

# NATIONAL BIOMEDICAL IMAGING ARCHIVE 4.2

*User's Guide*



NATIONAL<sup>®</sup>  
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<b>LISTSERV facilities pertinent to NBIA</b>		
<b>LISTSERV</b>	<b>URL</b>	<b>Name</b>
NBIA Steering	<a href="https://list.nih.gov/archives/NBIA_steering.html">https://list.nih.gov/archives/NBIA_steering.html</a>	NBIA Steering Discussion Forum
NBIA Developers	<a href="https://list.nih.gov/archives/NBIA_developers.html">https://list.nih.gov/archives/NBIA_developers.html</a>	NBIA Developers Discussion Forum

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# ABOUT THIS GUIDE

This section introduces you to the *NBIA User's Guide*. It includes the following topics:

- [Purpose](#) on this page
- [Audience](#) on this page
- *Topics Covered* on page 1
- *Additional References* on page 2
- *Text Conventions Used* on page 2

## Purpose

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This guide provides an overview of National Biomedical Imaging Archive (NBIA). It explains how to use NBIA to access local, and if available, remote imaging archives.

## Audience

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The *NBIA User's Guide* is the documentation for the NBIA web-based application. The intended audience for this guide are researchers including pathologists and radiologists at cancer centers, academia, and industry that access NBIA through commonly available web browser software.

## Topics Covered

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The *NBIA User's Guide* discusses the following topics:

- [Chapter 1](#) provides an introduction to NBIA and describes how to access NBIA.
- [Chapter 2](#) describes how to search the local and any selected remote image databases.
- [Chapter 4](#) discusses administrative functions in NBIA.
- [Appendix A](#) provides a list of URL references referred to within the text.
- [Appendix B](#) includes a list of abbreviations and their meanings.
- [Index](#) references key words and terms.

## Additional References

To visualize images with the Cedera I-Response Workstation software, refer to Cedera documentation.

## Text Conventions Used

This section explains conventions used in this guide. The various typefaces represent interface components, keyboard shortcuts, toolbar buttons, dialog box options, and text that you type.


<b>Convention</b>	<b>Description</b>	<b>Example</b>
<b>Bold &amp; Capitalized Command</b> <b>Capitalized command &gt; Capitalized command</b>	Indicates a Menu command Indicates Sequential Menu commands	<b>Admin &gt; Refresh</b>
TEXT IN SMALL CAPS	Keyboard key that you press	Press ENTER
TEXT IN SMALL CAPS + TEXT IN SMALL CAPS	Keyboard keys that you press simultaneously	Press SHIFT + CTRL and then release both.
Monospace type	Used for filenames, directory names, commands, file listings, and anything that would appear in a Java program, such as methods, variables, and classes.	URL_definition := url_string
<b>Icon</b>	A toolbar button that you click	Click the <b>Paste</b> button (  ) to paste the copied text.
<b>Boldface type</b>	Options that you select in dialog boxes or drop-down menus. Buttons or icons that you click.	In the Open dialog box, select the file and click the <b>Open</b> button.
<i>Italics</i>	Used to reference other documents, sections, figures, and tables.	<i>caArray User's Guide</i>
<b><i>Italic boldface monospace type</i></b>	Text that you type	In the New Subset text box, enter <b><i>Proprietary Proteins.</i></b>
<b>Note:</b>	Highlights a concept of particular interest	<b>Note:</b> This concept is used throughout the installation manual.
<b>Warning!</b>	Highlights information of which you should be particularly aware.	<b>Warning!</b> Deleting an object will permanently delete it from the database.

Table i.1 NBIA User's Guide Text Conventions

<b>Convention</b>	<b>Description</b>	<b>Example</b>
{ }	Curly brackets are used for replaceable items.	Replace {root directory} with its proper value, such as c:\cabio

*Table i.1 NBIA User's Guide Text Conventions (Continued)*



## CHAPTER

# 1

## GETTING STARTED IN NBIA

This [section chapter](#) describes how to use NBIA.

Topics in this [section chapter](#) include:

- [Introduction to NBIA on this page](#)
- *Creating a New User Account* on page 6
- *Logging into NBIA* on page 8
- *Changing User Password* on page 9
- *Using NBIA News Page* on page 14
- *Using NBIA Online Help* on page 16
- *Application Support* on page 18

### Introduction to NBIA

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NBIA provides the cancer research and medical community, industry, and academia access to imaging archives that can be used for many purposes, including the potential to assist in the development and validation of analytical software tools supporting these functions:

- Lesion detection and classification software
- Accelerated diagnostic imaging decision
- Quantitative imaging assessment of drug response

**Note:** If the Remote Search option appears on the NBIA home page, you can search remote imaging archives located outside of the local NBIA archive.

The archive provides access to imaging resources that improve the use of imaging in today's cancer research and practice by increasing the efficiency and reproducibility of imaging cancer detection and diagnosis, leveraging imaging to provide an objective

assessment of therapeutic response, and ultimately enabling the development of imaging resources that will lead to improved clinical decision support.

Clinical trials, physicians and other researchers submit images to NBIA using the MIRC (Medical Imaging Resource Center) software. Any potential user may then access NBIA to search for and download images and associated annotation files.

Images are stored in the medical image standard, Digital Imaging and Communications in Medicine (DICOM). A DICOM file stores the digital image along with a series of tags that contain metadata about the image such as patient ID, study ID, patient weight, anatomic site, and so forth. For more information about DICOM, see <http://medical.nema.org/>.

NBIA is accessible at <https://imaging.nci.nih.gov>. In the Welcome/Login page that opens, you can perform the following tasks:

- Learn the basics about NBIA by reading the welcome page introduction
- Open a window that provides links for downloading DICOM viewers
- Open Quick Links to websites relevant to the goals and tasks of NBIA. See *Home Page Left Sidebar* on page 11.
- Register for a new user account.
- Log into NBIA. *See Creating a New User Account*
- *See Logging into NBIA*

## Browser Support for NBIA

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When you navigate to the NBIA Home page, the system determines the type and version of the browser being used before accessing the NBIA home page. If the browser is not supported by NBIA, the system displays a webpage with a message indicating that the browser is not supported. The message includes information on the supported browsers and version.

**Note:** You will be denied access to the NBIA home page without a supported browser.

## Creating a New User Account

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To register a new user in NBIA, from the NBIA welcome and login page, follow these steps:

1. Click the **Register Now** hypertext link under the **Login** button.
2. Review the Legal Rules of the Road page, then click the blue **Clicking Here** link to continue.

3. In the registration form that opens ([Figure 1.1](#)), enter the required information. Items with an asterisk are required fields.

The screenshot shows the 'User Registration' form on the NCIA website. The form is divided into two main sections: 'NAME' and 'CONTACT INFORMATION'. The 'NAME' section includes fields for 'Title', '\*First Name', and '\*Last Name'. The 'CONTACT INFORMATION' section includes fields for '\*Email', '\*Phone', '\*Organization Name', and 'Fax'. A note at the bottom of the form states: 'Note: You will be notified with your new user ID and password via email in one business day when the registration process is completed.' There are 'REGISTER' and 'CANCEL' buttons at the bottom right of the form.

Figure 1.1 *New user registration form*

4. Click **Register** to execute the submission of the user information. Click **Cancel** to return to the login screen.

Once you have submitted your entry form, you will be notified by email when your registration is completed and the account is active.

## Using NBIA Without Logging In

You do not have to log in to access public data in NBIA. You can use the search function without logging in. All data that NBIA returns without being logged in is public data. You can add data to the data basket

If you are not logged into the application, some functions are unavailable: saving a search query, change password, viewing image annotations, remote searches. You also cannot download more than 3 gigabytes of data.

**Note:** In some cases of local installation, the decision may have been made not to enable public data access without login.

When user goes to NBIA, under what circumstances does login section NOT show on home page? When login section does show, how does user bypass login and perform tasks? I can't see that option.

[Introduction to NBIA](#)

[Logging into NBIA](#)

## Logging into NBIA

When you click the <https://imaging.nci.nih.gov> to access NBIA and indicate your agreement on the Legal Rules of the Road, the welcome/login page displays.



Figure 1.2 NBIA Welcome/Login page

If you have already registered with NBIA, perform the following steps to login from the User Login panel (Figure 1.2).

1. Enter the login information, your **USER ID** and **PASSWORD**.
2. Click **Login**.

If your login is successful, NBIA opens the application to its home page.

### In Case of Login Failure:

**Tip:** If your EMAIL or PASSWORD is not correct, “Invalid Username/password. Please try again.” displays in red text on the login page. Additionally, a popup opens, informing you of a failure to login and its possible reasons. *In your browser, you should enable a popup blocker exception for the NBIA site/URL. If you fail to do that, the login failure message may not appear.*

1. If you do not have a login ID or password, on the login page, click **Register Now** to apply for a user account. For more information, see *Creating a New User Account* on page 6.
2. If you have persistent difficulty logging in, click **I cannot access my account** on the NBIA login page. An NBIA Account Help topic opens, describing the NCI



LDAP account authentication process, and listing help options for resolving your login problem.

3. Follow the directions on the Login Failed pop-up message and/or on the NBIA Help Account page. Note that you can contact Application Support using the contact information on that page.

**Note:** If you launch a search of the NBIA database from another application, when you do so, you are brought to the NBIA login page. Use the same login instructions described in this topic.

## Changing User Password

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**Note:** The Change Password feature is only available if you are using an NCICB instance of NBIA.

Passwords for versions of NBIA prior to 3.1 will no longer work in the application. If you are a previous user, you should have received an email with a new reset password. You can continue to use the reset password, or you can change to a password of your choice. At any time during your tenure as an NBIA user, you can change the password following these directions.

To change your password, when using the NCICB instance of NBIA follow these steps:

1. Log into NBIA using the current (or reset) password.
2. On the NBIA Welcome page, click **Change Password** under the **Tools** section of the left sidebar.

**Note:** This option is present only in the NCICB instance of NBIA.

The change password link directs you to the NCI password station.

3. Enter your NCI User ID in the appropriate text box. Follow the directions given at this website to change your password.

*[Introduction to NBIA](#)*

*[Creating a New User Account](#)*

# Using the NBIA Home Page

The NBIA welcome/home page that opens after login displays several panels and menu bars (Figure 1.3).

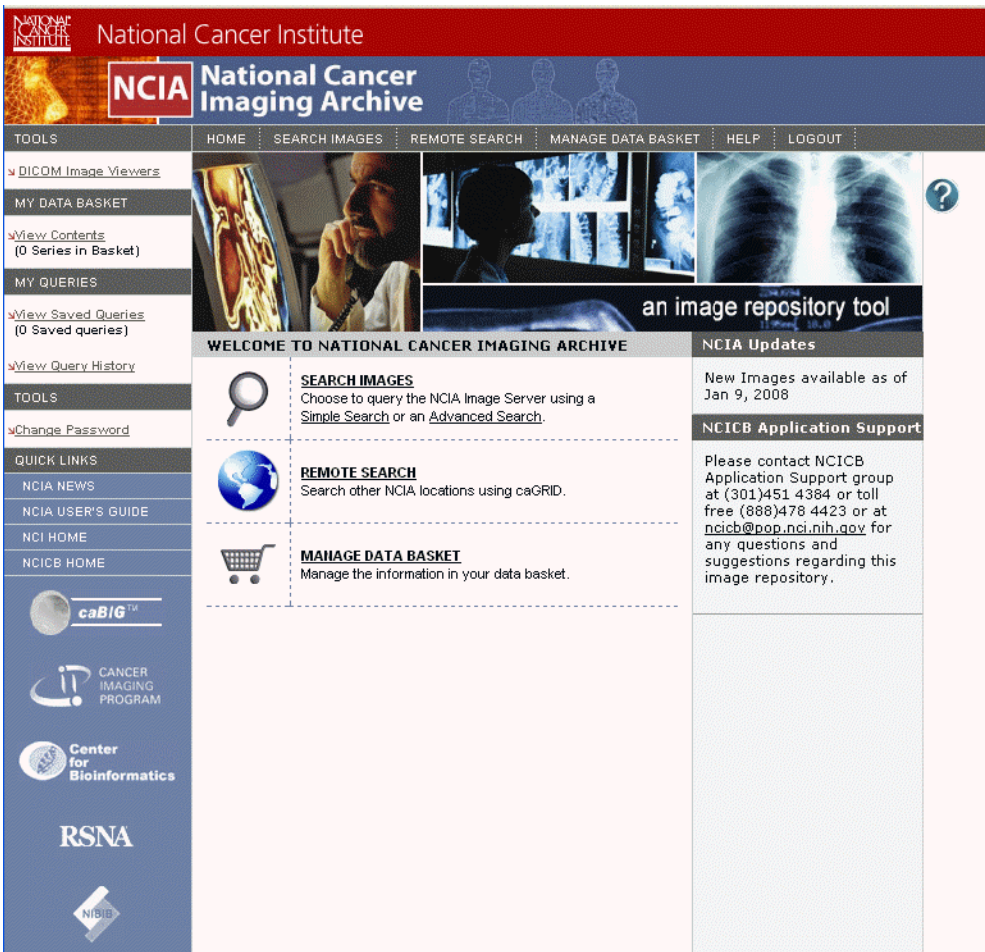


Figure 1.3 NBIA home page after login

Home Page Menu Bar

Home Page Left Sidebar

Other Home Page Panels

## Home Page Menu Bar

The top menu bar on the welcome/home page consists of the options described in the following table: Table 1.1.

Option	Description	See for More Information
Home	Returns you to the NBIA Home page	N/A

Table 1.1 NBIA home page menu bar options

<b>Option</b>	<b>Description</b>	<b>See for More Information</b>
<b>Search Images</b>	Displays the Simple Search page	<i>Performing a Simple Search</i> on page 21
<b>Remote Search</b>	Displays the Search Remote Sites page This function is available only when NBIA is configured for remote image sites.	<i>Specifying Remote Search Sites</i> on page 19
<b>Manage Data Basket</b>	Displays the My Data Basket page; This is the same option as choosing <b>My Data Basket &gt; View Contents</b> from the side menu bar.	<i>Managing the Data Basket</i> on page 47
<b>Help</b>	Displays a separate online Help window	<i>Using NBIA Online Help</i> on page 16
<b>Logout</b>	Logs you out of NBIA and returns you to the NBIA home page	N/A

Table 1.1 NBIA home page menu bar options

[Changing User Password](#)

[Home Page Left Sidebar](#)

[Other Home Page Panels](#)

## Home Page Left Sidebar

The left sidebar of the Welcome page down through **My Queries** consists of the options described in [the following table Table 1.2](#).

<b>Option</b>	<b>Description</b>	<b>See for More Information</b>
<b>Tools &gt; DICOM Image Viewers</b>	Displays the DICOM Viewer Links window	<i>Obtaining DICOM Viewers</i> on page 49
<b>My Data Basket &gt; View Contents</b>	Displays the My Data Basket page	<i>Managing the Data Basket</i> on page 47
<b>My Queries &gt;View Saved Queries</b>	Displays the Saved Queries page	<i>Managing Saved Queries</i> on page 34
<b>My Queries &gt;View Query History</b>	Displays the Query History page	<i>Viewing a Query History</i> on page 38
<b>Tools &gt; QC Tool</b>	Allows a curator to evaluate a submission and assign a QC status	<i>Using the Quality Control (QC) Tool</i> on page 62
<b>Tools &gt; Upload Curation Data</b>	Provides the means to upload and parse an annotation spreadsheet	<i>Uploading and Parsing the Curation Spreadsheet</i> on page 66
<b>Tools &gt; Verify Submission</b>	Verifies an image submission and its status through a report	<i>Verifying Submitted Files</i> on page 67

Table 1.2 NBIA home page left sidebar options

[Changing User Password](#)

## Home Page Menu Bar

## Other Home Page Panels

### Quick Links

The **Quick Links** menu options on the lower left sidebar displayed in most NBIA viewers provide sources for NBIA- and NCI-related bioinformatics information on the Internet. The options are described in [the following table Table](#) .

