Tufts Clinical and Translational Science Institute

REDCap

Research Electronic Data Capture

Version LTS 12.0.13

Upgrade Date: 03/11/2022

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Overview

Tufts CTSI recently upgraded REDCap to version 12.0.13 The new REDCap features are summarized below. If you have questions about these features, please email informatics@tuftsctsi.org:

- Multi-Language Management
- Form Display Logic
- Protected Email
- Email Logging
- @IF Action Tag
- Event Number
- Export Blank Values
- …and many more!

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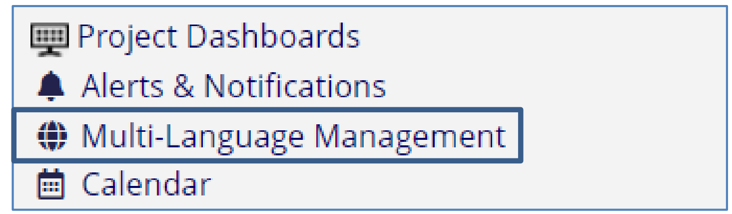
New Feature: Multi-Language Management

- Users can create and configure multiple display languages for their projects for **surveys, data entry forms, alerts, survey invitations, etc.** Users can design instruments and have them be displayed in any language that they have defined and translated so that their survey participants or data entry persons can view the text in their preferred language. This eliminates the need to create multiple instruments or projects to handle multiple languages.



*The **Multi-Language Management** tool (abbreviated as **MLM**) can be found under the Applications drop down*

Important Note: The Multi-Language Management (abbreviated as **MLM**) tool **will not auto-translate** text, but provides tools to such as copy and paste text to make translating text easier.

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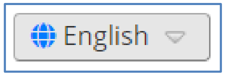
New Feature: Multi-Language Management

- When entering data on a data entry form or survey, users and participants will be able to choose their language from a drop-down list or buttons on the page to easily switch to their preferred language for the text displayed on the page. This feature allows users to translate **all text related to the data entry process**, both for surveys and for data entry forms. Even various **survey settings and email text** can be translated.

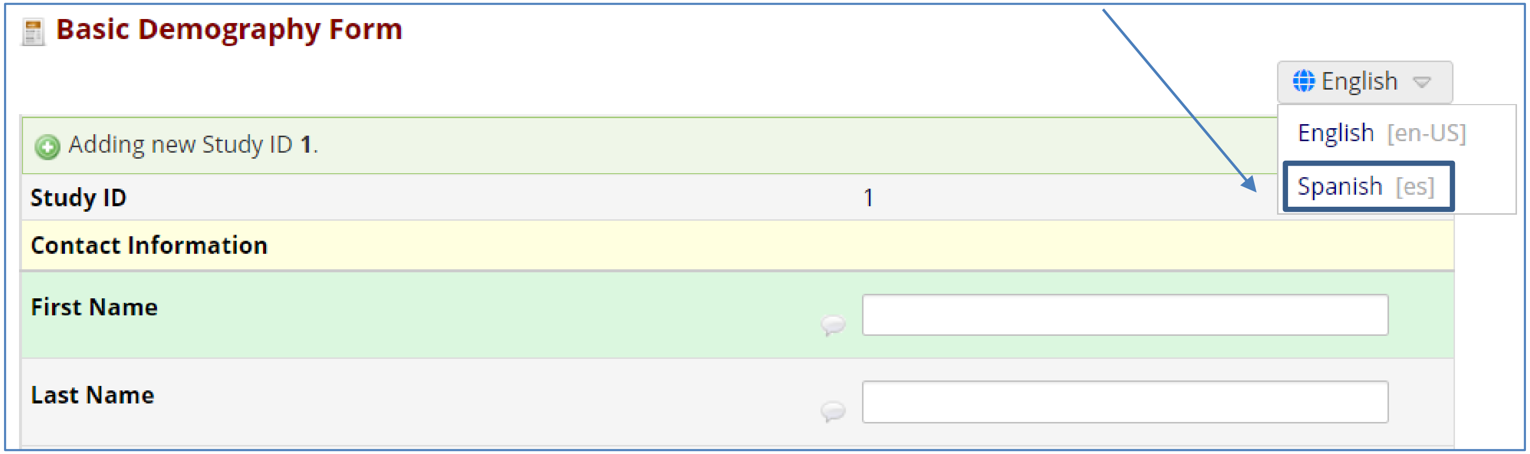
- For users on data entry forms, if a language is selected, that selection is stored in the user's user account settings internally, whereas a survey participant's selected language will be stored in a **cookie in their web browser** as a way to remember their language preference.



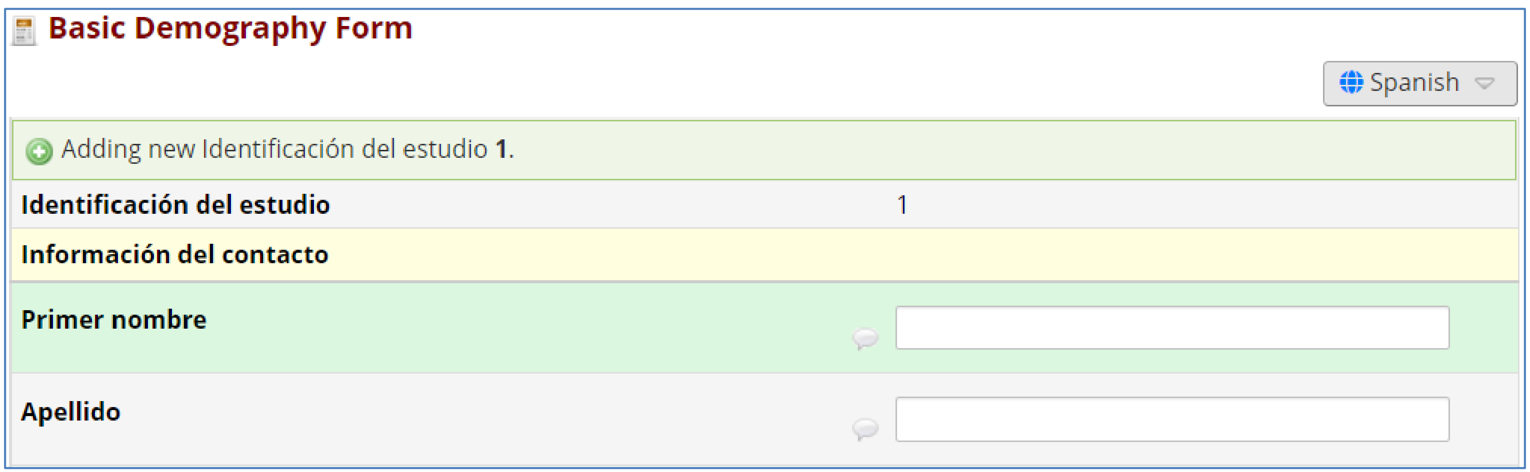
*The **language switcher** button that will appear in data forms, surveys and more*

