Frequently Asked Questions

Please see the Data Usage Policies and Restrictions page for any questions about how our data can be used.

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- Questions about Downloading Images
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- Questions about Tumors
  - Do the exams in TCIA show both malignant and benign tumors?
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  - The site gives me problems, and error windows have popped up while I am trying to search or download images.

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Questions about The Cancer Imaging Archive (TCIA) Website

1. Do you have a User's Guide?

A detailed TCIA user's guide can be obtained by clicking on TCIA Radiology Portal User's Guide.

2. How do I contact TCIA Help Desk?

The TCIA Help Desk can be reached in one of two ways:

1. By email: help@cancerimagingarchive.net
2. By phone or text message: +1 385-275-8242 (+1 385 ASK-TCIA)

3. What are the hours of operation for TCIA Help Desk?

The hours of operation are 7:00 am to 5:00 pm CST, Monday-Friday. Although the Help Desk is closed weekends and holidays, a request can be submitted at any time. Holiday hours and further information may be found on our Support page.

4. What if I have questions on navigating TCIA website?

The TCIA User's Guide should provide all the direction you need. Please contact TCIA's Help Desk with additional questions by calling or texting +1 385-275-8242 (+1 385 ASK-TCIA) or sending an email to help@cancerimagingarchive.net.

5. What if I am unable to connect to TCIA website?

Please contact TCIA's Help Desk (+1 385-275-8242, voice or text) or send us an email (help@cancerimagingarchive.net) .

6. How do I submit feedback to TCIA website?

We welcome and appreciate your comments. Feedback maybe submitted via feedback@cancerimagingarchive.net.

7. What if I am being prompted to enter a verification code, but there is no verification code available and no place to type it?

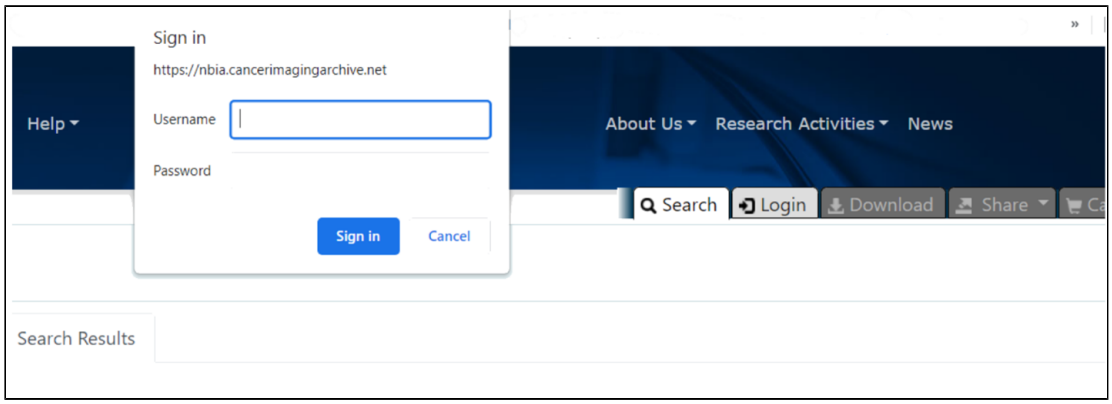
A security warning prompt displays and asks "**Do you want to view only the webpage content that was delivered securely**". Answer **NO** to the prompt in order to see the captcha information that is used for verification.

If you answer YES, the captcha information will NOT display.

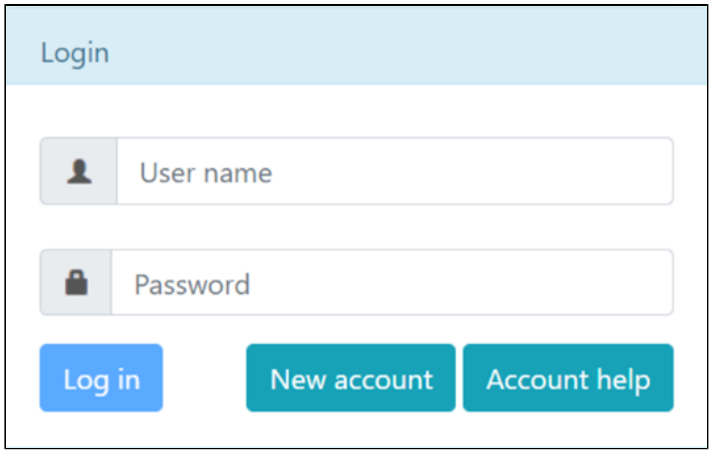
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8. Why am I prompted to sign in to TCIA when I am searching only on public collections?

