Tufts Clinical and Translational Science Institute

REDCap New Features version 9.5.5

February, 2020

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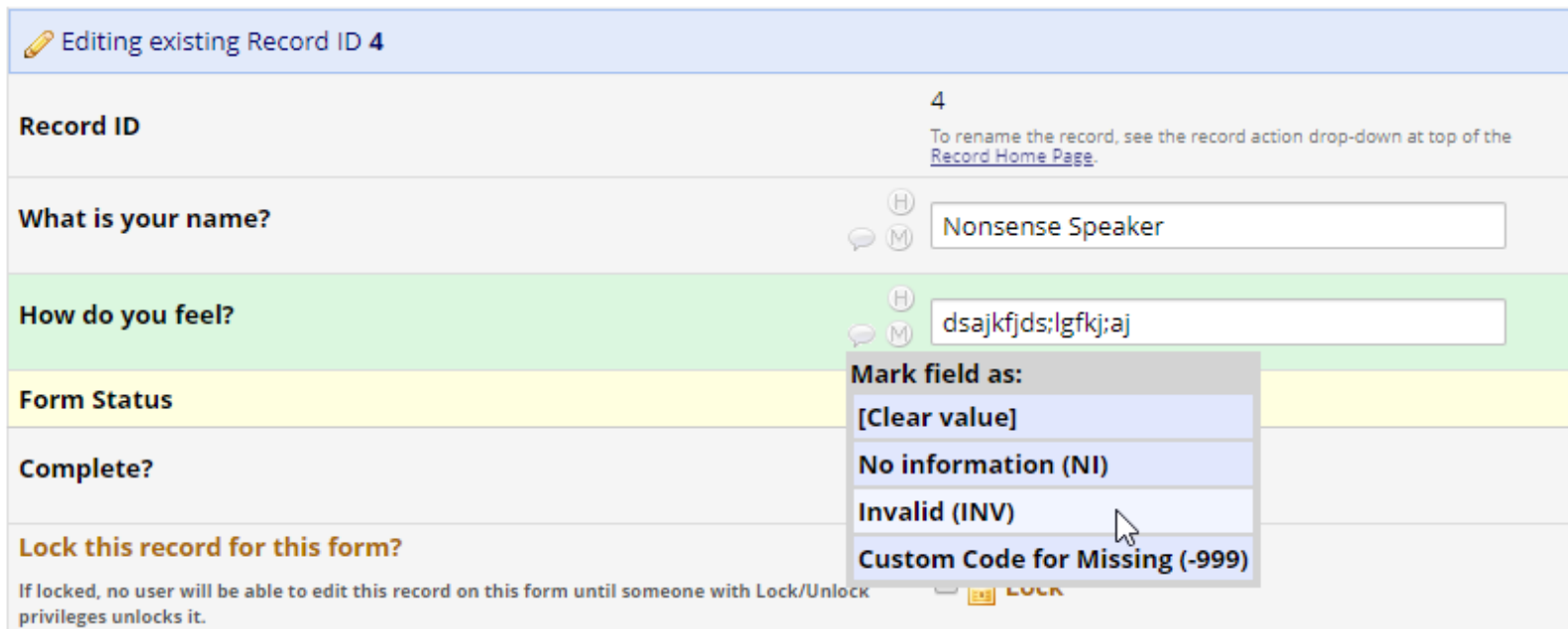Tufts Clinical and Translational Science Institute

Overview

Tufts CTSI recently upgraded REDCap to version 9.5.5. The new REDCap features are summarized below. If you have questions about these features, please email informatics@tuftsctsi.org:

- [Missing Data Codes](#)
- [Alerts & Notifications](#)
- [Improved Reports](#)
- [New Smart Variables](#)
- [REDCap Mobile App](#)

- [Rich Text Editing](#)
- [reCAPTCHA](#)
- [New Action Tags](#)
- [GDPR Compliance Options](#)
- […and many more!](#)

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Missing Data Codes

REDCap now supports establishing standardized "codes" to indicate that data is missing, rather than just leaving fields blank. These codes can also establish that data is invalid, out-of-range, or otherwise not usable:

