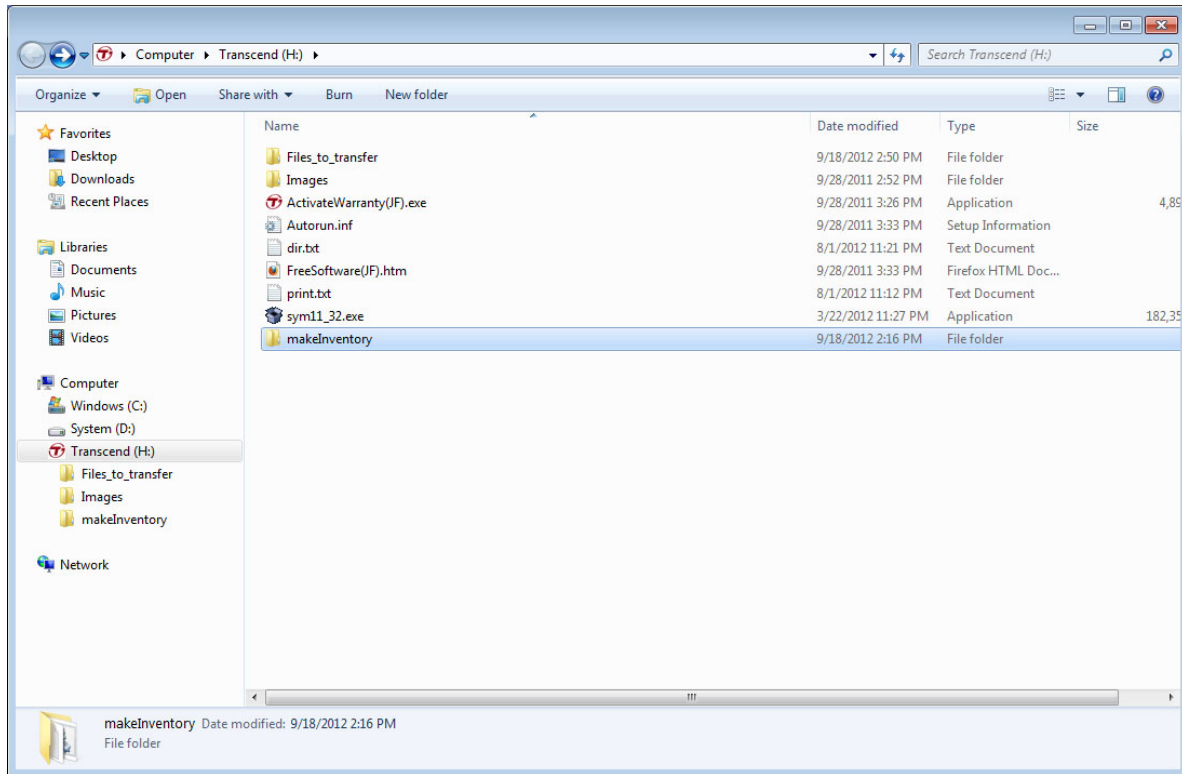
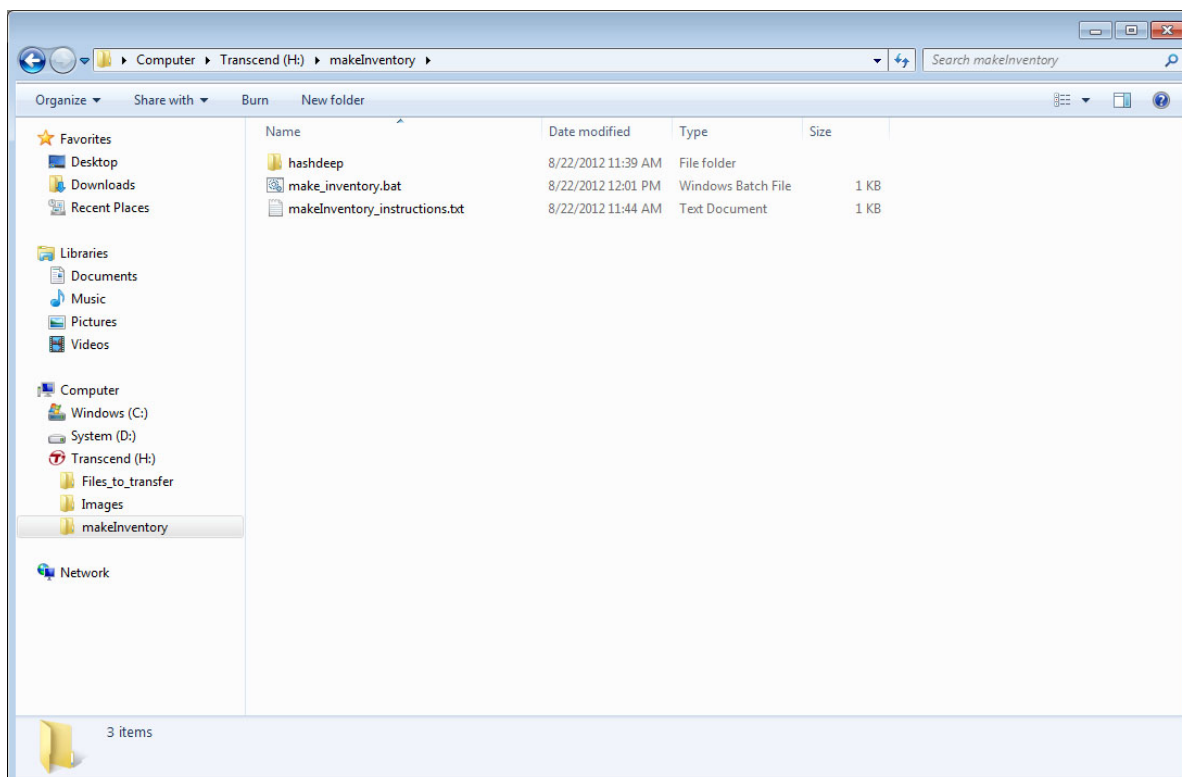


