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REDCap v15 New Features & Improvements

REDCap v15 introduces several user-friendly enhancements to improve project management, data collection, and survey design. Key updates include **Draft Preview Mode**, allowing users to test form changes before applying them, and **inline help popups** for quick explanations without cluttering forms. Multi-language support has been expanded with persistent language menus and improved translations. Survey management is now more efficient with a **visible Survey Queue**, better performance, and clearer survey completion options. **Randomization improvements** enable multiple models, blinded trials, and automated assignments. **MyCap enhancements** improve mobile data collection with richer messaging and better scheduling tools. A **Bulk Record Delete feature** simplifies data cleanup, while **QR code support** makes public dashboards more accessible. Finally, **enhanced data exports** and project XML handling ensure better compatibility and organization. These updates collectively make REDCap more intuitive, flexible, and powerful for research teams.

**REDCap Training**

* [Training videos](https://dev-redcap.uchc.edu/redcap/index.php?action=training) were added/updated.
* The "Learn Advanced Design Features" link on the bottom left-hand project menu (Help & Information)is now only displayed to users with Project Setup & Design privileges.
* Added a new "Learn Advanced Design Features link on the bottom left-hand project menu (Help & Information) that, when clicked, opens a panel displaying buttons to learn about Smart Variables, Piping, Action Tags, Embedding, and Special Functions – only displayed to users with Project Setup & Design privileges.
* The "Video Tutorials" link on the bottom left-hand project menu (Help & Information)now takes the user to the Training Video page rather than displaying a list of specific video links below it.
* [Help & FAQ](https://dev-redcap.uchc.edu/redcap/index.php?action=help) page has been updated with new content.

**REDCap Homepage**

* The following web accessibility improvements were added to the REDCap Home Page:
  + Fixed headings so that it starts with h1 tag.
  + Moved the navigation section outside of the main section.
  + Added "skip to main content" link (press the Tab key to reveal the link).
  + Fixed headings within Messenger (i.e. proper h tag level for Notifications and Conversations in Messenger) on the Homepage.
* The "Choose action for record" menu on the Record Home Page now always displays the "Survey Queue" option for a given record, even if the record's queue currently contains no items. In previous versions, the option would only be displayed if the record's queue contained one or more items. Additionally, the "Survey Queue" option in the drop-down now has a sub-option to allow the user to copy the survey queue link to their clipboard.
* The "Choose action for record" drop-down list on the Record Home Page now lists links to the Logging page, Notification Log, and Survey Invitation Log (if the user has privileges to those pages), in which the current record will already be preselected when navigating to those pages.
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**Codebook Page**

* Form names in the Instruments table are now internal links to the corresponding form in the fields table to allow users to move to that form quickly on the Codebook page.
* Forms have a new Edit icon next to the form name leading to the field-edit view of the Online Designer.
* The "Return to Codebook" button on the Online Designer now leads back to the form/field (instead of just to the top)

**Data Dictionary**

* The user interface of the "Data Dictionary" page in a project has been simplified and improved to help users better understand the general process of editing and uploading a data dictionary. Additionally, buttons have replaced the links for downloading the data dictionary for improved web accessibility and for a better user experience.

