Introduction to

REDCap
Research Electronic Data Capture

THE UNIVERSITY OF CHICAGO MEDICINE & BIOLOGICAL SCIENCES | CENTER FOR RESEARCH INFORMATICS

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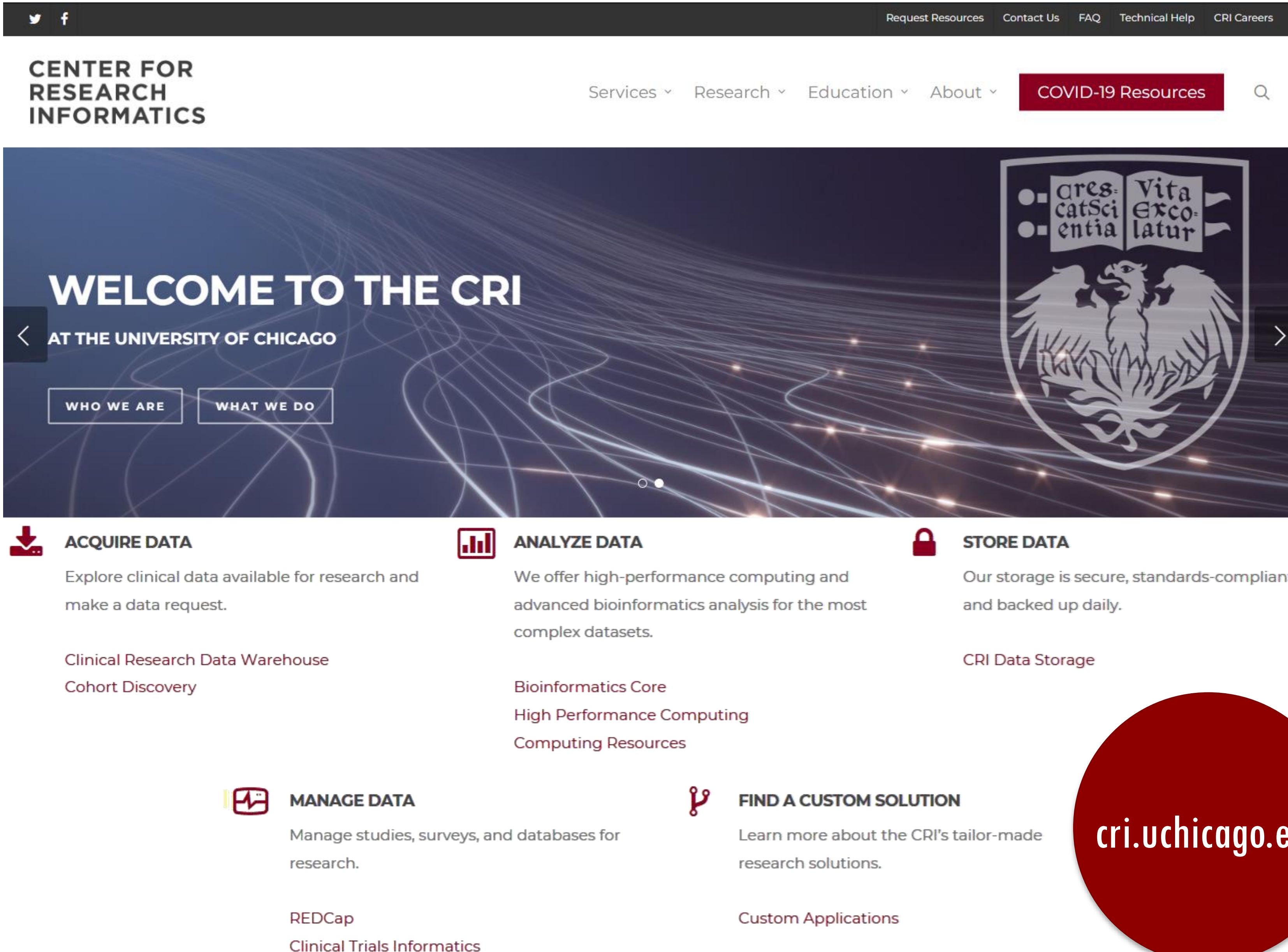
Senior Systems Analyst / REDCap Administrator

Introduction

THE CENTER FOR RESEARCH INFORMATICS



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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 HISTORY

THEN

2004: Created at Vanderbilt

2006: Global consortium

2011: University of Chicago

2011: CRI Created

2012: REDCap at UChicago

NOW

Worldwide:

- 6,361 institutions
- 151 countries
- 1.7M projects
- 2.4M users

UChicago:

- 13,469 projects
- 9,972 users

SEMINAR SERIES

Introduction to REDCap
2/21/23

Beyond the REDCap Basics
(TBD)

All About REDCap Surveys
(TBD)

http://cri.uchicago.edu/seminar-series/

SEMINARS TOPICS

Project Setup

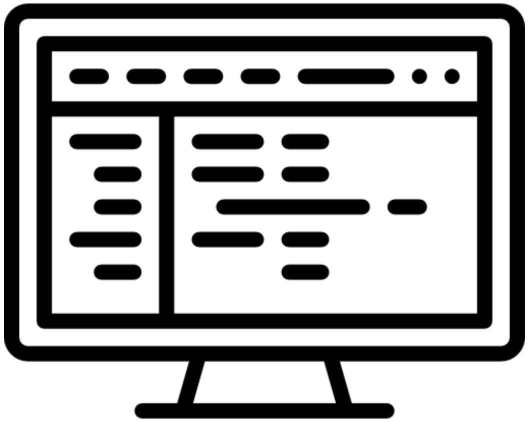
- Creating a Project
- Adding and Editing Fields
- Optional Modules and Customizations
- Testing your Project
- Moving to Production

Using Surveys

- Creating Surveys
- Sending and Tracking Surveys
- Survey Features

Applications & Tools

- Data Import Tool
- Data Exports
- Smart Devices
- User Rights and DAGs
- Help Resources



Project Setup

WHAT ARE THE ADVANTAGES?

Accessible

- web-based access (on and off campus)
- access for multi-site collaborations

Customizable

- fast and flexible to design
- modifications at anytime

Accurate

- ensures consistent and accurate data entry
- data quality checks to look for errors

Secure

- user authentication against BSDAD or UCHAD
- nightly backups, weekly vulnerability scans

Free!

- includes training, design guidance, troubleshooting

HOW TO FIND REDCAP

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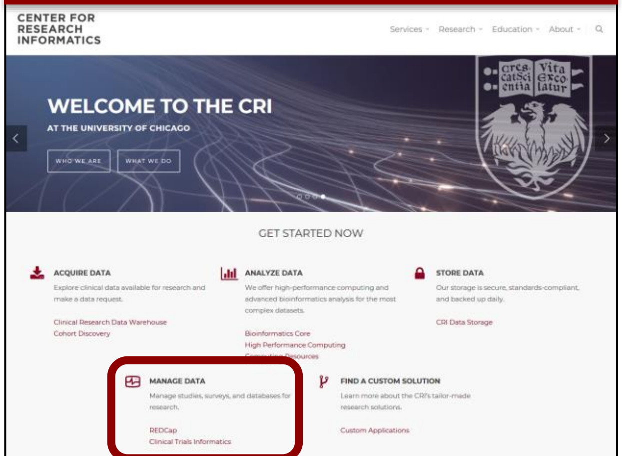
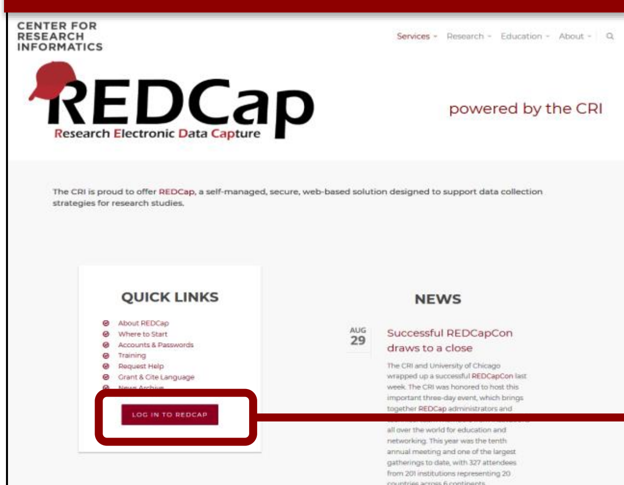
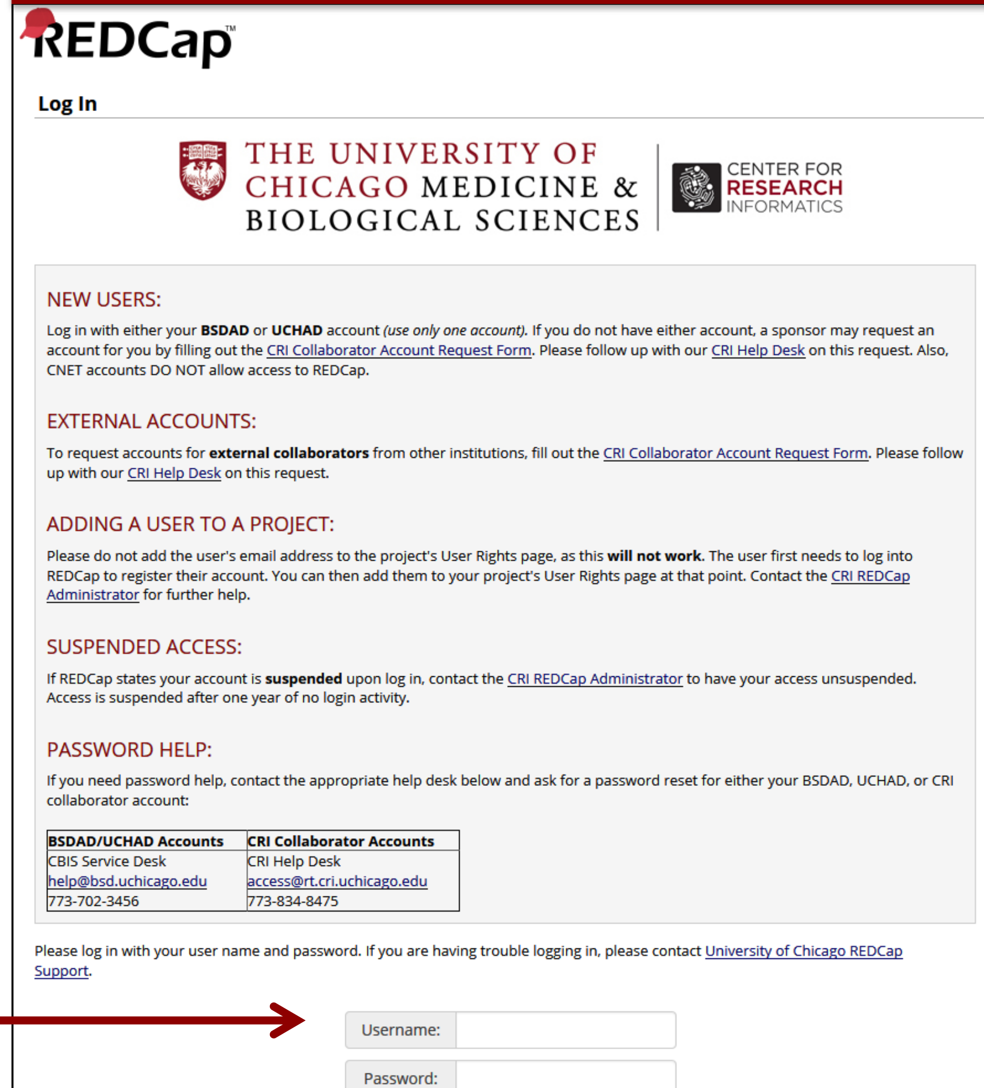


cri.uchicago.edu/redcap



redcap.uchicago.edu



LOGGING INTO REDCAP

REDCap®

Log In

THE UNIVERSITY OF CHICAGO MEDICINE & BIOLOGICAL SCIENCES | CENTER FOR RESEARCH INFORMATICS

HELPFUL INFO!

NEWEST FEATURES: REDCap was upgraded on 8/10/21 to version LTS 11.1.7. Details of the newest features and improvements can be found **here**.

COVID RESOURCES: We want to encourage and support your use of REDCap for COVID-19 related research, tracking, and monitoring. Visit our resources page for more information.

ELECTRONIC CONSENT: Use of Electronic Consent (e-consent) has been approved by the BSD Office of Clinical Research. Visit our e-consent page for more information.

REQUESTING HELP: If you need help with REDCap functionality, contact the UChicago REDCap Administrator. Please do not use REDCap Messenger to request help, as those messages will not be forwarded to the REDCap help ticketing system.

NEW USERS: Log in with either your **BSDAD** or **UCHAD** account *(use only one account)*. CNetID accounts DO NOT allow access to REDCap.

EXTERNAL ACCOUNTS: To request accounts for users from external collaborating institutions, fill out the BSDIS Collaborator Account Request Form. The BSDIS Help Desk will follow up on this request.

GRANTING USER PROJECT ACCESS: Please do not add the user's email address to your project's User Rights page, as this will not work. The user first needs to log into REDCap to set up their profile. You will then be able to grant them access via your project's User Rights page.

SUSPENDED ACCESS: If REDCap states your account is suspended upon log in, contact the UChicago REDCap Administrator to have your access unsuspended. Access is auto-suspended after one year of no login activity.

PASSWORD HELP: Passwords cannot be reset in REDCap. Please contact the following help desks depending on your account type:

- **BSDAD or UCHAD accounts**- visit the UCMIT Password Reset Self-Service site. If you need further help, email UCMIT at ucmitservicedesk@uchicagomedicine.org or call 773-702-3456.
- **t.cri or t-9 accounts** - visit the BSDIS Password Reset Self-Service site (choose the BSDAD domain). If you need further help, email BSDIS at bsdis@bsd.uchicago.edu or call 773-834-4000.

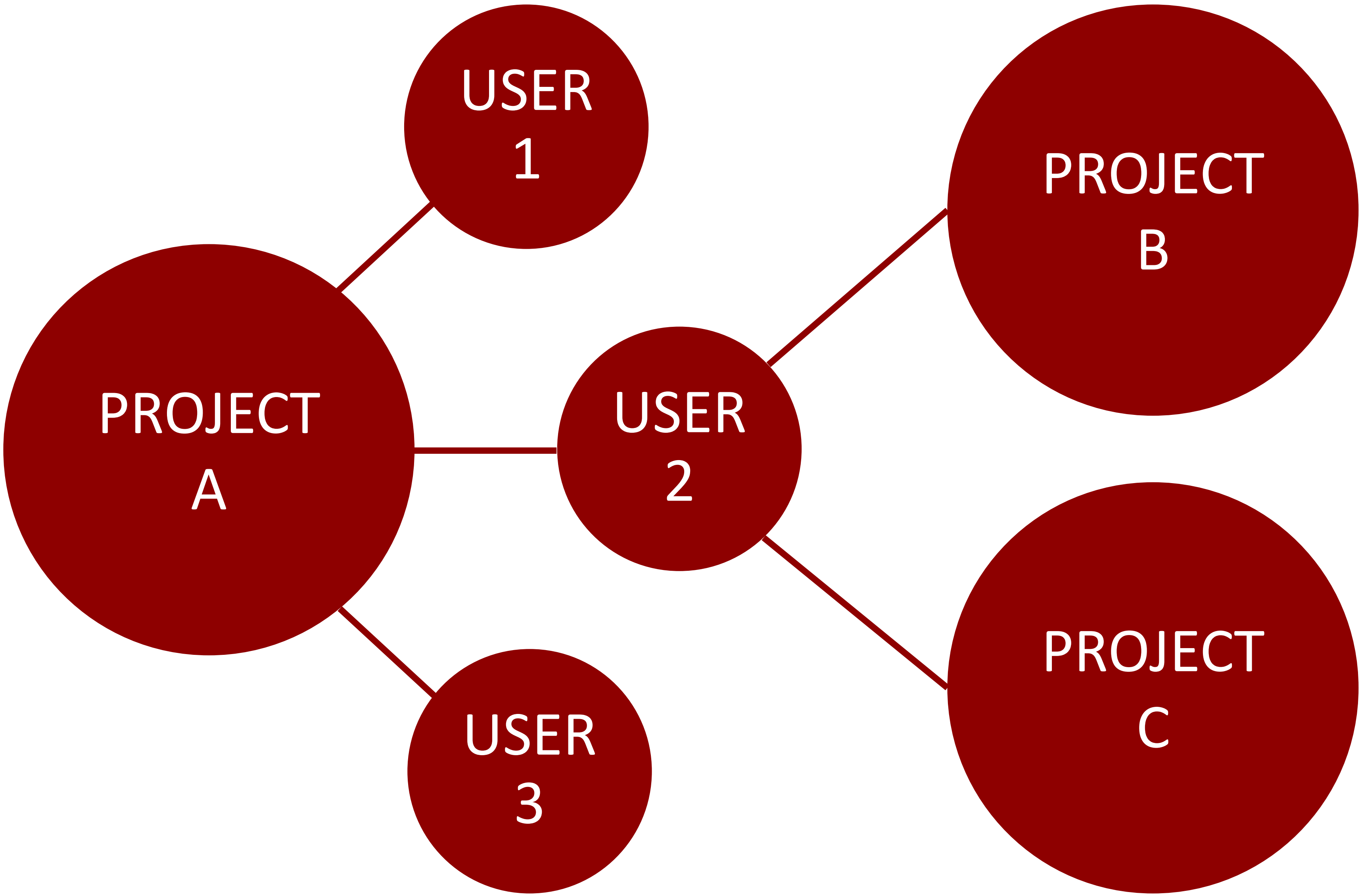
Please log in with your user name and password. If you are having trouble logging in, please contact SEE HELP SECTION ABOVE.

BSDAD or UCHAD → Username:

Password: ••••••••••••••

Log In

ACCESS EXPLAINED



HOME PAGE

Training Videos Navigational Bar

REDCap Home | My Projects | New Project | Help & FAQ | Training Videos | Send-It | Messenger | Logged in as **t.cri.redcap1** | My Profile | Log out

Welcome to REDCap!

REDCap is a mature, secure web application for building and managing online surveys and databases. Using REDCap's stream-lined process for rapidly developing projects, you may create and design projects using 1) the online method from your web browser using the Online Designer; and/or 2) the offline method by constructing a 'data dictionary' template file in Microsoft Excel, which can be later uploaded into REDCap. Both surveys and databases (or a mixture of the two) can be built using these methods.

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.

Please note that any publication that results from a project utilizing REDCap should cite grant support (NIH CTSA UL1 TR000430).

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 University of Chicago REDCap Support.

REDCap Features

Build online surveys and databases quickly and securely - Create and design your project rapidly using secure web authentication from your browser. No extra software is required.

Fast and flexible - Conception to production-level survey/database in less than one day.

Export data to common data analysis packages - Export your data to Microsoft Excel, PDF, SAS, Stata, R, or SPSS for analysis.

Ad Hoc Reporting - Create custom queries for generating reports to view or download.

Scheduling - Utilize a built-in project calendar and scheduling module for organizing your events and appointments.

Easily manage a contact list of survey respondents or create a simple survey link - Build a list of email contacts, create custom email invitations, and track who responds, or you may also create a single survey link to email out or post on a website.

TRAINING VIDEOS

REDCap Home | My Projects | + New Project | Help & FAQ | Training Videos | Send-It | Messenger | Control Center | Logged in as **jacevedo** | My Profile | Log out

REDCap Training Videos

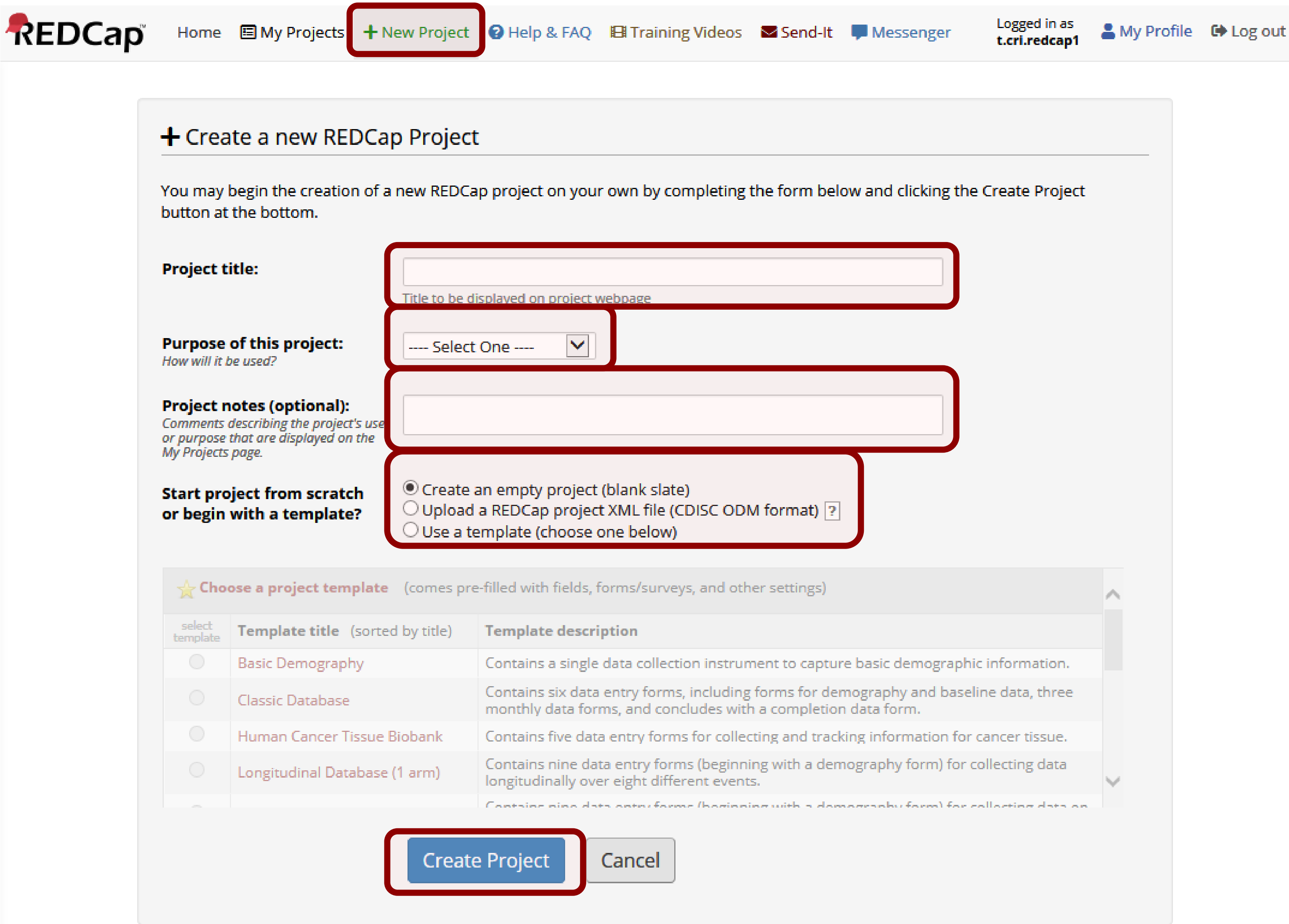
Just Getting Started?
Explore these overviews of fundamental concepts and features.

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

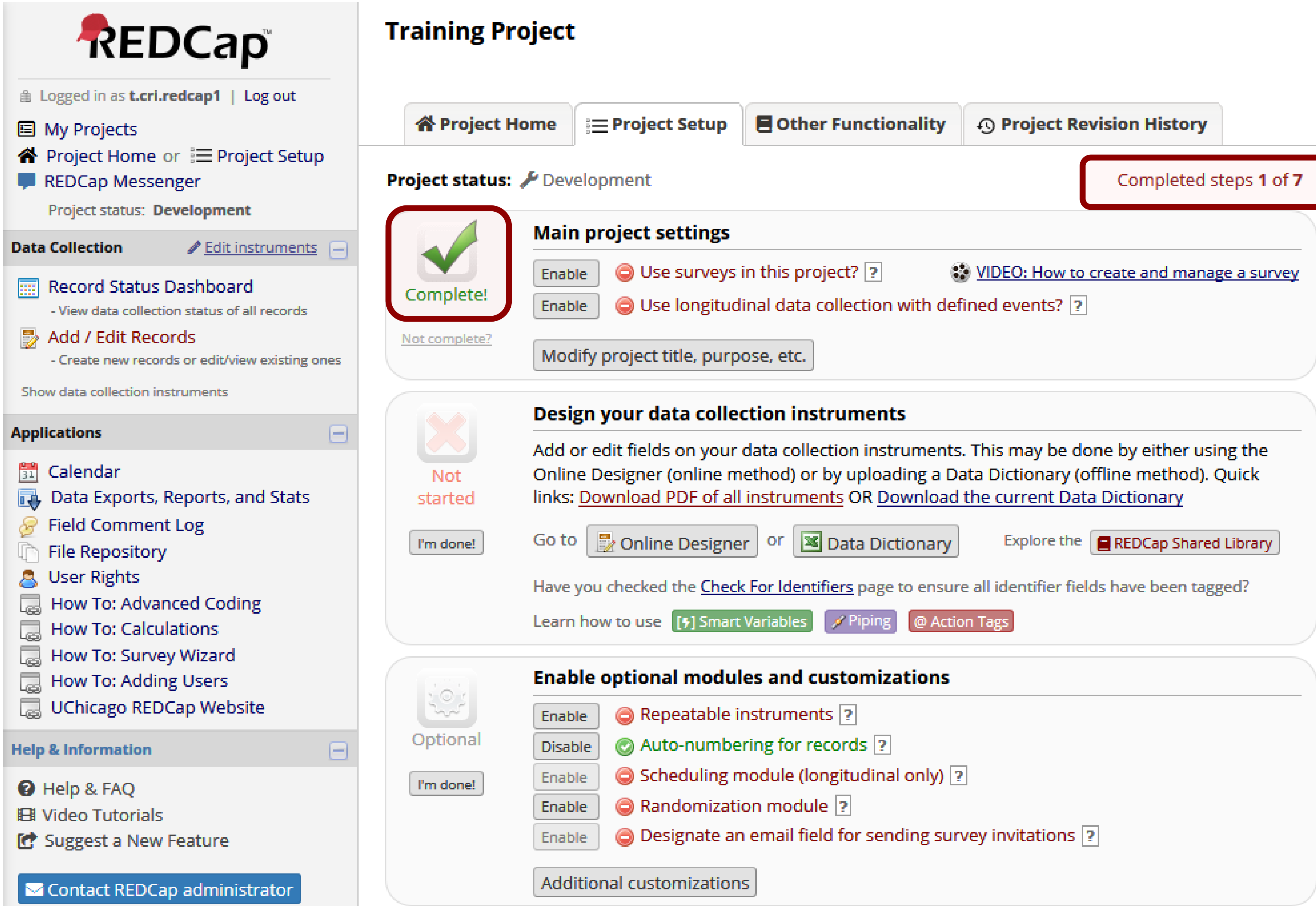
Building a Project
Learn how to build and modify data collection instruments.

Title	Description	Watch Video
Introduction to Instrument Development	An introduction to the Online Designer and Data Dictionary methods of instrument development.	6 minutes
Online Designer	This online tool is the quickest and most intuitive method for making instrument modifications.	5 minutes

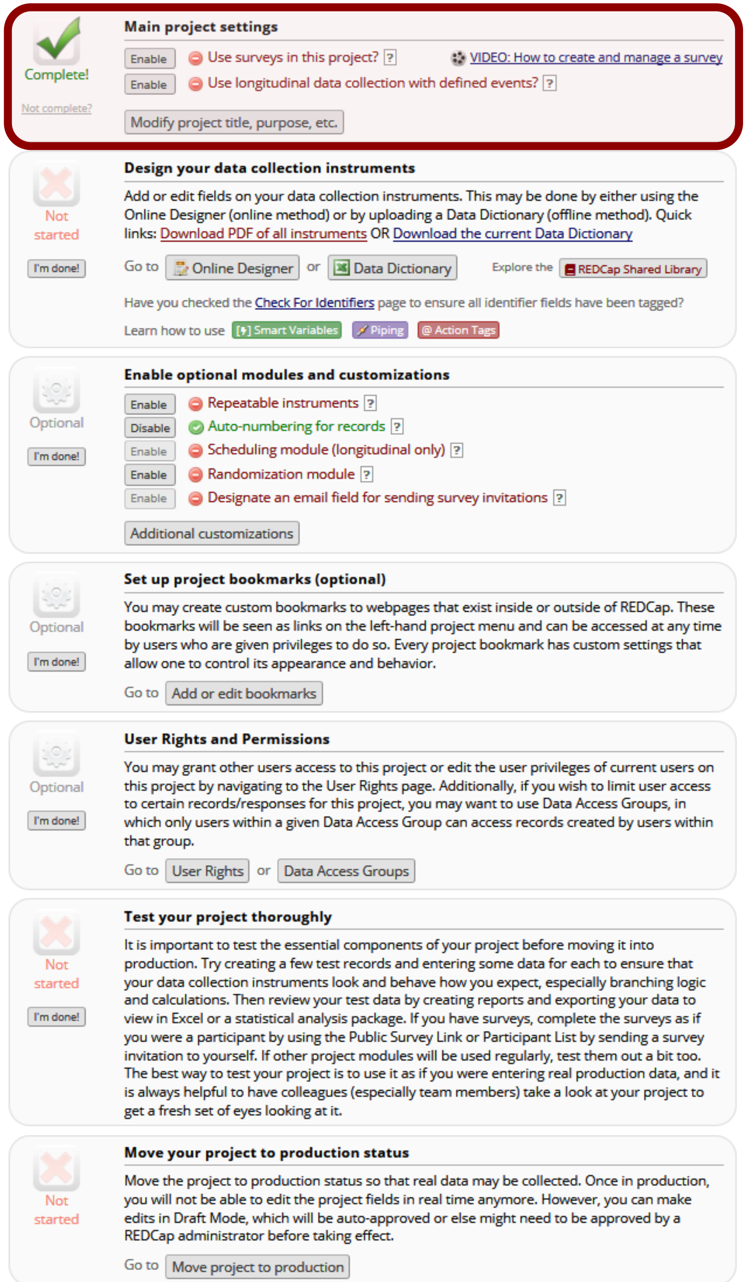
CREATE A PROJECT



PROJECT SETUP STEPS

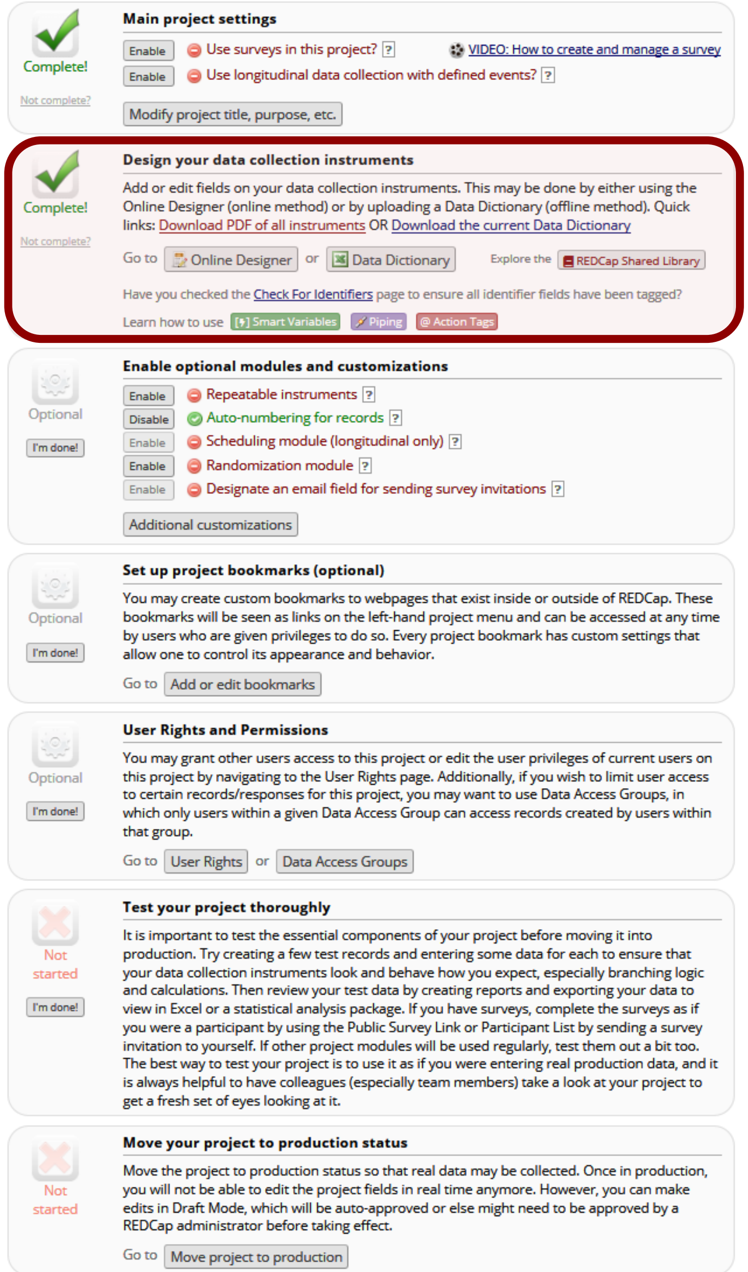


STEP 1: MAIN PROJECT SETTINGS



- Modify project title, purpose, etc.
- Enable surveys
- Enable longitudinal data collection

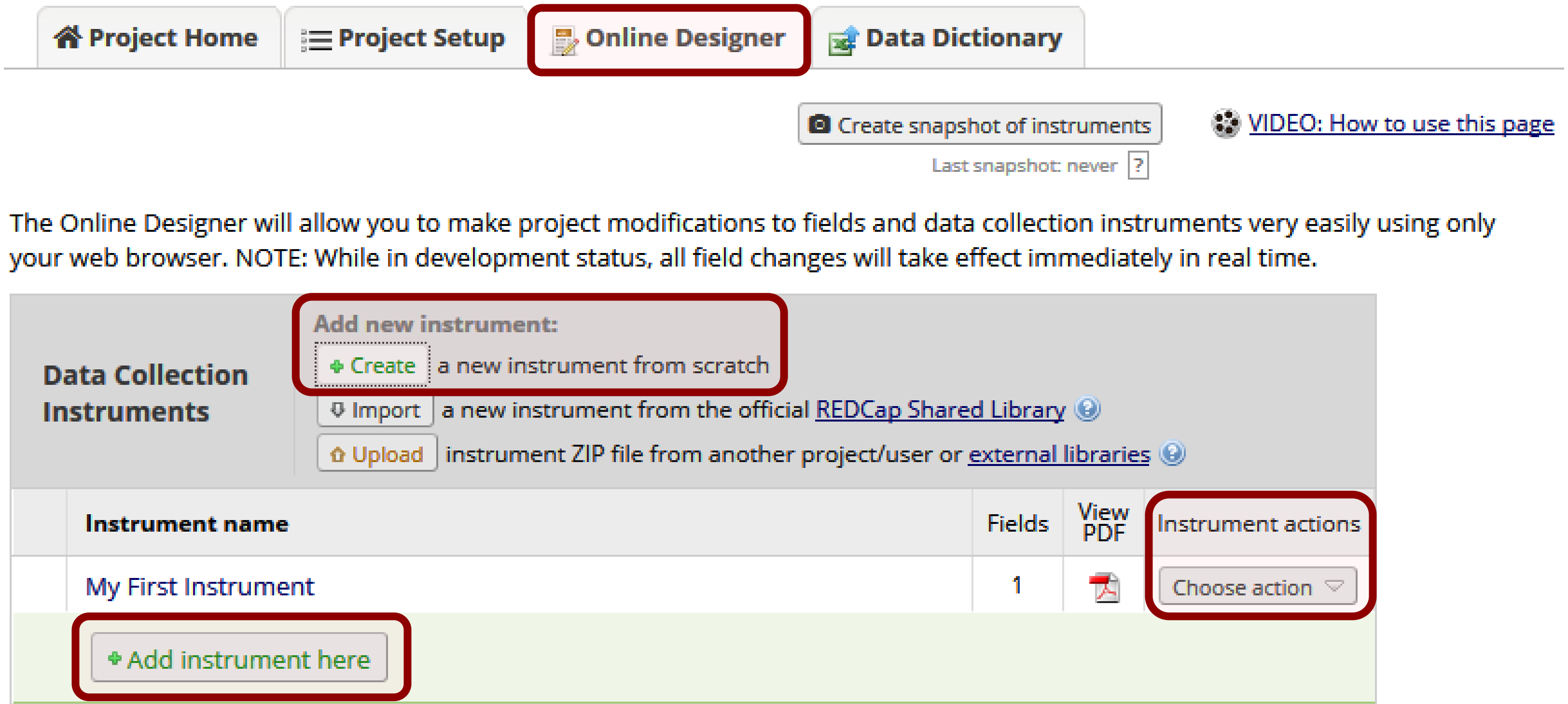
STEP 2: DATA COLLECTION INSTRUMENTS



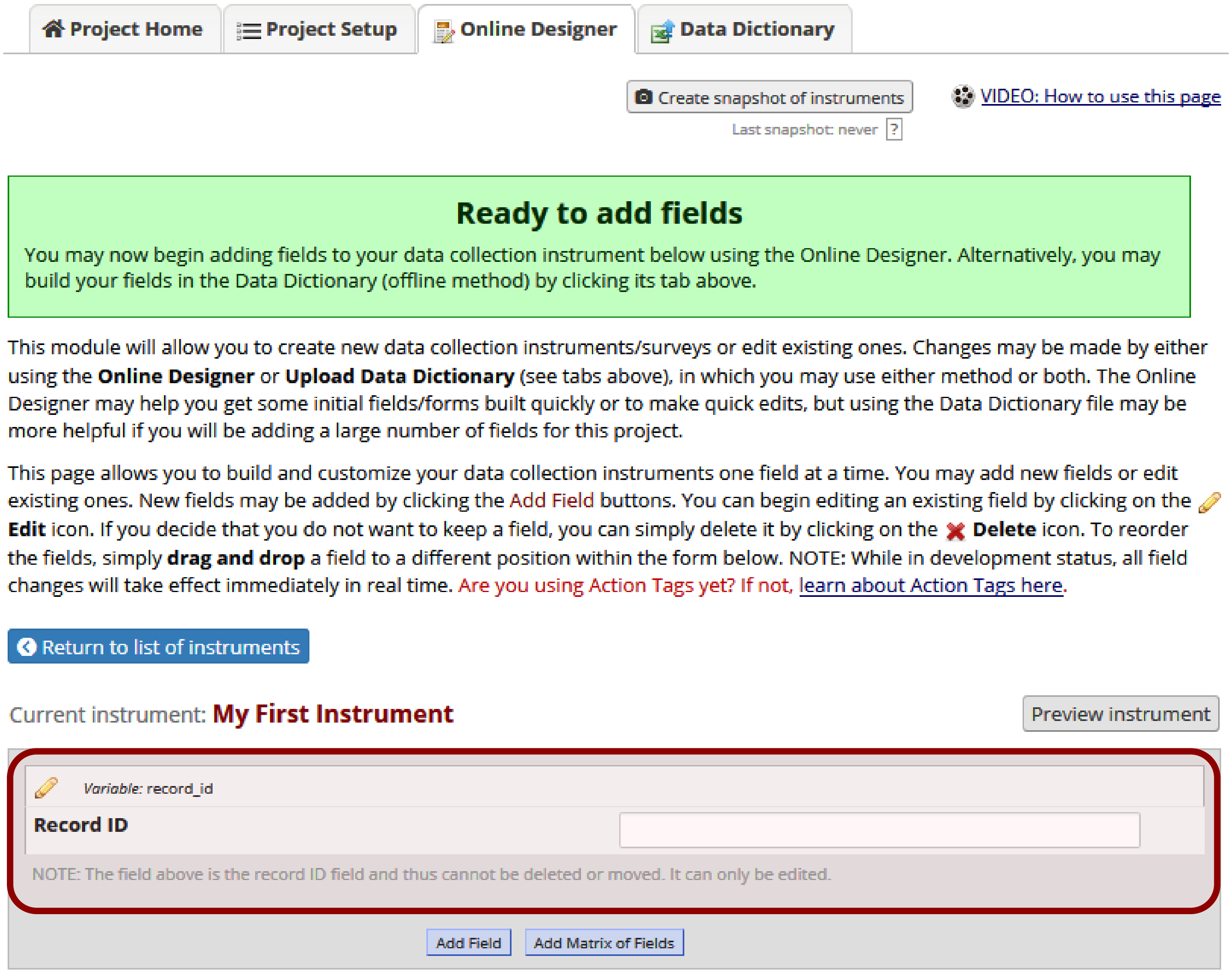
- Online Designer
- Data Dictionary*
- Shared Library (Global)
- Special Features*
  - Smart Variables
  - Piping
  - Action Tags