Missing Data Codes

Missing Data Codes can be set up in the **Additional Customizations** menu available on the "Project Setup" tab

Missing Data Codes

Once in the Missing Data Codes section, you can add from a list of standard codes that designate data quality issues OR create your own, using letters and / or numbers

Missing Data Codes

Codes are added in the same format as entries in a dropdown menu, with the **value** coming before a comma, and the **label** coming after (ie, "**-999, Custom Code for Missing**")

Ⓜ **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.
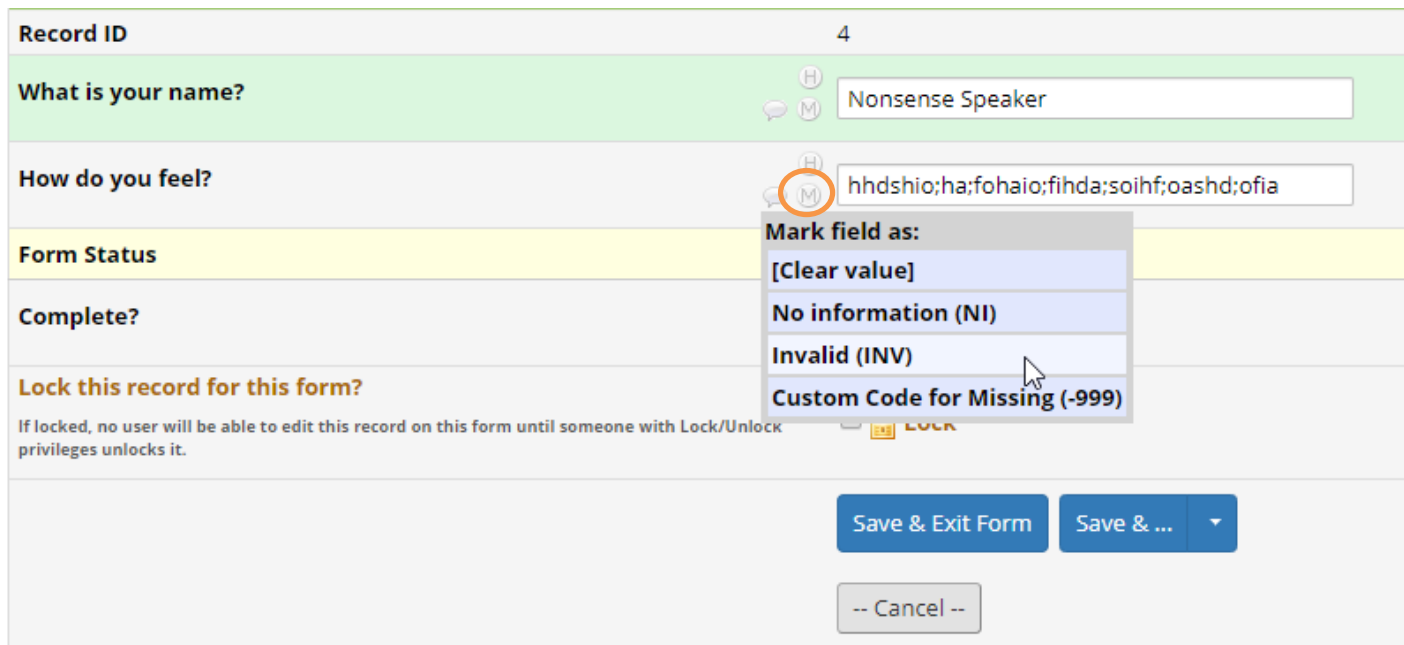Read more detailed instructions.

Missing Data Codes

NI, No information
INV, Invalid
-999, Custom Code for Missing

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

Missing Data Codes

- If your project has Missing Data Codes enabled, you will see an "**M**" next to all data fields. Clicking this will allow you to select one of your standard codes.