**Online Designer**

* **NEW Draft Preview Mode**
  + Draft Preview Mode allows users to preview their data entry forms with their current drafted changes as if they were live. This allows users to fully test the changes they have made in Draft Mode, including all branching logic, calculations, action tags, and embedded fields, before submitting their drafted changes for approval.
  + Additionally, Draft Preview Mode will simulate live data entry on data entry forms, thus allowing users to enter ephemeral data that is stored only in their session; however, no data will actually be saved to the project. Once a user leaves Draft Preview Mode, all ephemeral data that has been entered will vanish.
  + *Limitations:* While in Draft Preview Mode, the following limitations exist: No new records can be created. No data can be changed or stored in the project (all data changes are transient and are bound to the user's login session). Only changes to already existing forms can be previewed. Delete operations (deleting whole records or deleting data for forms/events) are disabled. Several more limitations exist and are delineated in the Online Designer before enabling Draft Preview Mode.
  + *Note:* Draft Preview Mode only operates on data entry pages, the Record Status Dashboard, and the Record Home Page. It does not impact any other pages, and it currently does not work on survey pages.
* REDCap now supports the "address" HTML tag so that it may be utilized in user input (e.g., field labels, survey instructions).
* Users may now pipe the field label of a given field (instead of its data value) by appending ":field-label" to the variable name inside the square brackets.
* New piping option ":hideunderscore" - If a field value or Smart Variable value is blank/null (i.e., does not exist), then by default the blank value will be piped as six underscore characters (literally \_\_\_\_\_\_) as a placeholder to visually indicate that no value exists. However, if this behavior is not desired, users may append :hideunderscore to the variable name inside the square brackets (e.g., [first\_name:hideunderscore], [race:value:hideunderscore]), and this will cause value to be piped as-is, that is, as a blank/null/invisible value. Note: The :hideunderscore notation may be appended to both field variables and Smart Variables.
* The newer-style "disabled" buttons in the Online Designer (added in REDCap 14.6.11) have been slightly modified from an encircled X to an encircled dash since it is thought that an X might imply a "delete" action rather than a "disabled" state.
* The event-level ASI "Modify" buttons that are displayed in longitudinal projects when clicking the "Automated Invitations" button next to each survey in the Online Designer were updated with the new icons that were added elsewhere in the previous version.
* A new PDF download button has been added to the instrument-view of the Online Designer to allow users to download all instruments as a single PDF.
* REDCap now supports the "progress" and "meter" HTML tags so that they may be utilized in user input (e.g., field labels, survey instructions).
* Slight aesthetic changes have been made to the buttons displayed in the instrument-view of the Online Designer.
* The "e-Consent and PDF Snapshot" button has been separated into two separate buttons under Survey Options and Form Options, respectively.
* The improved "Field Navigator" on the Online Designer now always floats on the right-hand side of the page and also has links to allow users to jump to specific Section Headers on the page.
* The "Preview instrument" button on the field-view page of the Online Designer has now been removed due to seldom use and also because in recent years it no longer provides a reliable presentation of the instrument for moderately-complex projects.
* The field validation type is now displayed below each Text field in the Online Designer (similar to how action tags are displayed for each field).
* All rich text editors now utilize the browser's native spell check functionality by putting a red underline under a misspelled word.
* ***NEW Descriptive Popups***
  + Descriptive popups are custom popups of text that become visible after hovering over a specific word or phrase on a data entry form or survey. They have two main components:
    - The link text, which should match a word or phrase used on a form or survey
    - The custom text for the popup content. Users may set a descriptive popup to work on all instruments/surveys (default) or on specific ones.
  + Descriptive popups are a great way to convey extra information on a form or survey without the text taking up space on the page. Users may configure their descriptive popups to be activated only on specific instruments. By default, they are enabled on all instruments. Additionally, if the popups are enabled to work on a survey, especially a multi-page survey, users can specify specific page numbers on which the popups will be activated.
  + *Note:* This feature represents the integration of Mark McEver's "Inline Descriptive Popup" External Module. Upgrading to this version will not disable the "Inline Descriptive Popup" EM nor will it migrate any settings from the EM if the EM is being used in a project.
  + *Project Copy/XML:* When copying a project or exporting a project via a Project XML file, there is now an option to copy/export the descriptive popup settings, respectively.
  + *Web Accessibility:* Descriptive popups are WCAG compliant, thus they will work with screen readers.
  + *Multi-Language Management:* Both the link text and popup content text of descriptive popups can be translated using MLM.

**Multi-Language Management**

* Better error reporting during CSV file import into MLM.
* Performance improvements on the MLM setup page, which should load faster than in previous versions.
* MLM languages now have a "Notes" field that can hold general notes regarding each MLM language on the MLM setup page (inside the Add/Edit Language dialog). These notes have no impact on MLM performance.
* New MLM action tag LANGUAGE-MENU-STATIC - When this action tag is present on any field of an instrument enabled as a survey, and Multi-Language Management is active with at least two active languages, the language selection menu will remain visible at all times (i.e., it will not collapse after a language button has been clicked).
* Various minor bug fixes and enhancements for MLM management (mostly related to export and change tracking with regard to MyCap items).
* The MLM setup page now shows hints that choice labels are fixed for true/false and yes/no fields and thus cannot be translated on a per-field basis.
* When using MLM, it is now possible to preset the language for a participant's Survey Queue by supplying the URL parameter "\_\_lang", which must be set to a valid (active) language id (and is case-sensitive).
* When using Multi-Language Management in a MyCap-enabled project, the MLM setup page will now display a warning to users when adding an MLM language when the country code isn't supported in the MyCap mobile app.

