

REDCap 101 Training

Introduction to building projects in REDCap

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YALE UNIVERSITY
SCHOOL OF
MEDICINE

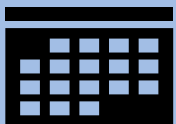
Introduction and Learning Objective

- Learn where to access training materials
- Recognize how research design impacts REDCap project setup
- Understand how to create and design a new REDCap project
- Learn how to manage user rights

What is REDCap?

Web-based software used to create and manage research databases and participant surveys.

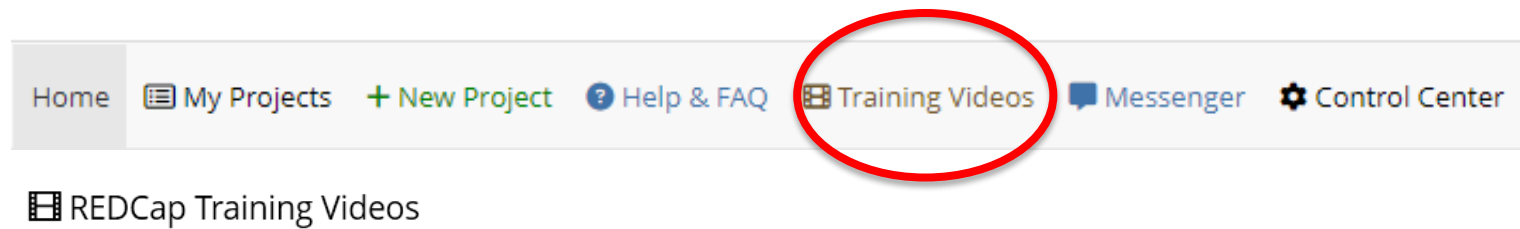
Developed as a tool to help researchers collect and manage data effectively and responsibly.



REDCap All Purpose Data Tool
Training Slides: <https://portal.redcap.yale.edu/resources/training>




Training Resources: Within REDCap

Training Videos: 26 training videos currently available



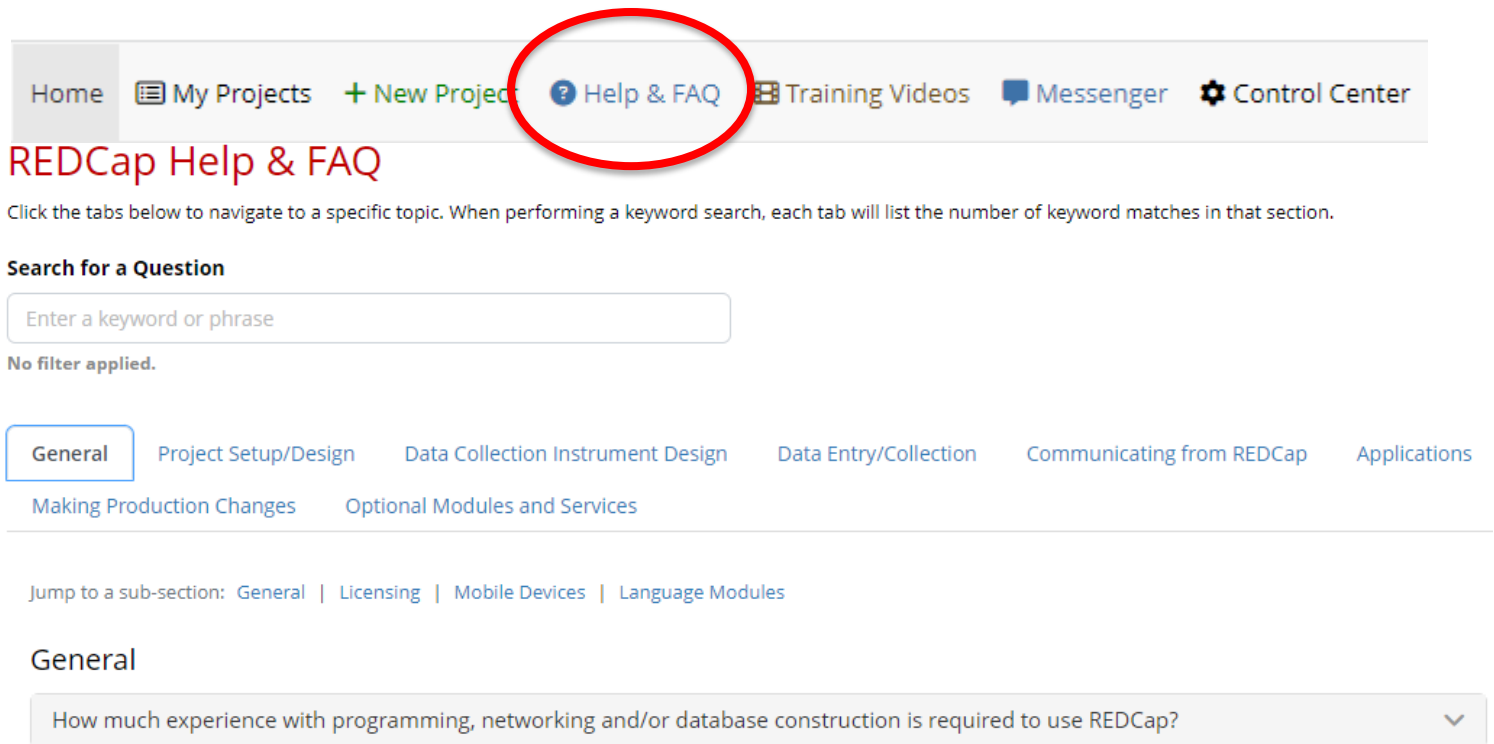
Just Getting Started?

Explore these overviews of fundamental concepts and features.

Title	Description	Watch Video
Brief Overview	A quick summary of what REDCap is and what it can do.	 4 minutes
Detailed Overview	This video provides an overview of basic functions and features within a REDCap project. It will serve as a starting point for learning about the basic concepts of REDCap, what REDCap projects are, how to create them, and how to use them.	 14 minutes
Data Entry Overview	A focused exploration of basic data entry workflow. Suitable for training data entry staff.	 19 minutes

Training Resources: Within REDCap

Help & FAQ: This is also a good place to look up syntax for calculated field, branching logics or piping.



Home My Projects + New Project **Help & FAQ** Training Videos Messenger Control Center

REDCap Help & FAQ

Click the tabs below to navigate to a specific topic. When performing a keyword search, each tab will list the number of keyword matches in that section.

Search for a Question

No filter applied.