A bug in the software causes a sign in window to rarely and randomly appear when you access the website.



To resolve this issue until the bug is fixed, click **Cancel** on the Sign in window and proceed normally with using TCIA. If you do need to log in to visit a restricted collection, do not sign in on this window but rather click the **Login** tab to open the normal Login window.



Questions about User Accounts

1. Do I need a user account to access TCIA?

Not unless you need to access private collections, or use shared lists. Just search for images without entering login information.

2. When I try to register after entering the captcha phrase, I get a PMW 5033 error or an error message stating, "The PWM configuration is invalid or corrupt. Please correct the error, or remove the configuration file." How do I proceed?

Assuming you are using Internet Explorer, change your browser's language to English by following these steps:

1. From the menu bar, select **Tools**.
2. Select **Internet Options**.
3. Click on **General** > **Language** and set to English (US).

3. How do I obtain a TCIA user ID and password?

From Radiology Portal, click 

and then click **New account**. Remember that you do NOT need a user ID and password unless you need to access private collections. Just search for images without entering login information.

4. What if I have issues pertaining to my TCIA user ID or password?

Assuming that you already have an account, from Radiology Portal, click 

and then click 

.

Choose the most appropriate of the following four options:

- You have an account but have forgotten your username.
- You have an account but have forgotten your password.
- You know your username and password, and would like to change your password.
- You would like to update your contact information in our system.

If you are still having trouble accessing your account, please contact the TCIA Support Center at help@cancerimagingarchive.net or call or text +1.385.275-8242 (+1.385.ASK-TCIA) during business hours for assistance.

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Questions about Accessing Collections

1. How do I find additional information about a specific collection?

You can find a list of all collections on the TCIA home page: https://www.cancerimagingarchive.net. The middle window on this page is labeled "TCIA Collections". It contains a list of all collections in TCIA. The orange "Search TCIA" button takes you to the TCIA search page. Typing anything into the "Filter table" input box will restrict the list of collections to those which match the pattern in the box. To access detailed information about a collection, click the link in the "Collection" column. This will take you to a page in the wiki with detailed information about the collection.

You can reference the corresponding wiki pages for any particular collection when you are logged into TCIA. From the search page, in the collection area, mouse over and click on the question mark symbol for information on each collection. If there is a wiki available for the collection, click it.

2. How do I request access to a restricted collection?

To access a restricted collection, you can gain approval by calling or texting the Help Desk at +1 385-275-8242 (+1 385 A , or send an email to help@cancerimagingarchive.net. *Please indicate the name of the restricted collection.*

3. How do I determine the status of a collection that has been submitted?

Please contact TCIA Help Desk (+1 385-275-8242, voice or text) or send an email (help@cancerimagingarchive.net) *and indicate the name of the collection*.

4. Is a listing of all of the modality abbreviations available?

Yes, modality abbreviations are listed here.

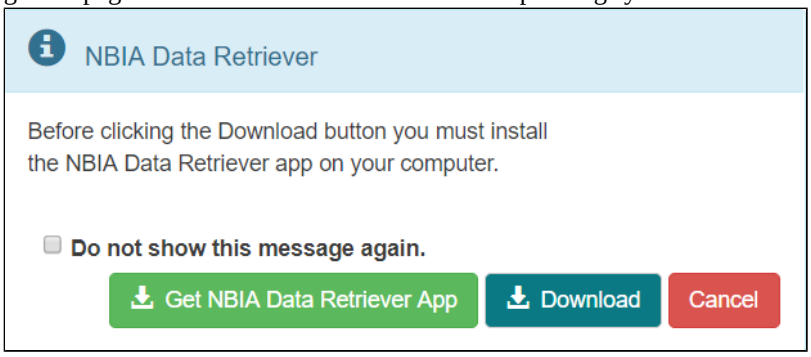
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Questions about Searching for Images