**Surveys**

* When the Survey Queue is enabled in a project and a record contains one or more uncompleted items in its queue, an option to open the Survey Queue page for the record will now appear in the "Choose action for record" drop-down list on the Record Home Page.
* To boost performance, Rapid Retrieval caching was added to the Participant List page, Participant List CSV export, and the API Export Participant List method.
* On the Survey Invitation Log and Notification Log, a new warning has been added to the page when a project is in Analysis/Cleanup project status to denote that any already-scheduled survey invitations or alerts will not be sent while in Analysis/Cleanup status, despite the fact that the user may see scheduled invitations/alerts on those pages.
* Question Numbering on surveys is now set to "Custom numbered" by default when enabling an instrument as a survey.
* After completing a survey, the "Close survey" button is now displayed below the Survey Completion Text so that it is no longer the first thing that participants see on the page.

**Alerts & Notifications**

* When creating an alert in a longitudinal project, users can now select an email field from the current event where the alert is triggered to be used as the "Email To" setting for the alert. This allows for flexibility when using different email addresses for each event in the project. In previous versions, email fields in specific events only could be selected.
* When exporting the Project XML file for a project that has alerts, there is now a new checkbox "Leave Alerts enabled (unless disabled)" on the Other Functionality page below the "Alerts & Notifications" checkbox. Going forward, all alerts in the Project XML file will be disabled by default unless the user checks the new checkbox to keep them enabled. In previous versions, alerts in the Project XML file would import into the new project as is (i.e., if enabled, it would stay enabled, and if disabled, it would stay disabled). This new option gives users more control over the default state of alerts in the newly created project.

**Data Resolution Workflow**

* When a user is opening a data query in the Data Resolution Workflow and is assigning the query to a user, if the project contains Data Access Groups and is also using the DAG Switcher, users that can access the current record due to DAG Switching (but are not currently assigned to the record's DAG) will be displayed in the user assignment drop-down for assigning the data query. In previous versions, the user assignment drop-down would only display the users that were currently in the record's DAG and did not respect possible DAG Switcher assignments.
* When using the Data Resolution Workflow, the "assign user" drop-down list in the DRW dialog is now displayed as an auto-complete drop-down to help users more easily select a user from the list in projects that have a large number of users.
* When deleting a data quality rule when the Data Resolution Workflow feature is enabled in a project, the rule deletion dialog will now display a red warning to the user to inform them that deleting the rule will also delete any data queries (open or closed) that are currently associated with that data quality rule.

**eConsent**

* New clarifying text was added to the instructional text displayed above the "Consent Form (Rich Text)" option in the "Add Consent Form" dialog on the e-Consent Framework page in order to indicate that images added via the rich text editor will not be rendered in PDF exports or in stored PDF snapshots that include that consent form text.

