

# Manual for CTSC Request Management System

## Version 2.3

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## 1 Introduction

The Request Management System – or RMS – provides a single entry point for collaboration with the Cleveland-area partner institutions from the Clinical and Translational Science Collaborative (CTSC).

This manual represents a high-level overview of the RMS’s interface from the user’s perspective and is divided into two sections. Section 2 outlines the common actions which all users may carry out when accessing the RMS. Section 3 describe how a typical CTSC investigator may use the RMS and also elaborates on the management capabilities which are available to core-specific personnel such as administrators.

## 2 Common actions across all user types

### 2.1 Logging into the RMS

Figure 1 shows the main login screen. Type a complete email address into box 1, type a password into box 2, and then click the “Log in” button to initiate the login process. If the login credentials are incorrect, then the system will display an error message.

In the case that the person wanting to use the RMS does not have a login account, it is necessary to click the “sign up” link (item 3) to open the “sign up” page (see section 2.2).

#### 2.1.1 Resetting a password

If the required login password is forgotten, a user may click the “reset it” link (item 4) to send a new password to the supplied email address.



Figure 1: The main login screen

## 2.2 Creating a new user account

A new user who accesses the main login page of the RMS but does not have an account in the system may fill out the “sign up” page to create a new account (Figure 2). The RMS supports user accounts associated with email addresses from any domain such as gmail.com and yahoo.com. The required fields for a successful signup are last name (item 1), first name (item 2), and email address (item 3).

It is also possible to specify an institution and department if desired. Either a drop down list or a freeform text field can be used to denote an institution. Selecting the “other (type into text box)” option from the drop down list allows the user to utilize the freeform text field for inputting an institution. A freeform text field exists for recording an affiliated department.

Providing both a complete email address upon registration and an affiliated institution/department pair decouples the associated institution from the provided email address (e.g., a user from the Cleveland Clinic Foundation may use a gmail.com email address if desired).

A National Institutes of Health (NIH) affiliated speciality can be chosen from the speciality drop

down list (item 4). Each speciality option contains a name and corresponding code. The default speciality option is “not applicable.”

Once all of the required fields have been provided, clicking the “Register” button (item 5) begins the registration process. The system creates a new user account and sends an email to the user with the details (i.e., email address and password) needed for logging into the RMS (see section 2.1). The temporary password can be changed at any time from the user’s account page (see section 2.4).

## 2.3 Logging out from the RMS

A user may click the “logout” link in the main navigational menu (see section 3.1) to log out from the RMS and be redirected to the “user login” page. Also, *four hours of inactivity will automatically log out the user.*

## 2.4 Changing an existing password

A user may change his or her existing password by clicking the “my account” link from the main navigational menu, clicking the “change password” tab at the top of the screen, and supplying the required information on the “change password” page. This information includes the user’s current password, the new password, and a copy of the new password. Clicking the “Change” button then changes the existing password.

sign up

◆ denotes a required field.

First name 1 ◆

Last name 2 ◆

Phone number

Email add 3 ◆

Institution other (type into text box)

Department

Specialty 4 not applicable

eRA commons name

This is required by the NIH. If you do not have one, then please request it from the Office of Sponsored Research and Projects.

5

Register or cancel

Figure 2: The sign up page for creating a new user account

## 3 Using the RMS with a valid account

### 3.1 The main navigational menu

After successfully logging into the RMS, the user is presented with the main navigational menu. It is located near the top-left corner of the page and always appears unless the user logs out from the RMS. The menu contains the following links in alphabetical order:

1. **cores** – transports the current user to a list of affiliated cores at the “cores” page and *appears only if the current user is a core or consultation administrator* (see section 3.13).
2. **my account** – accesses the current user’s account page, which contains information such as the user’s email address and roles within the RMS (see section 3.9). *This link does not*

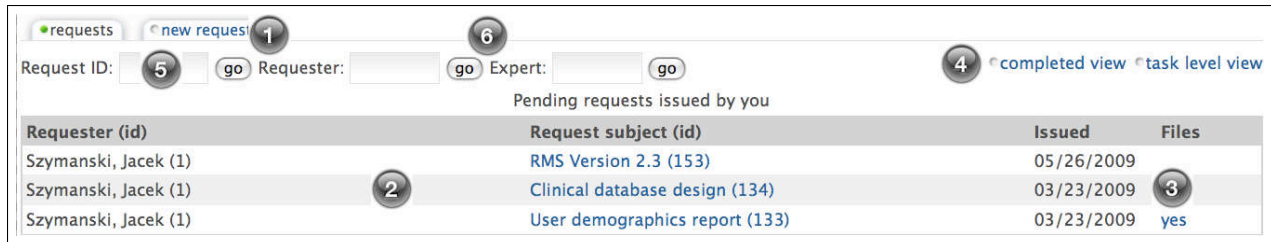


Figure 3: The requests page, which the user sees after login by default

appear when a user is proxying another user's account.