<b>Option</b>	<b>Description</b>	<b>See for More Information</b>
<b>Quick Links &gt; NBIA News</b>	Displays the NBIA News page in a separate window.	<i>Using NBIA News Page on page 14</i>
<b>Quick Links &gt; NCI Home</b>	Displays the NCI home page in a separate window.	N/A
<b>Quick Links &gt; NCICB Home</b>	Displays the NCICB home page in a separate window.	N/A

Table 1.3 *Left sidebar Quick Links*

## Changing User Password

## Home Page Left Sidebar

## Other Home Page Panels

## News Page Menu Bar

## News Page Left SideBar

## News Page Site Map

### Other Home Page Panels

The various panels of the welcome/home page display an additional variety of options described in [the following tableTable](#) 1.4.

<b>Option</b>	<b>Description</b>	<b>See for More Information</b>
<b>Center Panel</b>		
<b>Search Images</b>	Displays the Simple Search screen	<i>Performing a Simple Search on page 21</i>
<b>Simple Search</b>	Displays the Simple Search screen	<i>Performing a Simple Search on page 21</i>
<b>Advanced Search</b>	Displays the Advanced Search screen	<i>Performing an Advanced Search on page 28</i>
<b>Remote Search</b>	Displays the Search Remote Sites screen	<i>Specifying Remote Search Sites on page 19</i>
<b>Manage Data Basket</b>	Displays the My Data Basket page	<i>Managing the Data Basket on page 47</i>
<b>Right-hand panel</b>		

Table 1.4 *NBIA home page welcome panel options*

<b>Option</b>	<b>Description</b>	<b>See for More Information</b>
<b>NBIA Updates</b>	Displays the last date and time visible images were made available. This date reflects the last update of any images and does not consider whether you have access to them.	N/A
<b>NCICB Application Support</b>	Displays phone numbers to contact NCICB Application Support. See	<i>Application Support</i> on page 18.
<b>Bottom menu bar</b>		
<b>Contact Us</b>	Displays an email addressed to <a href="mailto:ncicb@pop.nci.nih.gov">ncicb@pop.nci.nih.gov</a> so you can email questions to NCICB application support	N/A
<b>Privacy Notice</b>	Displays the Health and Human Services (HHS) Privacy Policy Notice.	N/A
<b>Disclaimer</b>	Displays the NBIA Legal Rules of the Road disclaimer.	N/A
<b>Accessibility</b>	Displays the NCI Web Accessibility Feedback Form to be used by users with disabilities who have comments about the accessibility of NCI's web pages.	N/A
<b>Support</b>	Displays the Welcome to the NCICB Application Support Site web site.	N/A

Table 1.4 *NBIA home page welcome panel options**Changing User Password**Home Page Menu Bar**Home Page Left Sidebar*

## Using NBIA News Page

To open the NBIA News page, click on the corresponding link under *Quick Links* on the lower left sidebar of any NBIA page.

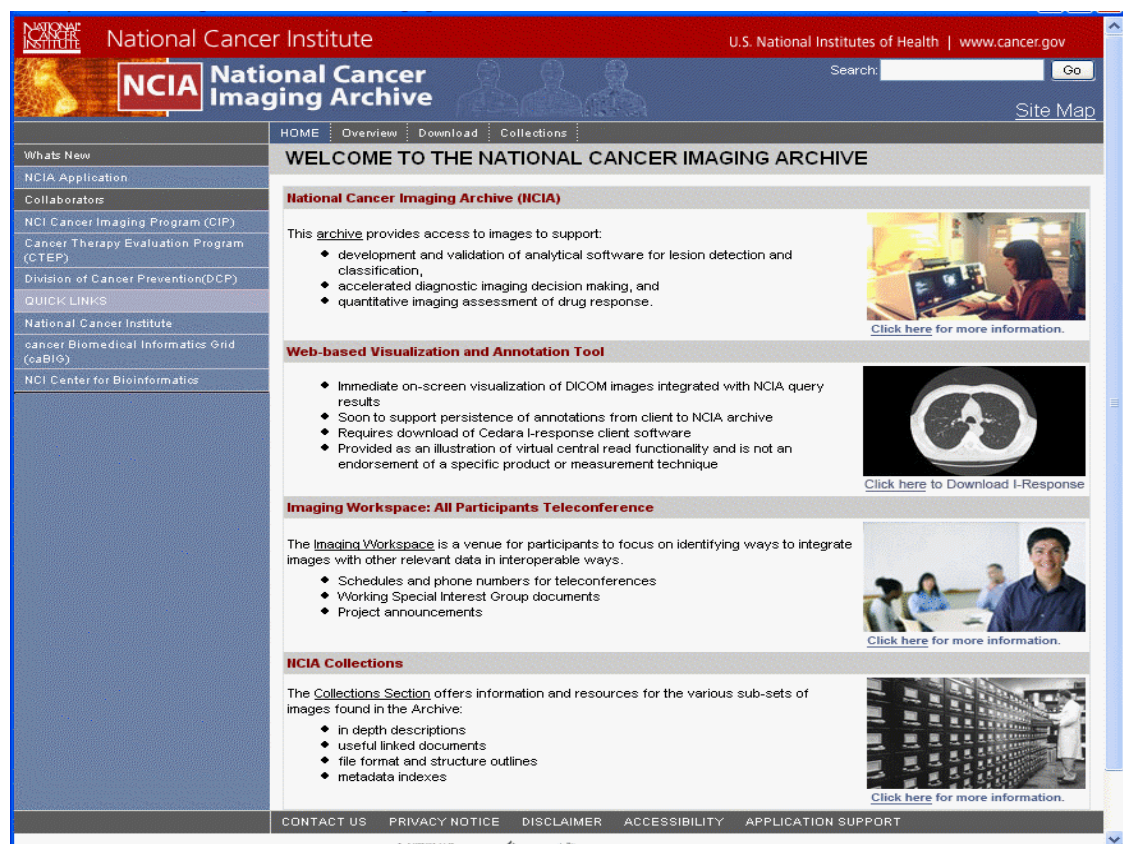


Figure 1.4 NBIA news page

The NBIA News page (Figure 1.4) consists of a center panel that displays current NBIA-related information as well as sidebar and menu bar options that navigate to websites and NBIA pages relevant to your tasks.

*News Page Menu Bar*

*News Page Site Map*

*News Page Left SideBar*

### News Page Menu Bar

The News page top menu bar (Figure 1.4) consists of the options described in the following table Table 1.5.

Option	Description
Home	Returns you to the NBIA News home page
Overview	Provides an overview of NBIA and its goals
Download	Displays NBIA software available for download

Table 1.5 News page top menu bar descriptions



Option	Description
<b>Collections</b>	Describes existing and future collections.

Table 1.5 *News page top menu bar descriptions*

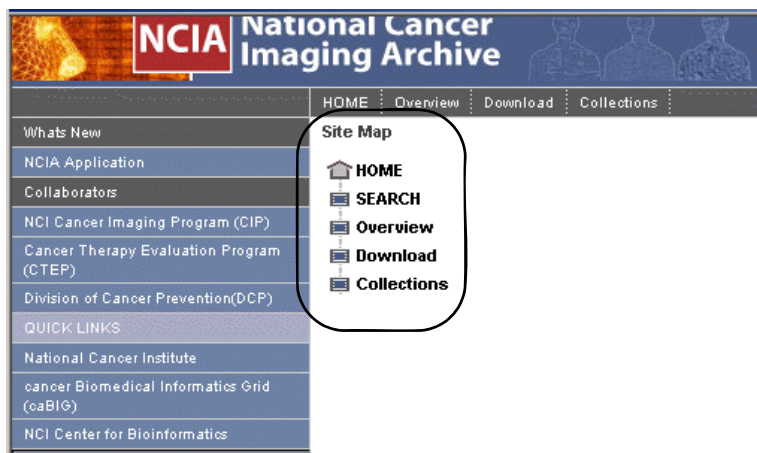
[Changing User Password](#)

[News Page Site Map](#)

[News Page Left SideBar](#)

## News Page Site Map

Click the **Site Map** link in the upper right hand corner of the News page to display a list of site map information provided in the center panel of the page (see [Figure 1.5](#)).

Figure 1.5 *News page Site Map*

If you click the **Download** menu option or the link in the Site Map, each takes you to a Download page that has a link to the NCICB Download Center, where you can download the latest release of NBIA and its related files. For more information, refer to <https://imaging.nci.nih.gov>.

[Changing User Password](#)

[News Page Menu Bar](#)

[News Page Left SideBar](#)

## News Page Left SideBar

The left side bar of the News page down through **Collaborators** consists of the options described in [the following table Table 1.6](#). For more information about the Quick Links options, see [Quick Links](#) on page 12.

Option	Description
<b>NBIA Application</b>	Contains a link to the NBIA application
<b>Collaborators &gt; NCI Cancer Imaging Program (CIP)</b>	Displays the CIP website in a separate browser window

Table 1.6 *News page left sidebar descriptions*

<b>Option</b>	<b>Description</b>
<b>Collaborators &gt; Cancer Therapy Evaluation Program (CTEP)</b>	Displays the CTEP website in a separate browser window
<b>Collaborators &gt; Division of Cancer Prevention (DCP)</b>	Displays the DCP website in a separate browser window
<b>Quick Links &gt; National Cancer Institute</b>	Link to NCI
<b>Quick Links &gt; Cancer Biomedical Informatic Grid (caBIG™)</b>	Link to caBIG™
<b>Quick Links &gt; NCI Center for Bioinformatics</b>	Link to NCICB

Table 1.6 *News page left sidebar descriptions (Continued)*

[Changing User Password](#)

[News Page Menu Bar](#)

[News Page Site Map](#)


## Using NBIA Online Help

The online help has been written to help you master the NBIA software.

To access online help in NBIA, use any of the following methods:

- Click the **Help** menu option on the top menu bar to open the complete online help project or a Guided Tour.  
**Note:** You can access online help without being logged into NBIA.
- Click the **Help** icon or button at the top of each page to open a context sensitive topic.
- Click a **Guided Tour** link then click one of the **here** links to start an online tutorial on how to register for NBIA or the basic steps to use NBIA.

Once you are in online help, an array of options helps you locate topics of interest.

- Context-sensitive help displays online help topics that correspond to the “form” or page from which help was opened. Click the TOC button (  ) at the top left of the title bar to open the full online help directory.



- Follow hypertext links or the **Related Topics** buttons in the help topics to open other closely related topics.

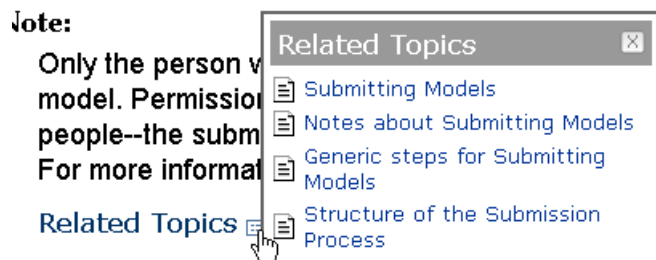


Figure 1.6 *Related Topics button and associated list*

- Locate topics using the table of contents that displays in the left pane of the online help project or the Index tab that displays at the top of the Table of Contents pane.
- Perform word searches of Help by entering query text in the search text box.

**Note:** A monitor resolution of greater than 800x600 is highly recommended for these guided tours. If you have problems viewing the online tutorials, you may need to install the Flash Plug-in for your browser. Go to the Macromedia website to download this free plug-in ([http://www.macromedia.com/shockwave/download/download.cgi?P1\\_Prod\\_Version=ShockwaveFlash](http://www.macromedia.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash)).

## Accessing NBIA from Another Application

Searches in NBIA can be launched from other applications configured with this feature. For specific information about launching NBIA from another application, refer to the online help or user documentation from that application.

When NBIA is launched by a search defined and initiated from another application, the system runs the query, then opens to the NBIA login page where you must login to see the search results. This search feature is designed to search the image repository to find images specified by the link in the other application, then to display images as identified there. Once you are logged into NBIA, if the search is successful, NBIA displays a viewer showing one or more search result image(s) you defined in the other application.

### *Example:*

This feature is found in the calIntegrator application, I-SPY. The application I-SPY can launch a search for images identified as “before” and “after” (such as before and after treatment). If the search is successful, the before and after shots specified in the search criteria would display in NBIA. For I-SPY, see the download page on the NCICB website: <http://ncicb.nci.nih.gov/download/>.

From this Search Results page that opens in NBIA, you can perform the following actions:

- Click **Add to Basket** to add the image to the Data Basket.

- Click **View Series** to display the Images for Series page. This page displays all of the image thumbnails for the series containing the image(s) displayed above the link.
- Click **Open Full Size JPEG** to display the image in full size mode (in a separate browser window).

## Application Support

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For any general information about the application, application support or to report a bug, contact NCICB Application Support.

Email: <a href="mailto:ncicb@pop.nci.nih.gov">ncicb@pop.nci.nih.gov</a>	When submitting support requests via email, please include: <ul style="list-style-type: none"><li>• Your contact information, including your telephone number.</li><li>• The name of the application/tool you are using</li><li>• The URL if it is a Web-based application</li><li>• A description of the problem and steps to recreate it.</li><li>• The text of any error messages you have received</li></ul>
Application Support URL	<a href="http://ncicb.nci.nih.gov/NCICB/support">http://ncicb.nci.nih.gov/NCICB/support</a>
<b>Telephone:</b> 301-451-4384 or toll free: 888-478-4423	Telephone support is available Monday to Friday, 8 am – 8 pm Eastern Time, excluding government holidays.

# CHAPTER 2

## SEARCHING FOR IMAGES

This [section chapter](#) describes how to use NBIA.

Topics in this [section chapter](#) include:

- [Specifying Remote Search Sites on this page](#)
- [Performing Searches on this page](#)
- *Working with Saved Search Queries* on page 33
- *Viewing Search Results* on page 39
- *Working with the Data Basket* on page 46
- *Obtaining DICOM Viewers* on page 49
- *Initiating Searches from Other Applications* on page 50

### Specifying Remote Search Sites

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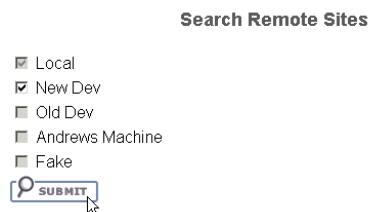
A remote search site is an image database residing outside of the local NBIA imaging archive. When you select a remote image database, Simple, Advanced, and Annotation Keyword Search pages display search results for the local NBIA imaging archive AND any selected remote sites.

**Note:** If there are no remote sites configured during installation, the Remote Search function does not display on the NBIA home page. hadfielj

To select remote search sites, follow these steps:

1. Initiate the search by following one of these options:
  - Click **Remote Search** from the top menu bar.
  - Click the **Remote Search** link in the Welcome panel or on the menu bar

Any of these options open the Search Remote Sites page ([Figure 2.1](#)).



*Figure 2.1 Search Remotes Sites*

“Local” represents the NBIA imaging archive that you are currently logged into. “Local” is always selected and cannot be unchecked. Any disabled remote sites are not available.

2. Select the remote site(s) that you want to search, and click the **Submit** button.

The Simple Search page appears. For more information about simple searches, see [Performing a Simple Search](#).

[Searching Curation Data](#)

[Performing an Advanced Search](#)

[Working with Saved Search Queries](#)

[Viewing Search Results](#)

## Performing Searches

NBIA enables you to search for images in the local NBIA *in vivo* image repository, and if available, to use the Remote Search function to search in remote imaging archives. NBIA is designed to perform the following tasks:

The NBIA *in vivo* image repository is designed as an archive which you can use to perform the following tasks:

- Search for images in simple or advanced search mode
- Combine search criteria defined in those searches with keyword searches of curated annotation data
- Save the search queries to be used repeatedly
- Review query histories
- As subjects, studies, series or images are located, save them to your data basket for download

**Note:** When you download a series that have annotation files (indicated by **Yes** in the **Contains Annotations** column), they are automatically downloaded as well.