* *(covered in next seminar)*

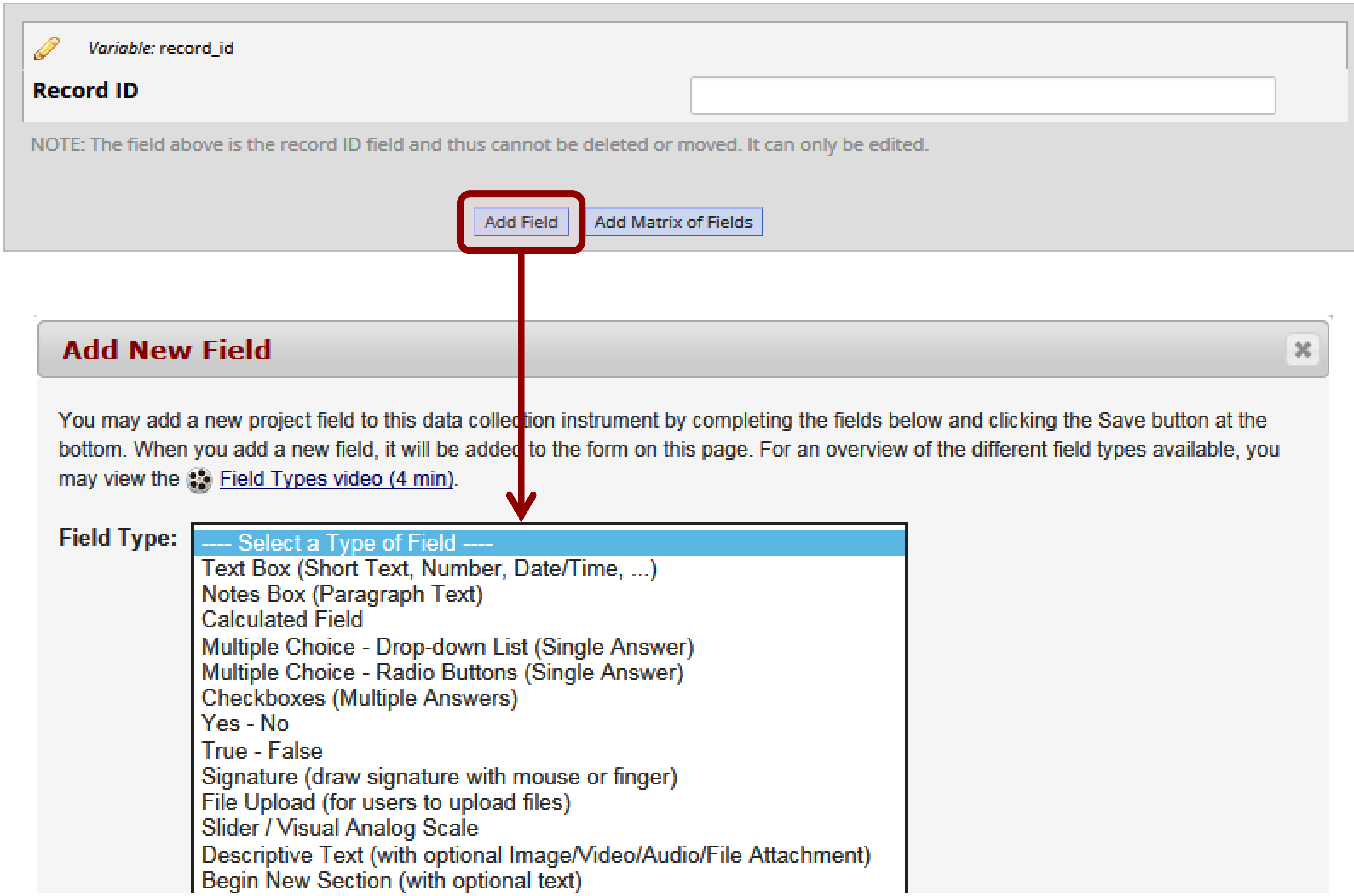
ONLINE DESIGNER



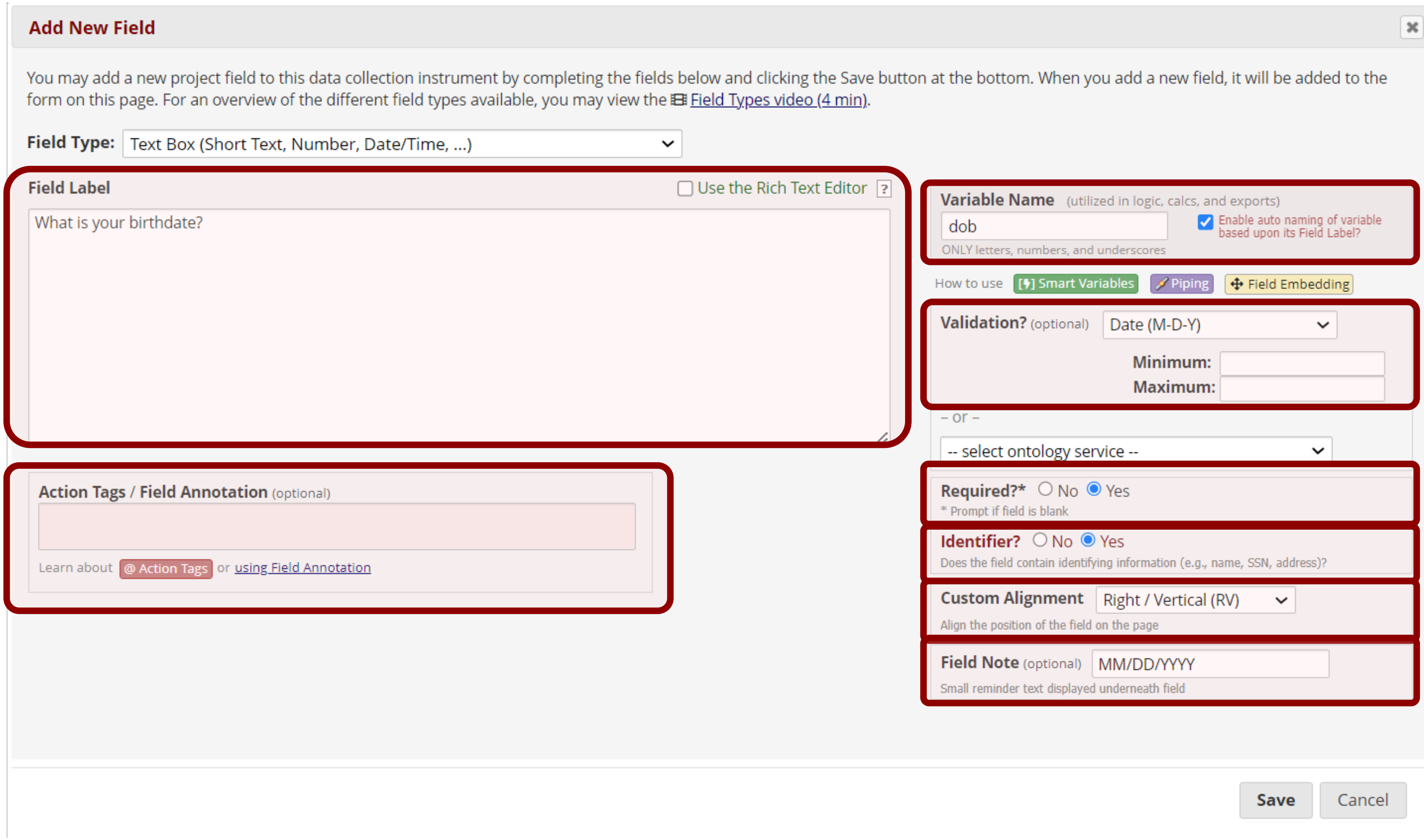
RECORD IDENTIFIER



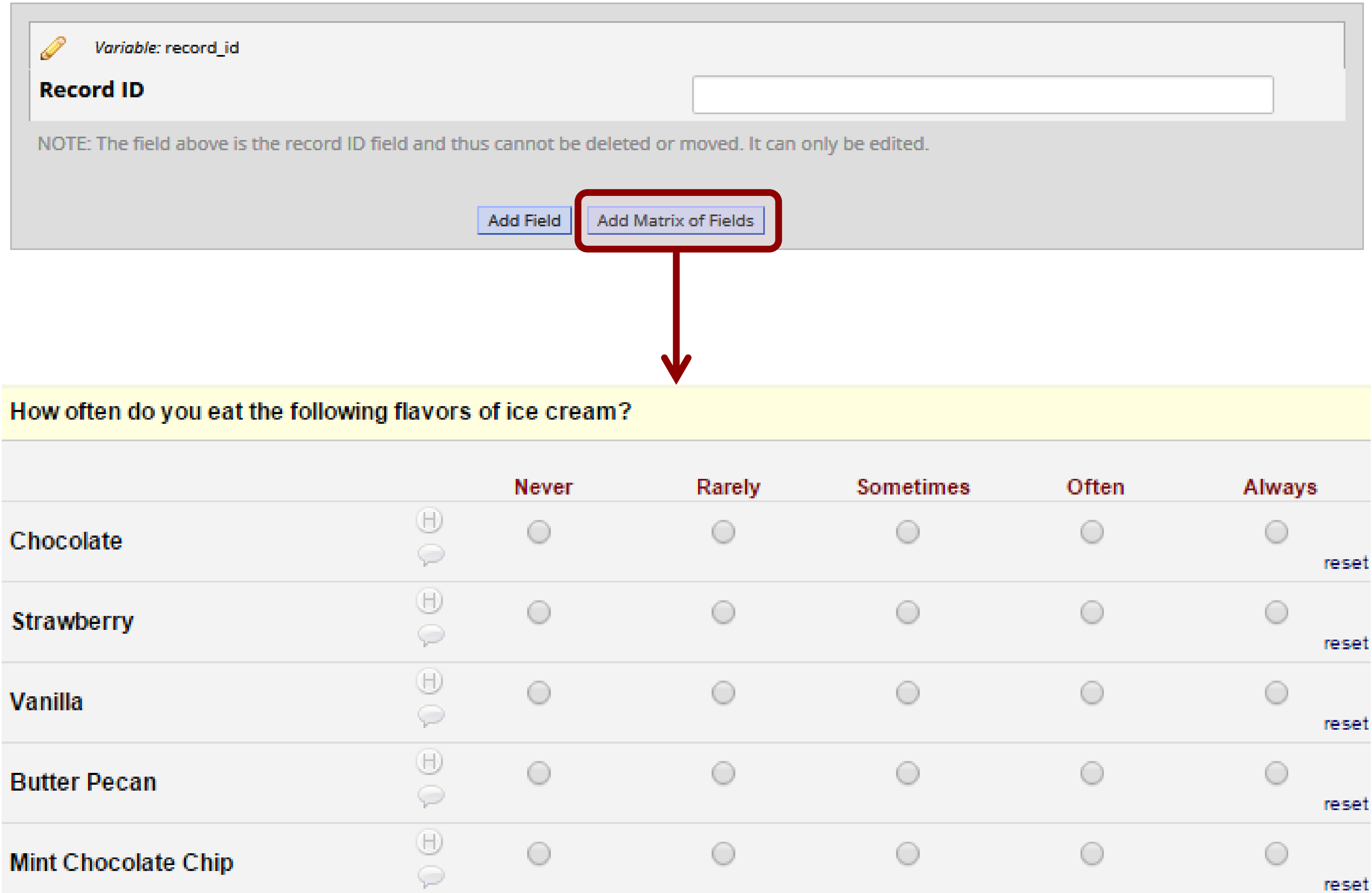
FIELD TYPES


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
Add New 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:
---- Select a Type of Field ----
Text Box (Short Text, Number, Date/Time, ...)
Notes Box (Paragraph Text)
Calculated Field
Multiple Choice - Drop-down List (Single Answer)
Multiple Choice - Radio Buttons (Single Answer)
Checkboxes (Multiple Answers)
Yes - No
True - False
Signature (draw signature with mouse or finger)
File Upload (for users to upload files)
Slider / Visual Analog Scale
Descriptive Text (with optional Image/Video/Audio/File Attachment)
Begin New Section (with optional text)

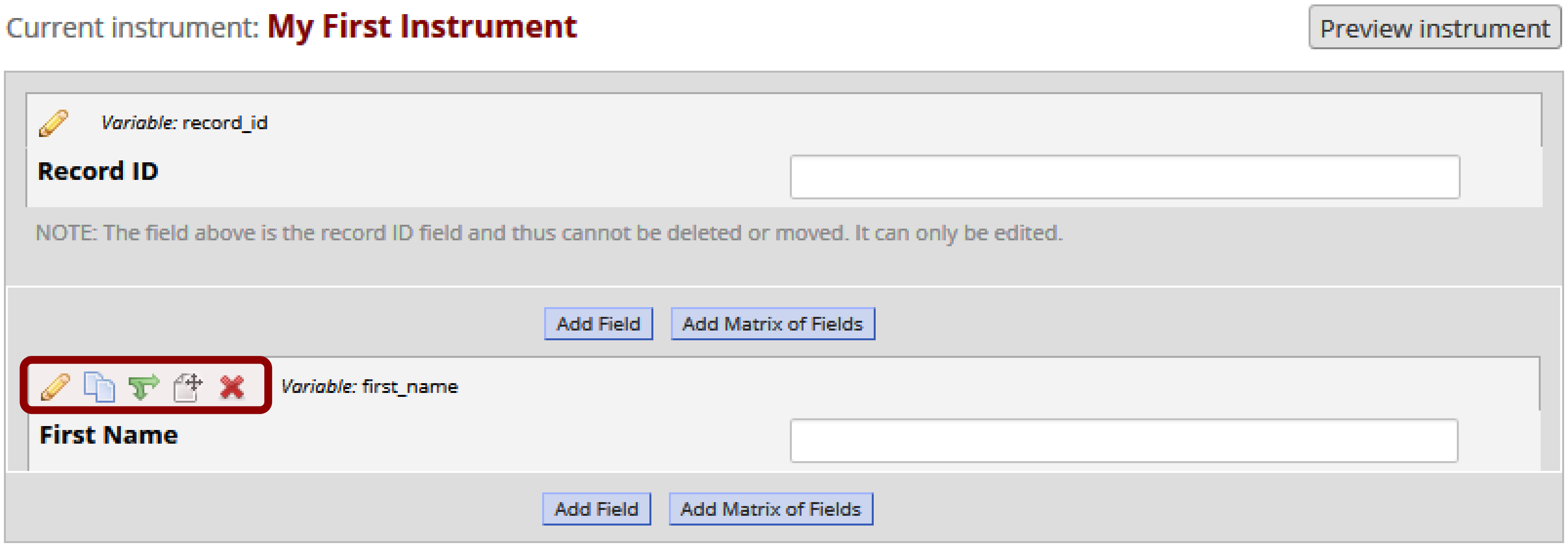
FIELD DESIGN



MATRIX OF FIELDS

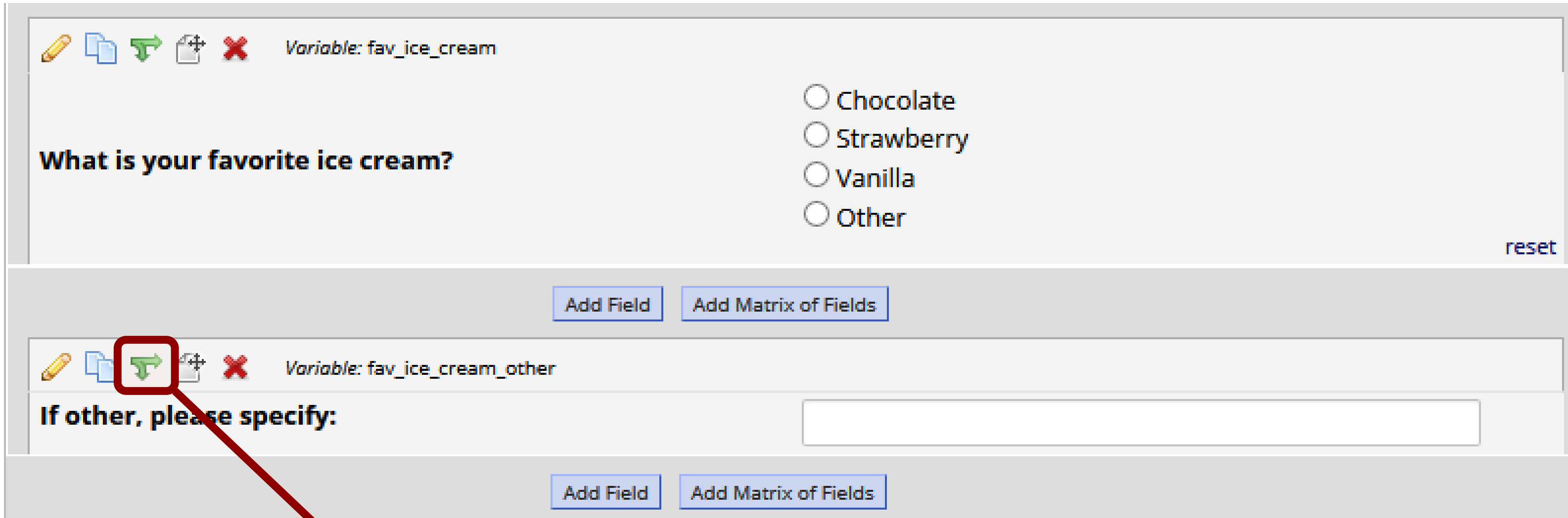


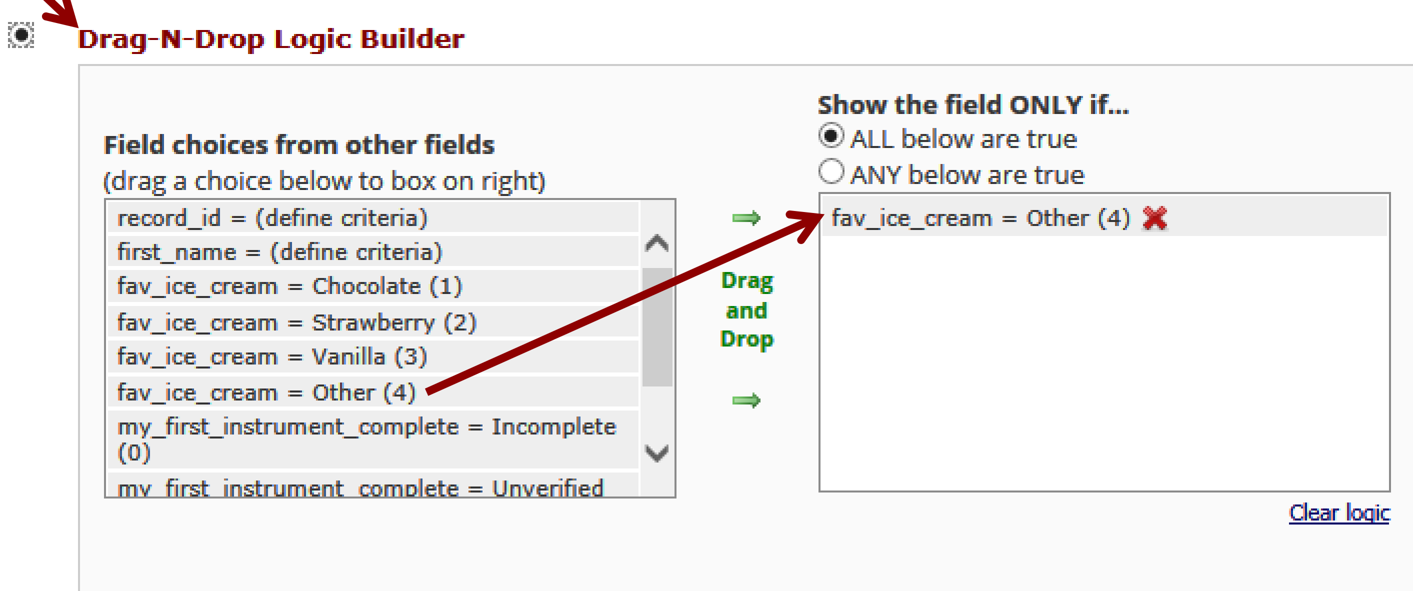
EDIT/COPY/MOVE/DELETE FIELDS



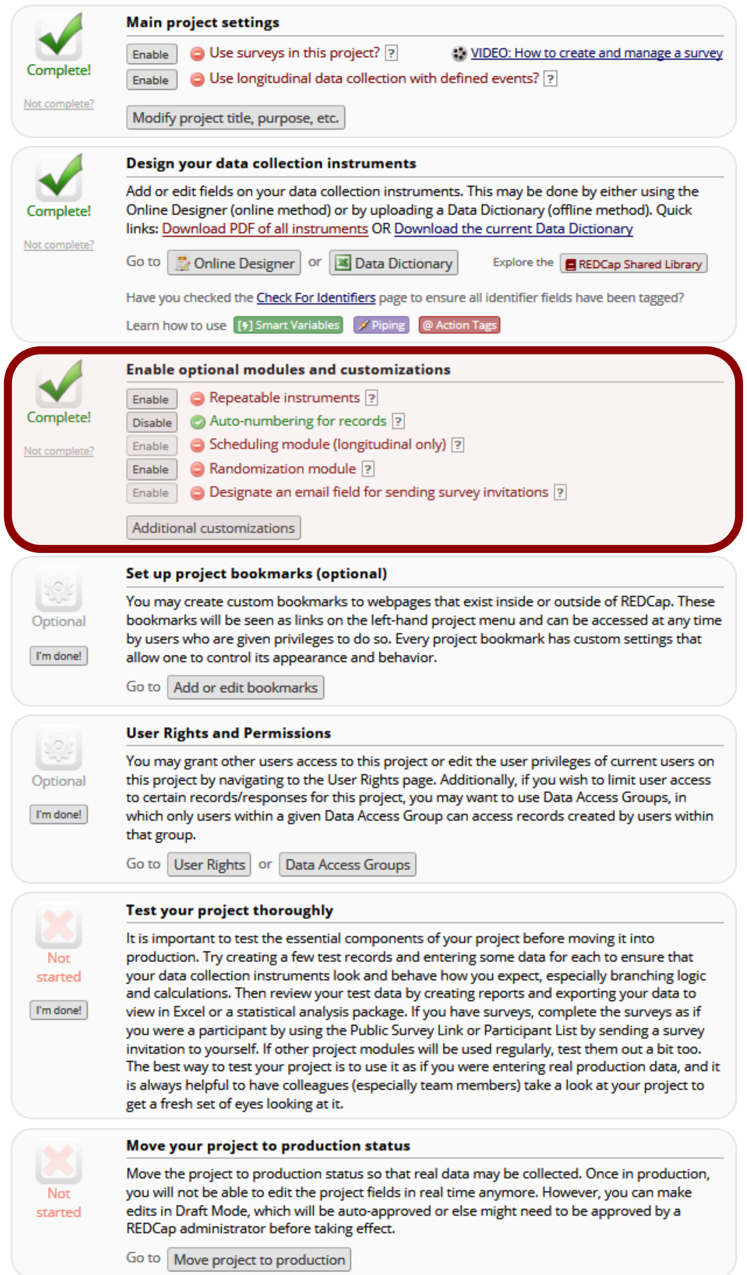
- pencil = edit
- documents = copy
- green arrows = branching logic
- document w/arrows = move
- red x = delete

BRANCHING LOGIC





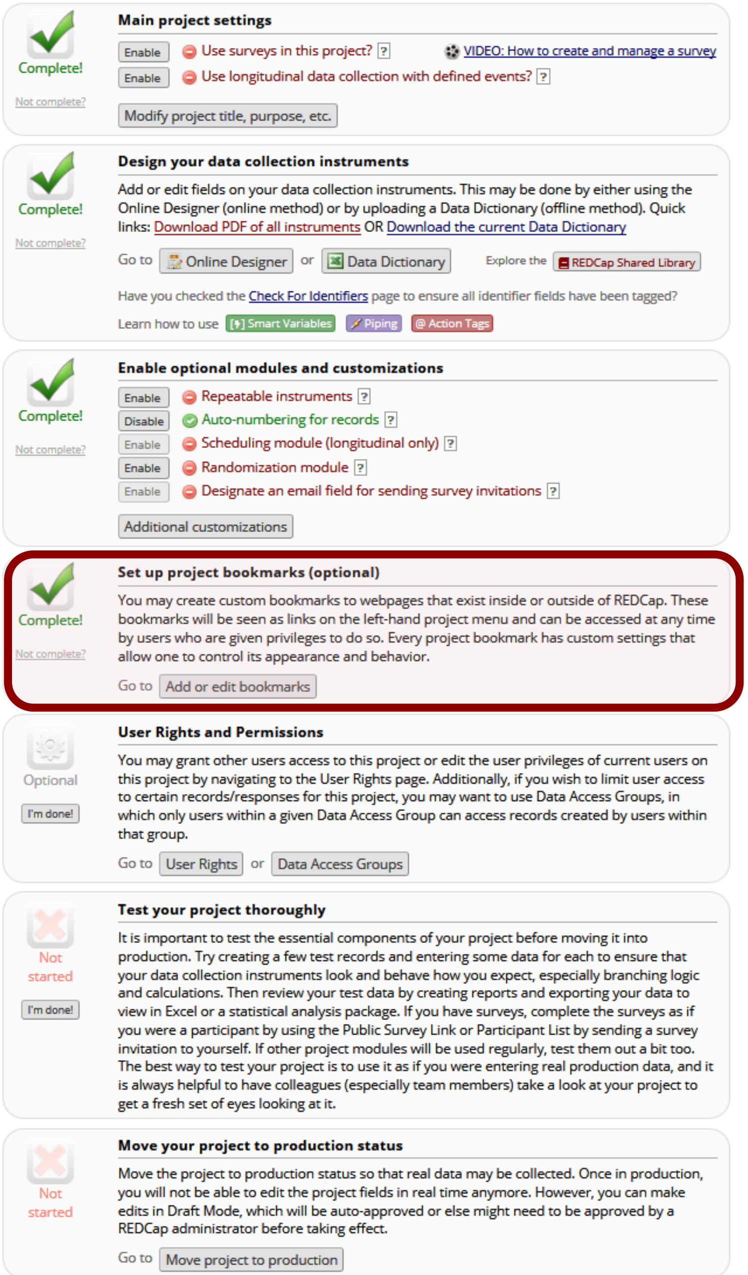
STEP 3: OPTIONAL MODULES & CUSTOMIZATIONS



- Repeatable Instruments*
- Auto-numbering IDs
- Scheduling (Longitudinal)*
- Randomization*
- Designate an email for survey invitations*

* *(covered in next seminar)*

STEP 4: PROJECT BOOKMARKS (OPTIONAL)



- Custom bookmarks
- Appear in Applications menu on the left
- Accessible by all project users
- Example:
  - Department website
  - External website
  - Other projects

STEP 5: USER RIGHTS

Main project settings

Complete!

Not complete?

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

Enable Use longitudinal data collection with defined events? [?]

Modify project title, purpose, etc.

Design your data collection instruments

Complete!

Not complete?

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 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

Enable optional modules and customizations

Complete!

Not complete?

Enable Repeatable instruments [?]

Disable Auto-numbering for records [?]

Enable Scheduling module (longitudinal only) [?]

Enable Randomization module [?]

Enable Designate an email field for sending survey invitations [?]

Additional customizations

Set up project bookmarks (optional)

Complete!

Not complete?

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

Complete!

Not complete?

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 this project, you may want to use Data Access Groups, in which only users within a given Data Access Group can access records created by users within that group.

Go to User Rights or Data Access Groups

Test your project thoroughly

Not started

I'm done!

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.

Move your project to production status

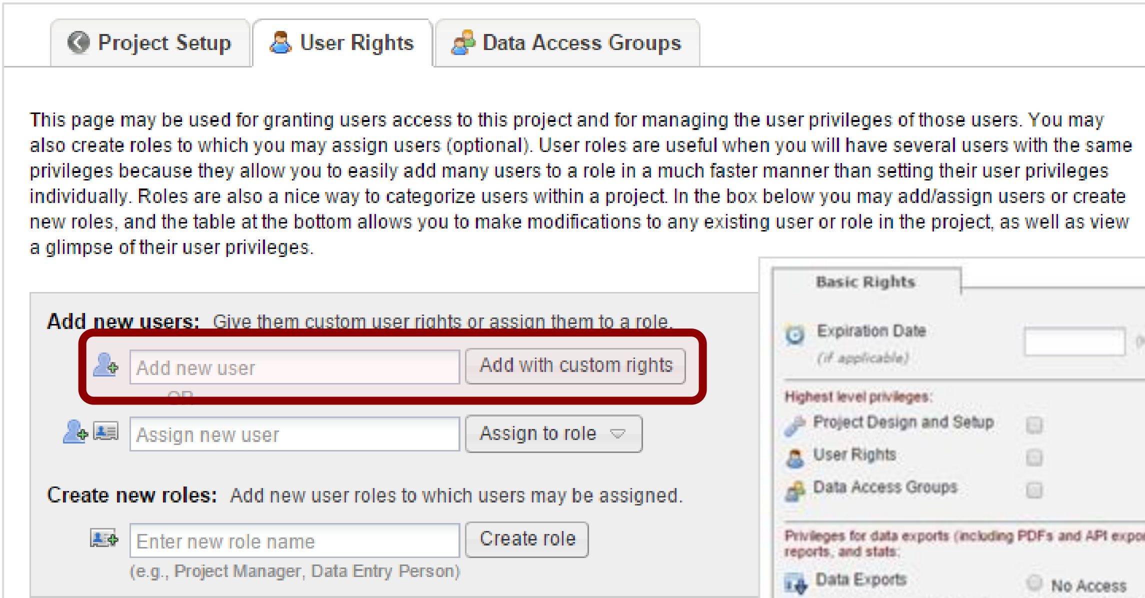
Not started

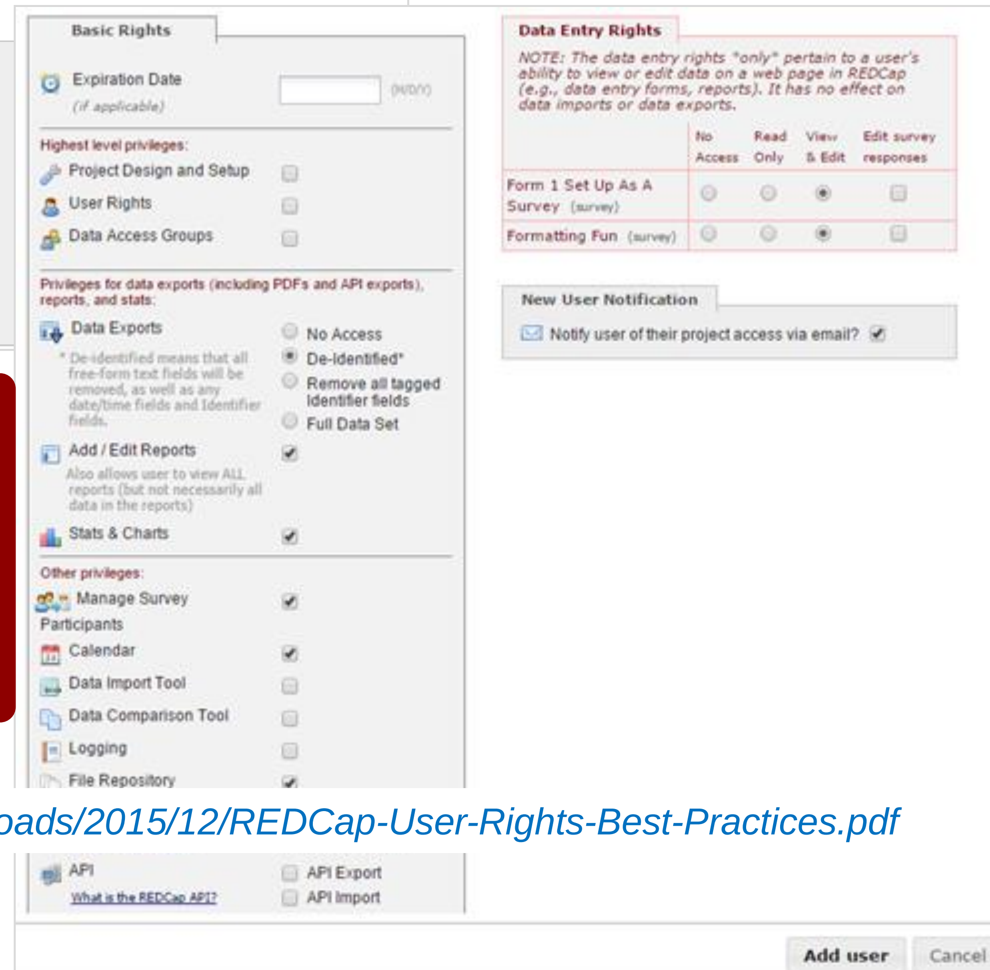
Move the project to production status so that real data may be collected. Once in production, you will not be able to edit the project fields in real time anymore. However, you can make edits in Draft Mode, which will be auto-approved or else might need to be approved by a REDCap administrator before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

Go to Move project to production

- User Rights - add users with custom user rights
- Data Access Groups - for multi-site studies

STEP 5: ADDING USERS





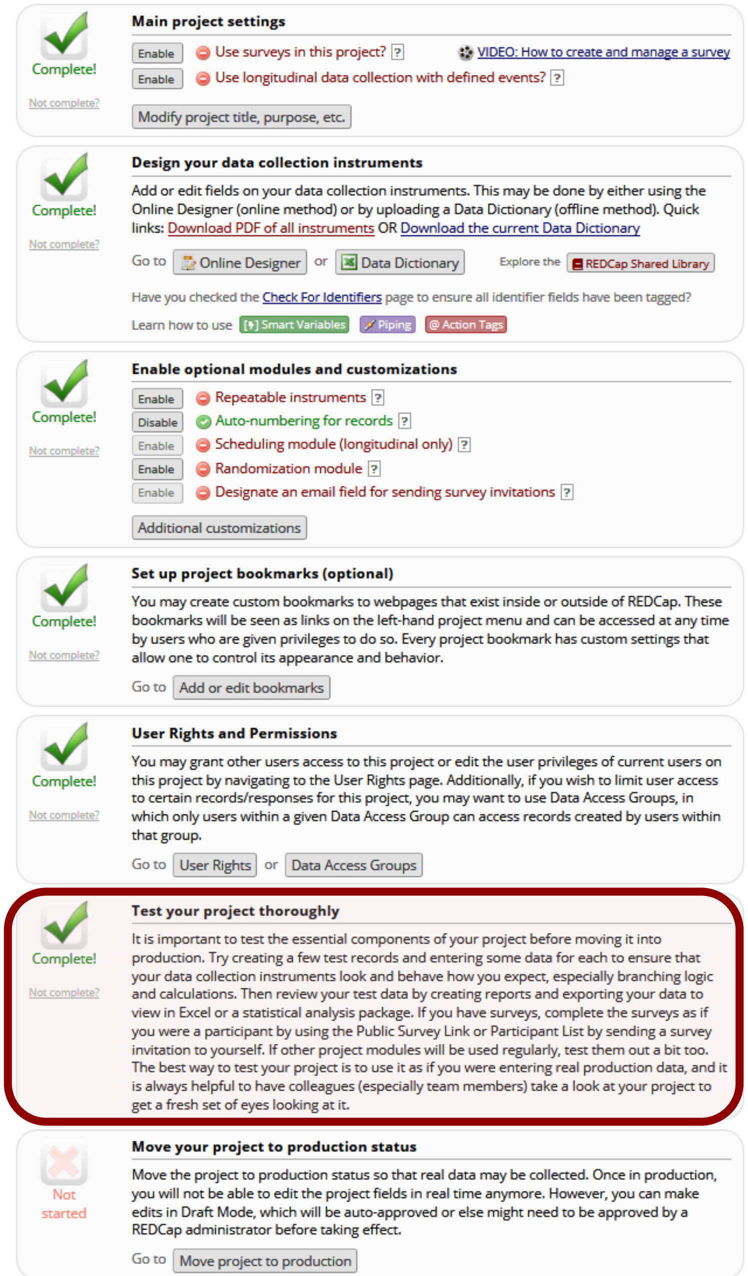
Don't add email address!

