Version 7.4.4 - (released 6/29/2017)

BUG FIXES & OTHER CHANGES:

- New LTS branch based on REDCap 7.4.3 (Standard) + the bug fixes listed below.
- Medium security fix: A cross-site scripting vulnerability was found that could be exploited by a malicious user or survey respondent uploading a specially designed file for a File Upload field (or manipulate the HTTP request during the upload process) on a survey page or data entry form.
- Bug fix: When clicking the "Add new" button on the Record Home Page to add a new repeating event for a record, if the event/form table is large enough on the page, the table may mistakenly disappear on certain occasions after clicking the button. (Ticket #23165)
- Bug fix: If a logged-in user knows how to manipulate a specific HTTP request to the REDCap server, they might be able to learn the project title of any given project.
- Bug fix: For longitudinal projects with multiple arms that utilize repeating instruments, if a record exists on more than one arm, the Record Home Page would mistakenly display the repeating instruments tables from other arms for that record.

Version 7.4.3 - (released 6/22/2017)

IMPROVEMENTS & OTHER CHANGES:

- Improvement: When the Data Resolution Workflow module is enabled for a project, the Resolve Issues page now has an Export button to allow users to download the data resolution dashboard as a CSV file. The page also allows users to view "all status types" using the first filter drop-down in the dashboard table.
- Change: When designating instruments for events on a longitudinal project's "Designate Instruments for My Events" page, normal users will no longer be able to undesignate an instrument from an event if the project is in production (REDCap administrators will still be allowed to do this though). This is to protect users from mistakenly undesignating instruments after collecting data in production, which would orphan the data.
- Change/improvement: The Data Search feature on the "Add/Edit Records" page performs slightly better regarding the ranking of search results returned, in which it now lists exact word matches first in the list of results. Additionally, the Data Search feature now returns a maximum of 25 matching values, whereas previous versions returned a maximum of 15.
- Version 7.4.2 - (released 6/13/2017)

IMPROVEMENTS & OTHER CHANGES:

- Change/improvement: To allow text boxes to expand flexibly, an "Expand" link was added below the "Send confirmation email" message box on the Survey Settings and also below the User Comments text box on the Browse Users page when editing a user's account in the Control Center.
• Change: The "Review Drafted Changes" page in a production project now gives a bigger warning if a user is attempting to change the Record ID field's variable name after data collection has begun.

• Change: Invitation reminders are now displayed by default in the Survey Invitation Log. In previous versions, the "Display invitation reminders?" checkbox would have to be checked in order to see the reminders. Not initially seeing the reminders would cause some users to mistakenly assume that nothing was scheduled.

• Change/improvement: When adding a secondary or tertiary email address to a REDCap user account, the language has been modified on the email verification page for greater clarity when the current logged-in user clicks the link and they are not the requester. This can happen sometimes when one user is authorizing another user to use their email address for their REDCap account's secondary or tertiary email. (Ticket #21780)

Version 7.4.1 - (released 5/29/2017)

IMPROVEMENTS & OTHER CHANGES:

• Improvement: If a record has any calendar events (included scheduled events) that will occur in the next 7 days, it will display a button above the table on the Record Home Page. The button will note how many calendar events there are for the current record in the 7 days, and when clicked, it will display the next 7 days worth of calendar events in agenda mode view.

• Improvement: If a record has any survey invitations that are scheduled to be sent in the next 7 days, it will display a button above the table on the Record Home Page. The button will note how many upcoming invites are scheduled for the current record in the 7 days, and when clicked, it will display a table of the send time and survey title for the next 7 days worth of scheduled invites.

• Improvement: When the Dynamic Data Pull (DDP) module is enabled for a project, it will now display a record's number of items to adjudicate when viewing the record on the Record Home Page, and additionally clicking the View button allows to user to adjudicate new items for the record on the Record Home Page.

• Improvement: When the Dynamic Data Pull (DDP) module is enabled for a project, the DDP adjudication popup now displays a gray header for each data entry form of fields displayed in the popup. This makes it more clear to which form the fields belong.

Version 7.4.0 - (released 5/17/2017)

NEW FEATURES, IMPROVEMENTS, & OTHER CHANGES:

• New feature: REDCap Messenger
  o REDCap Messenger is a communication platform built directly into REDCap. It allows REDCap users to communicate easily and efficiently with each other in a secure manner. At its core, REDCap Messenger is a chat application that enables REDCap users to send one-on-one direct messages or to organize group conversations with other REDCap users. REDCap Messenger is also the best and easiest way to share documents with
other REDCap users, in which you can upload documents and embed pictures inside any given conversation.

- View more info here
- Watch 10-minute video on REDCap Messenger

- Improvement: The generic field validation error message ("The value you provided could not be validated because it does not follow the expected format. Please try again.") has been improved, in which it now additionally displays "Required format:" and the name of the field validation (e.g., "Datetime (D-M-Y H:M)") in the error prompt so that there is no ambiguity about what the format should be.