The NBIA submissions are organized in the following hierarchy, which is important to remember in creating your search query and reviewing search results:

**Clinical trial > Patient (Subject) > Study > Series > Images**

NBIA provides three search modes:

- Simple Search
- Advanced Search
- Annotation Keyword Search

Some search pages contain toggle buttons to allow you to switch back and forth between the Simple Search and Advanced Search pages.

Each search page contains selection boxes, drop-down lists and text fields. Selected objects are used as search criteria.

1. **Selection Boxes.**

- To move an item from the **Available** box to the Selected panel, highlight it in the Available box and click **Select**.
- Click **Select All** to select all available items and move them to the Selected panel in one keystroke.
- To remove an item from the Selected panel, highlight the item(s) and click **Remove** or click **Remove All** to remove all items.

2. **Drop-down Lists.** Click on a drop-down list arrow and select the appropriate choice.

3. **Text fields.** Enter the information requested.

*Specifying Remote Search Sites*

*Performing a Simple Search*

*Searching Curation Data*

*Performing an Advanced Search*

*Working with Saved Search Queries*

*Viewing Search Results*

## Performing a Simple Search

A simple search consists of basic criteria; they can be expanded for an advanced search. All simple searches are made at the series level from the Simple Search page.

**Note:** The data shown in the search results come from the supplied source, not from what NBIA derives unless explicitly stated.

Perform the following steps to complete a Simple Search.

1. Initiate the search by following one of these options:
  - Click **Search Images** from the top menu bar.
  - Click the **Search Images** link in the Welcome panel or on the menu bar
  - Click the **Simple Search** link in the Welcome panel.
  - From the Advanced Search page, click the **Simple Search** button in the upper right hand corner. The Simple Search page displays with the basic criteria that may have already been selected.

Any of these options open the Simple Search page. The Remote Sites Selected table at the top of the page lists the remote databases you may have selected to be searched outside the local NBIA imaging archive ([Figure 2.2](#)). (See [Specifying Remote Search Sites](#) on page 19.

## Simple Search ?

\*All searches are conducted at the series level

\*Different types of criteria are ANDed together when searching. Different values for the same criteria are ORed together. For example, if two modalities and two collections are selected, results will be returned that match at least one of the selected modalities and at least one of the selected collections.

\*Default equals "All"

*Figure 2.2 Simple Search page (top)*

The remainder of the Simple Search page displays the search criteria ([Figure 2.3](#)).

SEARCH CRITERIA	
Image Modality(ies)	<div> <div>Available</div> <div>           CR CT DX HC MR NM PT         </div> <div>           SELECT &gt; SELECT ALL &gt;&gt; &lt;&lt; REMOVE ALL &lt; REMOVE         </div> <div>Selected*</div> </div> <p><small>*Return cases that include <input type="radio"/> ALL <input checked="" type="radio"/> ANY of the selected modalities.</small></p>
Contrast	<input checked="" type="checkbox"/> Enhanced <input checked="" type="checkbox"/> Unenhanced
Anatomical Site	<div> <div>Available</div> <div>           ABDOMEN CHEST CHEST - PA AND L CHEST ABDOMEN PE CT CEREBRUM CT, CHEST, W CON CT_CHEST_W_O C         </div> <div>           SELECT &gt; SELECT ALL &gt;&gt; &lt;&lt; REMOVE ALL &lt; REMOVE         </div> <div>Selected</div> </div>
Image Slice Thickness	<input type="checkbox"/> I would like to filter by "Image Slice Thickness" <div> <div>&gt; 0 mm</div> <div>AND</div> <div>&lt;= 5 mm</div> </div>
Collection(s) <a href="#">Collection Descriptions</a>	<div> <div>Available</div> <div>           CT Colonography LIDC Phantom RIDER RoswellStrong Virtual Colonoscopy         </div> <div>           SELECT &gt; SELECT ALL &gt;&gt; &lt;&lt; REMOVE ALL &lt; REMOVE         </div> <div>Selected</div> </div>
Series Includes Annotations	<input checked="" type="checkbox"/> Annotated <input checked="" type="checkbox"/> Non-Annotated
Available on NCIA (mm/dd/yyyy)	From: <input type="text"/> To: <input type="text"/>
Results Per Page	10 <input type="button" value="v"/>
<div> <input type="button" value="SUBMIT"/> <input type="button" value="ADD KEYWORD CRITERIA"/> <input type="button" value="RESET"/> </div>	

*Figure 2.3 A segment of Simple Search criteria*

2. Choose the search criteria described in [the following table: Table 2.1.](#)

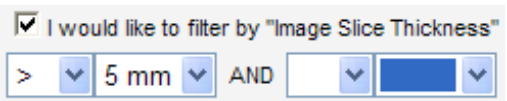
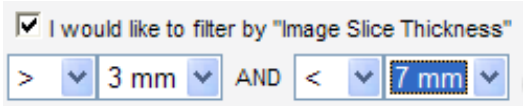
<b>Simple Search Criteria</b>	<b>Description</b>
<b>Image Modality(ies)</b>	<p>Select from the available image classifications and move them to the <b>Selected</b> panel. If none are selected, then the search returns data for all modalities.</p> <p>Regarding the text options:</p> <ul style="list-style-type: none"> <li>• Select <b>ALL</b> to return only cases where all selections apply.</li> <li>• Select <b>ANY</b> to return cases to which one or more of the selections apply.</li> </ul>
<b>Contrast</b>	<p>Select either option:</p> <ul style="list-style-type: none"> <li>• <b>Enhanced</b></li> <li>• <b>Un-enhanced</b></li> </ul> <p>If you leave both options unchecked, or if you select both options, the results will be the same--as though you had selected both options.</p>
<b>Anatomical Site</b>	<p>Select from the available anatomical sites. If none are selected, then the search returns data for all anatomical sites.</p> <p><b>Note:</b> The value <b>NOT SPECIFIED</b> means that the field has no value, is empty or is not given a value as supplied by the source. If you select <b>NOT SPECIFIED</b>, then all images are found where anatomical sites are not specified.</p>
<b>Image Slice Thickness</b>	<p>Select <b>Image Slice Thickness</b> to allow you to select a thickness range or number. Use the first set of drop-down boxes only to select one thickness by using (=), greater than (&gt;) or greater than or equal to (&gt;=) to a selected thickness. For example, for a thickness greater than 5mm, select the following:</p>  <p>Use both sets of drop-down boxes to select a range of numbers. For example, for a range between 3mm and 7 mm, select the following:</p>  <p>If you do not select this, then the search returns data for all image slice thicknesses.</p>

Table 2.1 *Simple Search criteria*

<b>Simple Search Criteria</b>	<b>Description</b>
<b>Collection(s)</b>	Collections are NCI-defined groupings of image data sets. Select from the available collections. Select from the available collections. If none are selected, then the search returns data for all collections.  Click <b>Collection Descriptions</b> for more information about the collections.
<b>Series Includes Annotations</b>	Select either option: <ul style="list-style-type: none"> <li>• <b>Annotated</b></li> <li>• <b>Non-Annotated</b></li> </ul> If you leave both options unchecked, or if you select both options, then the search returns both series that have annotations and do not have annotations.
<b>Available on NBIA (mm/dd/yyyy)</b>	Using the date convention, enter a date range for images to be searched. All images submitted within that range and for which you have viewer privileges will be listed as part of the search results.
<b>Results per Page</b>	Select the number of search results per page the search will return.  <b>Note:</b> This number also defines the number of thumbnail images that will display in the <i>Search Results (Images for Series)</i> on page 42.

Table 2.1 *Simple Search criteria (Continued)*

Click the arrow to expand [Table 2.2 displays a list of DICOM mappings for search fields.](#) **DICOM mappings for search fields**

<b>Labels from the Simple Search Page</b>	<b>DICOM Attribute Tag Numbers</b>	<b>DICOM Attribute Tag Names</b>
Image Modality	(0008, 0060)	Modality
Contrast	(0018, 0010)	contrastBolusAgent
Anatomical Site	(0018, 0015)	Body Part Examined
Image Slice thickness	(0018, 0050)	Slice Thickness
Collections	(0013, 0010)	Project Name
Series Includes Annotations	NA	NA

Table 2.2 *DICOM Mappings for search fields*

3. Click the appropriate button to initiate, enhance or reset the search.
  - a. Click **Submit** to start the search. The Search Criteria and Search Results (by Subject) pages display (see *Viewing Search Results* on page 39).



- b. Click **Add Keyword Criteria** to search curation data with selected keywords. This option takes you to the Annotation Keyword Search page. See [Searching Curation Data](#) the following section.
- c. Click **Reset** to reset the search criteria to their default values.

[Specifying Remote Search Sites](#)

[Searching Curation Data](#)

[Performing an Advanced Search](#)

[Working with Saved Search Queries](#)

[Viewing Search Results](#)

## Search Criteria Summary

After a search is submitted, search criteria are summarized in a Criteria Selected table. Search results display below the table. For more information about search results, see [Viewing Search Results](#) on page 39.

Below the Criteria Selected table are the features for saving the query summarized in the table. For more information about saving a query, see [Saving a Search Query](#).

## Searching Curation Data

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NBIA allows you to submit either image files (DICOM) or annotation files. Annotation files are typically either markup XML (files describing lines drawn on an image) or reports of some kind (for example, pdfs of radiologist reports). The image data is parsed into the database and is searchable on the Simple or Advanced Search pages. Data in the annotation fields is not searchable: you can only search to see whether or not series containing images also have associated annotation files. (This is the **Series Includes Annotations** field on the search page.)

To make the data in NBIA more valuable to researchers, NCI has a curator who looks at the images and creates “curation data” about them. This could be clinical outcomes (patient survived or died?) or analysis (number of lesions, etc.). The curation data is uploaded into NBIA by someone with Manage Visibility permissions using the Upload Curation Spreadsheet feature. For more information, see [Updating Curation Status on page 65](#). Once the data has been uploaded, the curation data is available for search on the Annotation Keyword Search page. [See the following section.](#)

[Annotation Keyword Search Page.](#)

[Performing a Simple Search](#)

[Performing an Advanced Search](#)

[Working with Saved Search Queries](#)

[Viewing Search Results](#)


## Annotation Keyword Search Page

**Note:** In an annotation keyword search, there are no user defined keywords. You will select from among predetermined keywords based on terms and values in source image collections.

To perform an annotation keyword search, follow these steps:

1. Click the **Add Keyword Criteria** button on either the Simple Search page or the Advanced Search page.

This opens the Annotation Keyword Search page ([Figure 2.4](#)).

**Annotation Keyword Search** 

This page allows you to search for series based on annotation keywords and their values.

First, choose the search terms on which you would like to search. Then, press the "Display Keywords" button to view the keywords available for each search term.

[← BACK TO SIMPLE SEARCH](#)

PREVIOUSLY SELECTED SIMPLE SEARCH CRITERIA	
Collection(s)	LIDC, RIDER, Virtual Colonoscopy

**SEARCH TERMS**

Available

Age  
CT\_Number\_of\_Polyps\_Found  
CT\_of\_DiagnosticQuality  
QA Testing  
QA Testing  
QA Testing  
QA Testing

SELECT V
SELECT ALL V
REMOVE ALL
REMOVE

Selected

CT\_Polyps\_Found  
Image description 07

[DISPLAY KEYWORDS](#)

*Figure 2.4 Annotation Keyword Search page*

**Note:** If before you started your search, you specified a remote site to be searched (*Specifying Remote Search Sites* on page 19), when you open the page, the Remote Sites Selected table lists the sites to be searched outside the local NBIA imaging archive.

2. At any point, click the **Back to Simple Search** or **Back to Advanced Search** buttons to return you to the previous page. The search criteria you have already defined still display.
3. The **Search Terms Available** select box displays a list of all search terms found for collections you selected on the previous page. Use the **Select** or **Select All** buttons to move one or more of those to the **Selected** box.

4. You can click **Submit** to execute the search at this point  
OR
5. You can click the **Display Keywords** button to display the keywords for the selected search terms and drill down to more detailed search criteria.
6. Identify keywords in the Search Terms dialog box and move them to the **Selected** pane as described in step #3.
7. You can click **Submit** to execute the search at this point  
OR
8. You can click the **Display Keywords** button again to display the keywords for the selected search terms and drill down to more detailed search criteria ([Figure 2.5](#)).

*Figure 2.5 Expanded Annotation Keyword Search page*

- a. At this point, additional keywords (CDEs) to your search terms have been added in the **Available** panels. Move any terms you want to add to your criteria to the appropriate selected boxes.
  - b. If the available data is numeric, define the data from a range field ([circled in Figure 2.5](#)).
9. Once you have finished defining criteria, click **Submit** to execute the search.
  10. Click **Reset** to clear fields of all criteria. This moves you back to the initial Annotation Term Search page. The criteria you selected in the Simple or Advanced Search pages still displays in summarized table format.

Searches are based on criteria named on Simple or Advanced Search pages, plus criteria specified on this Annotation Keyword Search page.

Results display as described in *Viewing Search Results* on page 39.

*Performing a Simple Search*

*Searching Curation Data*

## Performing an Advanced Search

## Working with Saved Search Queries

## Viewing Search Results

### Performing an Advanced Search


An Advanced Search has all fields available for a Simple Search, as well as expanded options. All advanced searches are made at the series level from the Advanced Search page.

To perform an Advanced Search, follow these steps:

1. Initiate the search by following one of these options:
  - Click the **Advanced Search** link in the Welcome panel of the NBIA home page.
  - Click the **Advanced Search** link on the Simple Search page. Criteria that you may have already selected on the Simple Search page displays on the Advanced Search page.

These options open the Advanced Search page. The Remote Sites Selected table at the top of the page lists the remote databases you may have selected to be searched outside the local NBIA imaging archive ([Figure 2.2](#)). (See [Specifying Remote Search Sites](#) on page 19.)


### Advanced Search



\*All searches are conducted at the series level

\*Different types of criteria are ANDed together when searching. Different values for the same criteria are ORed together. For example, if two modalities and two collections are selected, results will be returned that match at least one of the selected modalities and at least one of the selected collections.

\*Default equals "All"



REMOTE SITE(S) SELECTED
New Dev

*Figure 2.6 Advanced Search Page*

The remainder of the Advanced Search page displays the search criteria (Figure 2.7).