Multi-Language Management: Data Forms

*In this example we start with a data form in **English** but by selecting **Spanish** from the **globe** button…*



*The form now displays all text in **Spanish** with a simple click of the button!*



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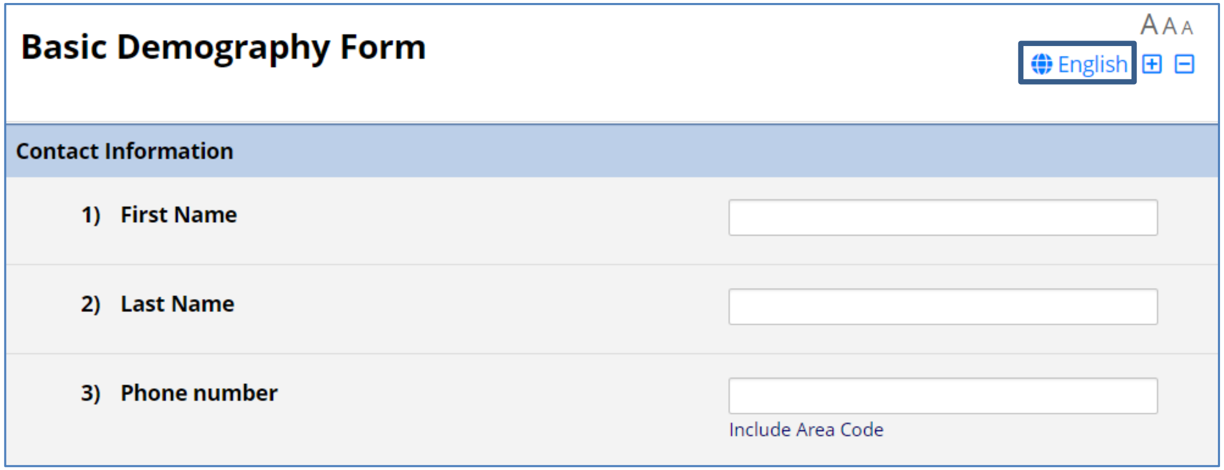
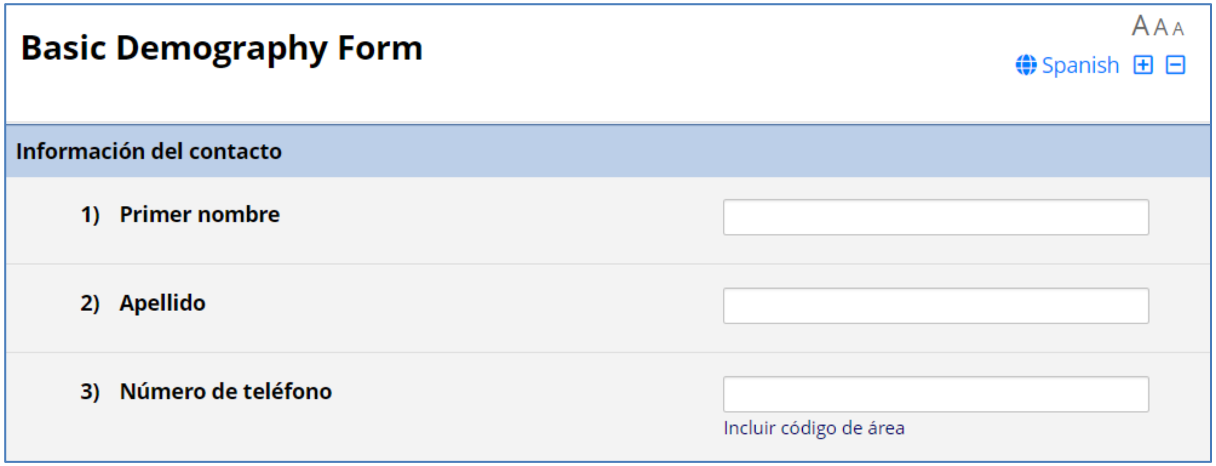
Multi-Language Management: Surveys

*This also works in **surveys!** Participants can select the **globe** to change their language*



*A **survey participants'** language choice will also **be saved via a cookie** if they return later to complete it!*