- Change/improvement: The password security questions for Table-based users have now had their language abstracted, so they are now translatable like other stock text in REDCap.

- Change: The font size of the text fields for Link Label and Link URL on the "Set up project bookmarks" page were too small.

- Change: On the API page in a project, for users that are not Administrators, it no longer displays a list of all users in the project who have API tokens. This is to adhere to a more conservative security policy. (Ticket #20048)

- Change/improvement: Added an optimized version of the cron job that checks all conditional logic in Automated Surveys Invitations that use "today" inside a datediff() function.

Version 7.3.6 - (released 5/17/2017)

**IMPROVEMENTS & OTHER CHANGES:**

- Change: The user auto-suggest on the User Rights page no longer returns suspended users when searching for users to add to the project.

- Change: The DataQuality::renderResolutionTable method was not checking for $_GET['assigned_user_id'] in resolve.php. (Ticket #20630).

Version 7.3.4 - (released 4/21/2017)

**IMPROVEMENTS & OTHER CHANGES:**

- **Improvement:** The redcap_repeat_instance and redcap_repeat_instrument values will now be sent as parameters for Data Entry Triggers. Note: If the current event/instrument is not a repeating event or repeating instrument, respectively, then these parameters will not be included in the DET request. (Ticket #18794)

- **Improvement:** The repeat_instance parameter was added to the following hook functions: redcap_data_entry_form, redcap_data_entry_form_top, redcap_save_record, redcap_survey_complete, redcap_survey_page, and redcap_survey_page_top. NOTE: In order to utilize this new parameter in REDCap, you must add $repeat_instance as the last parameter in the function definition of the functions above in your hook functions file on your web server. (Ticket #18794)
• **Improvement:** The repeat_instance parameter was added to the REDCap::getPDF() method for plugins/hooks. (Ticket #18794)

• Change: Added a "Cancel" button to the bottom of the Data Dictionary Upload page and Data Import Tool to more easily allow users to start over when halfway through the upload process. (Ticket #19035)

• Change: The Configuration Check page in the Control Center now recommends that you upgrade to PHP 5.4.0 or higher if you are currently running PHP 5.3 on your REDCap web server. It notes that while most of REDCap's functionality works fine with PHP 5.3, it has shown to provide inconsistencies on rare occasions when evaluating particular types of equations for calculated fields. So for better performance and accuracy, it is recommended that you upgrade to PHP 5.4.0 or higher.

• Change/improvement: When using both Data Access Groups and Double Data Entry in a single project and merging two records that both belong to the same DAG, previous versions did not automatically assign the merged third record to the same DAG. It now automatically assigns the new third record to the same DAG in that case. (Ticket #18767)

Version 7.3.3 - (released 4/13/2017)

IMPROVEMENTS & OTHER CHANGES:

• Change: On certain rare occasions, the table displayed on the Record Home Page, on the Record Status Dashboard, on the Designate Instruments For My Events page, and on all reports might not display properly but might have its columns or rows appear misaligned in some way, thus making it difficult to view the table or navigate it well. If this occurs, users can now disable the floating table headers for that table/page in that specific project (and have it remember that choice) by clicking the "Table not displaying properly?" link that is now displayed near the top right of the table. It will also have a [?] link to click, which opens a popup with an explanation of what it means to disable that functionality. (Ticket #18822)

Version 7.3.2 - (released 4/6/2017)

IMPROVEMENTS & OTHER CHANGES:

• Change: In REDCap 7.3.1 (Standard), the Codebook page required Project Setup/Design privileges to view it, although in previous versions it did not require any special user privileges in order to view the page. However, due to good arguments made against the change in 7.3.1, the change has been reverted, and the Codebook will now be fully viewable to all users in the project just as it was in versions prior to 7.3.1.

• Improvement: On the Logging page in projects that have Data Access Groups, a user that is not assigned to a DAG will be able to filter the logging results by records in a DAG. Below the "Filter by record" drop-down at the top, it will display a "Filter by records in a DAG" drop-down that is viewable only by users not currently assigned to a DAG.

Version 7.3.1 - (released 3/17/2017)

IMPROVEMENTS & OTHER CHANGES:
• Improvement: When creating/editing reports in projects that have repeating instruments, a new option has been added to Step 3 (filtering): "Show data for all repeating instruments for each record returned?". This option is very similar to the "Show data for all events for each record returned" option found when editing reports in longitudinal projects in which it applies record-level filtering as opposed to row-level filtering ("row" referring to the rows in the report table displayed). This new option provides greater precision for controlling filters used on data in repeating instruments. For example, if a filter references a field from a non-repeating instrument, then it might filter out all data from repeating instruments and thus not display them in the report, which could be confusing. But with this option checked, it will return all repeating instances (as separate rows) for any record that matches that filter. In this way, it allows you to apply the filter to non-repeating fields while still including fields from repeating instruments in your report. This was not possible in previous REDCap versions.