1. How do I search and download images as well as find out information about a specific collection?

Using MRI images of the prostate as an example, follow the steps below to download images from a specific collection:

1. Log into TCIA.
2. To download all of the MRI prostate images, from the Simple Search filters, select **MR** under **Image Modality** an d select prostate under **Anatomical Site**. The Summary tab shows updated pie charts and the number of image series in the search results.
3. Click the **Search Results** tab.
4. Click a **Subject ID** link to open all series associated with that subject.
5. Click the cart icon for one or more series. If you select only some of the series, the cart turns yellow. If you select all of the series, the cart turns green. The number of image series in your cart also appears next to the cart. The cart itself, in the upper-right of the window, shows how many image series are in it and how large the download will be.
6. Click Download.
   A message appears reminding you to download the NBIA Data Retriever. If you have already downloaded it, click **Do not show this message again** and click Download. Otherwise, click Get NBIA Data Retriever App to go to a page with links for downloads for each operating system.



7. Open the `manifest-xxx.tcia` file in the NBIA Data Retriever. For more information on the NBIA Data Retriever, see NBIA Data Retriever FAQ. Also see question #1 in the previous section.

2. How do I search images?

The National Biomedical Imaging Archive (NBIA) software enables searching for images in TCIA's local *in vivo* image repository. For simple searches, see Performing a Simple Search. For text searches, see Performing a Text Search (these links are in the TCIA Radiology Portal User's Guide) for more detailed instructions.

3. What if my image search comes up empty?

If your query is too restrictive, the search will return no results. Try starting with one criterion and add additional criteria one at a time to refine your search.

4. How do I manage and view images in my cart?

As you review search results in TCIA, you can add items at any level to your cart for subsequent download. You can then view subject details, thumbnails of the image series, and DICOM headers.

5. Can I share the data in my cart?

Once you have added data to your cart, you can share it as a URL to a static set of data. When you or a colleague opens the URL in a browser window, the new TCIA Graphical User Interface (GUI) opens to the cart page.

6. What if I have a question pertaining to sharing a query?

You can save your query for later use or share it with a colleague by email.

7. How do I search for images showing a particular disease?

Collection descriptions provide information about what disease was studied. On the **Search Images** page, scroll down to the collections block and click the question mark to the left of the collection name. Click to see a brief description of the collection; it will usually have pointers to a site where more detailed information about the collection is available.

8. How do I search for images if I know the patient (subject) ID?

The NBIA software enables you to search for images in TCIA's image repository in a variety of ways. Although searching for a particular collection is the most common, you can also search for the images belonging to one or more subjects. Simply start on the Search page and enter one or more subject ID strings, separated by commas.

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Questions about Downloading Images

Topics in this section

- Downloading the NBIA Data Retriever
- Installing the NBIA Data Retriever
- Downloading Images Using the NBIA Data Retriever
- Downloading the Cart
- Downloading the Query
- Opening the Manifest File and Downloading the Data
- Downloading Private Data

Downloading the NBIA Data Retriever

After you search for images of interest and add them to your data basket, you can download them.

The most convenient method of downloading them is by using the NBIA Data Retriever. You must install the NBIA Data Retriever before you begin downloading. You only have to install it once to use it in future downloading sessions.

Consult the NBIA Data Retriever FAQ for more information about NBIA Data Retriever versions and usage.

Get the NBIA Data Retriever

Click one of the following links to download the NBIA Data Retriever for that operating system. See Downloading Study Data for information on using this application to download data.

- RPM (tested on centOS)
  To run this file, type the following at the command prompt:
  `sudo yum -v -y remove NBIADataRetriever-4.4.x86_64.rpm;sudo yum -y install NBIADataRetriever-4.4.1.x86_64.rpm`
- DEB (tested on Ubuntu)
  To run this file, type the following at the command prompt:
  `sudo -S dpkg -r nbia-data-retriever-4.4.deb;sudo -S dpkg -i nbia-data-retriever-4.4.1.deb`
- NBIA Data Retriever in the Mac App Store
- Windows

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The following new and updated features are available in NBIA Data Retriever 4.4, which was released in September 2022.

September 2022

- If a download fails, you can now save the error report and then retry.

Installing the NBIA Data Retriever

You can install the NBIA Data Retriever on Windows, Mac, or Linux.