- This can be done both when entering new data, or when accessing data from a submitted survey

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Missing Data Codes

- Once selected, the code will become the field's value

- However, the original value of the field will be preserved via the "History" (**H**) button and the Logging page

Missing Data Codes
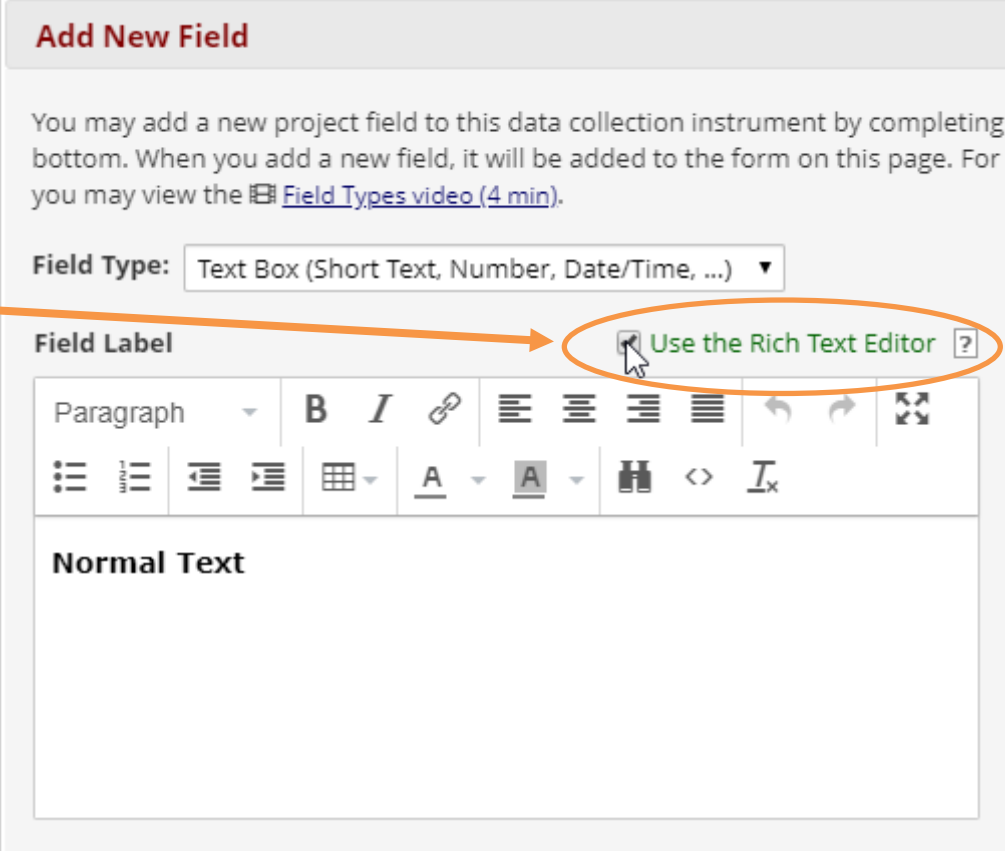
- The Data Quality Rules do not count Missing Data Codes as "Blank Values", but test for them with a new rule, **Rule I**.

Data Quality Rules		Execute rules:	All	All except A&B	Clear

Apply to: -- All records -- ▼

Rule #	Rule Name	Rule Logic (Show discrepancy only if...)	Real-time execution ?	Total Discrepancies	Delete rule?
A	Blank values*	-		Execute	
B	Blank values* (required fields only)	-		Execute	
C	Field validation errors (incorrect data type)	-		Execute	
D	Field validation errors (out of range)	-		Execute	
E	Outliers for numerical fields (numbers, integers, sliders, calc fields)**	-		Execute	
F	Hidden fields that contain values***	-		Execute	
G	Multiple choice fields with invalid values	-		Execute	
H	Incorrect values for calculated fields	-		Execute	
I	Fields containing "missing data codes"	-		Execute	

- A new function usable in logic and calculations, **isblankormissingcode()**, returns true if the specified variable is empty **or** has a missing data code

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Rich Text Editing

- REDCap now makes it easier to use HTML formatting in the online designer and Survey Invitation settings

- By clicking the box, you can see options for text formatting

- In REDCap all field labels are **bold** by default; this will now be visible and easier to change

Add New Field

You may add a new project field to this data collection instrument by completing bottom. When you add a new field, it will be added to the form on this page. For you may view the ▣ Field Types video (4 min).