3. **logout** – logs the current user out from the RMS (see section 2.3).
4. **reporting** – opens a page containing a list of accessible reporting interfaces and *appears only if the current user is a system, core, or consultation administrator*.
5. **requests** – takes the current user to the “requests” page, which is a hub for accessing and issuing requests (see section 3.2).
6. **stop proxying** – terminates the proxying of a user's account and restores access to the original current user's account. *This link appears only if the current user is proxying another user's account*.
7. **users & proxies** – leads the current user to a page for searching all existing user accounts and assigning/deleting proxies, which are users who have the privilege to act as the current user without knowing the user's login credentials (see section 3.12).

### 3.2 The requests page

The “requests” page serves as the hub for accessing, issuing, and importing requests (Figure 3). The user may click the “new request” link to access the page for issuing a new request (item 1; see section 3.5). It is also possible to click an existing entry from a particular request table (item 2) to show a page containing details about the request (see section 3.6). Any entries with associated files will have a “yes” value in the *Files* column (item 3) of a request table. Clicking this value directs the user to an interface for downloading attachments associated with the request (see section 3.3).

The “requests” page also contains options to switch between pending/completed and request/task views with a single click (item 4). This

allows users to check on their pending and completed requests in a straightforward and easy-to-use manner. Users may also quickly access any affiliated request by using a request box in the top left corner of the page (item 5).

The “requests” page features the ability to search for requests related to specific requesters or consultation experts. A user can type inside the text boxes at the top of the page (item 6) and then click the “go” button to carry out a search request. All requesters or experts whose full names contain the value from the respective text box are then returned and displayed on the main requests page in hierarchy form.

In the case of requester results, each requester is shown with a list of links to his/her issued requests. In the case of consultation expert results, each expert is accompanied by a list of requesters and links to their requests which have the expert assigned. Clicking a request link in either case opens a new browser tab/window and displays the associated request.

It is important to note that the only requests shown are the ones which the current user is permitted to access based on his/her specific administrative privileges. Matching requests must contain at least one task which has an assigned consultation type from the current user's administrative cores or administrative consultation types.

### 3.3 Downloading attachments

The “download attachments” page contains a zip file management section on the left-hand-side and a browsable tree on the right-hand-side.

The directory tree consists of directory links or attachment names (e.g. preview.jpg). Directory links can be clicked to show or hide their contents (attachment names or nested directory links). There are also selection checkboxes next to each attachment name or directory link for specify what to download. More specifically, clicking a checkbox by a directory link (de)selects all of its

contents, while clicking a checkbox by an attachment name (de)selects only the attachment name.

After at least one attachment name has been checked, the user may click the “create” link on the left-hand-side to create a downloadable zip file which contains the checked selections from the browsable tree. Then, the user may click the “download” link which appears to download the zip file.

### 3.4 Uploading attachments

The “upload attachments” page loads a Java applet *which the current user must trust by clicking the “trust” button*. Then, the current user can browse the local file system in whatever manner is desired, “drag-and-drop” files or directories into the “Drop Files Here” box, and click the green upload arrow at the bottom to upload attachments.

### 3.5 The new request page

The screenshot shows a web form titled "new request to be issued by Jacek Szymanski". At the top left, a red diamond icon indicates a required field. The form has several sections: "Subject" with a text input field (item 1) and a note "eighty (80) character limit"; "Consultation types" with a dropdown menu (item 2) and a link "learn about the cores." (item 3); "Attachments" with a checkbox (item 4) and the text "uploaded after submission"; and "Cancel email notification" with a checkbox (item 6). On the right side, there is a "Description" box (item 5). At the bottom, there is a green "Submit" button and a "cancel" link.

Figure 4: The page for issuing a new request

The “new request” page (Figure 4) gives users the capability to issue requests to multiple CTSC cores simultaneously, if needed. The page contains the a subject field (item 1) which stores the textual subject of the request (i.e. this is the same as an email message’s subject).

