

REDCap Data Entry User's Guide & Reference Manual

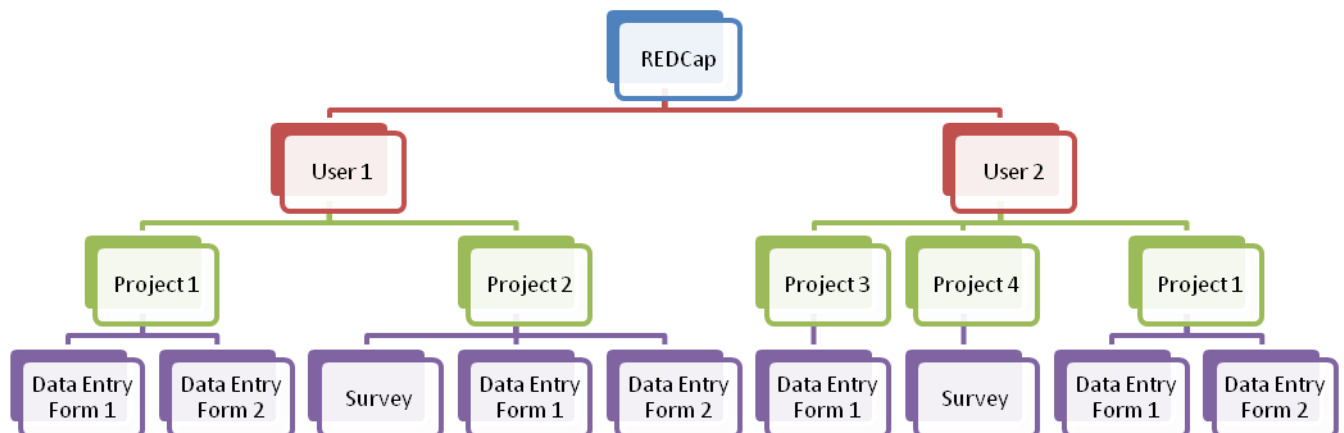
Welcome to REDCap!

REDCap is a secure, web-based application for managing your clinical data. This document will review the basic principles of data entry in REDCap.

REDCap structure and terminology

REDCap is a database application that provides access on a project-by-project basis as determined by the Principal Investigator. Each project may have many users; each user may have many projects. Users will only see projects listed in their My Projects page for which they have access and within a project they will only see the forms to which they have access.

Please note in the below hierarchical chart, User 1 and User 2 both have access to Project 1, however User 2 does not have access to Project 2, etc.



Data Collection Instrument – a form created for the purposes of capturing data such as a data entry form or survey.

Record – a complete set of information for a person or object. Each record is composed of one or more fields.

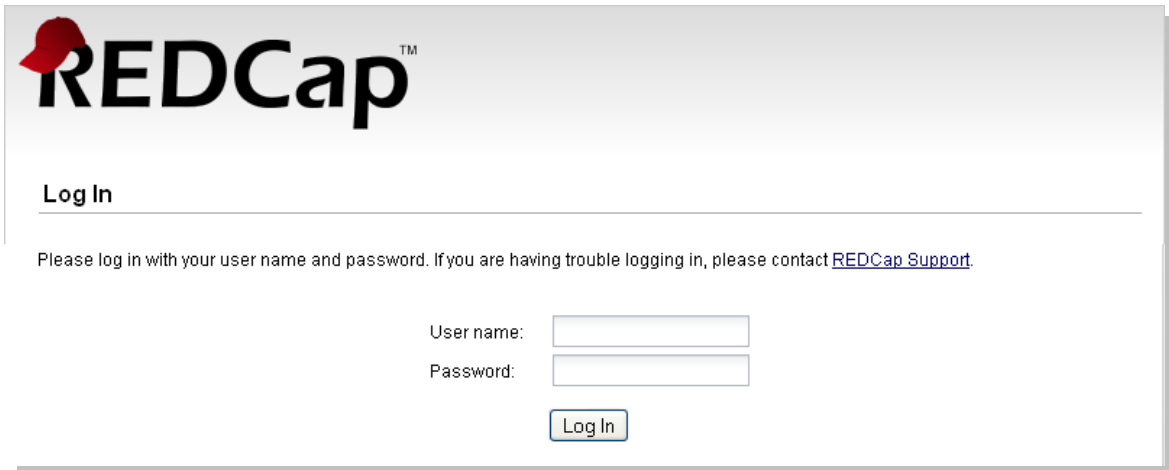
Study ID – a unique key that can identify each record in the database. (This may be labeled differently in your project.)