• Change: When deleting a project while in production, if the project contains no records, it will delete the project immediately rather than sending a request to the REDCap Administrator to delete it. In previous versions, an Administrator would have to delete production projects regardless of whether the project contained records or not.

• Change: Added a note in the "Compose survey invitation" popup on the data entry form to make users aware that if they manually enter an email address into the "To" field for the survey invitation, it is a one-time use only and that any other invitations sent out at other times will instead go to the email address found in the Participant List for that participant. No functionality has changed regarding this, but some users were not aware of this behavior.

• Change: When exporting data to Stata, it now uses syntax for newer versions of Stata. This also includes declaring datetimes more properly than in previous versions of REDCap. (Ticket #13531)

• Change: For security purposes, the hashing algorithm used for hashing the answer to password recovery questions (for Table-based authentication only) will be updated to a stronger algorithm. This will unfortunately cause all Table-based users to have to set their password recovery question again the next time they log in to REDCap; however, it is anticipated that this will cause very little inconvenience to users.

• Change: Normal users are now allowed to enable (or modify) repeating instruments/event in a project while the project is in production. In previous versions, they could only do this while in development.

• Change: The Codebook page in a project now requires that a user have Project Setup/Design privileges in order to access it. This was changed to be more consistent with other places where Project Setup/Design privileges are applied.

• Change: For better compatibility with Shibboleth authentication, the format of the Send-It download URL has been reverted to its pre-7.0 format. Note: The current format will also work in 7.3.1 and is backward compatible in case any Send-It files had been sent out just prior to upgrading to this version.

Version 7.3.0 - (released 3/10/2017)
NEW FEATURES, IMPROVEMENTS, & OTHER CHANGES:

- **New feature: Response Limit for surveys** - Users may set a response limit for any given survey to prevent respondents from starting the survey once a set number of responses have been collected. Note: It can be set so that the response count included either completed responses only or both partial and completed responses. Users may also set custom text to be displayed to respondents on the survey page when the response limit has been reached.

- **New feature: Time Limit for Survey Completion** – Users may set the amount of time (in days, hours, and/or minutes) that each respondent has to complete a given survey based on when they were initially sent the survey invitation. Note: This feature excludes public survey links. When enabled, a new column is displayed on the Participant List where it denotes if a participant’s survey link has expired and also displays the expiration time if you hover over the icon. If the icon is clicked, the user can permanently override the link expiration time by setting it further in the future (to give the respondent more time), or else to expire the link sooner (or even immediately).

- **Improvement**: The survey options at the top of a data entry form now include a new option “Log out + Open survey”, which will simultaneously open the survey in a new browser tab while logging out the REDCap user in the current tab. This makes it easier for users to log out of their REDCap session in case they walk away from the computer while a participant takes the survey, thus ensuring that the participant is not able to go into the first tab and access the user’s REDCap account and projects.

- Improvement/change: Better protection against accidentally overwriting survey responses when opening surveys from a data entry form. When clicking the "Open survey" option at the top of a data entry form, it will display a popup on the data entry form to inform the user that it is recommended that they leave the page without saving it in order to avoid overwriting or erasing the survey responses that had been collected in another browser tab on the survey page.

- Change: Added "language" option for users submitting an instrument to the REDCap Shared Library so that they can specify the language of their instrument's text. Note: Instruments in the Shared Library are now searchable by language.

- Change: The cell borders where added back to the report table, Record Home Page table, and Record Status Dashboard table for better readability of the table contents.

Version 7.2.1 - (released 2/16/2017)

IMPROVEMENTS & OTHER CHANGES:

- Improvement: If an individual project has been set as "offline" on the "Edit a Project's Settings" page in the Control Center, it will note this in red letters on the My Projects page or Browse Projects page for the project.

- Change: A count of the number of users is now displayed at the top of the user list table on the Project Home page.

Version 7.2.0 - (released 2/9/2017)
NEW FEATURES & IMPROVEMENTS:

- New feature: **Custom Record Status Dashboards**
  - Users can build and save custom versions of the Record Status Dashboard to customize the dashboard to their liking.
  - Custom dashboards have many configuration options. Users can give each dashboard a title and a description/instructions, and can choose the instruments to include or exclude in the dashboard's display. Similar to building reports in REDCap, Custom Record Status Dashboards allow users to sort the records in the dashboard by another field's value, and one can set filter logic to filter the records displayed in the dashboard to a specific subset of the total records (e.g. \( \text{age} > 30 \) and \( \text{diabetes} = "1" \)). There are aesthetic controls as well, such as being able to display the dashboard headers vertically, which will transpose them 90 degrees for a more compact display on the page.
  - Only users with Project Setup/Design privileges may create custom dashboards. Once a custom dashboard has been created, it will be viewable and usable by all users in the project. Users may create as many custom dashboards as they like in a project. To create a custom dashboard, navigate to the Record Status Dashboard in a project, and click the blue "Create custom dashboard" button to get started.