It also features a “select consultation(s)” dropdown menu (item 2) which has browsable expertise trees from all of the CTSC cores. Clicking a checkbox next to a consultation type includes the consultation type in the request. It is also possible to click the “learn about the cores” link (item 3) to gain more information about CTSC cores in order to facilitate the process of selecting core-specific consultation types.

If a user desires to upload attachments for a request, then it is necessary to click the “attach-

ments” checkbox (item 4) and accept the subsequent disclaimer which absolves the CTSC from any responsibilities regarding attachments.

The also can provide a detailed description of the request by supplying free-form text into the “description” box (item 5).

Once the user is ready, then he or she may submit the request by clicking the “Submit” button. In the case that no consultation types are selected, the user will receive a disclaimer message which states that the request will be forwarded directly to the research concierge. Otherwise, the request is created, an automated email notification is sent to either consultation experts or affiliated administrators, and the user is directed to upload attachments via a specialized applet utility (see section 3.4), if necessary.

Consultation and core administrators may cancel the automated email notification by checking the “Cancel email notification” checkbox (item 6) which appears above the “Submit” button.

### 3.6 The view or edit existing request page

Figure 5 showcases the page for viewing or editing an existing request. Core and consultation administrators or consultation experts associated with the request may edit the request’s subject (item 1; click on the “change” link). Administrators may modify the date a request was issued on by clicking the calendar icon next to the date field. Also, all three groups in addition to the requester may upload or download attachments by clicking links (item 2; a disclaimer must be accepted when uploading).

The request’s core-specific sub-requests appear at the bottom of the page. Each sub-request consists of one or more instantiations of a single core’s consultation types, which are known as *tasks*. Sub-requests are delimited by core names, and hovering the cursor over the names displays an “open” action link (item 3), which leads to the view/edit page for a sub-request (see section 3.7).

Each task of a sub-request appears as one row and contains the name of the associated consultation type, the assigned consultation expert’s name (if any), the task’s due date, an optional status update, and an optional editable checkmark. The status update lets the user know on what date a task has been completed, whether a task has been completed without a completion date, or whether a task contains a completion date but has not been