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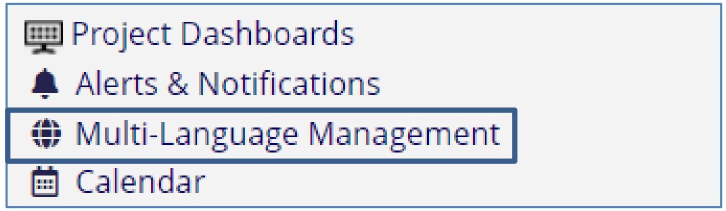
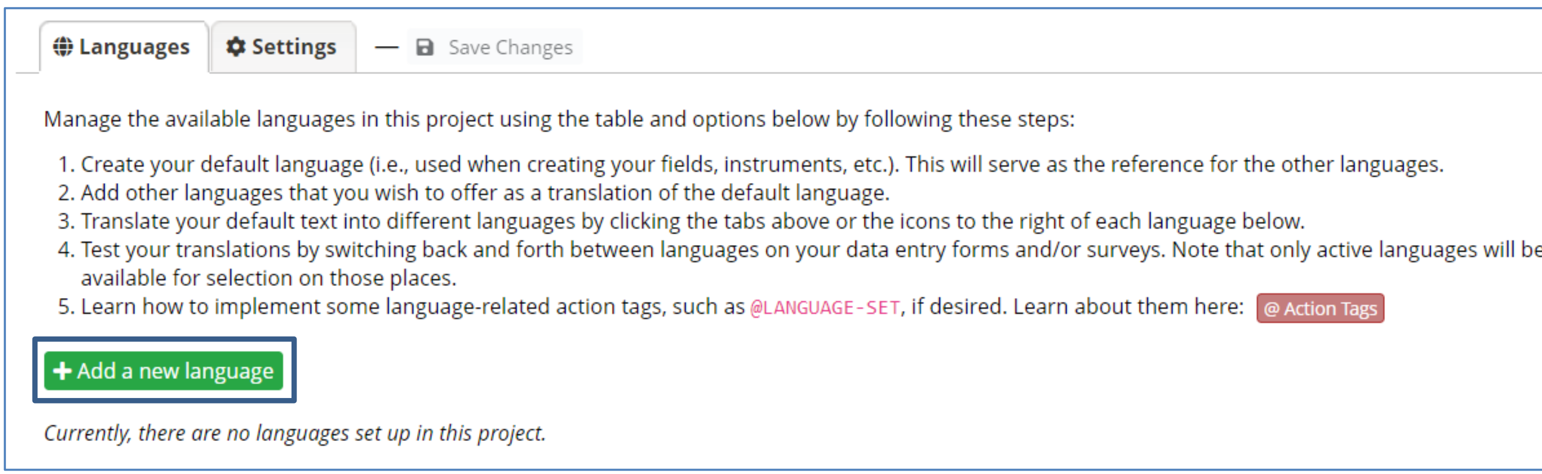
Multi-Language Management: Setup

- Setting up MLM support is very straightforward. First select the **Multi-Language Management** option from the **Applications** menu on the left hand side.

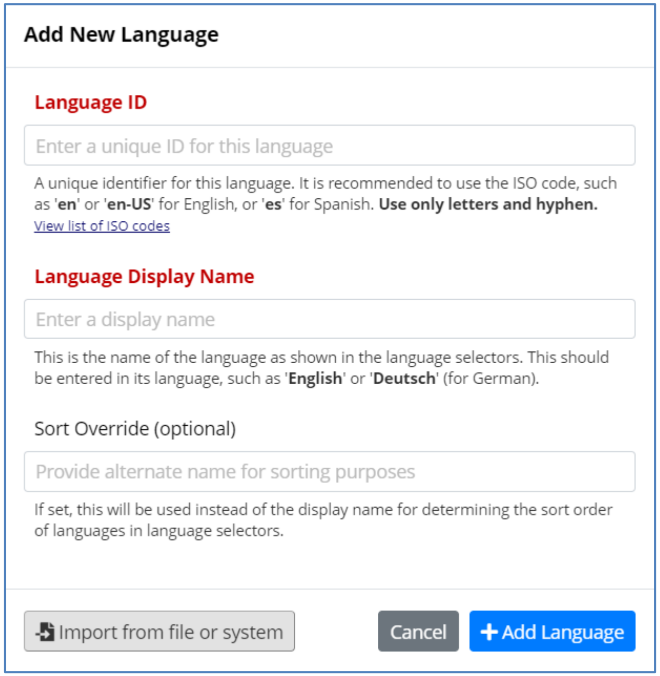


- Upon selection, you will arrive at the home screen for the MLM tool. To start we will add a new language by selecting the **Add a new language** button.



Multi-Language Management: Setup

- From here we can add our languages. It is strongly recommended to use **language ISO codes** to identify your languages. For example; for **Spanish** we can use the <u>**es**</u> ISO code and set the language display name to **Spanish**. Once your settings are set select the **Add Language** button to save.



An example of what the language home screen will look like when adding English and Spanish

ID	Display Name	Active	Default	Fallback	RTL ?	Actions
en-US	English					
es	Spanish					

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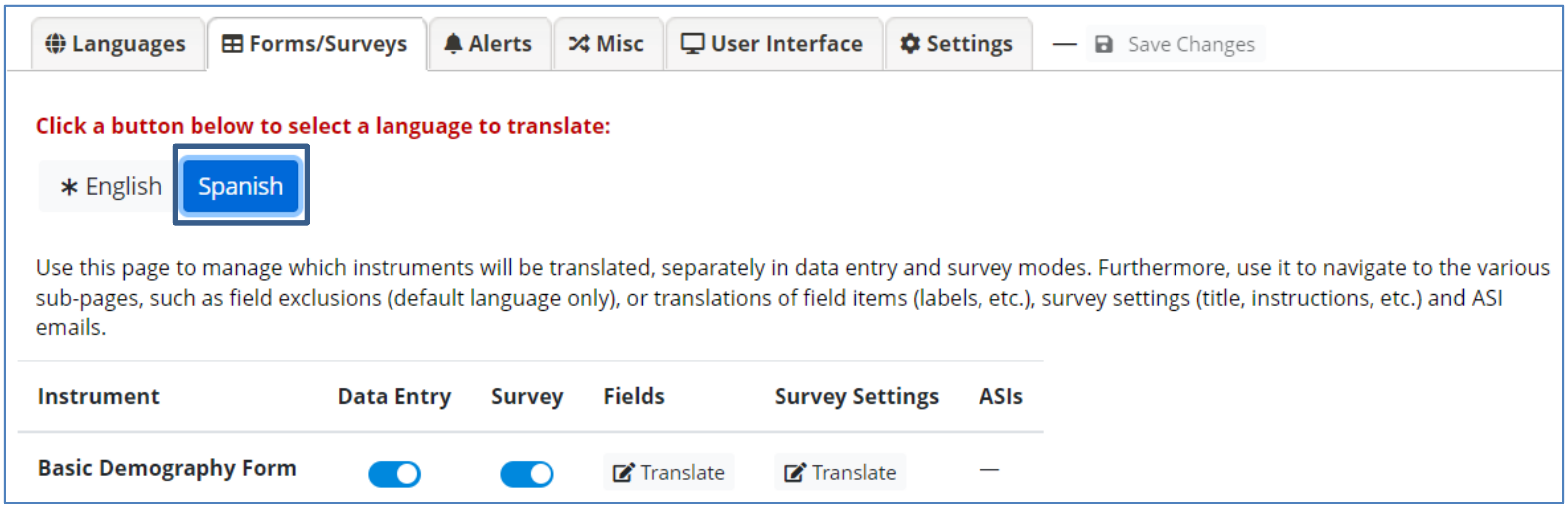
Multi-Language Management: Setup