Hash a disk with makeInventory program

1. Copy makeInventory folder into the main (root) directory of the flash/hard drive (in our example, it is drive H:.)

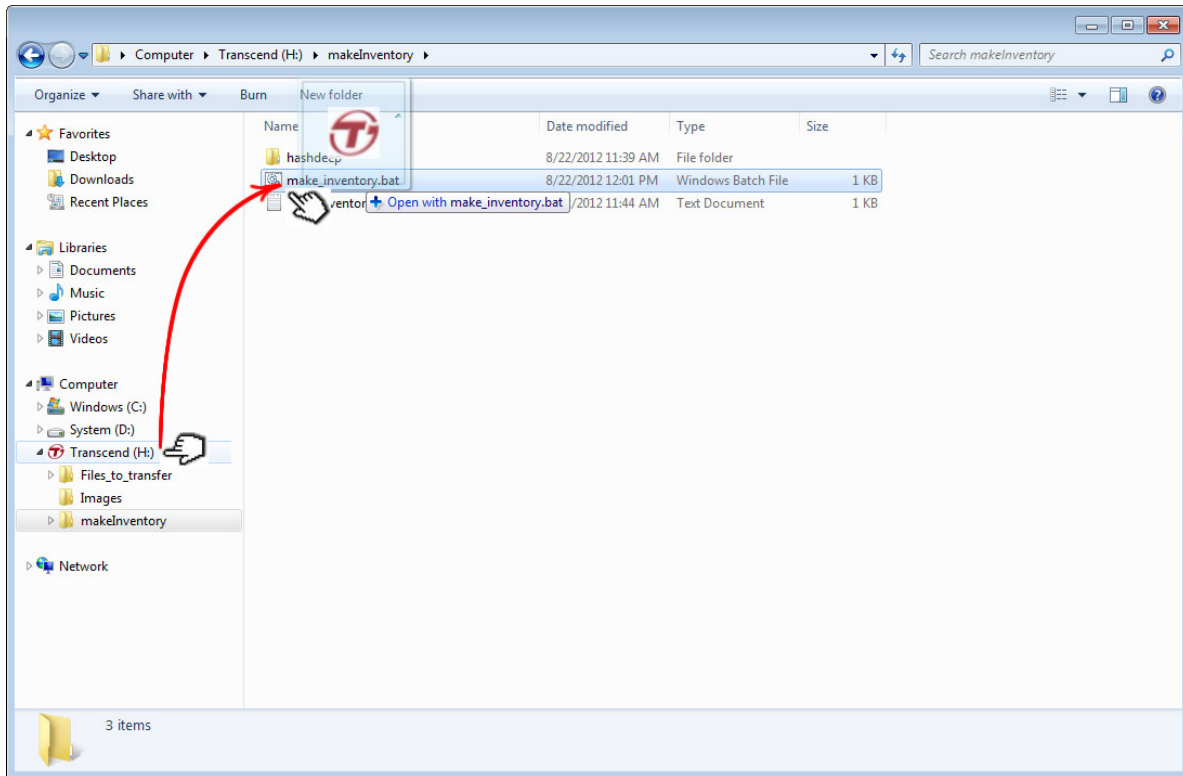


2. Open makeInventory folder in Windows Explorer

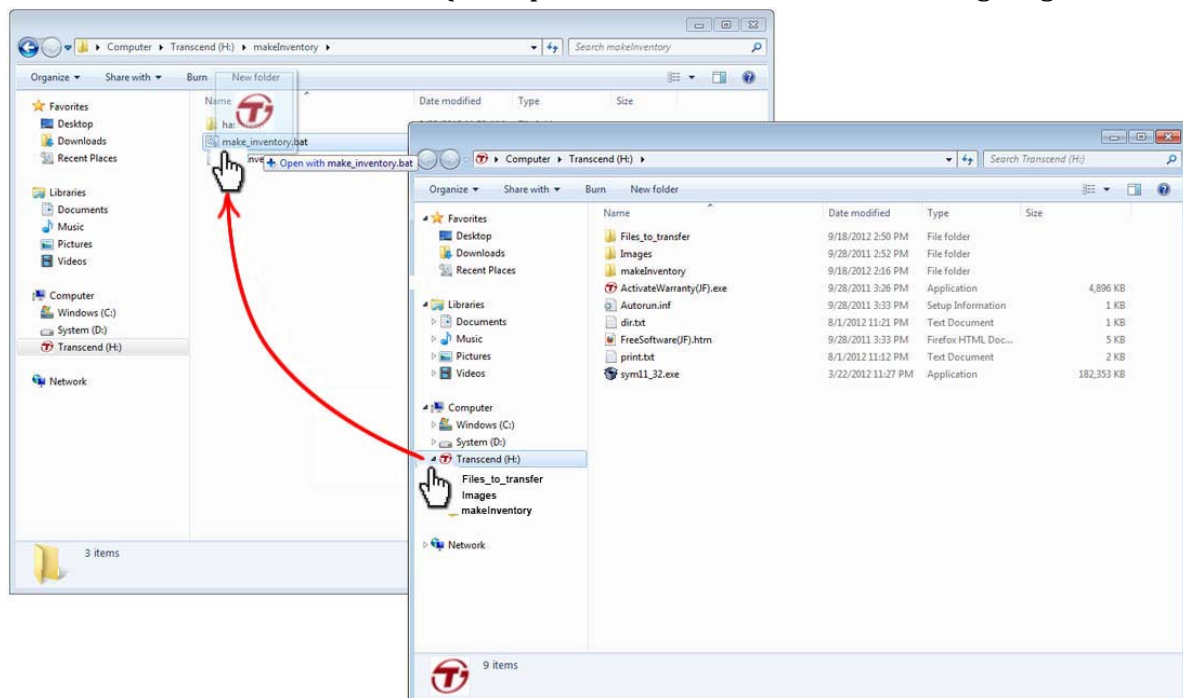


3. Drag and drop the flash/hard drive icon into make_inventory.bat file:
 - Move the mouse cursor to the external drive icon/name (this will highlight the drive name)
 - Press, and hold down, the left button on the mouse to "grab" the icon/name
 - "Drag" the drive icon to the "make_inventory.bat" file (this will highlight the file name)
 - "Drop" the drive icon by releasing the button

The drive icon can be dragged and dropped within a single Windows Explorer window:



or from one window to another (this option can also be used for hashing single directories):