To install the NBIA Data Retriever on Windows

1. Download the installer package for Windows using the Windows link in the panel above.
2. Save the installer package file to your computer.
3. Install the app by double-clicking the installer package file.
4. Agree to the terms in the License Agreement and click **Install**.
5. When the Setup Wizard ends, click **Finish**.

To install the NBIA Data Retriever on Mac

The Mac version of the NBIA Data Retriever is only available through the iOS App Store. It requires a manifest file to work. You can download the app first or create a manifest file first. If you download the app first, right-click the manifest file and select **Open With Downloader App**. If you create a manifest file first, right-click it and select **Open With App Store**. This installs the app and then opens the manifest file in the app.

1. On your Mac, find the NBIA Data Retriever on the Mac App Store.

   The NBIA Data Retriever is a free app but still requires you to log in to download it. Consider changing your iOS Password Settings so that you can download free software without having to log in separately for it.

2. Click **Get**, then click **Install App**. The NBIA Data Retriever is free.
   The app starts downloading to your Mac. When the download is complete, you can open a manifest file with the NBIA Data Retriever.

To install the NBIA Data Retriever on Linux (centOS or Ubuntu)

To install the NBIA Data Retriever for all users, you must have the sudo privilege on your computer and a sudo password to install the NBIA Data Retriever on CentOS and Ubuntu.

If you do not use sudo, you can install the app locally by extracting the .deb or .rpm file to a directory where you have execute permissions and then running the app with a manifest file.

1. Download the installer package for centOS or Ubuntu using the RPM and DEB links in the panel above.
2. Save the installer package file to your computer.
3. Open a command window and go to the location where you saved the installer.

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Downloading Images Using the NBIA Data Retriever

After searching for collections and series of interest using the TCIA Radiology Portal, you have the following options for downloading the data.

- Add data to the cart and then download a manifest file of all of the data in your cart.
- Add data to the cart and then download a manifest file of only selected subjects and/or series.
- Download all of the data in the current query immediately. When you download the query, the results are the same as downloading your full cart.

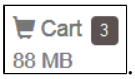
TCIA provides your download in the form of a manifest file (`manifest-xxx.tcia`). You must install the NBIA Data Retriever to open this manifest file and download the data. You can access the latest version of the NBIA Data Retriever by selecting **Download** > **Get NBIA Data Retriever**.

> You can share the manifest file with collaborators so that they can download the same images that you have selected by sharing your cart or sharing your query. Collaborators must also have the NBIA Data Retriever to open the manifest file you share.
>
> If you want to share a manifest file that includes links to ***private*** image collections, you must first manually install the latest NBIA Data Retriever. The NBIA Data Retriever controls access to private collections. Your collaborators must have the same access to the private collections in the manifest as you do. Otherwise, your collaborators will not be able to download images from those collections.

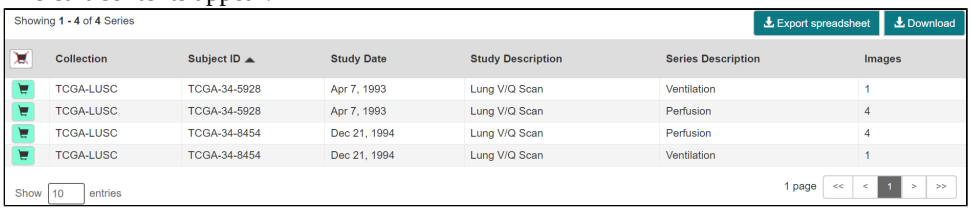
Downloading the Cart

You can download a manifest file of the full cart or a partial cart representing your selected subjects and/or series. You may want to do this, for example, if you are building a complex dataset by selectively adding scans to your cart from one or more queries.

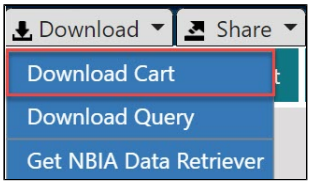
Once you download the manifest file, you would then open it in the NBIA Data Retriever to download the data to your computer.

1. Search for images of interest.
2. Add those images to your cart. You can add all images or select subjects and/or series of interest.
3. Click the cart icon in the top-right of the page 

.
The cart contents appear.