If not found, either:

- user has yet to log in
- or their access is suspended due to inactivity

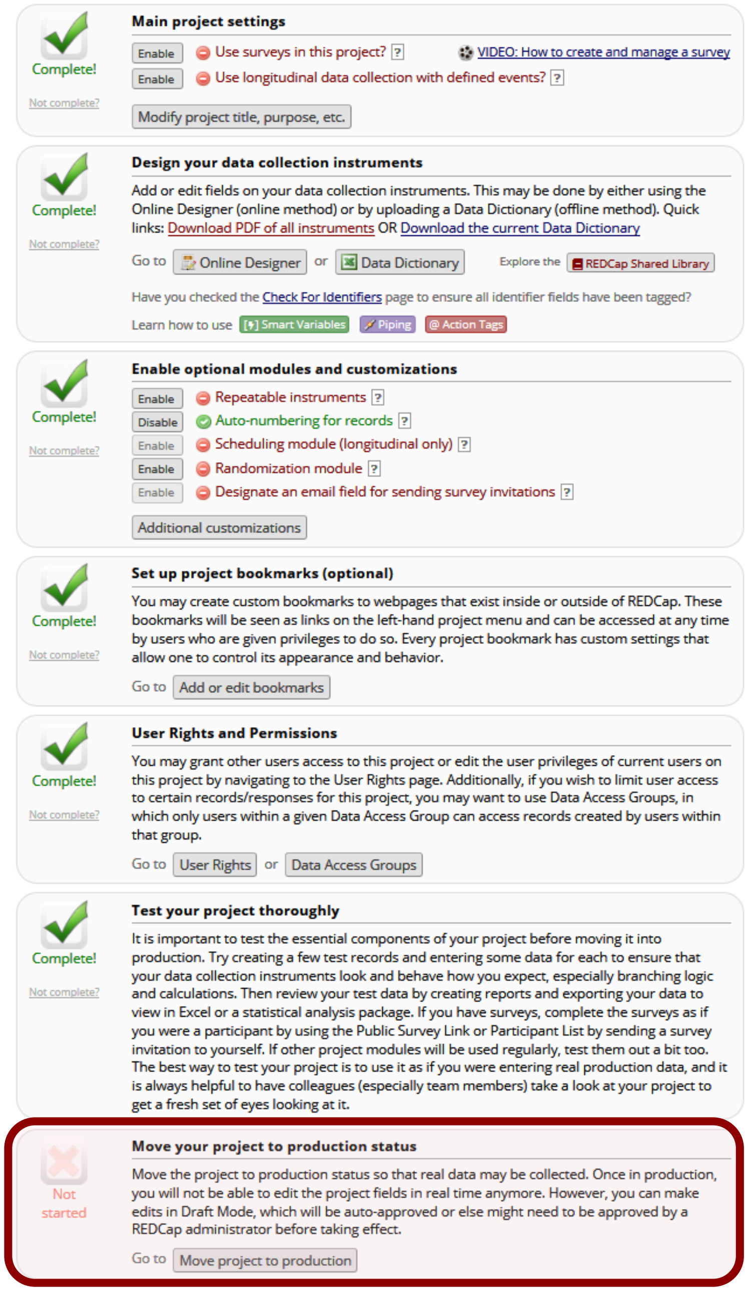
https://cri.uchicago.edu/wp-content/uploads/2015/12/REDCap-User-Rights-Best-Practices.pdf

STEP 6: TEST YOUR PROJECT



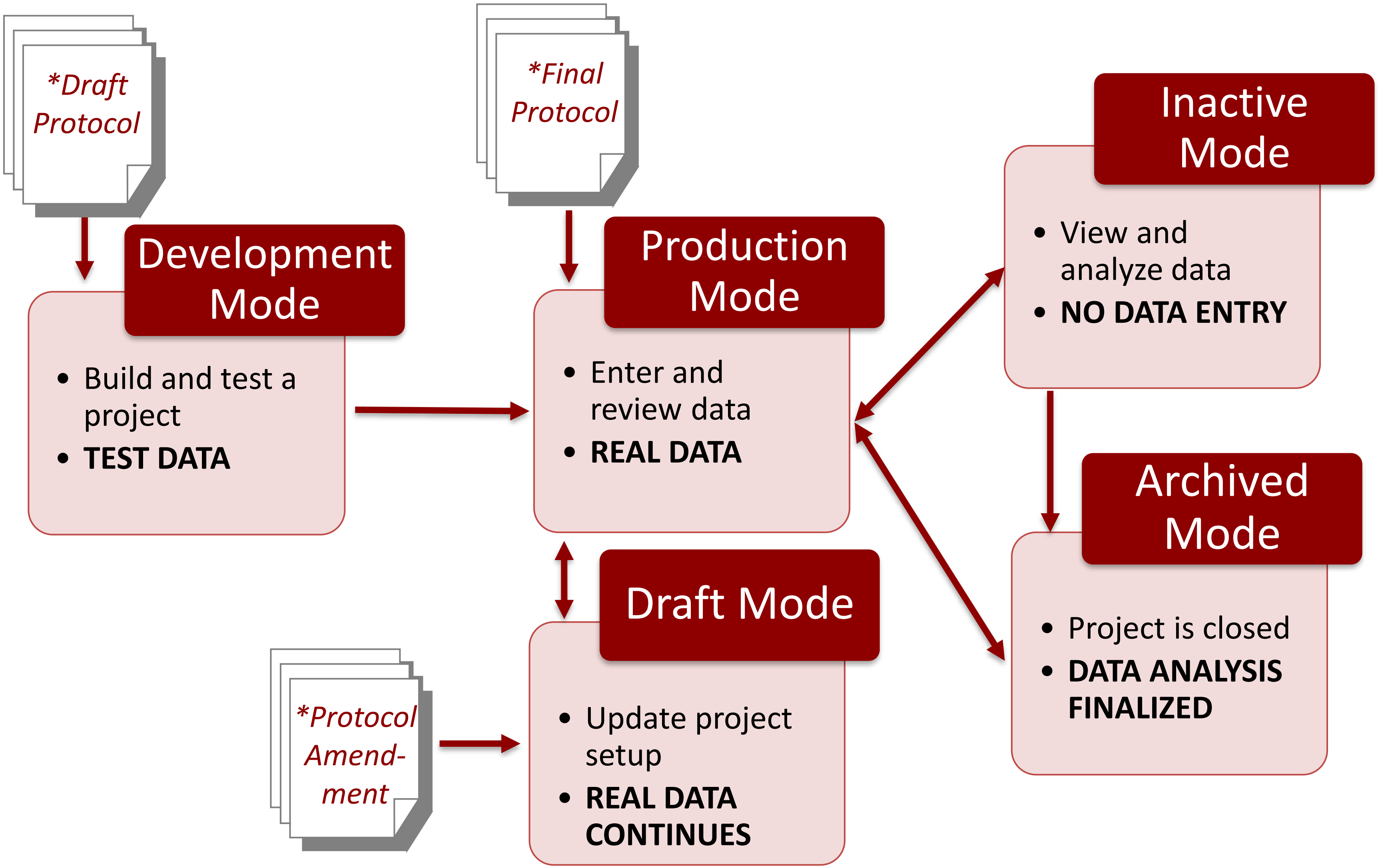
- Enter test records
- Test branching logic
- Test calculations
- Create reports
- Export test data
- Have colleagues review project as well

STEP 7: MOVE TO PRODUCTION

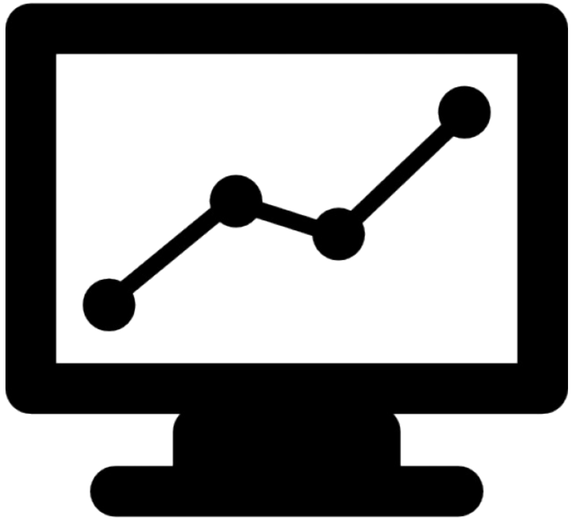


- Request test data deletion
- Wait for confirmation email from Administrator before collecting real data!

PROJECT TIMELINE AND MODES



**if IRB approval required*



Longitudinal Data Collection

WHAT IS CLASSIC DATA COLLECTION?

Data Collection Instruments

Collected Once Over Time

Data Collection Instrument
Demographics
Baseline Data
Month 1 Data
Month 2 Data
Month 3 Data
Completion Data

WHAT IS LONGITUDINAL DATA COLLECTION?

Repeatable Over Time (Events)

Data Collection Instruments

Data Collection Instrument	Baseline (1)	Visit 1 (2)	Visit 2 (3)	Visit 3 (4)	Final Visit (5)
Demographics	✓				
Baseline Data	✓				
Monthly Data		✓	✓	✓	
Completion Data					✓

CLASSIC VS LONGITUDINAL DATA COLLECTION

CLASSIC

- Only uses instruments.
- Doesn’t use events.
- Create an instrument for each time point.

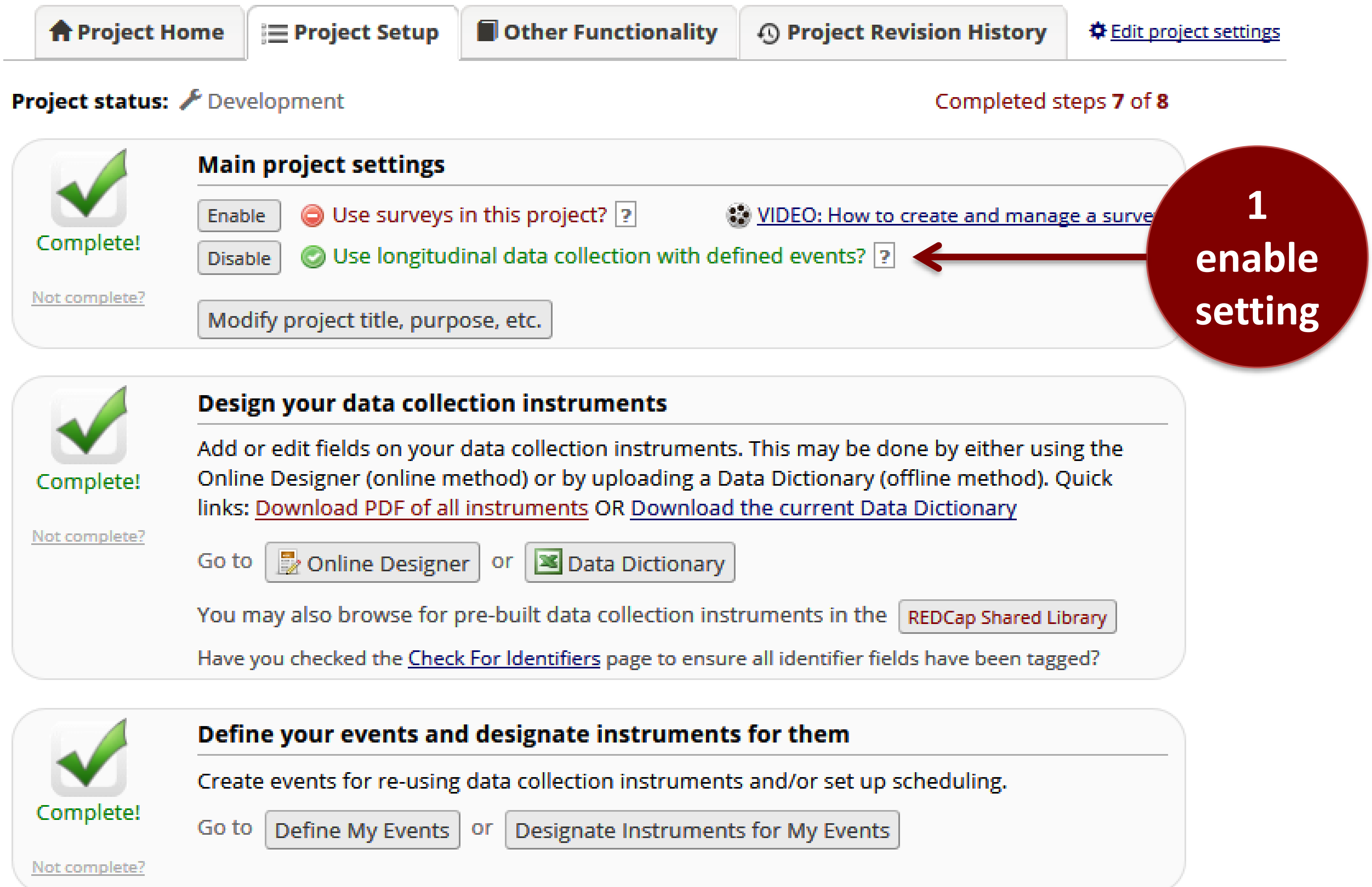
Data Collection Instrument
Demographics
Baseline Data
Month 1 Data
Month 2 Data
Month 3 Data
Completion Data

LONGITUDINAL

- Uses instruments.
- Uses events.
- Repeat instruments using events.

Data Collection Instrument	Baseline (1)	Visit 1 (2)	Visit 2 (3)	Visit 3 (4)	Final Visit (5)
Demographics	✓				
Baseline Data	✓				
Monthly Data		✓	✓	✓	
Completion Data					✓

HOW TO ENABLE LONGITUDINAL DATA COLLECTION



HOW TO ENABLE LONGITUDINAL DATA COLLECTION

Project Setup | Define My Events | Designate Instruments for My Events

This application allows you to define 'events' for your project that allow for the **utilization of data collection forms multiple times for any given project record** (often used when collecting longitudinal data). An 'event' may be a temporal event in the course of your project, such as a participant visit or a task to be performed. After events have been defined, you will need to designate the data collection instruments that you wish to utilize for any or all events, thus allowing you to use a form for multiple events for the same project record. You may **group your events into 'arms'**, in which you may have one or more arms/groups for your project. Each arm can have as many events as you wish. You may use the table below to create new events and/or arms, or modify existing ones. (One arm and one event will be initially defined as the default for all projects.)

STEP #1:
To add new events below, provide an **Event Name** for that event, and then click the *Add new event*. Once events have been added, you can easily change their order by dragging and dropping the event using the up-down arrow icon on the far left for a given row in the table.

STEP #2:
Once you have defined your events on this page, you may navigate to the Designate Instruments for My Events page, where you may select which data collection instruments that you wish to utilize for each event you defined.

Upload or download arms/events

Arm 1: Arm 1 | +Add New Arm

Arm name: **Arm 1**

Rename Arm 1

		Event #	Event Name	Custom Event Label (optional)	Unique event name (auto-generated)
		1	Baseline		baseline_arm_1
		2	Visit 1		visit_1_arm_1
		3	Visit 2		visit_2_arm_1
		4	Visit 3		visit_3_arm_1
		5	Final Visit		final_visit_arm_1
	Add new event		Descriptive name for this event	Custom Event Label (optional) Example: [visit_date], [weight] kg	

HOW TO ENABLE LONGITUDINAL DATA COLLECTION

Project Setup | Define My Events | Designate Instruments for My Events

Since you have defined multiple events on the Define My Events page, you may now select which data collection instruments that you wish to utilize for each event by using the table below. This allows you to enter data on any data collection form multiple times for any given project record. Any and all data collection instruments can thus be used for any event defined.

Click the *Begin Editing* button to change the relationships below by designating which forms you wish to utilize for which events. When you are finished making changes, click the *Save* button to finalize your changes.

Upload or download instrument mappings

Begin Editing | Save

Data Collection Instrument	Baseline (1)	Visit 1 (2)	Visit 2 (3)	Visit 3 (4)	Final Visit (5)
Demographics	✓				
Lab Values		✓	✓	✓	
Exit Interview					✓

DISPLAY AND REPORTING DIFFERENCES

Classic Project:

one row per record

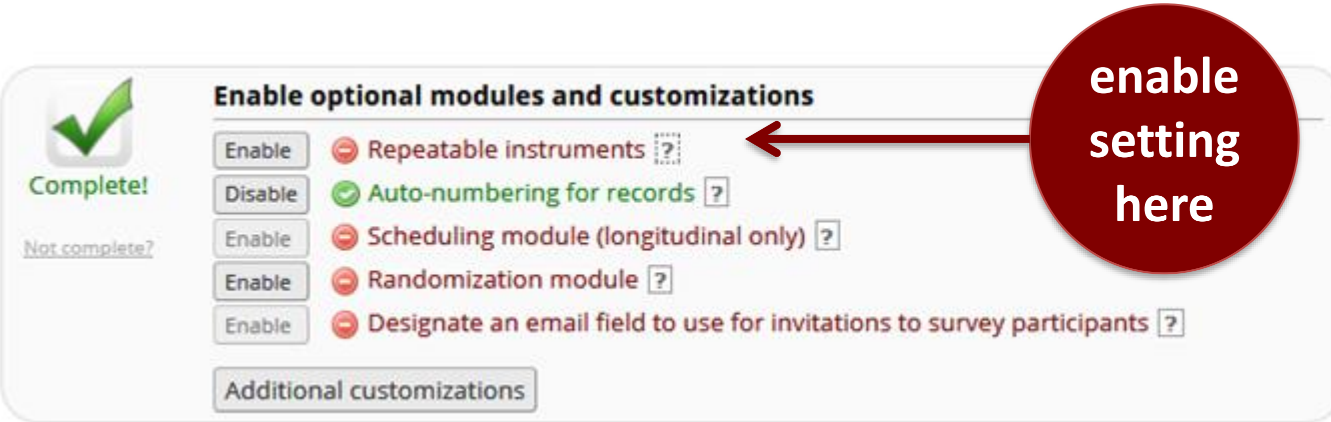
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Q
1	study_id	(screening form fields)------------>			(month1 form fields)------------>			(month2 form fields)------------>			(month3 form fields)------------>			(stud	------->
2	100	data	data	data	data	data	data	data	data	data	data	data	data	data	data
3	200	data	data	data	data	data	data	data	data	data	data	data	data	data	data
4	300	data	data	data	data	data	data	data	data	data	data	data	data	data	data

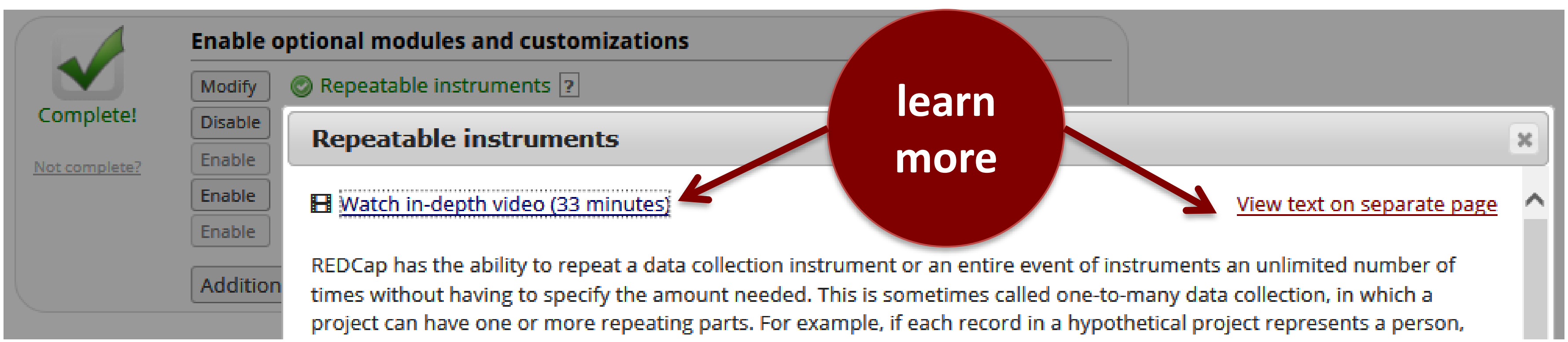
Longitudinal Project:

multi rows per record

	A	B	C	D	E	F	G	H	I	J		
1	study_id	redcap_event_name	(screening form fields)------------>			(monthly form fields)------------>			(study completion forr			
2	100	screening	data	data	data							
3	100	month1				data	data	data				
4	100	month2				data	data	data				
5	100	month3				data	data	data				
6	100	completion							data	data	data	data
7	200	screening	data	data	data							
8	200	month1				data	data	data				
9	200	month2				data	data	data				
10	300	screening	data	data	data							
11	300	month1				data	data	data				

REPEATING INSTRUMENTS





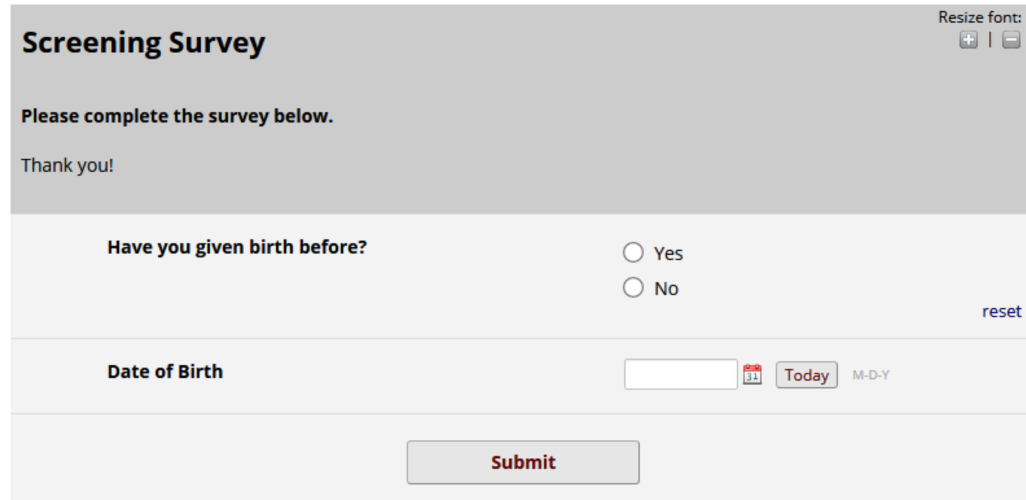
REPEATING INSTRUMENTS

Classic Projects	Longitudinal Projects	Survey Projects
Repeat Forms	Repeat Forms and Events	Repeat Surveys

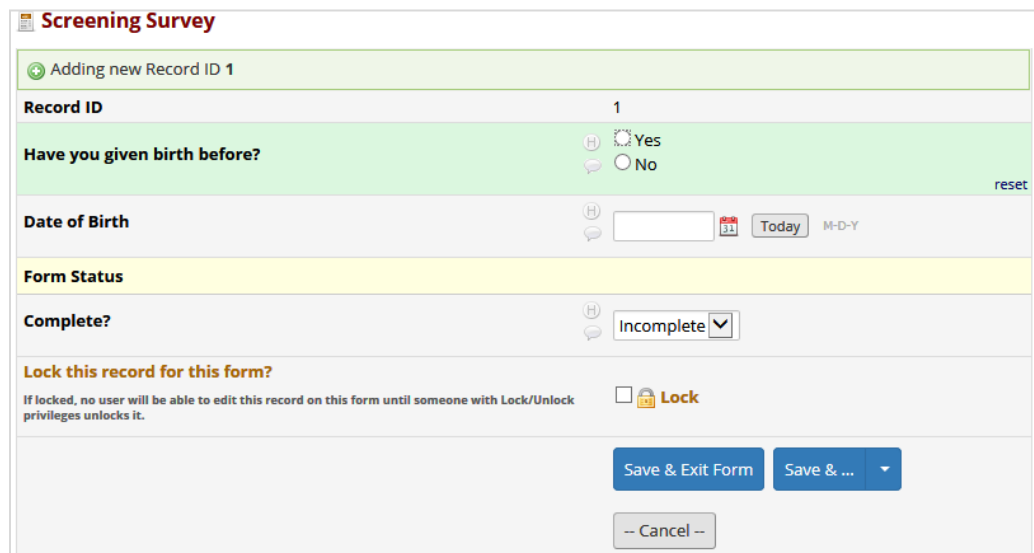
Creating Surveys

WHAT IS A SURVEY?

A REDcap survey is a "public" version of a (form) instrument that is completed by a study participant without having to log into REDCap.

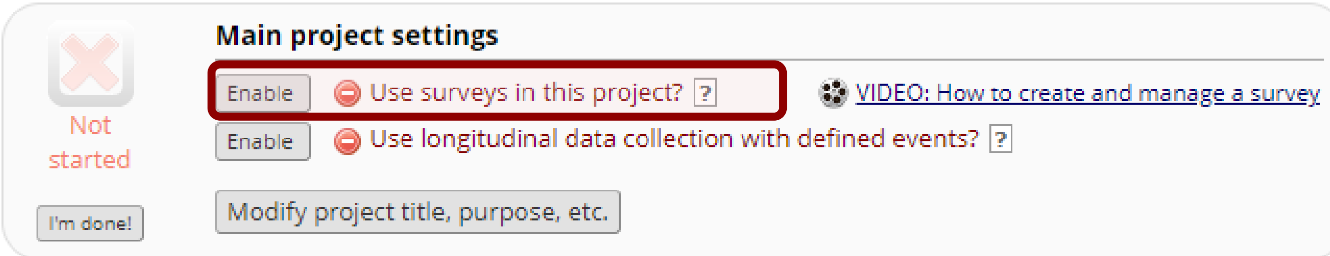


That same instrument can also be used by the study team as a data entry form when logged into REDCap.

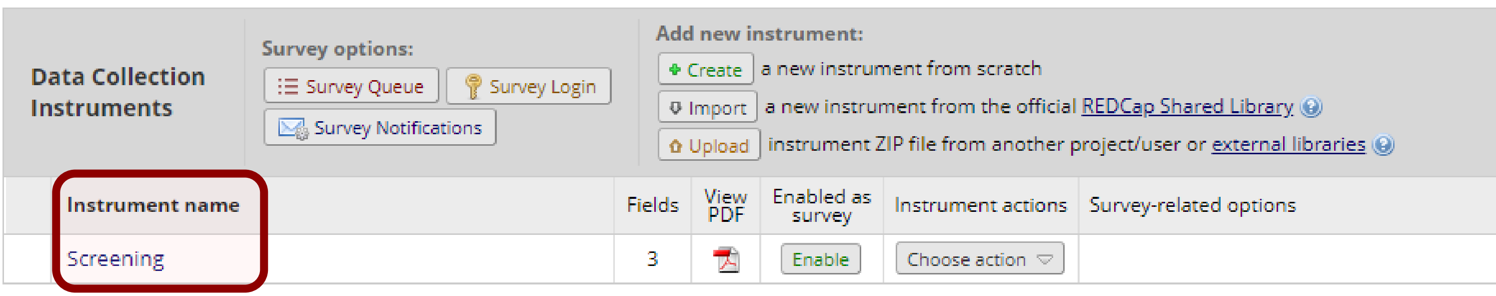


CREATING AND ENABLING A SURVEY

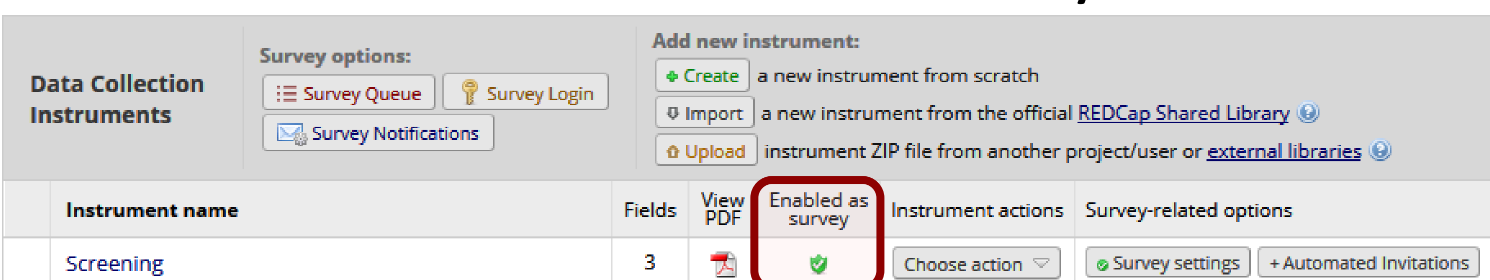
1 Enable the survey feature (Project Setup tab).



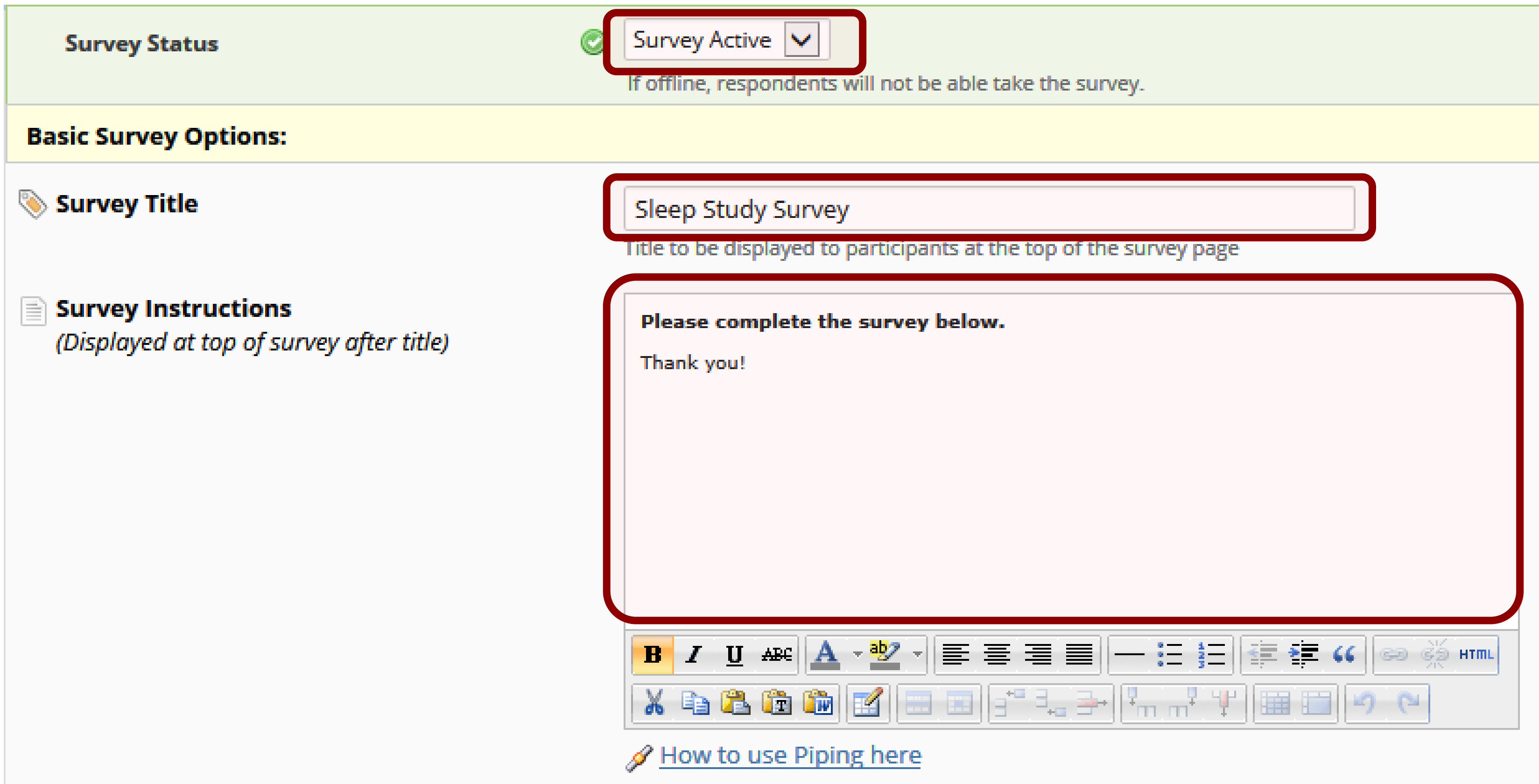
2 Create the instrument first.



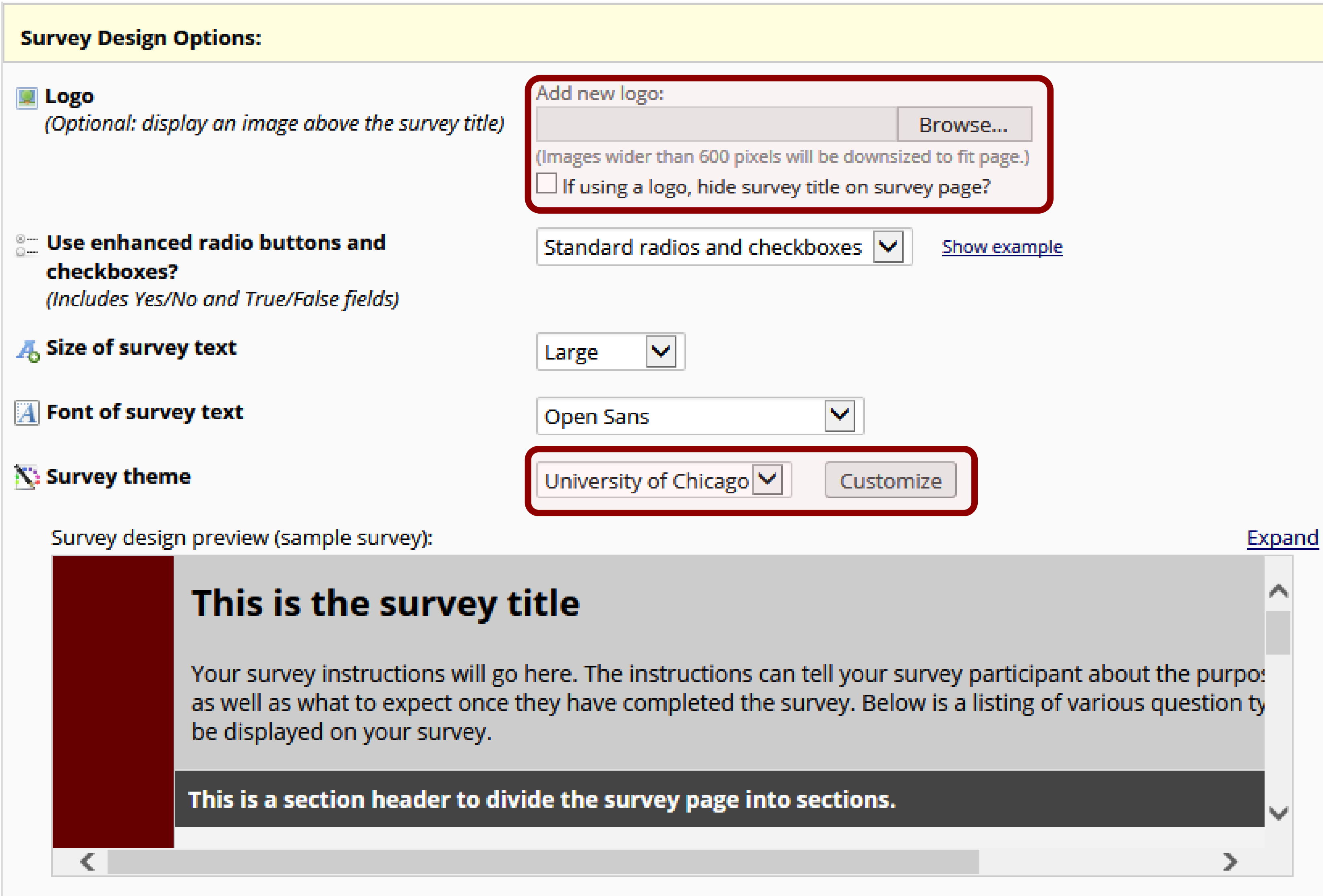
3 Enable the instrument as a survey.



SURVEY SETTINGS



SURVEY DESIGN OPTIONS



SURVEY CUSTOMIZATIONS

Survey Customizations:

Question Numbering

Custom numbered

Question numbers will not display correctly if using auto numbering if some questions have branching logic employed. Question auto numbering has been automatically disabled because some of your survey questions use branching logic.

Question Display Format
(One page or multiple pages?)

All on one page

Display page numbers at top of survey page

Hide the 'Previous Page' button (i.e., Back button) on the survey page
(prevents respondents from going back to previous pages)

Allow participants to download a PDF of their responses at end of survey?
Display a button for the participant to download a PDF file of their responses for the survey they just completed.

No

This option will not be available if the Survey Auto-continue or Survey Queue auto-start option is enabled. Also, if a field utilizes the @HIDDEN action tag, it will not be displayed in the PDF.

Survey-specific email invitation field
Designate an email field for sending survey invitations for this survey only ?

-- select a field --

Note: This option will override the project-level email invitation field (if enabled on the Project Setup page) and will also override any email address originally entered into the Participant List. Also, if this field has no value and the project-level email field is enabled, then the project-level email field's value will be used instead.

For 'Required' fields, display the red 'must provide value' text on the survey page?

Yes

If 'No', then it will NOT display the following text beneath all 'Required' fields: * must provide value

Allow survey respondents to view aggregate survey results after completing the survey?

After completing the survey, participants can view ALL responses in aggregate graphical format and/or as descriptive statistics. Also, the individual respondent's answers will be highlighted in the results.

