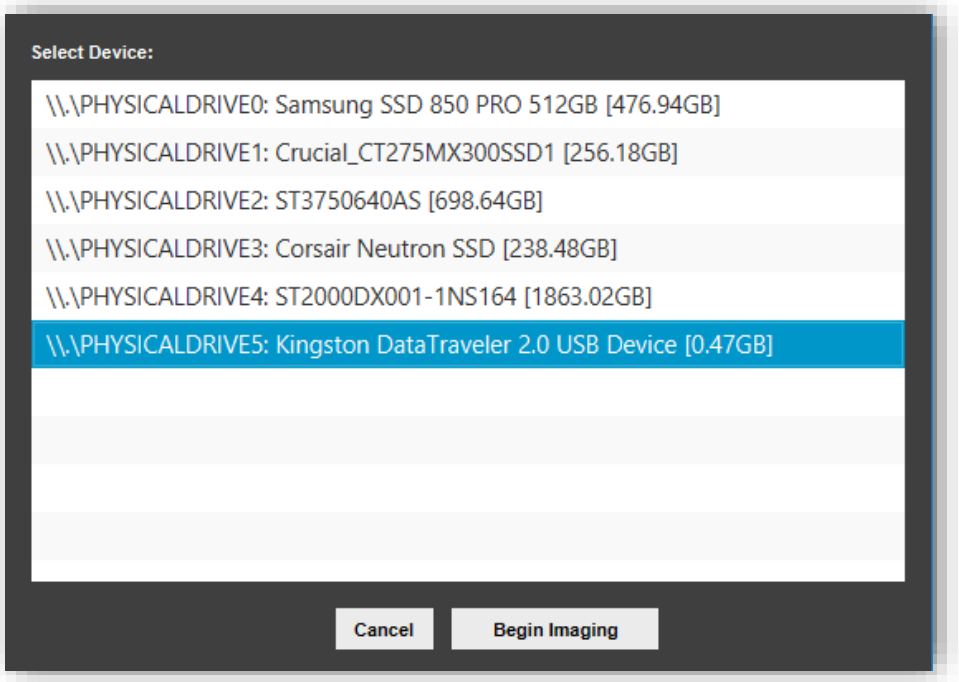
GUI Overview

Main Screen



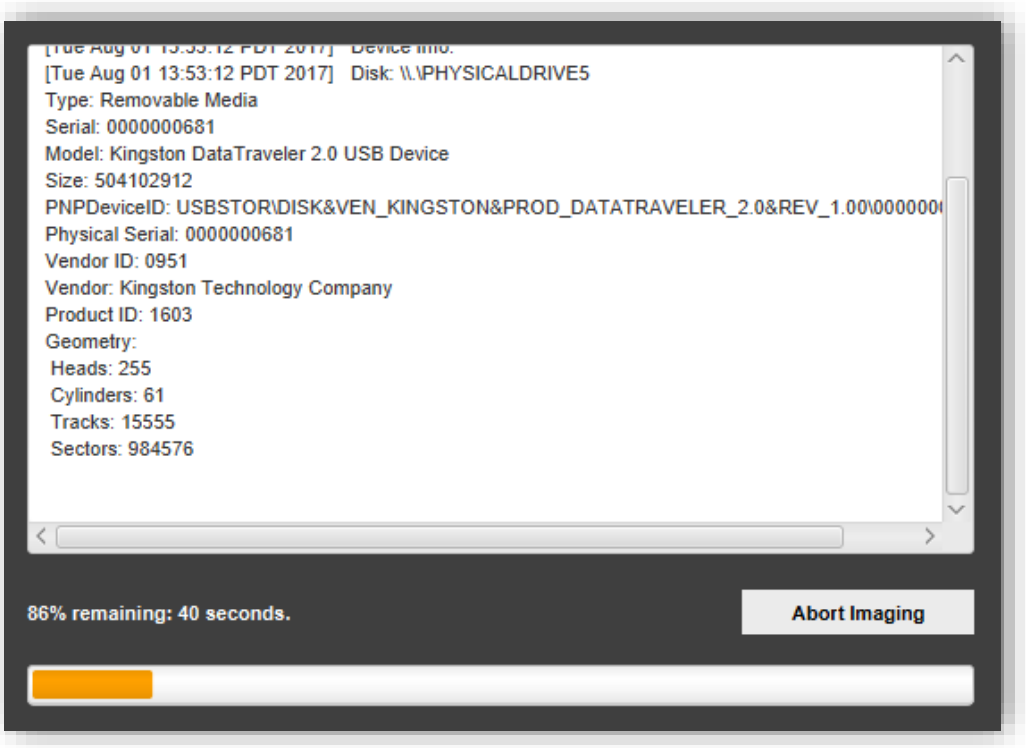
This main screen is displayed after IO is launched. At the top, this screen will indicate whether the USB software write-block has been enabled successfully. This screen also informs the user that imaging will start once a device is connected. IO has been designed to function without any user input or settings changes, however advanced users have the option to manually select a pre-connected device for imaging, open the settings menu (using the gear icon), or view about information (using the i icon). All other screens return to this main screen.