General Project Setup/Design Data Collection Instrument Design Data Entry/Collection Communicating from REDCap Applications

Making Production Changes Optional Modules and Services

Jump to a sub-section: [General](#) | [Licensing](#) | [Mobile Devices](#) | [Language Modules](#)

General

How much experience with programming, networking and/or database construction is required to use REDCap? ▾

Training Resources: Within REDCap

‘How to’ links throughout REDCap. For example, in online designer:

The screenshot shows the REDCap Online Designer interface. At the top, there is a navigation bar with buttons for Project Home, Project Setup, Online Designer, Data Dictionary, and Codebook. Below this, a red box highlights a link: VIDEO: How to use this page. To the right of this link is a button for 'Create snapshot of instruments' and a text field for 'Last snapshot: never'. Below the navigation bar, there is a paragraph of text explaining how to build and customize data collection instruments. To the right of this text, a red circle highlights a 'Learn how to use...' section with several links: Smart Variables, Piping, Action Tags, Field Embedding, and Special Functions. Below the text, there are buttons for 'Return to list of instruments', 'Survey settings', and 'Next instrument'. Below these buttons, the current instrument is identified as 'Participant Information', with a 'Preview instrument' button. Below this, there is a form for a field named 'Record ID' with a text input field. To the right of the form, there are two red asterisks indicating that the field will not be displayed on the survey page and that identifiers should not be used. Below the form, there is a note stating that the field cannot be deleted or moved. At the bottom of the form, there are buttons for 'Add Field', 'Add Matrix of Fields', and 'Import from Field Bank'. On the right side of the screenshot, there are three 'How to' sections: 'Learn how to use...', 'How to embed a field elsewhere', and 'How to modify multiple fields together'.

Project Home Project Setup Online Designer Data Dictionary Codebook

VIDEO: How to use this page Create snapshot of instruments Last snapshot: never ?

This page allows you to build and customize your data collection instruments one field at a time. You may add new fields or edit existing ones. New fields may be added by clicking the **Add Field** buttons. You can begin editing an existing field by clicking on the **Edit** icon. If you decide that you do not want to keep a field, you can simply delete it by clicking on the **Delete** icon. To reorder the fields, simply **drag and drop** a field to a different position within the form below. NOTE: While in development status, all field changes will take effect immediately in real time.

Return to list of instruments Survey settings Next instrument >>

Current instrument: **Participant Information** Preview instrument

Variable: record_id * This field will NOT be displayed on the survey page.
* You should NOT use identifiers (e.g., MRN, SSN) for the record ID field.

Record ID

NOTE: The field above is the record ID field and thus cannot be deleted or moved. It can only be edited.

Add Field Add Matrix of Fields Import from Field Bank

Learn how to use...
Smart Variables Piping
Action Tags Field Embedding
Special Functions

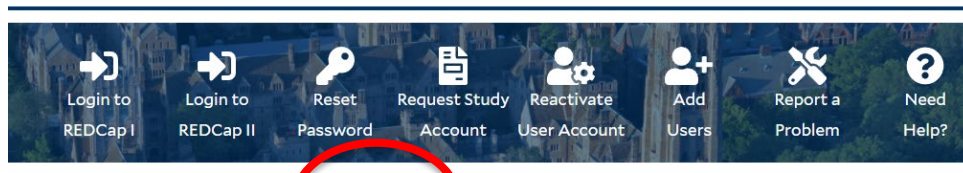
How to embed a field elsewhere
Learn how to customize your instrument or survey by using [Field Embedding](#).

How to modify multiple fields together
To copy, move, or delete multiple fields at the same time, hold the Ctrl, Shift, or Cmd key on your keyboard and click the field to reveal the options.

Training Resources: REDCap@Yale Website

portal.redcap.yale.edu

Library of step-by-step tutorials to address commonly asked questions from our Yale end-users:



HOME GET HELP ABOUT US **RESOURCES** CONTACT US

HOME > RESOURCES > FAQs

Frequently Asked Questions

Categories

- Any -

Search Keyword

APPLY

SHOW ALL

Project Design

▸ New Project

▾ Appearance and Formatting

[How do I insert an image?](#)

[How do I insert a video?](#)

[How do I customize the appearance of REDCap?](#)



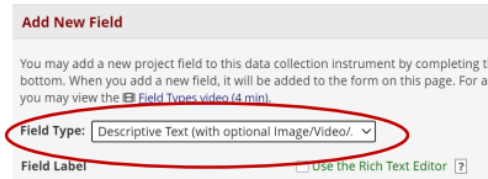
How do I insert a video?

I want to include a video in the survey project I am using for eConsent.

Videos can be inserted into a REDCap form or survey using the *Descriptive Text* field type and can appear within the form/survey page (inline) or in a separate window (popup). You must first obtain the URL (link) to the video that you want to insert. YouTube and Vimeo are compatible sources, but other video sources can be used as well.

To insert a video into a form/survey:

1. Within the 'Online Designer', add a new field to your form and select the 'Descriptive Text' field type.



QUESTIONS?

VERY BRIEF TOUR

REDCap: Homepage

Yale University REDCap

REDCap at Yale University

REDCap@Yale

OUR MISSION

To promote excellence through empowerment, on an informatics platform that encourages innovation and collaboration.

ADDITIONAL LINKS

[Check out our portal website](#)

[REDCap@Yale activity charts](#)

Welcome to REDCap!

REDCap is a secure web platform for building and managing online databases and surveys. REDCap's streamlined process for rapidly creating and designing projects offers a vast array of tools that can be tailored to virtually any data collection strategy.

REDCap provides automated export procedures for seamless data downloads to Excel and common statistical packages (SPSS, SAS, Stata, R), as well as a built-in project calendar, a scheduling module, ad hoc reporting tools, and advanced features, such as branching logic, file uploading, and calculated fields.

Learn more about REDCap by watching a [brief summary video \(4 min\)](#). If you would like to view other quick video tutorials of REDCap in action and an overview of its features, please see the [Training Resources](#) page.

NOTICE: If you are collecting data for the purposes of human subjects research, review and approval of the project is required by your Institutional Review Board.

If you require assistance or have any questions about REDCap, please contact the REDCap@Yale team.

REDCap Features

Build online surveys and databases quickly and securely in your browser -

Create and design your project using a secure login from any device. No extra software required. Access from anywhere, at any time.

Fast and flexible - Go from project creation to starting data collection in less than one day. Customizations and changes are possible any time, even after data collection has begun.

Advanced instrument design features - Auto-validation, calculated fields, file uploading, branching/skip logic, and survey stop actions.

e-Consent - Perform informed consent electronically for participants via survey.

Diverse and flexible survey distribution options - Use a list of email addresses or phone numbers for your survey respondents and automatically contact them with personalized messages, and track who has responded. Or

REDCap: My Projects

Yale University REDCap



OUR MISSION

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ADDITIONAL LINKS

Check out our [portal website](#)
REDCap@Yale [activity charts](#)

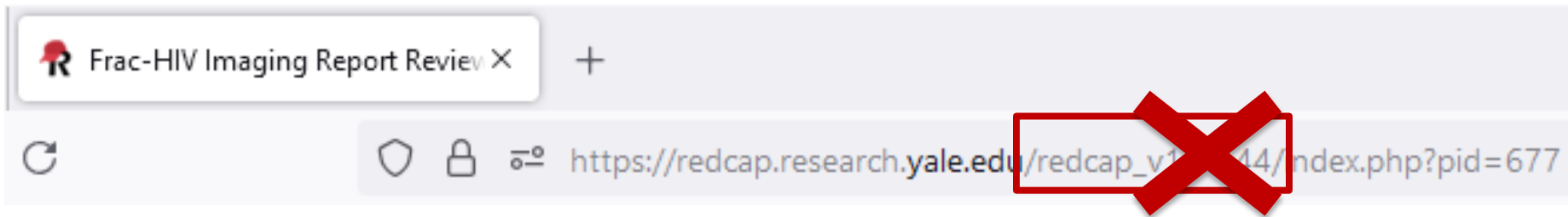
Listed below are the REDCap projects to which you currently have access. Click the project title to open the project. [Read more](#) To review which users still have access to your projects, visit the [User Access Dashboard](#).