Disabled

Additional settings:

10 Minimum number of responses required before participants are allowed to view aggregate data (recommended = 10).

Do not show plots for questions lacking diversity in response values?
(What does this mean?)

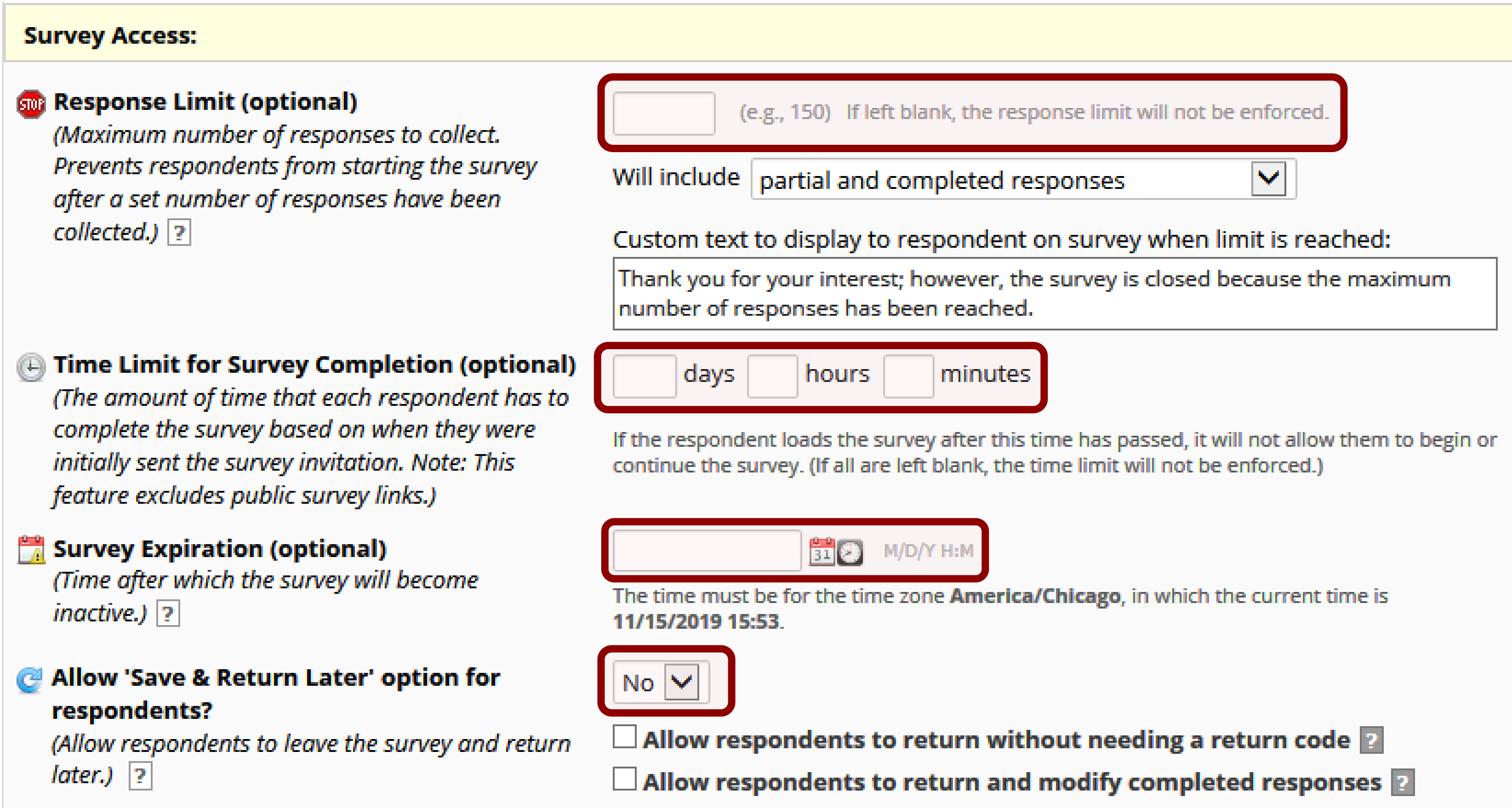
Text-To-Speech functionality
(Allows text on survey page to be read audibly to participants.)

When enabled, icons will be displayed next to all text on the survey page, and when clicked, the text will be read out loud to the participant (must have computer speakers turned on).

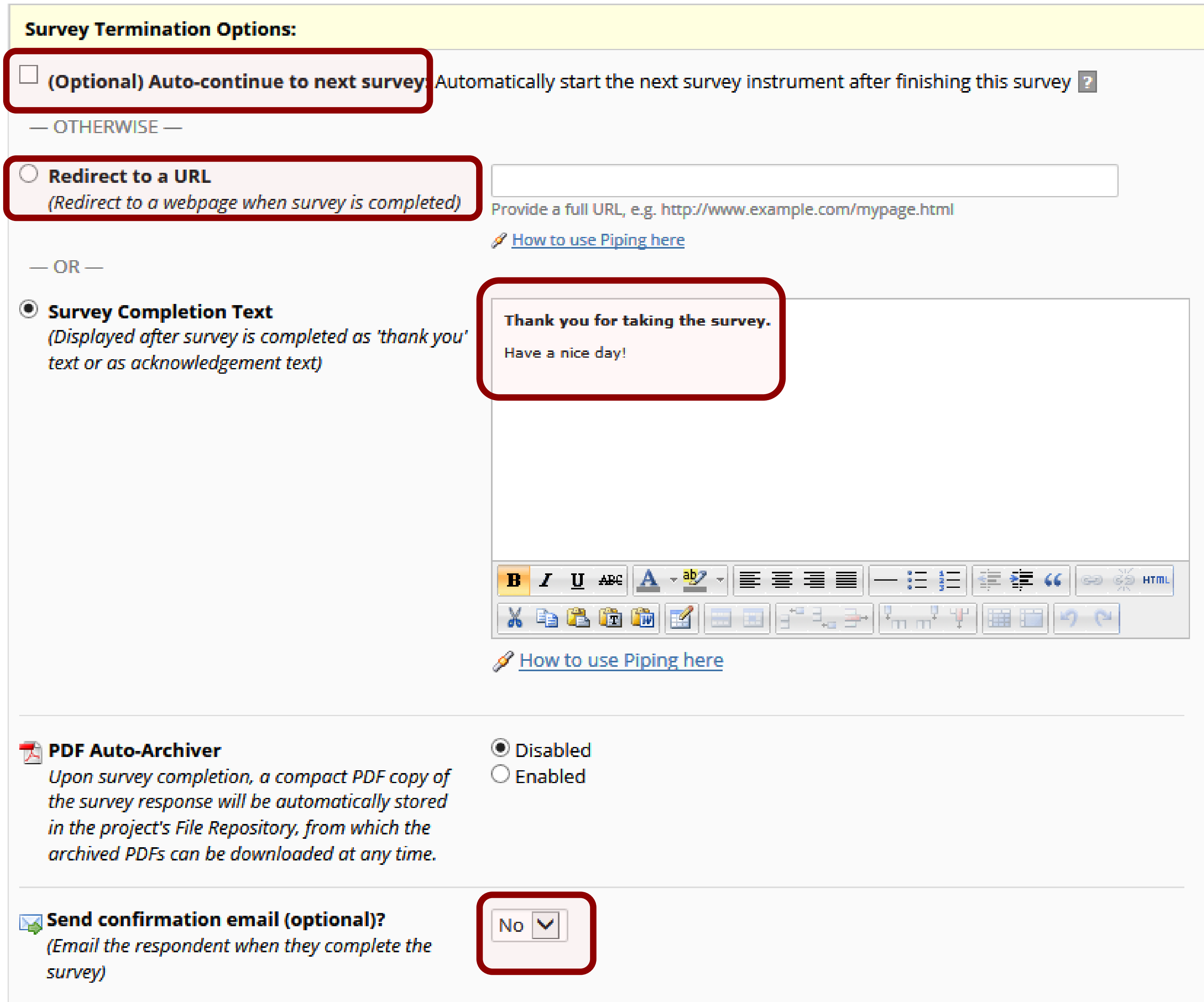
Disabled

NOTICE: All text that is spoken is sent to a service hosted at Vanderbilt University that utilizes the IBM Watson Text-to-Speech API service. Be advised that if the survey utilizes piping, for privacy concerns, data piped from Identifier fields will *not* be sent to the service with the rest of the text but will instead be redacted.
Administrators: How to disable this feature

SURVEY ACCESS

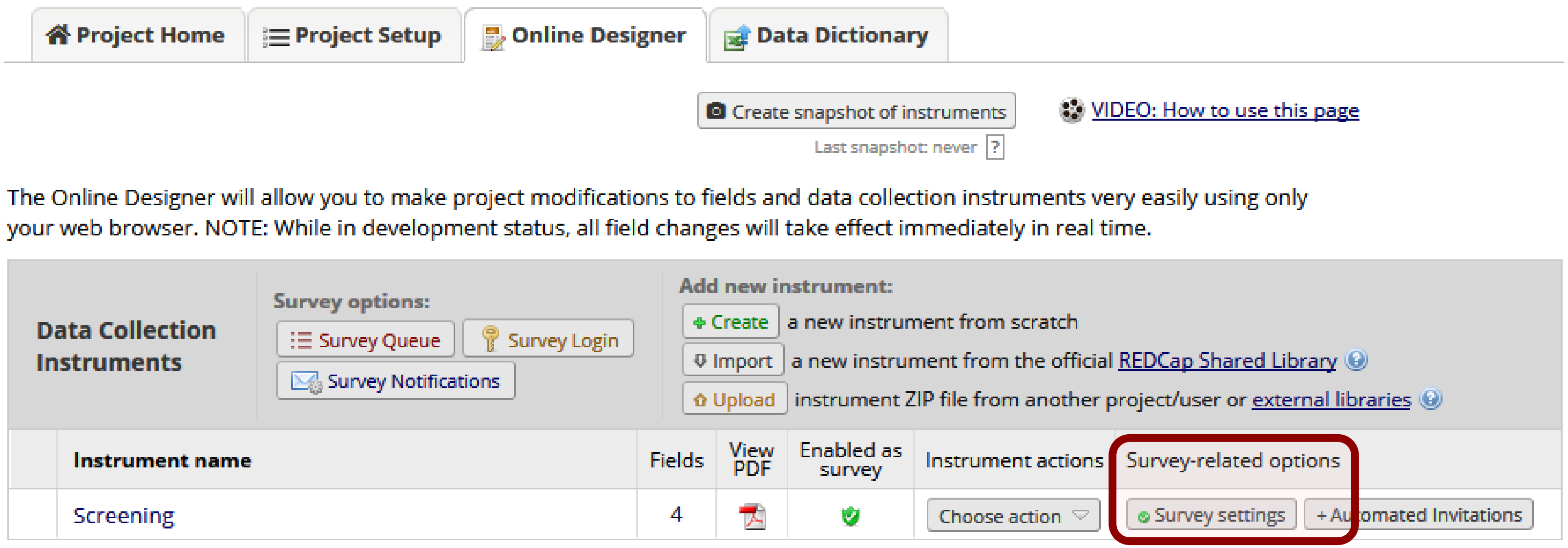


SURVEY TERMINATION OPTIONS

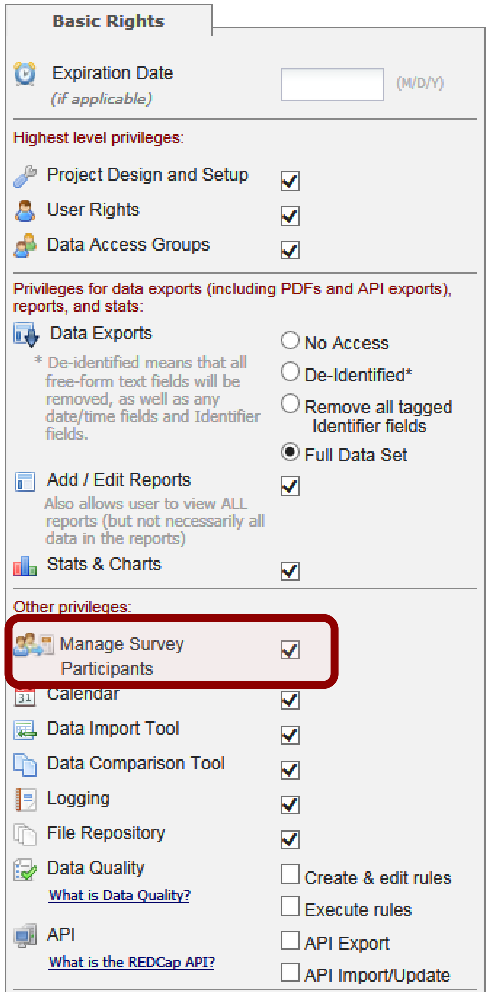


EDITING SURVEY SETTINGS

To edit your survey settings, click on **Survey Settings** under **Survey-related options**.



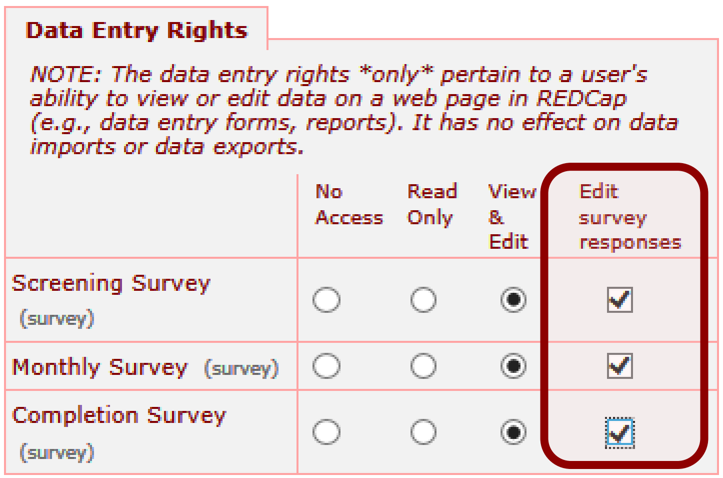
USER RIGHTS FOR MANAGING SURVEYS



To allow a study team member to manage surveys (add participants, send emails, etc), assign them the user right:

Manage Survey Participants

USER RIGHTS FOR EDITING SURVEYS

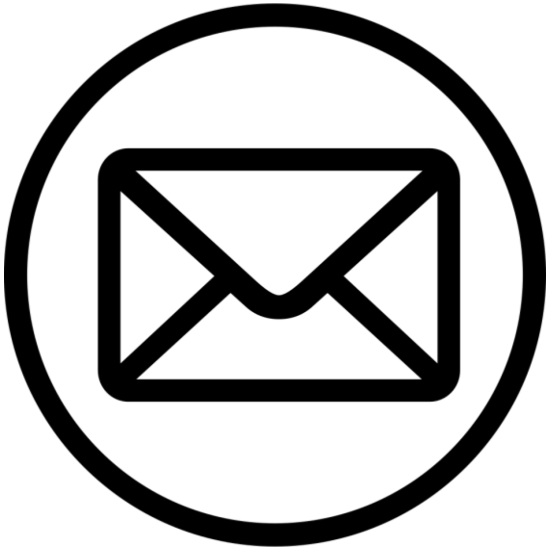


To allow a study team member to edit survey responses or delete surveys, assign them the user right called:

Edit Survey Responses

TESTING IS CRITICAL!

- **Send** yourself the survey just as you would sent it to your participants.
- Make sure all the **settings** and **format** are correct.
- Export the test data to preview your **data analysis**, and modify the survey questions if needed.
- Once testing is complete, request the project be moved to **production**.
- **DO NOT SEND SURVEY EMAILS UNTIL PROJECT HAS BEEN MOVED TO PRODUCTION!**



Sending Surveys

PUBLIC SURVEY LINK VS PARTICIPANT LIST

PUBLIC SURVEY LINK

Participant emails unknown beforehand.

Participants all use the same survey link.

Emails sent via Outlook, not within REDCap.

Great for listservs or posting on flyers or websites.

PARTICIPANT LIST

Participants emails known beforehand.

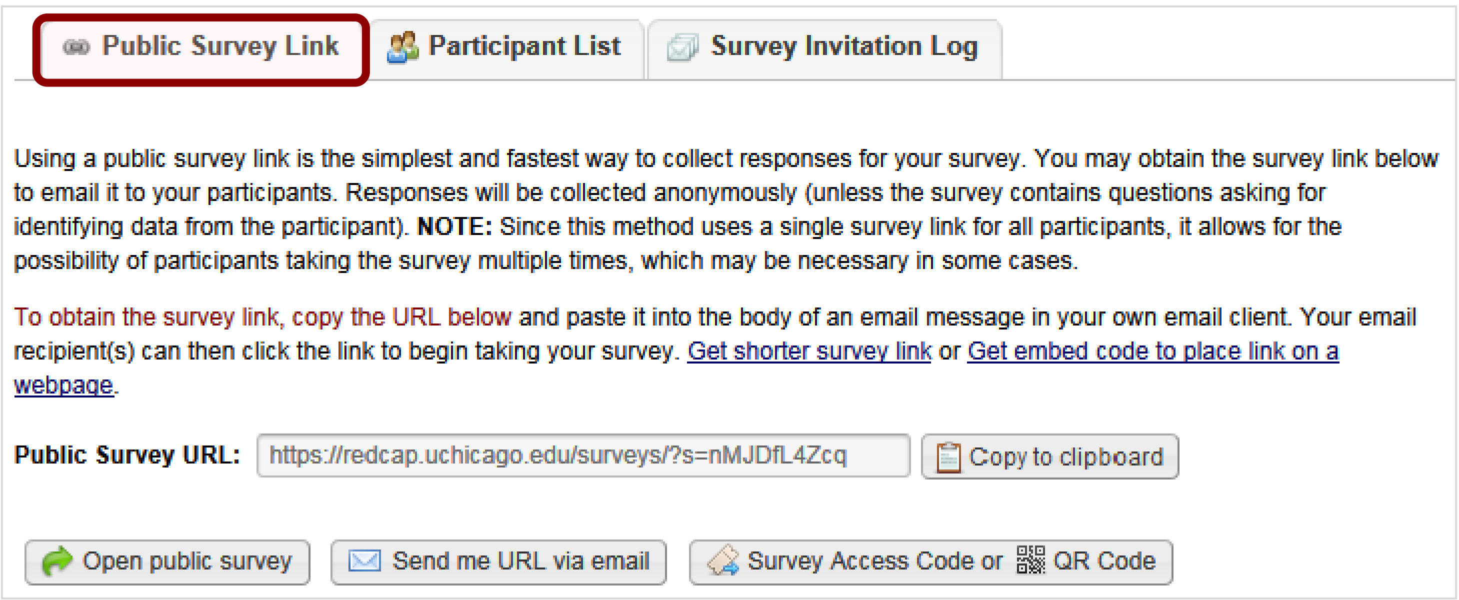
Each participant receives unique, one time use link.

Emails sent through REDCap to participant email address.

Can track who has or has not responded.

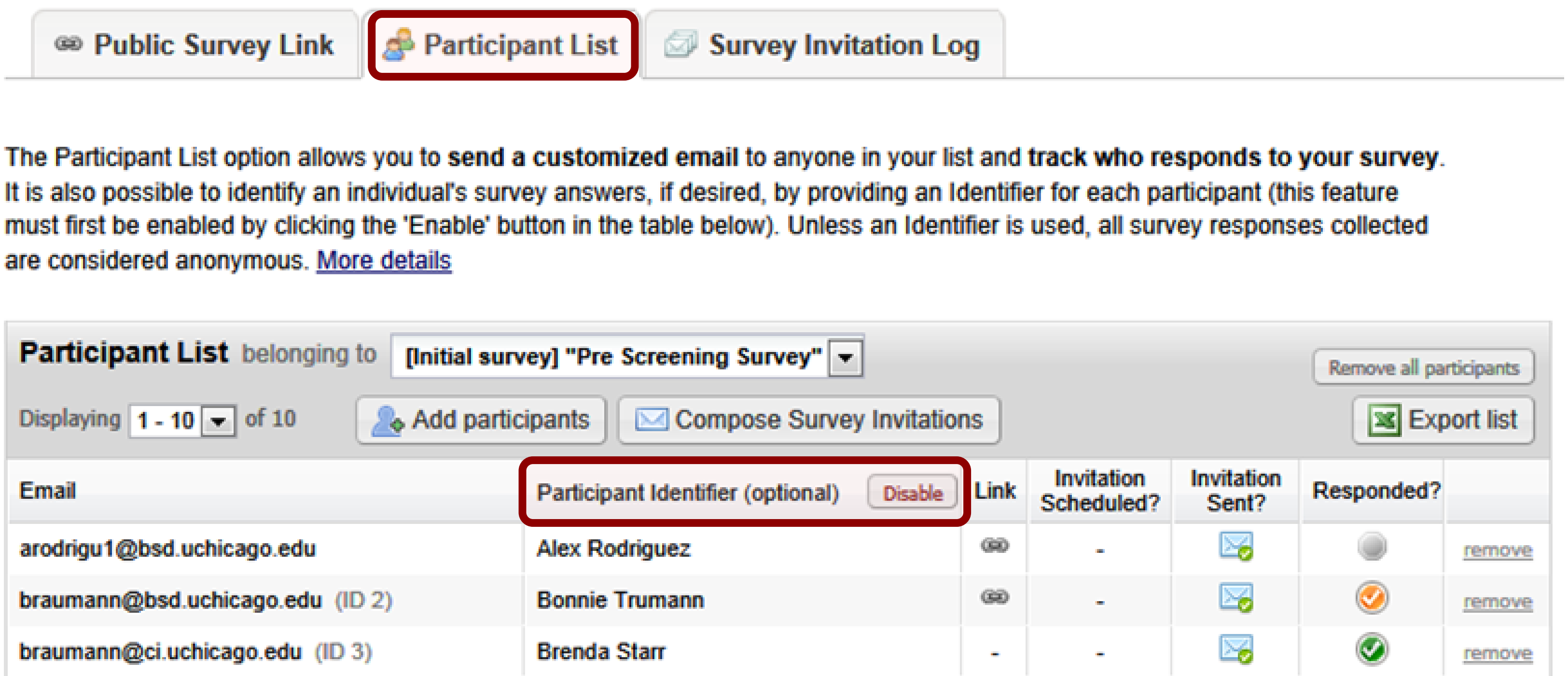
PUBLIC SURVEY LINK

The **Public Survey Link** is the simplest and fastest way to distribute a survey. The link can be published on a webpage, social media platforms, flyers, or sent in an email to a large group.



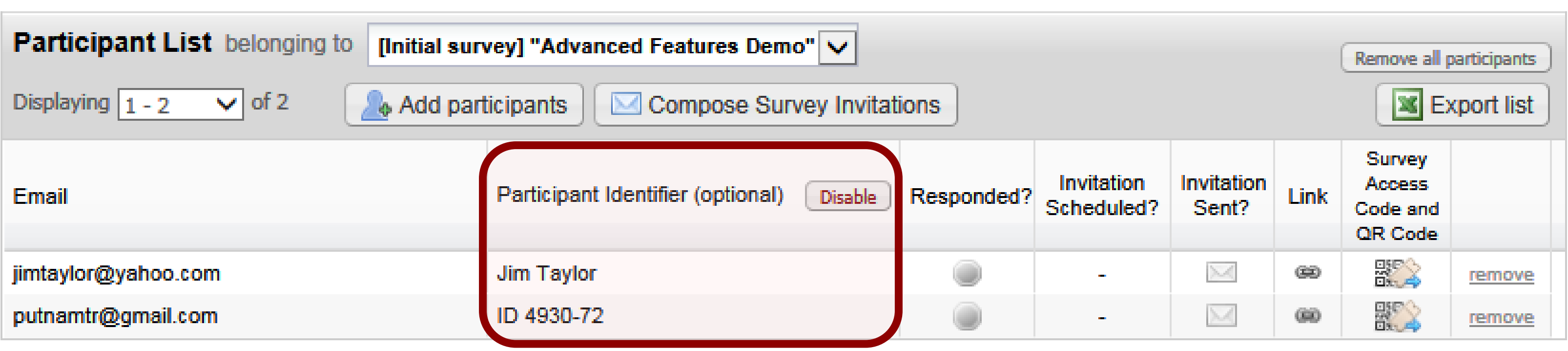
PARTICIPANT LIST

The **Participant List** allows for emailing the survey to your participants. It helps keep track of responses and non-responses.



PARTICIPANT IDENTIFIERS

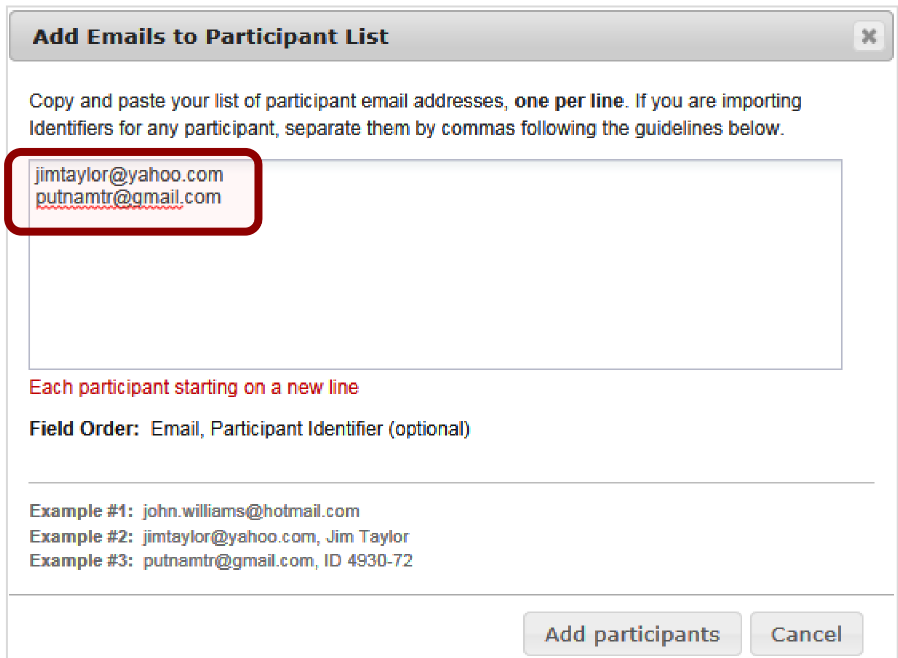
- To keep the survey anonymous, **don't** enable the **Participant Identifier** feature.
- To make the survey non-anonymous, enable the **Participant Identifier** feature.
- The **Participant Identifier** may be the participant's name, an ID number, or whatever you would like.
- It is **not the same** as the project's main primary identifier (Record Number, Record ID, Study ID, MRN).
- The **Participant Identifier** is can be exported along with the data.



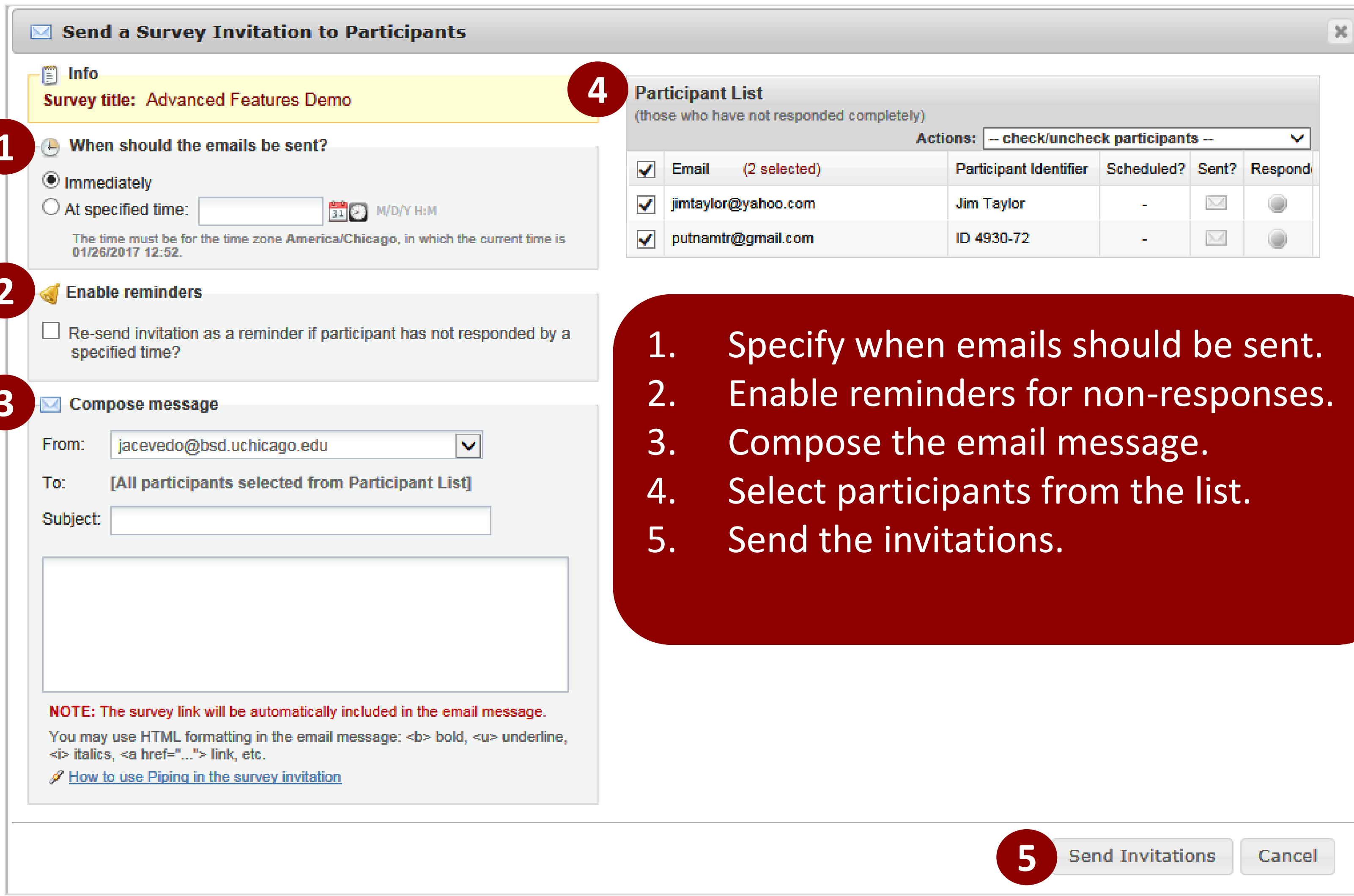
ADDING PARTICIPANTS TO PARTICIPANT LIST

There are different ways of adding participants' email addresses to the **Participant List**:

1. For few participants, manually type in.
2. For many participants, cut-and-paste in.



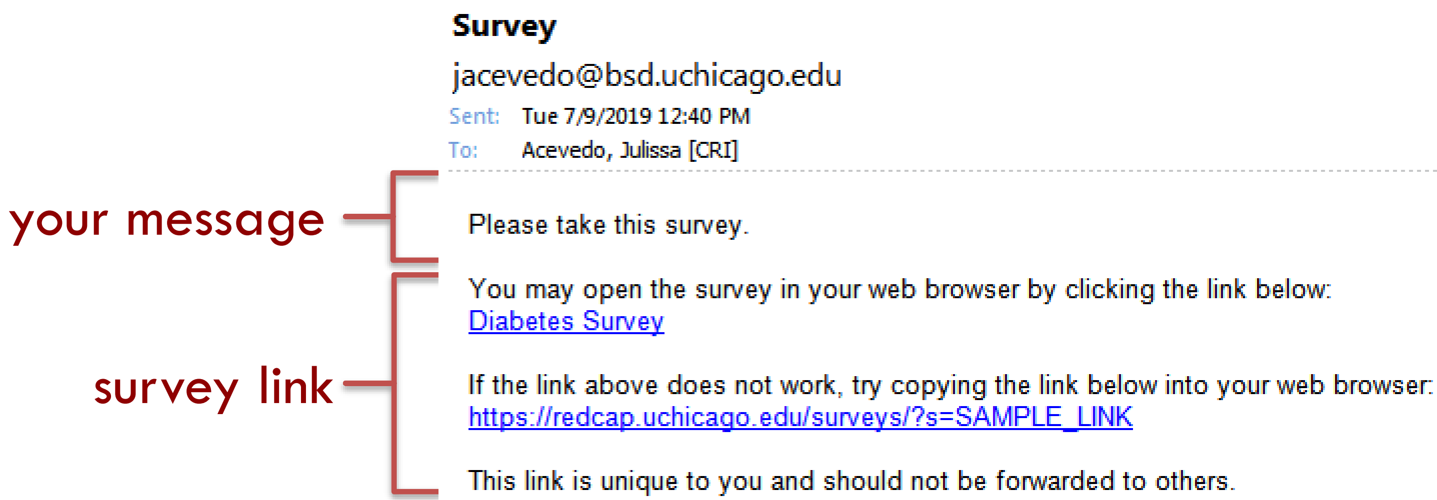
COMPOSE SURVEY INVITATIONS



1. Specify when emails should be sent.
2. Enable reminders for non-responses.
3. Compose the email message.
4. Select participants from the list.
5. Send the invitations.

SURVEY INVITATION MESSAGE AND LINK

A section for the unique survey link will be appended to the end of your email message:



Survey
jacevedo@bsd.uchicago.edu
Sent: Tue 7/9/2019 12:40 PM
To: Acevedo, Julissa [CRI]

Please take this survey.

You may open the survey in your web browser by clicking the link below:
Diabetes Survey

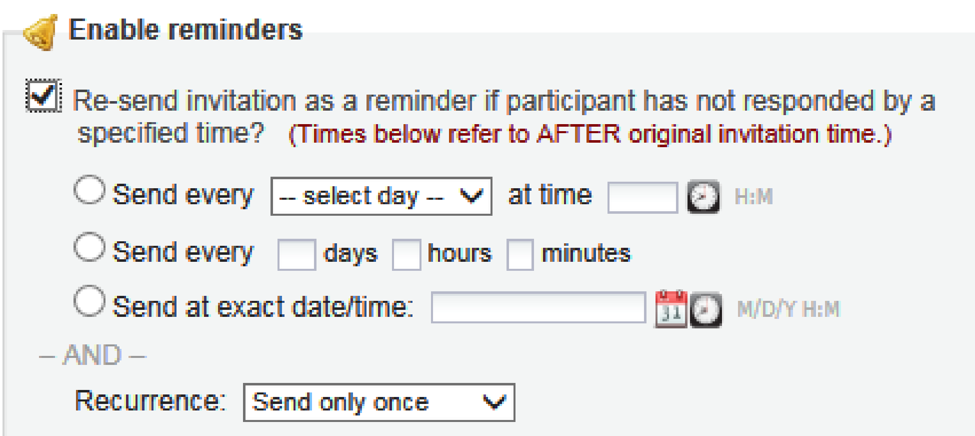
If the link above does not work, try copying the link below into your web browser:
https://redcap.uchicago.edu/surveys/?s=SAMPLE_LINK

This link is unique to you and should not be forwarded to others.

NOTE: *You may modify or remove any text you wish above but make sure you include either [survey-link] or [survey-url] in the text or else the participant will not have a way to take the survey.*

NON-RESPONSE REMINDERS

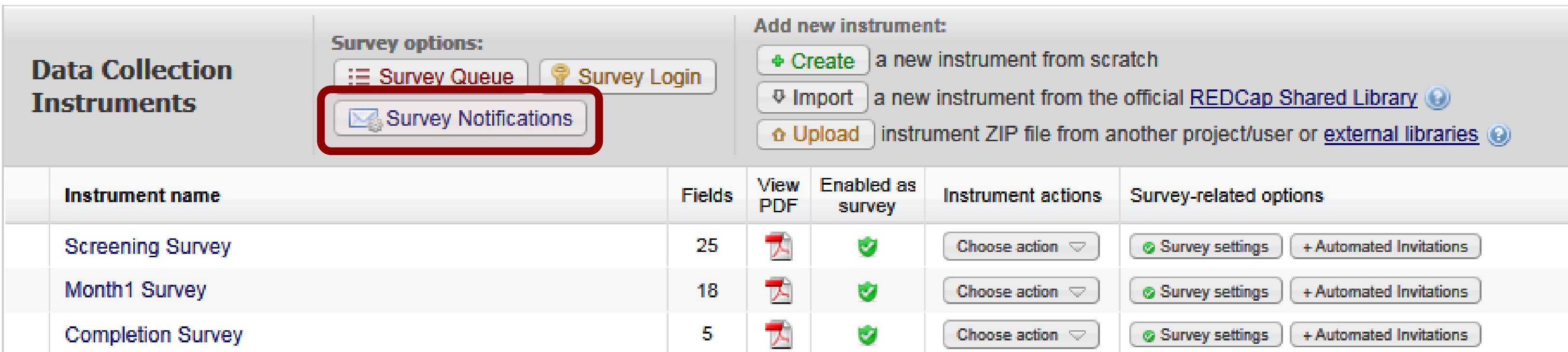
1. Survey reminders can only be setup while composing survey invitations.
2. They cannot be setup after invitations have been sent.
3. They can be sent on specific days of the week, or every X days, or at an exact date/time.
4. Up to 2-5 reminders can be scheduled.