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

Field Label   ☑ Use the Rich Text Editor ?

Paragraph ▾ | **B** *I* 🔗 | ≡ ≡ ≡ ≡ | ↶ ↷ | ⤢
☰ ☰ ⇤ ⇥ | ▦ ▾ | **A** ▾ **A** ▾ | 🔖 ⟨⟩ T𝗑

Normal Text

Rich Text Editing

In addition to text formatting, the Rich Text Editor also makes it easier to add links and tables, and allows you to view the HTML Code that it produces

Rich Text Editing

- If you unselect the "Use Rich Text Editor" checkbox, your field will revert to the HTML code that was produced; *this will not affect how your field looks to a form / survey user*
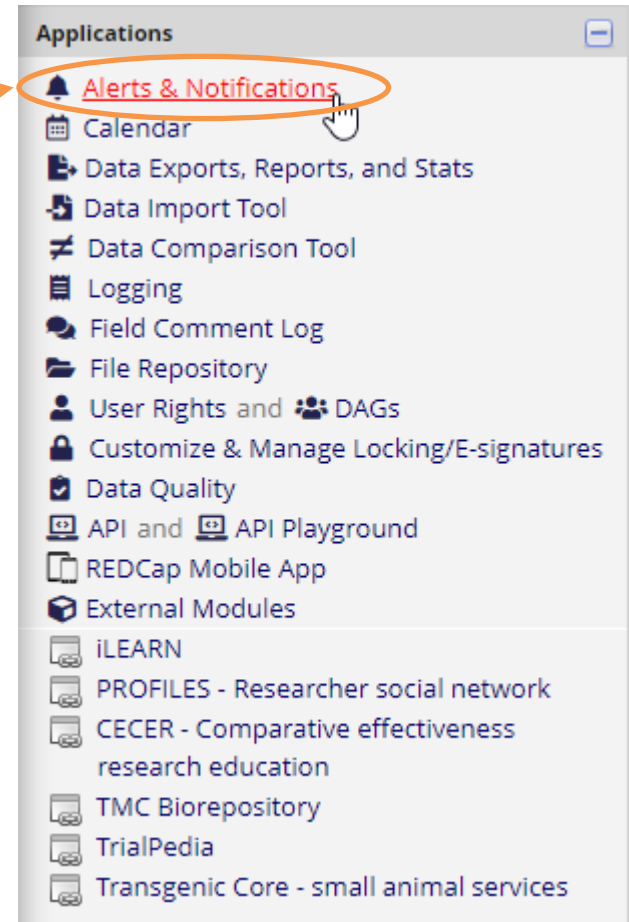

- You can disable and re-enable the editor as desired

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Alerts and Notifications

- REDCap now allows you to send out e-mail messages through its **Alerts and Notifications** section, accessible via the left-hand column, which are configurable and allow diverse triggers

- Alerts can be sent to **users**, **study staff**, **participants**, and **anyone else**, and allow for complex piping and formatting

Applications
- Alerts & Notifications
- Calendar
- Data Exports, Reports, and Stats
- Data Import Tool
- Data Comparison Tool
- Logging
- Field Comment Log
- File Repository
- User Rights and DAGs
- Customize & Manage Locking/E-signatures
- Data Quality
- API and API Playground
- REDCap Mobile App
- External Modules
- iLEARN
- PROFILES - Researcher social network
- CECER - Comparative effectiveness research education
- TMC Biorepository
- TrialPedia
- Transgenic Core - small animal services

Alerts and Notifications

Once on the "Alerts and Notifications" page, press the "Add New Alert" button to customize a new e-mail