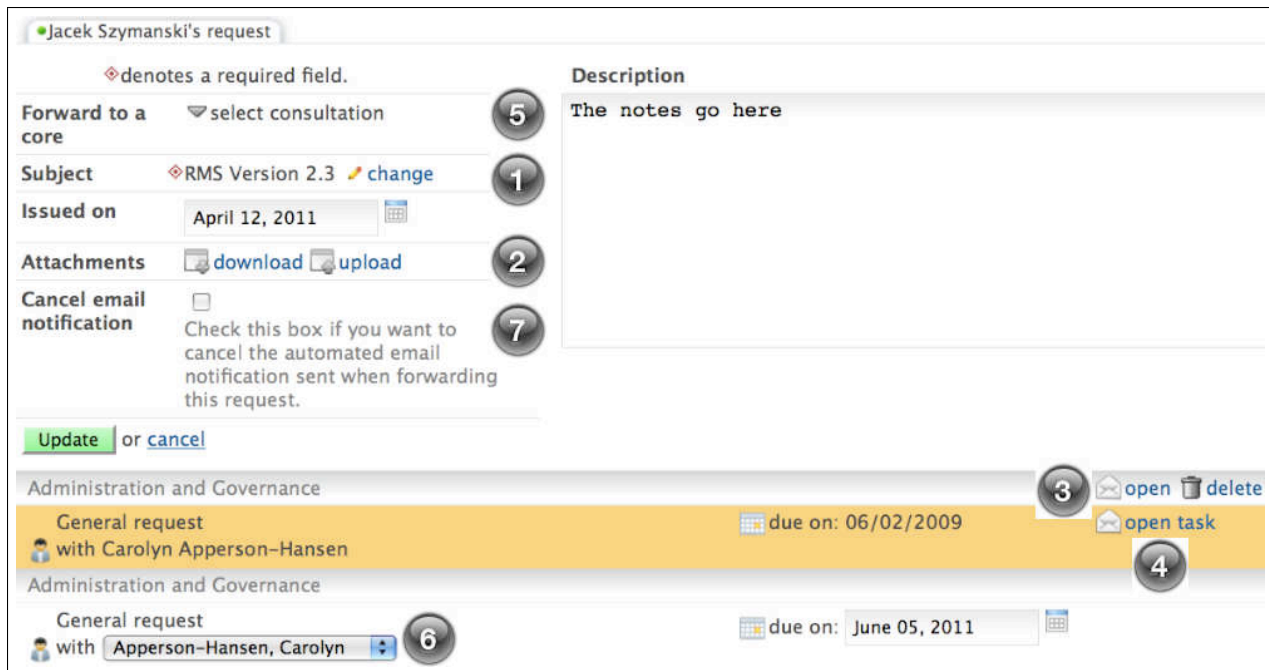


Figure 5: The page for editing or viewing an existing request

marked as completed. The editable checkmark appears if the user has the capability to edit a particular task. Also, hovering the cursor over a task row of a sub-request highlights the row and shows an “open task” action link which leads directly to the task edit page (item 4).

Core and consultation administrators associated with the request forward the request to a new core by clicking the “select consultation” drop-down link (item 5), browsing through the cores’ expertise trees, and clicking a consultation type. This results in a new sub-request being appended to the sub-request table at the bottom of the page (item 6). The administrator may then change the default consultation expert (if any) and due date of the new sub-request’s initial task.

Once all modifications to the request have been made, clicking the “Update” button updates the request. The system sends an automated email notification to the appropriate consultation experts or affiliated administrators in the case that the request has been prepared for being forwarded to at least one additional core. Consultation and core administrators may cancel the automated email notification by checking the “Cancel email notification” checkbox (item 7) which appears above the “Update” button once the request is initialized for forwarding.

### 3.7 The view or edit existing sub-request page

This page is used for viewing or editing an existing sub-request, and it is similar to the view/edit page for existing requests.

The sub-request’s tasks (instantiations of consultation types) from a single core are located at the bottom of the page. Each task of a sub-request appears as one row and contains the name of the associated consultation type, the assigned consultation expert’s name (if any), the task’s due date, an optional status update, and an optional editable checkmark. The status update lets the user know on what date a task has been completed, whether a task has been completed without a completion date, or whether a task contains a completion date but has not been marked as completed. The editable checkmark appears if the user has the capability to edit a particular task. Also, hovering the cursor over a task row of a sub-request highlights the row and shows an “open task” action link which leads directly to the task edit page.

Core and consultation administrators associated with the request forward the sub-request within its existing core by clicking the “select consultation” drop-down link and then clicking a consultation type. This results in a new task being appended to the task table at the bottom of the page. The user

may then change the default consultation expert (if any) and due date of the new task.

Once all modifications to the sub-request have been made, the user may click the “Update” button to update the sub-request. An automated email notification is sent to the appropriate consultation experts or affiliated administrators if sub-request forwarding is utilized. Consultation and core administrators may cancel the automated email notification by checking the “Cancel email notification” checkbox which appears above the “Update” button immediately after the sub-request is prepared for forwarding.

### 3.8 The view or edit existing task page

The view/edit page for an existing task allows task’s consultation expert (if any) to input the total number of hours worked on the task and specify the date when the task was completed by clicking a calendar icon. Core and consultation administrators can denote this information in addition to being able to change the consultation expert and due date via a drop-down list and a clickable calendar icon, respectively. Also, the description field stores relevant details about the request in free-form text.

Clicking the *Update* button saves any changes. A task will be automatically completed or reverted to a pending status once a completion date is provided or removed, respectively. The latter capability is useful in cases where, for example, an error has to be corrected.

The RMS sends emails to relevant personnel if critical changes are made (e.g., a task’s due date is modified). Consultation and core administrators may cancel these emails by checking the “Cancel email notification” checkbox which appears above the “Update” button.

### 3.9 The my account page

The “my account” page permits the current user to modify account information (for details on certain fields, see section 2.2) and save changes by clicking the “Update” button. This page also contains a link for changing the current user’s password (section 2.4).

The current user’s roles are accessible at the top of the page by clicking the “access roles” drop-down link. This action displays the current user’s roles matrix, which specifies the roles that the user

has in each CTSC core. There are two types of roles:

1. **Consultation expert** – this role allows a user to have the ability to be assigned to carry out some core-specific tasks of a request.
2. **Core administrator** – this role gives core-wide privileges to a user. Users with this role may create/modify the components of a core’s expertise tree (consultation types and branches; see section 3.14), create/modify user accounts (including assigning or removing core-specific roles), and issue requests on behalf of other users.