- **ID:** The identification name for your language (recommended to use ISO codes.)
- **Display Name:** The display name that will appear when a user clicks the **globe** button to change languages.
- **Active:** Determines if the language is currently active or not in the project.
- **Default:** Determines the **default language** for all data forms, surveys, etc. when using the MLM tool. In the previous example, we set **English** as the default.
- **Fallback:** The language that will be used as a fallback in case certain fields were not translated for the selected language.
- **RTL:** Refers to Right-to-Left. This option can be selected for languages that read RTL such as **Arabic.**

Multi-Language Management: Form Setup

- To set up translations for individual instruments, select the **Forms/Surveys** tab. From here, select the language you want to translate to. You will see a list of your instruments as well as options and settings.



- **Data Entry** enables the language to be selected in regular data entry forms. **Survey** allows languages to be selected in surveys. **Fields** button will take you to a page to translate fields individually while the **Survey Settings** button allows you translate form and survey settings such as the survey name.

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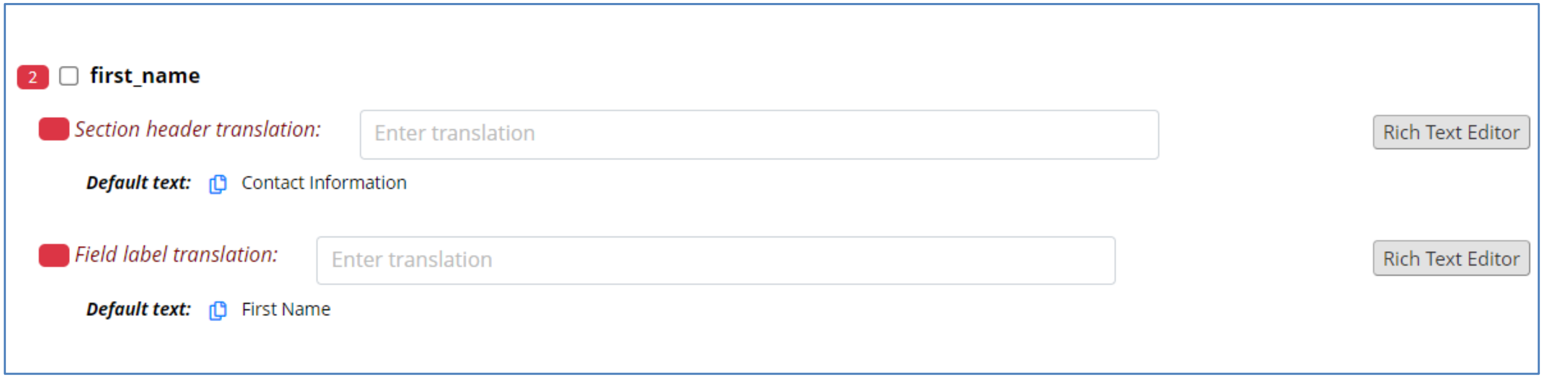
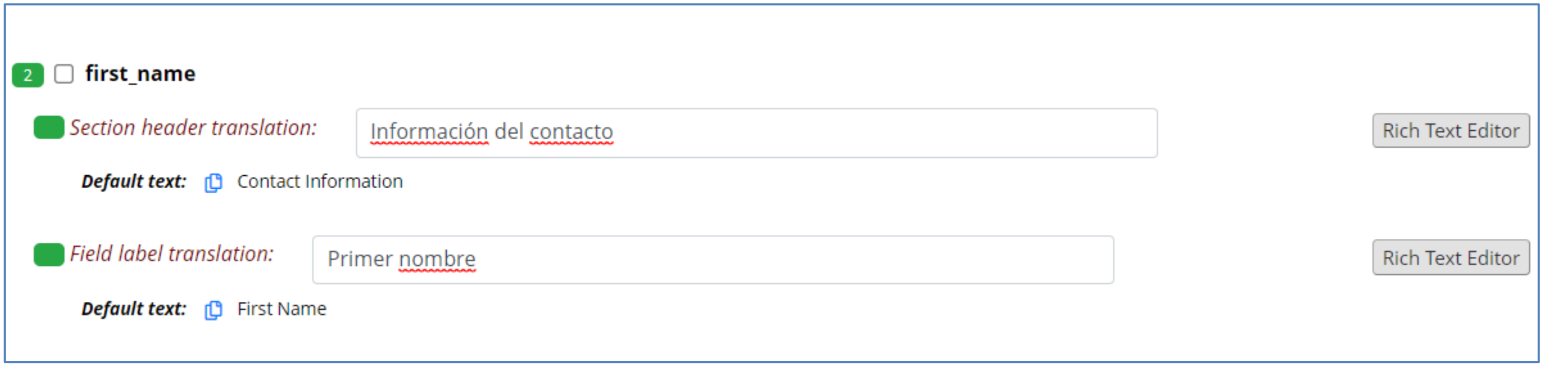
Multi-Language Management: Translation

- From the **Fields** section you can translate any and all fields to the desired language. The **Default text** section has a **clickable copy button** that allows for easy copy and pasting into the preferred translator tool!