Event – a scheduled or unscheduled occurrence for which data is captured using a predefined data instrument (form)

Form Status – status of the form completeness and denoted with a color; red – incomplete; yellow – unverified; green – complete. The meaning of the status values are determined by the study team.

Logging Into REDCap

Open a browser and enter the following URL in the address line: <https://redcap.tsrh.org/index.php>. Enter your username and password as seen in Figure 1. Your username is going to be your email and you should be instructed to provide a password the first time you log in

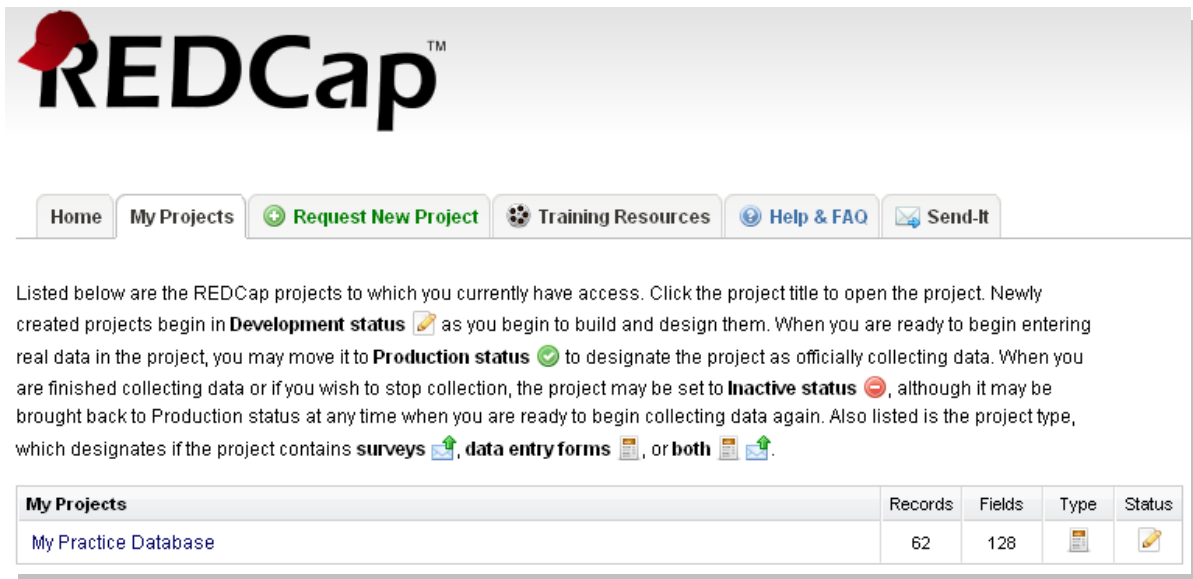


The screenshot shows the REDCap login interface. At the top left is the REDCap logo. Below it is a 'Log In' section with a horizontal line. Underneath the line is a message: 'Please log in with your user name and password. If you are having trouble logging in, please contact [REDCap Support](#).' Below this message are two input fields: 'User name:' and 'Password:'. A 'Log In' button is positioned below the password field.

Figure 1

Accessing Your Project

From the REDCap Home Screen select the **My Projects** tab to see a list of projects you are authorized to access (Figure 2). Click on the link to the database for which you will be entering data – for the IPSG, there will be databases for each of the age group studies. The 6-8 age group study database is called **IPSG Age 6-8 Non-Op vs Operative Study Database**.