My Projects Organize Collapse All × 🗨

Project Title	PID	Records	Fields	Instruments	Type	Status
📁 Unorganized Projects (5)						
📁 TEST PROJECTS (1)						
<input type="text" value="Test project Neuro QOL"/>	2362	4	53	1 form 5 surveys	■	🔧
+ INSPIRE (1)						
+ U19 (12)						
+ PREDICT (1)						

Bookmarking REDCap

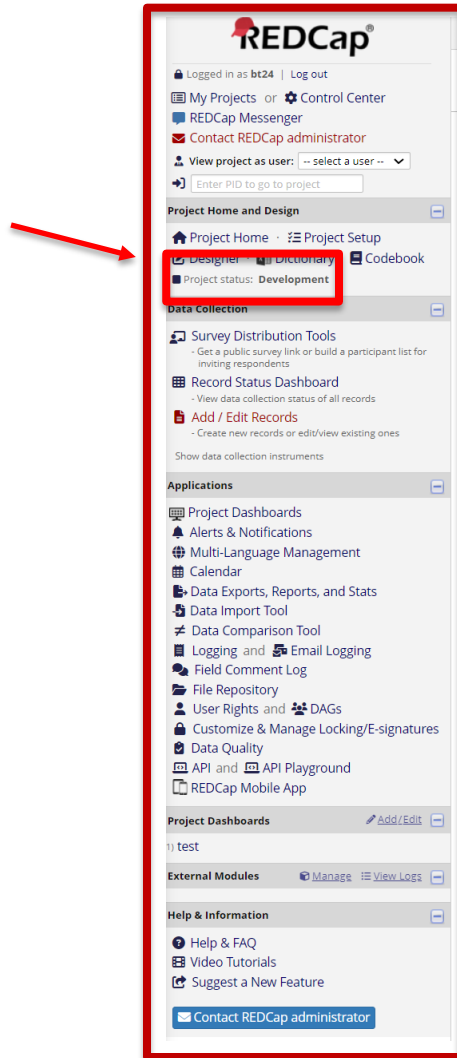
Don't bookmark project pages:



Bookmark My Projects page:



REDCap: Project Navigation Bar



Access to most parts of REDCap:

- Project design pages
- Data Collection
- Applications
- Reports and Dashboards
- Help and Training

Your Navigation Bar will vary based on your user rights

REDCap: Project Setup

The screenshot displays the REDCap Project Setup interface for a project named "Test project Neuro QOL" (PID: 2362). The interface is divided into a left sidebar and a main content area.

Left Sidebar:

- Logged in as **bl24** | Log out
- My Projects or Control Center
- REDCap Messenger
- Contact REDCap administrator
- View project as user: -- select a user --
- Enter PID to go to project
- Project Home and Design**
 - Project Home
 - Project Setup
 - Designer
 - Dictionary
 - Codebook
 - Project status: Development
- Data Collection**
 - Survey Distribution Tools
 - Record Status Dashboard
 - Add / Edit Records
 - Show data collection instruments
- Applications**
 - Project Dashboards
 - Alerts & Notifications
 - Multi-Language Management
 - Calendar
 - Data Exports, Reports, and Stats
 - Data Import Tool
 - Data Comparison Tool
 - Logging and Email Logging
 - Field Comment Log
 - File Repository
 - User Rights and DAGs
 - Customize & Manage Locking/E-signatures
 - Data Quality
 - API and API Playground
 - REDCap Mobile App
- Project Dashboards** (Add/Edit)
- 1) test
- External Modules** (Manage | View Logs)
- Help & Information**
 - Help & FAQ
 - Video Tutorials
 - Suggest a New Feature
 - Contact REDCap administrator

Main Content Area:

Test project Neuro QOL (PID: 2362)

Project status: Development (Completed steps 0 of 7)

Navigation: Project Home | Project Setup | Other Functionality | Project Revision History | Edit project settings

Main project settings (Not started)

- Disable Use surveys in this project? [?]
- Enable Use longitudinal data collection with defined events? [?]
- Enable Use the MyCap participant-facing mobile app? [Learn more about MyCap]
- Modify project title, purpose, etc.

Design your data collection instruments & enable your surveys (Not started)

Add or edit fields on your data collection instruments (survey and forms). This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method). You may then enable your instruments to be used as surveys in the Online Designer. Quick links: [Download PDF of all instruments](#) OR [Download the current Data Dictionary](#)

Go to [Online Designer](#) or [Data Dictionary](#) Explore the [REDCap Instrument Library](#)

Have you checked the [Check For Identifiers](#) page to ensure all identifier fields have been tagged?

Learn how to use: [Smart Variables](#) [Piping](#) [Action Tags](#) [Field Embedding](#) [Special Functions](#)

Enable optional modules and customizations (Optional)

- Enable Repeating instruments [?]
- Disable Auto-numbering for records [?]
- Enable Scheduling module (longitudinal only) [?]
- Enable Randomization module [?]
- Enable Designate an email field for communications (including survey invitations and alerts) [?]
- [Additional customizations](#)

Settings displayed to Administrators only:

- Enable Twilio SMS and Voice Call services for surveys and alerts [?]
- Enable Mosio SMS services for surveys and alerts [?]
- Enable SendGrid Template email services for Alerts & Notifications [?]

Set up project bookmarks (optional) (Optional)

You may create custom bookmarks to webpages that exist inside or outside of REDCap. These bookmarks will be seen as links on the left-hand project menu and can be accessed at any time by users who are given privileges to do so. Every project bookmark has custom settings that allow one to control its appearance and behavior.

Go to [Add or edit bookmarks](#)

User Rights and Permissions (Optional)

You may grant other users access to this project or edit the user privileges of current users on this project by navigating to the User Rights page. Additionally, if you wish to limit user access to certain records/responses for

SETTING UP YOUR PROJECT:

WHERE DO I BEGIN?

How do I create a new project in REDCap?



REDCap FAQ
Project Design

Click the '+New Project' tab, complete the form
- Remember to enter the PI and study information

Home My Projects **+ New Project** Help & FAQ Training Videos Messenger Control Center

+ Create a new REDCap Project

You may begin the creation of a new REDCap project on your own by completing the form below and clicking the Create Project button at the bottom.

Project title:
Title to be displayed on project webpage

Purpose of this project:
How will it be used?

Project notes (optional):
Comments describing the project's use or purpose that are displayed on the My Projects page.

Start project from scratch or begin with a template?

- Create an empty project (blank slate)
- Upload a REDCap project XML file (CDISC ODM format) [?](#)
- Use a template (choose one below)

- After we verify you have a study account, we will create the project and notify you via email within 1-2 business days.

Big Picture Questions

What type of project is needed?

- Classic Database
 - Each form can only be completed at one time point
 - One record per subject.
- Longitudinal
 - Data collected multiple times per subject
 - Fixed number of collection points that correspond to pre-defined events (e.g. baseline, 3mo. follow-up, 6mo. follow-up, 1yr follow-up)
 - Optional scheduling via a project calendar
 - Can have multiple study arms

Big Picture Questions

How will you collect the data?