*Fields that **have not been translated** will have a **red** colored box to denote a field with no translation.*



*Fields with a **green** colored box signify that the text has been translated.*



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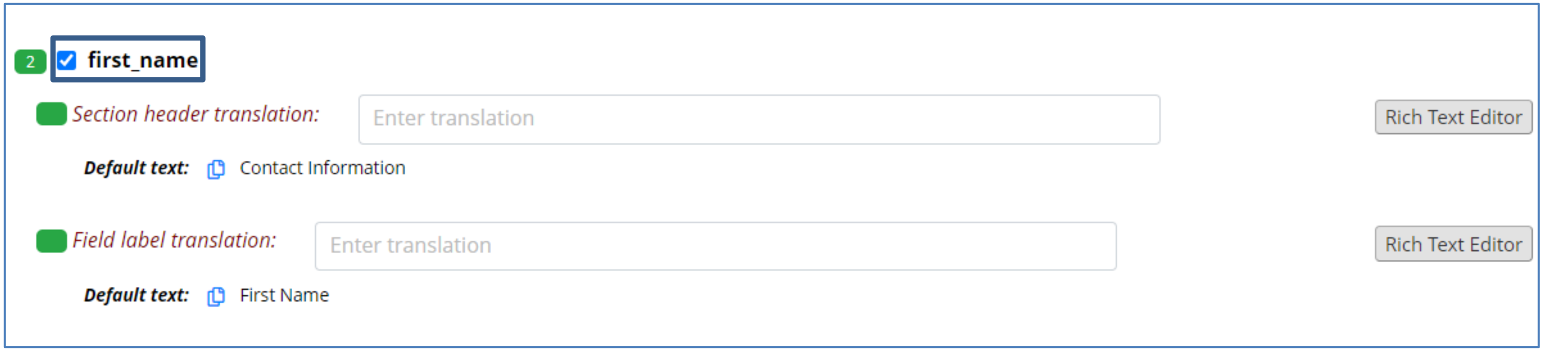
Multi-Language Management: Translation

*If you'd rather leave a field untranslated the **checkbox** can be selected to leave the text as default.*



- All of these settings and features work the same when viewing the **Survey Settings** translation options.

***Data Form and Survey Titles** can be translated as well!*

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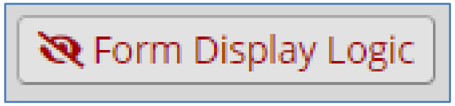
Multi-Language Management: Action Tags

- @LANGUAGE-CURRENT-FORM
  - Allows you to capture the currently used language in projects where multilingual data is enabled on data entry forms. This can be used on **Text Box, Drop-down Lists or Radio Buttons**.
- @LANGUAGE-CURRENT-SURVEY
  - Same *as* @LANGUAGE-CURRENT-FORM**,** but works only on survey pages. For multi-page surveys, @LANGUAGE-CURRENT-SURVEY needs to be used on a field of each page where capture of the language is relevant (e.g. for performing branching).
- @LANGUAGE-FORCE
  - When used on a field, the form or survey on which the field is located will be rendered in the **specified** (the language must have been set up prior to this).
- @LANGUAGE-FORCE-FORM
  - Same as @LANGUAGE-FORCE but is limited to **data entry forms** only.
- @LANGUAGE-FORCE-SURVEY
  - Same as @LANGUAGE-FORCE but is limited to **surveys** only.
- @LANGUAGE-SET
  - When used on a **Drop-down or Radio Button** field only, this action tag will allow the field's value to control the currently shown language (in the same way as switching the language via the globe button at the top of the page).

New Feature: Form Display Logic

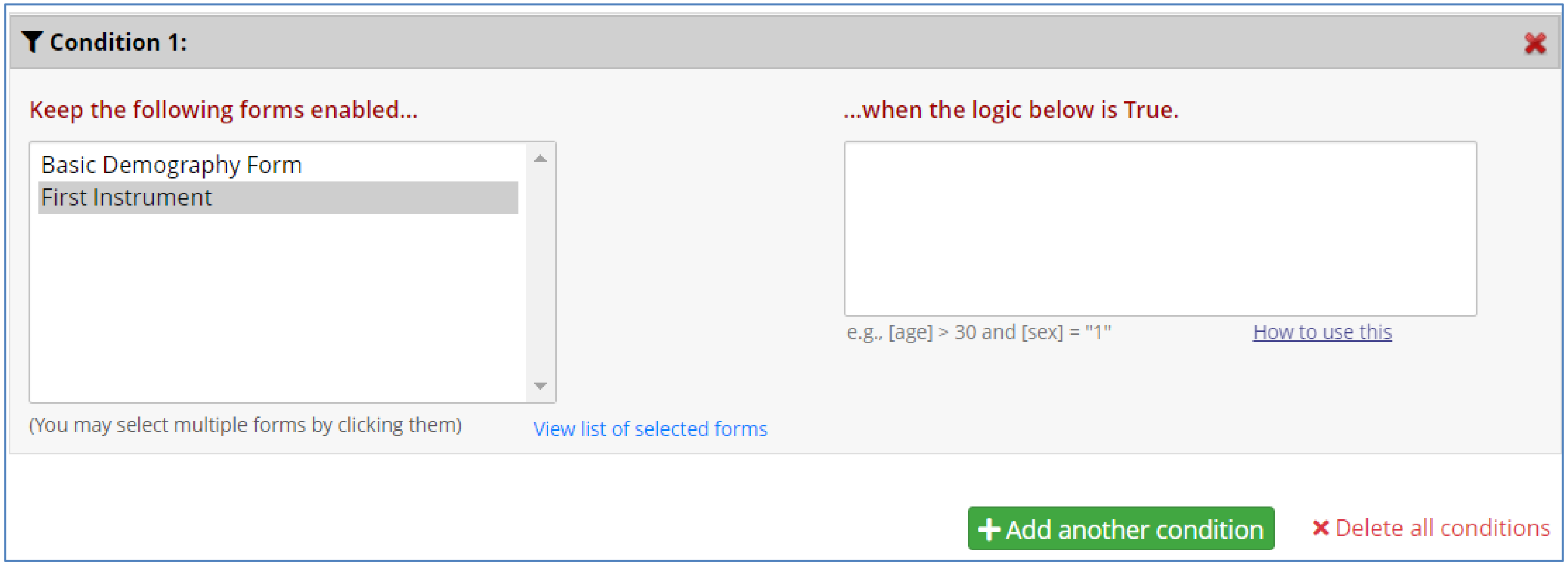
- **Form Display Logic** is an advanced feature that provides a way to use **conditional logic** to <u>disable</u> specific data entry forms that are displayed on the **Record Status Dashboard, Record Home Page, or the form list on the left-hand menu**. You might think of it as 'form-level branching logic'. Form Display Logic can be very useful if you wish to prevent users from entering data on a specific form or event until certain conditions have been met. The forms will still be displayed on the page, but they will be disabled in order to prevent users from accessing them.
- The Form Display Logic **does not impact data imports** but only operates in the data entry user interface to enable/disable forms. Additionally, Form Display Logic is not utilized by the Survey Queue at all but can affect the behavior of the Survey Auto-Continue feature if the checkbox for it is enabled in the setup dialog.