- New feature: **Text searching and ordering on reports** – Users now have a search box displayed at the top of every report where they can type text to search the report, in which it will only show the rows in the currently viewed report that match the search string that is typed. Additionally, any column in a report can have its column header clicked to sort the table according to the values in that column (in ascending or descending order).

IMPROVEMENTS & OTHER CHANGES:

- Change: The DataTables plugin for jQuery is now included in REDCap by default, so any plugins that display REDCap’s page header/footer will automatically have the DataTables JavaScript and CSS loaded in the plugin.

- Improvement: For longitudinal projects containing multiple arms, the Record Status Dashboard now displays each arm separately in a tabbed interface rather than trying to fit all arms in a single table, which typically is not the best way to view multiple arms of records.

- Improvement: Checkbox fields on reports are now displayed better with their field label spanning all the choices as a row above all the choices and displaying just the choice text and variable in the individual choice column headers on the second row of the header. This groups the checkbox options together much better and is much more intuitive to read and interpret.

- Improvement: The Group ID number for each Data Access Group (DAG) is now displayed in the DAG table on the Data Access Groups page in a project. The Group ID number is the number that is automatically generated by REDCap and is automatically prepended with a dash/hyphen to the record name when a user assigned to a DAG is creating a new record. The Group ID
number is now displayed in the table on the page so that users are aware of what each DAG's Group ID number is.

- Change: Question numbers displayed on surveys are now displayed as right-aligned, whereas in previous versions they were left-aligned. This is to reduce the gap between the question number and the question text for a more readable and intuitive display.

Version 7.1.2 - (released 1/20/2017)

IMPROVEMENTS & OTHER CHANGES:

- New module: Find Calculation Errors in Projects - This new page in the Control Center allows administrators to determine if any projects in the entire REDCap system contain calculation errors. It is possible in certain cases that the data saved for calculated fields in projects might not be accurate. This might be due to a user modifying a calc field's equation after data collection has begun, or perhaps due to software bugs that may have occurred in REDCap in the past that affected calculations. This new module will not fix any incorrect calculations in projects, but it will identify projects with issues so that the administrator or a user in the project can go to the Data Quality module in the project and run Rule H, which will help fix any calculation errors.

- Change: When viewing a report that displays data from a repeating instrument or event, it will now gray out the cell of the redcap_repeat_instrument and redcap_repeat_instance columns for the base instance row of a record (i.e., where the redcap_repeat_instance field has a blank value), thus denoting that that field is not relevant for that row of data (since the row is displaying non-repeating data only).

Version 7.1.1 - (released 1/13/2017)

IMPROVEMENTS & OTHER CHANGES:

- Improvement: When opening the Field Comment Log, it now places the user's cursor inside the text box automatically as a convenience to the user.

- Improvement: When a user is on a data entry form or survey and hovers over the choice label of a radio button field, the cursor changes to the "hand" cursor to indicate that they can click on the label to select the choice rather than thinking they have to click the radio element itself.

- Change: Action Tags are now listed alphabetically by name in the "What are Action Tags?" popup on the Online Designer.

- Change: For plugin/hook developers, the background color of the Bootstrap CSS class "btn-default" was being overridden (on purpose) in all versions of REDCap 7.X, and this caused some issues for plugins/hooks that utilized that button class because it was the same color as when the button is active. This change has been reverted so as not to conflict with the Bootstrap btn-default class, and now REDCap uses a CSS class named "btn-defaulttrc" instead for general default-style buttons.

Version 7.1.0 - (released 1/6/2017)
**IMPROVEMENTS & OTHER CHANGES:**

- **New feature: Better device management for the REDCap Mobile App** – The Mobile App page in a project now contains better methods for keeping track of the activity of the mobile app used on many devices at a time for a single project.

  - Each device that has initialized the project in the mobile app will be displayed in a device list on the page. It will initially display the device’s UUID, but each can be given their own nickname (e.g., Kenya tablet, Rob’s iPhone). The nickname will be displayed on the Mobile App page’s activity tables, dashboard, and file download tables so that users may track which device is doing what.

  - Each device can be blocked, if needed, without having to revoke the API token for many (or all) of your devices. Blocking behaves similar to revoking a user’s API token except it allows you to do it on a per-device basis. You might want to block a device if it were stolen, for instance. This helps protect your data from being corrupted or from falling into the wrong hands.

  - The mobile app log files can now be viewed on the Mobile App page without having to download them to view them.