**Randomization**

* **Multiple Randomizations in a Project** - Users may now define more than one randomization model in a single project. Each randomization model has its own settings (e.g., strata, randomization field, allocation table), and is completely independent of the other models.
* **Blinded Randomization** - Users may now create a randomization model that is blinded/concealed as a means of concealing the allocation (randomization value) from users to be able to have a truly blinded randomized clinical trial, for example. Users may still choose to create an "open" randomization model (as they always could) by choosing a single-select multiple-choice field (e.g., drop-down or radio) to be the randomization field. Alternatively, users may now choose any text field [that does not have field validation] to represent the "randomization number". The randomization number can be uploaded as part of the allocation table, and when a record is then randomized, the field is given the randomization number as its value.
* **New Smart Variables for Randomization**
  + [rand-number] - The randomization number assigned to the record. For randomization in a text field (blinded allocation), this is equivalent to piping the randomization field. For randomization in a categorical field (open allocation), this will be the randomization number associated with the randomization group allocation, if one has been uploaded (this is optional). Use :n to refer to a specific randomization where a project has more than one (default=1).
  + [rand-time] - The server date and time at which a record was randomized. In a piping context, such as in a field label, survey invitation, or inside the @default action tag, the format of the date and time will be displayed based on the current user's date/time display preferences. If you wish to have it return the raw value, which will instead be in 'YYYY-MM-DD HH:MM:SS' format and would be more appropriate for conditional logic or calculated fields, simply append :value. Use :n to refer to a specific randomization where a project has more than one (default=1).
  + [rand-utc-time] - The UTC date and time at which a record was randomized. In a piping context, such as in a field label, survey invitation, or inside the @default action tag, the format of the date and time will be displayed based on the current user's date/time display preferences. If you wish to have it return the raw value, which will instead be in 'YYYY-MM-DD HH:MM:SS' format and would be more appropriate for conditional logic or calculated fields, simply append :value. Use :n to refer to a specific randomization where a project has more than one (default=1).
* **New "Randomize Record" API Method** - This method allows an API user to randomize a record using the API. The API parameters required are content="record", action="randomize", record=Record name of record to randomize, and randomization\_id=The unique id of the randomization (viewable on the Randomization page for users with Design permissions or on the API Playground page), which corresponds to a specific target field and event. This API method returns the value for the target randomization field (plus optionally the alternative target value), or an error message on failure (such as if the record does not exist or if stratification information is missing).
* **New Developer Methods**
  + REDCap::getNextRandomizationAllocation() - Returns the integer allocation id if an unallocated entry is found, or string '0' if no entry is available (allocation table is exhausted). Returns false on error, e.g. if incorrect stratification information provided.
  + REDCap::updateRandomizationTableEntry() - Updates the target (randomization field or number), alternate target (randomization group or number), or "is\_used\_by" (e.g., the record to which this allocation/sequence belongs) details for a specified allocation table entry. For example, this method can be utilized to effectively perform the randomization action itself.
* The instructional text for the "Automatic Triggering Option" on the Randomization page has been modified for improved clarity.
* ***Real-Time Trigger Logic*** - Randomization can be automated to occur in real time when an instrument is saved and a specified logic expression becomes True, in which all required stratification information must be present. At the bottom of the randomization setup page for a given randomization model, the following options are displayed:
  + ***Manual Only (default)*** - A user with "Randomize" user permissions must click the "Randomize" button on the data entry form where the randomization field is located.
  + ***Trigger Logic for Users with Randomize Permissions Only*** - When the Save button on a specified data entry form is clicked, if the logic expression provided evaluates to True and the current user has "Randomize" user permissions, the record will automatically be randomized (i.e., without clicking a "Randomize" button).
  + ***Trigger Logic for All Users (including survey respondents)*** - When the Save button on a specified data entry form or survey page is clicked, if the logic expression provided evaluates to True (despite the user's permissions if on a data entry form), the record will automatically be randomized.
* Randomization model settings have now been added as an optional component to copy when doing a "Copy Project" action or when exporting->creating a project via a Project XML file.
* Slightly modified the styling of the buttons on the randomization model setup page to make the individual steps more distinct.