The screenshot shows the REDCap 'My Projects' page. At the top is the REDCap logo. Below the logo is a navigation bar with tabs: 'Home', 'My Projects', 'Request New Project', 'Training Resources', 'Help & FAQ', and 'Send-It'. Below the navigation bar is a paragraph of text explaining project statuses: Development status (pencil icon), Production status (green checkmark icon), and Inactive status (red minus icon). It also mentions project types: surveys (document icon), data entry forms (document icon with up arrow), or both (document icon with up arrow). Below the text is a table with the following data:

My Projects	Records	Fields	Type	Status
My Practice Database	62	128		

Figure 2

Data Collection Types

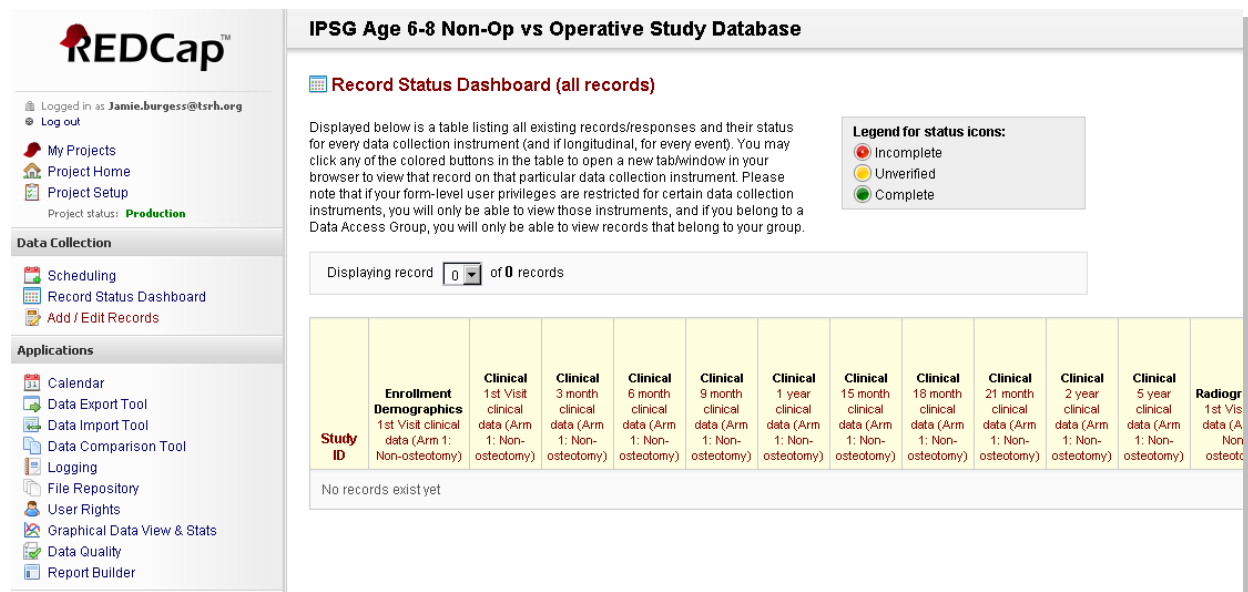
There are two types of data collection that a project can have:

- **Classic** – Each form is used once for each participant.
- **Longitudinal** - Each form may be used one or more times for each participant and each instance of the form is assigned to one or more events. **This is the type of project used by the IPSC**

Longitudinal Type: Adding/Selecting a Record

Record Status Dashboard: The Record Status Dashboard (Figure 3) is a graphical representation of which data entry forms will be completed at each event. Once a record is created, data collection instruments will appear as red buttons underneath each event. The individual forms are represented by colored buttons. The color of the button represents the status of the form: red for incomplete, yellow for unverified, and green for complete.

If you want to navigate through the record for this subject, click on the buttons to select the form you want to see. In figure 3, the Dashboard currently shows that there are no patients entered into the Database. Once you start adding patients, the Dashboard grid will populate with buttons. You will only be able to see those patients that are enrolled at your site.