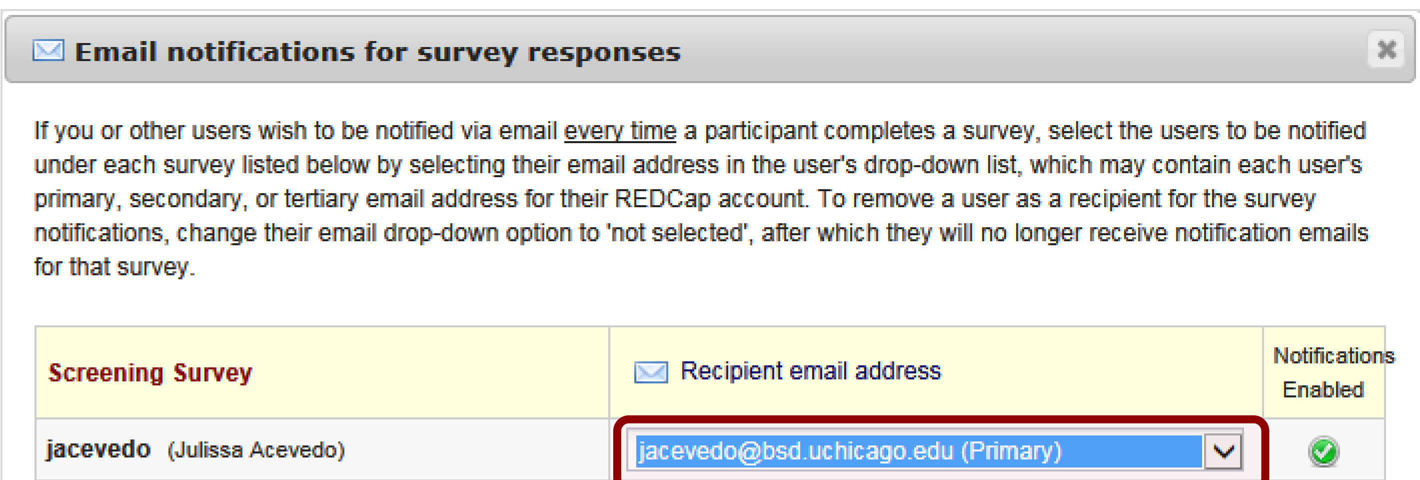
Tracking Surveys

SURVEY NOTIFICATIONS

1. Go to **Online Designer** and click on **Survey Notifications**.



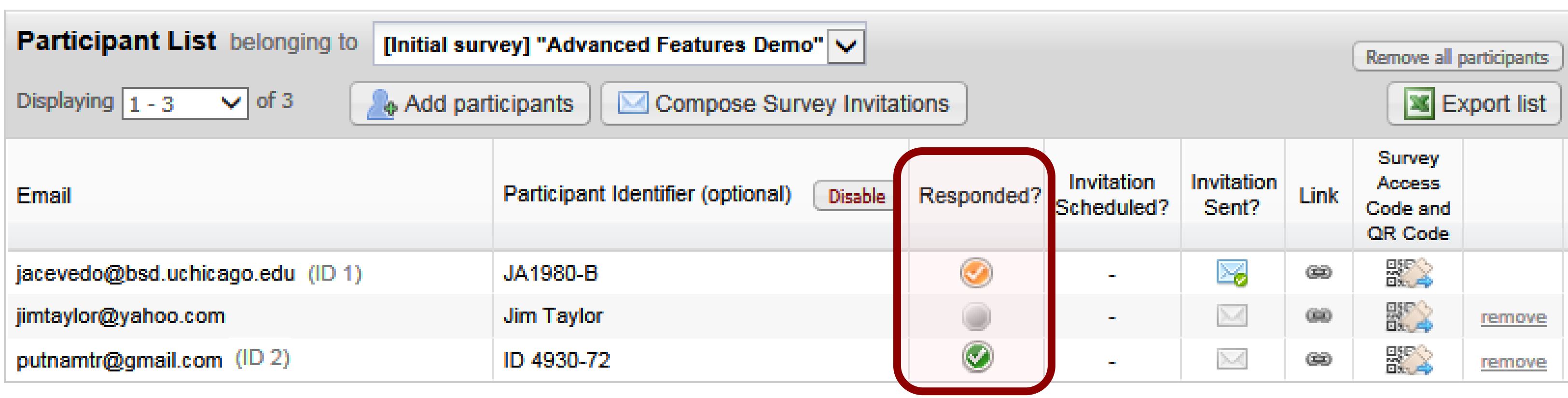
2. Select the survey and select the email address.



TRACKING SURVEYS VIA THE PARTICIPANT LIST

Surveys responses can be tracked on the **Participant List** according to:

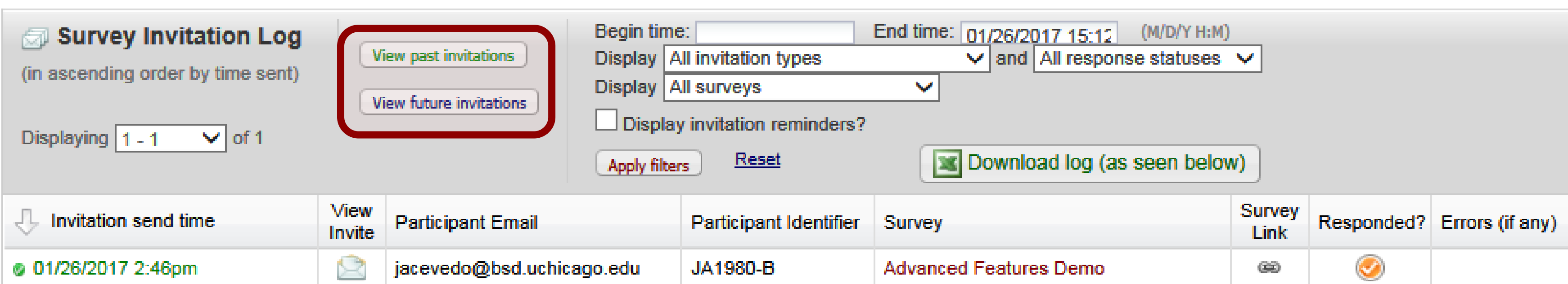
- **Complete** – participant submitted the survey
- **Incomplete** – participant started but hasn't submitted the survey
- **No Action** – participant has not started the survey



TRACKING SURVEYS VIA THE SURVEY INVITATION LOG

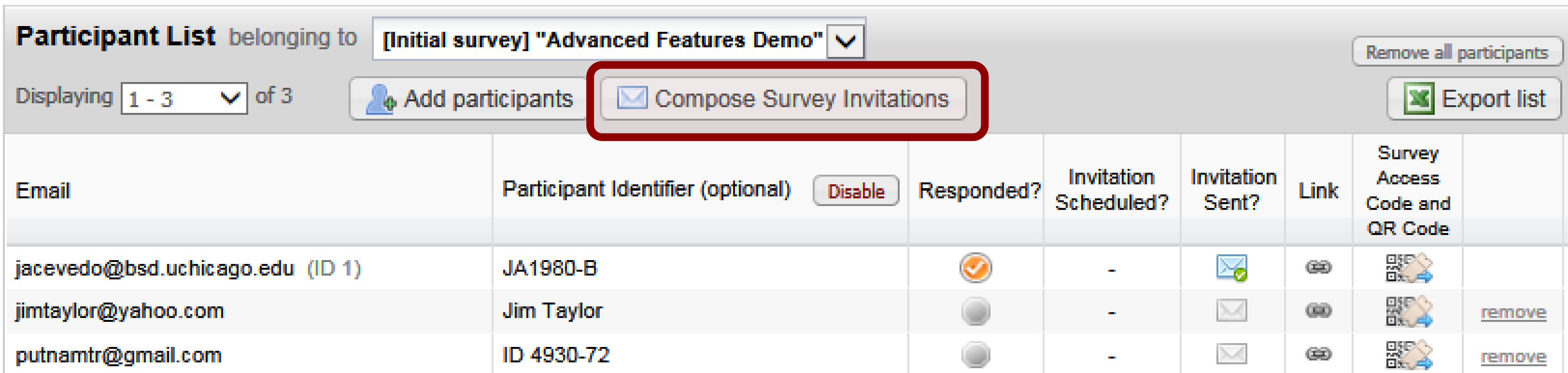
- The **Survey Invitation Log** lists survey invitations that have already been sent or have been scheduled to be sent to survey participants.

- You may even view the invitation email itself by clicking the icon in the 'View Email' column.



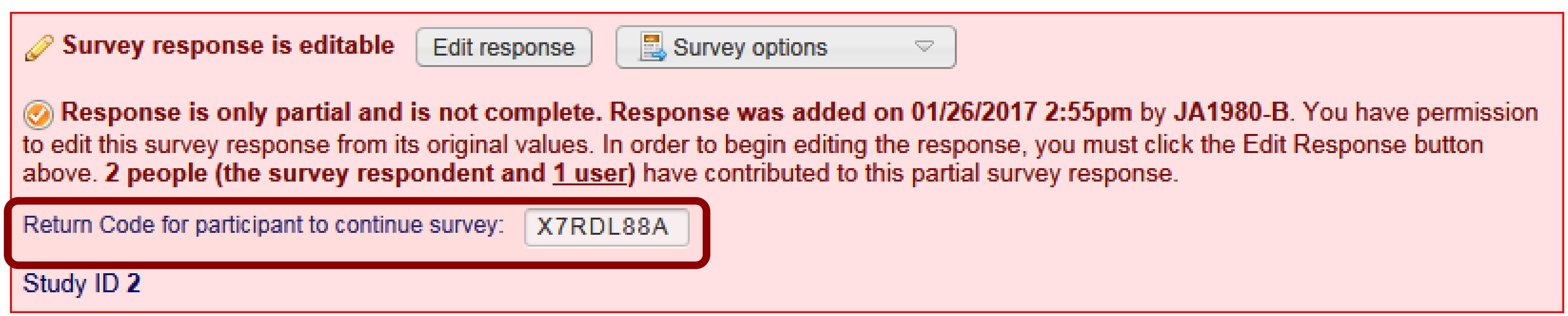
PARTIAL RESPONSES

For **Partial Responses**, you can use **Compose Survey Invitations** from the **Participant List** to send them a reminder email.



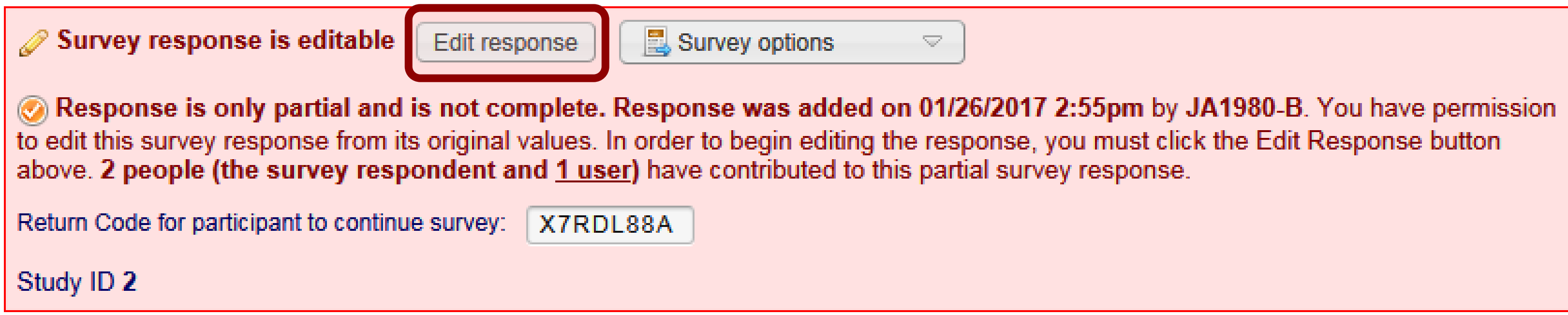
Email	Participant Identifier (optional) Disable	Responded?	Invitation Scheduled?	Invitation Sent?	Link	Survey Access Code and QR Code	
jacevedo@bsd.uchicago.edu (ID 1)	JA1980-B		-				
jimtaylor@yahoo.com	Jim Taylor		-				remove
putnamtr@gmail.com	ID 4930-72		-				remove

If participants don't remember their **Save-and-Return** code, you can retrieve it from their survey record.

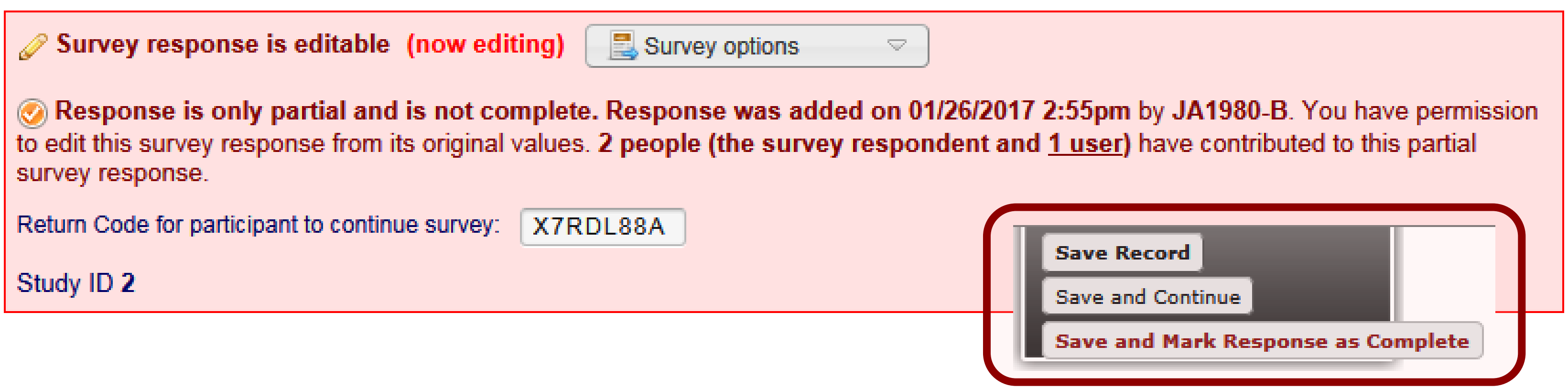


EDITING RESPONSES

1. User must have **Edit Survey Responses** user rights.
2. To edit a response, open record and click **Edit Response** at top of survey.



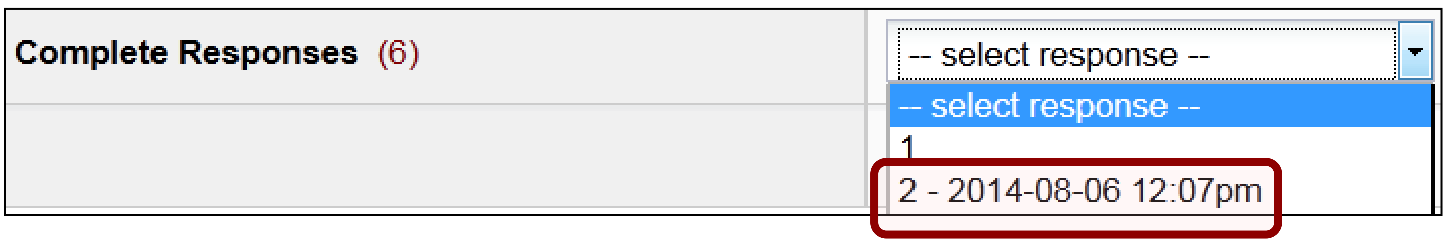
3. Make the changes, and **save** the record.



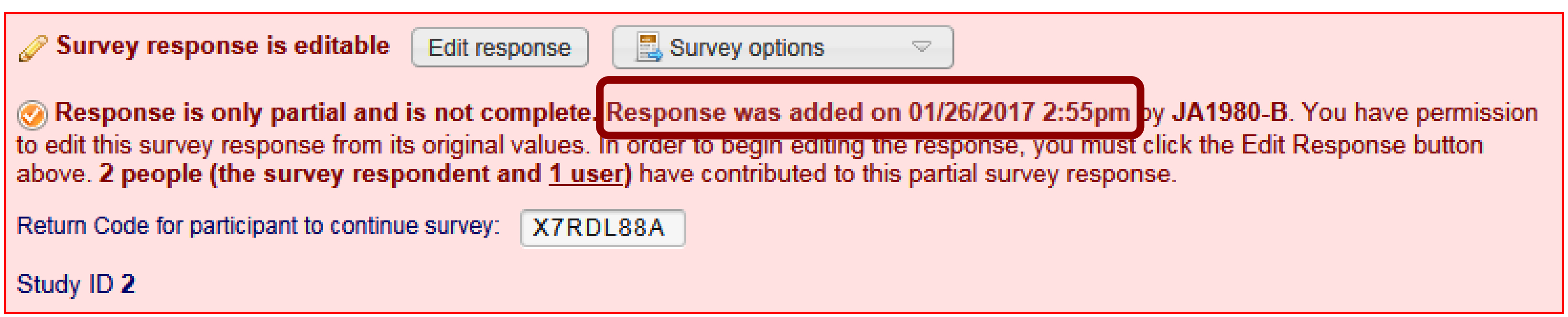
SURVEY TIMESTAMPS

Survey responses get timestamped when the survey's **Submit** button is clicked on by the participant.

Timestamps appear on the Add/Edit record selector.



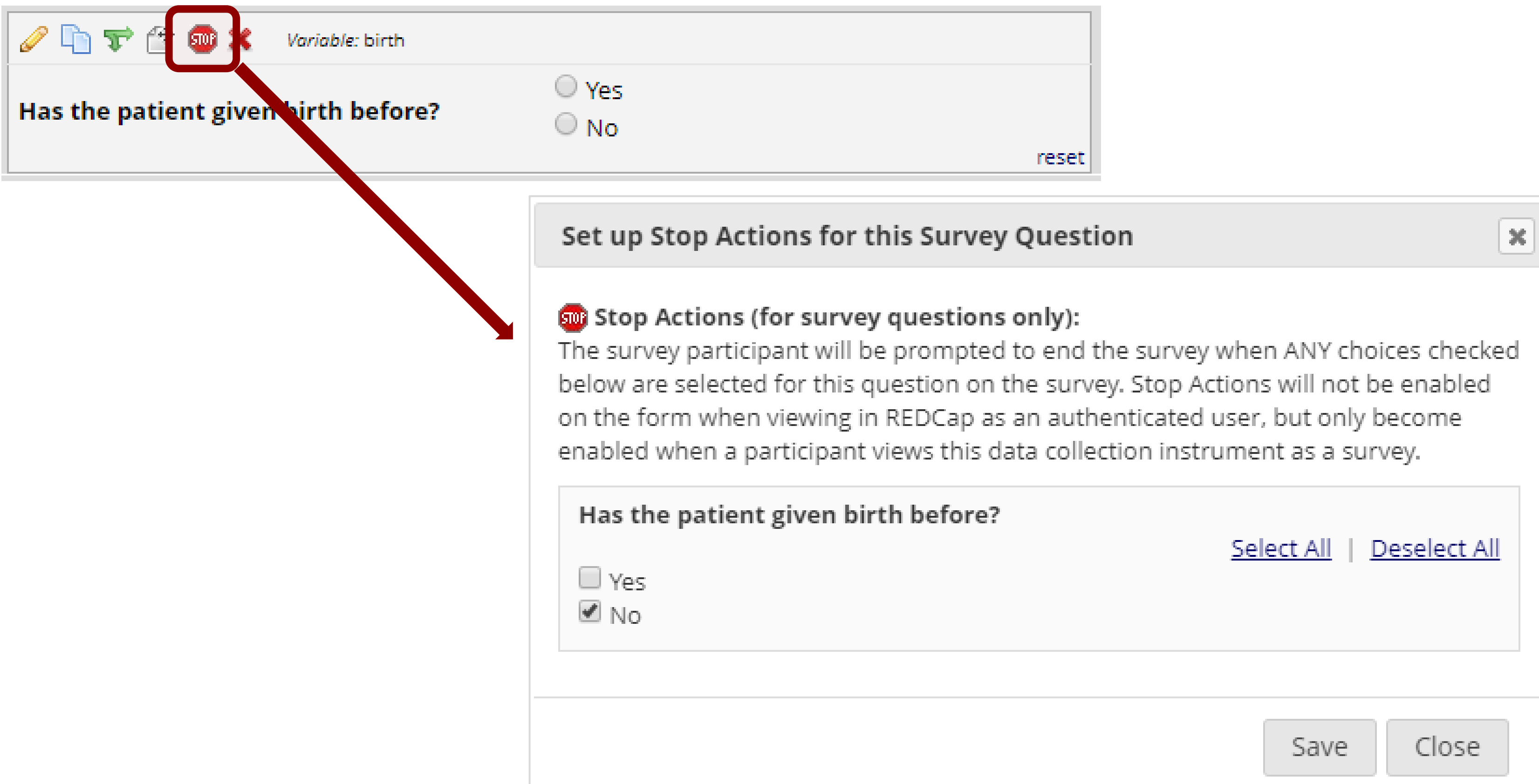
As well as the survey record.



Survey Features

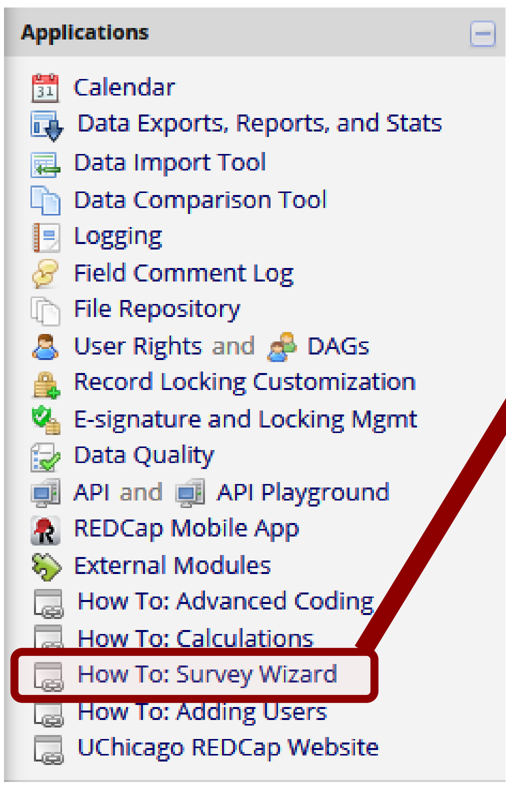
SURVEY STOP ACTION

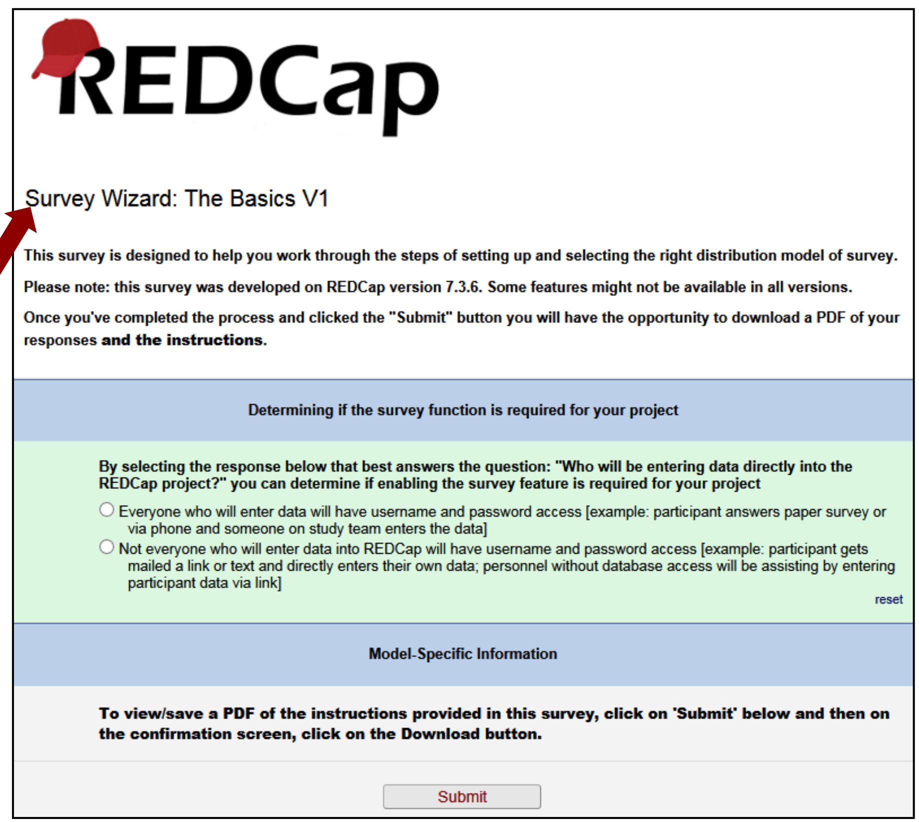
Stop Actions prompt the participant to end the survey when certain field choices are selected.
Only selection fields have this option.
Click the **Stop Sign icon** and select the stop choice.



SURVEY WIZARD

The **Survey Wizard** is located under the Applications menu. This survey is designed to help you work through the steps of setting up and selecting the right distribution model of survey.





MULTIPLE SURVEYS

Create multiple surveys in the same project.

Project Home | Project Setup | Online Designer | Data Dictionary

VIDEO: How to use this page

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

Survey options: Survey Queue | Survey Login | Survey Notifications

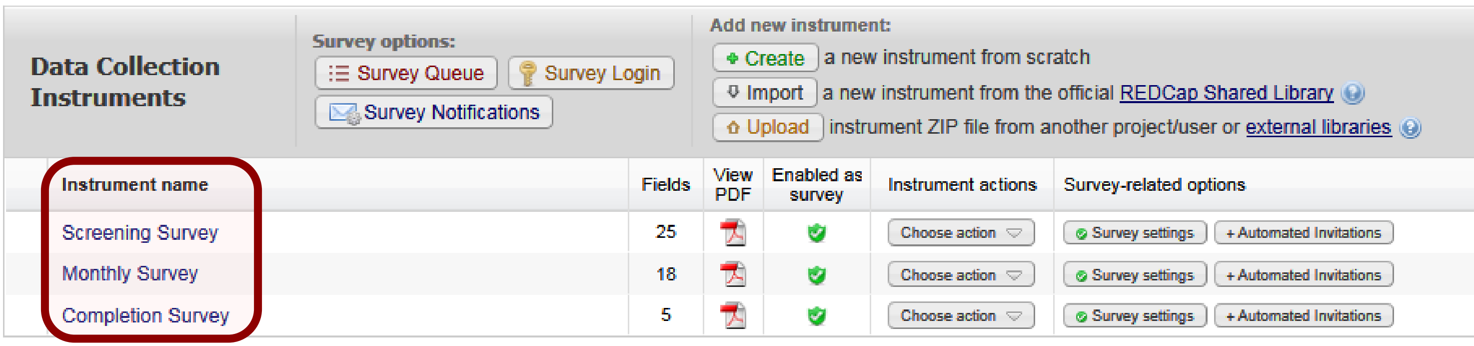
Add new instrument:
- Create a new instrument from scratch
- Import a new instrument from the official REDCap Shared Library
- Upload instrument ZIP file from another project/user or external libraries

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey-related options
Screening Survey	25			Choose action	Survey settings, + Automated Invitations
Month 1 Survey	18			Choose action	Survey settings, + Automated Invitations
Month 2 Survey	18			Choose action	Survey settings, + Automated Invitations
Month 3 Survey	18			Choose action	Survey settings, + Automated Invitations
Completion Survey	5			Choose action	Survey settings, + Automated Invitations

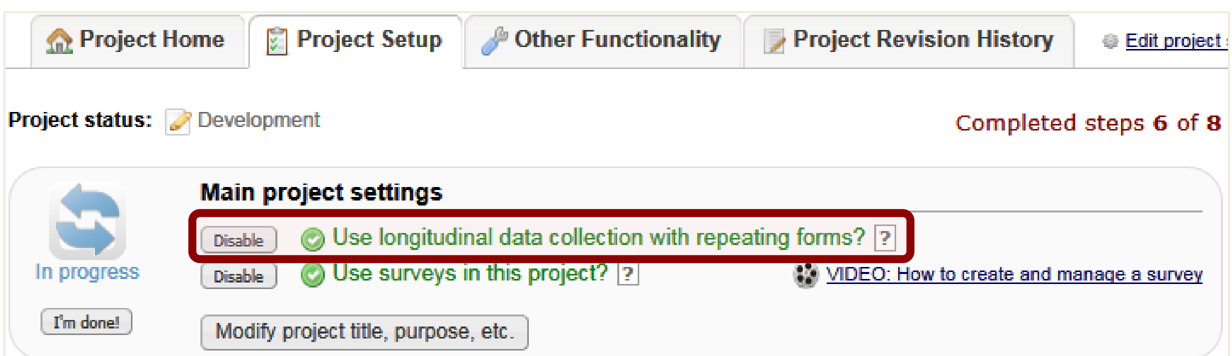
LONGITUDINAL SURVEYS

Instead of creating the same survey as multiple instruments, the survey can be made repeatable.

1. Setup the survey instruments.



2. Enable the longitudinal feature.



LONGITUDINAL SURVEYS

3 Setup the events.

Arm 1: Screening | +Add New Arm

Arm name: **Screening**

	Event #	Event Name	Unique event name (auto-generated)
	1	Screening	screening_arm_1
	2	Month 1	month_1_arm_1
	3	Month 2	month_2_arm_1
	4	Month 3	month_3_arm_1
	5	Completion	completion_arm_1
Add new event		Descriptive name for this event	

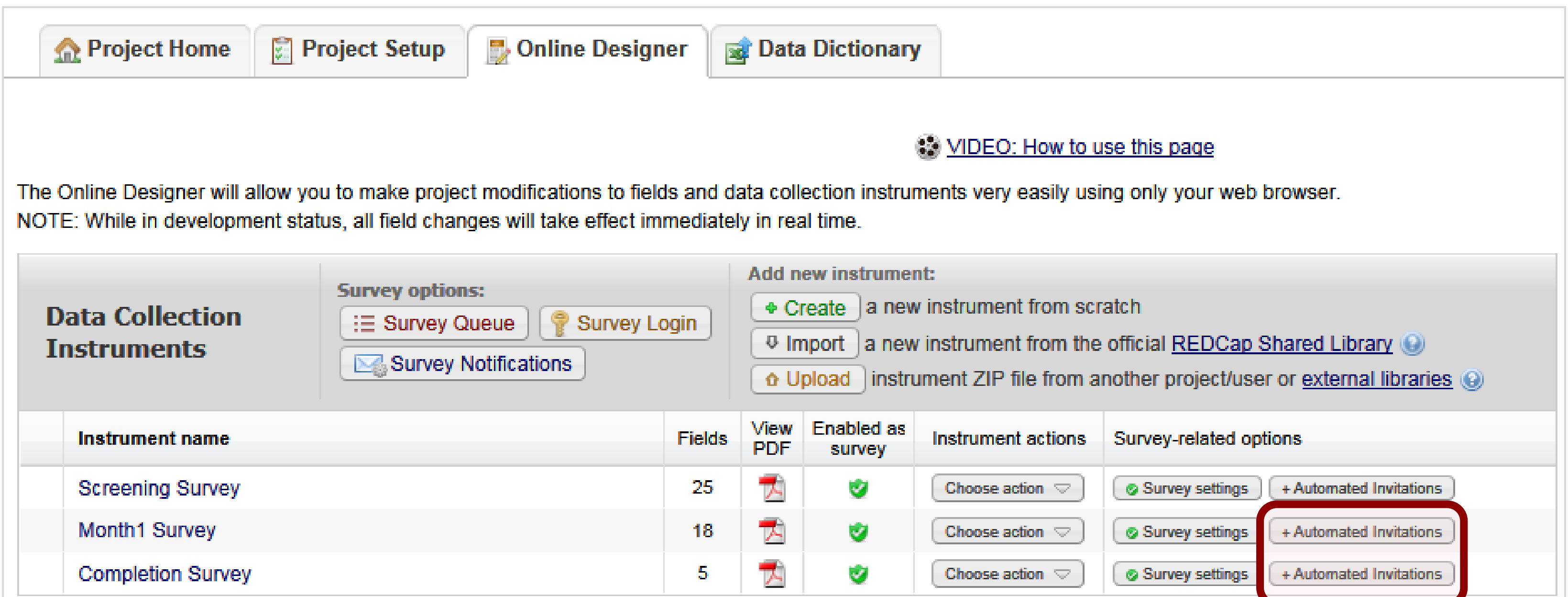
4 Assign the surveys to the events.

Data Collection Instrument	Screening (1)	Month 1 (2)	Month 2 (3)	Month 3 (4)	Completion (5)
Screening Survey (survey)	✓				
Monthly Survey (survey)		✓	✓	✓	
Completion Survey (survey)					✓

AUTOMATED SURVEY INVITATIONS

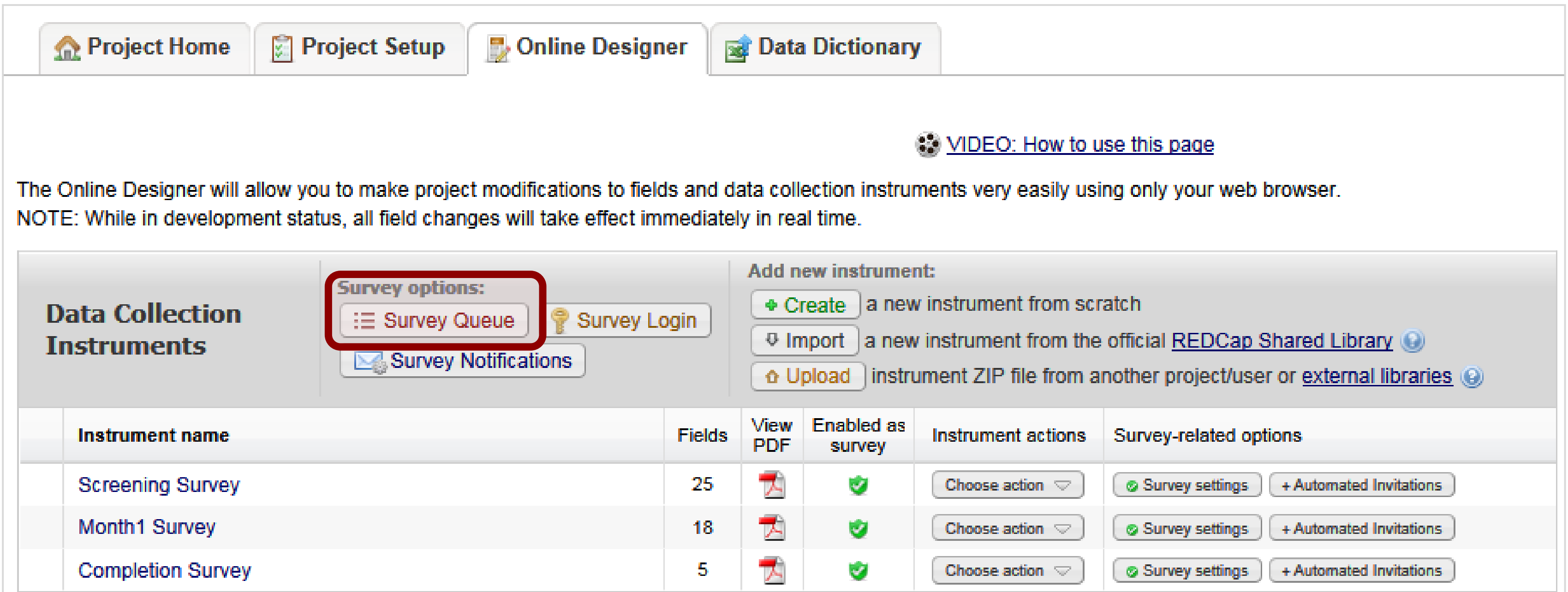
ASIs are similar to composing email invitations, but instead the invites are sent automatically when:

- An earlier survey is completed -or-
- A condition is met



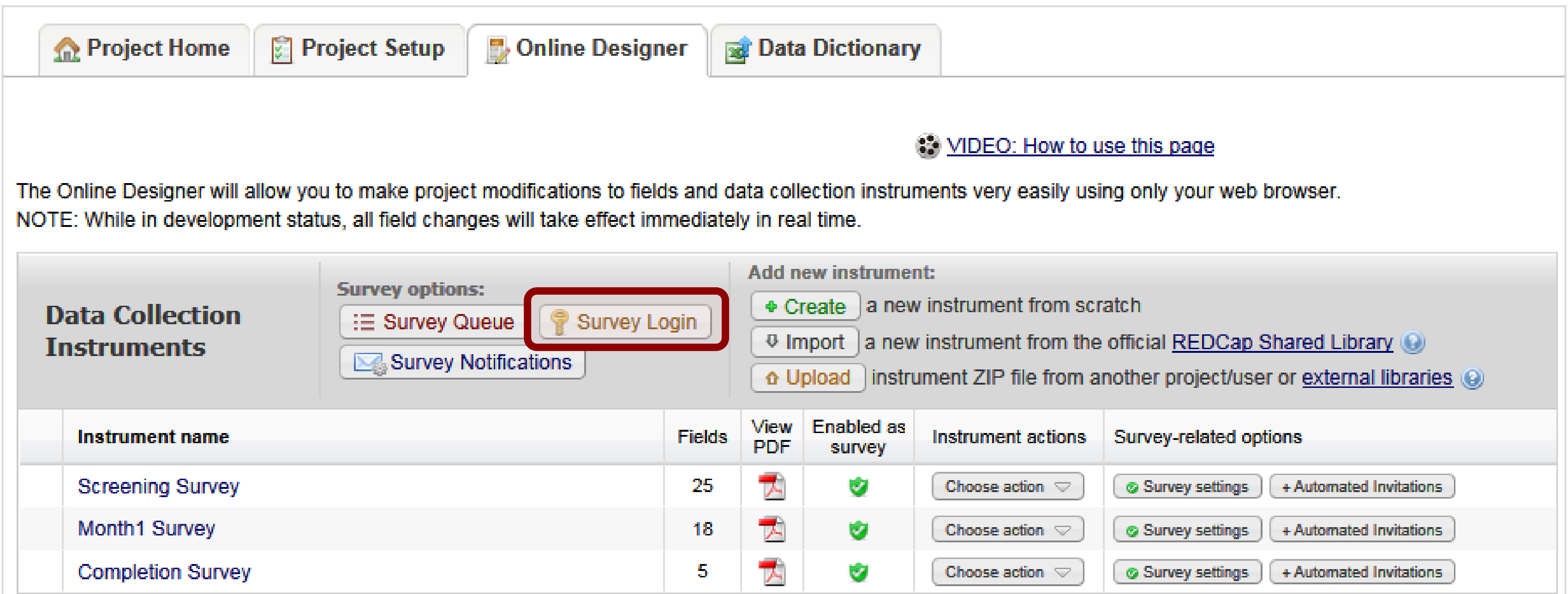
SURVEY QUEUES

The **Survey Queue** is a survey packaging option. It allows for chaining together multiple surveys like a to-do list (using optional logic too).