If the current user is a core administrator, then it is possible to assign or remove roles which are associated with the related core by modifying the desired checkboxes in the roles matrix and then clicking the “Update” button.

### 3.10 The reporting page

The “reporting” page introduces system, core, and consultation administrators to various reporting interfaces encompassing both requests and their associated tasks. A typical reporting interface (Figure 6) has controls for selecting criteria such as date ranges and choosing reporting refinements in the top left corner (item 1). Each reporting interface allows an administrator to export reporting results to an Excel compatible file by simply clicking a link (item 2). The following reporting interfaces are available:

1. **Overdue tasks** – allows administrators to see overdue tasks affiliated with their cores/consultations
2. **Customized task summary** – allows administrators to view tasks affiliated with their cores/consultations
3. **User information** – allows core administrators to view all users, search for users who are missing certain attributes, or filter users based on their expert, requester, and institution affiliations
4. **Registered users** – *is accessible only by system administrators* and provides a summary of registered users which can be filtered by created date or institution

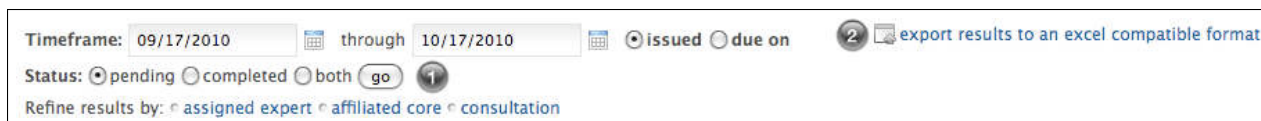


Figure 6: An example of a reporting interface

5. **Total requests by investigator** – *is accessible only by system administrators* and provides request totals broken down by requester for a specific date range
6. **Requests or tasks by core** – allows core administrators to view a detailed summary of requests or tasks from their affiliated cores
7. **Total requests and tasks by core** – allows core administrators to quickly analyze the request and task totals for their affiliated cores based on status
8. **Request and task metrics** – *is accessible only by system administrators* and showcases values such as the average number of tasks per request and the total number of median requests per investigator for a specific date range or institution
9. **Requester/consultant summary** – *is accessible only by system administrators* and offers detailed information (e.g., institutions, email addresses, requester eRA commons name) about requesters and consultants affiliated with requests for a desired date range

### 3.11 Noteworthy features of reporting interfaces

The “total users by institution” and “total requests and tasks by core” reporting interfaces have a “switch to timeline view” link located at the top of their pages. This link loads a timeline page which displays graph based representations of entity growth over time (e.g., the “total requests and tasks by core” reporting interface allows users to view total requests across all cores or for a specific core). An example graph is shown in Figure 7. Graph entities are total registered users or requests issued depending on the reporting interface accessed. A graph contains month abbreviations and total number of entities on the horizontal and vertical axes, respectively. Each plotted point on the graph represents the total number of entities accumulated through the end of a specific month and year. The exact total entity value

associated with each plotted point appears below the corresponding month abbreviation on the horizontal axis. The page defaults to a graph showing accumulated entity totals on a per month basis for the current year. Future months from the current year are assigned the latest entity total from the current date. Entity growth timelines for prior years are easily accessible via links at the top left corner of the page. A user may return to the original reporting interface by clicking the “switch to tabular view” link.

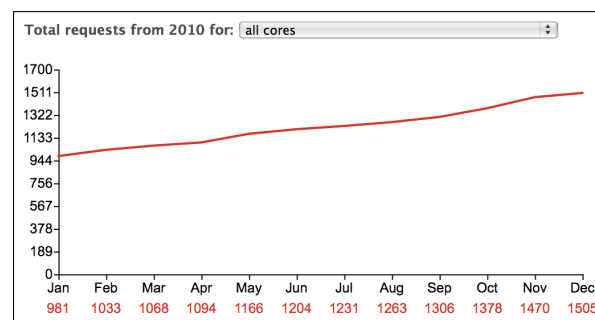


Figure 7: A sample graph generated by a reporting interface showing entity growth over time

All search results generated by reporting interfaces are displayed in tabular format. Search result headings always remain visible at the top of the page even when a user scrolls through search results. This reduces the possibility of user confusion by keeping the descriptive context of the search results in plain view.