🔔 **Alerts & Notifications**

The Alerts & Notifications feature allows you to construct alerts and send customized email notifications. These notifications may be sent to one or more recipients and can be triggered or scheduled when a form/survey is saved and/or based on conditional logic whenever data is saved or imported. When adding/editing an alert, you will need to 1) set how the alert gets triggered, 2) define when the notification should be sent (including how many times), and 3) specify the recipient, sender, message text, and other settings for the notification. For the message, you may utilize customized options such as rich text, the piping of field variables (including Smart Variables), and uploading multiple file attachments. Learn more

🔔 My Alerts   ⊞ Notification Log

➕ Add New Alert   ☐ Show deactivated alerts

All active alerts you have will be displayed here; you can choose to deactivate and restore alerts as needed

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Alerts and Notifications

Alerts are 100% customizable, including their **name**, **schedule**, **trigger**, **message** (full HTML support), and **recipients** (can choose to use piping, CC, and BCC)

Alerts and Notifications

The logic for alerts can be made arbitrarily complex to ensure that it is only sent out under exact circumstances

Alerts and Notifications

- Messages are instantly sent via e-mail to the recipient based on the conditions met and the schedule time set
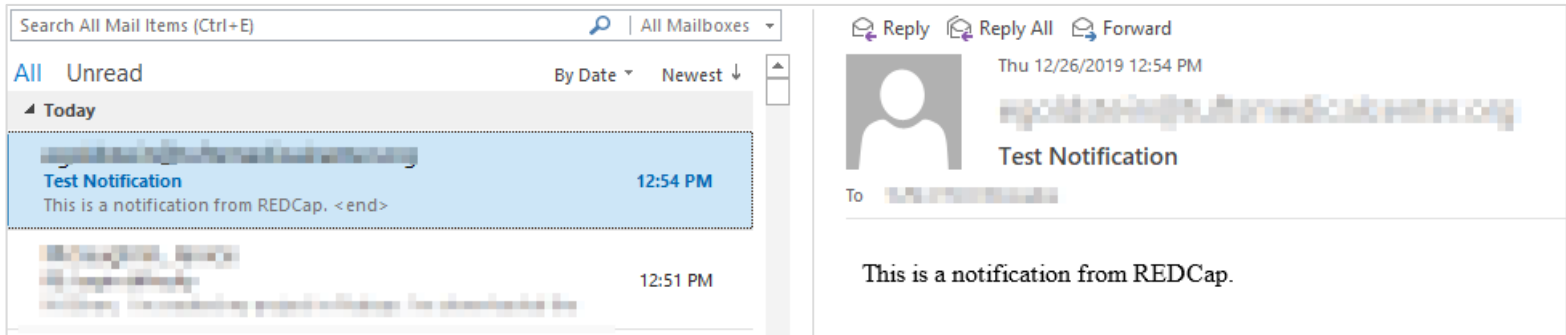
- The **notification log** shows all previous and scheduled messages, with the ability to filter and see all messages
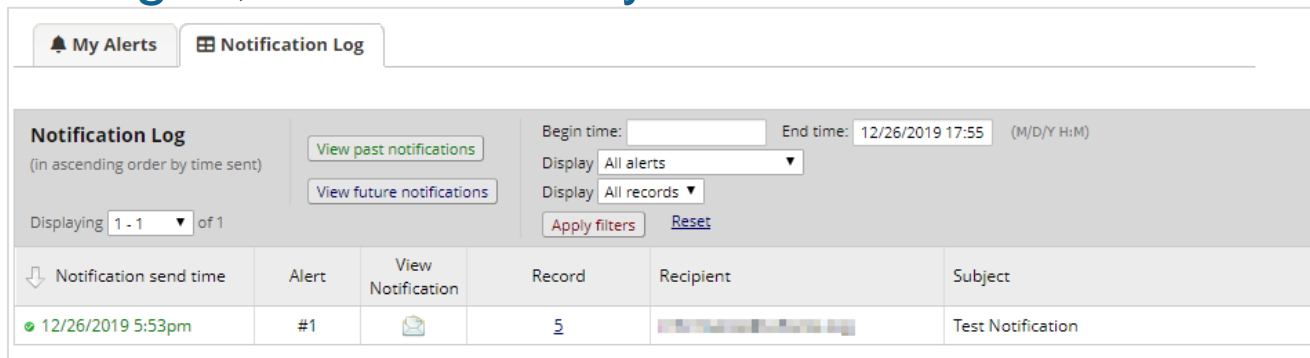
REDCaptcha