*The **Form Display Logic** setup can be found by clicking the "Form Display Logic" button at the top of the instrument list in the Online Designer.*



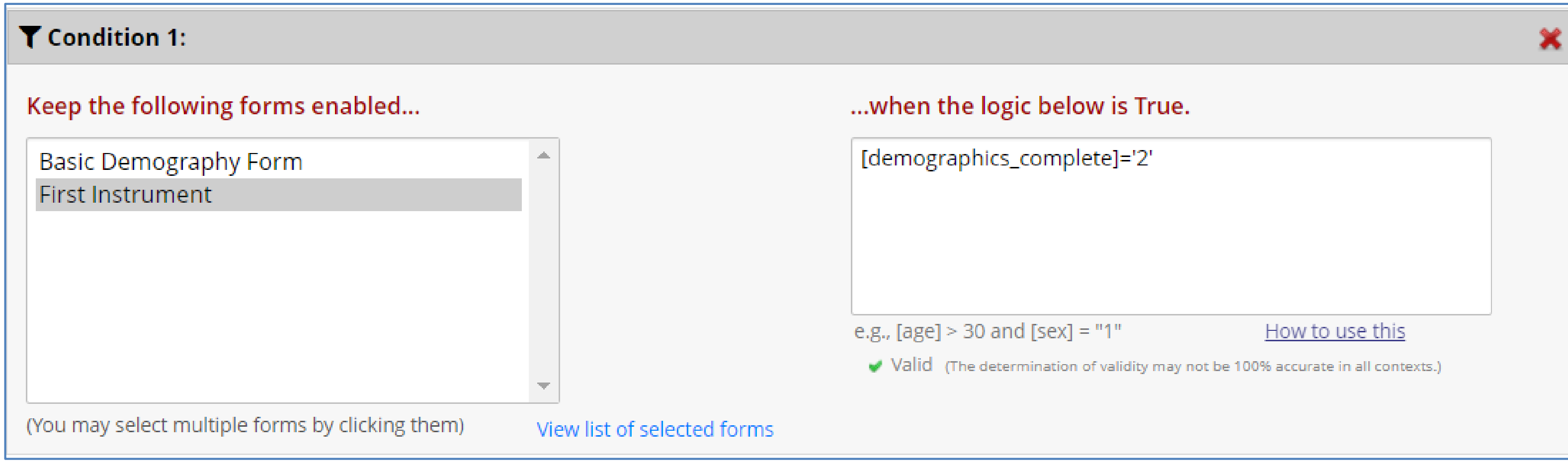
Form Display Logic: Setup

- **Form Display Logic** works very similarly to **branching logic** inside of instruments. Upon arriving at the Form Display Logic screen you will see a list of forms in the left box and a box for **logic** on the right side. From here we can set up our logic.



Form Display Logic: Setup

- In this example, we set up our **Form Display Logic** to only allow access to the First Instrument form **if the Basic Demography Form** has been completed.



*Once we save our settings we can go into the **Record Status Dashboard** and see that **First Instrument** can **not be accessed** at all until the Demography Form is completed.*

NEW Study ID **1**

Data Collection Instrument	Status
Basic Demography Form (survey)	
First Instrument (survey)	

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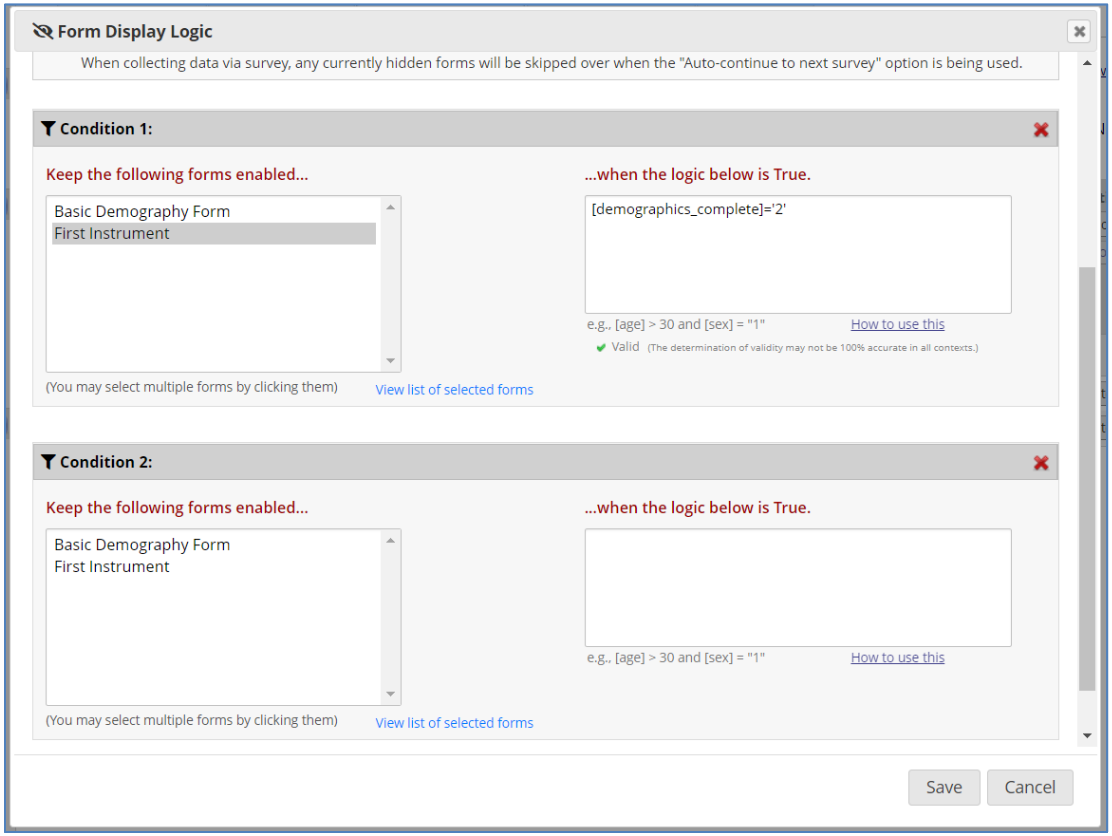
Form Display Logic: Setup

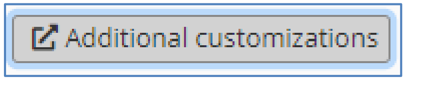
- It is possible to have **multiple conditions** for the Form Display Logic allowing for finer control of what forms are accessible based on the stipulations set in the logic.