- Data Entry
 - Data entered by REDCap users (i.e. research staff)
 - Offline data collection available via mobile app
- Survey
 - Online survey completed by participants
 - Participants do not need to have a Yale NetID

A project can have both surveys and data entry forms.

How to Set Up your Project

Project status: Development Completed steps 0 of 7

Main project settings

Not started
 I'm done!

Enable Use surveys in this project? [?](#) [VIDEO: How to create and manage a survey](#)

Enable Use longitudinal data collection with defined events? [?](#)

Enable Use the MyCap participant-facing mobile app? [Learn more about MyCap](#)

Modify project title, purpose, etc.

Design your data collection instruments

Not started
 I'm done!

Add or edit fields on your data collection instruments. This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method). Quick links: [Download PDF of all instruments](#) OR [Download the current Data Dictionary](#)

Go to [Online Designer](#) or [Data Dictionary](#) Explore the [REDCap Instrument Library](#)

Have you checked the [Check For Identifiers](#) page to ensure all identifier fields have been tagged?

Learn how to use [Smart Variables](#) [Piping](#) [Action Tags](#) [Field Embedding](#) [Special Functions](#)

Enable optional modules and customizations

Optional
 I'm done!

Modify [Repeating instruments](#) [?](#)

Disable [Auto-numbering for records](#) [?](#)

Enable [Scheduling module \(longitudinal only\)](#) [?](#)

Enable [Randomization module](#) [?](#)

Enable [Designate an email field for communications \(including survey invitations and alerts\)](#) [?](#)

[Additional customizations](#)

Settings displayed to Administrators only:

Enable [Twilio SMS and Voice Call services for surveys and alerts](#) [?](#)

Enable [Mosio SMS services for surveys and alerts](#) [?](#)

Enable [SendGrid Template email services for Alerts & Notifications](#) [?](#)

Project Setup: Enable Settings

If applicable:

- Enable survey setting
- Enable longitudinal setting

Project Home | Project Setup | Other Functionality | Project Revision History | [Edit project sett](#)

Project status: Development Completed steps 0 of 7

Main project settings

Use surveys in this project? [VIDEO: How to create and manage a survey](#)

Use longitudinal data collection with defined events? [?](#)

Project Setup: Build your Instruments

Design your project instruments

Method 1: Online Designer

Method 2: Data Dictionary



Not
started

I'm done!

Design your data collection instruments & enable your surveys

Add or edit fields on your data collection instruments (survey and forms). This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method). You may then enable your instruments to be used as surveys in the Online Designer. Quick links: [Download PDF of all instruments](#) OR [Download the current Data Dictionary](#)

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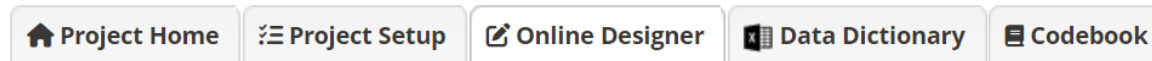
Have you checked the [Check For Identifiers](#) page to ensure all identifier fields have been tagged?

Learn how to use [Smart Variables](#) [Piping](#) [@ Action Tags](#) [Field Embedding](#) [Special Functions](#)


Project Set Up: Building with the Online Designer


Online Designer

- Allows you to create/modify/delete data collection instruments and fields (questions) in your web browser.
- Changes are made in real time and available immediately for review and testing.






 [VIDEO: How to use this page](#)

 Create snapshot of instruments


Last snapshot: never 

The Online Designer will allow you to make project modifications to fields and data collection instruments very easily using only your web browser.
NOTE: While in development status, all field changes will take effect immediately in real time.


Data Collection Instruments


-  **Create** a new instrument from scratch
-  **Import** a new instrument from the official [REDCap Instrument Library](#)
-  **Upload** instrument ZIP file from another project/user or [external libraries](#)


Form options:


 Form Display Logic


Survey options:

 Survey Queue

 Auto Invitation options ▾

 Survey Login

 Survey Notifications

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey related options
Form 1	1		<input type="button" value="Enable"/>	<input type="button" value="Choose action ▾"/>	

Project Set Up: Building with the Online Designer

[Project Home](#) [Project Setup](#) [Online Designer](#) [Data Dictionary](#) [Codebook](#)

[VIDEO: How to use this page](#) [Create snapshot of instruments](#) Last snapshot: never [?](#)

This page allows you to build and customize your data collection instruments one field at a time. You may add new fields or edit existing ones. New fields may be added by clicking the **Add Field** buttons. You can begin editing an existing field by clicking on the **Edit** icon. If you decide that you do not want to keep a field, you can simply delete it by clicking on the **Delete** icon. To reorder the fields, simply **drag and drop** a field to a different position within the form below. NOTE: While in development status, all field changes will take effect immediately in real time.

[Return to list of instruments](#) [Next instrument >>](#)

Current instrument: **Form 1** [Preview instrument](#)

Variable: record_id
Record ID

NOTE: The field above is the record ID field and thus cannot be deleted or moved. It can only be edited.

[Add Field](#) [Add Matrix of Fields](#) [Import from Field Bank](#)

This field's value can be auto-assigned by REDCap
(Project Setup → Enable optional modules → Enable auto-numbering for records)

