



Upgrade of REDCap™ from V12.0 to V12.4

This document contains information about the changes and new features, which have been implemented in this newer version of REDCap. Please review this document so you are aware of the upcoming changes.

Once the upgrade is complete, further information about the changes can be found in the “Help & FAQ” and “Training Videos” web pages. Additional information and education can also be found by clicking on the links found throughout the REDCap application:

-  (Tell me more) icons,
-  [VIDEO:](#) (Video) icons, and
-  [How to use Piping](#) (How to use) icons.

For any additional assistance, as always, feel free to email your questions or problems to:
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Table of Contents

- *NEW FEATURE: SURVEY START TIME AND RELATED SMART VARIABLES -----3
- *NEW FEATURE: INSTRUMENT-LEVEL DATA EXPORT RIGHTS-----3
- *NEW FEATURE: CONDITIONAL LOGIC FOR SURVEY AUTO-CONTINUE -----4
- *NEW FEATURE: DYNAMIC MIN/MAX RANGE LIMITS FOR FIELDS -----4
- CODEBOOK: -----4
- ACTION TAGS: -----4
- PIPING/SMART VARIABLES:-----5
- FIELD VALIDATION – TIME (HH:MM:SS): -----5
- HELP AND FAQ:-----5
- SURVEY IMPROVEMENTS: -----5

*New Feature: Survey Start Time and related Smart Variables

REDCap now collects when participants begin a survey and the elapsed time spent on a survey.

- REDCap now collects when participants begin a survey (i.e., the initial time the survey page is opened). Going forward, any responses collected (partial or completed) will have their start time displayed at the top of the data entry form when viewing the response. NOTE: If the start time is a blank value, it implies that the response began while on an earlier version of REDCap when start times were not yet collected.
- New Smart Variables for Survey Start Date/Time: Users can access the start time via piping by using the new Smart Variables [survey-time-started:instrument] and [survey-date-started:instrument], which can be used inside the @DEFAULT or @CALCTEXT action tags, among other places. If users wish to have them return the raw value, which will be in 'YYYY-MM-DD HH:MM:SS' format and would be more appropriate for conditional logic or calculated fields, simply append ':value' after the unique instrument name - e.g., [survey-date-started:instrument:value].
- New Smart Variables for Survey Duration: Users can obtain the total amount of time that has elapsed since the survey was started (in seconds, minutes, etc.) by using [survey-duration:instrument:units] and [survey-duration-completed:instrument:units]. The Smart Variable [survey-duration] represents the difference between the survey's start time and either its 1) completion time (if completed) or 2) the current time (if not completed), whereas [survey-duration-completed] represents the difference between the survey's start time and completion time, in which a blank value will be returned if the survey has not been completed. Options for 'units': 'y' (years, 1 year = 365.2425 days), 'M' (months, 1 month = 30.44 days), 'd' (days), 'h' (hours), 'm' (minutes), 's' (seconds).

*New Feature: Instrument-level Data Export Rights

Users may specify instrument-level privileges regarding a user's data export capabilities on the User Rights page in a project.

- A user may be given "No Access", "De-Identified", "Remove All Identifier Fields", or "Full Data Set" data export rights for EACH data collection instrument. This improvement will make it much easier to match a user's Data Exports Rights with their Data Viewing Rights, if you wish, and will give users more granular control regarding what data a user can export from your project.
- Note: Whatever a user's data export right was in the previous version, that export right will be subsequently extrapolated to all instruments after upgrading. Thus, their export privileges will behave exactly the same as before.
- **Improvement:** The table displayed on the User Rights page that lists all users' privileges now includes an instrument count for each category for both Data Viewing Rights and Data Export Rights - e.g., "3 No access, 2 Full Data Set". This helps provide summary information regarding the user's instrument-level rights.

- **Improvement:** When adding/editing a user's or user role's privileges in the popup on the User Rights page, as a convenience, users may click the table headers for each Data Export Rights setting or Data Viewing Rights setting to set that setting for all instruments in the project (i.e., as a "check all checkboxes").
- **Change:** When importing or exporting users and/or user roles (whether as a CSV file on the User Rights page or via the API), the new instrument-level data export rights are represented as a new column named "forms_export" and are formatted exactly how instrument-level Data Viewing Rights ("forms") are currently formatted in comma-delimited fashion - e.g., "demographics:1,baseline_data:2,prescreening:3". In this format, the following represents each data export rights level: 0=No Access, 2=De-Identified, 3=Remove Identifier Fields, 1=Full Data Set.