REDCap™

Logged in as Jamie.burgess@tsrh.org
Log out

My Projects
Project Home
Project Setup
Project status: **Production**

Data Collection

Scheduling
Record Status Dashboard
Add / Edit Records

Applications

Calendar
Data Export Tool
Data Import Tool
Data Comparison Tool
Logging
File Repository
User Rights
Graphical Data View & Stats
Data Quality
Report Builder

IPSC Age 6-8 Non-Op vs Operative Study Database

Record Status Dashboard (all records)

Displayed below is a table listing all existing records/responses and their status for every data collection instrument (and if longitudinal, for every event). You may click any of the colored buttons in the table to open a new tab/window in your browser to view that record on that particular data collection instrument. Please note that if your form-level user privileges are restricted for certain data collection instruments, you will only be able to view those instruments, and if you belong to a Data Access Group, you will only be able to view records that belong to your group.

Legend for status icons:
● Incomplete
● Unverified
● Complete

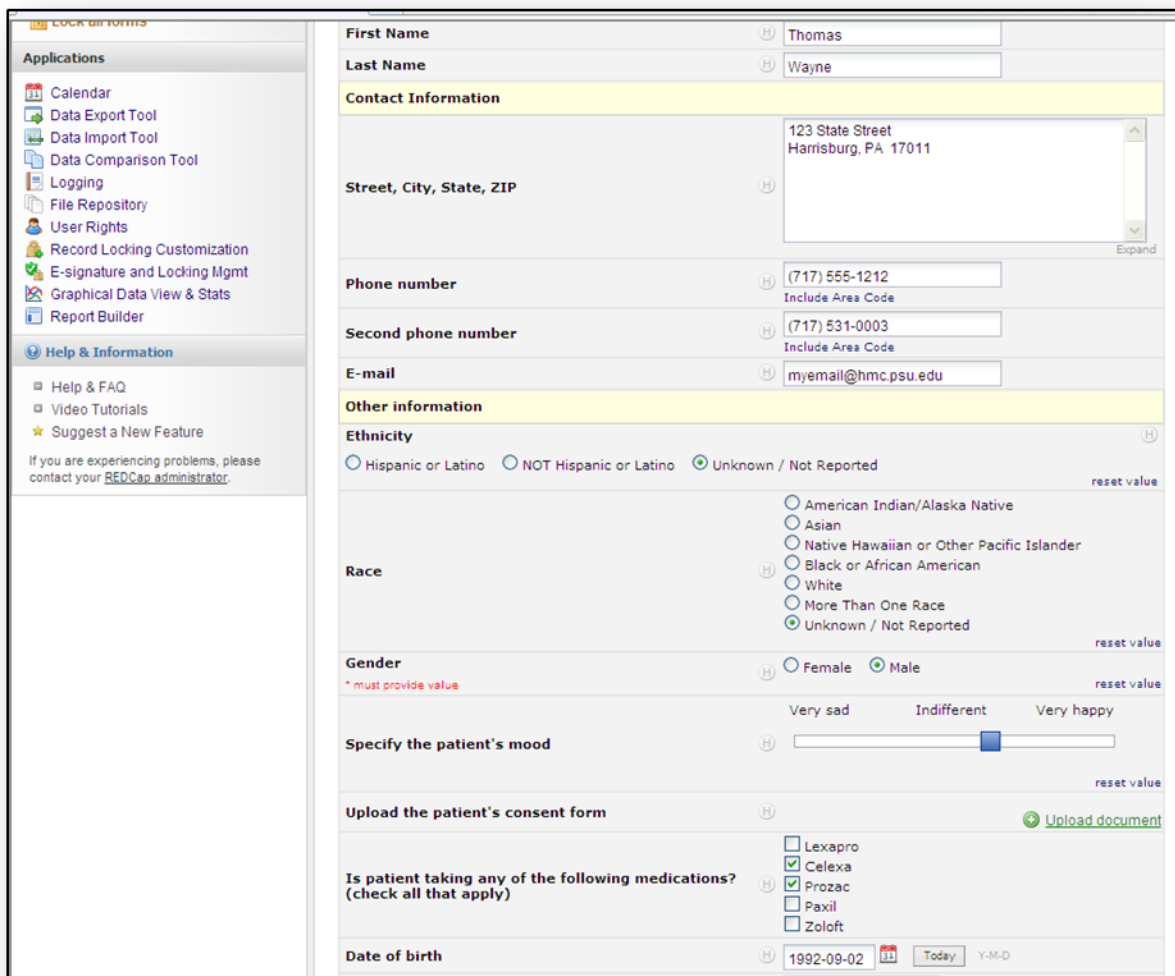
Displaying record 0 of 0 records

Study ID	Enrollment Demographics	Clinical 1st Visit clinical data (Arm 1: Non-osteotomy)	Clinical 3 month clinical data (Arm 1: Non-osteotomy)	Clinical 6 month clinical data (Arm 1: Non-osteotomy)	Clinical 9 month clinical data (Arm 1: Non-osteotomy)	Clinical 1 year clinical data (Arm 1: Non-osteotomy)	Clinical 15 month clinical data (Arm 1: Non-osteotomy)	Clinical 18 month clinical data (Arm 1: Non-osteotomy)	Clinical 21 month clinical data (Arm 1: Non-osteotomy)	Clinical 2 year clinical data (Arm 1: Non-osteotomy)	Clinical 5 year clinical data (Arm 1: Non-osteotomy)	Radiogr 1st Vis data (A Non-osteotom)
No records exist yet												

Figure 3

Data Entry Fields

Figure 4 illustrates an example of a data entry form for a generic database. The data type for each field determines the appearance of the field. There are several field types in REDCap including text boxes, radio buttons and drop down lists (select only one answer), check box lists (select all answers that apply), slider analog scale, file upload and calculated fields. Calculated fields are automatically populated based data of one or more field values. In the IPSG database, fields like age and BMI are automatically calculated.