Project Set Up: Building with the Online Designer

1. Edit field

2. Copy field

3. Specify branching logic

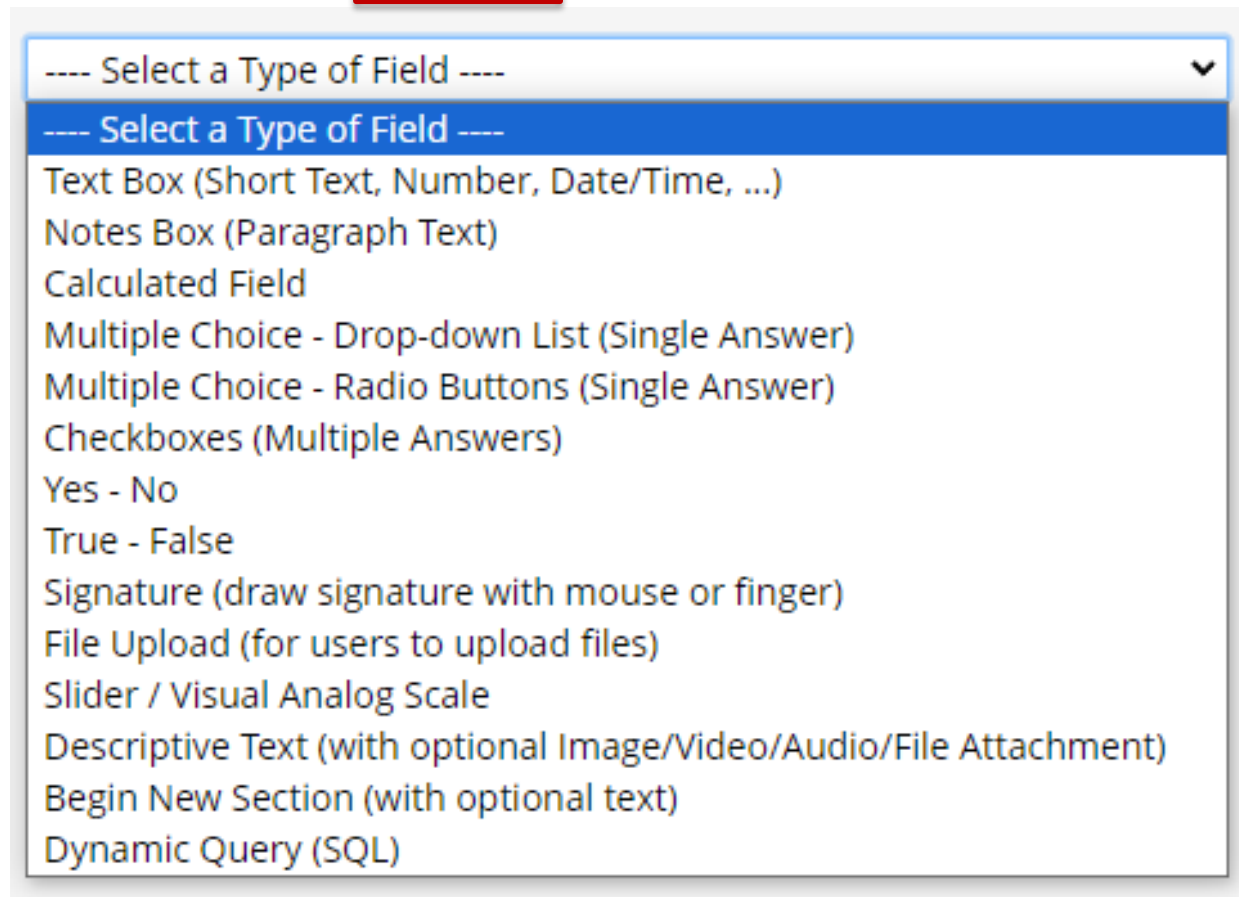
4. Move field (can move to other form)

The screenshot displays a configuration panel for a field named "Date of screening". At the top, there are two buttons: "Add Field" and "Add Matrix of Fields". Below these is a toolbar with five icons: a pencil (edit), a document with a plus sign (copy), a green arrow (move), a document with a plus sign (add), and a red X (delete). The text "Variable: screendate" is visible to the right of the toolbar. The field itself is a text input box with a calendar icon, a "Today" button, and the format "M-D-Y". A red asterisk and the text "* must provide value" are shown below the input box. At the bottom of the panel, there are two more buttons: "Add Field" and "Add Matrix of Fields".

5. Delete field

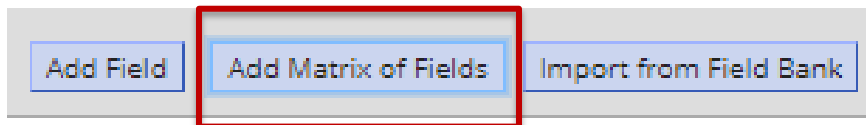
Building Forms: Field Types

Standard fields:



Building Forms: Field Types

Matrix fields:



Please let us know your weekly schedule for the following:

	Monday	Tuesday	Wednesday	Thursday	Friday
6) Gym (Weight Training)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Aerobics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) Eat Out (Dinner/Lunch)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Drink (Alcoholic Beverages)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Building Forms: Field Name

- Each field name must be:
 - Unique
 - Lowercase
 - Contain fewer than 26 characters
 - Contain only letters, numbers, and underscores
- In general, field names should be as short in length as possible and maintain meaning.

Instead of 'q1' or 'what_was_your_sex_at_birth',
use 'birth_sex'!

Building Forms: Drop Down Field

Edit Field ✕

You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of the different field types available, you may view the [Field Types video \(4 min\)](#).

Field Type: Multiple Choice - Drop-down List (Single Ansv) ▼

Field Label

Race

Choices (one choice per line) [Copy existing choices](#)

1, White ▲
2, Black or African-American
3, Asian
4, American Indian or Alaskan Native ▼

Enable auto-complete for this drop-down ?

[How do I manually code the choices?](#)

Action Tags / Field Annotation (optional)

Learn about [@ Action Tags](#) or [using Field Annotation](#)

Variable Name (utilized in logic, calcs, and exports)

race **Enable auto naming of variable based upon its Field Label?**

ONLY letters, numbers, and underscores

How to use [Smart Variables](#) [Piping](#)

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

Custom Alignment Right / Vertical (RV) ▼
Align the position of the field on the page

Field Note (optional)
Small reminder text displayed underneath field

Building Forms: Using Field Validation

Validation is an important tool that can be used to prevent errors. It also helps when exporting data to statistical packages.

Edit Field

You may add a new project field to this data collection instrument by completing the fields below and clicking the Save button at the bottom. When you add a new field, it will be added to the form on this page. For an overview of the different field types available, you may view the [Field Types video \(4 min\)](#).

Field Type: Text Box (Short Text, Number, Date/Time, ...) ▼

Field Label
Date of screening

Variable Name (utilized in logic, calcs, and exports)
screendate Enable auto naming of variable based upon its Field Label?
ONLY letters, numbers, and underscores

How to use [Smart Variables](#) [Piping](#)

Validation? (optional) Date (M-D-Y) ▼

- None ---
- Date (M-D-Y)
- Date (Y-M-D)
- Datetime (M-D-Y H:M)
- Datetime (Y-M-D H:M)
- Datetime w/ seconds (M-D-Y H:M:S)
- Datetime w/ seconds (Y-M-D H:M:S)
- Email
- Integer
- Letters only
- Number
- Number (1 decimal place)
- Number (2 decimal places)
- Phone (North America)
- Social Security Number (U.S.)
- Time (HH:MM)
- Time (MM:SS)

Action Tags / Field Annotation (optional)
Learn about [@ Action Tags](#) or [using Field Annotation](#)

Enable searching with
-- choose ontology to

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information?

Custom Alignment
Align the position of the field

Field Note (optional)
Small reminder text displayed

Building Forms: Tagging Identifiers

Fields that constitute protected health information (PHI) should be marked as an “Identifier”

These fields can then be excluded on data export, allowing for analysis of “de-identified” data

Users can also be restricted in their ability to export Identifier fields based on access rights

The screenshot shows the configuration interface for a variable in REDCap. The 'Variable Name' is 'dob'. The 'Validation?' dropdown is set to 'Date (D-M-Y)'. The 'Required?*' section has 'No' selected. The 'Identifier?' section, highlighted with a red box, has 'No' selected. Below it is the question 'Does the field contain identifying information (e.g., name, SSN, address)?'. Other options include 'Smart Variables', 'Piping', and 'Field Embedding'.

Variable Name (utilized in logic, calcs, and exports)
dob Enable auto naming of variable based upon its Field Label?
ONLY letters, numbers, and underscores

How to use Smart Variables Piping Field Embedding

Validation? (optional) Date (D-M-Y) ▾

Minimum:
Maximum:

Tip for min/max limits: You may pipe a value from another field to set dynamic range limits - e.g., [visit_date] or [event_1_arm_1][age]. You may also use the word **today** or **now** (not wrapped in quotes) for date/time fields.