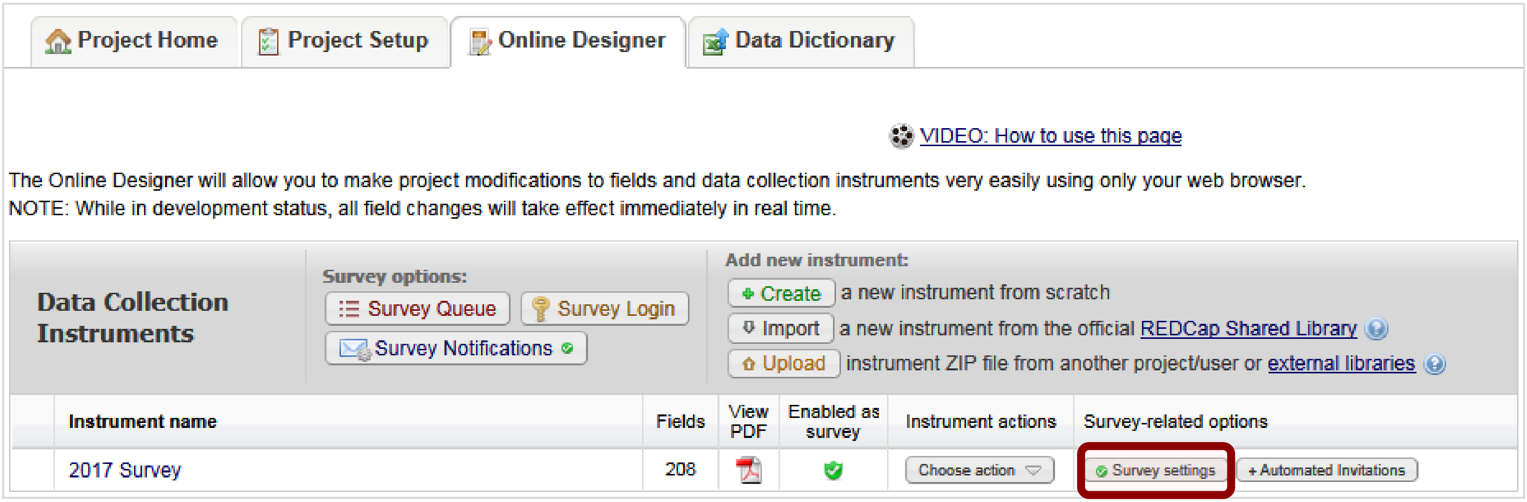
SURVEY LOGINS

The **Survey Login** requires participants to log into the survey before viewing it and completing it.

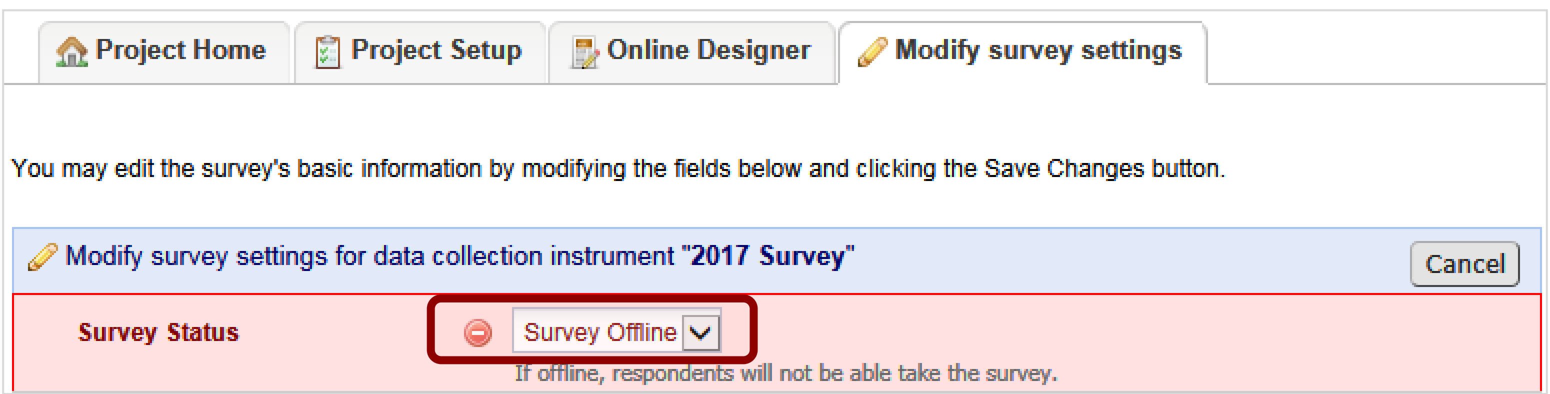


INACTIVATE A SURVEY

1 At **Online Designer,** click on **Survey Settings**.



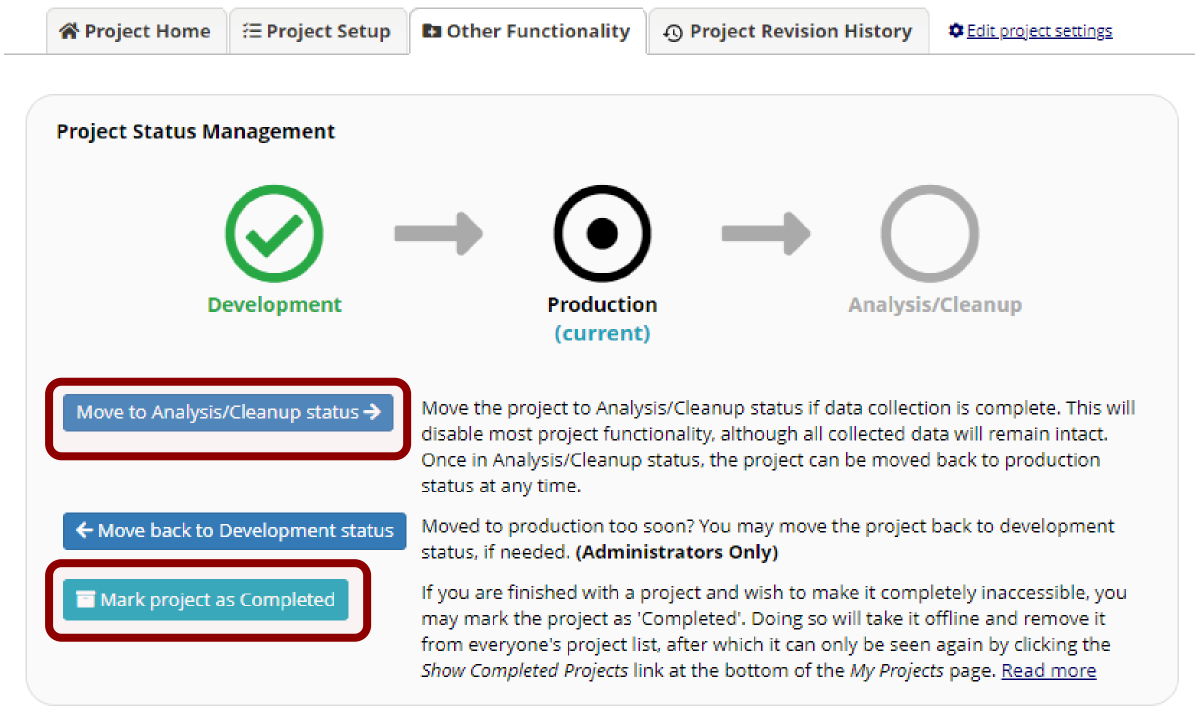
2 At **Survey Status,** set to **Survey Offline**.



MARK PROJECT AS COMPLETED

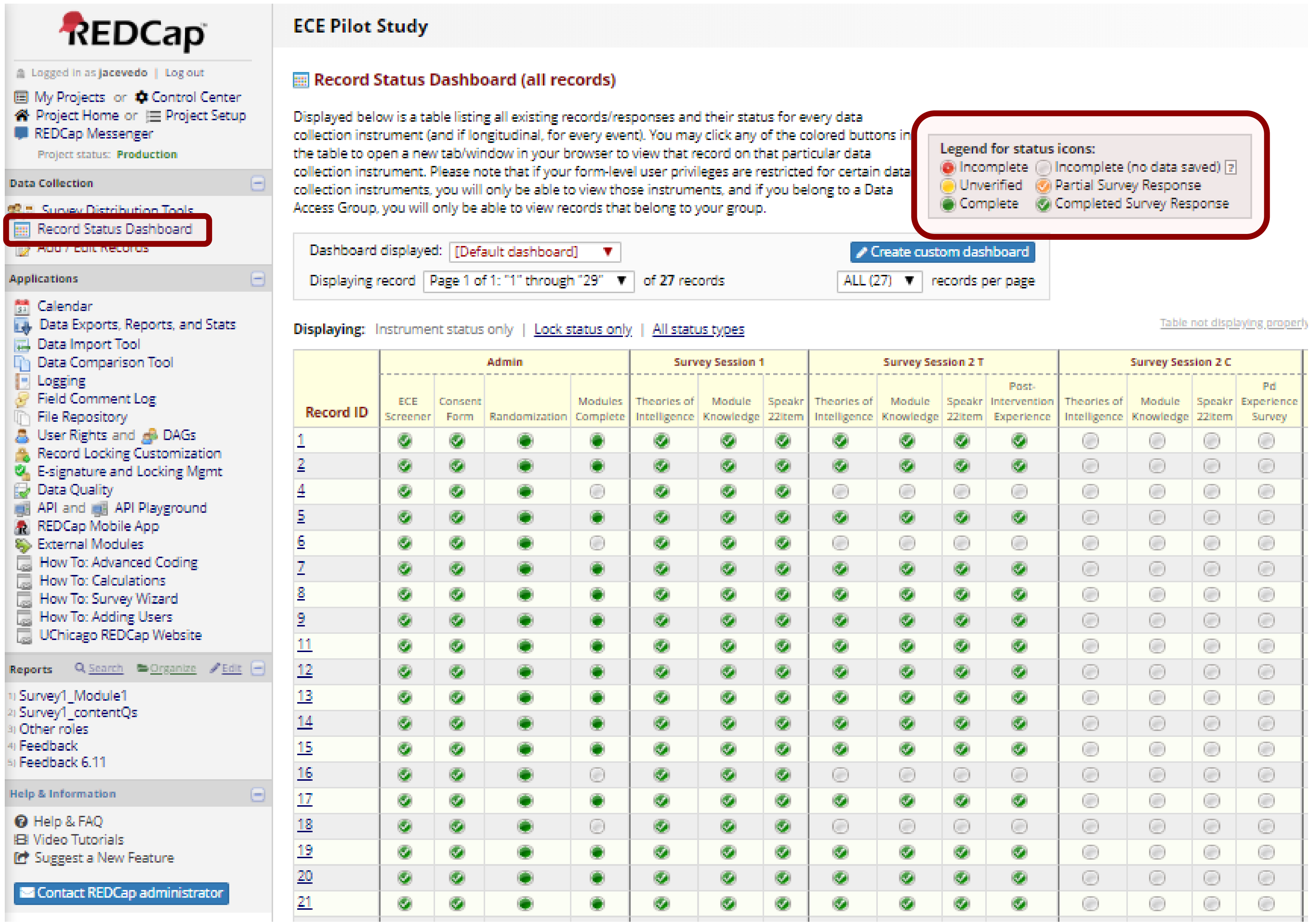
Go to **Other Functionality** tab, and either:

- Move to Analysis/Cleanup – data collection over, project is accessible
- Mark project as Completed – entire study is over, project is hidden

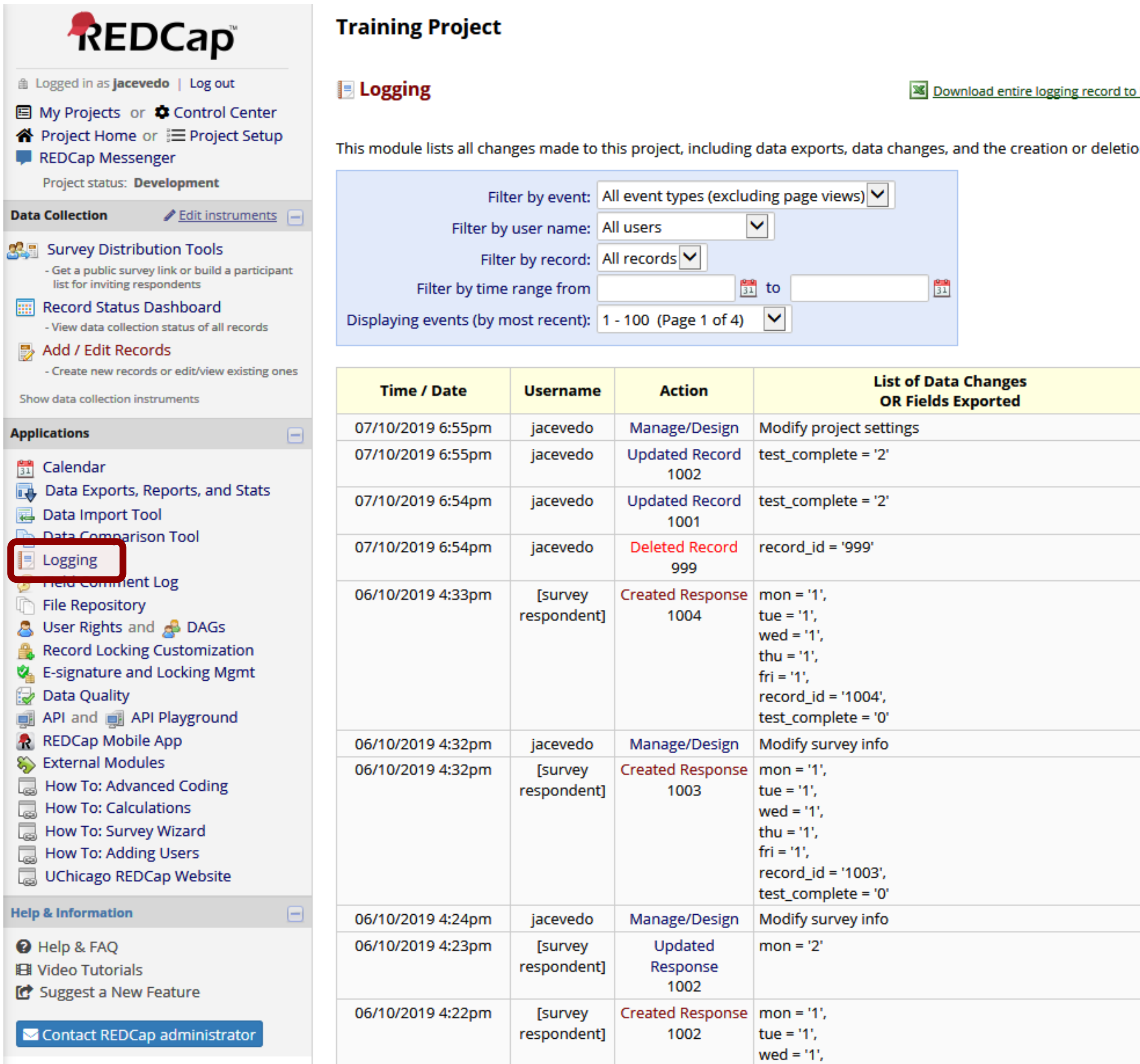


Additional Features

RECORD STATUS DASHBOARD



PROJECT CHANGE LOG



REDCap

Logged in as jacevedo | Log out

My Projects or Control Center
Project Home or Project Setup
REDCap Messenger
Project status: Development

Data Collection Edit instruments

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

Show data collection instruments

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
API and API Playground
REDCap Mobile App
External Modules
How To: Advanced Coding
How To: Calculations
How To: Survey Wizard
How To: Adding Users
UChicago REDCap Website

Help & Information

Help & FAQ
Video Tutorials
Suggest a New Feature

Contact REDCap administrator

Training Project

Logging

Download entire logging record to Microsoft Excel (CSV)

This module lists all changes made to this project, including data exports, data changes, and the creation or deletion of users.

Filter by event: All event types (excluding page views)
Filter by user name: All users
Filter by record: All records
Filter by time range from ___ to ___
Displaying events (by most recent): 1 - 100 (Page 1 of 4)

Time / Date	Username	Action	List of Data Changes OR Fields Exported
07/10/2019 6:55pm	jacevedo	Manage/Design	Modify project settings
07/10/2019 6:55pm	jacevedo	Updated Record 1002	test_complete = '2'
07/10/2019 6:54pm	jacevedo	Updated Record 1001	test_complete = '2'
07/10/2019 6:54pm	jacevedo	Deleted Record 999	record_id = '999'
06/10/2019 4:33pm	[survey respondent]	Created Response 1004	mon = '1', tue = '1', wed = '1', thu = '1', fri = '1', record_id = '1004', test_complete = '0'
06/10/2019 4:32pm	jacevedo	Manage/Design	Modify survey info
06/10/2019 4:32pm	[survey respondent]	Created Response 1003	mon = '1', tue = '1', wed = '1', thu = '1', fri = '1', record_id = '1003', test_complete = '0'
06/10/2019 4:24pm	jacevedo	Manage/Design	Modify survey info
06/10/2019 4:23pm	[survey respondent]	Updated Response 1002	mon = '2'
06/10/2019 4:22pm	[survey respondent]	Created Response 1002	mon = '1', tue = '1', wed = '1',

DATA DICTIONARY CODEBOOK

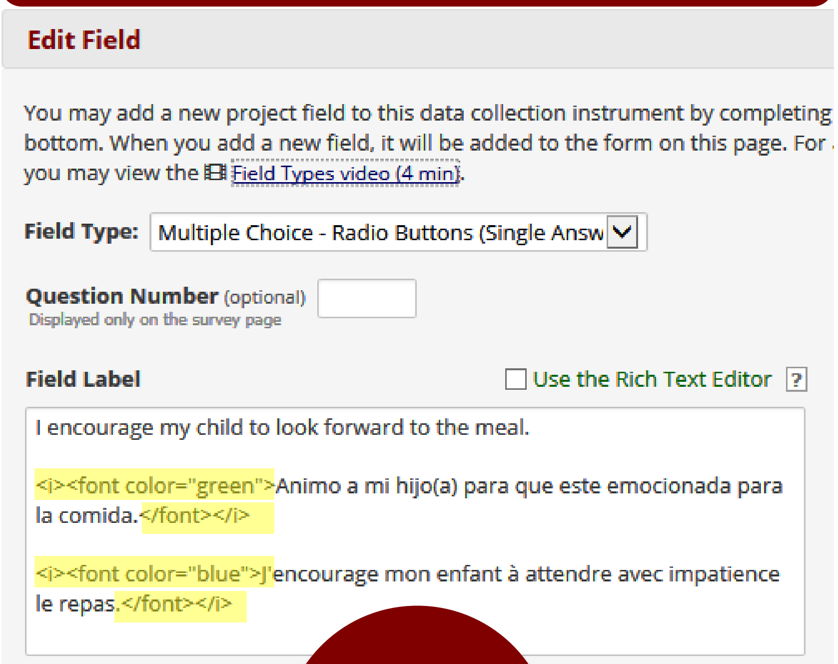
Print page

Data Dictionary Codebook

	#	Variable / Field Name	Field Label *Field Note*	Field Attributes (Field Type, Validation, Choices, Calculations, etc.)
Instrument: **Screening** (screening)				
	1	study_id	Study ID	text
	2	date_enrolled	Section Header: *Consent Information* Date subject signed consent *YYYY-MM-DD*	text (date_ymd)
	3	patient_document	Upload the patient's consent form	file
	4	first_name	Section Header: *Contact Information* First Name	text, Identifier
	5	last_name	Last Name	text, Identifier
	6	address	Street, City, State, ZIP	notes, Identifier
	7	telephone	Phone number *Include Area Code*	text (phone), Identifier
	8	email	E-mail	text (email), Identifier
	9	dob	Section Header: *Demographics* Date of birth	text (date_ymd), Identifier
	10	age	Age (years)	calc Calculation: rounddown(datediff([dob],'today','y'))
	11	ethnicity	Ethnicity	radio 0 Hispanic or Latino 1 NOT Hispanic or Latino 2 Unknown / Not Reported Custom alignment: LH
	12	race	Race	dropdown 0 American Indian/Alaska Native 1 Asian 2 Native Hawaiian or Other Pacific Islander 3 Black or African American 4 White 5 More Than One Race 6 Unknown / Not Reported

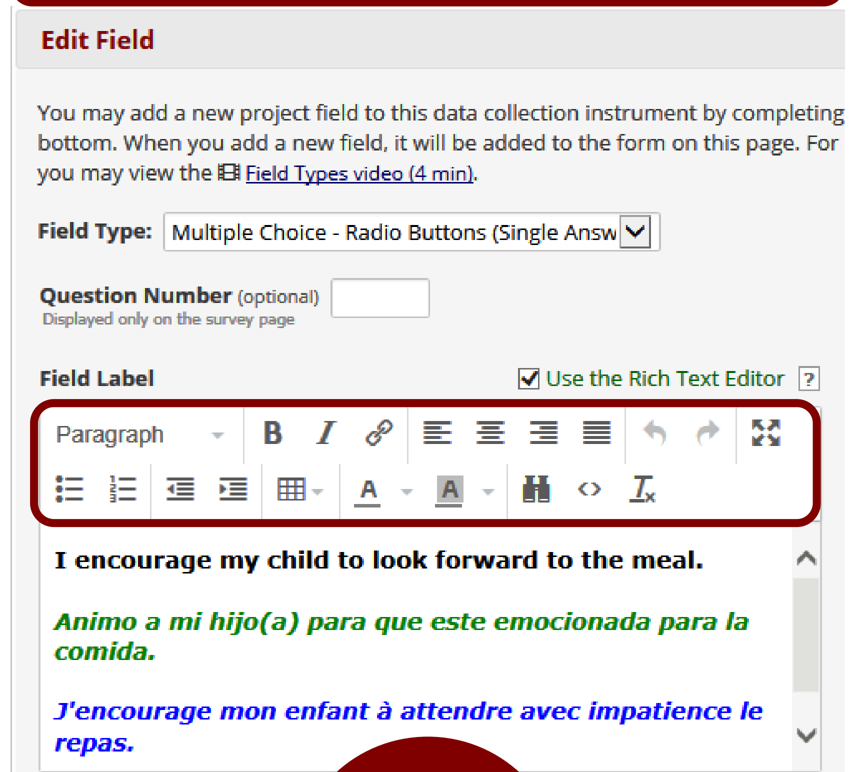
RICH TEXT EDITOR

Previously…



HTML needed

Today…



no HTML needed

MISSING DATA CODES

Project Setup > Enable optional modules > Additional Customizations

Additional customizations

Missing Data Codes: Set up your missing data codes for this project

Fields that have a blank/missing value may be marked with a custom 'Missing Data Code' to note why the value is blank. These missing codes may be used to aid in data analysis by specifying why a field lacks a value. To enable this feature below, enter both the codes AND their labels for all the categories of missing data that you wish to use in this project. The missing codes should be coded just like the choices of a multiple choice field with *code + comma + label*, in which the codes can only have letters, numbers, dots, dashes, and underscores (e.g., '-999, Not asked' or 'UNK, Unknown'). If no codes are entered, this feature will remain disabled.

Read more detailed instructions.

Missing Data Codes

NI, No information

choose and add codes

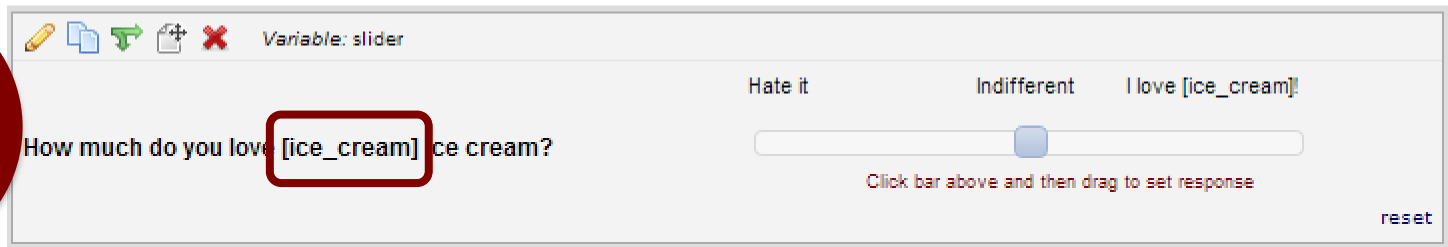
Add code from standardized list of missing data codes (optional suggestions):

Add	NI	No information
Add	INV	Invalid
Add	UNK	Unknown
Add	NASK	Not asked
Add	ASKU	Asked but unknown
Add	NAV	Temporarily unavailable

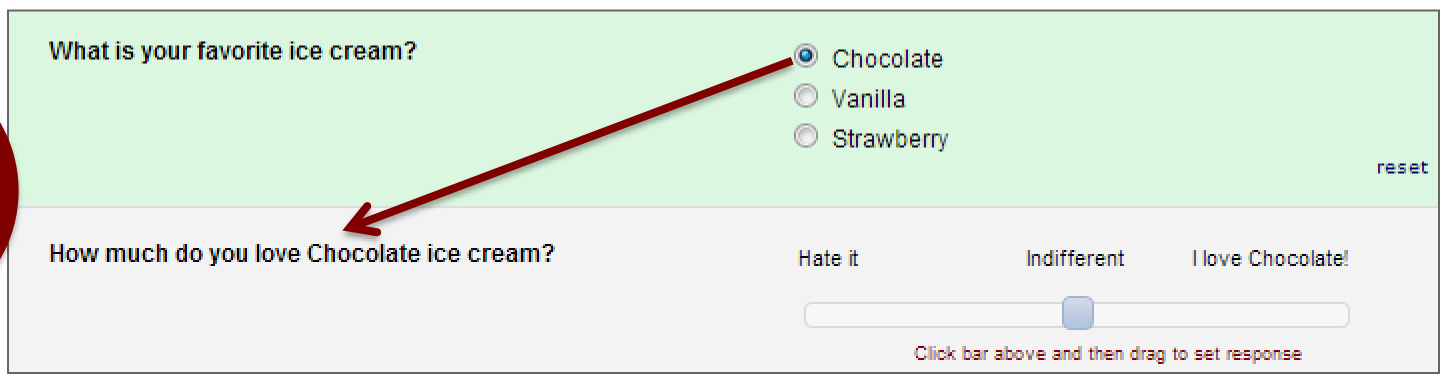
PIPING

before

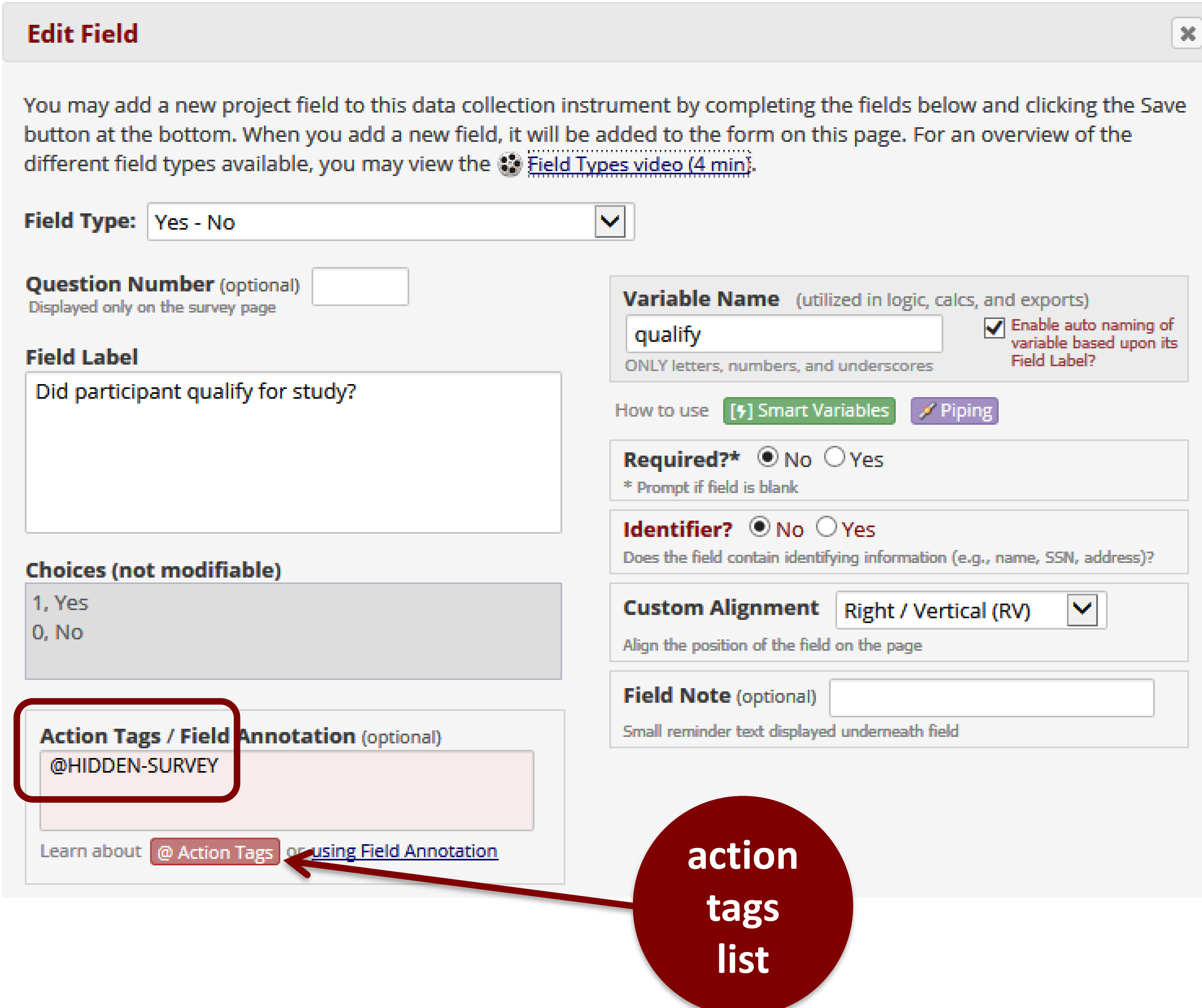
setup



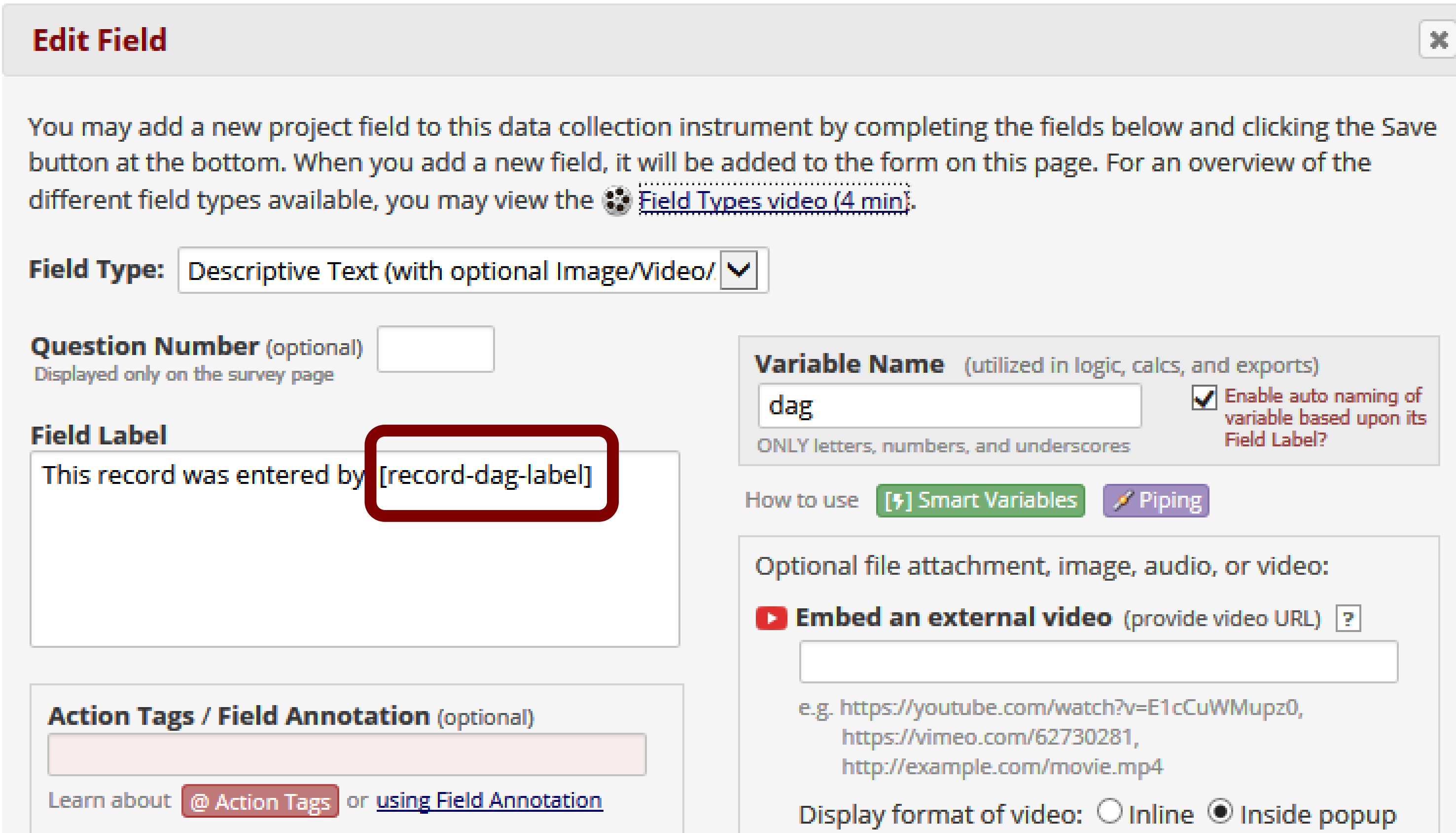
after



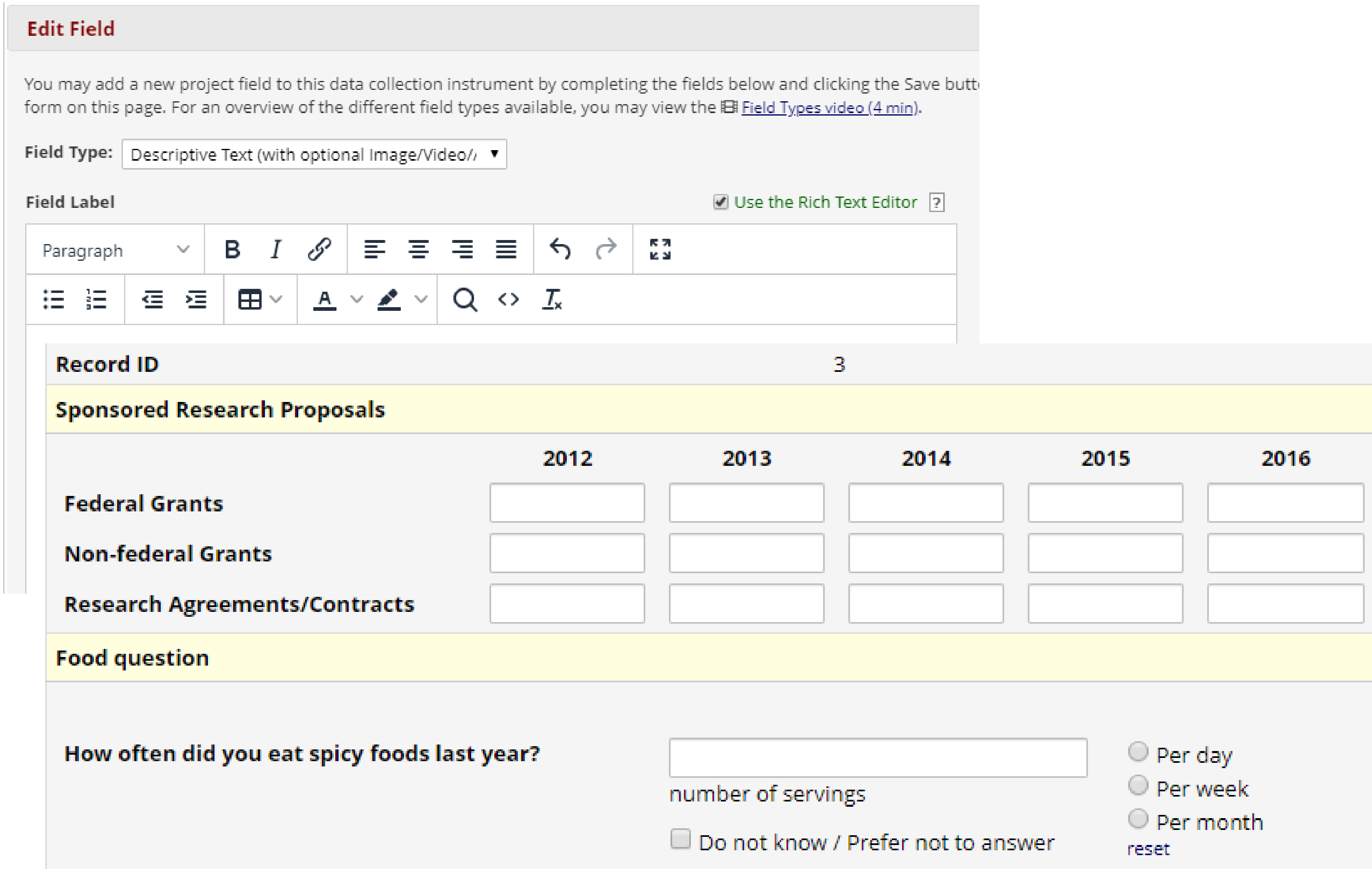
ACTION TAGS


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:
Yes - No
Question Number (optional)
Displayed only on the survey page
Field Label
Did participant qualify for study?
Choices (not modifiable)
1, Yes
0, No
Action Tags / Field Annotation (optional)
@HIDDEN-SURVEY
Learn about @ Action Tags or using Field Annotation
Variable Name (utilized in logic, calcs, and exports)
qualify
ONLY letters, numbers, and underscores
Enable auto naming of variable based upon its Field Label?
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
action tags list