4. To download the full cart without selecting specific series, select **Download** > **Download Cart**.



or

To download only your selected subjects and series, click 

.

> Another option is to export the cart as a spreadsheet.

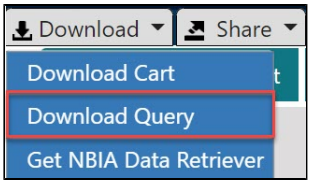
A manifest file including all of the contents of your cart downloads to your browser. Proceed to opening the manifest file and downloading the data.

Downloading the Query

After you have constructed a query by selecting options in the TCIA Radiologic Data Portal, you do not have to go to the cart at all to download it. You can download your query's results immediately. Just as with the cart, the data downloads in the form of a manifest file that you can open with the NBIA Data Retriever. This option is useful and efficient for downloading a lot of data.

To download your query, do the following.

1. Search for images of interest.
2. Select **Download** > **Download Query**.



A manifest file including all of the contents of your cart downloads to your browser. Proceed to opening the manifest file and downloading the data.

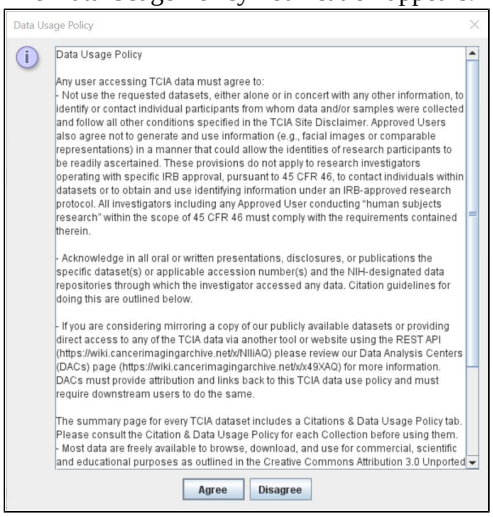
Opening the Manifest File and Downloading the Data

Once you have a manifest file, you need to download and install the NBIA Data Retriever, which is available for Windows, Mac, and Linux. You can get this app by selecting **Download** > **Get NBIA Data Retriever**.



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1. Opening the `manifest-xxx.tcia` file will launch the NBIA Data Retriever. If you're working in a Linux environment, you can also launch the NBIA Data Retriever from the command line.
   The Data Usage Policy notification appears.

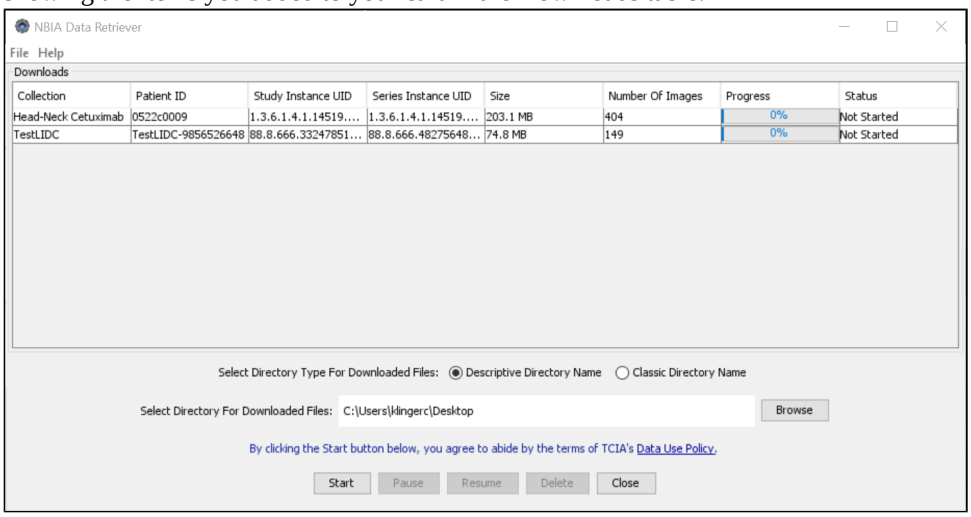


2. Click **Agree**. You must agree to the data usage policy before you can proceed with downloading the data in your cart. Note that this policy is included in the license file accompanying your download.

   - If you have added limited-access series to your cart, the NBIA Data Retriever login window appears. Enter your user name and password and click **Submit**.