Reporting interface search results can also be sorted in either ascending or descending order based on their report headings where appropriate. Search results may be sorted by a specific heading column if the heading contains a set of up and down arrows on its right hand side. Clicking such a heading sorts the search results in ascending order based on the values within the associated column and shows only the heading’s up arrow. Clicking the same heading again sorts the search results in descending order, and subsequent clicks result in alternating ascending and descending orders. If search results have already been sorted by a particular heading, then clicking another heading resets

the sort order from the initial heading.

### 3.12 The users & proxies page

Figure 8 displays the “users” page, which allows the current user to search through existing users or manage proxy access (proxying involves logging into the RMS as a different user without knowing his or her login credentials). The top-right corner of the page contains three navigational links (item 1). The first link (“all users”) shows a list of all existing users. The second one (“who you can proxy”) showcases users whom the current user can proxy, and the third link (“who can proxy you”) outlines users who can proxy the current user.

In all three cases, it is possible to click the “A-Z” drop-down link and then click a letter to filter users based on the first letter of their last name. Also, entering the beginning portion of the desired last name in the text field (item 2) automatically displays matching users, if any.

Hovering the cursor over an existing user row (item 3) from the search results table when the “all users” link is selected reveals one or more action links:

1. **view account** – *appears only for core administrators* and lets them view a user’s account details or update information (e.g. assign roles from their cores)
2. **make request from** – *appears only for core or consultation administrators* and allows them to issue new requests on behalf of a user
3. **add as proxy** – *is available to all users* and adds a user to the list of users who may proxy the current user
4. **select for merging** – *is available to system administrators only* and adds a user to the table of users who have been selected for account merging (see section 3.12.1)

If the “who you can proxy” or “who can proxy you” links are selected, then hovering the cursor over a user row triggers one action link which allows the current user to either begin a proxy session or delete a proxy, respectively.

If the current user is a core or consultation administrator, then it is also possible to click the “new user” tab on the top-left corner of the page to create a new user.

#### 3.12.1 Merging user accounts

The “users” page features a user account merging interface *which is accessible only by system administrators*. This interface lets system administrators merge all of the relevant information across multiple duplicate accounts into one primary account. System administrators may begin using the interface by first hovering the mouse cursor over the desired user and clicking the “select for merging” link. This adds the associated user to a merge table (Figure 9) at the bottom of the screen. Repeating this step selects all of the desired user accounts for merging.

It is possible to remove a user account row from the merge table by clicking its *trash bin icon* (item 1). The system administrator may choose a primary account using the radio buttons (item 2) inside the merge table if the default primary selection is incorrect. All non primary selected user accounts will be merged into the primary user account. An option exists to save the email addresses of the accounts being merged for future login purposes (item 3). This is useful in cases where a user has forgotten his/her primary login information but can still remember one or more secondary email addresses.

Clicking the “merge users” button (item 4) starts the merge process, which consolidates all requests, roles, and proxy definitions underneath the primary user account. All references to user accounts which are being merged as a result of importing requests via a spreadsheet (see section ??) are also updated to reflect the primary user account.

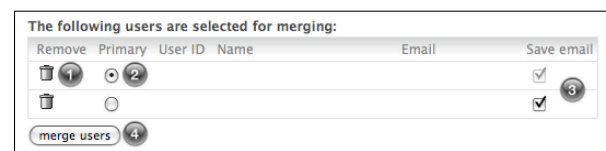


Figure 9: A table containing user accounts for merging

### 3.13 The cores page

This page lists cores which the current user has associated administrative privileges for. Clicking on a core’s name opens the core management page.





Figure 8: The page for browsing user accounts and managing proxies

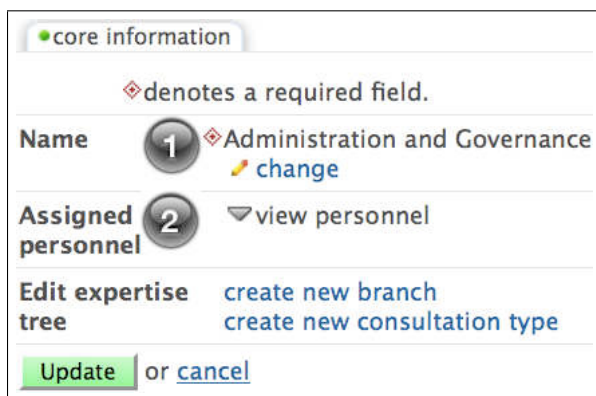


Figure 10: The left-hand-side of the core management page

### 3.14 The core management page

The core management page is the central area for core-specific information. The left-hand-side of the page (Figure 10) contains the name of the core (item 1) in addition to a drop-down list of assigned personnel (item 2; core administrators and consultation experts).