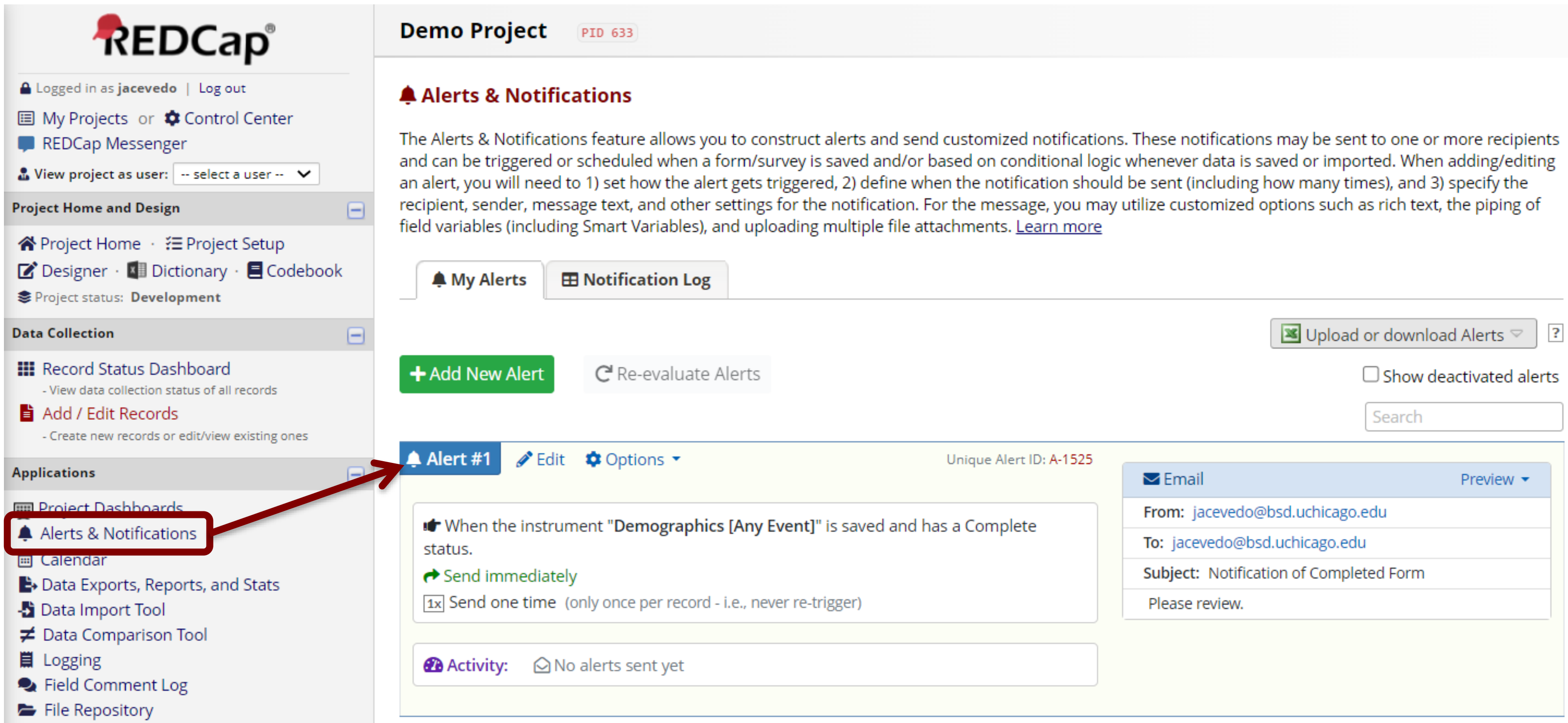
SMART VARIABLES



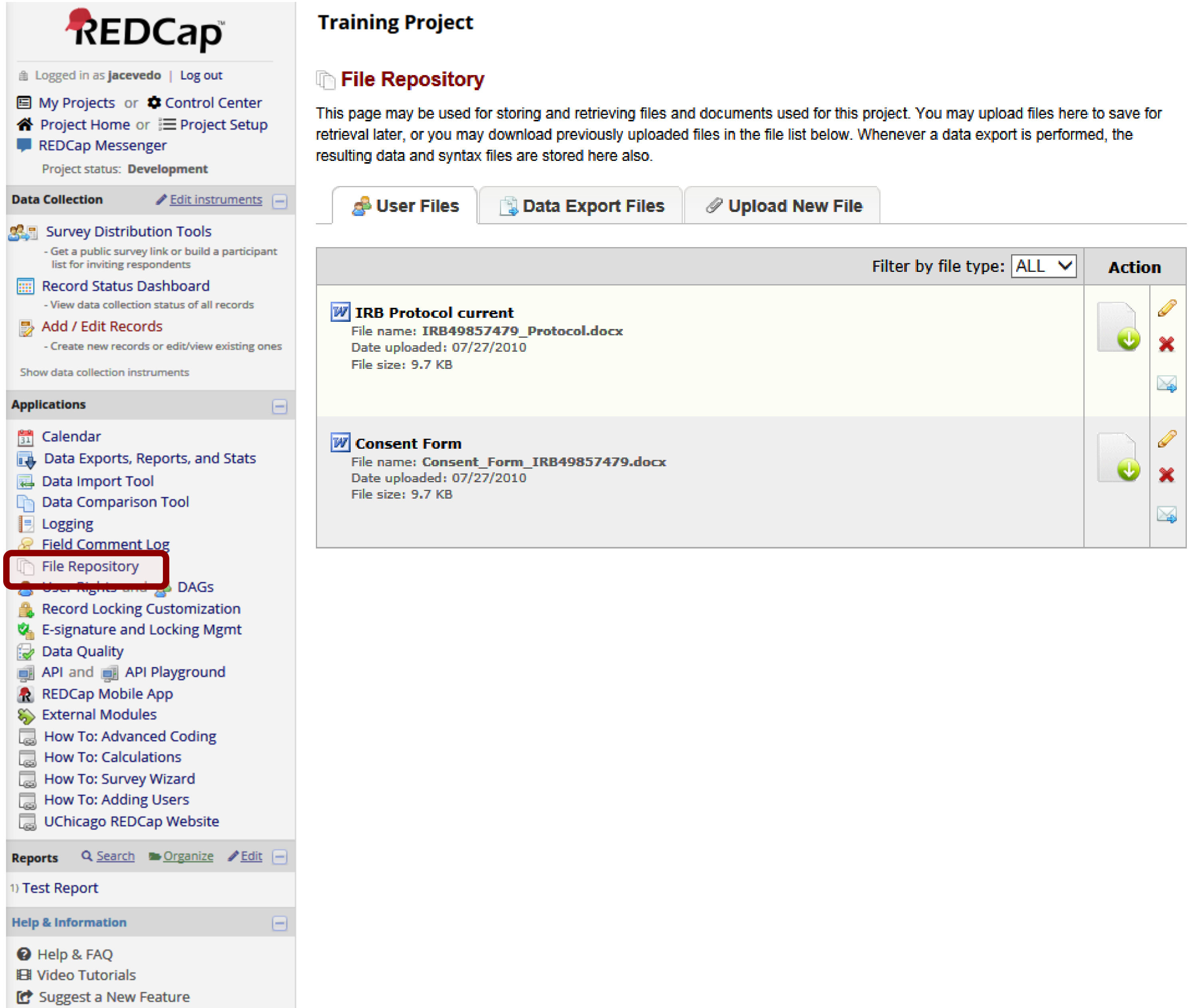
FIELD EMBEDDING



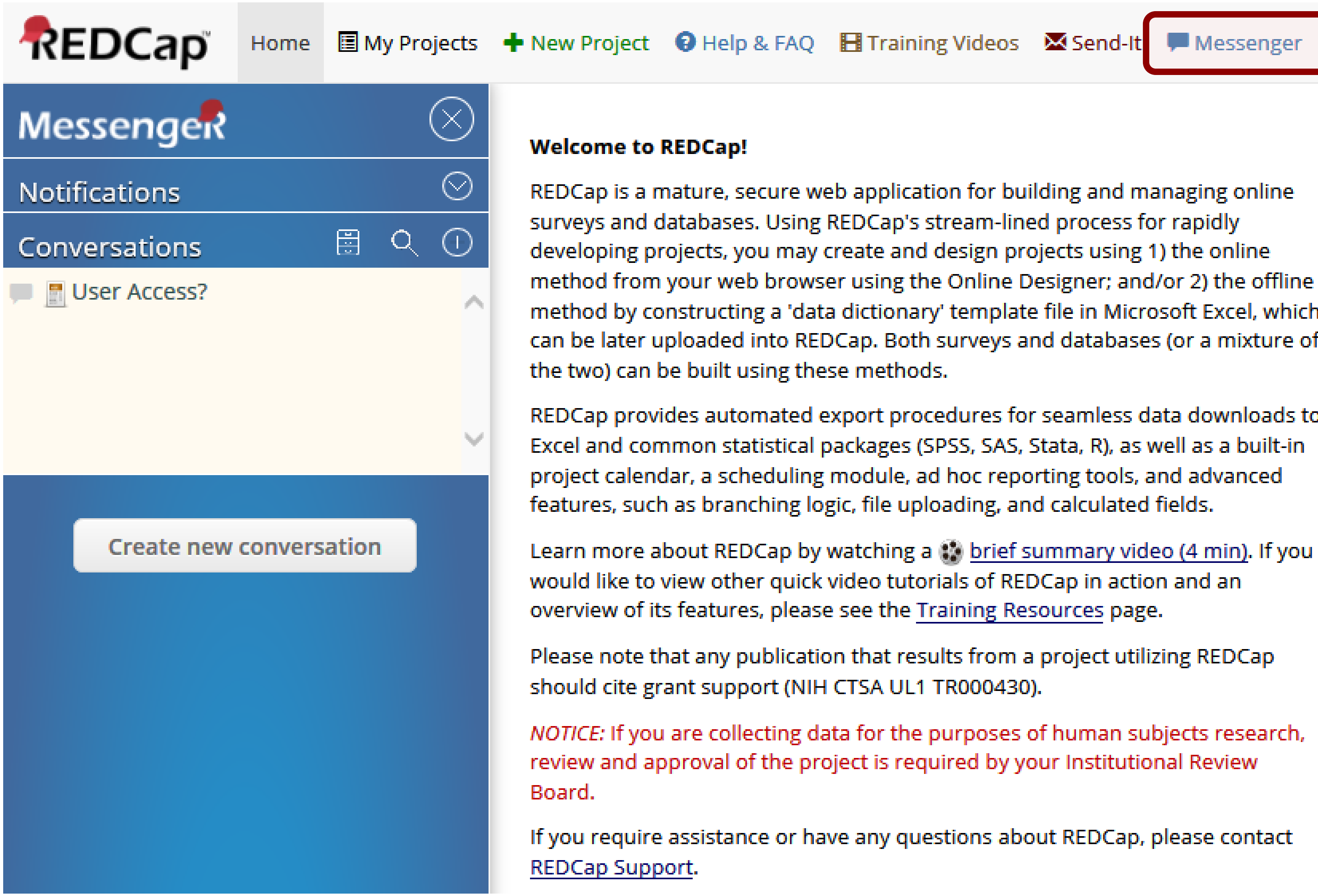
ALERTS & NOTIFICATIONS

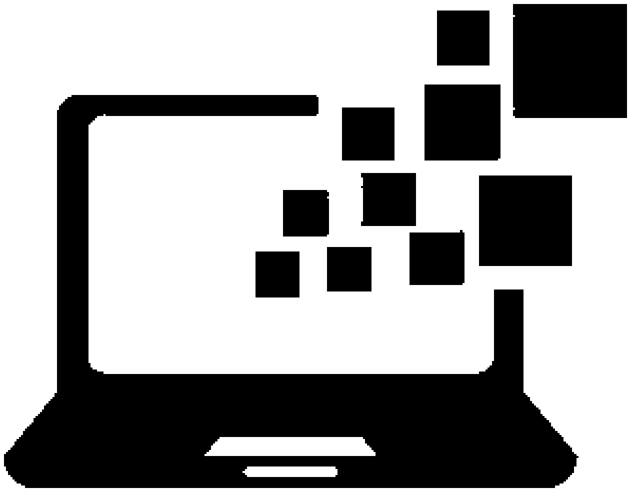


FILE REPOSITORY



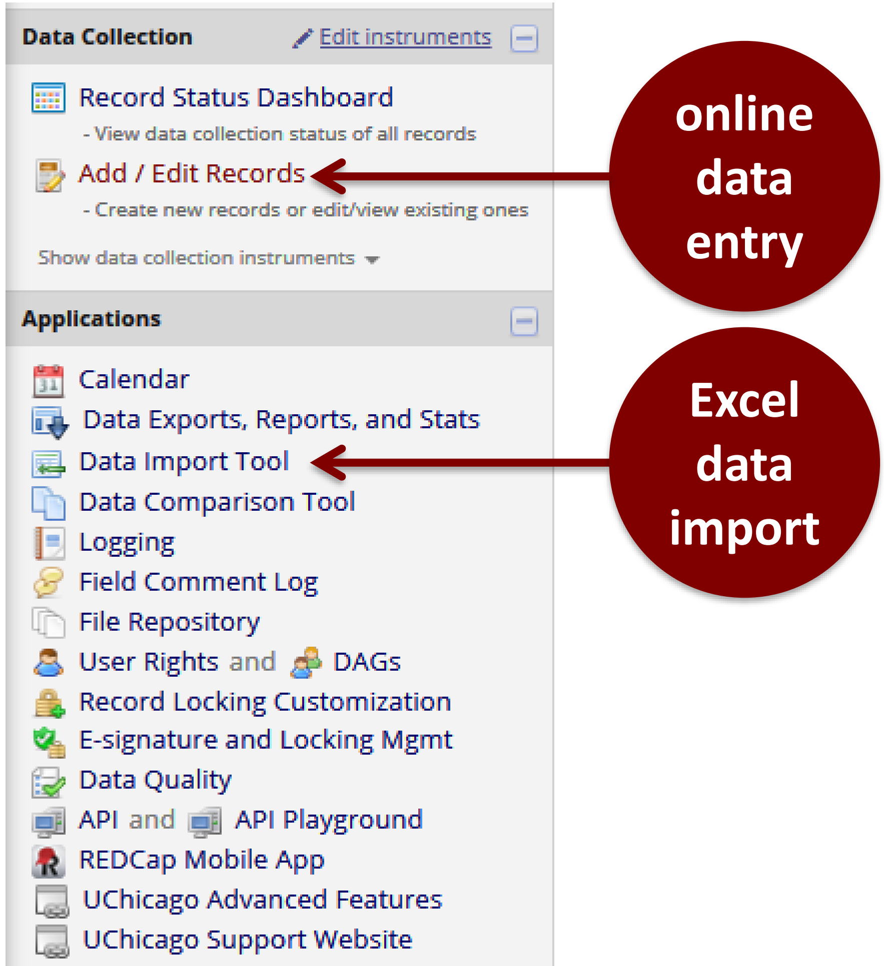
MESSENGER


REDCap
Home
My Projects
New Project
Help & FAQ
Training Videos
Send-It
Messenger
Messenger
Notifications
Conversations
User Access?
Create new conversation
Welcome to REDCap!
REDCap is a mature, secure web application for building and managing online surveys and databases. Using REDCap's stream-lined process for rapidly developing projects, you may create and design projects using 1) the online method from your web browser using the Online Designer; and/or 2) the offline method by constructing a 'data dictionary' template file in Microsoft Excel, which can be later uploaded into REDCap. Both surveys and databases (or a mixture of the two) can be built using these methods.
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.
Please note that any publication that results from a project utilizing REDCap should cite grant support (NIH CTSA UL1 TR000430).
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 REDCap Support.



Data Import Tool

DATA COLLECTION TYPES



DATA IMPORT TOOL

Data Import Tool

This module may be used for importing data into this project from a CSV (comma delimited) file or alternatively from an XML file in CDISC ODM format. Below are the steps you will need to follow in order to import your data successfully into this project.

NOTICE:
This project is currently in Development status. **Real data should NOT be entered** until the project has been moved to Production status.

CSV import | **CDISC ODM (XML) import**

Instructions:

1.) Click the link below to download your data import template as a CSV (comma delimited) file. Save it locally to your computer and then open it to begin filling it with the data you wish to import.

Download your Data Import Template (with records in rows)
OR
Download your Data Import Template (with records in columns)

2.) In each column of the Data Import Template file that you downloaded, place the data for each record that you wish to import. Once all your data has been added, save the file.

- Be sure not to change the Variables/Field Names in the file or an error may occur.
- Also, for all of the 'dropdown' or 'radio' fields in the project, you must make sure that the numerical value (rather than the text value) is entered in those cells, or else it cannot be processed.
- Any empty rows or columns in the file can be safely deleted before importing the file. Doing this reduces the upload processing time, especially for large projects.

3.) Click the 'Browse' or 'Choose File' button below to select the file on your computer, and upload it by clicking the 'Upload File' button.

4.) Once your file has been uploaded, the data will NOT be immediately imported but will be displayed and checked for errors to ensure that all the data is in correct format before it is finally imported into the project.

Record format: The file to be uploaded has its records stored as separate [Rows]

Format for date and datetime values: [MM/DD/YYYY or YYYY-MM-DD]

Allow blank values to overwrite existing saved values? [No, ignore blank values in the file (default)]

Upload your CSV file:

[Browse...]

[Upload File]

help text

STEPS FOR DATA IMPORT TOOL

DOWNLOAD the Data Import Template → **TRANSFER** your data to the Data Import Template → **UPLOAD** the Data Import Template

	A	B
1	**Study ID**	**Gender**
2	100	male
3	101	female
4	102	F
5	103	M
6	104	f
7	105	m

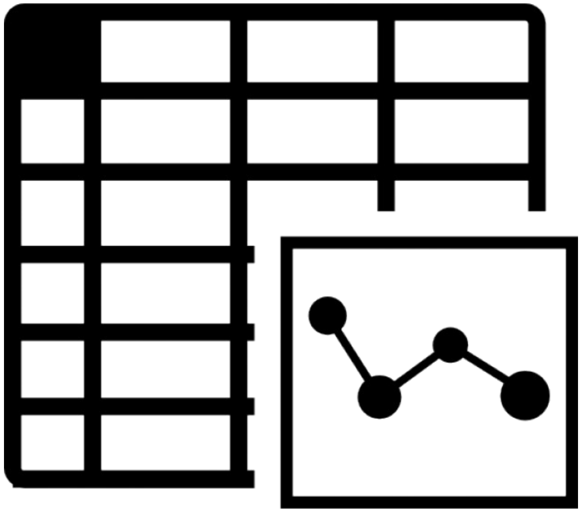
Choices (one choice per line)

0, Female
1, Male

	A	B
1	**study_id**	**gender**
2	100	1
3	101	0
4	102	0
5	103	1
6	104	0
7	105	1

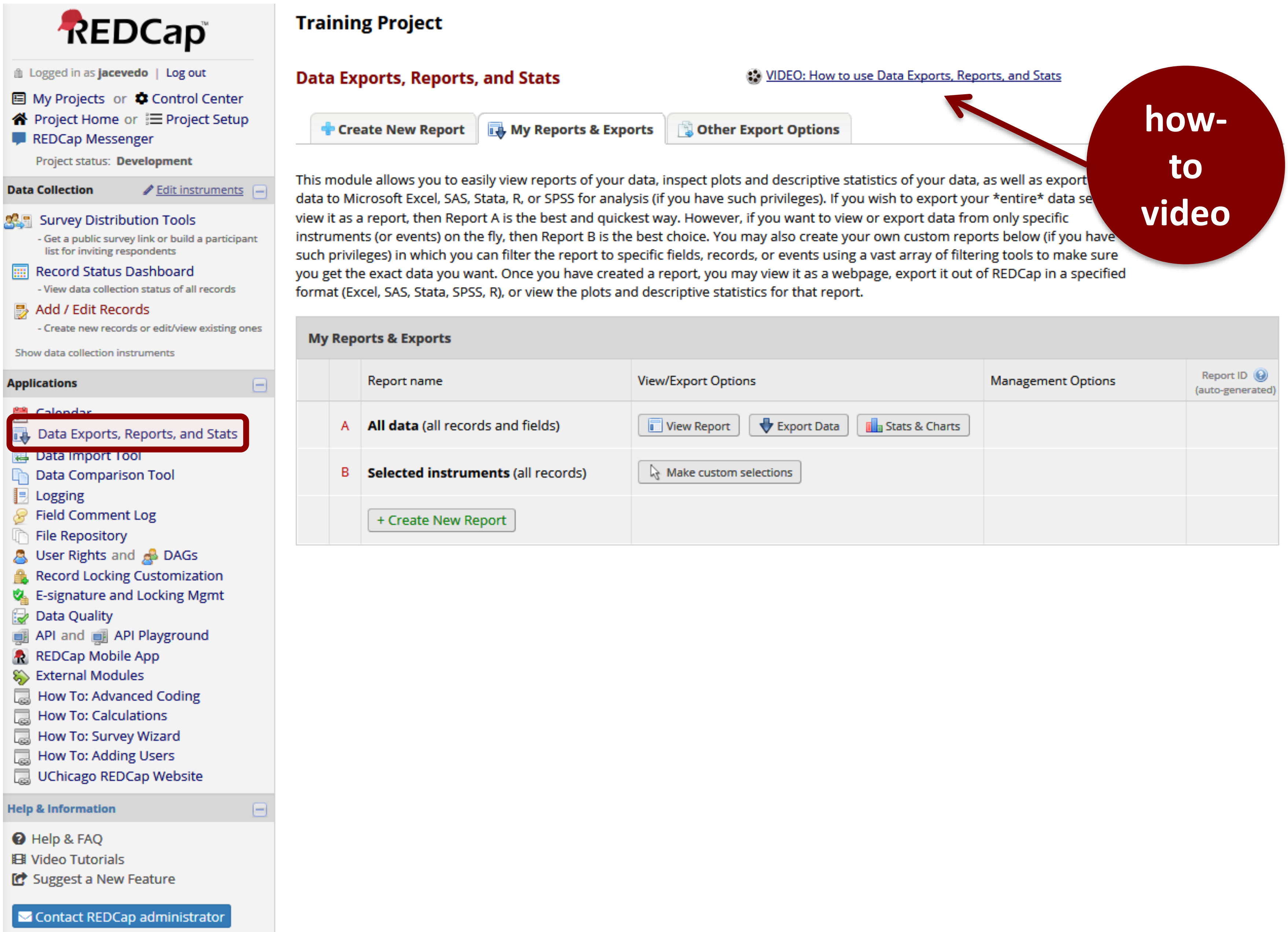
CAUTION!

1. Don’t change the **variable names** on the template. They must match the project's variable names.
2. For all discrete fields, upload the **numerical value** (rather than the label value).
3. **Empty** rows or columns should be deleted before importing the file to reduce the processing time.
4. For **large files**, it’s recommended you import a few variables at a time. The entire template doesn’t need to be imported all at once.

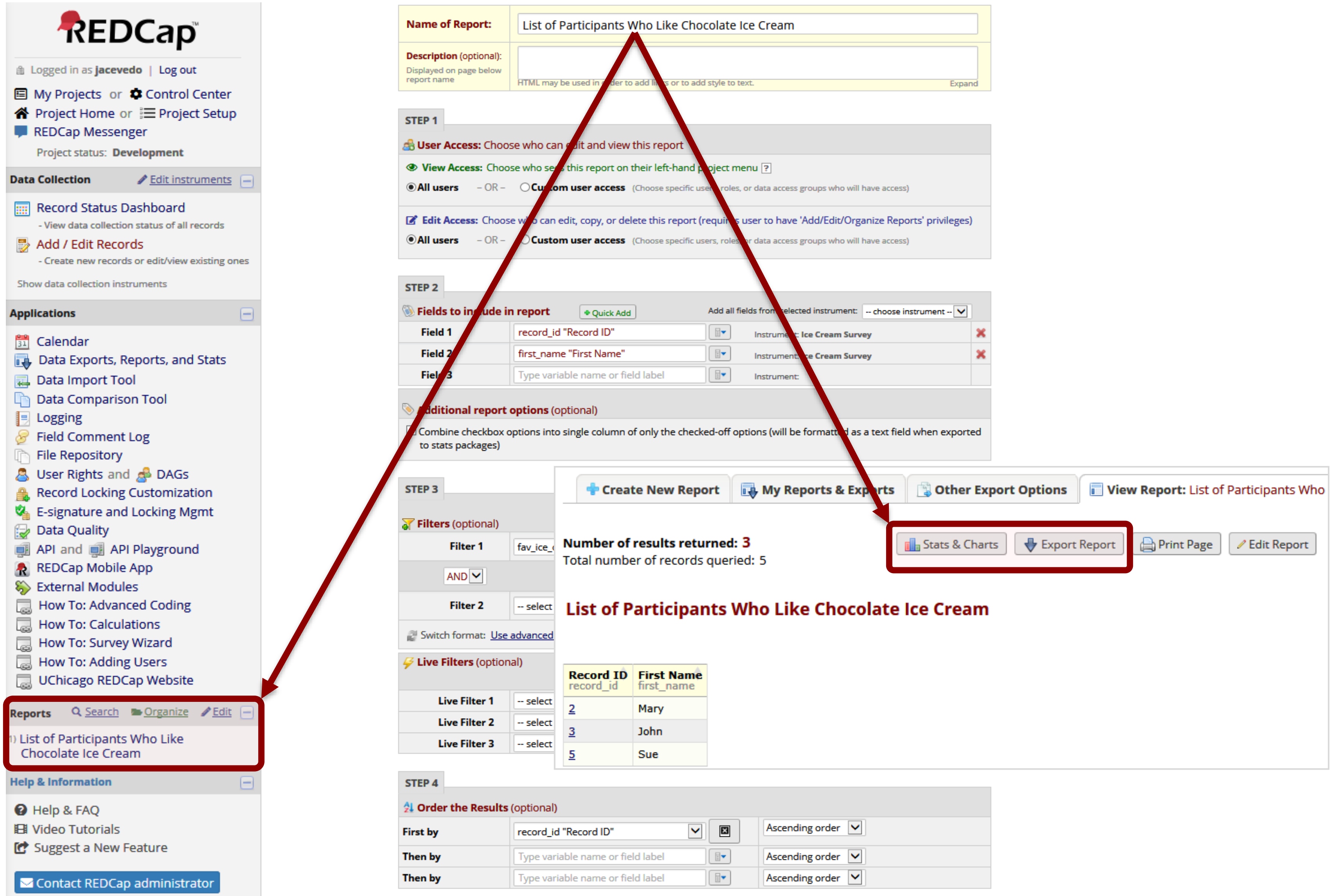


Data Exports, Reports, and Stats

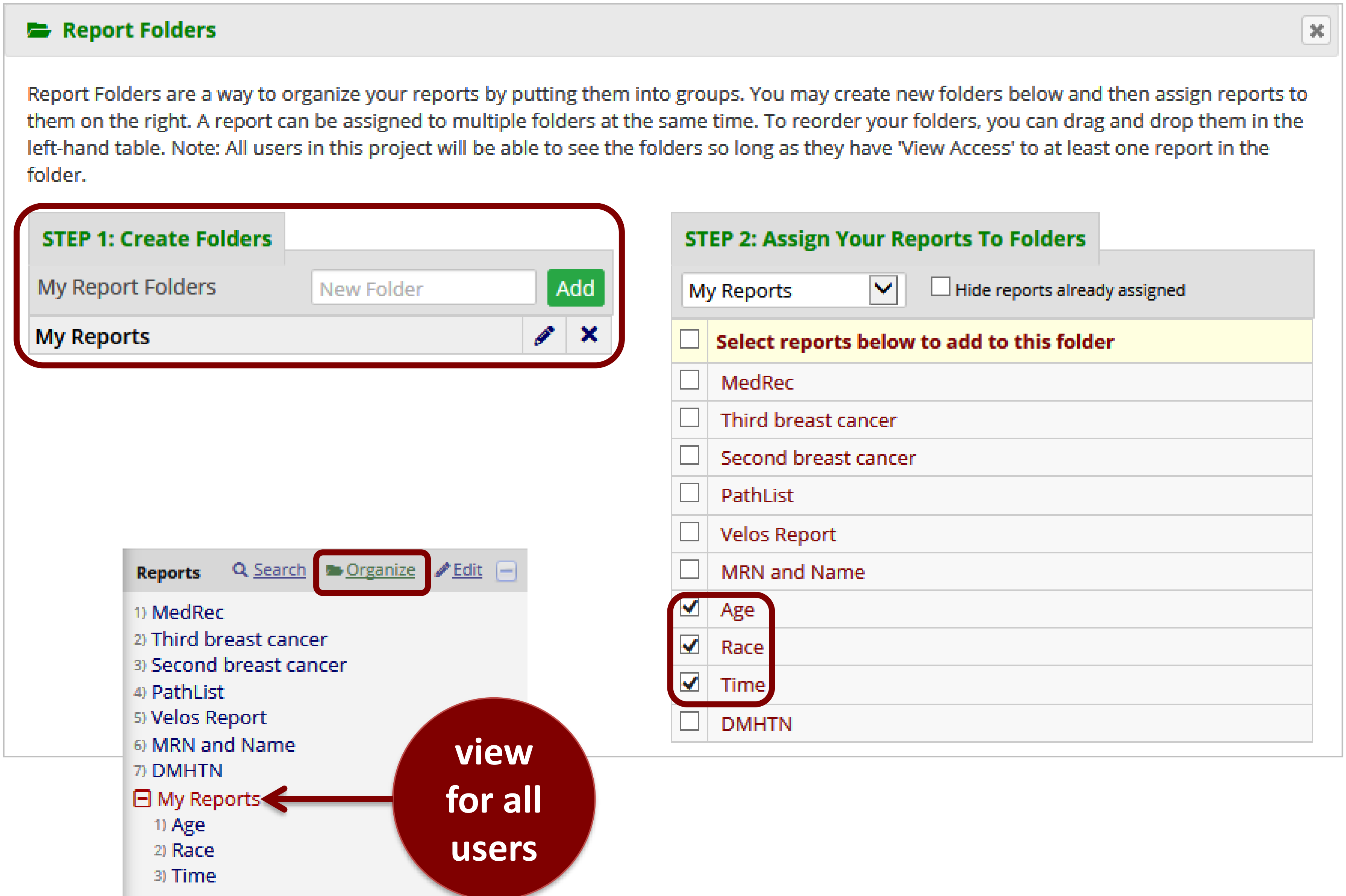
DATA EXPORTS, REPORTS, AND STATS



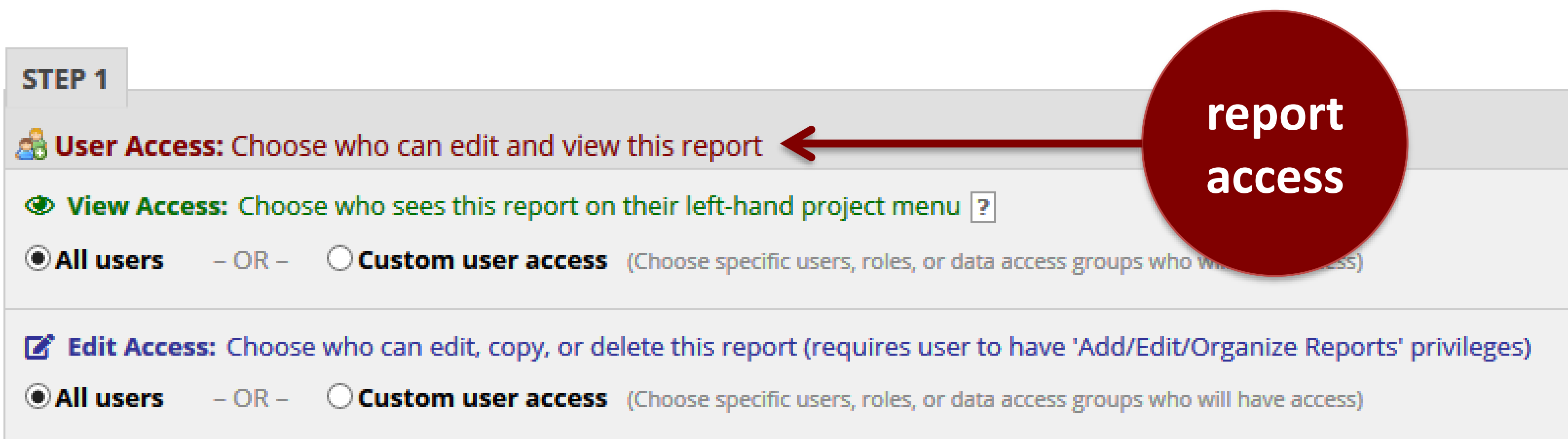
DATA EXPORTS, REPORTS, AND STATS



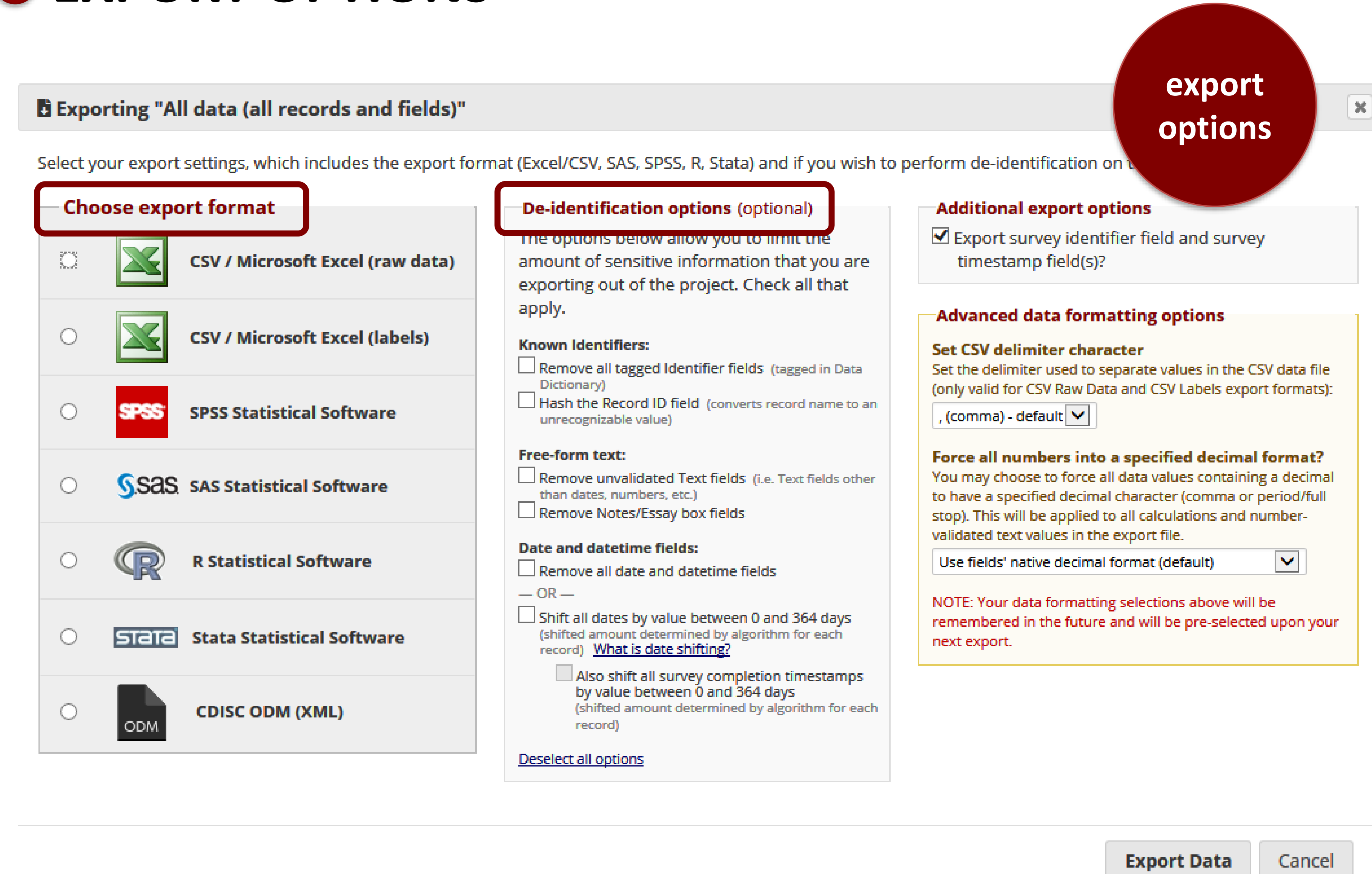
REPORT FOLDERS



REPORT SEARCH AND ACCESS



EXPORT OPTIONS

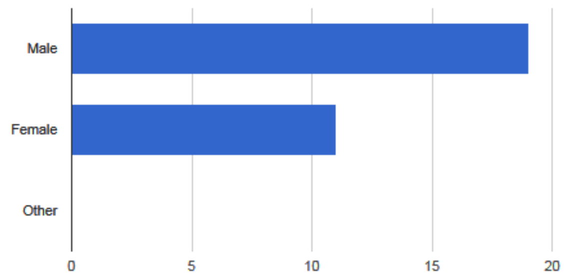


STATS AND CHARTS

Gender Refresh Plot | View as Bar Chart

Total Count (N)	Missing	Unique
30	0 (0.0%)	2

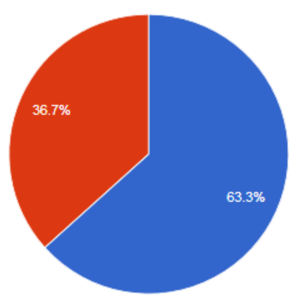
Counts/frequency: Male (19, 63.3%), Female (11, 36.7%), Other (0, 0.0%)



Gender Refresh Plot | View as Pie Chart

Total Count (N)	Missing	Unique
30	0 (0.0%)	2

Counts/frequency: Male (19, 63.3%), Female (11, 36.7%), Other (0, 0.0%)



height < 150

DISPLAY OPTIONS

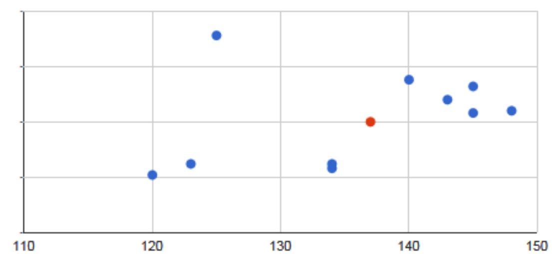
Optional: Select a record to overlay onto the plots below -- select record --