New Feature: Protected Email Mode

- Users can enable the **Protected Email Mode** on any project on the Project Setup via the **Additional Customization dialog**. This setting **prevents identifiable data (PHI/PII) when marked as such on the variable** from being sent in outgoing emails for alerts, survey invitations, and survey confirmation emails.
- If enabled, **either A) all alerts, survey invitations, and survey confirmation emails** or **B) those whose email body is attempting to pipe data from Identifier fields will be affected**, in which it will not send the full email text to the recipient but will instead send a **surrogate email containing a link** that leads them to a secure REDCap page to view their original email. If someone is accessing an email in the Protected Email Mode for the first time (or for the first time in the past 30 days), it will send a security code to their inbox that will allow the recipient to view any protected emails for up to 30 days on that same device.

Protected Email Mode *can be found under the* ***Additional customizations*** *option under the* ***Project Setup*** *tab.*



Protected Email Mode: Setup

- When enabled in a project, user's may specify custom text/HTML to display at top of the sent email and web page where the original email is viewed. This will allow users to also display logos/images pertaining to their project or institution.

*The custom text and custom logo options can be adjusted to modify the **secure message** sent to participants.*

☑ **Protected Email Mode**

This setting prevents identifying data (PHI/PII) from being sent in outgoing emails for alerts, survey invitations, and survey confirmation emails. If enabled, either A) all alerts, survey invitations, and survey confirmation emails or B) those whose email body is attempting to pipe data from Identifier fields will be affected, in which **it will not send the full email text to the recipient but will instead send a surrogate email containing a link that leads them to a secure REDCap page to view their original email.** If they are accessing an email in the Protected Email Mode for the first time (or in more than a month), it will send a security code to their inbox that will allow the recipient to view any protected emails for up to 30 days on that same device.

1) Should the Protected Email Mode operate on all alerts, survey invitations, and survey confirmation emails, or only on those whose email body is piping data from Identifier fields?

All alerts, survey invitations, and survey confirmation em:

2) Optional custom text to display in the email header and page header seen by the recipient. Default text: *REDCap Secure Messaging*.

REDCap Secure Messaging

HTML may be used to add images, links, or styled text. For example:

```
VUMC Study<br><img src="https://redcap.mysite.edu/logo.png">
```

3) Optional custom logo to display in the email header and page header seen by the recipient. (Will be displayed above the custom text.)

Upload custom logo:

Choose File No file chosen

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Protected Email Mode: Setup

*The user will receive a **secure email** containing a message similar to the one below.*

REDCap Secure Messaging

[redacted]@tuftsmedicalcenter.org has sent you a secure email message.

Read the message

Learn about messages protected by REDCap.

*Clicking on the email message will take users to a security check screen before they can see the message. A **one time code** will be sent to the same email address.*

REDCap Secure Messaging

REDCap

Quick security check before viewing your email

Because you have not visited this page before or in a long time, we just sent you a new email containing a security code that will be used to verify your identify here. Please return to your inbox right now to retrieve that security code, and then enter it below. Thanks!

☐ This is a public computer (Unchecking this checkbox will store a cookie on this device.)

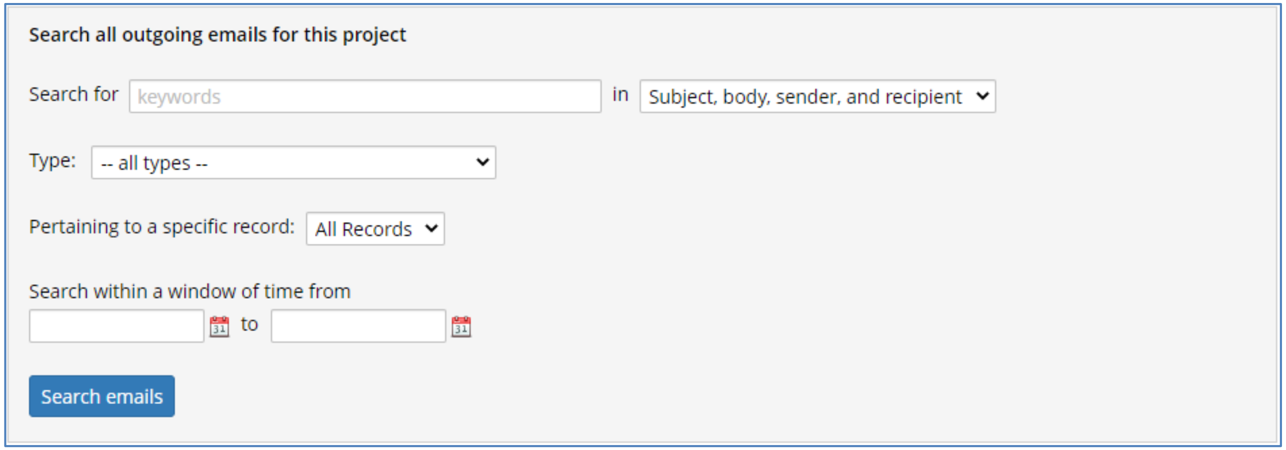
Enter code | Submit code

New Feature: Email Logging

- This is a new project page that contains a search interface to allow users with User Rights privileges to search and **view ALL outgoing emails** for that project (also includes searching and viewing **of SMS messages if using Twilio services**).
- **Only users with User Rights privileges** in the project may access the page, and additionally they **must opt-in and agree to a disclaimer** before being able to view the page.