The core's expertise tree appears on the right-hand-side of the page (Figure 11) and contains a mix of organizational branches (item 1) and consultation types (item 2).

A user who has the *core administrator* role may click on a component of the expertise tree to open an edit page for that component, change the core's name by clicking the "change" link, or access two links for extending the core's expertise tree ("create new branch" and "create new consultation type").

Consultation administrators (see section 3.15) may click on affiliated consultation types of the expertise tree to open an edit page for them.



Figure 11: An expertise tree that contains two branches – CCF and CWRU – and various consultation types

### 3.15 The edit and new consultation type pages

The "edit and new consultation type" pages are identical in the data they both contain (see Figure 12). Each page has a "manage personnel"

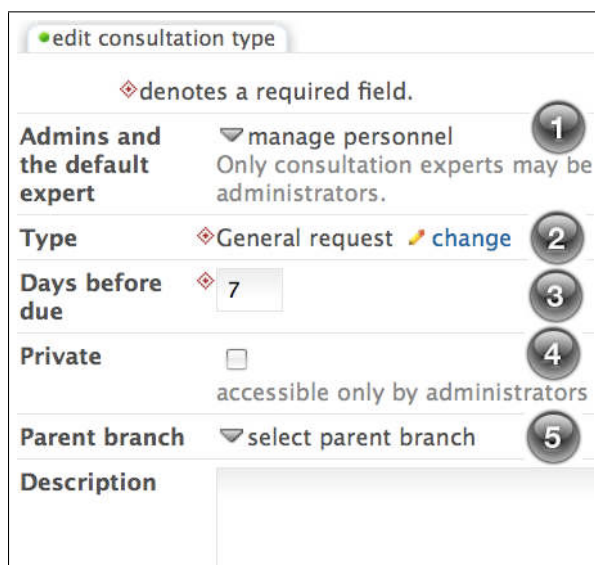


Figure 12: An existing consultation type and its relevant information from the edit page

drop-down link which displays a list of all consultation experts in the consultation type’s “parent core” when it is clicked (item 1). Checking a box next to a consultation expert’s full name selects him or her as a consultation administrator, while clicking a name selects or deselects the default expert.

A consultation type’s consultation administrators are consultation experts who can edit the consultation type’s information, and its default expert is a consultation expert who is selected by default when a request is issued with this consultation type.

The type field (item 2) is the consultation type’s name, and the “days before due” field (item 3) specifies the time period in days that must elapse before the deadline date is reached for a task with this consultation type. For example, when an investigator requests consultation type “statistical sciences” (which has a days before due timeframe of 21 days) on September 6, 2009, the resulting deadline date for the consultation is September 27, 2009.

### 3.16 The edit and new expertise tree branch pages

The “edit and new branch” pages have the same fields (see Figure 13). Each page has a field for the branch’s name (item 1) and a drop-down list (item 2) for selecting the “parent core’s” expertise tree branch which will act as the new branch’s “parent branch.”

After all of the necessary information is provided, the user may create or update a branch using the “Create” or “Update” buttons.

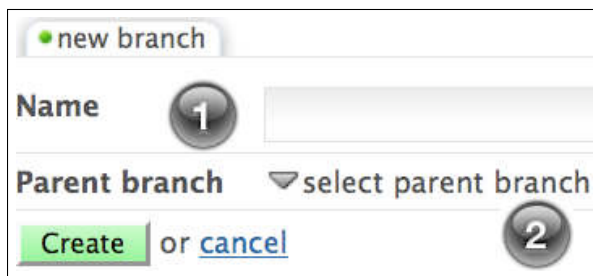


Figure 13: The page for creating a new expertise tree branch. A branch name and a parent branch (the default is the root of the expertise tree) are both required.

Also, the “private” checkbox (item 4) prevents a consultation type from being requested by an investigator but does allow its consultation administrators and the “parent core’s” administrators to forward requests using this consultation type.

The “parent branch” drop-down (item 5) list allows an administrator to select the “parent core’s” expertise tree branch which will act as the consultation type’s “parent branch.”

Once all of the required information is specified, the user may create or update a consultation type by clicking the “Create” or “Update” buttons, respectively.