Viewing options: Show plots & stats | Show plots only | Show stats only

Height Refresh Plot

Total Count (N)	Missing	Unique	Min	Max	Mean	StDev	Sum	Percentile 0.05	0.10	0.25	0.50 Median	0.75	0.90	0.95
10	0 (0.0%)	8	120.00	148.00	135.70	10.13	1,357.00	121.35	122.70	127.25	137.00	144.50	145.30	146.65

Lowest values: 120, 123, 125, 134, 134
Highest values: 140, 143, 145, 145, 148



Smart Devices

SMART DEVICES

REDCap is compatible with:

- Tablets and smart phone (iOS and Android)
- imply go to https://redcap.uchicago.edu/

MOBILE APP

Use for offline data collection

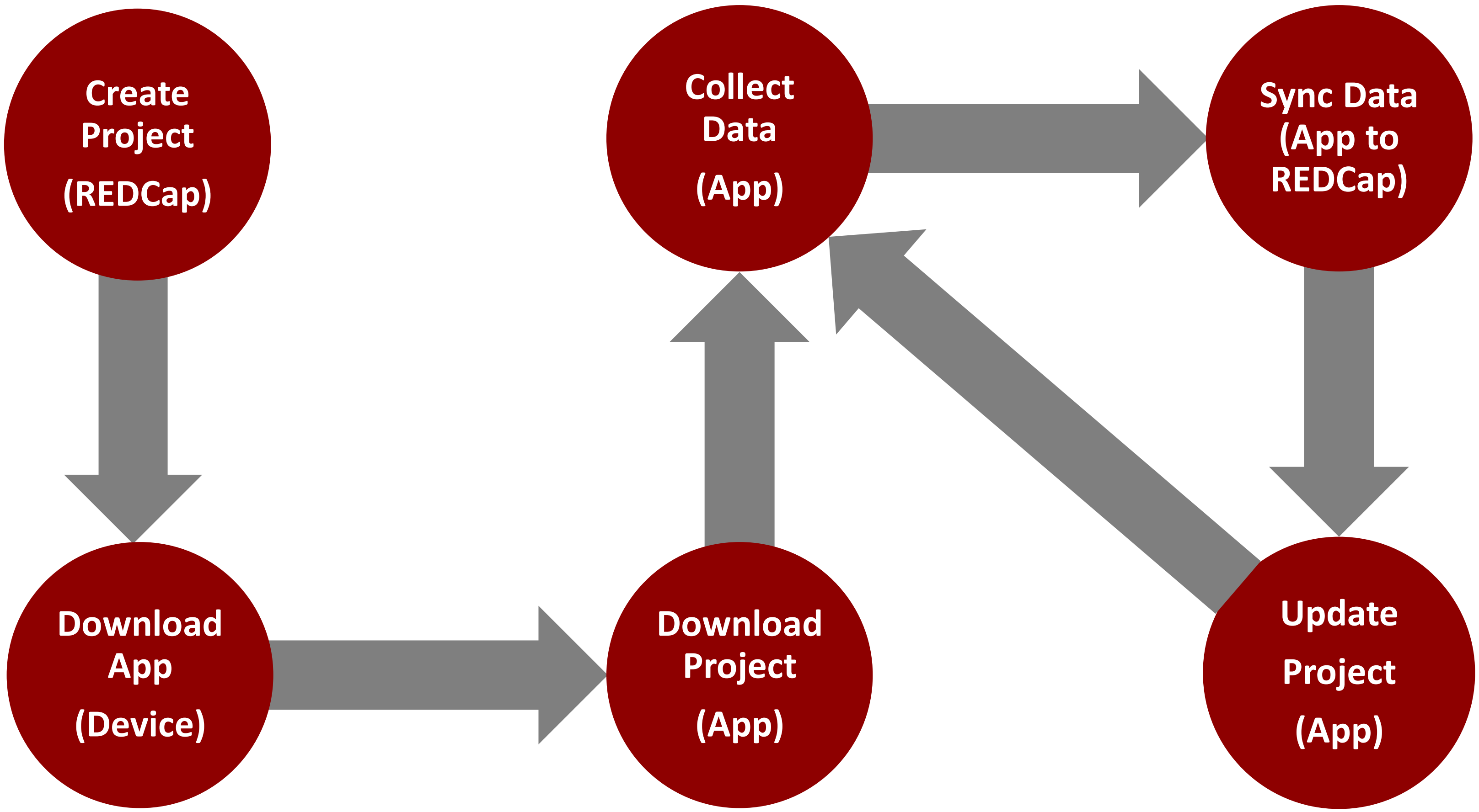
(where there is no/poor internet connectivity)

REDCap

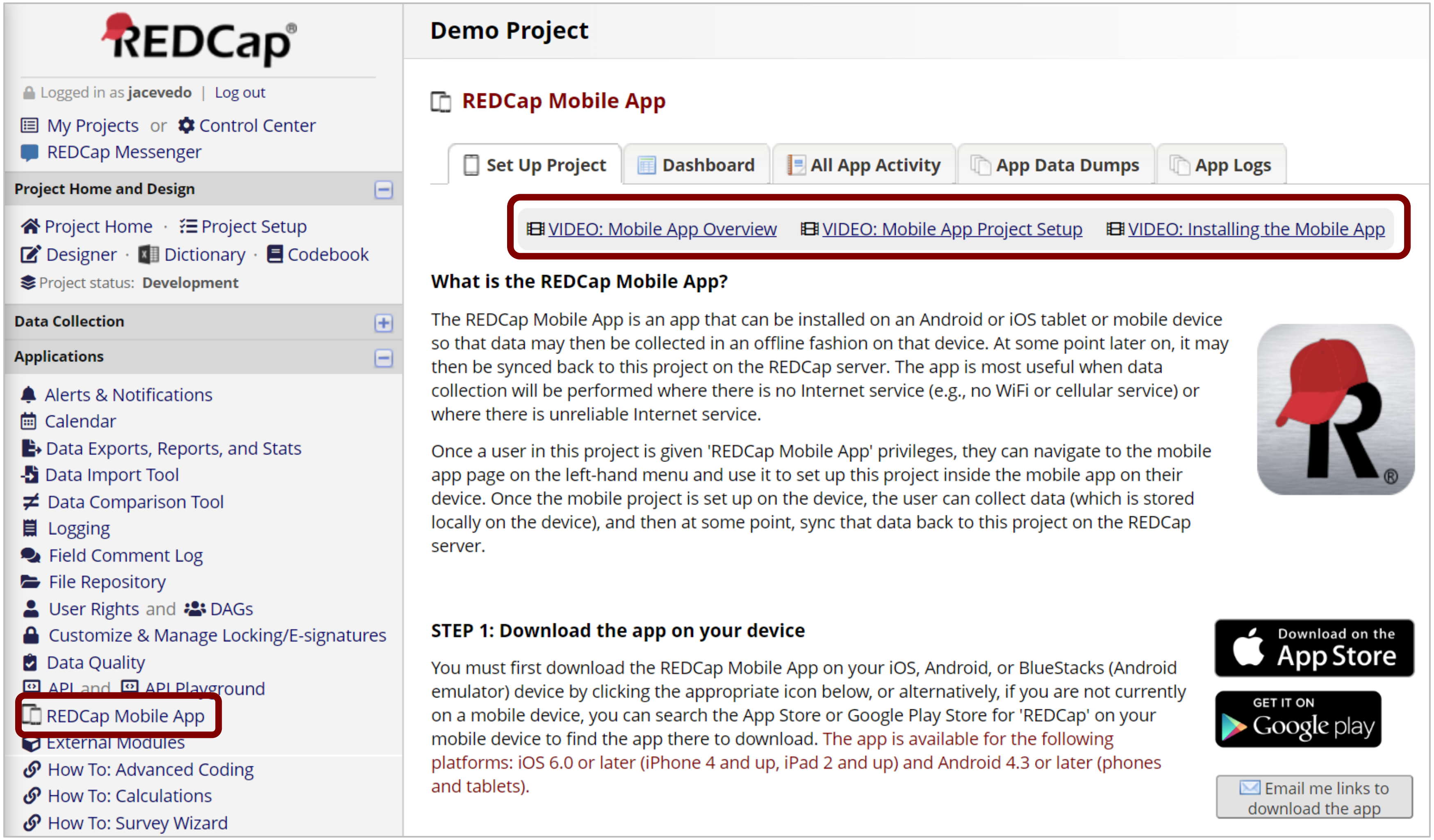
App Store

Google play

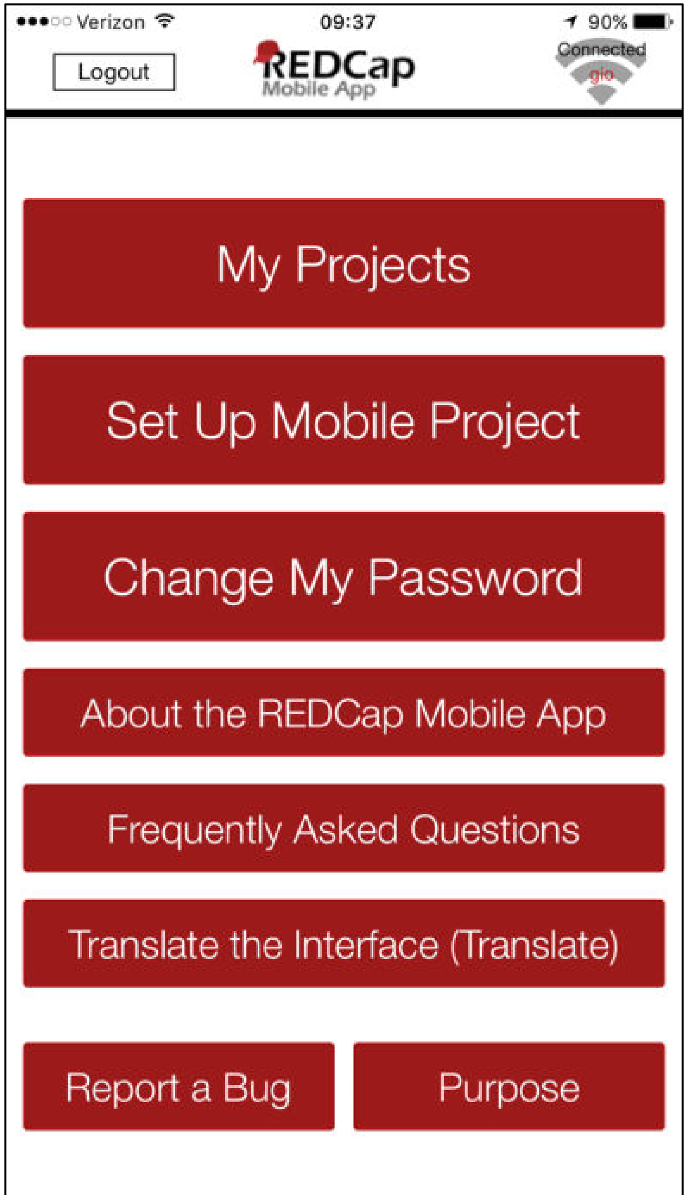
MOBILE APP - PROCESS

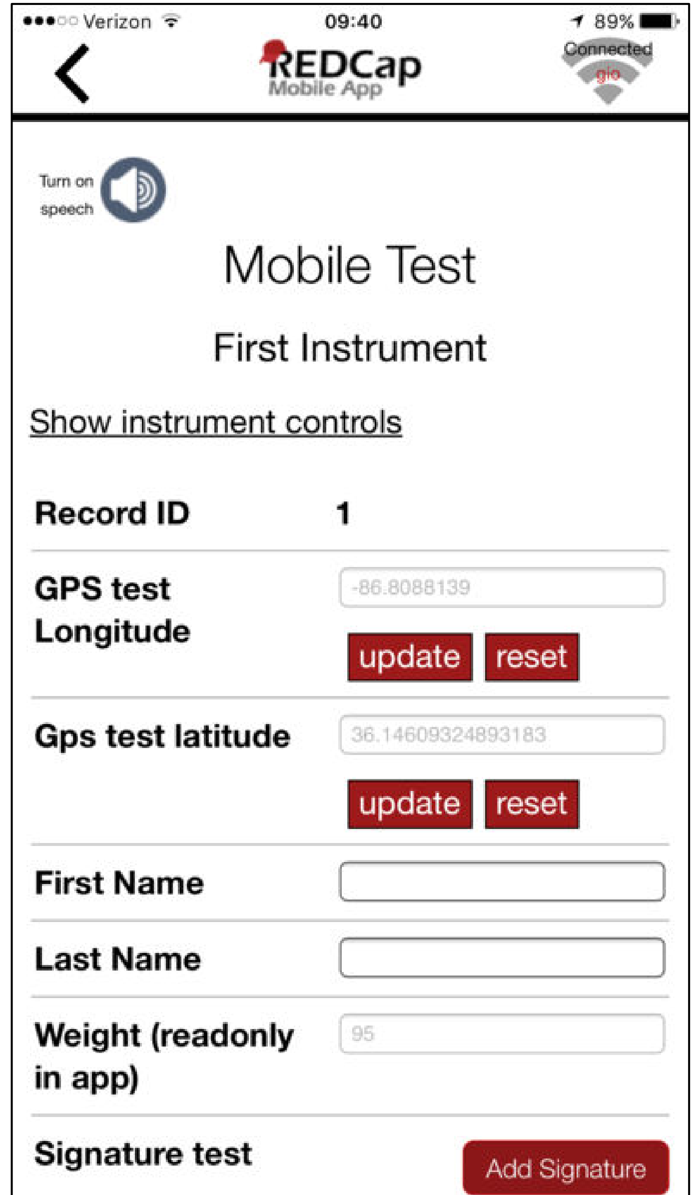


MOBILE APP - SETUP

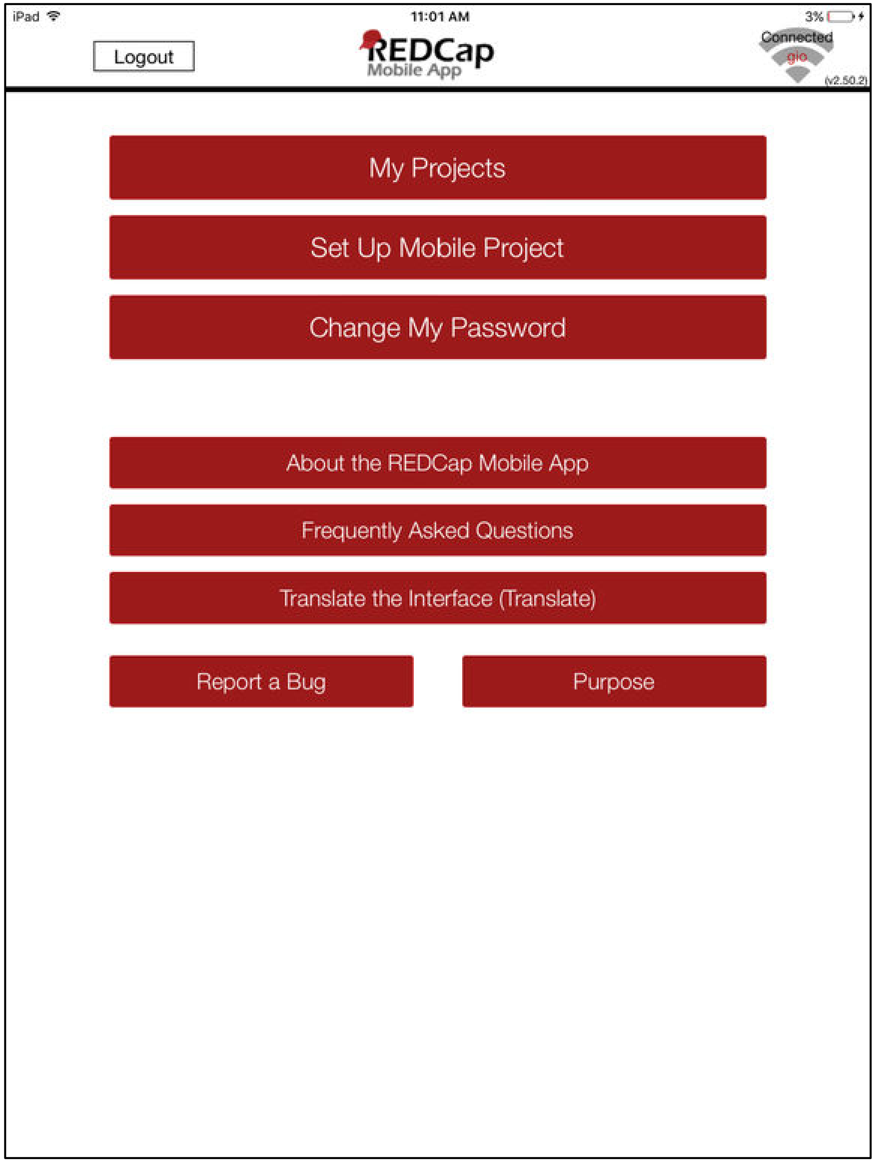


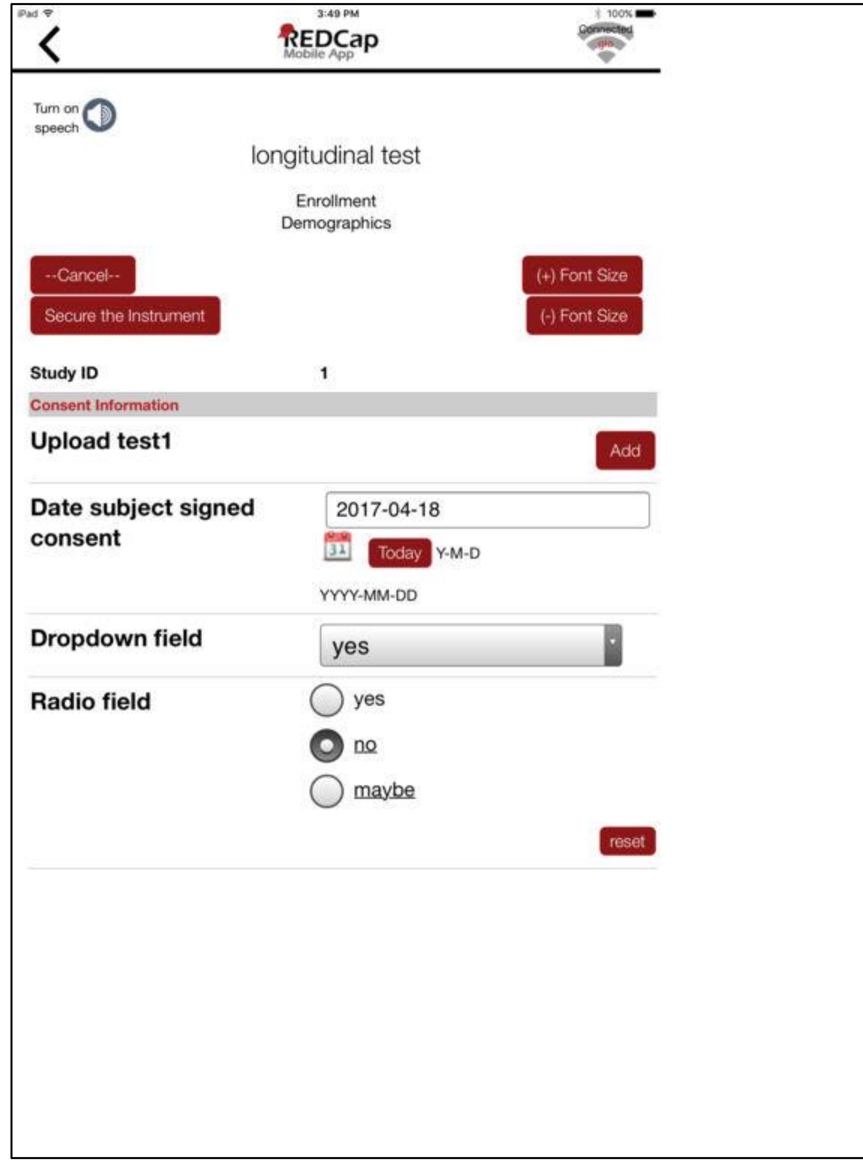
MOBILE APP - IPHONE





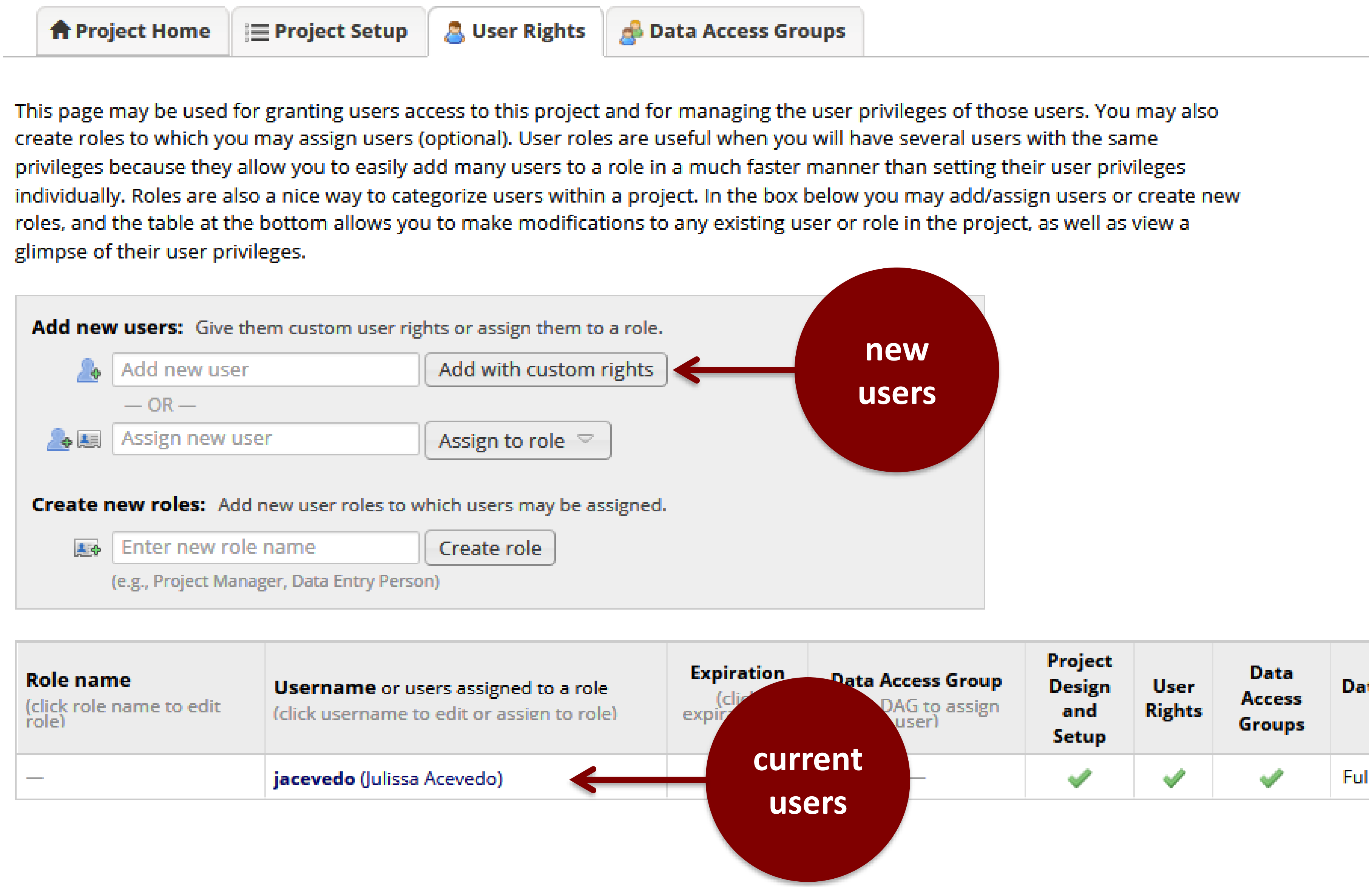
MOBILE APP - IPAD





User Rights

USER RIGHTS


Project Home
Project Setup
User Rights
Data Access Groups
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.
Add new users: Give them custom user rights or assign them to a role.
Add new user
Add with custom rights
— OR —
Assign new user
Assign to role
Create new roles: Add new user roles to which users may be assigned.
Enter new role name
Create role
(e.g., Project Manager, Data Entry Person)
new users
Role name
(click role name to edit role)
Username or users assigned to a role
(click username to edit or assign to role)
Expiration
Data Access Group
DAG to assign user)
Project Design and Setup
User Rights
Data Access Groups
—
jacevedo (Julissa Acevedo)
current users

USER ROLES

Project Home | Project Setup | User Rights | Data Access Groups

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.

Add new users: Give them custom user rights or assign them to a role.

Add new user | Add with custom rights

— OR —

Assign new user | Assign to role

Create new roles: Add new user roles to which users may be assigned.

Enter new role name | Create role

(e.g., Project Manager, Data Entry Person)

create role

Role name (click role name to edit role)	**Username** or users assigned to a role (click username to edit or assign to role)	**Expiration** (click expiration to edit)	**Project Design and Setup**	**User Rights**	**Data Access Groups**	**Data Export Tool**
Project Manager	**jacevedo** (Julissa Acevedo)	never	✔	✔	✔	Full Data Set
Data Entry	**t.cri.redcap2** (Jane Doe) **t.cri.redcap3** (Sam Lee)	never never	✖	✖	✖	De-Identified

DATA ACCESS GROUPS

Project Home | Project Setup | User Rights | Data Access Groups

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.

Add new users: Give them custom user rights or assign them to a role.

Add new user | Add with custom rights

— OR —

Assign new user | Assign to role

Create new roles: Add new user roles to which users may be assigned.

Enter new role name | Create role

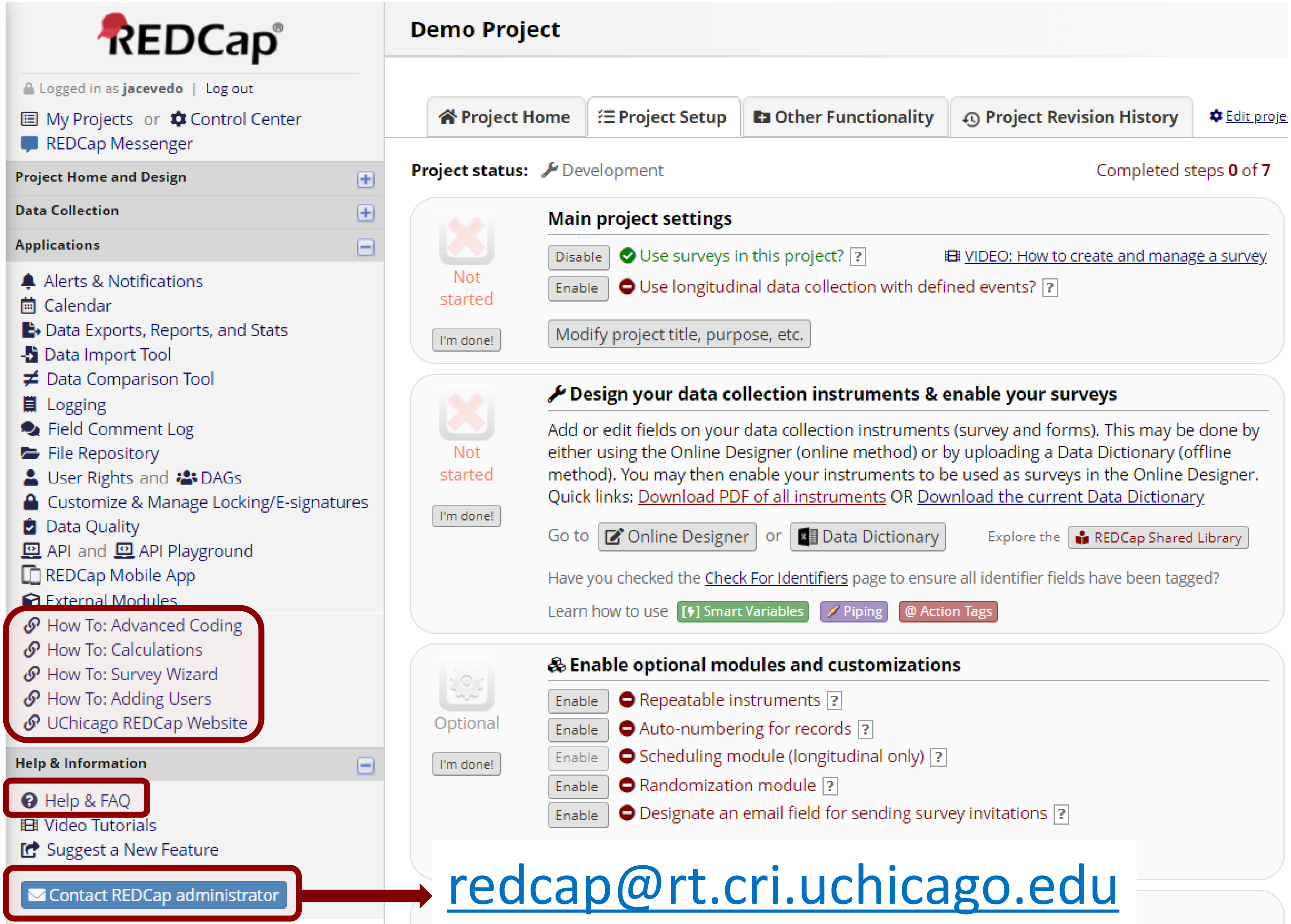
(e.g., Project Manager, Data Entry Person)

data access groups

Role name (click role name to edit role)	Username or users assigned to a role (click username to edit or assign to role)	Expiration (click expiration to edit)	Data Access Group (click DAG to assign user)	Project Design and Setup	User Rights	Data Access Groups	Data Export Tool
Project Manager	jacevedo (Julissa Acevedo)	never	—	✔	✔	✔	Full Data Set
Data Entry	t.cri.redcap2 (Jane Doe) t.cri.redcap3 (Sam Lee)	never never	Rush Advocate	✘	✘	✘	De-Identified

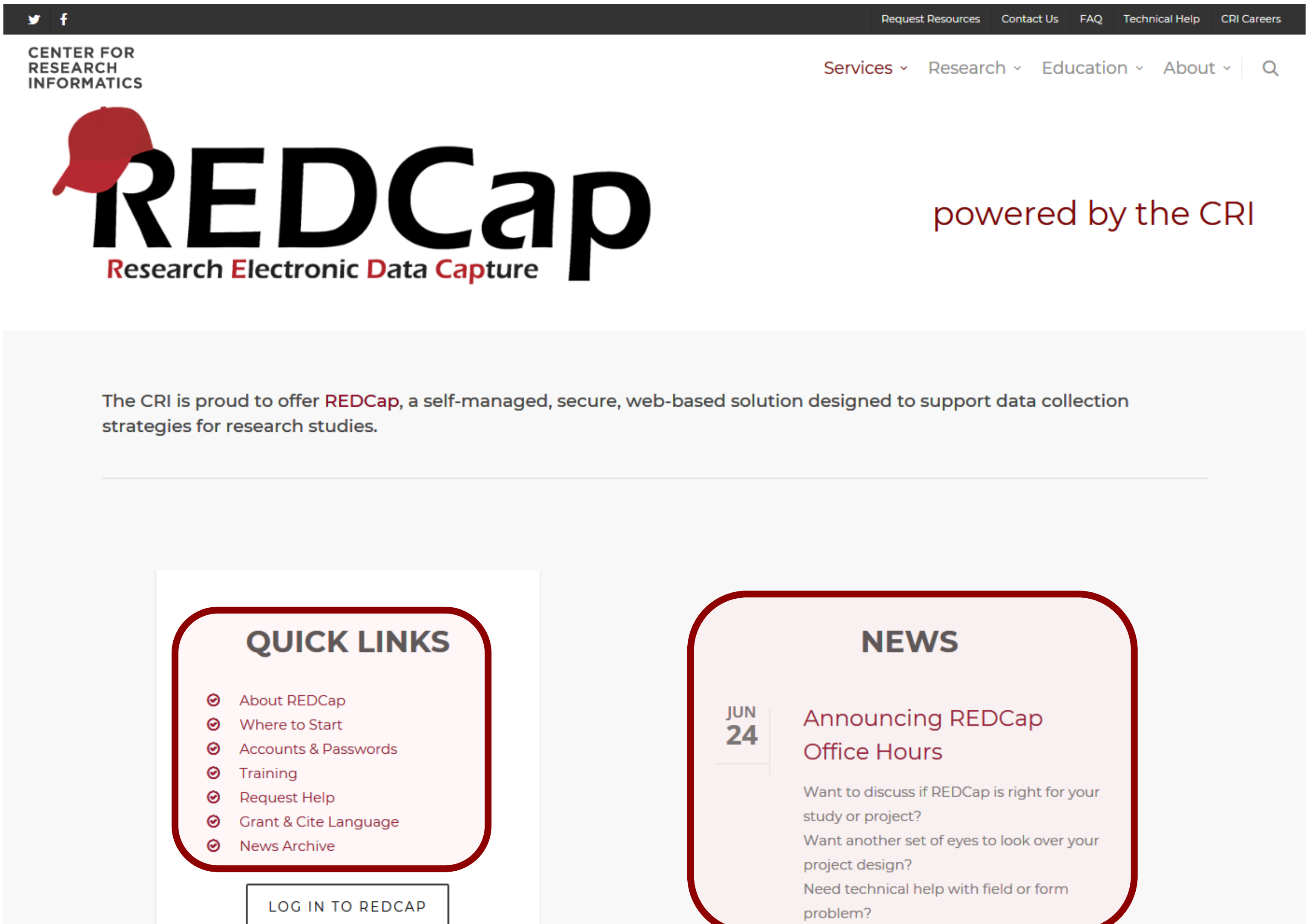
Help Resources

HELP RESOURCES IN YOUR PROJECT



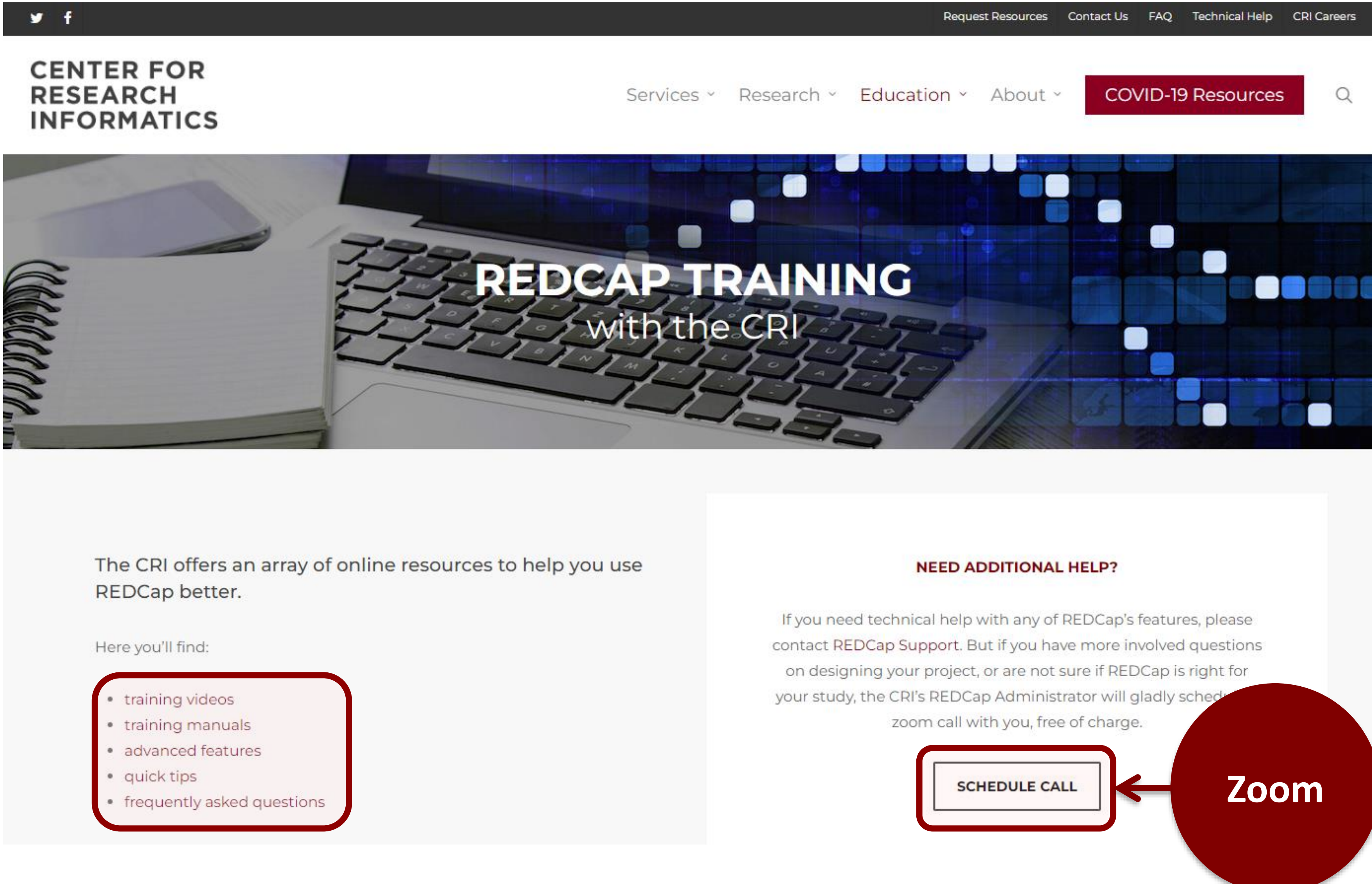
HELP RESOURCES – CRI WEBSITE

http://cri.uchicago.edu/redcap/



HELP RESOURCES – CRI WEBSITE

http://cri.uchicago.edu/redcap-training/



REDCap
Research Electronic Data Capture

THE UNIVERSITY OF CHICAGO MEDICINE & BIOLOGICAL SCIENCES

CENTER FOR RESEARCH INFORMATICS

redcap@rt.cri.uchicago.edu

cri.uchicago.edu/redcap