SEARCH CRITERIA	
Image Modality(ies)	<div> <div>Available</div> <div> CR CT DX HC MR NM PT </div> <div> <div>SELECT &gt;</div> <div>SELECT ALL &gt;&gt;</div> <div>&lt;&lt; REMOVE ALL</div> <div>&lt; REMOVE</div> </div> <div>Selected*</div> </div> <p>*Return cases that include <input type="radio"/> ALL <input checked="" type="radio"/> ANY of the selected modalities.</p>
Contrast	<input checked="" type="checkbox"/> Enhanced <input type="checkbox"/> Unenhanced
Anatomical Site	<div> <div>Available</div> <div> ABDOMEN CHEST CHEST - PA AND L CHEST ABDOMEN PE CT CEREBRUM CT, CHEST, W CON CT, CHEST, W_O C </div> <div> <div>SELECT &gt;</div> <div>SELECT ALL &gt;&gt;</div> <div>&lt;&lt; REMOVE ALL</div> <div>&lt; REMOVE</div> </div> <div>Selected</div> </div>
Image Slice Thickness	<input type="checkbox"/> I would like to filter by "Image Slice Thickness" > 0 mm AND <= 5 mm
Minimum Number of Previous Studies	Baseline Plus <input type="text"/>
Number of Months between Baseline and Final Study	<input type="text"/>
Collection(s) <a href="#">Collection Descriptions</a>	<div> <div>Available</div> <div> CT Colonography LIDC Phantom RIDER RoswellStrong Virtual Colonoscopy </div> <div> <div>SELECT &gt;</div> <div>SELECT ALL &gt;&gt;</div> <div>&lt;&lt; REMOVE ALL</div> <div>&lt; REMOVE</div> </div> <div>Selected</div> </div>
Series Includes Annotations	<input checked="" type="checkbox"/> Annotated <input checked="" type="checkbox"/> Non-Annotated
Available on NCIA (mm/dd/yyyy)	From: <input type="text"/> To: <input type="text"/>

Figure 2.7 Advanced Search page

2. Choose the search criteria as described in the following table: Table 2.3.

Advanced Search Criteria	Description
Image Modality(ies)	<p>Select from the available image classifications and move them to the <b>Selected</b> panel. If none are selected, then the search returns data for all modalities.</p> <p>Regarding the text options:</p> <ul style="list-style-type: none"> <li>Select <b>ALL</b> to return only cases where all selections apply.</li> <li>Select <b>ANY</b> to return cases to which one or more of the selections apply.</li> </ul>

Table 2.3 Advanced Search Criteria

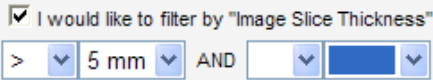
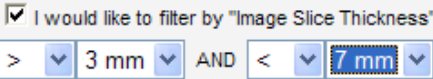
<b>Advanced Search Criteria</b>	<b>Description</b>
<b>Contrast</b>	<p>Select either option:</p> <ul style="list-style-type: none"> <li>• <b>Enhanced</b></li> <li>• <b>Un-enhanced</b></li> </ul> <p>If you leave both options unchecked, or if you select both options, the results will be the same--as though you had selected both options.</p>
<b>Anatomical Site</b>	<p>Select from the available anatomical sites. If none are selected, then the search returns data for all anatomical sites.</p> <p><b>Note:</b> The value <b>NOT SPECIFIED</b> means that the field has no value, is empty or is not given a value as supplied by the source. If you select <b>NOT SPECIFIED</b>, then all images are found where anatomical sites are not specified.</p>
<b>Image Slice Thickness</b>	<p>Select <b>I would like to filter by Image Slice Thickness</b> to allow you to select a thickness range or number. Use the first set of drop-down boxes only to select one thickness by using (=), greater than (&gt;) or greater than or equal to (&gt;=) to a selected thickness. For example, for a thickness greater than 5mm, select the following:</p>  <p>Use both sets of drop-down boxes to select a range of numbers. For example, for a range between 3mm and 7 mm, select the following:</p>  <p>If you do not select this, then the search returns data for all image slice thicknesses.</p>
<b>Previous Minimum Number of Studies</b>	<p>Patients are selected if more than the entered number of studies has been performed on the patient. It is specified as baseline (first visit) plus the number of subsequent visits. Select a number from the drop-down list.</p>
<b>Number of Months between Baseline and Final Study</b>	<p>This allows selection of cases with the desired amount of follow-up. Select equal (=), greater than (&gt;), greater than or equal to (&gt;=), less than (&lt;) or less than or equal to (&lt;=) from the drop-down list and enter the desired number of months.</p>
<b>Collection(s)</b>	<p>Collections are NCI-defined groupings of image data sets. Select from the available collections. Select from the available collections. If none are selected, then the search returns data for all collections. Click <b>Collection Descriptions</b> for more information about the collections.</p>

Table 2.3 *Advanced Search Criteria* (Continued)

<b>Advanced Search Criteria</b>	<b>Description</b>
<b>Series Includes Annotations</b>	Select either option: <ul style="list-style-type: none"> <li>• <b>Annotated</b></li> <li>• <b>Non-Annotated</b></li> </ul> If you leave both options unchecked, or if you select both options, then the search returns both series that have annotations and do not have annotations.
<b>Available on NBIA (mm/dd/yyyy)</b>	Using the date convention, enter a date range for images to be searched. All images submitted within that range and for which you have viewer privileges will be listed as part of the search results.
<b>The following criterion displays below the DICOM criteria on the search page:</b>	
<b>Results per Page</b>	Select the number of search results per page the search will return.  <b>Note:</b> This number also defines the number of thumbnail images that will display in the <i>Search Results (Images for Series)</i> on page 42.

Table 2.3 *Advanced Search Criteria* (Continued)

3. Choose the modality manufacturer search criteria as shown in Figure 2.8 and described in the following table: Table 2.4.

Modality Manufacturer	
Manufacturer	<input type="checkbox"/> All Manufacturers
Model(s)	<input type="checkbox"/> GE MEDICAL SYSTEMS (13)
Software Version	<input type="checkbox"/> SIEMENS(dev) (6)
	<input type="checkbox"/> TOSHIBA (1)
	<input type="checkbox"/> DeJarnette Research Systems (1)
	<input checked="" type="checkbox"/> Philips Medical Systems (1)
	<input type="checkbox"/> VARIAN Medical Systems (1)

Figure 2.8 *Modality Manufacturer Search Criteria*

<b>Criteria</b>	<b>Description</b>
<b>Manufacturer Model Software Version</b>	<p>This option displays a tree view of the manufacturers, models and software versions for the image modality. The number in parentheses indicates the number of items under that branch of the tree.</p> <ul style="list-style-type: none"> <li>Click on the plus sign to expand a branch of the tree or click on the minus sign to collapse a branch of the tree.</li> <li>Select a manufacturer, model or software version for your search by clicking in the box next to the item. Any items under the branch you selected are automatically selected for you. <a href="#">For example, Phillips Medical Systems was selected above.</a></li> </ul> <p>If none are selected, then the search returns data for all manufacturers.</p>

Table 2.4 *Modality Manufacturer Search Criteria*

4. Choose the [DICOM](#) DICOM search criteria as shown in [Figure 2.9](#) and described in [the following table](#). [Table 2.5](#). For more information on DICOM, see <http://medical.nema.org/>.

DICOM			
0008	103E	Series Description	<input type="text"/>
0018	1210	Convolution Kernel	<input type="text" value="v"/>
0018	0060	Kilovoltage Peak Distribution	<input type="text" value="v"/> AND <input type="text" value="v"/> <input type="button" value="v"/>

Figure 2.9 *DICOM Search Criteria*

<b>Criteria</b>	<b>Description</b>
<b>Series Description</b>	Enter your description of the Series. The Series Description is a DICOM tag with a group number of 0008 and element number of 103E. The specified text must exactly match a portion of an existing series description (not case-sensitive).
<b>Convolution Kernel</b>	Select from the available convolution kernels. Convolution kernel is a label describing the convolution kernel or algorithm used to reconstruct the data. The DICOM tag group number is 0018 and the element number is 1210. If none are selected, then the search returns data for all convolution kernels.

Table 2.5 *DICOM search criteria*



<b>Criteria</b>	<b>Description</b>
<b>Kilovoltage Peak Distribution</b>	<p>Kilovoltage Peak Distribution is the kilo voltage output of the x-ray generator used by a modality. The DICOM tag group number is 0018 and the element number is 0060. The DICOM attribute name is KVP.</p> <p>Use the first set of drop-down boxes only (before the AND) to select a peak distribution by using (=), greater than (&gt;) or greater than or equal to (=&gt;).</p> <p>Use both sets of drop-down boxes to select a range of numbers. From the first drop-down box, select greater than (&gt;) or greater than and equal to (=&gt;) and specify a peak distribution. Then, select less than (&lt;) or less than and equal to (=&lt;) from the second drop-down list and specify the maximum peak distribution.</p>

Table 2.5 DICOM search criteria (Continued)

5. Click the appropriate button to initiate, enhance or reset the search.
  - a. Click **Submit** to start the search. The Search Criteria and Search Results (by Subject) pages display (see *Viewing Search Results* on page 39).
  - b. Click **Add Keyword Criteria** to enhance the search with selected keywords. This option takes you to the Annotation Keyword Search page. For more information, see *Searching Curation Data* on page 25.
  - c. Click **Reset** to reset the search criteria to their default values.

After the search is submitted, search criteria are summarized in a Criteria Selected table. Search results display below the table. See *Viewing Search Results* on page 39.

*Performing a Simple Search*

*Searching Curation Data*

*Performing an Advanced Search*

*Working with Saved Search Queries*

*Viewing Search Results*

## Working with Saved Search Queries

After you launch a search, the Search Criteria page displays the search criteria summary for your review. It allows you to save the query for future use. A text field for

entering the query name and a **Save Query** button displays below the search criteria (circled in [Figure 2.10](#)).

The screenshot shows a web interface for search criteria. On the left is a sidebar with links: 'd Queries (series)', 'v History', 'tion Spreadsheet', and 'ission'. The main area is titled 'Search Criteria' and includes a note: '\*All searches are conducted at the series level'. Below this is a table titled 'CRITERIA SELECTED' with the following data:

CRITERIA SELECTED	
BBBBB	> 0.0
Collection(s)	RIDER, TEST
NumericCDE	> 0.0
TestCDE	StudyLevel2, SeriesLevel, PatientLevel2, ImageLevel

Below the table is a rounded rectangle containing a text input field and a button labeled 'SAVE QUERY' with a magnifying glass icon.

*Figure 2.10 Save Query option*

**Note:** If you launched the search from a previously saved query, then the text field and **Save Query** buttons do not display.

*Performing Searches*

*Saving a Search Query*

*Managing Saved Queries*

*Editing Saved Queries*

*Viewing a Query History*

Saving a Search Query

To save a search query, perform the following steps:

- 1. Enter a name for the saved query in the **Save Query** text field.
- 2. Click the **Save Query** button.

NBIA attempts to save the query and displays a message that indicates the success or failure and suggests any additional actions that are required.

*Performing Searches*

*Managing Saved Queries*

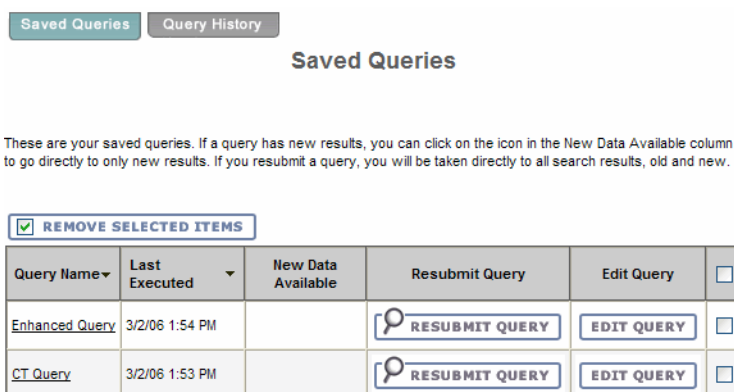
*Editing Saved Queries*

*Viewing a Query History*

Managing Saved Queries

For instructions about saving a query, see *Saving a Search Query*.

Click the **View Saved Queries** link in the left sidebar of the viewer to display the Saved Queries page (*Figure 2.11*).



*Figure 2.11 Saved Queries page*

This page displays a table of all queries that are currently saved for you. Table columns are described in the following table *Table 2.6*. The table is sorted in descending order by **Last Executed** date by default. You can also sort by **Query Name** by clicking on the down arrow next to the column title.

<b>Saved Query</b>	<b>Description</b>
<b>Query Name</b>	The name of the query displays as a link. The default is that the criteria themselves do not display. The link toggles whether the criteria for the saved query displays. Click the link to display/not display the criteria selected for the query.
<b>Last Executed</b>	The most recent date and time you executed the query displays. The time is displayed for the Eastern Time (US and Canada) time zone.
<b>New Data Available</b>	An icon appears if new data is available for the saved query. Click the icon to display the results (new data only) on the Search Results page.
<b>Resubmit Query</b>	Click the <b>Resubmit Query</b> button to submit the query using the saved criteria and display the results on the Search Results page. The results contain both old and new data.
<b>Edit Query</b>	Click the <b>Edit Query</b> button to display the Search page displaying the criteria that was saved for the query. You can then modify the criteria.
<b>Checkbox</b>	Click the checkbox to mark the query for deletion. You can click the checkbox in the header to select all queries or you can select queries individually.

*Table 2.6 Saved Query descriptions and tasks*

You can perform the following actions on the Saved Queries page.

- **Remove Selected Items**--Check the box corresponding to any Saved Query line items and click the **Remove Selected Items** button to delete selected saved queries.

After NBIA attempts to delete the queries, it returns you to the **Manage Saved Queries** page; a message displays that indicates the success or failure and suggests any additional actions that are required.

- **View Query History**--Click the **Query History** tab to display the View Query History page (see *Viewing a Query History* on page 38).
- **Resubmit a Saved Query**--If you resubmit a saved query, the name of the saved query displays on the Search Results page with the following message:

**These are the results of the {Name} saved query.**

If the query is executed for new data only, the following message appears:

**These are the results of the {Name} saved query (new data since {Date} only).**

{Date} is the last execute date used as part of the criteria of the query to make it only display new results.

*Performing Searches*

*Saving a Search Query*

*Editing Saved Queries*

*Viewing a Query History*

## Running a New Query Based on Dates

The ability to provide a date-range as a filter for a data query is described for both a simple and advanced searches (in *Performing a Simple Search* on page 21 and *Performing an Advanced Search* on page 28, respectively). Additionally, the ability to view cases that have become available since a previous query is provided, by taking the following steps. These steps utilize the Save Query functionality described in this section.

1. Perform a query. For example, select **IDRI**, then select the **With Annotations** options. For more information about running a query, see *Performing Searches* on page 20.
2. Save the query by clicking the **Save Query** button below the **Query Selected** box. For clarity, save it with a name that includes today's date, such as ***IDRI with annotations June 26, 2007***.

When you want to see only the new data that has arrived since the previous query, proceed as follows:

3. Select **View Saved Queries** located in the left column of the Search page.
4. Click the icon in the **New Data Available** column. (The column will be empty if no new data is available.) After clicking this icon, only the new data since the last time you ran the query is listed.

In order to be able refer to new cases since this date in the future, run and save a new query to create a new reference date.

## Editing Saved Queries

**Note:** You cannot edit the name of a saved query. You can, however, re-run the query and save this as a new query with a new name. You can then go back and delete the old query.

Perform the following steps to edit a saved query.

1. Click the **Edit Query** button from the Saved Queries page ([Figure 2.11 Saved Queries page](#) on page 35) to display the Search page containing the criteria that was saved for the query. The name of the saved query being edited is shown in the following information message:

**Saved query {Name} is being edited. After pressing Submit and viewing the results, you will have the option to save the changes.**

2. Edit the criteria for the saved query and click **Submit**.
3. The Search Criteria page ([Figure 2.12](#)) displays the criteria and the Search Results page displays the results for the edited criteria.


**Search Criteria**

\*All searches are conducted at the series level

CRITERIA SELECTED	
Collection(s)	RIDER
Contrast	Enhanced

**Save Query:**

☒ Update saved query "Enhanced Query" with the new criteria  
☐ Save this criteria as a new saved query called:

 **SAVE QUERY**

*Figure 2.12 Save Edited Query*

4. Choose one of the following choices ([see Figure 2.12](#)).
  - a. Select **Update saved query {Query Name} with the new criteria** and click **Save Query**.
  - b. Select **Save this criteria as a new saved query called**, enter a new query name and click **Save Query**.
  - c. If you do not like the results returned by the criteria, navigate back to the Search page to try again.

If you clicked the **Save Query** button, the system attempts to save the query and displays a message which indicates the success or failure and performs any additional actions that are required.