- REDCap now supports the use of Google reCAPTCHA to prevent robots from opening public survey links

- This is under "Survey Distribution Tools" (previously "Manage Survey Participants")

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REDCaptcha

- When this is enabled, anyone entering your survey via the public link (but only the public link) must click a button to ensure that they are not a robot before continuing

- This prevents robots from automatically filling out survey links you distribute

Public Survey for Research Study

To proceed to the survey, please check off the box and click the button below.

☐ I'm not a robot
reCAPTCHA
Privacy - Terms

Begin survey

Public Survey for Research Study

To proceed to the survey, please check off the box and click the button below.

✓ I'm not a robot
reCAPTCHA
Privacy - Terms

Begin survey

Improved Reports: User Rights

Reports now have descriptions and separate viewing and editing rights management

Improved Reports: Searches and Sorting

You can now search through reports in the left-hand column

And organize them into folders

Improved Reports: Checkboxes

By default, when viewing reports with checkboxes REDCap will split each box into its own column

There is now an option to consolidate these into one column

New Action Tags

REDCap now features several new **Action Tags** to change field behavior:

- **@HIDDEN-PDF** – Hides field from all PDF downloads

- **@NOMISSING** – Disables missing data codes in field

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New Action Tags

- **@NOW_SERVER** – Loads the server's date / time into a text field

- **@TODAY_SERVER** – Loads the server's date into a text field

- **@NOW_UTC** – Loads the current UTC/GMT date / time into a text field

- **@TODAY_UTC** – Loads the current UTC / GMT date into a text field

Edit Field

You may add a new project field to this data collection instrument by completing bottom. When you add a new field, it will be added to the form on this page. Fo you may view the ⊞ Field Types video (4 min).

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

Field Label   ☐ Use the Rich Text Editor [?]

The server's time (useful for capturing consistant time regardless of user's time zone / settings!)

Action Tags / Field Annotation (optional)
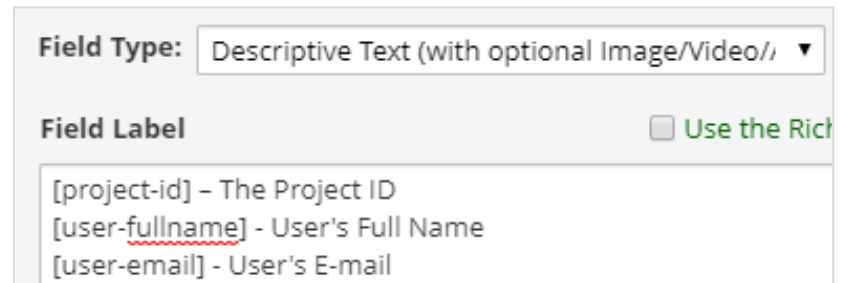
@NOW-SERVER

Learn about [@ Action Tags] or using Field Annotation
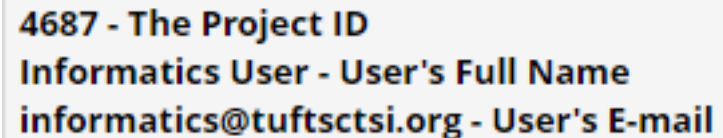
New Smart Variables

REDCap also has several new **Smart Variables** that can help you collect or show system-level information:

- **[project-id]** – The Project ID (i.e., PID) of the current project

- **[user-fullname]** – The current user's first and last name

- **[user-email]** – The current user's primary email

New Smart Variables

- **[redcap-base-url]** – The base web address for REDCap

- **[redcap-version]** – The current REDCap installation's version

- **[redcap-version-url]** – The base web address with the version

- **[survey-base-url]** – The base web address for surveys

[redcap-base-url] - Base URL
[redcap-version] - Version Number
[redcap-version-url] - URL With Version
[survey-base-url] - Survey URL

https://collaborate.tuftsctsi.org/redcap/ - Base URL
9.5.5 - Version Number
https://collaborate.tuftsctsi.org/redcap/redcap_v9.5.5/ - URL With Version
https://collaborate.tuftsctsi.org/redcap/surveys/ - Survey URL

New Smart Variables

- **[instrument-name]** – The unique instrument name of the current survey / form

- **[instrument-label]** – The label of the current survey / form

- **[survey-title]** – The survey title of the instrument (can add parameter to see the title of another instrument in the project with surveys enabled)

[instrument-name] - Instrument Name
[instrument-label] - Instrument Label
[survey-title] - Survey Title

My Instrument - Instrument Name
My Instrument - Instrument Label
My Survey - Survey Title

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GDPR Compliance Options

- GDPR (General Data Protection Regulation) is a set of regulations used in the EU for data privacy

- Among them is the "**Right to be Forgotten**", which mandates the deletion of certain data upon request

- There are options to automatically remove logs of deleted records or automatically delete data after a period of time

- These options **must be enabled by an administrator**, so contact informatics@tuftsctsi.org for more information

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REDCap Mobile App

- Projects on Tufts CTSI's REDCap installation can now use the **REDCap Mobile App** for data collection
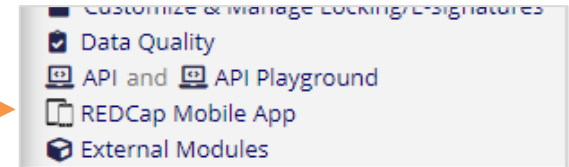
- This is intended for **data collection without internet access.** It is **not** intended for general data collection, and is **not** compatible with surveys

- To get more information about the **Mobile App**, please see **this guide** (URL:https://tuftsctsi.s3.amazonaws.com/redcap/REDCap_Powerpoints/REDCap_Mobile_App_Guide_20200212.pdf)
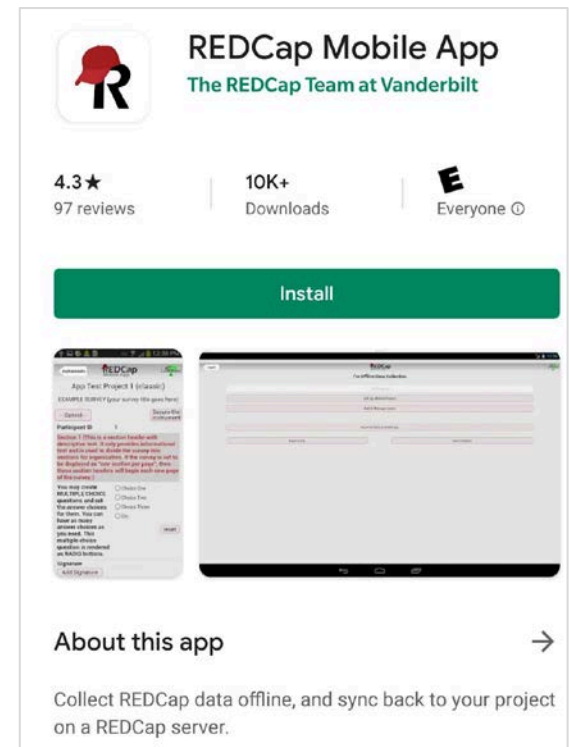
…And Many More Features!

- New downloadable test batteries from the REDCap Shared Library

- More settings information stored in Project XML for better backups

- Support for Traditional Chinese in PDF's

- Expanded "Help and FAQ" page

- Ability to set .csv formatting parameters when exporting

- Option to preserve line breaks in data exports

- "Expand" and "Collapse" buttons for cleaner-looking codebooks

- Improved icons for better look-and-feel and easier navigation

- Customizations for displaying the "Secondary Unique Field"

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

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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