The ***Email Logging*** *tool can be found under the* ***Applications*** *sidebar menu.*

The main page for email logging provides various options for finding a specific email.



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New Feature: Email Logging

- After inputting your search criteria and clicking on the **search emails** button you will see the results of your search as shown in the example below.

2 matching results

View msg	Time sent	Record	Summary email content and attributes (click icon on left to view full email)
	02/17/2022 3:59pm	2	From: [redacted]@tuftsmedicalcenter.org, To: [redacted]@tuftsmedicalcenter.org Subject: Test This is a test email
	02/14/2022 3:24pm	1	From: [redacted]@tuftsmedicalcenter.org, To: Subject: Test Test

*The **envelope** icon can be clicked on to bring up another window that allows you to see the email that was sent an the option of **re-sending** the email.*

Test

From: [redacted]@tuftsmedicalcenter.org
To: [redacted]@tuftsmedicalcenter.org

02/17/2022 3:59pm (19 hours ago)

This is a test email

Re-send email

Close

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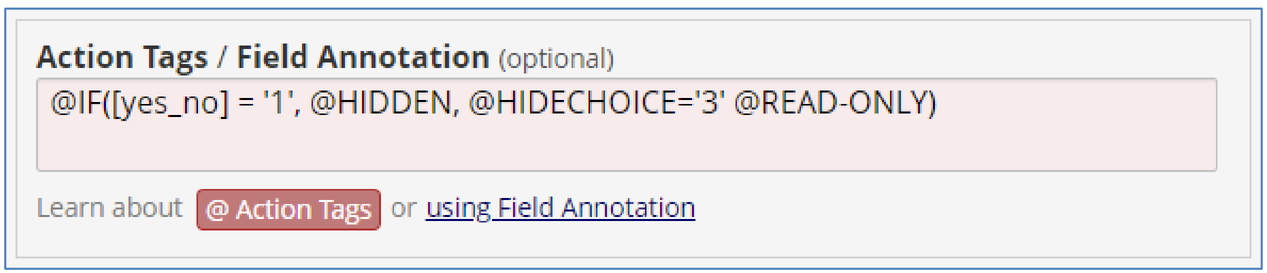
New Action Tag: @IF

- Allows various action tags to be set based on conditional logic provided inside an **@IF()** function
  - e.g., **@IF**(*CONDITION*, *ACTION TAGS* **if** *condition is TRUE, ACTION TAGS* ***if*** *condition is FALSE*).
- Simply provide a condition using normal logic syntax (similar to branching logic), and it will implement one set of action tags or another based on whether that condition is true or false.

The ***@IF*** *action tag can be filled out like the example below to trigger another* ***action tag*** *based on the conditions set.*



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New Smart Variable: Event Number

- New Smart Variable: **[event-number]** - The current event's ordinal number as listed on the Define My Events page that denotes the order of the event within a given arm.
- The **Define My Events** page now displays a new column to display each event's **Event ID number**. Also, the Smart Variable corresponding to each column in the table on the Define My Events page (e.g., [event-number], [event-label) are displayed in small gray text below the header text in the table to help users more easily learn where the values of those Smart Variables originate.

	Event # [event-number]	**Event Label** [event-label]	**Custom Event Label** (optional)	Unique event name (auto-generated) [event-name]	Event ID (auto-generated, unchangeable) [event-id]
	1	Event 1		event_1_arm_1	33277
	2	Event 2		event_2_arm_1	33278
	3	Event 3		event_3_arm_1	33279
Add new event		Descriptive name for this event	Custom Event Label (optional) Example: [visit_date], [weight] kg		

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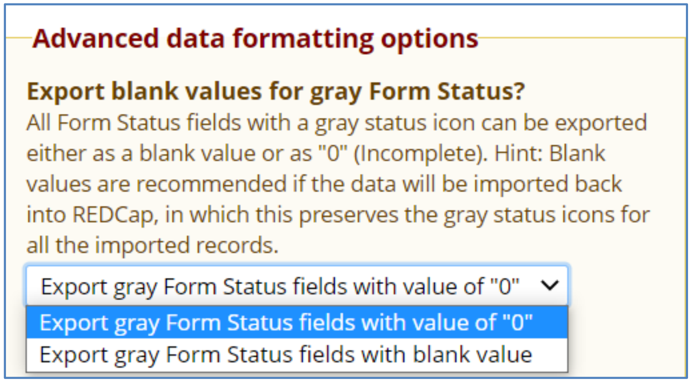
New Data Export Option: Export Blank Values

- All instrument complete status fields having a gray icon can be exported either as a blank value or as "0"/"Incomplete". In previous versions, they could only be exported as "0". By default, they are now exported with a value of "0", but this option can be changed via a drop-down option in the "Advanced data formatting options" section of the data export dialog.

- When exporting the Project XML file with both metadata & data, the option to export gray instrument status as a blank value will be preselected by default, whereas in other data export contexts (e.g. My Reports & Exports page), the option to export them as "0" will be preselected by default.



…and Many More Features!

- When a survey participant **partially completes a survey** that has the **Save & Return Later** feature enabled, instead of sending that email from the system-level "Email Address of REDCap Administrator“ the "From" email address of the "Survey partially completed" email will be set to the sender's address from the most recent survey invitation received by the participant.
- A button to open the **Codebook page** as a floating popup window was added inside the **Logic Editor** popup to allow users to easily find and reference fields they want to use in their logic while in the editor.
- The **Online Designer** now denotes whether a field on the instrument contains embedded fields inside its label, choices, notes, etc. by displaying a blue box saying "Contains embedded fields", similar to the green **"Field is embedded elsewhere on page"** boxes for embedded fields themselves. This will provide users with visual cues to know when and where field embedding is occurring.
- New design for the “Help & FAQ” page.

To see the full release notes, please look at our website at

https://www.tuftsctsi.org/research-services/informatics/redcap-research-electronic-data-capture/

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Request a REDCap Account

To request a REDCap user account or receive other REDCap support, please follow the Request Services link located on our website at www.tuftsctsi.org and we will contact you within 48 hours.

Thank you!

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