*Performing Searches*

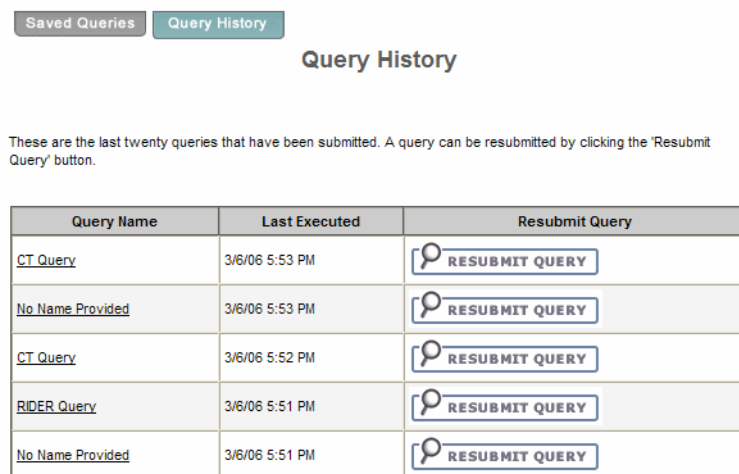
*Saving a Search Query*






*Managing Saved Queries*

*Viewing a Query History*

## Viewing a Query History

Click the **View Query History** link in the left sidebar or the **Query History** tab from the Saved Queries page to display the Query History page (see [Figure 2.13](#)). The Query History page displays a table of the last twenty queries that you executed which includes queries that are not saved and saved queries that are resubmitted..



Query Name	Last Executed	Resubmit Query
<a href="#">CT Query</a>	3/6/06 5:53 PM	 <b>RESUBMIT QUERY</b>
<a href="#">No Name Provided</a>	3/6/06 5:53 PM	 <b>RESUBMIT QUERY</b>
<a href="#">CT Query</a>	3/6/06 5:52 PM	 <b>RESUBMIT QUERY</b>
<a href="#">RIDER Query</a>	3/6/06 5:51 PM	 <b>RESUBMIT QUERY</b>
<a href="#">No Name Provided</a>	3/6/06 5:51 PM	 <b>RESUBMIT QUERY</b>

*Figure 2.13 Query History page*

The Query History table contains the data in [the following table: Table 2.7](#)

Field Name	Description
<b>Query Name</b>	<p>The name of the query displays as a link. The link toggles whether the criteria for the saved query is displayed. The text of the link can appear three different ways depending on the situation</p> <ul style="list-style-type: none"> <li>• If the query was not saved, <b>No Name Provided</b> displays as the link.</li> <li>• If the query is a saved query that has not been edited since the last execution date, the name of the saved query is displayed.</li> <li>• If the query is a saved query that has been edited since the last execution date, the name of the saved query is displayed with an asterisk. The asterisk refers to a message at the bottom of the page which is a warning to you that the results are based on the criteria that were used at the time the query was run, not the criteria that is currently saved for the query.</li> </ul>
<b>Last Executed</b>	The date and time that you executed the query. The time is displayed for the Eastern Time (US & Canada) time zone.
<b>Resubmit Query</b>	Click the <b>Resubmit Query</b> button to submit the query using the saved criteria. The results display on the <b>Search Results</b> page (see <a href="#">Viewing Search Results</a> on page 39).

*Table 2.7 Query History*

Click the **Saved Queries** tab to display the Saved Queries page (see *Managing Saved Queries* on page 34).

[Performing Searches](#)

[Saving a Search Query](#)

[Managing Saved Queries](#)

[Editing Saved Queries](#)

## Viewing Search Results

**Note:** The data shown in the search results come from the supplied source, not from what NBIA derives unless explicitly stated.

In reviewing search results, it is important to review the hierarchy of submissions in NBIA.

**Clinical trial > Patient (Subject) > Study > Series > Images**

Search results display first as [Search Results \(by Subject\)](#). As you click on **Show Studies** links in those results, NBIA drills down to [Search Results \(Studies for Subject\)](#) where more details for studies display. From these results, when you click **Show Images** links, the [Search Results \(Images for Series\)](#) display, revealing thumbnail images within a series.


**Note:** At any point in the process of reviewing results, you can add items--the entire patient, a study, a series, or specific images--to your data basket by selecting the items and clicking the **Add to Basket** button. This identifies objects to be downloaded.

When you download a series that have annotation files (indicated by **Yes** in the **Contains Annotations** column), they are automatically downloaded as well.


### Search Results (by Subject)


The Search Results (by Subject [patient]) page displays a table containing the results of the search by subject ([Figure 2.14](#)). At the bottom right, the numbered sequence of hits in the visible list displays as well as the number of entire hits.

**Search Results (by Subject)**




Subjects checked ☒ can be added to your basket.

☒ CHECK ALL ☐ UNCHECK ALL  ADD TO BASKET

	Collection ID ▾	Subject ID ▾	Studies ▾	Series ▾	 Location ▾
<a href="#">Show Studies</a>	CT Colonography	13614193285040001	1 / 1	4 / 4	<input type="checkbox"/> NCI-1
<a href="#">Show Studies</a>	CT Colonography	13614193285040002	1 / 1	3 / 3	<input type="checkbox"/> NCI-1
<a href="#">Show Studies</a>	CT Colonography	13614193285040003	1 / 1	2 / 2	<input type="checkbox"/> NCI-1

| 1 - 3 of 3 |

 VIEW MY BASKET

*Figure 2.14 Search Results by Subject*

The following table [Table 2.8](#) describes each item in the Search Results (by subject) table.

<b>Search Result</b>	<b>Description</b>
<b>Show Studies</b>	Click this hypertext link to display the studies for this subject.
<b>Collection ID</b>	Collection identification number
<b>Subject ID</b>	Subject identification number
<b>Studies</b>	Contains two numbers: the number of studies that met the criteria / total number of studies for the subject
<b>Series</b>	Contains two numbers: the number of series that met the criteria / total number of series
<b>[Basket] Checkbox</b>	Click the checkbox to mark the result for addition to your data basket. Click the checkbox in the header to select all results, or you can select results individually.
<b>Location</b>	The location of the image  “Local” represents the NBIA imaging archive that you are currently logged into. Other locations are remote sites selected with the Remote Search option. For more information about the Remote Search option, see <i>Specifying Remote Search Sites</i> on page 19.

Table 2.8 [Search Results \(by Subject\)](#)

1. Click any **Show Studies** links to display the studies for this subject where more details for studies display. See *Search Results (Studies for Subject)* on page 41.

**Note:** If you submitted a query that includes collections to which you do not have access, the following message displays:

**Results for the [Collection Name] collection are not included in the results because you do not have access to that collection.**

Some search results may display, but results from the disallowed collection are not included. If you specified multiple disallowed collections, the message appears once for each collection.

This situation can occur when you save a query. If a query is saved when you have access to a collection and then resubmit the query later (after your access to the collection has been revoked), the system still has the disallowed collection criteria saved.

2. You can perform the following actions on the Search Results (by Subject) page ([Figure 2.14](#)).
  - Click the down arrow next to a column title to sort the column by that item.
  - Click the **Previous** (or <<) and **Next** (or >>) buttons at the bottom of the table to display the previous or next set of results. The numbers of the results displayed is shown.
  - Click the **Add to Basket** button to add items selected to your data basket (see *Adding Items to Your Basket* on page 46).



- ° Click **View My Basket** to display the items in your data basket (see *Managing the Data Basket* on page 47).




## Search Results (Studies for Subject)

When you click a study in the [Search Results \(by Subject\)](#) page, the Search Results (Studies for Subject) page opens, showing Study level in the bread crumbs at the page bottom. This page displays specific information for each study: the **Study ID**, **Date** and **Description** followed by a table containing the details for each study ([Figure 2.15](#)).

Search Results (Studies for Subject 13614193285040001) ?




☒ CHECK ALL ☐ UNCHECK ALL

To VISUALIZE IMAGES, a 3rd party software is required. Click [here](#) to download Cedara I-Response software.

 VIEW MY BASKET  ADD TO BASKET  VISUALIZE IMAGES

Study ID	Date
1.3.6.1.4.1.9328.50.4.1	Jan 1, 2000
Description	Data Location
Abdomen*24ACRIN_Colo_IRB2415-04 (Adult)	NCI-1

	Series	Images	Description	Modality	Manufacturer	Contains Annotations	
<a href="#">Show Images</a>	1.3.6.1.4.1.9328.50.4.1.222	2	Topo supine 0.6 T20s	CT	SIEMENS	No	<input type="checkbox"/>
<a href="#">Show Images</a>	1.3.6.1.4.1.9328.50.4.1.224	1	Topo prone 0.6 T20s	CT	SIEMENS	No	<input type="checkbox"/>
<a href="#">Show Images</a>	1.3.6.1.4.1.9328.50.4.563	625	Colo_supine 1.0 B30f	CT	SIEMENS	No	<input type="checkbox"/>
<a href="#">Show Images</a>	1.3.6.1.4.1.9328.50.4.2	604	Colo_prone 1.0 B30f	CT	SIEMENS	No	<input type="checkbox"/>

 VIEW MY BASKET  ADD TO BASKET  VISUALIZE IMAGES

SEARCH » SUBJECT » **STUDY**

*Figure 2.15 Studies for Subject Search Results*

The following table [Table 2.9](#) describes each item in the Search Results (for subject) table.

Search Result	Description
Show Images	Click this link to display the images for the series.
Series	Series ID
Images	Number of images for that series which can be displayed by clicking the <b>Show Images</b> link. This number includes both visible images that meet the criteria and those that do not. For example, where “3/4” displays, there are 4 studies total for the patient, and 3 of those 4 have images that met the search criteria.  Note: If you select a series with more than two images, you can view an animation of the image collection. For more information, see <i>Search Results (Images for Series)</i> on page 42 and <i>Viewing Image Animation</i> on page 44.
Description	Description of the Series
Modality	Modality

*Table 2.9 Studies for Subject Search Results* Search Results for Studies for Subject

<b>Search Result</b>	<b>Description</b>
<b>Manufacturer</b>	Name of the manufacturer
<b>Contains Annotations</b>	Displays <b>Yes</b> or <b>No</b> , revealing if there are annotation files. <b>Yes</b> becomes a hypertext link if the series has corresponding annotations for which the content type has been identified by curators. Hover over or click the link to display the annotation content type(s). If annotation files are available, but the content type is not known, <b>Yes</b> displays but is not hypertext.
<b>Checkbox</b>	Click the checkbox to mark the result for addition to your basket. You can click the checkbox in the header to select all results or you can select results individually.

Table 2.9 *Studies for Subject Search Results* Search Results for Studies for Subject

- To visualize images identified on the search results page, you must have the Cedara I-Response Workstation (IRW) installed on your system.

**Note:** If you do not have the IRW installed, click this link to the NCICB Download page: <http://ncicb.nci.nih.gov/download>. Click **N** to find NBIA, and then click the **Cedara I-Response Client** download link.

- Click the **Visualize Images** button to open the IRW window and visualize images in the data basket. For complete instructions on how to use the IRW, refer to the Cedara online help.

**Note:** If you are not logged in, when you click this button, NBIA informs you that you must log in to access this feature.

- You can perform the following additional actions on the Search Results (Studies for Subject) page.
  - Click the **Check All** or **Uncheck All** buttons to check or uncheck all items on the search results page or click the checkboxes individually.
  - Click the **Add to Basket** button to add items selected to your data basket (see *Adding Items to Your Basket* on page 46).
  - Click **View My Basket** to display the items in your data basket (see *Managing the Data Basket* on page 47).

## Search Results (Images for Series)

When you click the **Show Images** link in the *Search Results (Studies for Subject)* page, this opens the Search Results (Images for Series) page. The bread crumbs at the top and bottom of the page show that you are viewing image thumbnails at the series level.

A table at the top of the page (*Figure 2.16*) contains information defined for the series, followed by an option to launch an animation of the images (where there are more than two). Thumbnail images for the series you selected are also display on the page. The

number of images that displays corresponds to the results per page that you defined when you set the search criteria. .

SEARCH » SUBJECT » STUDY » **SERIES**



### DICOM Series Number 1.3.6.1.4.1.9328.50.1.345

Images on this page are meant to aid selection only. The downloaded DICOM files will be provided at their original resolution.

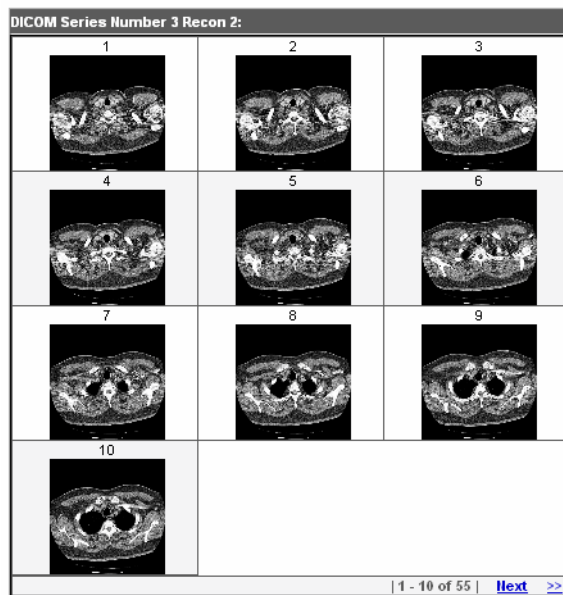
Subject ID	Study Instance UID	Date	Modality	Manufacturer	Contains Annotations	Data Location	DICOM
1.3.6.1.4.1.9328.50.1.0001	1.3.6.1.4.1.9328.50.1.275	Jun 20, 2000	CT	GE MEDICAL SYSTEMS	No	NCI-1	

[View series in Cine mode](#)



ADD TO BASKET

VIEW MY BASKET



SEARCH » SUBJECT » STUDY » **SERIES**

*Figure 2.16 Images for Series Search Results*

The following table [Table 2.10](#) describes each item in the Search Results (Images for Series) table.

Search Result	Description
<b>Subject ID</b>	Subject identification number
<b>Study ID</b>	Study identification number
<b>Date</b>	Date
<b>Modality</b>	Modality
<b>Manufacturer</b>	Name of the manufacturer

*Table 2.10 Images for Series Search Result fields*

<b>Search Result</b>	<b>Description</b>
<b>Contains Annotations</b>	Displays <b>Yes</b> or <b>No</b> , revealing if there are annotation files. <b>Yes</b> becomes a hypertext link if the series has corresponding annotations for which the content type has been identified by curators. Hover over or click the link to display the annotation content type(s). If annotation files are available, but the content type is not known, <b>Yes</b> displays but is not hypertext.
<b>Data Location</b>	Displays the name of the center housing the data
<a href="#"><u>DICOM</u></a>	Click the <b>DICOM</b> icon to open a new window that displays DICOM metadata about the first image in the series.  Each image series can have multiple images whose thumbnails display in this search results page. While each image has its own DICOM file whose attributes may vary slightly from the others in the series, the DICOM file that opens displays values for only the first image in the series. These values represent the values for all images in the series.


Table 2.10 *Images for Series Search Result fields (Continued)*

You can perform the following actions on the Search Results (Images for Series) page:

- Launch an animation of the series (where there are more than two thumbnails). Under the table summarizing the series information, click **View Movie** at the end of the sentence, "To view an animation of the images in this series, ...". For more information, see [Viewing Image Animation](#).
- To enlarge an image, float your cursor over an image thumbnail (or click it). A larger version of the image displays in the upper right hand corner of the page.
- Click the **Add to Basket** button to add the entire series to your data basket (see [Adding Items to Your Basket](#) on page 46). Images that you add become highlighted on the Images for Series page.  
**Note:** You cannot add images individually to the data basket.
- Click **View My Basket** to display the items in your data basket (see [Managing the Data Basket](#) on page 47).

## Viewing Image Animation

From the [Search Results \(Images for Series\)](#) (DICOM Series) page, you can launch an animation of thumbnails where there are more than two images in the series. Click the **View Series in Cine Mode** link.