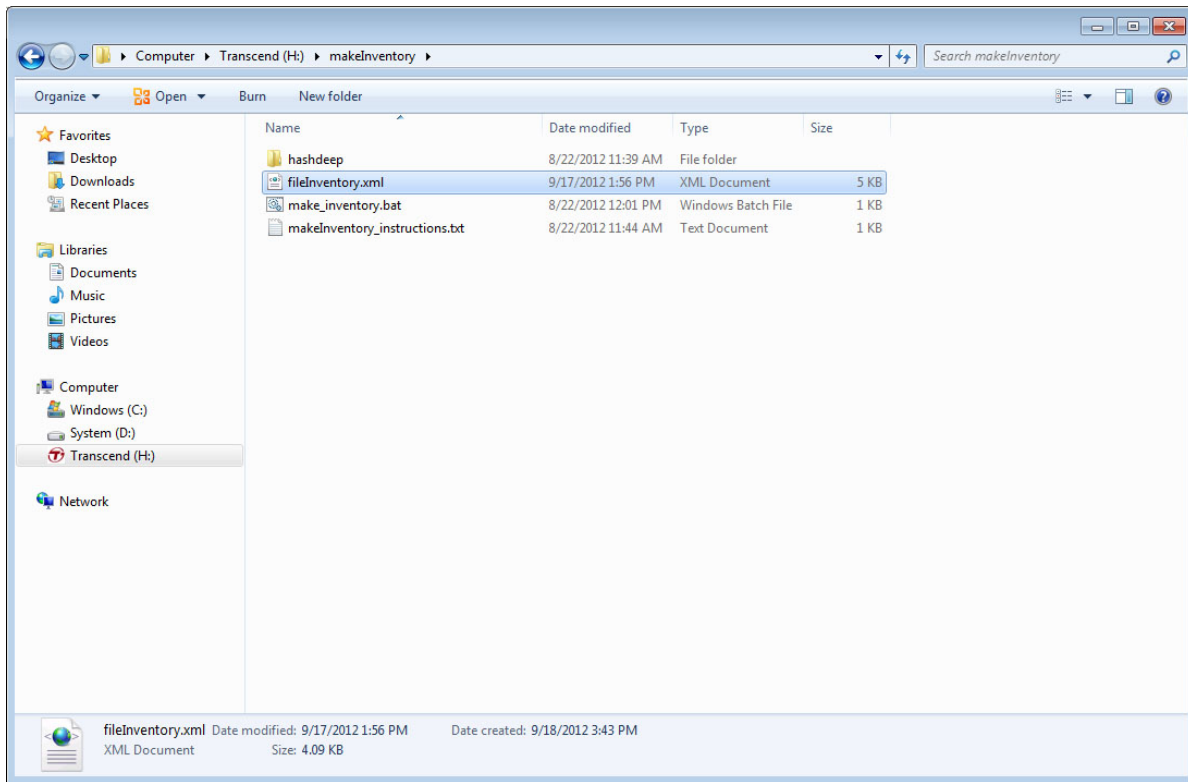
- The cmd.exe window should open indicating that the process has started

```
C:\Windows\system32\cmd.exe
H:\>cd H:\makeInventory\
H:\makeInventory>echo Current dir = H:\makeInventory
Current dir = H:\makeInventory
H:\makeInventory>echo Script dir = H:\makeInventory\
Script dir = H:\makeInventory\
H:\makeInventory>echo Batch path = "H:\makeInventory\make_inventory.bat"
Batch path = "H:\makeInventory\make_inventory.bat"
H:\makeInventory>echo User argument 1 = H:\Files_to_transfer
User argument 1 = H:\Files_to_transfer
H:\makeInventory>H:\makeInventory\hashdeep\hashdeep.exe -e -r -v -d H:\Files_to_transfer 1>H:\makeInventory\fileInventory.xml
hashdeep.exe: WARNING: You are running a 32-bit program on a 64-bit system.
hashdeep.exe: You probably want to use the 64-bit version of this program.
time.
```