The screenshot shows a REDCap data entry form with the following fields and values:

- First Name:** Thomas
- Last Name:** Wayne
- Contact Information:**
 - Street, City, State, ZIP:** 123 State Street, Harrisburg, PA 17011
 - Phone number:** (717) 555-1212
 - Second phone number:** (717) 531-0003
 - E-mail:** myemail@hmc.psu.edu
- Other information:**
 - Ethnicity:** Hispanic or Latino, NOT Hispanic or Latino, Unknown / Not Reported
 - Race:** American Indian/Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Black or African American, White, More Than One Race, Unknown / Not Reported
 - Gender:** Female, Male
 - Specify the patient's mood:** Slider scale from Very sad to Very happy, currently set at Indifferent.
 - Upload the patient's consent form:** Upload document button.
 - Is patient taking any of the following medications? (check all that apply):**
 - Lexapro
 - Celexa
 - Prozac
 - Paxil
 - Zoloft
 - Date of birth:** 1992-09-02

Figure 4

Field Notes: Some fields have a field note, shown in small blue type below the data field. These notes provide field-specific information to help the person entering data.

Phone number	<input type="text" value="(555) 123-4567"/> Include Area Code
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Navigation: Enter a value in the data field by keyboard strokes or clicking the mouse. Move to the next field by clicking in it, **or pressing the [Tab] key.**

IMPORTANT: Navigate between fields using [Tab] or mouse clicks. If you press [Enter], you will save the form, and exit the current screen.

Validation: If a field has validation associated it with you may see a warning or error message indicating that the value you entered does not match requirements set up for the field. For example, text fields may require the value entered fall between minimum and maximum values. REDCap will not prevent you from continuing, but it will alert you to a value that is outside the pre-defined acceptable range.