You can also launch the animation of an image series from the Data Basket. In the **View** column of the Data Basket, click the magnifying glass symbol,  corresponding to the series you want to view. On the View Series Images page, click the **View Series in Cine Mode** link.

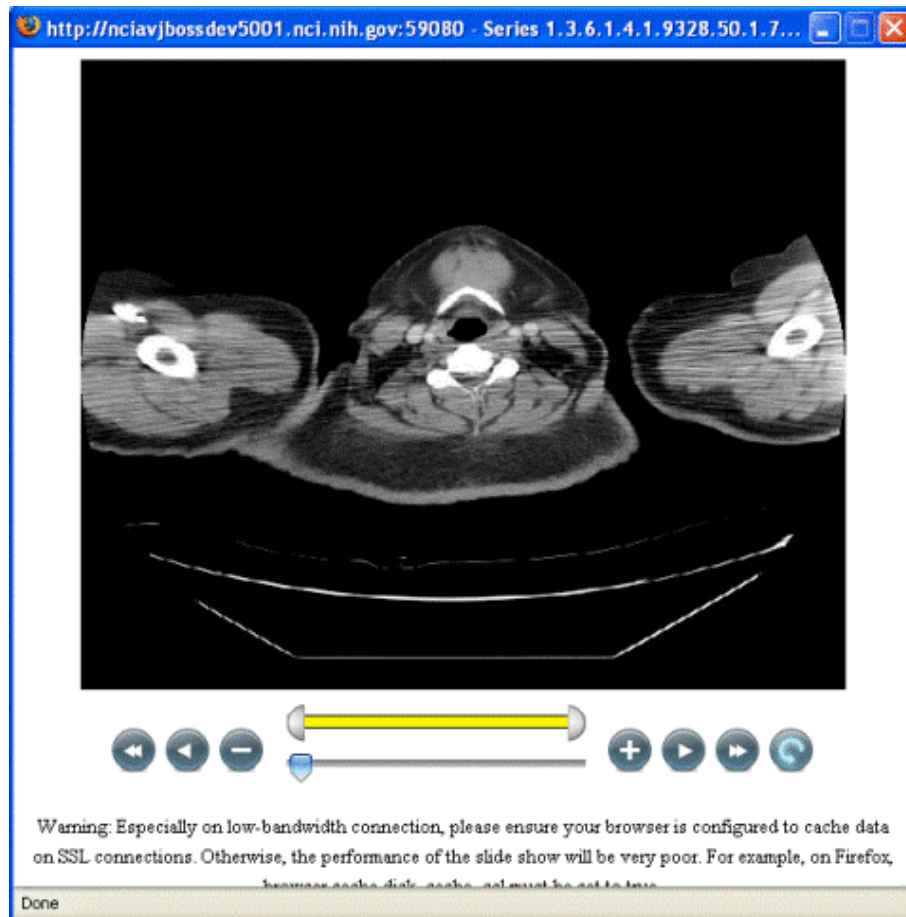



Figure 2.17 Image animation viewer

When the viewer opens, click the play forward button (  ). NBIA proceeds to display the images sequentially in a “movie”.

The following table describes the action of each of the animation controls.


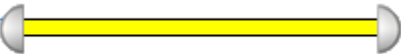


		Monitors the progress of the animation.
		Drag ends of the yellow bar to vary the range of images playing.
a. 	b. 	a. Click to return to the first image in the series. b. Click to progress to the last image in the series.

Table 2.11 Image animation controls






a. 	b. 	a. Click to play animation backwards through the series b. Click to play animation forward through the series
a. 	b. 	a. Click to stop the animation; click successively to display one image at a time, moving backwards through the series. b. Click to stop the animation; click successively to display one image at a time, moving forward through the series.
c. 	Click to reverse the current direction of the animation.	

Table 2.11 Image animation controls

**Note:** If the animation is very sluggish, be sure and note the warning at the bottom of the page.

## Working with the Data Basket

As you review search results in NBIA, you can add items at any level to your data basket for subsequent download.

*Adding Items to Your Basket*

*Managing the Data Basket*

*Downloading the Data Basket*

### Adding Items to Your Basket

You can add items to your basket at the subject [patient], study, series and images levels.

1. To select items, use the **Check All** and **Uncheck All** buttons above the search results tables to check or uncheck all items on a given search results page or click the corresponding checkboxes for items individually.

**Note:** Checkboxes do not exist on the Images for Series page. If you click the **Add to Basket** button on the page, all of the images in the series are added to the Data Basket.

2. When satisfied, click the **Add to Basket** button.

The items added to the basket are highlighted on the page from which you initiated this task.

*Working with the Data Basket*

*Managing the Data Basket*

*Downloading the Data Basket*

## Managing the Data Basket

Click the **View Contents** link in the left sidebar, **Manage Data Basket** from the top menu bar or the **View My Basket** button from Search Results pages to display the My Data Basket page. This page displays a table of all the items in your data basket (Figure 2.18).


**My Data Basket**

\*The National Cancer Institute (NCI) attests to the validity and completeness of the images contained on this site. By downloading these images, you agree to the NCI general use guidelines.

Due to the large file size of image data stored on this site, the NCI requires that all users take full responsibility for any computer hardware or software performance issues resulting from the download of these images. Please make sure to evaluate your system resources before attempting to download.

**Note: Please disable popup blockers before initiating download.**

☒ Include annotation files in the download?

 **DOWNLOAD ALL ITEMS**

☒ **REMOVE SELECTED ITEMS**

Subject ID	Study ID	Series ID	Contains Annotations	Number of Images Selected out of Number Available	Image Size (in MB)	Annotation File Size (in MB)	Delete? <input type="checkbox"/>	Location
13614193285020001	1.3.6.1.4.1.9328.50.2.498	1.3.6.1.4.1.9328.50.2.499	No	2 / 2	15.2		<input type="checkbox"/>	Local
13614193285020007	1.3.6.1.4.1.9328.50.2.8376	1.3.6.1.4.1.9328.50.2.8377	No	2 / 2	15.2		<input type="checkbox"/>	New Dev
13614193285020007	1.3.6.1.4.1.9328.50.2.8686	1.3.6.1.4.1.9328.50.2.8687	No	2 / 2	15.2		<input type="checkbox"/>	New Dev
13614193285020007	1.3.6.1.4.1.9328.50.2.8908	1.3.6.1.4.1.9328.50.2.8909	No	2 / 2	16.0		<input type="checkbox"/>	New Dev
13614193285020010	1.3.6.1.4.1.9328.50.2.11634	1.3.6.1.4.1.9328.50.2.11635	No	1 / 1	7.1		<input type="checkbox"/>	New Dev
<small>Estimated download time T1(1.5 Mbps) for all files: 1 minute(s)            Estimated download time DSL(256 Kbps) for all files: 12 minute(s)</small>			<b>Total Image Size:</b>	68.7 MB	<b>Total Annotation Size:</b>	0 MB		


 **DOWNLOAD ALL ITEMS**

Figure 2.18 My Data Basket page

The following table Table 2.12 describes each item in the Data Basket table

Data Basket Field	Description
Subject ID	Subject identification number
Study ID	Study identification number
Series ID	Series identification number
Contains Annotations	Displays <b>Yes</b> or <b>No</b> , revealing if there are annotation files. <b>Yes</b> becomes a hypertext link if the series has corresponding annotations for which the content type has been identified by curators. Hover over or click the link to display the annotation content type(s). If annotation files are available, but the content type is not known, <b>Yes</b> displays but is not hypertext.
Number of Images Selected out of Number Available	Contains two numbers: Number of Images Selected / Number Available
Image Size (in MB)	Size of the image file in megabytes

Table 2.12 My Data Basket field



<i><b>Data Basket Field</b></i>	<i><b>Description</b></i>
<b>Annotation File Size (in MB)</b>	Size of the annotations file in megabytes. This column is blank if there are no annotations.
<b>Delete</b>	To remove the item from the basket, select the check box and click the <b>Remove Selected Items</b> button.
<b>Location</b>	The location of the image  “Local” represents the NBIA imaging archive that you are currently logged into. Other locations are remote sites selected with the Remote Search option. For more information about the Remote Search option, see <i>Specifying Remote Search Sites</i> on page 19.

Table 2.12 *My Data Basket field (Continued)*

The total size of your data basket and the estimated download time displays at the bottom of the My Data Basket page ([Figure 2.18](#)).

To delete an item from your basket, select the check box of an item and click the **Remove Selected Items** button. You can continue to add items to your data basket from the Search Results pages.

### *Working with the Data Basket*

#### *Adding Items to Your Basket*

#### *Downloading the Data Basket*

## Downloading the Data Basket

Once you are satisfied with your selections, click the **Download** button.

**Tip:** Disable popup blockers before you download the files. If you do not want to download the annotation files, uncheck the **Include annotation files in your download** check box.

The selected images can be downloaded through one of the following modes:

### **1. HTTP (HTTP threshold is less than 3GB)**

If total size is below the HTTP download threshold, a progress bar displays to show the progress of the file being zipped. As the file is zipped, the progress bar updates. Once the file is 100% zipped, enter the path (or destination) where the file should be downloaded on your local workstation. The status of the download, including the percent downloaded, displays until the download is completed.

**Note:** If you are not logged in, you have a download limit of up to 3 GB of data. NBIA warns you and stops you when you add data that will exceed the limit. You cannot download the data until you remove something from the basket. Alternatively, you can login, after which the data basket limit is relaxed.

### **2. FTP (FTP threshold is greater than 3GB)**



If the size is above the HTTP download threshold, NBIA will zip the file and display a message indicating that you should expect an email with a link to download the file via FTP. Once you receive the **FTP mail** email, download the file from the FTP site using a FTP client. FTP client software that supports downloads larger than 3 gigabytes is required to download files from the FTP server.

Links to selected tools that can provide this capability:

**Note:** This list is not an endorsement of the FTP client software. You may choose your own FTP client software.

- Windows

Filezilla: <http://prdownloads.sourceforge.net/filezilla/>

[FileZilla\\_2\\_2\\_16\\_setup.exe?download](http://prdownloads.sourceforge.net/filezilla/FileZilla_2_2_16_setup.exe?download)

- Macintosh

NetFinder: <http://www.versiontracker.com/dyn/moreinfo/macosx/3107>

Fetch: <http://fetchsoftworks.com/>

**Note:** The use of the Macintosh FTP clients listed may require you to purchase the tools. In addition to the tools listed, there are free command line tools (type [curl ftp://imaging.nci.nih.gov](http://curlftp://imaging.nci.nih.gov)) included with the Macintosh.

For example, download and install the Filezilla software on your Windows system. Enter the FTP address supplied in the FTP email (for example, <ftp://imaging.nci.nih.gov/>) in the **Address** box. The zip files display under the **Remote Site** panel. Double-click your zip file and the transfer begins.

*Working with the Data Basket*

*Adding Items to Your Basket*

*Managing the Data Basket*

## Obtaining DICOM Viewers

Images in the NBIA repository are stored in the medical image standard, Digital Imaging and Communications in Medicine (DICOM). A DICOM file stores the digital image along with a series of tags that contain metadata about the image such as patient ID, study ID, patient weight, anatomic site, and so forth. For more information about DICOM, see <http://medical.nema.org/>.

Below are selected links to freeware DICOM image viewers, provided for your convenience. This is not an endorsement of the listed viewers. Many other DICOM viewers are available on the Internet.

**Note:** The images in this *in vivo* image archive must be downloaded before you can view them using the viewers.

- ImageJ (runs on Linux, Mac OS 9, Mac OS X, Windows, and the Sharp Zaurus PDA): <http://rsb.info.nih.gov/ij/>
- OSIRIX (runs on MAC OSX): <http://homepage.mac.com/rossetantoine/osirix/>

- DICOMWorks (runs on PC): <http://www.dicomworks.com/>

## Initiating Searches from Other Applications

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Searches in NBIA can be launched from other applications. For more information, see *Accessing NBIA from Another Application* on page 17.

## CHAPTER 3

# SUBMITTING IMAGES

This [section chapter](#) describes how to submit images to NBIA.

Topics in this [section chapter](#) include:

- *Image Submission Overview* on this page
- *Configuring Security for Newly Submitted Data* on page 56

## Image Submission Overview

When you submit an image to NBIA, the process follows this path:



In summary, the process involves the following steps:

1. Installing the CTP client and FileSender.
2. Unzip the file and open both tools on your local machine.
  1. In FileSender, locate the image(s) to be submitted.
2. FileSender sends the image(s) to the RSNA Clinical Trial Processor (CTP) client, which anonymizes the data to comply with patient privacy policies.
3. The CTP client forwards the image(s) over the internet to the CTP server.
4. The CTP server transfers the image(s) to the NBIA database repository.

Any NBIA user can submit images to NBIA using FileSender and the CTP client, which work in tandem.

## Installing and Configuring the CTP Client

To submit images, you must have the CTP client and FileSender both installed and running on your machine. For more information, refer to the NBIA Installation Guide.

URL. For information regarding your specific installation issues, contact NCICB Application Support [ncicb@pop.nci.nih.gov](mailto:ncicb@pop.nci.nih.gov).

1. To start your local CTP client, double click the `ctp.bat` in the CTP-Client/CTP folder.
2. Open a browser and type in the URL for your local installation. You can find the port number by looking in the `config.xml` file in the CTP folder. The third line of the standard file is "<Server port='24080' />". If changes are made to this number, the localhost port needed to access the CTP admin page will change in tandem.

The CTP Client Console opens in your browser..

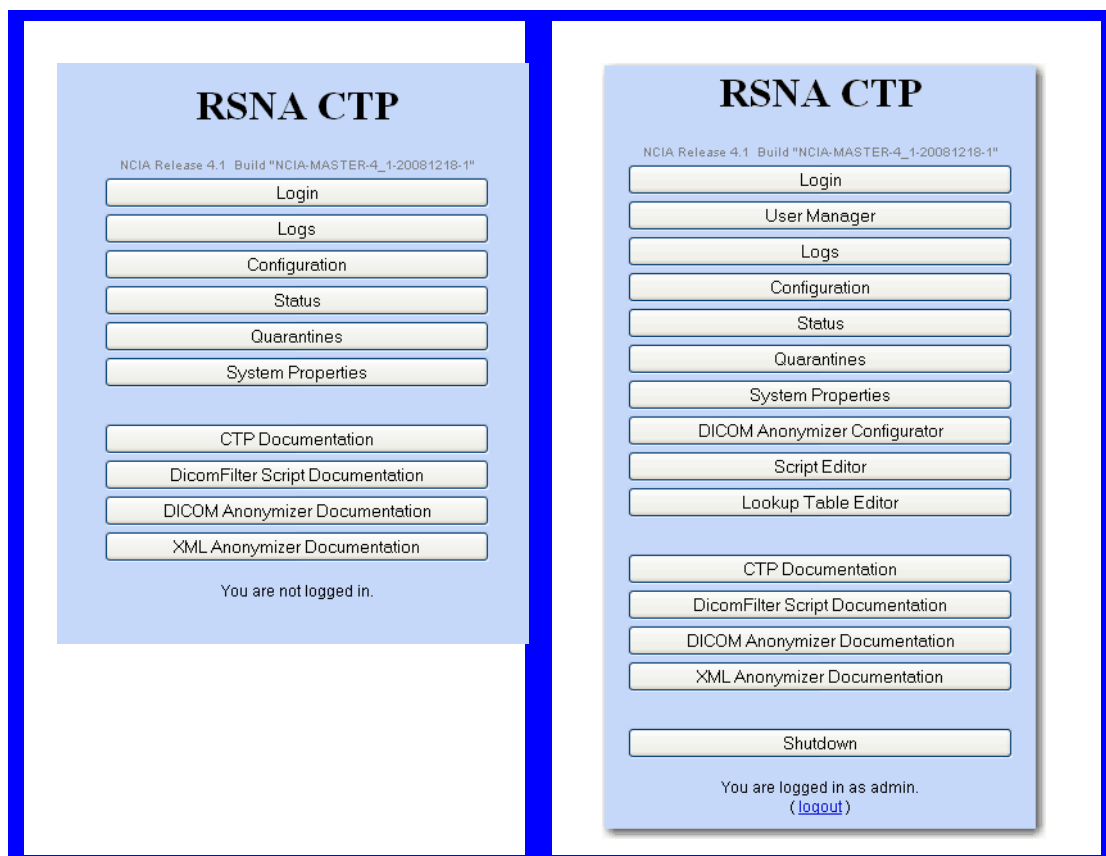


Figure 3.1 CTP client main menu, when you are not logged in (left), and when you are logged in (right)

**Note:** You do not need to be logged in to the CTP client to review some of the pages. See [Figure 3.1](#). You do need to be logged in to configure the anonymizer.