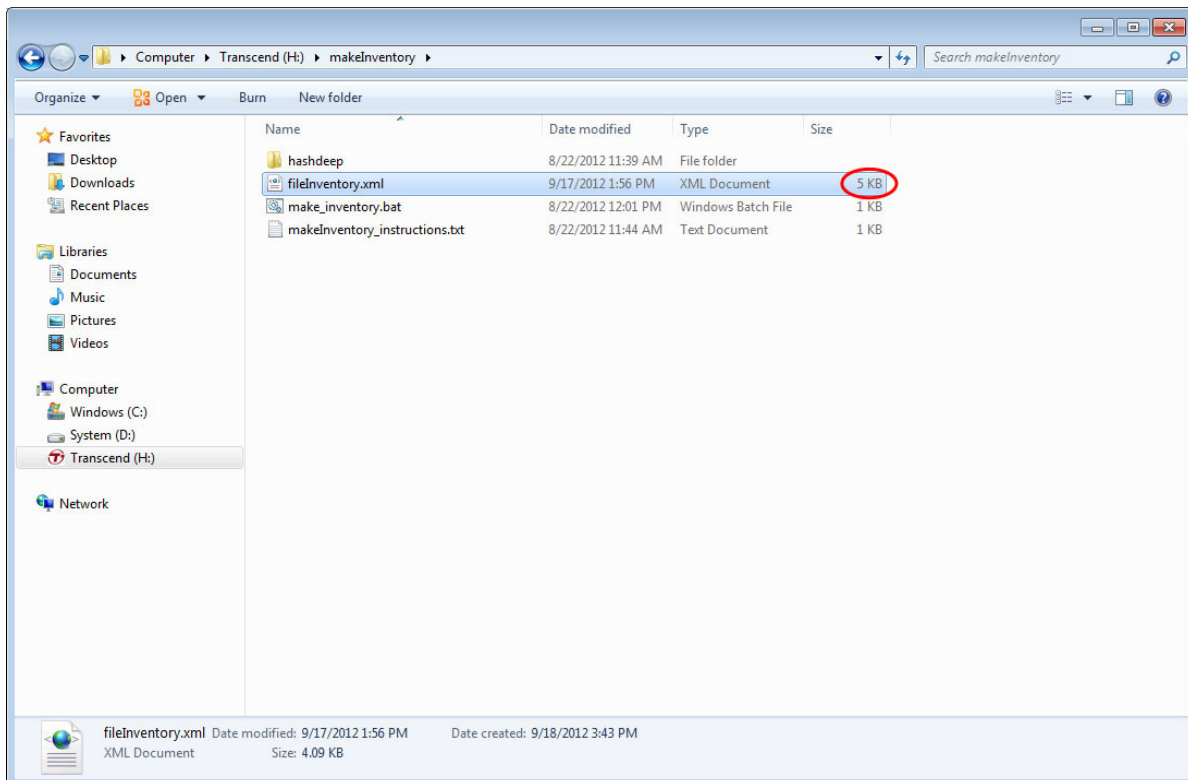
- When the "Press any key to continue" prompt appears, press a key to close the window

```
C:\Windows\system32\cmd.exe
H:\>cd H:\makeInventory\
H:\makeInventory>echo Current dir = H:\makeInventory
Current dir = H:\makeInventory
H:\makeInventory>echo Script dir = H:\makeInventory\
Script dir = H:\makeInventory\
H:\makeInventory>echo Batch path = "H:\makeInventory\make_inventory.bat"
Batch path = "H:\makeInventory\make_inventory.bat"
H:\makeInventory>echo User argument 1 = H:\Images
User argument 1 = H:\Images
H:\makeInventory>H:\makeInventory\hashdeep\hashdeep.exe -e -r -v -d H:\Images 1>H:\makeInventory\fileInventory.xml
hashdeep.exe: WARNING: You are running a 32-bit program on a 64-bit system.
hashdeep.exe: You probably want to use the 64-bit version of this program.
H:\makeInventory>pause
Press any key to continue . . .
```

- The fileInventory.xml file should appear in makeInventory folder (it might take several minutes to more than an hour for the process to finish, depending on the disk size)



- Make sure that fileInventory.xml file is not empty



8. You can double-check that the program ran correctly by opening the fileInventory.xml file in a browser:

- Open a browser (e.g. Mozilla Firefox)
- click on File
- from the drop-down menu select Open File
- navigate to the fileInventory.xml file
- click Open

The content of the fileInventory.xml file should look similar to the picture below (if the program runs successfully, the filenames are listed in the document along with the file sizes and checksums)

```
- <dfxml xmloutputversion="1.0">
- <metadata>
  <dc:type>Hash List</dc:type>
</metadata>
- <creator version="1.0">
  <program>MD5DEEP</program>
  <version>4.1</version>
  <build_environment>
    <compiler>GCC 4.7</compiler>
  </build_environment>
  <execution_environment>
    <command_line>
      C:\Users\ds2057\Desktop\makeInventory\hashdeep\hashdeep.exe -e -r -v -d C:\Users\ds2057\Documents\Sample
    </command_line>
    <start_time>
    </start_time>
  </execution_environment>
</creator>
- <configuration>
  <algorithms>
    <algorithm name="md5" enabled="1"/>
    <algorithm name="sha1" enabled="0"/>
    <algorithm name="sha256" enabled="1"/>
    <algorithm name="tiger" enabled="0"/>
    <algorithm name="whirlpool" enabled="0"/>
  </algorithms>
</configuration>
- <fileobject workerid="0">
  <filename>
    C:\Users\ds2057\Documents\Sample\Assessment_of_Risk_Factors.doc
  </filename>
  <filesize>65024</filesize>
  <ctime>
  </ctime>
  <mtime>
  </mtime>
  <atime>
  </atime>
  <hashdigest type="MD5">bf47c4bc65dbad3606ed0e735cbb5a14</hashdigest>
  <hashdigest type="SHA256">
    e8b00d2a503d1b5fca3cfd4cae47a7ba1ab339573e327e37f2e00f0faeba154
  </hashdigest>
</fileobject>
- <fileobject workerid="1">
  <filename>C:\Users\ds2057\Documents\Sample\dig_coll_2010.xls</filename>
  <filesize>31232</filesize>
  <ctime>
```