*New Feature: Conditional logic for Survey Auto-Continue

- When enabling Survey Auto-Continue on the Survey Settings page for a survey, users may now optionally specify conditional logic to determine whether or not the auto-continue should be applied. As such, REDCap will auto-continue to the next survey *only* if the conditional logic is TRUE or if the logic textbox has been left blank. This new option can be used as a simpler alternative to the Survey Queue, which can require more complex instrument-event level configurations for longitudinal projects.

*New Feature: Dynamic min/max range limits for fields

- Instead of using exact values as the minimum or maximum range of Textbox fields (e.g., "2021-12-07"), you may now also use "today" and "now" as the min or max so that the current date or time is always used. These can be used to prevent a date/time field from having a value in the past or in the future. Additionally, you can now pipe a value from another field into the field's min or max range setting - e.g., [visit_date] or [event_1_arm_1][age]. This can help ensure that a Textbox field (whether a date, time, or number) has a larger or smaller value than another field, regardless of whether the field is on the same instrument or not.

Codebook:

- The Codebook now contains a "Field Finder" to allow users to quickly search for a field by keyword or phrase in the field label or by variable name. Also, the gray "Instrument Name" rows in the table will float at the top of the page while scrolling so that it is always apparent the instrument to which a field belongs. Additionally, when scrolling down the page, an up-arrow image will appear at the bottom right of the page that (when clicked) will quickly scroll the page back to the top.

Action Tags:

- **New:** @FORCE-MINMAX

The action tag @FORCE-MINMAX can be used on Textbox fields that have a min or max validation range defined so that no one will be able to enter a value into the field unless it is within the field's specified validation range. This is different from the default behavior in which out-of-range values are permissible. Note: @FORCE-MINMAX is also enforced for data imports to ensure the value is always within the specified range.

Piping/Smart Variables:

- Piping can now be performed inside the value of the @PLACEHOLDER action tag - e.g., @PLACEHOLDER="[first_name] [last_name]".

Field Validation – Time (HH:MM:SS):

- This is a new time-based field validation (unique name "time_hh_mm_ss"). This validation forces users/participants to enter a time value that contains the hour, minute, and second components. It also includes the usage of the "Now" button and the timepicker popup widget, both of which are displayed next to the field on the survey page or data entry form. Note: Fields with this field validation can be utilized inside the datediff() function.

Help and FAQ:

- Sub-sections on the “Help & FAQ” page can now be accessed via hyperlinks near the top of each section. Previously there was a drop-down for this, which was slightly slower. Having sub-section links near the top of the page should make it faster for users to jump to a specific section.
- Each tab on the "Help & FAQ" page now has a drop-down list of subsections that, when selected, will auto-scroll the webpage down to that subsection on the page.
- When performing a keyword search on the "Help & FAQ" page, it now displays in red a count of keyword matches for each category in the tabs near the top of the page. Previously, the user would have to click on each tab in order to know if there were any keyword matches in that particular category.

Survey Improvements:

1. If custom question numbering is used on a survey page in which no questions have a custom question number defined, the extra space on the left of the questions will be removed to give the questions more room for display on the page.
2. On the Survey Settings page, the setting “For Required fields, display the red 'must provide value' text on the survey page?” now has a new option: "Display only the red asterisk". This provides an additional option rather than having to choose between the binary options to hide or not hide the text

3. New survey setting allows users to set a custom width of the survey displayed on the page between 50% and 100%. The default value for the setting is “Fixed width (default)”.
4. New survey setting allows users to display or hide the font resize icons at the top of the survey page. By default, it is set to display the font resize options.
5. New survey setting allows users to show or hide the Submit buttons displayed at the bottom of every survey page (including the 'Next Page' and 'Previous Page' buttons).
6. New survey setting allows users to provide alternative text for the 'Submit', 'Next Page', and 'Previous Page' buttons displayed at the bottom of every survey page.