– OR –
-- select ontology service -- ▾

Required?* No Yes
* Prompt if field is blank

Identifier? No Yes
Does the field contain identifying information (e.g., name, SSN, address)?

QUESTIONS?

Building Forms: Action Tags



REDCap FAQ
Features-Basic

Action tags allow you to modify fields in very specific ways. Once applied, a corresponding action is performed.

In REDCap, action tags begin with the '@' sign and are placed inside a field's "Action Tags/Field Annotation" box.

Field Label

Test default value

Choices (one choice per line) [Copy existing choices](#)

1, Yes
2, No

[How do I manually code the choices?](#)

Action Tags / Field Annotation (optional)

@DEFAULT='2'

Learn about [@ Action Tags](#) or [using Field Annotation](#)

+ Adding new Participant ID code 1111

Event Name: **Flu Clinic (Arm 1: U19)**

Participant ID code	1111
test secondary unique field	<input type="text"/> (Secondary unique NOTE: Modifying th corresponding inst Repeating Instance
Test default value	<input type="radio"/> Yes <input checked="" type="radio"/> No

Building Forms: Smart Variables

Allow reference information other than data fields (e.g., event, repeat instance, DAG or users)

Example: Set the default value of a field to be the value of the previous event.

The screenshot displays the REDCap form builder interface. On the left, the 'Field Label' is 'Glucose'. Below it, the 'Action Tags / Field Annotation (optional)' section contains the code: `@DEFAULT='[previous-event-name][glucose]'`. A link below this code reads 'Learn about @ Action Tags or using Field Annotation'. On the right, two event panels are shown. The top panel is for 'Event: Event 1' and the bottom for 'Event: Event 2'. Each panel shows 'Record ID' as 1 and the 'Glucose' field with a value of 75. The 'Glucose' field in the second event is highlighted with a blue border, indicating it is the active field.

Building Forms: Smart Variables

Smart Variables			
Name of Smart Variable	Description	Example of Usage	
		Example input	Example output
User			
[user-name]	The current user's REDCap username.	[user-name]	jane_doe
[user-fullname]	The current user's first and last name (as listed on their My Profile page).	[user-fullname]	Jane Doe
[user-email]	The current user's primary email address (as listed on their My Profile page).	[user-email]	jane.doe@example.edu
[user-dag-name]	The Data Access Group (the unique group name) to which the current user belongs (blank if not in a DAG).	[user-dag-name]	vanderbilt_group
[user-dag-id]	The group ID number of the Data Access Group to which the current user belongs (blank if not in a DAG).	[user-dag-id]	324
[user-dag-label]	The name/label of the Data Access Group to which the current user belongs (blank if not in a DAG).	[user-dag-label]	Vanderbilt Group
Record			
[record-name]	The record name of the current record.	[record-name]	108
[record-dag-name]	The Data Access Group (the unique group name) to which the current record belongs (blank if not in a DAG).	[record-dag-name]	harvard_site
[record-dag-id]	The group ID number of the Data Access Group to which the current record belongs (blank if not in a DAG).	[record-dag-id]	96
[record-dag-label]	The name/label of the Data Access Group to which the current record belongs (blank if not in a DAG).	[record-dag-label]	Harvard Site
Form			
[is-form]	Detects if the current instrument is being viewed as a data entry form (returns 1 for True, 0 for False), as opposed to a survey.	[is-form]	1

 Smart Variables

Close

Building Forms: Smart Variables Examples

- Branching logic based on event name

[event-name]='baseline_arm_1'

- Survey duration

[survey-duration-completed:demographics]

- Auto-capture user's name

@DEFAULT='[user-name]'

Building Forms: Branching Logic

Choose method below for the following field: **longcovid_yn** - Long COVID?

Advanced Branching Logic Syntax How to use [Branching Logic](#) [\[⚡\] Smart Variables](#) [√* Special Functions](#)

Show the field ONLY if...

[covid_yn] = '1'

Test logic with a record: -- select record -- ▾

[Clear logic](#)

— OR —

Drag-N-Drop Logic Builder

Displaying field choices for the following data collection instrument:
Form 1 ▾

Field choices from other fields
(drag a choice below to box on right)

- sex = Female (1)
- sex = Male (2)
- age = (define criteria)
- pregnant = Yes (1)
- pregnant = No (0)
- covid_yn = Yes (1)
- covid_yn = No (0)
- sts = (define criteria)
- weight = (define criteria)

Drag and Drop

Show the field ONLY if...

ALL below are true
 ANY below are true

covid_yn = Yes (1) ✖

[Clear logic](#)

Save Cancel

You can use fields on the current data entry form OR other forms

If fields from different events are used in branching logic, the field name needs to be preceded by an event name, e.g.
[screening_arm_1][field1]

Building Forms: Piping

Without Piping:

What kind of ice cream do you like?	<input type="radio"/> Chocolate <input type="radio"/> Strawberry <input type="radio"/> Vanilla	reset
How often do you eat _____ ice cream?	<input type="radio"/> Once a week <input type="radio"/> Twice a week <input type="radio"/> Three times a week	reset

With Piping:

What kind of ice cream do you like?	<input checked="" type="radio"/> Chocolate <input type="radio"/> Strawberry <input type="radio"/> Vanilla	reset
How often do you eat Chocolate ice cream?	<input type="radio"/> Once a week <input type="radio"/> Twice a week <input type="radio"/> Three times a week	reset

Building Forms: Piping



REDCap FAQ
Features-Basic

How to use piping:


The screenshot shows the REDCap form builder interface. On the left, there are two question fields. The first is "What kind of ice cream do you like?" with radio button options for Chocolate, Strawberry, and Vanilla. The second is "How often do you eat [ice_cream] ice cream?" with radio button options for Once a week, Twice a week, and Three times a week. The variable name for the second question is "icecream_ofTEN".

The "Edit Field" dialog is open, showing the configuration for the second question. The "Field Type" is set to "Multiple Choice - Radio Buttons (Single Answer)". The "Question Number" is optional. The "Field Label" is "How often do you eat [ice_cream] ice cream?". The "Choices" are listed as "1, Once a week", "2, Twice a week", and "3, Three times a week". The "Variable Name" is "icecream_ofTEN". The "Required?" option is set to "No". The "Identifier?" option is set to "No". The "Custom Alignment" is set to "Right / Vertical (RV)". The "Field Note" is optional. The "Save" and "Cancel" buttons are at the bottom right.


Red arrows point from the "ice_cream" pipe in the question label to the "icecream_ofTEN" variable name in the "Edit Field" dialog, and from the "ice_cream" pipe in the question label to the "icecream_ofTEN" variable name in the "Edit Field" dialog.

QUESTIONS?

How to Set Up your Project


 **Complete!**
Not complete?

Main project settings

Disable Use surveys in this project? [?](#)  [VIDEO: How to create and manage a survey](#)




Disable Use longitudinal data collection with defined events? [?](#)

Modify project title, purpose, etc.




 **Complete!**
Not complete?


Design your data collection instruments & enable your surveys

Add or edit fields on your data collection instruments (survey and forms). This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method). You may then enable your instruments to be used as surveys in the Online Designer. Quick links: [Download PDF of all instruments](#) OR [Download the current Data Dictionary](#)

Go to  Online Designer or  Data Dictionary Explore the  REDCap Shared Library

Have you checked the [Check For Identifiers](#) page to ensure all identifier fields have been tagged?