3. Click the **Configuration** button.
4. On the Configuration page, verify the URL in the bottom section of the page, HTTP Export. This should point to the CTP server to which the images will be

exported from the CTP client. You cannot change the text on this page; it must be changed in the `config.xml` file referred to in step 2.

5. Once file(s) are received in the CTP client, they are anonymized there. To configure the anonymization parameters, you must be logged in. Get the login profile from your administrator.
6. Click the **DICOM Anonymizer Configurator** button on the CTP client main page. (This option appears only after you are logged in.)
7. Click the hypertext link in the first screen that opens. This takes you to the page where you can enter, verify or edit anonymization parameters. The default configuration is from the `da.script` file.

DICOM Anonymizer Configurator		
Select	DICOM Element	Replacement
	PROJECTNAME	Test
	TRIALNAME	Test
	SITENAME	Test
	STIED	99
	UIDROOT	999
	maxCharsOutput	7
	BASEDATE	20000101
	PREFIX	
	SUFFIX	
	VISIBILITY	1
	KEY	abcde12345
	DATEINC	-138
<input checked="" type="checkbox"/>	[0008,0005] SpecificCharacterSet	@keep()
<input type="checkbox"/>	[0008,0008] ImageType	
<input type="checkbox"/>	[0008,0012] InstanceCreationDate	
<input type="checkbox"/>	[0008,0013] InstanceCreationTime	
<input type="checkbox"/>	[0008,0014] InstanceCreatorUID	
<input checked="" type="checkbox"/>	[0008,0016] SOPClassUID	@keep()
<input checked="" type="checkbox"/>	[0008,0018] SOPInstanceUID	@hashuid(@UIDROOT,this)
<input checked="" type="checkbox"/>	[0008,0020] StudyDate	@incrementdate(this,@DATEINC)
<input checked="" type="checkbox"/>	[0008,0021] SeriesDate	@incrementdate(this,@DATEINC)
<input checked="" type="checkbox"/>	[0008,0022] AcquisitionDate	@incrementdate(this,@DATEINC)
<input checked="" type="checkbox"/>	[0008,0023] ContentDate	@incrementdate(this,@DATEINC)
<input type="checkbox"/>	[0008,0024] OverlayDate	
<input type="checkbox"/>	[0008,0024] OverlayDate	
<input type="checkbox"/>	[0008,0025] CurveDate	
<input type="checkbox"/>	[0008,002A] AcquisitionDatetime	
<input checked="" type="checkbox"/>	[0008,0030] StudyTime	@keep()
<input type="checkbox"/>	[0008,0031] SeriesTime	

**Note:** This page indicates how the image's DICOM tags are modified to anonymize the data, thus meeting HIPA regulations to preserve patients' privacy. For example, the patient's birthdate and patient ID are anonymized.

The following fields on this page are required:

- **PROJECT NAME**--This must correspond to whatever you are going to call the collection. The name might indicate the type of data., the research center that provided the data, or the collection type such as CT colonography for CT images of colonography.
- **TRIAL NAME** – This must be the same as the project name.
- **SITE NAME** – This identifies where data is coming from. Example = WashU. Several different collections could be submitted from there, but all would have same site name. The NBIA user does not see the source site for the data, except when using the Verify Submission feature. For more information, see *Verifying Submitted Files* on page 67.

- **SITE ID** – This is a predetermined, unique ID that always maps to the specific site. This is always constant for a given site. For images to be submitted to a local installation, you need to use the IDs used previously. For a submission to the CBIIT instance of NBIA, the application support people must assign an ID. Example: WashU = 01.

The four values above are required; without them the submission will fail.

The following field can also be configured.

- **UID ROOT** – This is a predetermined ID that remains unique for every submitted collection from a particular research center in NCI's instance of NBIA. This number is a prefix for other numbers in the system. The last digit is assigned to the project; you must append that last ID for each dataset.

If you are submitting only to your local system, you can determine the UID root yourself. If, at some point, you foresee using caGrid<sup>®</sup> or submitting images to NBIA, you should use valid, globally registered UID root numbers. Numbers can be registered here: <http://www.dclunie.com/medical-image-faq/html/part8.html#UIDRegistration>

*Example:*

Root ID = 555.

Site ID = 6

1st Series UID = 555.6.xx1

2nd Series UID = 555.6.xx2

and so on.

One collection can have multiple sites in which the root ID would remain the same, but site IDs would differ. If a single site submits to multiple collections the site would have a different site ID for each collection.

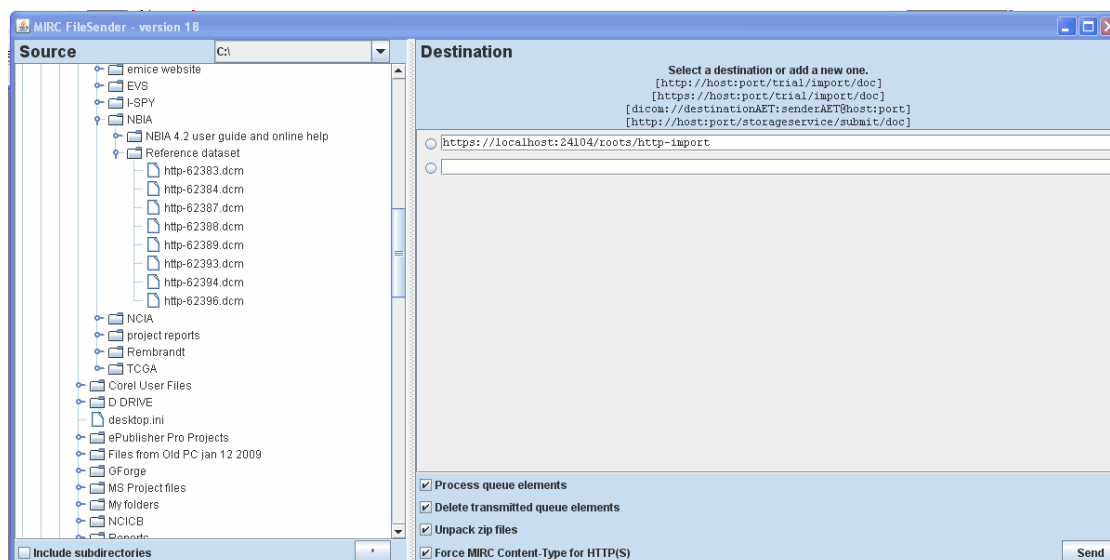
The exception to this is that NCI has a single UID root for all collections. Then each site could have only one Site ID if submitting to multiple collections.

Other fields can also be configured. The configuration and operation of the Anonymizer Configurator is described at this location: [http://mircwiki.rsna.org/index.php?title=The\\_CTP\\_DICOM\\_Anonymizer](http://mircwiki.rsna.org/index.php?title=The_CTP_DICOM_Anonymizer).

Once the CTP client has been configured, you can begin the submission process in FileSender.

## Submitting Images

1. To open the FileSender, double click the **filesender.bat** in the CTP-Client/ FileSender folder..



2. In the left panel of FileSender, select one image or a folder of images to be submitted. You cannot select and submit multiple individual images at one time.
  3. Select **Include Subdirectories** if you want subdirectories to your selection to also be submitted.
  4. Select the default URL for the destination in the Destination panel. This is the host and port number where the CTP client is located.
- Note:** The CTP client must be started to successfully submit images.
5. Leave the check boxes at the bottom of the Destination panel checked in the default selections.

6. Click **Send** to execute the submission process to the CTP client. The Destination panel displays the progress of the task.

7. In the CTP client, click the **Status** button on the main page.

All of the fields supply information about the submission, but you might check especially the Last File Received At fields under each section. Correlate the date and time stamp when the submission was received with the time you sent the image(s). Refresh the page periodically to view the latest status.

8. If the Status tab does not indicate that the file(s) were received, verify the URL on the Destination tab of File Sender.

## Troubleshooting Unsuccessful Image Submission

1. If you suspect your files have not been submitted successfully to the CTP client, click the **Quarantines** button in the CTP client main page to see if any files have been received there. If no files are quarantined, the quarantine indicators remain at zero.NBIA

2. If the quarantine feature indicates a file has been sent there, click the corresponding hypertext link. You will be able to view one row link to the DICOM header file of the quarantined file.
3. Click the **Log** button on the CTP client main page.
4. Click the hypertext link to the `CTP.log` or `All.log` to review the activity of the CTP client. This may help you determine the cause of an unsuccessful submission.

Eric and/or Brian to add a section on server-side submission troubleshooting --in data export service??

## Configuring Security for Newly Submitted Data

Once you have submitted data to NBIA, then the NBIA administrator must go into UPT to set up security for the image data. You, as the administrator, must create protection elements (PE) and at least one protection group (PG) for the data just submitted. Specifically, you must create a protection element for a collection/project and a separate protection element per site within a collection. All projects must have at least one site.

**Note:** While the name of NCIA (National Cancer Imaging Archive) has been changed to NBIA (National Biomedical Imaging Archive), until notified otherwise, the acronym in the UPT configuration remains "NCIA".

### Creating a Protection Element

**Note:** You must be an NBIA administrator to perform this task.

1. Open UPT and log in to NCIA.
2. Select the **Protection Element** link at the top of the page.
3. Click the **Create a New Protection Element** link. This opens a dialog box where you enter details for the PE (*Figure 3.2*).

ENTER THE NEW PROTECTION ELEMENT DETAILS	
* <b>Protection Element Name</b>	<input type="text"/>
Protection Element Description	<input type="text"/>
Protection Element Type	<input type="text"/>
* <b>Protection Element Object Id</b>	<input type="text"/>
Protection Element Attribute	<input type="text"/>
<input type="button" value="Add"/> <input type="button" value="Reset"/> <input type="button" value="Back"/>	

*Figure 3.2 Dialog box for creating a new protection element*

4. Enter a **Protection Element Name**.

You must use the project name set during the submission process. You can retrieve this from the DICOM Anonymizer Configurator tab in CTP, or if the `da.script` file has been successfully updated, get the values from there.



**Note:** Every name must have “NCIA” pre-pended to the project name:  
NCIA.{project\_name}.

5. Enter the **Protection Element Description**. This “tells” UPT where the protection element name is coming from. The convention is that you **MUST** enter **NCIA.TRIAL\_DATA\_PROVENANCE** for this field.
6. [What to enter for PE Type??](#)
7. Enter the **Protection Element Object ID**, which is the same as the PE name.
8. Enter the **PE Attribute**. For a collection you **MUST** enter **NCIA.PROJECT**. For a site, you **MUST** enter **NCIA.PROJECT//DP\_{SITE\_NAME}**. The site name must match the site name on the DICOM Anonymizer Configurator page. Every collection must have at least one site name.
9. Click **Add** to add the PE to UPT.  
  
You must add a PE for both the collection itself and the combination of the collection + site. Some of the NBIA tools don’t just look at what collection data is part of but also where it is coming from. Examples are data for which verifying the submission and QC tools granting access is based on what site it is coming from as well as what collection the data is part of.
10. Add the second protection element for the (same) collection + site as you did in steps 3-7, with these exceptions:
  - a. When you enter the PE name, add “//” at the end of the name, then enter the site. name: {project\_name}://{site name}. See Step 8.
  - b. The PE description remains the same.
  - c. The PE object ID is identical to the protection element name:{project\_name}://{site name}.
  - d. To show that the protection element is drawing on this site name, change the protection element attribute to include NCIA: “NCIA.{project\_name}//DP\_{site name}\_{name}”.
11. Return to the main Protection Element menu at the top of the page. Select **Existing Protection Element**, and click **Search**. The search returns a list of all PEs.
12. Scroll down to find the values for the newly entered PE to verify them. To edit them, click the **View Details** button on the left sidebar.

## Creating a Protection Group

The database uses a protection element to find data in the NBIA database. The CSM toolkit, however, does not allow a user direct access to a protection element. Access to data in a protection element is allowed through protection groups.

Once data is identified as being part of a protection element, you must assign the PE to a protection group. To create a protection group, follow these steps:

1. Choose the **Protection Group** menu item from the top menu in the UPT.
2. Click the **Create a New Protection Group** link.

3. Enter the **Protection Group Name**. There are no naming conventions for protection groups.
4. Add a **Protection Group Description** (optional).
5. Leave the **Protection Group Large Count Flag** radio button set at **No**.
6. Click **Add** to add the PG or click **Reset** to clear the fields.
7. If there are multiple sites for a collection, you might want to create a PG for each site. This process would grant access to view verified submissions at varied sites, if necessary. This is for private data.

For public data, add the PE to the NCIA.PUBLIC protection group.

## Associating Protection Elements with Protection Groups

You are setting up security to make a collection visible on NBIA and grant users access to the data. You can make data public or private. If it is left private, an NBIA admin can assign a user to a particular protection group and assign roles which allow the user data access. If set to public, a user only needs to be in the public group to have access.

Once you have created the necessary protection group(s), you must associate the protection elements you created with the protection group(s).

1. In the UPT, choose the **Protection Group** menu option from the top menu.
1. At the top of the Protection Group tab, select **Select an Existing Protection Group**.
2. Leave the search field blank to find all PGs or enter identifying information for the protection group in the query fields. Click **Search**.
3. Select the PG of interest and click **View Details**.
4. In the details page, click the **Associated PEs** button. This opens a page that displays PEs already associated with the protection group. This page also allows you to add new assignees to the PG.

**Common Security Module User Provisioning Tool**

Login ID : hadfieldj  
Application : NCIA  
Role : Admin

HOME USER PROTECTION ELEMENT PRIVILEGE GROUP PROTECTION GROUP ROLE LOG OUT

### Protection Group and Protection Elements Association

**SELECTED PROTECTION GROUP**

Protection Group Name
NCIA.PUBLIC

Assign or Deassign multiple **Protection Elements** for the selected **Protection Group**. To remove the complete association Deassign all the **Protection Elements**.

**ASSIGNED PEs**

NCIA.Phantom-FDA
NCIA.Jim5
NCIA.RIDER
NCIA.TCGA
NCIA.Virtual Colonoscopy
NCIA.Biochange08//Cornell

Assign PE Deassign Update Association Back

Figure 3.3 UPT page displaying PEs that are part of the selected PG

5. To add a new PE to the selected PG, click the **Assign PEs** button.
6. In the page that opens, enter any appropriate information about the PE you want to assign to the PG, or leave all query fields blank. Click **Search**.

The search results displays protection elements that meet your criteria. All protection elements display if you left the search criteria blank.

7. On the search results page, scroll through the results, if necessary, and select the checkbox corresponding to the protection element you want to add to the protection group. Click **Assign PE**. Typically, you will do this on a one to one basis, so you would associate one protection element to the group.



# CHAPTER 4

## NBIA ADMINISTRATION

This [sectionchapter](#) discusses administration functions in NBIA.

Topics in this [sectionchapter](#) include:

- [Administration Functions Overview on this page](#)
- [Using the Quality Control \(QC\) Tool on this page](#)
- [Updating Curation Status on page 65](#)
- [Uploading and Parsing the Curation Spreadsheet on page 66](#)
- [Verifying Submitted Files on page 67](#)

### Administration Functions Overview

---

**Note:** Administration privileges for NBIA are assigned using the User Provisioning Tool (UPT) by NCICB Application Support personnel.