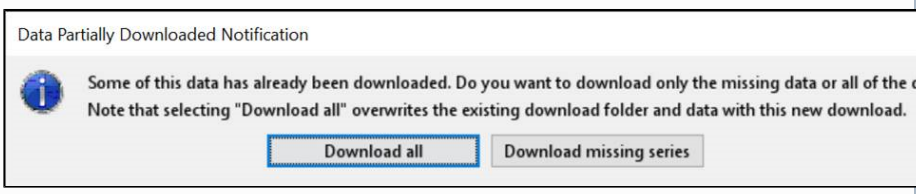
   - If all of the series you have added to your cart are public, the NBIA Data Retriever appears, showing the items you added to your cart in the Downloads table.



Notes:

- To verify the integrity of the download, select **File** > **Checksum Verification** prior to clicking **Start**. This calculates the checksum value of files you are downloading, comparing it with the same data in the database. If a mismatch is detected, an error message will appear, and you can also click the three dots in the Status column for more information. If you do not select Checksum Verification, the NBIA Data Retriever will still verify the download by comparing the file size of the series you are downloading against the database.
- If there are series in your download that have commercial use restrictions, the NBIA Data Retriever displays a message referring you to the license information for these series.
- You can hover your mouse over the Patient ID, Study Instance, and Series Instance columns to reveal the complete corresponding IDs. You can also resize a column by selecting and dragging the column border.
- If you do not want to download any of those items, select them in the Downloads table and then click **Delete**. When you remove an item from the Downloads table, it stays in your cart in the Radiology Portal.

If you close the NBIA Data Retriever in the middle of a download, NBIA Data Retriever remembers the partial download. When you restart the NBIA Data Retriever, choosing the same download directory as before, and click **Start**, you are prompted to specify whether you want to download just the missing series or download all of the series in the original manifest file.



If you choose *Download all*, the existing download folder will be overwritten with all of the series in the original manifest file. If you choose *Download missing series*, only those series you have not previously downloaded appear in the Downloads table in the NBIA Data Retriever window, then download only those series.

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NBIA Data Retriever File Naming System

The file naming system used by the NBIA Data Retriever provides a natural ordering of the files within each series. The DICOM files are first ordered by ordinal position of acquisition number and then by ordinal position of instance number. The files are then assigned numbers with the lowest acquisition being 1 and the lowest instance number within that acquisition being 1, separated by a dash. The numbers are incremented by 1 as the next values are encountered. All values are left-padded with zeros to provide for the ordering within the file system.

As an example, a series with two acquisition numbers, with each acquisition having 42 instance numbers, would start with 1-01.dcm for the lowest acquisition number and the lowest instance number in that acquisition. The last file in that acquisition would be 1-42.dcm. Then the second acquisition would start with 2-01.dcm and end with 2-42.dcm. For the purposes of ordering, an empty value in either acquisition number or instance number is lower than an file having a value for those numbers.

3. Select how to organize the downloaded files.
    - The Descriptive Directory Name organizes the files in a child folder under the destination folder as follows: Collection Name > Patient ID > Study Date + Study ID + Study Description (54 char max) + last 5 digits of Study Instance UID > Series Number + Series Description (54 char max) + last 5 digits of Series Instance UID
    - The Classic Directory Name organizes the files in a child folder under the destination folder as follows: Collection Name > Patient ID > Study Instance UID > Series Instance UID
4. Click **Browse** to navigate to the destination folder.
5. Click **Start** to begin the download. You can monitor the status of the full download in the progress bar on top, and for each collection in the Progress column. The Status column indicates when the download for each item is complete.