Learn how to use  Smart Variables  Piping  Action Tags

 **Complete!**
Not complete?

Define your events and designate instruments for them

Create events for re-using data collection instruments and/or set up scheduling.

Go to or

 **Optional**

Enable optional modules and customizations

Modify Repeatable instruments and events [?](#)

Enable Auto-numbering for records [?](#)

Disable Scheduling module (longitudinal only) [?](#)

Disable Randomization module [?](#)

Disable Designate an email field for sending survey invitations [?](#)
Field currently designated: **testemail** ("Test email")

Defining Events: Longitudinal Projects

Defining Events allows you to:

- Use data collection forms multiple times for any given project record.
- Generate new schedules to display on the Calendar.



Complete!

[Not complete?](#)

Define your events and designate instruments for them

Create events for re-using data collection instruments and/or set up scheduling.

Go to [Define My Events](#) or [Designate Instruments for My Events](#)

How to Define Events

Arm 1: U19

+Add New Arm

Arm name: U19

[Rename Arm 1](#)

Unique event name is auto-generated.

	Event # [event-number]	Days Offset	Offset Range Min / Max	Event Label [event-label]	Custom Event Label (optional)	Unique event name (auto-generated) [event-name]	Event ID (auto-generated, unchangeable) [event-id]
	1	0	-0/+0	Flu Clinic		flu_clinic_arm_1	26535
	2	1	-0/+1	Day 1		day_1_arm_1	26536
	3	2	-0/+2	Day 2-4 Blood Draw		day_24_blood_draw_arm_1	26536
	4	7	-0/+0	Day 7 Blood Draw		day_7_blood_draw_arm_1	26537
	5	28	-0/+0	Day 28 Blood Draw		day_28_blood_draw_arm_1	26538
	6	70	-0/+0	Day 70 Blood Draw		day_70_blood_draw_arm_1	26539
	7	71	-1/+69	Unscheduled Visit		unscheduled_visit_arm_1	26749
Add new event		<input type="text"/> Days	<input type="text"/> - <input type="text"/> + <input type="text"/>	<input type="text"/>	<input type="text"/>		
		Convert from other units		Descriptive name for this event	Custom Event Label (optional) Example: [visit_date], [weight] kg		

This is where you will find the event names for use in branching logic.

How to Designate Instruments to Events

 Upload or download instrument mappings ▾

Begin Editing

Save

Select All | Deselect All

Data Collection Instrument	Flu Clinic (1)	Day 1 (2)	Day 2-4 Blood Draw (3)	Day 7 Blood Draw (4)	Day 28 Blood Draw (5)	Day 70 Blood Draw (6)	Unscheduled Visit (7)
Screening Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Study Visit Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Blood Draw Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Day 1 Task	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phone Interview	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COVID and Flu Vaccinations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frailty Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Status Change Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The event list and instrument mappings can be downloaded from one project and uploaded to another project.

SURVEYS

Surveys

Not enabled as a survey:

My Projects or Control Center
REDCap Messenger
Contact REDCap administrator
View project as user: -- select a user --
Enter PID to go to project

Project Home and Design

Project Home · Project Setup
Designer · Dictionary · Codebook
Project status: **Development**

Data Collection

Survey Distribution Tools
- Get a public survey link or build a participant list for inviting respondents

Record Status Dashboard
- View data collection status of all records

Add / Edit Records
- Create new records or edit/view existing ones

Record ID 3 [Select other record](#)

Data Collection Instruments:

- Form 1
- Consent
- Neuro-QOL SF v1.0 - Fatigue**
- Tracking Form

Neuro-QOL SF v1.0 - Fatigue

Invitation status:




Survey options

Editing existing Record ID 3.

Record ID	3
In the past 7 days I felt tired	<input type="radio"/> none of the time <input type="radio"/> a little bit of time <input type="radio"/> some of the time <input type="radio"/> most of the time <input type="radio"/> all of the time
	reset
In the past 7 days I had trouble starting things because I was too tired	<input type="radio"/> none of the time <input type="radio"/> a little bit of time <input type="radio"/> some of the time <input type="radio"/> most of the time <input type="radio"/> all of the time
	reset
In the past 7 days I had trouble finishing things because I was too tired	<input type="radio"/> none of the time <input type="radio"/> a little bit of time <input type="radio"/> some of the time <input type="radio"/> most of the time <input type="radio"/> all of the time
	reset

Enabled as a survey

Neuro-QOL SF v1.0 - Fatigue

AAA
 [English](#)  

Please complete the survey below.

Thank you!

**In the past 7 days
I felt tired**

- none of the time
- a little bit of time
- some of the time
- most of the time
- all of the time

[reset](#)

**In the past 7 days
I had trouble starting things because I was too tired**

- none of the time
- a little bit of time
- some of the time
- most of the time
- all of the time

[reset](#)

**In the past 7 days
I had trouble finishing things because I was too tired**






- none of the time
- a little bit of time
- some of the time
- most of the time
- all of the time

[reset](#)

How to Set Up a Survey

Enable any form as a survey in Online Designer

- Open survey setting; configure the survey

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey related options
Participant Information	17		Enable	Choose action ▾	
Prior Study Data	41		Enable	Choose action ▾	
Communication Log	17		Enable	Choose action ▾	
Consent Form	0			Choose action ▾	+ Survey settings + Automated Invitations

Survey features:

- Schedule automated survey invitations
- Set up a survey queue
- Create unique login code for survey respondents
- Set up researcher notifications upon survey completion

How to Send Surveys to Participants




REDCap FAQ
Surveys


- Anonymous: Use the public survey link. Survey must be the first form; record will be created as each survey is completed.
- Non-anonymous: Designate an email field for sending survey (recommended method).

REDCap has many advanced features that can be used for setting up surveys. This will be covered in the survey development training on December 4th.


How to Set Up your Project

 **Complete!**
Not complete?

Main project settings

Use surveys in this project? [?](#)  [VIDEO: How to create and manage a survey](#)

Use longitudinal data collection with defined events? [?](#)

 **Complete!**
Not complete?


Design your data collection instruments & enable your surveys

Add or edit fields on your data collection instruments (survey and forms). This may be done by either using the Online Designer (online method) or by uploading a Data Dictionary (offline method). You may then enable your instruments to be used as surveys in the Online Designer. Quick links: [Download PDF of all instruments](#) OR [Download the current Data Dictionary](#)

Go to or Explore the

Have you checked the [Check For Identifiers](#) page to ensure all identifier fields have been tagged?


Learn how to use

 **Complete!**
Not complete?

Define your events and designate instruments for them

Create events for re-using data collection instruments and/or set up scheduling.

Go to or

 **Optional**

Enable optional modules and customizations

Repeatabile instruments and events [?](#)

Auto-numbering for records [?](#)

Scheduling module (longitudinal only) [?](#)

Randomization module [?](#)

Designate an email field for sending survey invitations [?](#)
Field currently designated: **testemail** ("Test email")

QUESTIONS?