Administration tools options, all of which are restricted by security, are visible only when a user with Admin privileges logs into NBIA. Admin tasks display as hypertext links under the left sidebar **Tools** menu. Their use is described in the appropriate [sectiontopics](#) that follow in this [sectionchapter](#). [Using the Quality Control \(QC\) Tool](#)

[Updating Curation Status](#)

[Verifying Submitted Files](#)

### Creating a New NBIA User

---

Only an NBIA administrator can create new users for NBIA. This must be done in the separate UPT application. For more information, see the UPT documentation. URL??

I took this paragraph of description from caArray documentation. Please revise it in the context of NBIA:

The User Provisioning Tool (UPT) is used to provision users in the NBIA application. Each application, such as NBIA, installs with its own CSM schema that has sample/default users and a role/permissions structure. Before additional NBIA users can be created, a UPT administrator must register the NBIA application in the UPT. Then, in UPT, an NBIA administrator can assign users to NBIA. Below is the general flow for NBIA, but for more information about performing tasks in UPT, including creating new users, refer to this document: [https://qforge.nci.nih.gov/frs/download.php/2634/UPT\\_User\\_Guide.pdf](https://qforge.nci.nih.gov/frs/download.php/2634/UPT_User_Guide.pdf)

Once a user account is created in UPT, NBIA generates an email notification to the new user. The new user appears in NBIA on the... this is where we need information about what goes on, user-related tasks that can/must be performed in NBIA.

NBIA is a “public” group. To assign the new user to the public group, follow these steps.

1. Log in to NBIA??,
2. Click Admin?? and select the NBIA public group;
3. assign new user to that group. Click **Update Association**.

I need the details of this. It would be better if I could do it myself.

The administrator can also assign the new user to the curation group for using curation tool.

Should these be described here:?

Manage visibility status for QC tool. To set images visible or not visible. (I've started a section about this in the submitting images chapter.) View submission Report allows to see submission stats and what has been received by NBIA.

4. Press Update Association. At this point, have successfully configured user.

UPT is also the application for configuring security for data submitted to NBIA. For more information, see *Chapter 3 Submitting Images*.

---

## Using the Quality Control (QC) Tool

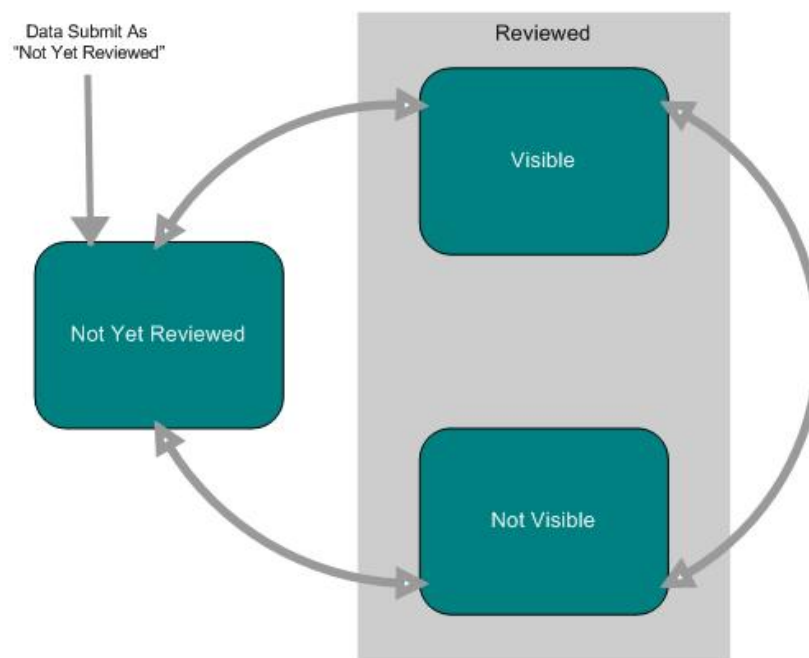
---

**Note:** This administrative tool is available only to logged in users who have manage visibility privileges.

When an image is uploaded into NBIA, it is not made public immediately. It goes through a quality control process by a curator to ensure no private patient data is available, the image is of good quality, and so forth. The NBIA QC tool allows a curator to evaluate the submission and assign the QC status of an image.

To use the QC tool, follow these steps:

1. Click the **QC Tool** hypertext link under **Tools** on the left sidebar. This opens a page that displays a QC tool workflow.



*Figure 4.1 This illustration displays the workflow states of data curation*

The diagram depicts the various states where data can be and the transitions between those states ([Figure 4.1](#)).

On the QC Tool page, the left sidebar is replaced with two categories of curation states--**Not yet reviewed** and **Reviewed**. When you click on a [+] before the

listings, a tree expands, allowing you to navigate through different visibility status, trials, patients, studies and series.



*Figure 4.2 The quality control status tree; selected topics display in the right pane of the page*

When you click on a node in the tree, the information associated with that selection displays in the main section of the page (*Figure 4.2*). That is the segment of the page where you can perform actions that manage the status and hence, the visibility of the selected component.

2. Click an option in the left sidebar. As a curator, follow the [+] in front of the listings to drill down through the list of patient IDs and studies to the images, shown in thumbnail (*Figure 4.2*).
3. To update the status of a tree element, select the item and the status you want to assign to it.

Three status options are available. They are described in [Table 4.1](#) the following table:

<b><i>Submitted Object Status</i></b>	<b><i>Description</i></b>
<b>Not Yet Reviewed</b>	This status is automatically assigned an image upon submission to the NBIA database.
<b>Not Visible</b>	Images are submitted but not yet visible.
<b>Visible</b>	Images are visible.

*Table 4.1 Status options for NBIA images*

**Note:** While still on this page, you can select other groups to which you assign different visibilities.



The QC status history that displays shows all changes that have been made to the status of this image. When a change is made to data status in NBIA, an email is automatically generated to the user.

**Note:** Because changes in image status occur instantaneously, they do not generate an email.

4. Click **View *DICOM* DICOM Header** to view the DICOM header information. This also opens in another browser in table format. For more information about DICOM, see <http://medical.nema.org/>
5. To view a full-size copy of the image in JPEG format, click the **View Full Size JPEG** button.
6. The image page also displays an audit trail of the image, the date(s) and person(s) who made changes to the image, associated comments, and the status of the image.

### *Administration Functions Overview*

#### *Updating Curation Status*

#### *Verifying Submitted Files*

## Updating Curation Status

**Note:** This administrative feature is available only to logged in users who have manage visibility privileges.

1. To update the status of a tree element, in the left pane of the QC tool navigation pane, select the item to open the corresponding page in the right pane. See *Using the Quality Control (QC) Tool* on page 62.
2. In the top segment of the pane, in the Change QC States section, select from the drop-down list the status you want to assign to the Patient, Study or Images.

Three status options are available. They are described in [the following table Table 4.2](#).

<b><i>Submitted Image Status</i></b>	<b><i>Description</i></b>
<b>Not yet reviewed status</b>	This status is automatically assigned an image upon submission to the NBIA database.
<b>Not Visible</b>	Images are submitted but not yet visible
<b>Visible</b>	Images are visible

Table 4.2 *Quality control status categories*

3. Enter appropriate comments and click **Submit**.

**Note:** While still on this page, you can select other groups to which you assign different visibilities.

The QC status history that displays shows all changes have been made to the status of this image. When a change is made to data status in NBIA, an email is automatically generated to the user.

**Note:** Changes in image status do not generate an email because the change is implemented instantaneously.

http://nciadev501:49080 - Mozilla Firefox

Displaying QA Status History for Image 1.3.6.1.4.1.9328.50.3.2481

Date	User	Comment	Old Value	New Value
Aug 15, 2006	shinohaa@mail.nih.gov	s	Not Yet Reviewed	Send to Curation
Aug 15, 2006	shinohaa@mail.nih.gov	g	Send to Curation	Not Yet Reviewed

Done

Figure 4.3 QA Status History

- Click on **View DICOM Header** to view the DICOM header information. This also opens in another browser in table format.
- To view a full-size copy of the image in JPEG format, click the **View Full Size JPEG** button.
- The image page also displays an audit trail of the image, the date(s) and person(s) who made changes to the image, associated comments, and the status of the image.

#### Administration Functions Overview

#### Using the Quality Control (QC) Tool

#### Verifying Submitted Files

## Uploading and Parsing the Curation Spreadsheet

**Note:** This administration feature is available only to logged in users who have manage visibility privileges.

A user with Admin Curator privileges can upload and manage the parsing of a spreadsheet which contains annotations corresponding to images to which the spreadsheet corresponds. To perform these tasks, follow these steps:

- Click the **Upload Curation Spreadsheet** hypertext link under **Tools** on the left sidebar.
- On the Curation Spreadsheet Upload page that opens, navigate for the file to upload (by clicking the **Browse** button), and click **Upload**. This starts the upload/parsing process.

NBIA performs a quick and preliminary validation review. If obvious errors are discovered in the file to be uploaded, an appropriate message displays immediately on

this page. If the spreadsheet passes the first round of validation, a message displays that you will receive an email when the upload is complete and parsed. That email will outline any additional errors that have been detected, if there are any.

### Administration Functions Overview

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### Verifying Submitted Files

## Verifying Submitted Files

**Note:** This administration feature is available only to logged in users who have manage visibility privileges.

When a site submits images to NBIA, a user with admin privileges can verify that the images have been received and monitor the status of the submitted images. This is accomplished in NBIA by generating a report with this information.

To verify image submission, follow these steps:

1. Click the **Verify Submission** hypertext link under **Tools** on the left sidebar.


Figure 4.4 Verify Submission page for submitting a search

2. On the Verify Submission page that opens (Figure 4.4), the **Collection Site** section displays all collections for which you, as an Admin, have permissions to view. In the **Available** panel, select one or more collections and click **Select >** to move your selection to the **Selected** panel.



**Note:** If you have permissions for just one collection, no collections list will be displayed on this page. You will still have the option to select a date range that will search the collection for which you have permissions.



3. Enter the appropriate information for the **Date Range** fields, **From** and **To**, in the Search Criteria form:
4. Press the **Submit** button. The search may take a few moments.
5. Click **Reset** to clear your selection(s) so you can begin again.

Once completed, the report displays below the Verify Submission form ([Figure 4.5](#)). See [Verifying Submitted Files Results](#) [Verify Submission search criteria and search results](#).

**Verify Submission** 

**SEARCH CRITERIA**

Date (mm/dd/yyyy) From: 06/01/2007  To: 07/15/2007 

 **SUBMIT**  **RESET**

**Submission Status**

Please contact [Application Support](#). Telephone: 301-451-4364 or toll free: 888-478-4423  
Email: [ncicb@pop.nci.nih.gov](mailto:ncicb@pop.nci.nih.gov) for help regarding any quarantined files.

Project-Site											
RIDER-MDACC											
Date	New Patients	Updates Patients	New Studies	Updated Studies	New Series	Updated Series	Not Yet Reviewed Images	Visible Images	Not Visible Images	Annotation	Quarantined Files
Jun 21, 2007	6	1	26	0	129	0	16951	0	0	0	0
Jun 22, 2007	10	7	67	16	264	2	29100	0	0	0	0
Jun 23, 2007	0	9	26	12	55	2	6132	0	0	0	0
Jun 25, 2007	6	0	49	0	168	0	16556	0	0	0	0
Jun 28, 2007	1	0	4	0	16	0	1208	0	0	0	0
<b>Totals:</b>	<b>23</b>	<b>17</b>	<b>172</b>	<b>28</b>	<b>632</b>	<b>4</b>					

**Unknown Site Quarantined Files** 0

Note: Unknown site quarantined files are quarantined files for which the project-site cannot be determined.

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*Figure 4.5 Verifying Submitted Files Results* [Verify Submission search criteria and search results](#)

After you have submitted a query for verifying submitted files (see [Verifying Submitted Files](#)), the results include the following information, grouped by project site in table format. Fields are described in [the following table Table 4.3](#):

Submitted Files Results Fields	Description
<b>Date</b>	Specific dates within the specified range on which data was submitted. Click each date, which is a link that reveals the patient, studies or series IDs for data submitted on that date.
<b>New Patients/Updated Patients</b>	Number of new or updated patient information represented in the search results. Click the date link for patients IDs
<b>New Studies/Updated Studies</b>	Number of new or updated studies represented in the search results. Click the date link for studies IDs.
<b>New Series/Updated Series</b>	Number of new or updated series represented in the search results. Click the date link for series IDs.
<b>Images:</b> <ul style="list-style-type: none"> <li><b>Not Yet Reviewed</b></li> <li><b>Visible</b></li> <li><b>Not visible</b></li> </ul>	Number of images represented in the search results. The categories indicate review and access status for images, as determined by data curators. Click the date link for image IDs.  For more information, see <i>Updating Curation Status</i> on page 65.

*Table 4.3 Description of fields in search results for verifying submission to NBIA*

<b><i>Submitted Files Results Fields</i></b>	<b><i>Description</i></b>
<b>Annotation</b>	Number of annotation files represented in search results
<b>Quarantined Files</b>	Number of quarantined files represented in search results. Files can be quarantined for a variety of reasons: an unidentified site; required values that were left blank, an invalid header, no manifest in the zip file, and so forth.

Table 4.3 *Description of fields in search results for verifying submission to NBIA*

On the bottom of the page, a notation displays the number of files in quarantine for which a site cannot be determined ([not shown](#)). This can occur when an uploaded file is invalid or so corrupted that the curators cannot tell where it came from.

[Administration Functions Overview](#)

[Updating Curation Status](#)

[Using the Quality Control \(QC\) Tool](#)



# APPENDIX A URL REFERENCES

This [section](#)chapter lists URLs associated with NBIA.

- [FTP Client Software Products on this page](#)
- [DICOM on this page](#)
- [Cedara on this page](#)
- [NBIA on page 72](#)

## FTP Client Software Products

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1. Filezilla: [http://prdownloads.sourceforge.net/filezilla/FileZilla\\_2\\_2\\_16\\_setup.exe?download](http://prdownloads.sourceforge.net/filezilla/FileZilla_2_2_16_setup.exe?download)
2. NetFinder: <http://www.versiontracker.com/dyn/moreinfo/macosx/3107>
3. Fetch: <http://fetchsoftworks.com/>

## DICOM

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1. DICOM: <http://medical.nema.org/>.
2. ImageJ DICOM Viewer: <http://rsb.info.nih.gov/ij/>
3. OSIRIX DICOM Viewer: <http://homepage.mac.com/rossetantoine/osirix/>
4. DICOMWorks DICOM Viewer: <http://www.dicomworks.com/>

## Cedara

---

Cedara I-Response Workstation (IRW): <http://ncicb.nci.nih.gov/download>

Once the NCICB Download page appears, click **N** to find NBIA, and then click the IRW download link.

## NBIA

---

1. NBIA access: <http://imaging.nci.nih.gov>
2. NBIA portal site: <http://NBIA.nci.nih.gov>



# APPENDIX B NBIA GLOSSARY

Acronyms referred to in [the NBIA online help](#) [this NBIA guide](#) are described in this glossary.

<b><i>Term</i></b>	<b><i>Definition</i></b>
<b>caBIG</b>	cancer Biomedical Informatics Grid
<b>CIP</b>	Cancer Imaging Program
<b>DICOM</b>	Digital Imaging and Communications in Medicine
<b>GUI</b>	Graphical User Interface
<b>HHS</b>	Health and Human Services
<b>NCI</b>	National Cancer Institute
<b>NBIA</b>	National Biomedical Imaging Archive
<b>NCICB</b>	National Cancer Institute Center for Bioinformatics
<b>WAR</b>	Web Application Resource



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