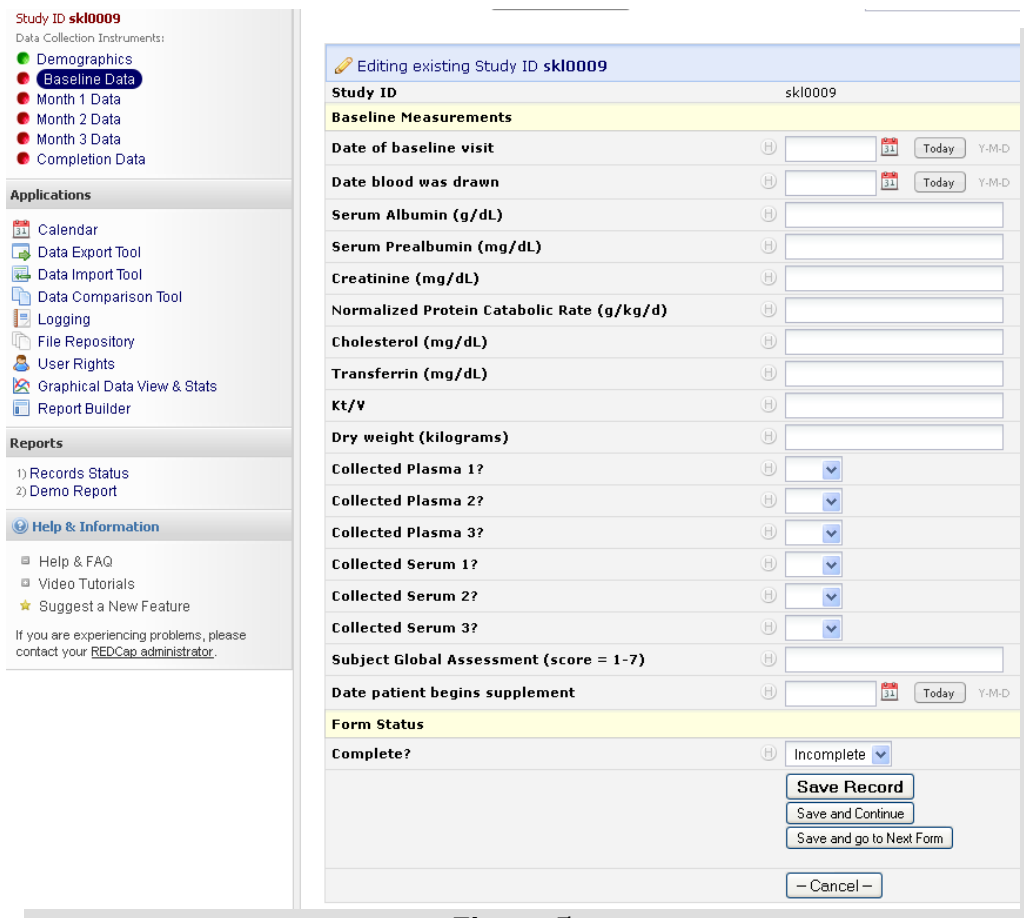


Cancel: leaves the current screen and DOES NOT SAVE the changes you made. If you enter data in a form, then navigate to a different record by clicking on form text or button without clicking on one of the “Save” buttons, the data you entered will be lost. There is no warning message on screen when you leave without saving data.

IMPORTANT: If you navigate off the form without pressing [Enter] or clicking on one of the “Save” buttons on screen, your work will be lost.

Once you have completed entering the information on a form, you MUST click one of the save option buttons at the bottom of the screen. See Figure 5. There is no auto save in REDCap. **The Form Status section will allow you to identify if the record is Incomplete, Unverified or Complete. Please make sure that all your data is entered correctly and completely and then select “Complete.” We will be checking the collection instruments for quality and completeness and selecting “Complete” tells us that you have double checked the data and that it is ready for review.**

- Save Record – saves the data and returns to the record selection screen for the current form.
- Save and Continue - saves the record and remains on the form for the same Study ID.
- Save and go to Next Form – saves and navigates to the next form on the list for the study ID.



The screenshot shows the REDCap interface for editing an existing record (Study ID skI0009). The left sidebar contains navigation options like 'Data Collection Instruments', 'Applications', 'Reports', and 'Help & Information'. The main form area is titled 'Editing existing Study ID skI0009' and lists various data fields such as 'Date of baseline visit', 'Date blood was drawn', and 'Serum Albumin (g/dL)'. At the bottom, the 'Form Status' section is highlighted, showing 'Complete?' set to 'Incomplete'. Below this are four buttons: 'Save Record', 'Save and Continue', 'Save and go to Next Form', and 'Cancel'.

Figure 5

Save Options