FINAL STEPS BEFORE IMPLEMENTATION:

USER RIGHTS AND TESTING

Granting User Rights in REDCap: Individual Users



User access can be set up by “Custom Right” or “Role Based” access

- Best Practice: “Role Based” access

The screenshot shows the REDCap User Rights management interface. On the left is a navigation sidebar with sections: My Projects (Project Home, Project Setup), Data Collection (Manage Survey Participants, Record Status Dashboard, Add/Edit Records), and Applications (Calendar, Data Exports, Reports, and Stats, Data Import Tool, Data Comparison Tool, Logging, Field Comment Log, File Repository, User Rights and DAGs, Record Locking Customization, E-signature and Locking Mgmt, Data Quality). The main content area has three tabs: Project Setup, User Rights (selected), and Data Access Groups. Below the tabs is a text box explaining the page's purpose: "This page may be used for granting users access to this project and for managing the user privileges of those users. You may also create roles to which you may assign users (optional). User roles are useful when you will have several users with the same privileges because they allow you to easily add many users to a role in a much faster manner than setting their user privileges individually. Roles are also a nice way to categorize users within a project. In the box below you may add/assign users or create new roles, and the table at the bottom allows you to make modifications to any existing user or role in the project, as well as view a glimpse of their user privileges." Below this text are two main sections: "Add new users: Give them custom user rights or assign them to a role." which includes "Add new user" and "Add with custom rights" buttons, and "Assign new user" and "Assign to role" buttons; and "Create new roles: Add new user roles to which users may be assigned." which includes "Enter new role name" and "Create role" buttons. A red arrow points to the "User Rights and DAGs" link in the sidebar.

Granting User Rights in REDCap: Individual Users and User Roles

Basic Rights:
Access to the Project

Viewing and Exporting Data:
Access to Individual Forms

Basic Privileges

📅 Expiration Date (M/D/Y)
(if applicable)

Highest level privileges:

- ☰ Project Design and Setup
- 👤 User Rights
- 👥 Data Access Groups

Other privileges:

- 🗨️ Survey Distribution Tools
- 🔔 Alerts & Notifications
- 📅 Calendar
- 🔍 Add/Edit/Organize Reports
Also allows user to view ALL reports (but not necessarily all data in the reports)
- 📊 Stats & Charts
- 📁 Data Import Tool
- ⚖️ Data Comparison Tool
- 📄 Logging
- 📁 File Repository
- 📄 Data Quality Create & edit rules
What is Data Quality? Execute rules

Privileges for Viewing and Exporting Data

Data Viewing Rights pertain to a user's ability to view or edit data on pages in the project (e.g., data entry forms, reports). Users with 'No Access' Data Viewing Rights for a given instrument will not be able to view that instrument for any record, nor will they be able to view fields from that instrument on a report. Data Export Rights pertain to a user's ability to export data from the project, whether through the Data Exports page, API, Mobile App, or in PDFs of instruments containing record data. Note: Data Viewing Rights and Data Export Rights are completely separate and do not impact one another.

	Data Viewing Rights				Data Export Rights			
	No Access (Hidden)	Read Only	View & Edit	Edit survey responses	No Access	De-Identified*	Remove All Identifier Fields	Full Data Set
Participant Information (survey)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Consent (survey)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Neuro-QOL SF v1.0 - Fatigue (survey)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Tracking Form	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

* De-identified means that all free-form text fields will be removed, as well as any date/time fields and Identifier fields.

External Modules: Configuration Permissions

Privileges may be defined regarding whether the user can set or modify the configuration of an External Module that has been enabled on this project. Below are the currently enabled modules. NOTE: Only administrators may modify the module configuration permissions here.

- Announcement Banner*
- Simple Ontology Module*

*Permissions based on user's Project Design/Setup rights

Save Changes

Cancel

Remove user

Granting User Rights in REDCap: Data Access Groups (DAGs)



REDCap FAQ
Data Security
& Protection

“Data Access Group” is an advanced feature that is useful for multi-center trials and collaborations, especially for HIPAA compliance.

- Users in a particular Data Access Group can only see records entered by other users in that Data Access Group

Create new groups: Add new data access groups to which users may be assigned.



Assign user to a group: Users may be assigned to any data access group.



Assign user



to



Data Access Groups	Users in group	Number of records in group	Unique group name (auto-generated)	Group ID number	Delete group?
test		5	test	42	
test2		1	test2	1823	
[Not assigned to a group]	 * Can view ALL records	134			

Granting User Rights in REDCap: Assigning Users to multiple DAGs

Users can be assigned to more than one DAG using the DAG Switcher setting.

⚡ DAG Switcher: Enable multiple Data Access Groups for users **Display options:** Rows are DAGs Rows are Users

Users assigned to Data Access Groups (DAGs) can optionally be assigned to multiple *potential* DAGs, in which they may be given the privilege of switching in and out of specific DAGs on their own whenever they wish. To assign a user to multiple DAGs, check the checkboxes below for that user. At least two DAGs must be checked for a user in order for them to use the DAG Switcher. NOTE: This does not override a user's current DAG assignment, as set above or on the User Rights page.

Show entries

Data Access Groups	Users	
	<input type="checkbox"/>	<input type="checkbox"/>
[No Assignment]	<input type="checkbox"/>	<input type="checkbox"/>
test1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
test2	<input type="checkbox"/>	<input checked="" type="checkbox"/>

TEST YOUR PROJECT!



Not started

I'm done!

Test your project thoroughly

It is important to test the essential components of your project before moving it into production. Try creating a few test records and entering some data for each to ensure that your data collection instruments look and behave how you expect, especially branching logic and calculations. Then review your test data by creating reports and exporting your data to view in Excel or a statistical analysis package. If you have surveys, complete the surveys as if you were a participant by using the Public Survey Link or Participant List by sending a survey invitation to yourself. If other project modules will be used regularly, test them out a bit too. The best way to test your project is to use it as if you were entering real production data, and it is always helpful to have colleagues (especially team members) take a look at your project to get a fresh set of eyes looking at it.

- Make sure you test your project thoroughly by entering test data.
- Have other users enter data or complete surveys.
- Export the test data to make sure the format can be used for data analysis.

Moving your Project to Production



Not started

Move your project to production status

Move the project to production status so that real data may be collected. Once in production, you will not be able to edit the project fields in real time anymore. However, you can make edits in Draft Mode, which will be auto-approved or else might need to be approved by a REDCap administrator before taking effect.

Go to

Move Project To Production Status? ✕

Are you sure you wish to leave the DEVELOPMENT stage? If you proceed, the project will be moved to PRODUCTION status so that real data may be collected. If you select the 'Delete ALL data' option below, all current collected data, calendar events, and uploaded documents will be deleted, otherwise all will remain untouched as the project is moved to production.

★ Have you checked the [Check For Identifiers](#) page to ensure all identifier fields have been tagged?

Keep existing data or delete?

- Keep ALL data saved so far.
- Delete ALL data, calendar events, documents uploaded for records/responses, survey responses (if applicable), and any logging events pertaining to data collection.

Once in production, you will not be able to edit the project fields in real time anymore. However, you can make edits in Draft Mode, which will be auto-approved or else might need to be approved by a REDCap administrator before taking effect.

QUESTIONS?

But wait, there's more!

- REDCap 201
11am November 19
- Survey development training
11am December 4

Further Questions? Contact us at REDCap@yale.edu