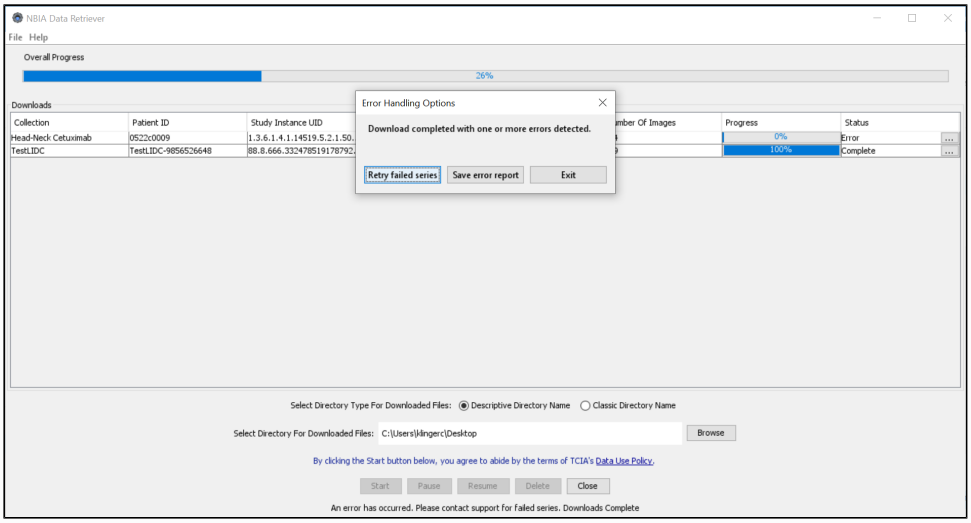
    At any point in the process, you can click the **Pause** and **Resume** buttons to temporarily stop and restart the process.

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Network Error?

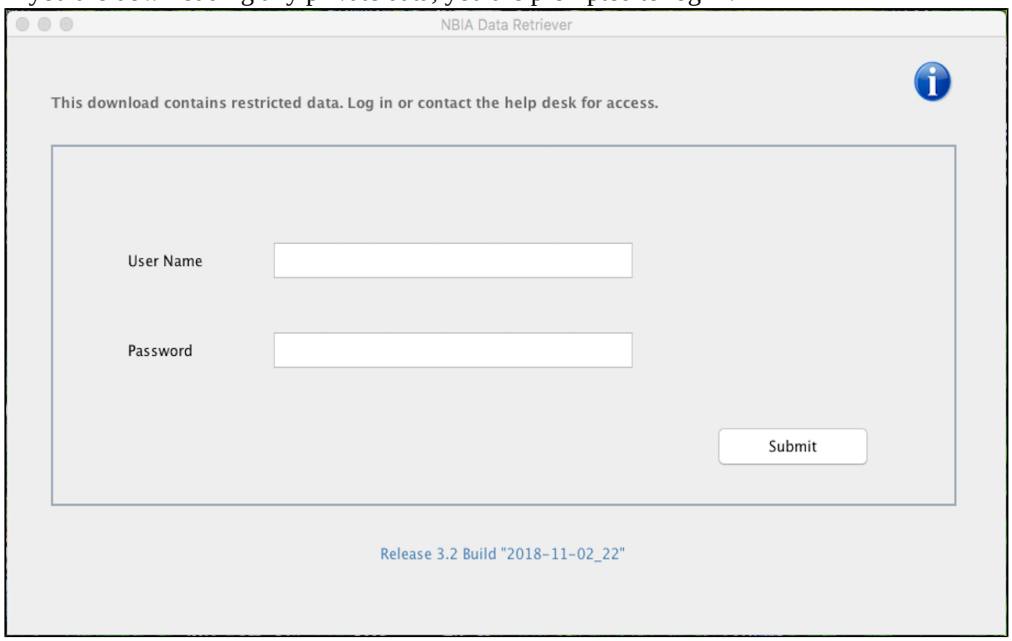
If network errors occur during large downloads, the NBIA Data Retriever retries downloading the series in the manifest file the number of times that your administrator has configured. The default is four times.

After the automatic retries, you have the option of retrying just the failed series, saving an error report, which you can share with the TCIA help desk, and exiting.