**MyCap**

* In a MyCap-enabled project, the "Messages" tab on the "MyCap Participant Management" page now allows users to use a rich text editor when composing messages and announcements sent to MyCap participants. This allows limited text formatting/styling and clickable links to be used in the messages/announcements.
* In a MyCap-enabled project, the Online Designer now displays the version (i.e., "English" or "Spanish") in the instrument label of MTB Active Tasks on the instrument-level view.
* Added more description to the MyCap Configuration Check page in the Control Center if the "Communication to MyCap Central" test fails.
* In the MyCap settings in the Online Designer, the "Modify Project Title" button was moved down to the "About" section.
* Text and phrases on certain MyCap-related pages were abstracted to allow for translation.
* When using MyCap together with MLM, the MyCap language codes are now more flexible when adding a language on the MLM setup page. For example, if the language code is "en", "en-US", or "en-UK" on the MLM page, the MyCap mobile app will recognize any of those generally as "English".
* When using MyCap in a project, a new UI improvement has been made for making the 'enable/disable for event' buttons more noticeable on the MyCap Task setup page for longitudinal projects.
* Added 8 new MTB measures for use in MyCap-enabled projects: Spanish versions of Arranging Pictures, Arrows, FNAME Learning, FNAME Test, Number Match, Sequences, Shape-Color Sorting, Word Meaning Form.
* In a MyCap-enabled project, REDCap now prevents the user from accessing the "View participant QR code" and "Invite Template" popups until the first MyCap app version has been published for the project.
* In a MyCap-enabled project, the "Messages" feature is now disabled in the MyCap participants list for participants that have not yet joined the project using the MyCap mobile app (i.e., their install date is blank).
* In MyCap-enabled projects, a new "Form completion status" setting has been added in the Online Designer that controls how a MyCap task's form completion status value is set when a task is submitted by a participant from the MyCap mobile app to the REDCap server.
  + In previous versions, the MyCap task's form completion status would always be set to Incomplete. But now, it can be set to Incomplete, Unverified, or Complete so that the form status value is set to that specified status value any time that a participant completes a MyCap task. This setting can be modified at any point during data collection in a MyCap project.
  + Note: Existing projects will maintain their existing default status setting of Incomplete, but that setting can be changed after the fact if desired. In contrast, all newly created projects will default to a status setting of Complete. However, if a new project is created using a Project Template that has MyCap enabled, the new project will adopt the MyCap form status setting of the Project Template. If you wish to change the default MyCap form status setting for all Project Templates that have MyCap enabled, run the following SQL (this is optional). This will ensure that all new projects, including those created via Project Templates will have this new setting set to Complete by default. Optional SQL: UPDATE redcap\_projects p, redcap\_projects\_templates t SET p.task\_complete\_status = '2' WHERE p.mycap\_enabled AND p.project\_id = t.project\_id
* In MyCap-enabled projects, several MyCap settings (Baseline Date Settings, Custom Event Label Settings, and new Form Completion Status setting) in the Online Designer have now been aggregated in a new"Additional Settings" dialog on that page.
* In a MyCap-enabled project that is using Multi-Language Management, users can now more easily populate the MyCap Language ID and Language display name by clicking the MLM language ID from the allowed languages list on the MLM setup page for the MyCap mobile app (via the Add/Edit Language popup). These were merely displayed in previous versions, but now they are clickable, which makes them easier to add to the MLM setup page.
* In a MyCap-enabled project, the "View Task Details" popup in the Online Designer now includes detailed scheduling information per event for longitudinal projects.
* On the MyCap Configuration Check page in the Control Center, the PID has been added for each project displayed in the project drop-down list on that page.
* For predefined ResearchKit active tasks in MyCap-enabled longitudinal projects, the "Active Task Settings" section on the task setup page has been moved to the task-level instead of the event-level (as seen in previous versions). Thus, there will be only one "active task setting" per task available even if multiple events are enabled on the task setup.
* For MyCap projects that are longitudinal with multiple arms, users may now designate a Baseline Date Field for every arm on the baseline date setup popup in the Online Designer.

**Bulk Record Delete**

* Users can now delete multiple records from the project or alternatively to delete data for multiple instruments across multiple records via the Bulk Record Delete page. To perform either of those two actions, a user must have "Delete Records" privileges, and for the partial delete option, a user must additionally have "View & Edit" instrument-level privileges for the instrument that they select.
* The Bulk Record Delete page can be accessed from two different locations in a project: 1) On the Other Functionality page, and 2) On the Record Status Dashboard via the new Multi-Record Actions dropdown.
* If the project has the GDPR-related feature "Delete a record's logging activity when deleting the record?" enabled in the project, the user will be prompted with a checkbox to additionally delete the record's logged events on the Logging page when deleting entire records.
* If the "Require reason for change" option is enabled in the project, users will be prompted to enter a reason that will get logged when performing a partial delete of one or more instruments.
* The Bulk Record Delete feature can be disabled for the whole system on the Modules/Services Configuration page in the Control Center, if desired. By default, this feature will be enabled.
* *Note:* If a user is performing a partial delete, the instrument's data cannot be deleted in the following situations: 1) If the form is locked, 2) If no users are allowed to modify survey responses (via the system-level setting) and the data of the selected instrument(s) is a survey response, 3) If the user does not have form-level rights to modify survey responses for the selected instrument(s) and the data of the selected instrument(s) is a completed survey response, or 4) If the selected instrument(s) is a completed e-Consent response and e-Consent responses are not allowed to be edited per the survey's e-Consent settings.

**Public Dashboard**

* Public project dashboard links can now be turned into QR codes. If a public link is created for a project dashboard (including custom/short links), a button next to the public URL on the Edit Project Dashboard view will appear that (when clicked) will display the QR code representing the dashboard link. The QR code image can also be downloaded in SVG format or copied to the user's clipboard.

**File Repository**

* The PDF Snapshot Archive page in the File Repository now contains a new button to allow users to download the PDF Archive's file list as a CSV file.

**Data Exports**

* Minor changes have been made to how the syntax files for R and SPSS are generated in order to improve the coding of labels in the syntax files.

**Project XML**

* When a project is created from a Project XML file, additional info about the file (source system REDCap version and the XML file's creation date) is displayed on the page, or a warning message is displayed if the XML file appears not to be a proper REDCap Project XML file.