Device Selection



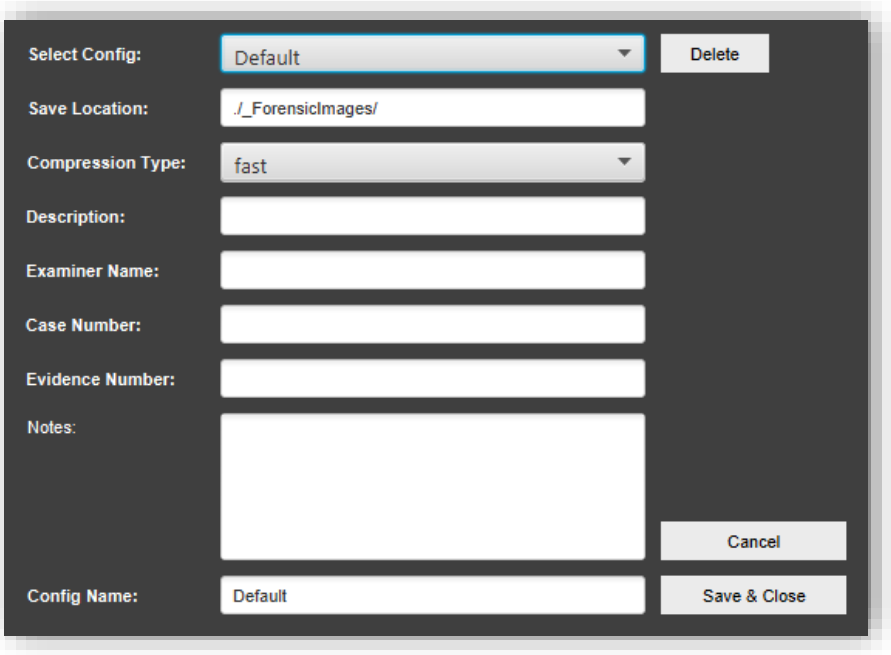
If the user clicks '*Select Device Manually*' they will be taken to this device selection screen which displays a list of currently connected devices. Devices show the path, name, and size (in GB). Users can click a device to select it, then click '*Begin Imaging'* to start the imaging process.

Imaging



Once imaging has begun, this imaging screen will be displayed. A progress bar, the percent complete, and the estimated time remaining will be displayed. Clicking the 'Abort Imaging' button will stop the process. The text output will display timestamped information about the device being imaging, extracted GPS information, file counts, and bad sectors. A more verbose output is stored alongside the resulting image file(s).

Advanced Options



Clicking the gear icon on the main screen will bring users to the advanced options screen. Here users can configure additional parameters including the imaging output location and the compression level. Other optional information such as description, examiner name, case number, evidence number, and notes can be entered here as well. Users also have the option of saving this information as a custom-named configuration file.

Information

Clicking the information icon on the main screen will bring users to the about screen. Here users will find the version information, a link to Cipher Tech's open-source Github page, and contact information for questions, bug fixes, and suggestions about IO.