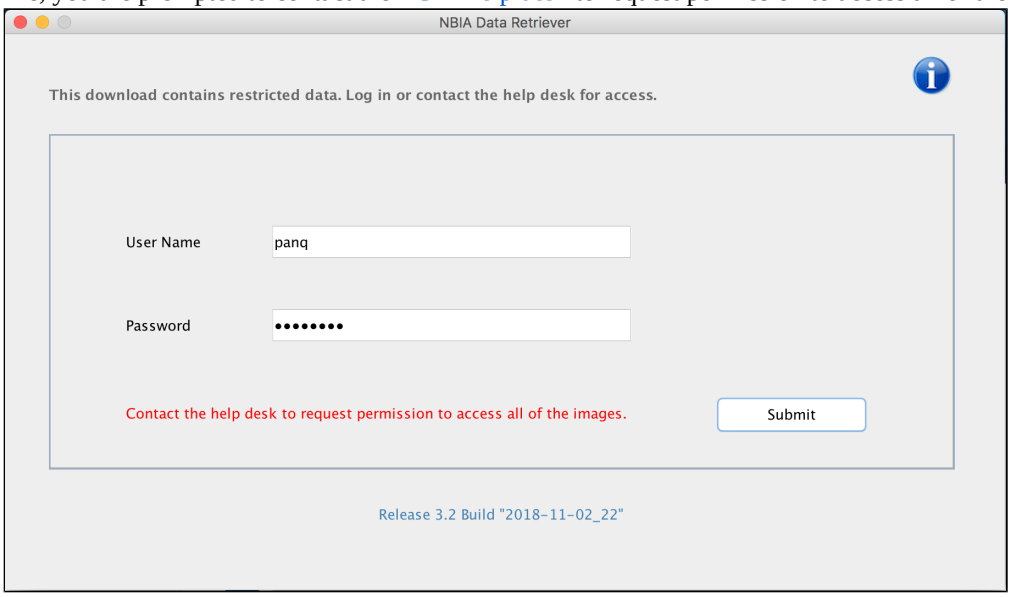
Downloading Private Data

If you are downloading any private data, you are prompted to log in.



Once you log in, the NBIA Data Retriever appears.

If you do not have permission to access even one of the collections/sites to which the images you have in your manifest file, you are prompted to contact the TCIA help desk to request permission to access all of the images.



Questions about the TCGA-related imaging data

How do I find additional information about brain tumors?

Please refer to The Cancer Genome Atlas-Glioblastoma Multiforme (TCGA-GBM) collection for well-documented brain-tumor images as described here: https://wiki.cancerimagingarchive.net/display/Public/TCGA-GBM. (This wiki page also links to pages describing related research activities and related resources.)

In the **Related Data** section, there is a link to a blank GBM Case Quality Control Form that details the kinds and descriptions of clinical data collected. The data are freely available from the TCGA Data Portal: https://tcga-data.nci.nih.gov/tcga.

Once there, click on the link to GBM data. Since TCIA does not host the TCGA Data Portal, we do not offer guidance for browsing the Data Portal.

The TCGA-Lower Grade Glioma (LGG) collection is another set of brain tumor images: TCGA-LGG.

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Questions about Tumors

Do the exams in TCIA show both malignant and benign tumors?

All patients who are part of TCIA at this time are cancer-positive by definition. We have no collections of non-malignant tumors or healthy patients. The only exception would be patients with multiple tumors who might have a benign tumor in addition to a malignant tumor, but at least one tumor will be malignant in each patient.

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Questions about Limited Access Collections

How do I access National Lung Screening Trial (NLST) data?

Access to NLST images and data requires approval of the National Cancer Institute (NCI). For details, please see: https://biometry.nci.nih.gov/cdas/studies/nlst.

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Useful References

MRI Basic Science and Abbreviations

Study materials for physicists and other clinical scientists learning the basics of magnetic resonance imaging (MRI): http://www.revisemri.com. Abbreviations only: http://www.revisemri.com/questions/misc/mri_abbrev

The site gives me problems, and error windows have popped up while I am trying to search or download images.

Our technical support team may ask you to answer these three questions if you're having difficulty with our website:

1. Which operating system are you using? (Typical examples would be Windows8, Mac OSX, Redhat Linux)
2. Which browser (and version of that browser) are you using? (Typical examples would be Safari, Internet Explorer, Firefox, Chrome)
3. Is Java installed on your machine, (and which version of that java are you using)? (Typical example would be yes, Java7 (u67))

To find your OS, browser, and java version, you may find the guide at Discover your OS Browser and Java Version helpful. The next step would be to test the site (but not necessarily click "download my basket") on another machine like a home laptop, to see if perhaps your institution has set, for example, a special layer of security on its network. The next step would be to email help@cancerimagingarchive.net to schedule an appointment for a webex teleconference with our technical support team to work with you interactively to facilitate access.

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